



University College London  
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**THE USE OF MEXICAN PRIVATE MEDICAL  
SERVICES BY AMERICAN NATIONALS  
IN THE BORDER CITY OF TIJUANA**

**AN APPRAISAL OF MEXICO'S COMPARATIVE ADVANTAGES  
OVER THE UNITED STATES OF AMERICA**

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## **ABSTRACT OF THESIS**

Starting from the hypothesis that Mexico has a comparative advantage over the United States in the provision of medical services, this thesis analyses the phenomenon that is causing American nationals to travel to Mexico seeking medical services, and the main characteristics of this situation. Its main purpose is to determine the possible existence of factors related to comparative advantages in the provision of medical services in Mexico. Therefore different theories of comparative advantage are analyzed in order to propose a model that can be easily applied for medical services. After this, several studies made on health issues along the U.S.-Mexico border are reviewed in order to create a general scenario. Later on it focuses in the use of medical services by American nationals in the Mexican city of Tijuana, in Baja California. This city was selected due to its known close socio-economic relationship to the American city of San Diego in California, and for being the busiest border crossing in the region, with 5 to 6 million monthly border crossings.

By using data collected from 10 clinics and hospitals located in the city of Tijuana selected at random, the thesis is able to identify the necessary elements in order to prove the existence of comparative advantages in the provision of specific medical services from the private sector. And finally the thesis is able to demonstrate that, although more studies need to be made, for this case it can be said that Mexico does have comparative advantages over the United States in the provision of specific medical services, such as availability of physicians, good quality and low costs. It is suggested that this issue can become a crucial element for regional development, and mentions possible lines of action in order to promote private medical services towards an export oriented industry, as well as the possible risks involved.

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# **GLOSSARY**

## **ANCILLARY PERSONNEL**

Includes paramedics, specialized, registered and auxiliary nurses, plus other personnel directly working under medical supervision

## **AUXILIARY NURSE**

An individual trained through short training courses or services, to perform activities related to patient care, under the supervision of a registered nurse.

## **CHICANO**

Local slang, applies to all American born citizens and permanent residents of the United States whose parents (both) are of Latin origin.

## **CLINIC**

Medical facility that provides a wide range of medical services, mainly prenatal and obstetric care. In Mexico is indiscriminately used to refer to a physician's office, a medical group, a sanatorio or a hospital

## **CONSULTORIO**

Spanish for a physician's office.

## **EMIGRADO**

Local slang, applies to migrants of Latin origin, who have become legal American citizens, but they are living at a Mexican town without losing their American nationality, also known as Mexico-Americans (Mexican-Americans).

## **GENERAL PRACTICE PHYSICIAN**

Legally authorized person who has degree and licensed to perform the tasks related to medical care for the patient's well being.

## **GENERAL NURSE**

An individual who is trained and authorized to assume the responsibility of the necessary nursing services to prevent diseases and provide patient care.

## **HEALTH SERVICE**

All those services rendered by medical and ancillary personnel whose main objective is the improvement of health.

## **HEALTH**

A complete state of physical, mental and social well-being, and not merely the absence of illness or disease.

## **HOSPITAL**

Medical facility that provides room and beds for inpatients as well as medical care and continued medical and nursing care to perform a diagnosis and establish treatment.

**MAQUILADORA**

A source of employment where only a partial process of a large assembly sequence is performed. Raw materials arrive on a duty free basis provided they are returned to their place of origin once the partial process is finished. Only the VAT on labour is charged to the owner. The term is usually used to refer to assembly plants and or in-bond plants

**MEDICAL INSTITUTE**

A specialized medical facility that accepts final year medical students (interns). In Mexico has been indiscriminately used to refer to beauty or weight control centers that are not necessarily under medical supervision.

**MEDICAL UNIT**

A highly specialized medical facility equipped with sophisticated technology for the improvement of health, can include rooms and beds for inpatients as well as some short term medical care. In Mexico is indiscriminately used also to refer to a hospital, a clinic, a medical group or a medical center.

**MEDICAL CENTER**

A large capacity medical facility involving a wide variety of general and specialized medical activities including short and long stay hospitalization. In Mexico is indiscriminately applied to refer to a hospital, a clinic, a medical group, a medical center or medical unit.

**MEDICAL GROUP**

A group of solo physicians that share either a physical space (group of offices at the same building) or specific equipment (X-ray machines, tomography machine, etc). In Mexico applies also to a group of physicians that complement their services working as a team, sometimes offering within their premisses rooms and beds for inpatients. It has been used indiscriminately as a synonymous of clinic, hospital medical center and medical unit.

**MEDICAL SERVICE**

All those services rendered by physicians whose main objective is the improvement of health, includes medical care and medical activities.

**MEDICAL CARE or MEDICAL ACTIVITY**

All those medical activities rendered by physicians, in the form of consultation, diagnostics and treatment.

**NAFTA**

North America Free Trade Agreement. A trade agreement between Canada, the United States of America and Mexico, dealing mainly with different types of trade, including services.

**PARAMEDIC PERSONNEL**

Personnel devoted to activities that support the provision of medical services, including professional, technical and auxiliary personnel, such as nurses, social workers, dietitians, medical and pharmacy filing clerks.

**PHYSICIAN'S OFFICE**

An office equipped with the minimal requirements in order for a general or specialized physician to perform mainly consultation and general diagnostics. In Mexico it is indiscriminately used to refer to a clinic.

**POCHO**

Local slang, applies to all American legal migrants of Latin origin living in the United States, also known as Mexico-Americano (Mexican-American).

**REGISTERED NURSE**

An individual who has completed the degree of general nurse and has his or her diploma from an official recognized educational or health institution.

**SANATORIO**

In Mexico, applies to a medical facility that offers medical services mainly oriented to prenatal care and delivery. It has been used also as a synonym of clinic.

**SOLO PRACTITIONER or SOLO PHYSICIAN**

A general or specialized physician that works alone in his or her own office, sometimes assisted by a nurse or two. The activities performed are those related to consultation and diagnostics.

**SPECIALIZED NURSE**

An individual who has completed the degree of general nurse, performs specific studies in a field of nursing or similar areas and receives the corresponding diploma from an officially recognized institution, for example: intensive care, cardiology, maternal and child care, nursing service administration, etc.

**SPECIALIZED PHYSICIAN**

Medical profession with specialization and expertise in a medical field to care for specific diseases.

**TELEMEDICINE**

The use of telecommunications to deliver medical care, medical education and medical and patient data from one location to another



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## **CHAPTER I. INTRODUCTION**

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## I. INTRODUCTION

Health is an issue of great public importance. In some countries, the State provides health care for its population, in others, plays a rather small role, allowing the private sector to do most of the job.

At present, several developed countries are in the process of restructuring their own health sector, including some developing countries. One of the latest issues related to health care is the rise in costs. An increasing number of general physicians and specialists, the development of sophisticated technology and higher costs of labour, together generate a rapidly growing demand for costly tests, procedures and treatments<sup>1</sup>.

Wages and technology are closely related. Wages or remuneration for work accounts for 89 percent of health service costs in general and 70 percent of hospital care costs<sup>2</sup>. Labour is a factor that, in developed countries, is becoming relatively more expensive. The rise in costs is likely to become more pronounced since technology hardly favours the substitution of capital for labour in the health industry.

For the world as a whole, in 1990, public and private expenditure on health services was about US\$1,700 billion, or 8 percent of the total world product. High-income countries spent almost 90 percent of this amount, with an average of US\$1,500 per person, while developing countries spent about US\$170 billion, or 4 percent of their general Gross National Product (GNP), for an average of US\$41.00 per person, less than one-thirtieth the amount spent by rich countries<sup>3</sup>.

As a country's economy grows, its spending on health care grows even faster. This concern has become evident in countries like Korea, the United States<sup>4</sup> and more recently in Singapore, Malaysia and Thailand. Being the United States the

country with the highest health expenditure, rising from 10.4 percent of their total expenditures in 1980, to 13.8 percent in 1991<sup>5</sup>, and up to 16.0 percent in 1992<sup>6</sup>.

High costs of health care in industrialized countries is becoming a great concern. Given this situation, it is not strange that people seek affordable alternatives for medical service. Those who have the means travel to other places, and sometimes to other countries to obtain the same medical services at lower prices. In order to do this, the cost and inconveniences of traveling must be weighed against the advantages of buying more cheaply.

Traveling abroad for medical services cannot be considered a new trend. For long, people have traveled long distances to places known for their medical breakthroughs, advanced technologies or natural endowments. These journeys, to developed countries in their majority, for the main purpose of receiving medical treatment, were made despite the costs of traveling and the costs of the service. This has not change at all, people continue to travel to developed countries for medical services: wealthy Mexicans continue to travel to the United States for plastic surgery and or brain surgery. What has become different and a new trend at present, is the opposite situation, people from developed countries traveling to a less developed country for medical services. It is known that Arabs travel to Jordan for health care<sup>7</sup>, and Austrians travel to Hungary to receive dental treatment. This is so because they find it less expensive than at home, and there are only slight differences in the quality of the products used and the service obtained. Some Germans, Swiss and Italians are also making the trip to Hungary for the same purposes.

Comparatively, Americans have discovered a feasible alternative in medical services in Mexico. Despite the generalized idea that the quality of Mexican medical services is low, Americans are finding that in the end there are no strong

differences: medical equipment and supplies used in Mexico come from the United States in their majority, and apart from that, many Mexican physicians have received general training in American universities or hospitals.

Furthermore, as the exchange rate of the Mexican peso with respect to the dollar continues to fluctuate, the differences in salaries between the two countries will always make medical services in Mexico less expensive (Mexican medical services cost about two thirds less). Added to this the differences in control over prescriptions and medicines, the issue of geographic proximity and some cultural advantages (like the existence of bilingual physicians specially at the border region), all together give a far more attractive image of Mexican medical services to American nationals in general, specially those living close to the U.S.-Mexico border region.

In the same way Americans travel to Mexico, in fewer numbers, Mexican nationals also make legal trips to the U.S. to consume medical services of different types. Although it has been argued that the Mexican poor and the indigent are the ones taking advantage of the American public health service, this has not been demonstrated in full. For the majority of Mexicans that travel to the U.S. seeking medical services are from high income groups, and with some exceptions, they seek those medical services that are not available, or have less complication risks than at home.

This bilateral trend of seeking specific medical services in each country is beginning to create a complementary division of labour between the two countries. This can be clearly seen at some of the border towns between Mexico and the U.S., where, even before the North America Free Trade Agreement (NAFTA) was approved, physicians, clinics, and hospitals were indiscriminately suggesting their patients to travel to Mexico or to the U.S. for specific medical services for different

reasons, either cost, language, availability of the service, and so on. Despite the fact that many people argue that the normal tendency of Mexican border towns is to depend on American border towns, in the case of the development of medical services it cannot be explained in those terms.

Because some specific Mexican medical services are consumed by Americans, and some other specific American medical services are consumed by Mexicans, this has produced a division of labour between the two countries that better explains the relationship between border towns. And due to the fact that foreigners are consuming medical services at a country different than their own, this trade is considered within the economic jargon as an export of medical services. Thus international trade in health services is becoming an important component in the economy of both countries. An issue that has not been documented from the Mexican side of the border.

Assuming that international trade tends to occur primarily as a direct result of specialization, then each country could become specialized in specific services, provided they have the necessary attributes that makes them able to export these services. These attributes form the basis of a specific comparative advantage (C.A.). Therefore it can be said that, **provided Mexico has and is able to maintain its export attributes in the provision of specific medical services, it will continue to have a comparative advantage over the United States of America.**

Several types of studies related to health and medical services have been conducted at the Mexico-U.S. border area. Medical studies tend to dwell in the nature of transmissible diseases and health levels at the border. Sociological studies take the issue of community needs of health services, some of them could even be considered xenophobic biased when trying to blame Mexicans as a burden on the American public health system. And more recently, several studies show some

economic concerns by making marketing studies that reveal an existing potential for American capital investment in the Mexican private health care market, as well as an opportunity to reduce the American health expenditure by taking advantage of the low cost of Mexican health services. Although many studies conducted by American institutions accept the fact that Americans do travel to Mexico for medical services, at present there are no studies dealing with the issue of Mexico's C.A. in the provision of specific medical services.

This thesis sets out to examine the issue of why Americans are traveling to Mexico for medical services, and the main characteristics of this phenomenon. It will also determine the existence factors related to C.A. in the provision of specific medical services in Mexico, and the possibilities of an international trade in health services between the two countries. In order to do this, the U.S.-Mexico border area will be studied as a general scenario, focusing in the study of the Mexican city of Tijuana, in Baja California, known for its close socio-economic relationship to the American city of San Diego in California, and for being the busiest border crossing in the region, with 5 to 6 million monthly border crossings<sup>8</sup>.

In order to understand the concept of C.A. in medical services, Chapter II examines some theories of C.A., their development and evolution, the increased importance of the service sector, how the theories of C.A. can be applied to services in general and to medical services in particular. A general model of C.A. in medical services is developed in this chapter also, using Michael Porter's model of C.A.<sup>9</sup> as the main framework. The concept of C.A. will be used here in its simplest static form, this is to say, as a way to explain why a country exports a specific service.

Chapter III begins by analyzing existing studies dealing with health issues at the U.S.-Mexico border area. This analysis seeks to identify possible conditions related to the factors of C.A. embedded within these studies. By following the

general model of C.A. developed in chapter II, a more specific model of C.A. in medical services for the border area is suggested as a result of the analysis of the existing studies. Chapter IV reviews some of the most important issues that relates the cities of Tijuana and San Diego where the study was conducted. Special attention has been given to the main differences in the provision of medical services in both cities as well as the areas concentrating the majority of the health facilities (clinics and hospitals). This is done in order to trace possible specialization trends. The issue of population origin and distribution in San Diego is also important due to the cultural element that also relates both cities. Chapter V reviews two surveys conducted in the city of Tijuana, identifying quantitative and qualitative factors, specially those related to C.A. And in order to further develop the model of C.A. in medical services and to assess their labour-skill-or capital-intensity, medical services were disagregated into specific activities. A time lag can bee seen in this chapter between the two surveys. This is so due to the fact that during the oral examination to obtain the PhD degree at University College London in November 1997, the examiners asked to include more information with respect to qualitative issues, and the second survey was designed and conducted during the summer of 1998. Chapter VI sets out to verify the model proposed in chapter III. Using the results obtained from chapter V, this chapter puts the information altogether to demonstrate the existence of enough elements related to comparative advantage. And finally Chapter VII concludes by analyzing the validity of the proposed model of C.A., the validity of the information collected and the existing potential development of the medical sector, including the risks and opportunities of going from cross border trade to international trade in medical services.



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**CHAPTER II. THE CONCEPTS OF COMPARATIVE  
ADVANTAGE, SERVICE SECTOR AND MEDICAL  
SERVICES**

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## **II. THE CONCEPTS OF COMPARATIVE ADVANTAGE, SERVICE SECTOR AND MEDICAL SERVICES.**

The principle of comparative advantage (C.A.) seeks to explain why countries export some goods and not others. This principle has played a central role in normative economics, serving as a condition for trade under what it has been known as the 'system of perfectly free commerce'. Different economists have tried to identify the elements that make a country able to export in a world market.

### **II.1 UNDERSTANDING COMPARATIVE ADVANTAGE: SMITH, HAMILTON AND RICARDO.**

The main ideas of static C.A., were originally visualized in 1776 by Adam Smith when he addressed the issues of free trade, specialization and absolute advantage (Smith, 1986). His main hypothesis was derived from the analysis that it was better to buy a foreign product when it is offered at a lower cost than to produce it at a higher cost. It was obvious that this country had some endowments, such as climate, soil and temperature, that were allowing it to produce at lower costs. These endowments formed the main basis of what he called an *absolute advantage* of a nation, therefore nations should specialize in producing all those goods that could be sold cheaply abroad. Thus reinforcing the need of free commerce and/or free trade, this is to say, a trade with no barriers. Absolute advantage and free trade became strongly related since then.

Despite the fact that these concepts were revolutionary at that time, not everybody agreed with him. In the U.S., although Alexander Hamilton accepted some of Smith's ideas (like the division of labour, the necessity of international improvement and the productivity of labour employed in manufacturing) in his 1790 and 1791 reports submitted to the American Congress (Hamilton, 1964), he

disagreed with Smith's concept of 'the invisible hand', and the danger of free trade. He pointed out that the principle of free trade could not be applied to simple and vulnerable economies (like the U.S. at that time), and suggested that 'the invisible hand' should become 'the hand of the government' helping the economy and promoting national strength. And finally, he rejected Smith's idea that the unhampered pursuit of private gains (or laissez-faire) would have a positive repercussion for the benefit of society<sup>1</sup>.

Although Smith was the first one dealing with the idea of absolute advantage, it was David Ricardo who developed it into what became the principle of C.A. (Ricardo, 1891). He concluded that trade was based not only on natural endowments, but also in differences in labour productivity between nations, which he defined as follows:

*"Under a system of perfectly free commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably connected with the universal good of the whole. By stimulating industry, by rewarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically: while, by increasing the general mass of production, it diffuses general benefit, and binds together, by one common tie of interests and intercourse, the universal society of nations through the civilized world."<sup>2</sup>*

According to this view, the relative costs of production dictated the patterns of specialization in trade among countries. Trade in turn was based on differences in labour productivity between nations, and these differences were due to 'unexplained' conditions in the environment or climate of nations. Therefore, the main determining factor of comparative advantage for Ricardo's theory became labour cost.

## II.2 THE HECKSHER-OHLIN FACTOR PROPORTIONS APPROACH OR NEO-CLASSICAL THEORY.

In the same line as Ricardo's theory are the studies of the Swedish economist Eli Hecksher (Hecksher, E., Ohlin, B. 1991). In his 1919 report on 'Foreign Trade and Income Distribution', Hecksher began to sketch the principle of C.A. that was later further developed by his student Bertil Ohlin in his 1933 report on 'Interregional, and International Trade'. These ideas were later known as the Hecksher-Ohlin Factor-Proportions theory (H-O). They departed from the assumption that all nations had equivalent technology, and therefore their concept of C.A. was based on the differences in the country's endowments of the so-called 'factors of production' (such as land, labour, natural resources and capital)<sup>3</sup>.

According to this assumption, the C.A. of a country will lie in products which utilized factors that were relatively abundant. The narrowness of this approach made it possible to forecast that if a country was abundant in capital then it would tend to export capital-intensive and import labour-intensive commodities; at the same time, if a country was abundant in labour, it would export labour-intensive and import capital-intensive commodities.

Parallel to this, the Swedish economist and philosopher Gunnar Myrdal began to criticize the risks involved in this approach. He pointed out that these 'new economic theories' (the H-O theory) were biased by *laissez-faire* principle and the absurd notion of 'common tie or harmony of interests', and that at the end these issues were fostering international inequalities. By pointing out that 'many underdeveloped countries (*were*) not deriving the advantages from modern transportation and commerce that the theory (*of international trade*) seemed to demand as one of the most pertinent facts'<sup>4</sup>, he was able to demonstrate some of the most important

dangers involved in this approach. Due to the fact that this theory departed from the assumption of a 'stable equilibrium', not taking into consideration the reality of the growing economic inequalities and the dynamic process of under-development and development<sup>5</sup>, international trade was not, as he saw it, acting as an 'equalizing force'.

At the same time, and from another perspective, Raul Prebisch used the analysis of Latin America to demonstrate the need to revise the theories of international trade (Prebisch R. 1950; 1959). Latin America, he argued, was not developing according to the main ideas behind the theories of trade. The concept of C.A. was not working in this reality. Surely some Latin American countries were able to export primary products, but the increase in the consumption of manufactured goods and the reduction in the demand for primary products by the developed world was shifting the basis of C.A. Underdevelopment and inequality was the result of all these approaches. The existing economic theories needed to be urgently adapted to such realities and international trade should take in mind the different levels of development in each country.

### **II.3 THE LEONTIEF PARADOX OR THE NEO-FACTOR PROPORTIONS THEORY.**

The H-O theory and all its assumptions were challenged by Wassily Leontief (1956) in his studies of the U.S. economy. Opposite to the generalized idea that the U.S. was exporting capital intensive products, he found that in reality the U.S. exports were more labour-intensive than its imports. Considering that at that time, the U.S. was one of the most capital-abundant countries in the world, these results seemed to contradict the H-O theory. The main conclusion of Leontief's study

(known as Leontief's paradox) was that there was a factor that was not being taken into consideration. This factor came to be called human capital.

This idea of human capital had already been studied by Samuelson (1948) in the form of the issue of intensities of use. According to his findings, he arrived at the conclusion that certain commodities differed in their 'labour and land intensities', meaning by this that there was a strong difference in the quantity of human work needed in agriculture as compared to clothing. Therefore these two activities were making intensive use of different aspects of productivity .

The issue of U.S. exports of labour-intensive goods was further studied and explained by Kravis (1956). In his works he explains this by stating that due to the fact that the average salary in the U.S. at that time was higher than in other countries, and more skilled labour was employed, it was easy to understand why at the end exports changed their nature from capital intensive to labour intensive products.

#### **II.4 FURTHER STUDIES ON COMPARATIVE ADVANTAGE.**

By 1963, Prebisch in presenting one of his papers to the tenth conference of the Latin American Economic Commission in Mar de la Plata, Argentina (Prebisch, R.,1963), accused foreign investors of exploiting Latin American human and natural resources, and at the same time of decapitalizing Latin American countries by taking away huge profits and not reinvesting them within the same countries, tampering in this way with their 'natural' economic development.

Whether related or not, Prebisch's message was later explained by Keesing (1965), who observed that decapitalization was the result of capital moving across international borders more freely than human labour. From this he deduced that

C.A. was determined in principle by the relative abundance of skilled and unskilled labour, other than an initial endowment of capital.

Subsequently the skills approach was developed by Waehrer (1968) who found a correlation between net exports and skill-intensity as well as a relative superiority of skill-intensity to wage rates in the explanation of trade patterns. At the same time the issue of skilled labour included previous investment activities either in the form of formal education or on-the-job training, facts that were researched by Mincer (1962), Becker (1962, 1964) and Schultz (1966).

After these findings it became easier to support the inclusion of 'human capital' along with the more orthodox sense of capital in the category of determinants of C.A. (Bhagwati, 1964; Johnson, 1968).

Numerous theories of international trade and C.A. have appeared, the majority of them based in the basic C.A. principle. While for Ricardo's theory, labour cost and natural endowments were the main determinants of C.A.; for the factor-proportions or H-O theory, it was resource endowments; for the neo-factor-proportions theory or Leontief paradox, it was factor efficiency of use and human capital; for the technology gap and product theories (Kravis, 1956), it was technological innovation and learning-by-doing; for Linder's theory (Linder, 1961), it was domestic demand and the level of economic development; and for the intra-industry trade theory (Grubel and Lloyd, 1975), it was the economies of scale. The basic conceptual framework for analyzing international trade stayed the same: countries tend to export those goods that have the lowest relative costs; relative costs are determined by production conditions in the country; and the pattern of the country reflects the level of its economic development. As the studies on the production of goods were further developed, so did the concept of C.A., and more



and more elements were identified as related to the achievement of C.A.

Riddle (1987) was able to identify eight dynamic sources related to C.A. (see table 1). According to his findings these elements are:

- geographic location and national endowments;
- existing infrastructure;
- adequate transport facilities;
- efficient customs services;
- skilled workforce;
- language ability;
- cultural differences; and
- management and training.<sup>6</sup>

In a more recent study, Porter (1990) goes further by stating that at the end, C.A. can be achieved by competitive or promotional approaches towards shaping the environment in which firms compete. He proposes a theoretical model of C.A., that includes six broad attributes. In this way, he moved from the concept of C.A. towards a different approach which he calls 'competitive advantage'. As he concludes, these attributes are (see table 1):

- factor conditions or factors of production: all those inputs necessary to compete in an industry;
- demand conditions: or the nature of home demand for the industry's product or service;
- related and supporting industries: or the presence or absence in the nation of supplier and related industries that are internationally competitive;
- firm strategy, structure and rivalry: or the conditions in the nation governing how companies are created, organized and managed, and the nature of

domestic rivalry;

- chance: or all those events that have little to do with circumstances in a nation and are often largely outside the power of firms (and often the national government) to influence; and

- governments: or the role governments play in influencing national competitive advantages.<sup>7</sup>

Interestingly because in the end, C.A. still means that '*a country can gain from trade if it concentrates its energies in the industries that make best use of its resources and skills*'<sup>8</sup>.

## **II.5 THE SERVICE SECTOR.**

At the same time that agriculture, mining and manufacture dominated the world trade, and were considered as the primary and secondary sectors of the economy, a 'silent shift' with respect to the tertiary sector was taking place.

Services, or the tertiary sector, were becoming the most important sector in many countries. This was not taken seriously in the beginning, due to the fact that this sector has always been considered the residual part of the economy. This lack of interest derived mainly from two issues: first because from Adam Smith's times, the production of services was considered to be 'unproductive', or as he defines them in book two of *The Wealth of Nations*:

*"The labour of some of the most respectable orders in the society is, like that of menial servants, unproductive of any value, and does not fix or realize itself in any permanent subject, or vendible commodity, which endures after that labour is past..*

*In the same class must be ranked, some of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera-singers, opera dancers, etc.*<sup>19</sup>

And second, as a result of these assumptions, because of its relative unimportance, this generalized idea even left the service sector without a precise definition<sup>10</sup>.

Three main approaches can be traced in modern literature towards defining the service sector. In the first approach following the works of Fisher (1935; 1939), Clark (1940), and Kuznets (1957; 1966), services are defined as a residual entity or tertiary sector. This definition was in turn based on the criterion that service was whatever was not classified as agriculture or industry (the residual approach).

In a second approach, found in the works of Fuchs (1968), and Stanback (1980), services are defined as those commodities which are 'intangible, instantaneous (in the way that they 'perish in the same instant of production') and are produced next to the consumer; furthermore they cannot be stored, transported nor accumulated. This is a rather positive approach, where services begin to be analyzed and defined on the basis of some attributes common to services as opposed to material goods.

And thirdly, Hill (1977) defined a service as '*a change in the condition of a person or of a good belonging to some economic unit, which is brought about as the result of the activity of some other economic unit, with the agreement of the former person or economic unit*'<sup>11</sup>.

This last approach defines services in a more appropriate way by using a single sufficient criterion. At the end, all definitions agree in the existence of three main characteristics that make services different from goods:

- first, that the production and consumption of services have to take place simultaneously;
- second, that a service cannot be stored, and
- third, that services are intangible.

## **II.6 THE IMPORTANCE OF THE SERVICE SECTOR IN THE WORLD ECONOMY.**

This lack of a precise definition and an imprecise knowledge of it, left the service sector without serious consideration for a long period of time. Many countries did not pay attention to the way services were increasing, nor the speed in which some of them were developing. A possible explanation of this can be the fact that many services were actually embedded within the manufacturing sector. This is to say, several manufacturing companies used to have their own staff of lawyers, their own medical service department, packing and delivery services, and so on. This situation was also reinforced by the fact that, in national accounts and in world development reports, service activities were (and still are) reported in an aggregated way.

It was not until recently that the growth of the service sector as part of the economic development of countries became recognized. When, in order to reduce costs and improve the productivity, many manufacturing companies began separating service activities from their own manufacturing activities. Then, the importance of the services sector became noticed. Lawyers, accountants, publishing activities, package and delivery services, medical services, and so on, were being subcontracted outside the manufacturing sector, thus making the existence of services obvious and its growth more rapid. Its importance was seriously addressed when its large share of world Gross Domestic Product (GDP) and its share of current account credits were viewed at the 1985 United Nations Conference on Trade and Development (UNCTAD). This reunion held in Geneva with the main title of 'Production and Trade in Services: Policies and their underlying factors bearing upon International Service Transactions', was one of the first to analyze the service

sector in world economic terms<sup>12</sup>.

And by September 1986 in Punta del Este, the member countries of the General Agreement on Tariffs and Trade (GATT), in the new (Uruguay) round of multilateral negotiations, passed a resolution to establish a negotiation group on services-trade parallel to a new round of negotiations on the reduction of barriers to merchandise trade<sup>13</sup>. Since then the service sector has been the target of many serious studies.

Several studies were conducted before this was officially considered. Amongst others, Baumol (1984) had studied the relationship between services, skills and investments employed, arriving at the conclusion that some service industries have high capital-labour ratios as in telecommunications industries and utilities. On the other hand, many firms provided services using workers with high levels of training, employ sophisticated techniques but low levels of physical capital. Therefore, as with manufacturing, services can be classified as being skill-intensive, labour-intensive or capital-intensive. In a later study, Bhagwati (1987) was able to classify the different ways services could be provided. According to his findings, services were classified in two broad groups: those which need physical proximity and those which do not. In the first group (physical proximity), services can be provided in three ways:

- mobile user-immobile provider: as in the case of tourism and some medical services;
- mobile provider-immobile user: as with some home visiting hair stylists, tailors, physicians, etc; and
- mobile provider-mobile user: as in the cases where both, provider and user meet in another place or country different from their own<sup>14</sup>.

When physical proximity was not needed, another case takes place: the immobile user-immobile provider. In this case the provider is able to deliver the service by means of other services, like postal services (instructions or guides sent by mail) or telecommunication services (as in telephone calls, teleconferencing, remote computer links, Internet, etc.).

From another perspective Grubel and Walker (1989) arranged services according to their provision; they proposed three main areas :

- consumer services;
- government services; and
- producer services.

According to them, consumer services are all those services consumed by private individuals such as the output of restaurants, hotels, financial and insurance firms, private medical services, retail outlets, amusements and recreational facilities, personal service facilities for hair, clothing, shoes, automobiles and household goods and communication and public transport systems. Government services are all those services generated by the incurrence of expenditures required in the administration of education, health, welfare, defense, justice and general government programmes. And producer services are all those services not bought by private individuals nor provided by governments. They consist of the output of industries known as 'Business Services', comprising computer, accounting, advertising, personal protection and similar industries<sup>15</sup>.

Parallel to this, Gray (1989) identified a group of services that were traded at the international level, thus deserving a separate analysis. These services were classified according to the way they were being offered. Therefore he defines two groups:

- The people-embodied services: or services which are produced for foreigners by means of communication services as in the provision of information, data transmission and processing, etc.;and
- Services which are embedded in goods: or services that need to be delivered to a user separated in time and space, as in computer programming embedded in diskettes, blueprints of projects, manuals, etc.<sup>16</sup>.

In this second case, the service is actually stored or embedded in an object in order to be sent by mail. To be more precise, what is actually stored or embedded in an object is the capacity to provide the service. This typology in exchange depends on the consumers' capacity to provide themselves with the service once the object arrives to them. This classification opens a new characteristic of the service sector that, although it was already observed by Bhagwati (1987) in his immobile user-immobile provider classification, it was not observed as a characteristic of services. This is to say that as opposed to what it was said by Fuchs (1968), Hill (1977) and Stanback (1980), some services can actually be stored, transported and accumulated, thus not necessarily needing to be consumed instantaneously nor be perishable. And with the arrival and expansion of computerized services, this quality became more obvious.

Following this new line of study, and by using Bhagwati's classification, services were divided in four categories according to trade:

- services which are location-joining: such as communication and transportation;
- services which require the user to move to the location of the supplier: like tourism and some medical care services;

- services which require the supplier to move to the location of the user: as in construction; and
- professional services which can be made available to clients in other countries by having the service transmitted by communication equipment or being temporarily embedded in a good<sup>17</sup>.

These categories included a new one that was also visualized by Bhagwati in his 'mobile user-immobile provider' classification, but needed more precision: the 'location-joining' service. This is the basis of travelling from one place to another in order to consume a service.

## **II.7 THE THEORY OF COMPARATIVE ADVANTAGE APPLIED TO INTERNATIONAL TRADE IN SERVICES.**

As was explained at the beginning of this chapter, the theory of C.A., was originally developed during a period when land, natural attributes (like rivers, soil, climate, etc.) and industrial development were the basis of production and economic development. The theory of C.A. was designed to explain specialization and the production of primary goods. This is to say, it was developed to understand the pattern of behaviour of the primary and secondary sectors of the economy. Although many people may argue that services are completely different from goods, several studies (like the previous ones) tend to show more similarities than differences. And thus, up to now there is no one theory that says that the theory of C.A. cannot be applied to services. Therefore it is safe to assume that the same conditions applying to trade in goods can be applied to trade in services.

The main issue behind this observation is that within the realm of trade, many



services -like goods- are tradeable. The main concern will be that due to the huge variety of activities included in the service sector, it will be difficult to generalize. A wise approach suggested during the United Nations Conference on Trade and Development in 1985 (UNCTAD,1985), was to study the service activities on a case by case basis rather than grouped together and considered collectively, because *'dealing with them as a single entity would risk doing serious damage to the long-term interests of developing and developed countries'*<sup>18</sup>.

As in the production of goods, to be competitive in the service sector a country should take into consideration a variety of factors that are constantly changing. These factors are related to the production of the services at different levels: from the local and internal structure of the production of service, to the national conditions and the global demand.

According to Feketekuty (1988), international competitiveness in services is determined by six main factors (see table 1):

- knowledge and skills of local service workers and managers;
- cost of labour;
- proximity of the market;
- availability of data processing and communications equipment;
- effective organization of the required deliver services; and
- institutional environment of the production of services<sup>19</sup>.

A strong similarity can be seen between Feketekuty's factors, and those identified by Riddle(1987) and Porter(1990) for the production of goods. This similarity is indicative of the fact that within the international context of trade, the same principle of C.A. can be applied to goods and services. Therefore it can be safe to assume that Porter's model of C.A., can be applied also to the production

of services. Thus services can also be related to factor conditions, demand conditions, related and supporting industries, firm strategy, chance and governments. Riddle's proposal from 1987 and Feketekuty's model from 1988 can easily be circumscribed within these same factors (see table 1).

Included in Porter's model, are the six main forces responsible for changing the structure of global demand. If countries want to assume and maintain their competitive advantages in services, they should take these forces in consideration. According to his findings, these forces change from time to time, and usually at fast rates, therefore a constant monitoring is needed of the following issues:

- the increasing similarity of service needs;
- the increase in mobility and more informed buyers of services;
- the existence of economies of scale and geographic scope;
- the mobility of service personnel;
- the ability to interact with remote buyers; and
- the continued disparities among nations in the cost, quality and range of services available in different nations<sup>20</sup>.

## **II.8 COMPARATIVE ADVANTAGE IN SERVICES AND DEVELOPING COUNTRIES.**

Due to the generalized idea that because successful services tend to be skill- or capital-intensive, there has been in the past a tendency to think that only developed countries have a source of C.A. in them. This is not necessarily so. As was observed by Kierskowsky (1987), by 1980 the group of 25 largest services exporters included five developing countries: Mexico, Singapore, South Korea, Saudi Arabia and Egypt. The ratios of service exports to merchandise exports in

those five countries were 46, 33, 26, 4 and 60 percent, respectively. Furthermore, Mexico, Singapore, South Korea and Egypt were net exporters of services<sup>21</sup>.

Therefore it becomes certain that some developing countries can expand their export of services. Following Kierzkowsky's proposals, this issue becomes more true when three aspects of the elements embedded within the service sector are analyzed:

- First, the relative price of some services tends to be lower in developing countries than rich countries, mainly because of the existence of cheap labour. Considering that labour is one of the most important elements in many services, this implies that the former countries must have a C.A. in some services, provided they are produced with a quality level that makes them tradeable;
- Second, liberalization of temporary labour movements will again place developing countries in a very competitive position due to the same reasons of cheap labour; and
- Third, the importance of physical proximity in service provision suggests the likely emergence of regional markets. Therefore certain developing countries could enjoy a geographical advantage over more efficient producers who happen to be located far away from a particular regional market<sup>22</sup>.

Many works and reports coincide with these three aspects, and recommend that developing countries ought to develop considerable comparative advantages in the provision of services. As mentioned by Bhagwati(1987):

*"...it is possible to argue that the more advanced developing countries, the newly industrializing countries, which are abundantly endowed with skills, may well find a new comparative advantage opening up in the over-the-wire transmission of their skilled services. This has already happened with respect to software. It could happen a la Dresser with*

*engineering services, with data being transmitted to users in overseas locations for engineering, medical and a host of other skilled services. Thus the newly industrializing countries may well find that there is something for them, too, in the GATT being extended to trade in services - provided that the extension is truly to service of all kinds.*"<sup>23</sup>

Nevertheless, being a developing country cannot be considered as the only precondition for success in trade in services. In 1989 the Organization for Economic Co-operation and Development, produced a report on Trade in Services. There is an important argument in this report with respect to the issue that the competitive position of developing countries in services activities is difficult to characterize mainly because the lack of detailed statistical information due to the heterogeneous nature of the service sector<sup>24</sup>. Furthermore, the report concludes with a warning for developing countries with respect to the importance of being sure about the existence of export potential in services before embarking themselves in international trade policies:

*"... the realization of developing countries' export potential in services will depend, in large measure, on the scope for acknowledgment within the services framework of the need for service-provider mobility in the form of temporary relocation of essential personnel."*<sup>25</sup>

Due to the fact that access to the international market for services is rather difficult, the OECD report continues to point to a series of constraints additional to barriers that developing countries could face in looking for access to the service market. Constraints such as :

*"- in those areas where economies of scale are important;  
- in service activities which are relatively labour-intensive and that are likely also to have important skill -and capital- intensive aspects; and finally  
- the realization of potential comparative advantage is likely to depend on considerations other than resource endowments and factor allocation. In particular, it may depend on market structure within the sector concerned"*<sup>26</sup>.

That is why the UNCTAD report suggested since 1985 that developing countries should first analyze 'specific determinants' in order to establish a comprehensive background for their C.A. in services. These determinants, as mentioned by the same report, were divided in two levels:

1. Country-specific and industry-specific determinants:

a. Country specific determinants:

- Differences between countries in comparative costs;
- Differences in production functions, economies of scale and product differentiation;

b. Industry specific determinants:

- Specific skills and knowledge;
- Skills in developing countries;
- Labour costs differentials;
- Economies of scale;
- Natural advantages;

2. Firm specific determinants:

- Possession of in-house service, know-how and proprietary service technology;
- Established brand names;
- A work force that has acquired skills based on its learning within the firm;
- Privileged access to capital and financial markets<sup>27</sup>.

Making a parallel study between these determinants and the factors of C.A. identified by Riddle (1987), Feketekuty (1988), and Porter (1990), it can be seen that the similarity among them continues to exist (see table 1). An by comparing the

UNCTAD determinants with the 'six forces' responsible for changing the structure of global demand suggested by Porter (1990), it can be found that they can be related as an exercise of questions and answers between the global context and the national situation of a specific country. While the UNCTAD approach gives an idea of 'what a country should have' in order to determine its comparative advantages, Porter's determinants define the framework of 'what is happening in the service sector on a global context' (see table 2).

It was expected that by using this framework, governments should be able to have a more clear picture about their potential C.A. in the service sector. Nevertheless, if a country lacks the basic 'firm specific determinants' it will be very difficult to argue the existence of a C.A. If local firms are not competitive in their domestic market, neither the 'industry specific determinants' nor the 'country specific determinants' can do anything to foster C.A.

## **II.9 TRADE IN HEALTH SERVICES.**

According to a study conducted by the United States Office of Technology Assessment, the future of economic growth will depend on parallel growth in the sector of manufactured goods that have a high percentage of added value, and in the service sector which is based on intensive use of knowledge<sup>28</sup>. Included in the second sector are health services, an important element because of their large component of knowledge, based on research and universal scientific development.

Although health services have not been traditionally considered as marketable, in reality a different situation has taken place: international trade in professional and labour intensive health services have increased recently, becoming a broad area of international competition.

As it was observed during the 1997 UNCTAD reunion, international trade in health services is beginning to receive the attention of government policy-makers and trade negotiators due to the growth potential of this type of trade, especially when it involves high levels of research, sophisticated equipment or therapies and labour intensive activities. The importance of health for countries in general derives from the fact that, improving health contributes to economic growth in four ways:

- it reduces production losses caused by illness;
- it permits the use of natural resources that have been inaccessible because of disease;
- it increases the enrollment of children in schools and makes them better able to learn; and
- it frees for alternatives uses resources that would otherwise have to be spent in treating illness<sup>29</sup>.

The concept of health is so familiar that we hardly need a definition. Although the World Health Organization (WHO), defines health as '*a complete state of physical, mental and social well-being, and not merely the absence of illness or disease*'<sup>30</sup>, there is no precise definition to what health is. Whatever definition is to be used, it must be understood that health is the main output of medical care, medical services or medical activities. According to Bailey (1970), all medical activities comprise at least three main specific functions:

- there is a process or activity for routine medical examination,
- another for complete medical histories and physical examination, and
- another for laboratory tests and x-ray examinations.

At the same time, these activities can be divided in two main groups:

- 'physicians products', where the dominant input is physicians time; and
- 'ancillary products', where the dominant input is paramedical personnel time<sup>31</sup>.

The size or amount of these products may vary depending on the type of medical service and the way it is delivered. In the typical one-physician office (or solo practitioner), few products are offered, and the most significant one is examination by the physician. The function that best describes the production of this product is a labour-intensive activity. In larger medical groups, specialized groups or research groups, new products are added as the firm grows and focuses in a specialized service. As more of these products need sophisticated equipment, special areas and specialized skills, the function that better describes the production of these products will be skill intensive activities.

And in the case of hospitals, due to the huge investment needed to construct the building and supply all the necessary equipment, the production of these products will become capital intensive activities.

From another perspective, Sorkin (1975) defines health services as services rendered by:

- labour: personnel engaged in medical occupations such as doctors, dentists and specialized nurses, plus other personnel working directly under their supervision, including registered nurses, orderlies, receptionists and laboratory technicians;
- physical capital: The plant and equipment used by these personnel such as hospitals and x-ray machines; and



- intermediate goods and services: for example drugs, medicines, bandages and purchased laundry services<sup>32</sup>.

And finally Jacobs (1987) defines medical care as a 'process or activity in which certain inputs or factors of production are combined in varying quantities to yield an output'<sup>33</sup>, this output is health. These factors of production are: doctors and nurses services, services of medical instruments, and equipment and pharmaceuticals.

And from another perspective, the Grubel-Walker principle (Grubel, G; Walker, M. 1989) defines medical services as the result of a group of producer services (hospitals, clinics, medicines, etc.) and consumer services (private medical care, health services and or medical activities (see table 3). Thus it can be concluded that private medical services fall within the realm of the consumer services supported by producer services.

Medical care, medical services, medical activities or health services, all involve the same elements of production. Similar to the activities needed to produce goods, medical activities can also be classified in three main groups according to the way they are produced. Medical services can be labour-intensive, capital-intensive and skill-intensive. By using the definitions employed by Bailey and Sorokin for medical services, a more clear idea of the production of medical services can be obtained (see table 3). According to this approach, labour-intensive activities will be all those medical activities or services that consume mainly physicians, nurses and paramedics time. Capital-intensive activities will be all those activities or services that make use of sophisticated equipment, either for diagnosis or treatment. Hospitals in general are considered as physical capital due to the costs of building one and buying and installing the sophisticated equipment. Therefore all those

activities performed within a hospital using the equipment and specific hospital services will become relatively capital-intensive. And finally, the skill-intensive activities will be all those consuming mainly specialized physicians' time, or specially-trained personnel time.

This classification does not deny the possibility of combining them, but in order to keep a clear idea of the type of service, it is safer to maintain only these three groups.

Some authors may argue also that the skill-intensive classification should be better considered as human-capital-intensive activities due to the fact that in order to obtain a specific knowledge or specialty, either physicians, nurses and paramedics, invested time and capital. Therefore all those specialized services rendered by them should be considered human-capital-intensive.

Although this classification is more precise with respect to specific medical services, for the purpose of this study, the skill-intensive classification will be used as a preliminary approach to the classification of medical services.

## **II.10 THE COST OF HEALTH SERVICES AND EXPENDITURES.**

When a country's economy grows, its spending on health care grows even faster. This lesson was learned by western countries after the second World War, and at present many developed countries are faced with the issue of high health care expenditures.

According to Sorkin (1975) the cost of medical services increases faster than the increases in salaries. There are various reasons that can be attributed to the growing demand for medical services, including:

- increases in salaries;
- relative increases in the number of older persons in the population of more developed countries;
- urbanization of the population;
- higher educational levels and more health awareness;
- a relative increase in the number of care providers, supported by an increase in the demand<sup>34</sup>.

In terms of expenditure, the U.S. is the largest single health care market in the world. In 1993, expenditures totalled US\$903.3 billion (14 percent of Gross Domestic Product GDP or US\$3,380.00 per capita). And expenditures for 1995 were expected to total US\$1.1 trillion (15.6 percent of GDP or \$US\$4,050.00)<sup>35</sup>. Within the American context, an increasing number of general physicians and specialists, the availability of new medical technologies, and expanding health insurance linked to a fee-for-service payment, altogether are generating a rapidly growing demand for costly tests, procedures and treatments<sup>36</sup>.

Although medical care is considered among the average public services as one of the 'more labour intensive activities'<sup>37</sup>, the technology of the health services explains as well in the long run their increasing prices as compared to goods. Salaries and hospital expenditures are some of the most expensive elements in medical services. According to the U.S. National Health Statistics, for every dollar spent in health care during the period 1993-94, an average of 40 percent went to hospital expenditures and 20 percent to physicians services<sup>38</sup>.

## II.11 COMPARATIVE ADVANTAGE IN MEDICAL SERVICES

The cost question ensures that not everybody will have the means to pay for medical services, including the United States. Although there is a public American health-care system, not all medical services are covered and in the end, people have to pay some fees for the services. Instead of spending their savings in expensive medical services, many Americans prefer to find other ways to obtain the same services at affordable prices. For some of them, travelling to Mexico has become a viable solution, and in order to do this, Americans must weigh several issues such as:

- the cost of travel and the ongoing communication cost;
- the problems and aggravations of not being able to meet the supplier on short notice when something goes wrong; and
- the possible savings associated with the lower price or the type of quality of the medical service needed<sup>39</sup>.

The fact that Americans are using medical services in Mexico opens up the argument that Mexico might have a C.A. in the provision of these services. This capacity to sell services to foreigners involves amongst others, factors such as low costs, good quality and geographic proximity. Unfortunately there is no specific information about the importance of these factors and their relative weigh with respect to American alternatives. Thus the possibility of an existing C.A. could heavily rest upon such factors. Therefore in order to find how important these factors really are, and which of them should be considered as key elements of C.A. for this specific case, a survey should be conducted. Due to the nature of medical services, several factors can be added to this case in ordere to verify the possible existence of C.A. Following Porter's model, a possible model of C.A. for medical

services can be developed as follows (see table 4).

For the factor conditions some of the necessary elements to consider could be:

- availability of physicians, dentists, nurses, laboratory technicians, paramedics, and all the personnel needed to offer and produce medical services;
- existence and availability of hospitals, clinics and all the necessary infrastructure to allow them to operate efficiently and at the right quality;
- availability of the necessary means to keep the medical personnel well informed and updated with respect to knowledge, skills and practice;
- access to capital, credits and finance resources enough to build, upgrade and or maintain in operation the existing hospitals and clinics;
- availability of the necessary infrastructure in order to have proper access to hospitals and clinics, like roads and public transport.

For the demand conditions, some of the necessary elements to consider could be:

- existence of local demand for specific medical services;
- increase in the size and pattern of domestic demand for these medical services;
- possibility of the existence of international demand for these medical services.

For the related and supporting industries some of the necessary elements to consider could be:

- existence of competitive suppliers of medical equipment, like X-ray machines, scanners, etc;
- existence of competitive industries or activities related to medical services, like laboratories, drug stores and the necessary supply of pharmaceuticals..

For the firm strategy, some of the conditions to consider could be:

- existence of competitive hospitals and clinics;
- existence of very clear competitive goals in each hospital and clinic related to the production of medical services, and not only profitability goals;
- existence of various hospitals and clinics that will compete in the production of medical services.

For the existence of chance, some of the indicators to consider could be:

- possibilities of local inventions or medical breakthroughs;
- availability of alternative technologies;
- existence of marked differences in costs or salaries;
- existence of differences in medical controls or restrictions as a result of governmental changes.

For the role of governments, some of the conditions to consider could be:

- existence of governmental support fostering medical services by means of subsidies or policies;
- existence of acceptable official medical standards or regulations;
- low capital market regulations, taxes or policies in order to foster medical services.

## II.12 CONCLUSIONS

Despite the fact that the service sector has always been relegated and not given the proper attention as an important element of national economy, its sudden growth and increase of importance has produced this new effect called by many the tertiarization of economies. Trade in services in general, has become a central issue in world economy. Although medical services were not considered as tradeable at the international market, it was not new to see people traveling to other countries seeking health services. The increasing natural movement of people has become an important part of trade in health services as a mode of supply. The mobile user-immobile supplier no longer can be confined to wealthy persons in developing countries seeking specialized treatment in developed countries. World wide restructuring in the health sector due to the high costs of medical services specially in developed countries, has produced an effect that has been translated into an international health care market. International trade in health services in developing countries has appeared in scene not only as a way to increase their revenues but as a way to strengthen and upgrade their national health service also. The high content of labour, capital and skills within medical services assures an opportunity for developing countries as observed in the 1989 OECD report, provided they can maintain the necessary quality levels. Fortunately for the health industry, do to its universal knowledge base, the quality of medical services is becoming very similar in almost all countries, being cost the basic difference.

Since the 1985 UNCTAD reunion, international trade in services was addressed as an important factor of national economies. During the UNCTAD 1994 reunion, the development of the health sector was seen as an opportunity for

developing countries, and it was not until the 1997 UNCTAD reunion that international trade in health services was reviewed and acknowledged as a valid area of trade for both developed and developing countries. But in order to engage in such trade, developing countries have to draw upon competitive advantages that include lower cost, skilled personnel, cultural factors, natural endowments and unique forms of medicine.

The tendency of Americans traveling to Mexico for medical services can be considered as one of the many indicators of the possible existence of an international trade in health services. Nevertheless in order to be sure about this, a theoretical model of C.A. for medical services was designed. This theoretical model of C.A. tries to address as many aspects as possible in relation to trade in medical services but it needs to be tested. First, against similar studies, and second, within a specific context as part of a survey. The following chapter analyzes different existing studies related to trade in health between Mexico and the United States in order to test the proposed model of C.A.



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UNCTAD (1985)	RIDDLE (1987)	FEKETEKUTY (1988)	PORTER (1990)
<p><b>Country Specific Determinants:</b></p> <ul style="list-style-type: none"> <li>- Differences between countries in comparative costs;</li> <li>- Differences in production functions, economies of scale and product differentiation.</li> </ul> <p><b>Industry Specific Determinants:</b></p> <ul style="list-style-type: none"> <li>- Specific skills;</li> <li>- Skills in developing countries;</li> <li>- Labour costs differentials;</li> <li>- Economies of scale;</li> <li>- Natural advantages.</li> </ul>	<p>Skilled workforce; Language ability; Cultural differences; Existing infrastructure; Adequate transport; Geographic location.</p>	<p>Knowledge and skills;  Cost of labour;  Proximity to the market.</p>	<p><b>Factor conditions:</b></p> <ul style="list-style-type: none"> <li>- Human resources;</li> <li>- Physical resources;</li> <li>- Knowledge resources;</li> <li>- Capital resources;</li> <li>- Infrastructure</li> </ul>
			<p><b>Demand Conditions:</b></p> <ul style="list-style-type: none"> <li>- Home demand composition;</li> <li>- Demand size and pattern of growth;</li> <li>- Internationalization of domestic demand.</li> </ul>
	<p>Adequate transport; Efficient customs service.</p>	<p>Availability of data processing; Effective organization of services required to deliver the services desired by customers</p>	<p><b>Related and Supporting Industries:</b></p> <ul style="list-style-type: none"> <li>- Competitive supplier industries;</li> <li>- Competitive related industries.</li> </ul>
<p><b>Firm Specific Determinants:</b></p> <ul style="list-style-type: none"> <li>- Possession of in-house service, know-how and proprietary service technology;</li> <li>- Established brand names;</li> <li>- A work force that has acquired skills based on its learning within the firm;</li> <li>- Privileged access to capital and financial markets.</li> </ul>	<p>Management and training</p>	<p>The institutional environment of the production of services.</p>	<p><b>Firm Strategy:</b></p> <ul style="list-style-type: none"> <li>- Domestic firms;</li> <li>- Goals;</li> <li>- Domestic rivalry.</li> </ul>
			<p><b>Chance:</b></p> <ul style="list-style-type: none"> <li>- Pure invention;</li> <li>- Technological discontinuities;</li> <li>- Discontinuities in input costs;</li> <li>- Significant shifts in world financial markets;</li> <li>- Surges of world or regional demand;</li> <li>- Political decisions by foreign governments.</li> </ul>
			<p><b>Governments:</b></p> <ul style="list-style-type: none"> <li>- Subsidies and policies;</li> <li>- Standards or regulations;</li> <li>- Capital market regulations, tax policies, antitrust loans.</li> </ul>

Table 1. Some recent findings related to comparative advantages.  
(sources: UNCTAD, 1985., p.9; Riddle, 1987., pp.99-100; Feketekuty, 1988., p.119; Porter, 1990., p.71)

<p><b>"WHAT A COUNTRY SHOULD HAVE"</b> Determinants of comparative advantage.</p> <p>UNCTAD 1985</p>	<p><b>"WHAT IS HAPPENING ON A GLOBAL BASIS"</b> Forces shaping comparative advantage</p> <p>PORTER 1990</p>
<p>Country Specific Determinants:</p> <ul style="list-style-type: none"> <li>- differences between countries in comparative costs;</li> <li>- differences in production functions, economies of scale and product differentiation;</li> </ul> <p>Industry specific Determinants:</p> <ul style="list-style-type: none"> <li>- specific skills and knowledge;</li> <li>- skills in developing countries;</li> <li>- labour costs differentials;</li> <li>- economies of scale;</li> <li>- natural advantages.</li> </ul> <p>Firm Specific Determinants:</p> <ul style="list-style-type: none"> <li>- possession of in-house service, know-how and proprietary service technology;</li> <li>- established brand names;</li> <li>- a work force that has acquired skills based on its learning within the firm;</li> <li>- privileged access to capital and financial markets.</li> </ul>	<p>Increase in the similarity of service needs</p> <p>Increase in the mobility of buyers and better informed buyers</p> <p>Rise of economies of scale</p> <p>Greater mobility of service personnel</p> <p>Greater ability to interact with remote buyers</p> <p>Continued disparities among nations with the cost, quality and range of services available in different nations</p>

TABLE 2. Creating a comprehensive background for comparative advantages.  
(source: UNCTAD, 1985,p.9; Porter, 1990.p.249)

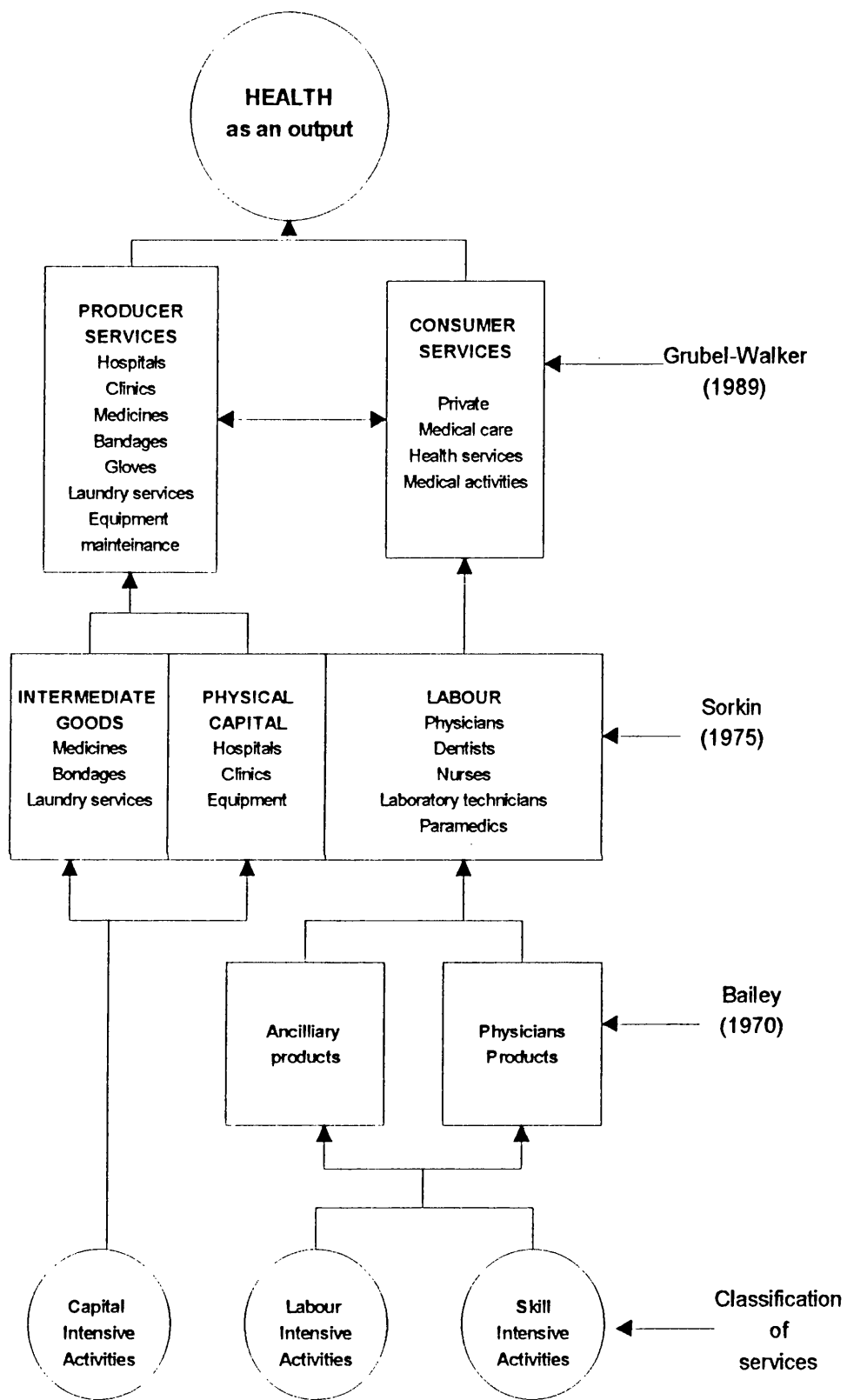


Table 3. The production of medical services

<b>PROPOSED MODEL OF COMPARATIVE ADVANTAGES IN MEDICAL SERVICES</b>	
<p><b>FACTOR CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Human resources,</li> <li>- Physical resources,</li> <li>- Knowledge resources,</li> <li>- Capital resources,</li> <li>- Infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of physicians, dentists, nurses, laboratory technicians, paramedics, etc.,</li> <li>- Existence and availability of hospitals, clinics and operation infrastructure.</li> <li>- Availability of well trained physicians, dentists, nurses, laboratory technicians, paramedics etc., and the means for constant preparation,</li> <li>- Access to capital, credits and sources of finance needed to upgrade and maintain in operation hospitals and clinics.</li> <li>- Availability of the necessary infrastructure in order to have proper access to hospitals and clinics.</li> </ul>
<p><b>DEMAND CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Home demand composition,</li> <li>- Demand size and pattern of growth</li> <li>- Internationalization of domestic demand.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of local demand for specific medical services,</li> <li>- Increase in the size and pattern of demand for these medical services,</li> <li>- Possibility of the existence of international local demand for these medical services.</li> </ul>
<p><b>RELATED AND SUPPORTED INDUSTRIES</b></p> <ul style="list-style-type: none"> <li>- Competitive supplier industries,</li> <li>- Competitive related industries.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive suppliers of medical equipment,</li> <li>- Existence of competitive industries or activities related to medical services.</li> </ul>
<p><b>FIRM STRATEGIES</b></p> <ul style="list-style-type: none"> <li>- Domestic firms,</li> <li>- Goals,</li> <li>- Domestic rivalry.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of local competitive hospitals and clinics,</li> <li>- Existence of specific competitive goals within hospitals and clinics,</li> <li>- Existence of various hospitals and clinics that will compete between each other in the production of medical services.</li> </ul>
<p><b>CHANCE</b></p> <ul style="list-style-type: none"> <li>- Pure invention,</li> <li>- Technological discontinuities,</li> <li>- Discontinuities in input costs,</li> <li>- Significant shifts in world financial markets,</li> <li>- Surges of world or regional demands,</li> <li>- Political decisions by foreign governments.</li> </ul>	<ul style="list-style-type: none"> <li>- Possibilities of local inventions and/or medical breakthroughs,</li> <li>- Availability of alternative technologies or techniques,</li> <li>- Sudden creation of a regional demand for specific medical services,</li> <li>- Other country (or countries) has decided to send their patients to this country.</li> </ul>
<p><b>GOVERNMENT</b></p> <ul style="list-style-type: none"> <li>- Subsidies and Policies,</li> <li>- Standards or regulations,</li> <li>- Capital market regulations, tax policies, antitrust loans.</li> </ul>	<ul style="list-style-type: none"> <li>- Governmental subsidies for medical services and / or related activities,</li> <li>- Government standards or regulations for the production of medical services,</li> <li>- Governmental capital regulation, tax policies and loans to promote the production of medical services.</li> </ul>

Table 4. Proposed model of comparative advantages  
in medical services.  
(based on Porter, 1990)

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**CHAPTER III. MEDICAL SERVICES ALONG THE  
MEXICO - U.S. BORDER AREA**

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### **III. MEDICAL SERVICES ALONG THE MEXICO - U.S.**

#### **BORDER AREA**

The use of Mexican medical services by Americans cannot be considered a new issue. Many Americans who decide to retire to some of Mexico's most attractive towns like Guadalajara and San Miguel de Allende, make intensive use of medical services while there. The trend of using medical services in Mexico has become more evident at present in the Mexican border towns. The border area between Mexico and the U.S. has become an attractive magnet of health services and low cost medicine for Americans. Specially attracted to the border are the Spanish speaking Latino groups and the elderly that want to be near the U.S. for different reasons.

#### **III.1 Defining the border area.**

The Mexico-U.S. border area is mostly a dry desert zone, interspersed with forest areas and irrigated farmlands. Fourteen pair of cities exist along 2,500 kilometers (some 1550 miles), from the Pacific Ocean to the Gulf of Mexico (see map 1). This is to say that for each city in the American side of the border, there is another one at the Mexican side (which is why they are called 'sister cities').

Since its was established in 1848 by the treaty of Guadalupe-Hidalgo at the end of the war between the two countries, the border area has had very low population levels. During World War II the U.S. had a severe agricultural labour shortage, and in 1942 a bilateral agreement between the U.S. and Mexico was established. And by 1951 the 'Bracero Programme' was passed regulating the recruitment, placement, and treatment of Mexican workers<sup>1</sup>. This can be considered the beginning of an intense binational relationship between the two countires in



general and border cities in particular. With the initiation of the Programa de Industrialización Fronteriza (Border Industrialization Programme or PIF) by the Mexican government since 1960 onwards, there has been an increase of capital and economic activity leading to a considerable growth in the local population. The PIF authorized establishment of maquiladoras (assembly plants and in-bond plants) in specially marked zones<sup>2</sup>. During the mid 1960s too, the Mexican government through the National Border Programme (or Programa Nacional Fronterizo, PRONAF) sought to beautify border cities as a way of increasing revenue from tourism<sup>3</sup>. In the last decade the population along the border has doubled to approximately 9,5 million, and at the same time it has become the border with the highest number of annual crossings, with more than 200 million in 1990<sup>4</sup>.

Regardless of the border's length, the majority of the population tends to concentrate in only six pair of these cities, starting from the Pacific Ocean: Tijuana-San Diego; Mexicali-Calexico; Ciudad Juarez-El Paso; Nuevo Laredo-Laredo; Reynosa-McAllen; and Matamoros-Brownsville in the Gulf of Mexico (see table 5). The relation between these pair of cities has been continuous and intense.

Although many people argue that this relationship dwells more with dependency issues (Mexican border towns depending on American border towns), this cannot always be demonstrated as such. People on both sides of the border cross legally from one place to the other, seeking some features or goods that are not able to find at their hometowns. Commuting from one town to the other through the border to work, shop or for leisure purposes is nowadays common and natural. Despite the fact that Mexican illegal migration has become a serious concern for the U.S. lately, the majority of the border population are legal commuters. Given this situation, it would be difficult and risky to conclude that the relationship between border towns is a dependant one. In the majority of cases one can find a

complementary relationship, dealing more with a division of labour than a dependant one.

### **III.2 The provision of health in both countries.**

Health and medical care services are organized differently in the two countries. While in the U.S. the eligibility criteria block many people from obtaining the services they need (services may be available but people do not have access to them, either because they are not eligible or because they cannot pay for them), in Mexico people have access to services. Unfortunately services are not always available, that is to say not physically present.

In Mexico health and medical care are provided together in the public system, while in the U.S. the public health system attends to public health activities and medical care services are provided separately, especially for the poor. The Mexican system is a public based medical care system with the Secretariat of Health (Secretaria de Salud or S.S.) providing general health and medical care for those without rights to the social insurance system, or those who cannot afford or do not have access to private physicians. The primary providers of social insurance services are the IMSS (Mexican Institute of Social Security) and the ISSSTE (Institute of Social Security Services for civil workers). Services also exist for the armed forces, petroleum and railroad workers<sup>5</sup>.

Despite the existence of these state health care services, there is a high number of people that cannot obtain access to any private or public health service. This is the case of rural areas, where access and infrastructure becomes difficult and expensive. The National Programme of Health estimated in 1983 that 14 million Mexicans had no access to medical services. And in 1986, after several efforts, 12 percent of the population (roughly 9.6 million) had no access to any form of medical

service)<sup>6</sup>.

Due to the fact that the government is restructuring the health sector and continually cuts funds to the public sector, the provision of health services by the private sector has been playing an important role filling the gaps left by the public sector. Even though, some of the most recognized physicians and some of the best equipped hospitals and medical centers in the country are still within the public sector. Private hospitals and clinics are often owned and administered by groups of physicians and in very few cases are equipped with sophisticated technology. Because only a small supply of equipment is manufactured in Mexico (such as intra-vein or IV solutions, plastic parts and some ultrasound, but no major medical equipment)<sup>7</sup>, many physicians buy their own equipment from the U.S. at market rates. The main obstacle being that the major part of the equipment tends to be extremely expensive when bought new, and the import tariffs were high (up to 40 percent). Therefore many hospitals and clinics prefer to buy second-hand or refurbished equipment from local providers or directly from American providers<sup>8</sup>.

Despite this issue, Mexico's imports of medical equipment in 1993 went up to US\$500,000,000 doubling the amount of its 1989 imports of medical equipment<sup>9</sup>, demonstrating with this that in general the health sector is beginning to improve its facilities. And the situation will tend to change, as under NAFTA, tariffs for goods classified in the "A" category including medical equipment were eliminated as of January 1, 1994. This will open the market for the United States vendors of medical equipment in Mexico<sup>10</sup>.

Private medicine is considered in Mexico as one of the most profitable economic activities, with salaries varying according to the scope of the practice and location. They can vary from US\$20,000 to US\$30,000, up to US\$200,000 or more

per annum. The average tends to be around US\$50,000. Specialists probably earn an average of US\$100,000 to US\$150,000 per annum<sup>11</sup>.

The majority of the best hospitals and clinics are concentrated in some of the most important cities within the country (Mexico city, Guadalajara and Monterrey). Recently several investors have started developing and upgrading health care centers along the border (specially in the largest border towns) in order to capture American demand for medical services. And regardless of the high costs of buying and importing equipment from the U.S., it was lately known that a group of Mexican companies from Sonora placed up to US\$10,000.00 in orders at Tempe Medical of Arizona<sup>12</sup>.

In the U.S., the health and medical care system is based primarily on private practice and fee-for-service with public health services. These are provided by the public health system of city, county or regional public health department clinics. And where present, federal funded community health centers provide care for those unable to afford private care. Hospitals are generally 'for-profit' with few large public hospitals available in the border area. People pay for care through public insurance programmes such as Medicare and Medicaid that serves the indigent and the elderly respectively (being eligibility and coverage their main limitations), or through private health insurance obtained by individuals and as 'health benefits' from employers, or from their own pockets. Even with some type of health insurance plan, people must often pay some amount from their own pockets for care.

Medicaid is a joint federal-state programme for health care assistance for the low income population<sup>13</sup>, and its eligibility is based on age and income level. In order to qualify for Medicaid benefits, an individual over 65 generally must have no more than US\$1,900.00 in assets , not including his or her house<sup>14</sup>.

On the other hand, Medicare is an insurance programme for health care for the aged (over 65). People are enrolled automatically when they reach the age of 65. Medicare is divided in two parts; part A covering services at participating hospitals and limited skilled nursing. Part B is a voluntary programme that pays for 80 percent of customary services at reasonable charges<sup>15</sup>. Although the wide coverage, Medicare does not cover dental work and outpatient pharmaceuticals.

The majority of these services are highly used by the increasingly aging American population. The elderly consume almost 40 percent of all health care<sup>16</sup>. Life expectancy rate in the U.S. is amongst the highest<sup>17</sup>, and it is expected that by the year 2050, an estimated 68 million persons (roughly 22 percent of the population) will be above 65, while those above 85 will increase 8 times to account for 5 percent of the total population<sup>18</sup>. Together with the increase of the aging population, there has been an increase in the number of elderly who have substantial incomes<sup>19</sup>.

Despite the U.S. huge health expenditures, there still are significant numbers of medically under served and some rural populations with very little or no access to health services. Many Americans as well lack health insurance<sup>20</sup>.

Within the U.S. side of the border there is high population contrast. Although some of the richest American states like California and Texas are located within this region, one of the largest concentration of medically indigent people live as well in this area<sup>21</sup>. Latin origin population is increasing as well as their life expectancy rates in many of the American border cities. A recent study reported that the total population of the border states was nearly 52 million residents, out of which 25 percent were of Latin origin (60 percent of all the Latino population in the country)<sup>22</sup>. Regardless of the fact that the migration issue has become a nationwide concern for Americans whose migration controls continue to tighten, several American

insurance companies have been benefiting from this issue. Because salaries in Mexico are lower, some insurance companies have developed health plans specially targeted on the Latin origin population, offering up to 100 percent coverage if medical services are consumed in Mexico. And recently new organizations called Preferred Provider Organizations (PPOs) and Health Management Organizations (HMOs) amongst others, are making direct contact with Mexican health providers arranging fixed prices per service in order to include them in their health policies. Cost and language has become a key element of the success of some of these new health organizations.

### **III.3 Existing studies on the provision of health services at the border area.**

Many studies with respect to the issue of medical services along the U.S.-Mexico border have been conducted by different organizations. Literature on this topic began to increase in the 1990s mainly as a direct result of two main issues: the increase in the Latin origin population at American border towns, and the opening of the Mexican market for investment as a direct result of the North America Free Trade Agreement (NAFTA) between Canada, the U.S., and Mexico.

These two issues produced different trends amongst the existing literature. From studies concerned with the control and/or eradication of transmissible diseases menacing the U.S. through the Mexican border, to the marketing studies seeking investment opportunities for the U.S. in the Mexican health market.

All these studies give different approaches to the existing situation with respect to health at the border area. Up to now thirty seven studies have been located. Four of them were conducted between 1986 and 1989 (see table 6), and the rest between 1990 and 1996 (see table 7). Thirty four of these studies have

been conducted by American institutions and organizations, two were made by Mexican institutions (Chacon-Sosa, 1986; and Salido et al., 1996), and only one by researchers from both countries (Denman, C., Nichols, A. 1991). This shows how little attention has been given to the growth of this trend at the Mexican side of the border. Although these studies have different focus, they were selected on the basis of being amongst the only existing literature in this topic, and because they have several things in common: they all acknowledge the existing trend of Americans using Mexican medical services, plus, they all give glimpses of motifs used by users of medical services in order to justify their preferences. A general analysis of these studies arranged by year is made as follows and the most important data resumed in tables 6 and 7.

### **III.3.1 A study in Hermosillo, Sonora in Mexico.**

Chacon-Sosa, and Otalora-Soler (1986), along with a group from the Mexican School of Public Health in Hermosillo, Sonora, conducted in 1986 an exploratory study of 462 service providers following 'empirical evidence that a considerable number of U.S. residents were crossing the border to Mexico motivated in part by their demand for health services available in Mexico and particularly in the border area'<sup>23</sup>. The purpose of the research was to 'explore and identify the extent of that phenomenon in order to generate the information necessary to orient decision-making policies and design health programmes for the United States-Mexico Border area and strengthen existing programs'<sup>24</sup>.

A total of 342 physicians and 120 dentists were interviewed. Of this total, 35.8 percent treated patients living in the U.S., (118 physicians and 48 dentists). Dentistry was the type of health service most utilized by U.S. residents (40 percent compared to 34.5 percent for medical providers). According to the findings, 95.8

percent of the health providers were in private practice and only 4.2 percent in institutional practice. The type of medical specialties sought by U.S. residents were pediatricians, cardiologists, internists and ear, nose and throat specialists. This was one of the first researches that, although does not mention the issue of comparative advantages in the provision of medical services in Mexico, shows the fact that Americans were seeking Mexican medical services. Due to the type of study, the findings were not able to be generalized, and no more subsequent studies were conducted by any Mexican institution or organization as a result of this one. In 1996, another Mexican study on this issue was conducted, departing from a different issue.

### **III.3.2 The Yuma case in Arizona.**

In 1988 Guernsey de Zapien et.al. (1988), from the University of Arizona, conducted research based on the decline in the utilization of the migrant clinics in the state of Arizona and the current development of three different insurance plans that provided health care in Mexico, using data from 1985 to 1988. The origin of this decline was traced since the end of 1982, when three different insurance plans for farm workers to provide health care in Mexico were developed. The cost of providing services to a patient in Mexico was covered 100 percent if the worker chose to use Mexican facilities, while only 8 percent was covered at a U.S. facility. In addition, many workers were able to extend the coverage and include their family members who were unable to enter the U.S. legally.

As part of the same research, it was reported that in a survey conducted by the Rural Health Office in the Mexican border town of San Luis, Rio Colorado, 61 percent of the Mexican physicians surveyed stated that they saw patients who lived or worked in the United States. While the financial incentive of 100 percent



coverage was a major factor attracting Americans, also included were several other factors classified in the area of 'cultural sensitivity and outreach' such as:

- more confidence and trust in Mexican doctors (immediate diagnosis and treatment and a more personal approach);
- the ability to be seen almost immediately - no long waiting periods;
- the ability to communicate directly with the doctor and not have to speak through an interpreter (language); and
- hospitals' regulations, in the U.S. hospital regulations are more strict, not allowing family members to stay.<sup>25</sup>

There were no strong impacts as a result of this study within the American health sector, nonetheless, the health insurance market began to consolidate.

### **III.3.3 The Brownsville Case in Texas.**

Belkin (1988) reported on October 17, 1988 in the New York Times:

*"...less noticed but equally common are the trips to Mexico by American citizens who have given up on the American health care system. Sometimes their destination is not a doctor, but a pharmacy, where antibiotics and other drugs can be gotten more cheaply and without a prescription."<sup>26</sup>*

Belkin found that 44 percent of the residents of Brownsville, Texas received their health care in Mexico. At the same time, at San Elizario (a small town 20 miles southeast of El Paso), two thirds of the residents crossed to Mexico for medical services when they were sick. Amongst one of the most interesting issues was the case of pregnant American women who were making regular trips to Mexico, reversing the more common practice of Mexican women<sup>27</sup>. Lower medical fees were found to be the most important attribute<sup>28</sup>. And many of the trips that Americans made to Mexico were to visit pharmacies mainly because the price of medicines in

Mexico is often half that of similar medicines in the United States. And besides they were able to buy over the counter the same medicine that required a prescription in the United States (like antibiotics, antihypertensive drugs and some narcotic painkillers). Although it is illegal to take these medications into the U.S., a high percentage of customers going to the local Mexican pharmacies were from across the border.

#### **III.3.4 Provision of Mexican health services to American nationals.**

Warner (1989) from the University of Texas, begins his study by analyzing the barriers and opportunities offered by the Mexican health care system. Departing from the fact that there is a high disparity of the per capita income between Mexico and the U.S., he visualized an opportunity for the American government to extend some medical public services through Mexico. He pointed out that U.S. residents who use Mexican services usually seem to do so because those services are less expensive or they are seen as being more appropriate<sup>29</sup>. Apart from this, he found that 12 percent of the U.S. retirees (that are Social Security recipients) are living in Mexico, and due to the increase of the aging population, retirement in Mexico appeared to offer less expensive options with regard to nursing care for retirees. The main obstacle, as he observes, is that in general the government entitlement programmes for medical care (Medicare and Medicaid) will not reimburse for care given in another country.

#### **III.3.5 The use of American health services by Mexican nationals.**

Zinnecker (1990) from the University of Texas, conducted a study in order to measure the number of Mexicans using American medical services at the Texas-Mexico border. The results show that quite a few Mexicans used American medical

services. The majority of the users were border town dwellers seeking mainly quality of care and paying for their services in full. She reported as well that several border providers recommended the need to have clinics funded equally by Mexico and the U.S. in order to meet health needs such as labor and delivery, preventive services and routine care<sup>30</sup>.

### **III.3.6 The Tijuana Case in Baja California.**

Guendelman and Jasis(1990) from the University of California at Berkeley conducted a survey in the Mexican city of Tijuana, just opposite to the California border, based on what was seen as a growing concern that the indigent health care burden in the Southwestern United States was caused in part by Mexican residents who cross the border to use U.S. health services<sup>31</sup>. Interestingly, the results indicated that 40.3 percent of the Tijuana population surveyed (a random stratified analytic sample of 660 households that included a total of 2,954 persons) used health services exclusively in Mexico during a 6 month period, compared with only 2.5 percent who used services in the United States. Of the Mexican users of U.S. services, the largest proportion appeared to be older people, lawful permanent residents or citizens of the United States who were living in Mexico, of whom many had participated in the U.S. labor force before relocating in Mexico and thereby hold documentation to enter the U.S. legally. Approximately 27 percent of them had private U.S. insurance. And other were persons from high or middle income sectors. In addition to the low level of use of U.S. health services, the findings showed that more than 84 percent of the visits were to providers in the private sector and for 59 percent of the visits, a fee for services was implied. The study concluded that as opposed to the initial hypothesis, the border population of the city of Tijuana did not seem to be a drain on the U.S. public health system.

### **III.3.7 The Palomas - Columbus experience**

A study on cooperation in health care across the U.S.-Mexico border conducted by McConnel et. al. (1990) at the Palomas-Columbus border area revealed that due to the lack of insurance coverage among the American poor and a lack of coverage by Medicare for medicines and dental services, 46 percent of Americans were buying their medications on the Mexican side of the border, while only 40 percent of Anglo families made exclusive use of U.S. dentists. At the end it was found that Mexican American residents of Columbus went in any numbers for medical care in Mexico. Several proposals to make adjustments to the Medicare increasing its coverage were made without any positive results.

### **III.3.8 Utilization of American medical services by Mexican nationals in Arizona.**

Nichols et. al. (1991), from the University of Arizona conducted other research (a mail survey of the 1,011 Arizona health care providers) whose main goal was to assess the utilization of American medical services by Mexican nationals. According to the findings, 70 percent of the respondents reported seeing at least one Mexican national per week in 1988. An additional 10 percent saw less than one Mexican national per week. A median figure of 10 percent said that the care delivered to Mexican nationals by border providers was reported to be uncompensated, while an additional 10 percent was delivered at a reduced fee. Of the providers who felt that the use of U.S. health services by Mexican nationals was problematic, the majority listed uncompensated care as the primary problem.<sup>132</sup>

The study concludes that, although the number of Mexican nationals using private health services was rather low, the main problem in this case was the uncompensated care.

### **III.3.9 Health without borders**

Again Nichols (1991), using data from his previous Arizona study, departed from the conclusions made in his last report about the minimal use of health services in the U.S. by residents of Mexico. And that for services used in the U.S. by residents of Mexico, there was a low rate of uncompensated care and a high rate of sliding-scale discounted payments to the private providers of health services. Therefore, as he re-analyzed the issues, the fact that Mexican users of American health services were not paying for the consumed services could not be generalized as such, for there was always some sort of compensation.

### **III.3.10 Health issues at the U.S.-Mexican Border**

Warner (1991) produced a paper related to the issue of health at the border. He concentrates his research in the need of binational initiatives in the areas of environmental health and sanitation. He concludes by saying that, due to the importance the border area has been gaining as the result of binational trade, both countries should set themselves the tasks of improving the environment, providing access to basic health care and strengthening public health activities along the 3,000 kilometers of border.

### **III.3.11 Dental services on the Texas - Mexico border.**

Baez (1991) also from the University of Texas, made a study with respect to the availability and accessibility of dental services on the Texas-Mexico border. The results were used to deplore what was seen as a maldistribution of dentists in the American side of the border. Nevertheless, by tracing down mainly the differences in the dentists' education and training, he arrived to the conclusion that the quality of some Mexican dental services was very similar to the American services. This

was proven by the fact that the largest number of people crossing the border seeking for dental care were residents of the U.S. going to Mexico. Low costs and similar quality were the main reasons given for crossing to Mexico. He concluded also that, being these the facts, there was a strong need of continuous dental education seminars in Spanish, and a cooperative effort of federal and state agencies, policy makers, community health centers, private practitioners, academic institutions and students for the design, implementation and support of long term solutions to the problem of availability and accessibility of dental services in the U.S.-Mexico border region<sup>33</sup>

### **III.3.12 A second report on the Tijuana Case.**

Guendelman (1991), from the University of California at Berkeley produced a second report on the Tijuana case using the data collected during the 1986 survey. In this occasion the main concern was to find if the users of American medical services were undocumented and/or indigent Mexican people, and to some extent, what factors were determining the choice of selection between the U.S. and the Mexican health system. According to her findings, from the users surveyed, only 7 percent sought services in the United States while 93 percent sought services only in Mexico. It was concluded that among some of the most significant factors that determined the selection of medical services of U.S. medical services were:

- possessing a U.S. insurance,
- transportation,
- older age and male gender<sup>34</sup>.

Interestingly, the study concludes that, due to the fact that the majority of the Mexican users of American medical services were upper middle class; that more than 50 percent were U.S. residents or citizens and approximately 27 percent had

private U.S. insurance, the border residents who crossed over to the U.S. for health care, could not be considered undocumented, nor indigent patients<sup>35</sup>.

### **III.3.13 Crossing the border for bargain medicine in Nogales.**

In 1991 Catalina Denman from El Colegio de Sonora in Mexico, and Andrew Nichols from the University of Arizona (Denman, C., Nichols, A., 1991), conducted a survey on the issue of Americans buying pharmaceuticals in Mexico. They were able to find that due to the fact that 92 percent of the population of Nogales, Arizona are Hispanics (and 87.7 percent of Mexican origin with friends and relatives in Nogales, Sonora), and because medicines can cost in Nogales, Sonora up to 75 percent less than in the United States, the American population of Nogales, Arizona make the trip to Nogales, Sonora in Mexico to buy medicine. Interestingly, once they are at the Mexican side of the border, they make use of medical and dental services also. Family ties, culture, history, education, language and economy were the main reasons given for doing the trip. The study concludes by stating that, although there is a need for a binational system of health care delivery, there is also a paramount need to establish stronger regulations with respect to prescriptions and access to pharmaceuticals in Mexico.

### **III.3.14 Binational cooperation**

A study by Ortega (1991) in the promotion of binational cooperation to improve health along the U.S.-Mexico border, discusses the Primary Health Care Review (PHCR), a project funded by the Carnegie Corporation and the Pew Charitable Trust in 1989 as a result of the wide recognition that people cross the border in both directions to seek health care. This project took place at the border sites of Cameron County- Matamoros, both Nogaleses, and San Diego-Tijuana, and

included research, education and training on binational health issues. The project focused on maternal and child health, adolescent health, working women's health, the utilization of health services and environmental health. The main conclusions were that, due to the fact that diseases know no boundaries, there was a strong need to continue with these binational cooperation health programmes in order to prevent transmissible diseases entering to the U.S. through the Mexican border .

### **III.3.15 A third report on the Tijuana case.**

With information from her previous study, Guendelman (1991) produced a report on the impact on women's health of the maquiladoras. Depression and high levels of stress were amongst the illness associated to the maquiladora activity. Overweight and cervical cancer were also reported as recurrent illness. The study concludes that there is a need to improve the use of preventive health services within the maquiladora industry, as well as to improve supervisory capacity in the plants by investing in supervisor training. Due to the fact that the majority of the maquiladora workers are covered by the Mexican public health system, no attention was given to these recommendations by the maquiladora owners nor by the local health department.

### **III.3.16 A fourth report on the Tijuana case.**

On a fourth report on the Tijuana case, Guendelman along with Monica Jasis (1992) tried to find a correlation between the fact that in California, one in three births was of Hispanic origin, and the fact that there was an allegation that stated that, large immigration flows of young Mexican women to the U.S.-Mexico border supposedly were increasing the demand for maternity services in the Southwest<sup>36</sup>. Data on 184 women, 15-44 years old, who gave birth between 1982 and 1987, were



examined. Of those 184 Tijuana women whose most recent delivery occurred between 1982 and 1987, only 10.4 percent gave birth in the U.S., and 89.6 percent in Mexico.

The findings indicate that the majority of Tijuana female residents seeking U.S. maternity care were upper-middle class and had a history of close contact with the United States. Similar to other Mexican nationals using health services in the United States, most women sought care in the private sector and paid for these services primarily by themselves or with private insurance. The report concluded that according to the evidence found it appeared that 'residents of Tijuana represented a low burden on publicly funded health care in California.'<sup>37</sup>

### **III.3.17 Americans giving up on the American health system.**

A study conducted by Families U.S.A. (1992), and made public by Hilts (1992) in 'The New York Times', tackled again the issue of the use of Mexican medical services by Americans criticizing the American Health care system:

*'...quality and low cost of medical care lure Americans to Mexican doctors... Americans living near the border routinely cross to Mexico for medical care rather than pay higher prices for similar care and identical drugs in the United States.'*<sup>38</sup>

According to the findings from a survey conducted on 242 doctors in Mexico and 318 Americans who go to Mexico for health care, one quarter of the patients of Mexican doctors's located along the border from Texas to California were American nationals. This situation, as it was explained, was a direct result of the differences in costs per visit that in some cases were between 20 to 50 percent less of the U.S. gross cost for those not having insurance coverage. Sixty one percent of the patients surveyed said their chief reason for going to Mexico was price<sup>39</sup>. Twenty percent said they went chiefly because they liked the personal attention they

received from Mexican doctors, and eighty percent of the patients said they would prefer to go to doctors in the United States if the cost was lower or the style of practice more personal. About 90 percent said they felt the care they received in Mexico was of good or excellent quality<sup>40</sup>. Although this research was used to strongly criticize the American health system, it was not considered 'reliable' by Washington officials<sup>41</sup>.

### **III.3.18 Epidemiological issues on the Mexico-U.S. border.**

Selwyn et.al. (1993) presented a paper on the 'Epidemiological Issues in Family Health Along the U.S.-Mexico Border' during a PanAmerican Health Organization (PAHO) Symposium held in El Paso Texas on February 1993. The paper showed that due to the rapid population and industrial growth in the border area, the implementation of NAFTA and other arrangements, a strong impact on the health of the population of the area was to be felt. They identified a high rate of infant mortality from the Mexican side of the border due to infectious and nutritional causes, and a low immunization rate among young children. Adolescent and children accidental and violent death rates were found high as well. As conclusions, there was a strong recommendation for the improvement of maternal and child care, by developing portable prenatal records<sup>42</sup>

### **III.3.19 The Lower Rio Grande Valley experience**

A study conducted by Thompson (1993) with respect to the trips made by Mexican-Americans to the Mexican border revealed that 13.7 percent of them had visited a doctor in Mexico, 28.3 percent had visited dentists in Mexico and 19.1 percent purchased medicines in Mexico, while 10.9 percent had used a '*curandero*' (witch doctor) or an herbalist during that year. The survey was conducted at the

Lower Rio Grande Valley, and the majority of the people interviewed accepted that language and costs were amongst the most important reasons for traveling to Mexico for health care.

### **III.3.20 Americans crossing the border.**

Warner and Reed (1993) from the University of Texas, compiled and summarized several works conducted on the topic of border health services in their book 'Health Care Across the Border: The Experiences of U.S. Citizens in Mexico'. Parallel to the review of the issue of U.S. citizens using Mexican health services and Mexican citizens using American health services, the reimbursement policies of Medicare, Medicaid and veterans benefits are analyzed in order to see whether they could pay for services in Mexico.

The report in general presents information with respect to the Mexican health care system, the utilization of facilities and providers by Mexican residents both along the border and at the U.S. and Texas hospitals, and the characteristics of those from Mexico who use South Texas Veterans Administration (VA) clinics and facilities. Information on visa categories in Mexico is included, alternative corporate organization in Mexico, rules for foreign ownership, and accreditation criteria of the Joint Commission on Accreditation of Health Care Organizations (JCAHO). This has been one of the most important books on this topic produced up to now, and the first to compile the work of different people around the same issue: the fact that Americans are actually using Mexican health services. Warner and Reed dwell on the possibilities and opportunities for the American government to reduce its health expenditure by extending their health programmes (Medicare and Medicaid) into Mexico.

### **III.3.21 The role of Mexico.**

Following the same line of thought, Warner (1993) continued with his research insisting on the need to open up Medicare and Medicaid policies into the Mexican health system in order to reduce the U.S. health expenditure.

Nursing home care for the elderly was his major concern due to the fact that private pay rates for 24-hour care in a nursing home in the U.S. ranges from US\$30.00 to US\$150.00 per day, amounting to a minimum of US\$10,000.00, something that is beyond the resources of many retired persons<sup>43</sup>.

Skilled nursing is another issue that is foreseen as being less expensive in Mexico. While in the U.S. the average cost to Medicare for a day's care in a skilled nursing facility is about US\$100.00, in Mexico the same qualified services costs between US\$15.00 to US\$25.00 a day<sup>44</sup>.

The main reasons given for stating that retirement to Mexico is a viable option were: a greater accessibility; lower costs; and more favorable reimbursements.

### **III.3.22 Consumer choice and financing mechanisms**

A study conducted by Vogel (1993) brings some light with respect to the choices and paying mechanisms used by American residents when going to Mexico for health services. According to the findings, cross-border consumer choice is a function primarily of the price of the good or service, household income and perception of quality (including culture). This was revealed as a result of the paying mechanisms being that 96 percent of Americans purchasing services in Mexico used cash, while only 4 percent made use of their insurance.

### **III.3.23 Care for Hispanic women**

A study by Wallace et.al. (1993) called 'Maternity care for Hispanic women who cross to the U.S. side of the Mexican border', reveals that from a group of 83 Hispanic women who crossed the border from Tijuana to San Diego and from a group of 452 Hispanic women residing in San Diego who received maternity care at the same facilities during the same period, the same explanations were given as significant reasons for crossing the border for care, being these:

- U.S. citizenship for the newborn;
- better medical care in the U.S.; and
- friendliness and receptivity of medical personnel.

Whether related or not, during that same year a migration law dealing with restrictions to grant the nationality of U.S. newborns of foreign parents began to be developed . This proposal argued that, if the parents were not able to demonstrate their legal status during the six months previous to the birth, the American nationality would no be granted to the newborn. The proposition is still being analyzed for approval. Nonetheless, according to the existing laws, if the parents are deported, the child goes too; but at age 18 can go back legally to the U.S. an be on his or her own, and after turning 21 the parents will have priority to migrate<sup>45</sup>.

### **III.3.24 Health care and NAFTA.**

The following year, on the 'Health Services and Free Trade in North America: Challenges in an era of Reform' seminar, held at the University of Texas at Austin, Warner(1994) presented a paper on the issue of the effects of NAFTA on health care. He classified the type of Americans that go to Mexico mainly in three groups<sup>46</sup>:

- American retirees or others who have relocated to Mexico to live rather than work;

- tourists or persons staying for relatively short time; and
- persons who have moved to pursue a job or a career.

He found that between 150 thousand American retirees live in Mexico, and that due to the rapid expansion in size of the Mexican origin population in the American border towns, it is likely that the attractiveness of the option of retiring south of the border will increase<sup>47</sup>. He pointed that an estimated 5.4 million American tourists go to Mexico each year, and that some of them use medical services at any one point of their stay. Finally the issue of pharmaceuticals was analyzed, pointing that some pharmaceuticals from the same manufactures can be available in Mexico for one third to one-tenth of the cost in the U.S.<sup>48</sup>. He concluded by saying that although personal living conditions at the border area might seem quite rural, most U.S.-Mexico border dwellers live in highly urban areas, and that many Mexican physicians have provided reasonably sophisticated services in many of the smaller U.S. border cities, therefore the importance of this region becomes even higher for the development of future health programmes and policies.

### **III.3.25 Potential for American investments.**

In 1994 the Project Identification Mission (P.I.M.) prepared a study for the U.S. Trade and Development Agency on the opportunities for U.S. participation in the expansion of the Mexican health care system (P.I.M., 1994). The study suggests that the major areas of the health care industry for potential U.S.-Mexico investments are: equipment sales; construction facilities; insurance products; management opportunities; and medical personnel education<sup>49</sup>. Although they warn of potential pitfalls, they conclude that several factors make the environment for investing in the Mexican health care very favorable, these include:

- existence of an increasing segment of the population able to afford

private care;

- governmental policy changes that will permit the patient to select certain type of private care at government expenses;
- a need for at least 30 tertiary hospitals of more than 100 beds over the next ten years;
- a steady growth of private insurance industry;
- existence of adequate sub-specialists in the majority of the communities able to provide excellent care;
- improved availability of financial resources for facility growth; and
- enhanced interests of U.S. companies in investing their capital in Mexican projects<sup>50</sup>.

### **III.3.26 Cross border utilization on the Texas area.**

Stys (1994) from the University of Texas, produced a paper on the cross border utilization of medical services between Mexico and the U.S., with special attention on the Texas area. By analyzing different surveyed cases, he arrived at the conclusion that there was a substantial cross-border utilization of medical services along the U.S.-Mexico border, and that many Americans used dental care, medical care and medicine purchases in Mexico<sup>51</sup>. Cost was the main reason given for traveling to Mexico. And on the case of Mexicans using American medical services, concluded that, although there was a minority of Mexican nationals that used American health services, the majority paid for them. The fact that they paid at lower rates or do not paid at all, still existed as a problem. Stys also addresses the issue of the important role the U.S.-Mexico Border Health Commission, should play in ensuring that residents of both countries receive the highest possible quality of health care. He was foreseeing three problems in this task:

- the large price differentials between the price of medical care in Mexico and the U.S.;
- a huge bureaucracy would need to be created to develop, implement and verify any compensation plan (resources could be better spent supplying direct medical services to the border residents; and
- a plan that paid providers for uncompensated care could cause an explosion of cross-border utilization of medical services. He concludes that due to the fact that there are no scientific means of measuring the amount or costs of delivering care, further research in this area is needed<sup>52</sup>.

### **III.3.27 Patient transfer and emergencies.**

Moss and Felkner (1994) from the University of Texas, did a survey with respect to the issue of patient transfers between Mexico and the U.S. in cases of emergency. Beginning with the fact that there is a huge difference between the status of Mexican and American ambulances, they found as well that ambulances do not cross the border. Several reasons were given; from the American point of view, American ambulances do not cross the border to Mexico mainly because they are bound by city ordinance or state regulations. Distrust of Mexican officials, lack of knowledge of the Mexican legal system and fear of theft were the main reasons given for their unwillingness to enter Mexican territory<sup>53</sup>. Another important issue mentioned was the traffic congestion faced at the border crossing points and the lack of communication between emergency services from both countries. Although there is a Binational Emergency Medical Care Committee operating in California, there still is a need to reinforce the communication and transfer policies between the two countries<sup>54</sup>. From the Mexican side, ambulances do not cross the border mainly



because the typical lack of citizenship documentation for ambulance attendants, lack of insurance coverage in the U.S., and the unwillingness of U.S. doctors to accept patients coming from Mexico<sup>55</sup>.

### **III.3.28 The Potential use of Telemedicine.**

Stappenbeck (1994) was dealing with the issue of the potential use of Telemedicine<sup>56</sup> between the U.S. and Mexico under NAFTA. According to this study, while NAFTA's apparent thrust is in the non-discriminatory trade of goods, the issue of telecommunications and health care management are services that are covered under chapter 12 of NAFTA<sup>57</sup>. Although Telemedicine requires a high and sophisticated telecommunication network, Stappenbeck found that the telecommunications infrastructure problems in Mexico are no different than they are in the rural communities of south Texas. And that due to the fact that two American telecommunication companies (AT&T and Sprint) are already present in Mexico<sup>58</sup>, the potential use of Telemedicine in Mexico is viewed as possible, with the only problem being the final cost of the system.

### **III.3.29 Telemedicine case study**

A study by Schneider et.al. (1994) analyzes the advantages versus cost of employing highly sophisticated equipment in health services. The study focuses its attention towards the new emerging Mexican health market. According to their findings, Telemedicine has been well accepted in Mexico, and the infrastructure needed to put it into work is present, specially at the large cities like Mexico city, Monterrey, Guadalajara, and the border cities of Tijuana, Mexicali and Hermosillo.

The study concludes that due to the fact that under NAFTA, tariffs for goods classified in the "A" category (including computers, telecommunications and medical

equipment) were eliminated as of January 1, 1994, the market for the United States vendors of such equipment, was being enormous.

### **III.3.30 Of physicians and dentists in Arizona**

A study conducted by Homedes (1995) at the Arizona-Sonora border with respect to the role of physicians and dentists in the utilization of health services, concluded that:

- more patients went from the U.S. to Mexico (6,225 per month), than from Mexico to the U.S. (3,626 per month) because the cost of medical services were lower;
- 9 percent of the U.S. providers reported that Mexican patients made use of insurances as paying mechanism;
- 4 percent of the Mexican providers reported that Americans paid with insurance;
- 89 percent of Sonora patients used cash and only 9 percent used insurance to pay physicians in Arizona;
- 96 percent of Arizona patients used cash because their insurances were not valid in Mexico, while only 4 percent made use of their valid insurance to pay physicians in Sonora.

Being the situation like this, the study concludes with a need to direct more attention to the development of medical services south of the border as an alternative for high cost American medical services.

### **III.3.31 Issues and innovations for the Texas health insurance industry**

For his degree of Masters of Public Affairs, Stys (1995) presented a report called 'Crossing the Border for Private Care: Issues and Innovations for the Texas

Health Insurance Industry', where he was able to demonstrate that comprehensive health care coverage for U.S. nationals receiving care in Mexico is not widely available. A survey conducted on over 100 companies, no HMO's nor PPO's, revealed that they include Mexican providers practicing in Mexico for members who live near the Mexico-Texas border. Only two companies responded that any services in Mexico would be reimbursed at out of network benefit rates. In his conclusions Stys recommends that there is a strong potential for American insurance companies to extend their coverage to Mexican border towns. Nevertheless he warns that this investments should be analyzed and studied on a long term.

### **III.3.32 Tijuana clinics**

A study conducted by Wolper (1995) on 'Alternative care clinics in Tijuana', revealed that there were approximately 12 such clinics offering alternative care for cancer in Tijuana. Coincidentally, the majority of these alternative cares were not generally available or approved in the U.S. Further more, the majority of the patients were of American origin. He found out that cancer clinics in Tijuana have existed since 1950, and that many of these clinics were and still are operated by practitioners from the U.S. Another interesting observation was that nine of the twelve clinics were concentrated in locations near the international port of entry making it easy for tourist to arrive.

### **III.3.33 NAFTA and health services**

During the 1995 PanAmerican Health Organization Colloquium held in Monterrey, Mexico, Warner presented a paper on NAFTA and Health Services (Warner, 1995). The document dwells on the need to develop cross border and joint

training programmes, cross border certification and licensure, the use of Telemedicine and telecommunications, third party payment for services across the border, the need for joint researches and the need to develop unified cross border delivery systems. He concludes that in doing so, both countries can improve the standard of living of most citizens.

### **III.3.34 International Telemedicine**

A study by Youman (1996) on international Telemedicine applications between the United States and Mexico, discusses the current projects being explored by a variety of organizations. Current U.S.-Mexico Telemedicine projects include a demonstration project between hospital Angeles del Pedregal in Mexico city and Massachusetts General hospital; the Arizona International Telemedicine Network linking sites in Arizona and Hermosillo, Mexico; and a project of Hughes Electronics and ISSSTE linking a hospital in Chiapas, Mexico to a tertiary care hospital in Mexico city. Despite the high costs of Telemedicine, its use has been widely accepted and recognized within the Mexican health market as a way to deliver high quality health services to remote locations.

### **III.3.35 The Algodones case in Mexico**

A study conducted by Salido et.al. (1996) from the Mexican Centro de Investigaciones Agricolas y del Desarrollo (CIAD) in Hermosillo, named: 'Los servicios de salud en Mexico: una forma de integracion fronteriza' (*Health services in Mexico: a transborder integration form*) analyzes the development of the service sector at the northern Mexican region. She emphasizes the evolution of medical services and the transborder integration potential by analyzing the case of the small Mexican town of Algodones, located at the intersection between the U.S.-Mexico

border and the Colorado river. With a population of nearly 2,000 people, every year this town is the recipient of a large number of American retirees who seek a better climate and accessible dental services for a period of 4 to 6 months. There are approximately 50 clinics, out of which 40 are dental clinics, and up to 20 of them can be found wall to wall at the same block along with opticians, drugstores and bars. For some reason, she argues, the structure of health services is not structured in order to recognize this international demand.

The study concludes that there is a need to improve the physical conditions of the town, thus to promote the development of this new market. Also, although she does not analyze the existence of comparative advantages, she concludes that there is a strong possibility that they have become competitive in the provision of dental services, and that in order to demonstrate this case there is a need to study the increase in the number of jobs created as a result of this demand.

### **III.3.36 Workforce issues**

A study on workforce issues and options in the border states, conducted by David Hayes-Bautista (1996) revealed the dramatic increase in the Latino population of the American border cities, specially the area of California. As he points out, of the total population of the border states (nearly 52 million residents), 25 percent is of Latino origin. Furthermore these states concentrate 60 percent of all the Latino population in the country. Of all the states, California concentrates 7.687,938 (million) Latino residents (25 percent of the state population) with approximately 2.6 million (roughly 33.8 percent of the Latino population in California) uninsured. Interestingly the Latino profile was summarized as having:

- low mortality rates;
- long life expectancy;

- high morbidity;
- healthy birth outcomes;
- low services utilization; and
- low rates of insurance coverage.

He also found that there are approximately 600,000 Hispanics living in the San Diego county, and approximately 60,000 San Diego workers are living in the city of Tijuana with between 80,000 to 100,00 dependants. He was also able to find that there are approximately 320,000 American retirees living in San Diego and approximately 50,000 American retirees living in the State of Baja California in Mexico.

With a panorama like this, he concludes that there is a need to develop a vision of a truly binational, bicultural society; to foster the emergence of a political and civil leadership that shares that vision; to encourage the emergence of organizations which are built along the lines of that vision; but most of all, to create health care service structures that are consistent with the health profile of the border population.

### **III.3.37 Cross border health services**

Another study made by Schneider (1996) shows clearly that the number of Americans crossing the border to Mexico for medical services is increasing. By analyzing data from previous reports (some of them already mentioned in this chapter), plus running a survey on Latin origin people living in the city of San Diego who travel to Tijuana for medical services, he concludes that the main consumer of Mexican medical services are the Latin origin population. As this is a growing population, he concludes that in order to reduce the impact of that amount of money

being spent outside the United States, there is a need for the development of better organized structures and mechanisms for coordinated transnational delivery of health services that will address the unmet needs in the market.

### **III.4 CONCLUSIONS.**

The provision of health at both countries is different as it was seen. And in both cases there are different gaps that to some extent are being covered by the private sector. Interestingly and due to the proximity, some of the gaps existing within the American health system are beginning to be covered by the Mexican private health sector.

From reviewing the existing studies on health along the border, several trends can be observed. As it can be seen in table 8, the information shared by the studies can be organized in six main groups. There is a group of studies concerned with health status, and the control and/or eradication of transmissible diseases (Ortega 1991; Guendelman 1991b; Selwin et.al. 1993; Moss-Felkner 1994; and Hayes-Bautista 1996). Another group of studies have migration control issues and to some extent xenophobic implications (Zinnecker 1990; Guendelman-Jasis 1990 and 1992; Guendelman 1991a; Nichols et. al. 1991; and Wallace 1993). A third group of studies concentrate on criticizing the American health system (Guernsey 1988; Belkin, 1988; McConnel et.al. 1990; Families U.S.A., 1992; and Vogel 1993). A fourth group dwell in the tendency of Americans using Mexican health services along the border (Chacon-Sosa 1986; Nichols 1991; Baez 1991; Denman-Nichols 1991; Thompson 1993; Stys 1994; Homedes 1995; Wolper 1995; and Salido 1996). A fifth group takes into consideration the possibilities of using the Mexican health system as a way to reduce the U.S. expenditure on health (Warner 1989, 1991,

1994 and 1995; and Warner-Reed 1993). And very recently (coinciding with NAFTA coming into operation), a sixth group deals with marketing studies of American opportunities to invest in the private health sector in Mexico (P.I.M. 1994; Stapennbeck 1994, Schneider et.al. 1994; Stys 1995; Youman 1996; and Schneider 1996). It is interesting to see that although almost all studies realize the issue of Americans traveling to Mexico for medical services, only 9 actually see it as a new trend. It is true that the studies dealing with American investment opportunities and the reduction of American health expenditures also are aware of this trend, but at the end they focus on different tasks. Highly important in this area has been the work of Dr. Warner, whose line of research has taken him to actually develop a proposal to extend Medicare services into Mexico. Seen at a different perspective, these efforts could be understood as an exercise to foster international trade in medical services between Mexico and the United States.

Although the analyzed studies were not intended in general to seek elements of C.A., some of the information they share can be adapted in order to upgrade the model of C.A. in medical services suggested in the last chapter. By tracing the explanatory issues from tables 6 and 7 it can be seen that some of the arguments given, tend to be repetitive within specific characteristics. Thus becoming the basis of the elements that can be related to the existence of C.A. As it can be seen on table 9, elements such as the presence of skilled physicians, dentists and nurses, low cost of medical services, better personal treatment, good quality services, no long waiting periods, easy access and infrastructure, proximity to the United States, and easy border crossings to Mexico can be strongly related, to factor conditions.

The increasing number of American nationals retiring to live at Mexican border cities, or traveling from the U.S. to Mexican border towns for various reasons, as well as an increasing demand of Mexican medical and dental services



as well as Mexican pharmaceuticals by American nationals can be related to demand conditions.

The proximity and presence of U.S. suppliers of medical equipment (either new or refurbished), and the supply of (low cost) Mexican pharmaceuticals, can be related to related support industries.

The rise in cost of American medical services; the poor medical coverage of Medicare programmes, and the unaffordability of health insurance programmes by a large number of American nationals in the U.S., along with the differences in salaries, and the differences in controls over prescriptions and medicines between the two countries, and the devaluation of the Mexican peso, can be related to chance.

For one reason or other, up to now neither government has played a major role in the development of this sector. Therefore, the only issues that can be related to governmental interventions are the ones related to telemedicine (an issue that the Mexican government has seen as a way to deliver medical services to remote areas), and the border crossing facilities issue, a policy that the Mexican government has seen as important due to the influx of tourists to the city.

Despite the fact that the issue of trade in services has been officially analyzed since 1985 (UNCTAD,1985), it was not until the 1997 Conference (UNCTAD,1997) that the topic was seen as advantageous for developed and developing countries. It can be said that up to now neither country has realized the full potential of developing international trade in health services between them. The Mexican government has not been aware of it. The American government is beginning to realize its importance, mainly as a way to reduce its health expenditure. The only sector that up to now has been able to realize its potential, is the American private health insurance.

Although the suggested model of C.A. in health services looks convincing, it is only a theoretical approach. In order to verify the existence of C.A. on the Mexican side of the border, the proposed model of C.A. has to be tested within a real context. This was done by select a border location and conducting a survey with respect to the provision of medical services. The next chapter explains the selection of the area of study and the following chapters dwell on the survey.

## REFERENCES.

1. Morales, R. and Tamayo, S. (1992)(p.59).
2. Ibid. (p.63).
3. Herzog, L. (1989)(p.118).
4. Kjoos, K. (1992)(p.2).
5. Project Identification Mission. (1994)(p.10).
6. Sole, C. (1993)(p.79).
7. Project Identification Mission. (1994)(p.36).
8. A new C.A.T. scanner sells for US\$45,000.00 while a refurbished one can be obtained from US\$15,000.00  
(Beachy, D., 1994; p.36).
9. Project Identification Mission. (1994)(p.36).
10. Schneider, P. et.al. (1994)
11. Mendoza, E., and Rangel, R. (1994)(p.25).
12. Mitchel, L.A. (1994)(p.42).
13. Included within this category are: the aged, blind, and/or disabled families with dependant children, pregnant women and children, and people whose income and/or resources are in excess of the standard for categorically needy coverage.  
(Watson, S., 1993)(p.170).
14. No more than a car in which there is little equity and some personal belongings.  
(Wilson, K., 1993)(p.192).
15. For part B the enrollee pays a premium of about US\$46.00 a month, and Medicare covers 80 percent of the determined fee. Part B covers physician services, medical services and supplies, home health care services, outpatient hospital services, outpatient hospital therapy, laboratory and diagnostic tests, x rays, radiation therapy, home dialysis supplies and equipment, physical and speech therapy, and ambulance service.  
(Watson, S., 1993)(p.173).
16. Fuchs, Victor. (1993)(p.14).
17. Life expectancy rates at birth for the U.S. were:
  - in 1991: 76 years (World Bank Development Report, 1993)(p.238)
  - in 1992: 77 years (World Bank Development Report, 1994)(p.163)
  - in 1994: 77 years (World Bank Development Report, 1996)(p.188)
  - in 1995: 77 years (World Bank Development Report, 1997)(p.214)

18. Warner, D. (1989)(p.4).
19. Ibid.
20. According to a 1994 report, nine million Americans were without health insurance from January through September 1990, and sixty million had no coverage for at least one month during that time.  
(Modern Health Care, 1994)(p.2).
21. Border Health Report.(1993)(p.7).
22. Hayes-Bautista, D. (1996).
23. Chacon-Sosa, F., and Otalora-Soler, M. (1986)(p.27).
24. Ibid
25. Guernsey de Zapien, J., Meister, J., and LaBrec, P. (1988)(p. 1).
26. Belkin, L. (1988)(p.A1).
27. A normal delivery in most United States costs more than US\$1,000.00, while delivery by a local Mexican 'partera', or midwife, who uses no painkillers, costs US\$200.00  
(Ibid).
28. According to one of the physicians interviewed, he was able to keep his medical fees lower than in the U.S. mainly because of the differences in salary. According to his estimates, the salary of the average nurse in the U.S. was enough to pay for three nurses in Mexico.  
(Ibid).
29. It is estimated that by the year 2050, 68 million persons (roughly 22 percent of the population) in the U.S. will be above 65, and due to the fact that retirement expenditure is very high in the U.S., Mexico is a feasible alternative.  
(Warner, D., 1989)(p.2).
30. Zinnecker, A. (1990)(P.186).
31. Guendelman, S., and Jasis, M. (1990)(p.575).
32. Nichols, A., et. al. (1991)(abstract).
33. Baez, R. (1991)(p.48).
34. Guendelman, S. (1991)(p.419).
35. Ibid.
36. Guendelman, S., and Jasis, M. (1992)(p.419).

37.Ibid. (p.424).

38.Hilts, P. (1992)(p.A11).

39.Mexican doctors charge an average of US\$25.00 a visit, though 40 percent charge less than U.S.\$20.00, the doctors reported. In contrast American doctors charge two-and-one half to three times that amount for an office visit.  
(Ibid).

40.Families U.S.A., (1992).

41.A spokeswoman in Washington for the American Medical Association was interviewed in this respect and stated that '*there were significant doubts about the study. A survey of 242 doctors is not a scientific study by any stretch of the imagination.*' she said. '*We have access problems in the U.S., but to conclude that Americans are heading south in any significant numbers is ludicrous. This survey is a poor attempt to bash the American health-care system.*'  
(Hilts, P.,1992; p.A11).

42.Selwyn, B.J., et.al.(1993)(p.14).

43.Warner, D. (1993)(p.10).

44.Ibid.(p.12).

45.Telephone interview with Dr. David Warner from the University of Texas at Austin. September 1st., 1997.

46.Warner, D. (1994)(p.3).

47.The true number may be between 150 - 200 thousand.  
Observation made by Dr. David Warner during telephone interview, September 1st, 1997.

48.Warner, D. (1994)(p.9).

49.Project Identification Mission. (1994)(p.5).

50.Ibid.

51.Stys, J. (1994))(p.13).

52.Ibid. (p.15).

53.Moss,K., and Felkner,M. (1994)(p.4).

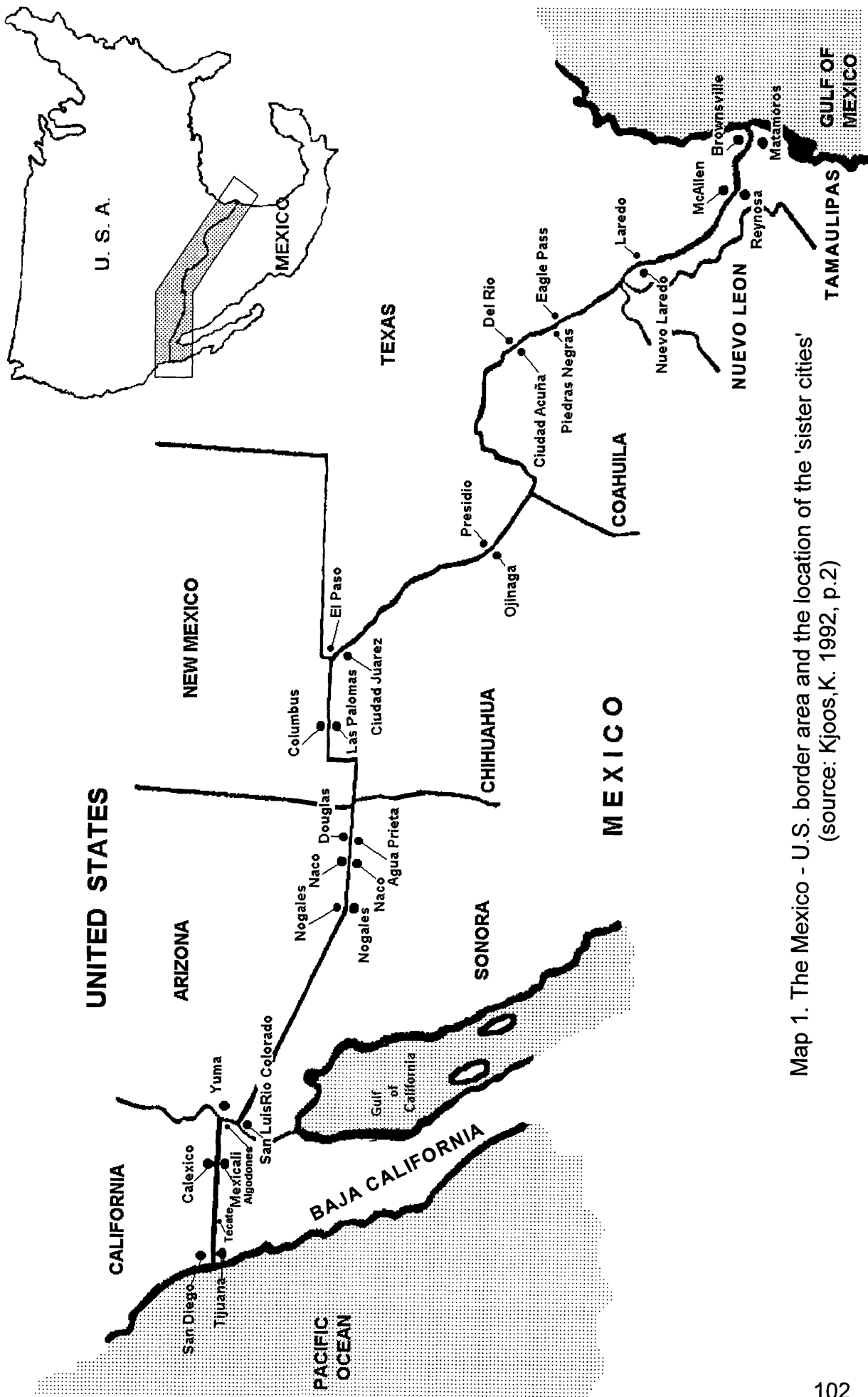
54.Personal interview with Celia G. Diaz, Executive Director of the Binational Emergency Medical Care Committee in Chula Vista, California, U.S.A. September 1994.

55.Moss,K., and Felkner,M. (1994)(p.5).

56. Telemedicine is defined as 'the use of telecommunications to deliver medical care (diagnostics, treatment or consultation), medical education, and medical and patient data from one location to another. (Stappenbeck, S., 1994)( p.3)

57. Chapter 12 of NAFTA deals with 'Cross Border Trade in Services' in general, and telecommunications are included.  
NAFTA.(1992).

58. The American telephone company 'AT&T' is active in Mexico in conjunction with the Mexican telephone company 'TELMEX'; and the American company 'Sprint communication' has a video hookup from Mexico to the U.S.  
(Stappenbeck,S.,1994.) (p.11).



Map 1. The Mexico - U.S. border area and the location of the 'sister cities'  
 (source: Kjoos, K. 1992, p.2)

TABLE 5. Population of Border Sister Cities.

(source: Kjoos, K.S., 1992, p.3)

	1990		1980	
	Metropolitan area	City	Metropolitan area	City
Tijuana, Baja California	742,686	688,690 <sup>2</sup>	461,257	428,500
San Diego, California	2,498,016	1,110,549	1,861,846	875,538
*Tecate, Baja California	51,946	38,787 <sup>2</sup>	30,540	23,900
Mexicali, Baja California	602,390	438,303 <sup>2</sup>	510,664	341,599
Calexico, California	109,303	18,633	14,412	14,412
*Ensenada, Baja California	260,905	239,815 <sup>2</sup>	175,425	120,483
San Luis Rio Colorado, Sonora	111,508	105,933 <sup>2</sup>	92,790	76,768
Yuma, Arizona	106,895	54,923	62,550	43,433
Nogales, Sonora	107,119	102,124 <sup>2</sup>	68,076	65,603
Nogales, Arizona	29,676	19,489	15,680	15,680
Agua Prieta, Sonora	39,045	32,778 <sup>2</sup>	34,380	28,862
Douglas, Arizona	**97,624	17,324	13,058	13,058
Naco, Sonora	4,636	3,906 <sup>2</sup>	4,441	3,742
Naco, Arizona	**97,624	675	768	768
Las Palomas, Chihuahua	16,565	2,500 <sup>2</sup>	11,985	2,072
Columbus, New Mexico	18,110	641	414	414
Ciudad Juarez, Chihuahua	797,679	787,788 <sup>2</sup>	567,365	544,496
El Paso, Texas	591,610	515,341	479,899	425,259
Ojinaga, Chihuahua	23,947	20,972 <sup>2</sup>	26,421	18,162
Presidio, Texas	6,637	3,072	1,723	1,723
Ciudad Acuna, Coahuila	56,750	52,983	41,948	38,898
Del Rio, Texas	138,721	30,705	30,034	30,034
Piedras Negras, Coahuila	98,177	96,178	80,290	67,455
Eagle Pass, Texas	36,378	20,651	21,407	21,407
Nuevo Laredo, Tamaulipas <sup>1</sup>	219,468	218,413	203,286	201,731
Laredo, Texas	133,239	122,899	99,285	91,499
Reynosa, Tamaulipas	376,676	332,755	294,934	429,929
McAllen, Texas <sup>3</sup>	383,545	84,021	283,229	66,281
Matamoros, Tamaulipas	303,392	266,055	238,840	188,745
Brownsville, Texas <sup>4</sup>	260,120	98,962	209,727	84,997
U.S. County Non-Sister City Total	1,312,820	-	NA	-
Mexican Total	3,812,889	3,427,980	2,842,642	2,580,821
U.S. Total	5,772,694	2,070,886	3,094,032	1,684,453
TOTAL	9,535,583	5,498,866	5,936,674	4,265,274

<sup>1</sup> Includes population data for the city of Rio Bravo.<sup>2</sup> Estimated data (Mexican Census Bureau).<sup>3</sup> Includes Edinburg and Mission, Texas.<sup>4</sup> Includes Harlington, Texas.

\*Not included among fourteen sister city pairs.

\*\*Population data are for Cochise County, Arizona, which includes the cities of Naco and Douglas.



YEAR	1986	1988	1988	1989
RESEARCHED BY	Chacon - Sosa	Guernsey	Belkin	Warner
COUNTRY / AREA	Mex./Sonora	U.S./Arizona	U.S./Texas	U.S./Mexico border
MAIN HYPOTHESIS OR THEME	U.S. Residents are using Mexican medical services in the border region	Decline in the use of migrant clinics in Arizona by Hispanic farm workers	Americans giving up the American health system	Mexican provision of health services to American citizens: Barriers and opportunities
MAIN FINDINGS	35.8 percent of Mexican physicians treated U.S. patients. 95.8 percent of physicians were in the private practice	American life insurance plans covering 100 percent of costs if medical services are used in Mexico	Americans seek Mexican medical services and pharmaceuticals	12 percent of the U.S. Social Service recipients are living in Mexico
EXPLANATORY ISSUES	Low costs of Dentistry; Pediatricians; Cardiologists; Internists; Ear, nose and throat specialities.	More confidence and trust in Mexican doctors; No long waiting periods; Language; Less strict hospital regulations	Low cost of medical services; Low cost of medicines; Less restrictions over medicines and prescriptions	Medical services are less expensive in Mexico; 'More appropriate'; Less expensive pharmaceuticals; Less expensive dental services

Table 6. Some research works conducted between 1986 and 1989.



1994	1995	1995	1995	1995	1996	1996	1996	1996
Schneider et. al.	Homedes	Stys	Wolper	Warner	Youman	Salido et.al.	Hayes-Bautista	Schneider
U.S./ Mexico border	U.S./ Arizona-Sonora border	U.S./ Texas	U.S./ California	U.S./ Mexico border	U.S./ Mexico	Mexico/ Algodones-Sonora border	U.S./ Mexico border	U.S./ California
Telemedicine Case Study; Mexico can be a potential market for Telemedicine technology	The role of physicians and dentists in the utilization of health services in the Arizona-Sonora border	Crossing the border for private care; issues and innovations for the Texas Health insurance industry	Tijuana clinics; alternative therapies	NAFTA and health services	International Telemedicine applications between the U.S. and Mexico	Health services in Mexico: a transborder integration form	Workforce issues and options in the border states	Cross border health services between the U.S. and Mexico
The private medical sector in Mexico can afford the investment. The only problem is the lack of telecommunications infrastructure.	More patients go from the U.S. to Mexico for health care; 96 percent of them pay in cash; only 4 percent use insurance	Very low insurance coverage in Mexico	The majority of patients are American nationals; clinics mainly operated by American doctors; clinics located near the port of entry	A need for cross border training programmes; cross border certification and licensure; use of telemedicine and telecommunications; third party payment for services across the border; joint researches and a unified cross border delivery system	Current projects taking place between Mexican and American hospitals and between Mexican hospitals within the country; no major technical problems	American retirees and the elderly travel south of the border to the Mexican border town of Algodones, for periods of 4 to 6 months seeking better climate and dental and optician services; 40 out of 50 are dental clinics	Latino population is increasing in the American border cities, specially at the State of California	Increase in the number of Americans going to Mexico for medical services; mainly the Latino population go to Mexico for this purpose
Certain border cities like Tijuana and Mexicali are use the optic fiber technology in telecommunications.	Lower costs in Mexico; insurance are not always valid in Mexico	Lack of confidence in order to invest in Mexico	Alternative care and treatments offered are not generally available or approved in the U.S.	A need to improve the health standard of living of most citizens along the border	Despite the high cost, it has been widely accepted	Bilingual physicians, costs, socio-cultural ties and geographic proximity are amongst the main attractions for American patients.	Need to create a health care service structure consistent with the health profile of the border population	Need to develop a better organized structure and mechanisms for coordinated transnational delivery of health services

Tendency \ Year	Health status and transmissible diseases	Migration control and xenophobia	Critics towards the U.S. health system	U.S. residents using Mexican health services	Reduction of the U.S. health expenditure	Possibilities of American investments
1986				Chacon-Sosa, 1986		
1988			Guernsey, 1988 Belkin, 1988			
1989					Warner, 1989	
1990		Zinnecker, 1990 Guendelman/ Jasis, 1990	McConnell et.al., 1990			
1991	Ortega, 1991 Guendelman, 1991b	Nichols et.al. 1991 Guendelman, 1991a		Nichols, 1991 Baez, 1991 Denman/Nichols, 1991	Warner, 1991	
1992		Guendelman/ Jasis, 1992	Families U.S.A. 1992			
1993	Selwyn et.al., 1993	Wallace, 1993	Vogel, 1993	Thompson, 1993	Warner, Reed, 1993	
1994	Moss/Felkner, 1994			Stys, 1994	Warner, 1994	P.I.M., 1994 Stappenbeck, 1994 Schneider et.al., 1994
1995				Hornedes, 1995 Wolper, 1995	Warner, 1995	Stys, 1995
1996	Hayes-Bautista, 1996			Salido et.al., 1996		Youman, 1996 Schneider, 1996
<b>TOTAL</b>	5	6	5	9	6	6

Table 8. General tendencies found at the existing literature on medical services at the Mexico - U.S. border area.

PROPOSED MODEL OF COMPARATIVE ADVANTAGES IN MEDICAL SERVICES	EXISTING 'ATTRIBUTES' IN THE LITERATURE ON MEDICAL SERVICES AT THE BORDER AREA
<p>■ <b>FACTOR CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Human resources,</li> <li>- Physical resources,</li> <li>- Knowledge resources,</li> <li>- Capital resources,</li> <li>- Infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of physicians, dentists, nurses, laboratory technicians, paramedics, etc.,</li> <li>- Existence and availability of hospitals, clinics and operation infrastructure.</li> <li>- Availability of well trained physicians, dentists, nurses, laboratory technicians, paramedics etc., and the means for constant preparation,</li> <li>- Access to capital, credits and sources of finance needed to upgrade and maintain in operation hospitals and clinics.</li> <li>- Availability of the necessary infrastructure in order to have proper access to hospitals and clinics.</li> </ul>
<p>■ <b>DEMAND CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Home demand composition,</li> <li>- Demand size and pattern of growth</li> <li>- Internationalization of domestic demand.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of local demand for specific medical services,</li> <li>- Increase in the size and pattern of demand for these medical services,</li> <li>- Possibility of the existence of international local demand for these medical services.</li> </ul>
<p>■ <b>RELATED AND SUPPORTING INDUSTRIES</b></p> <ul style="list-style-type: none"> <li>- Competitive supplier industries,</li> <li>- Competitive related industries.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive suppliers of medical equipment,</li> <li>- Existence of competitive industries or activities related to medical services.</li> </ul>
<p>■ <b>FIRM STRATEGY, STRUCTURE AND RIVALRY</b></p> <ul style="list-style-type: none"> <li>- Domestic firms,</li> <li>- Goals,</li> <li>- Domestic rivalry.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive hospitals and clinics,</li> <li>- Existence of specific competitive goals within hospitals and clinics,</li> <li>- Existence of various hospitals and clinics that will compete between each other in the production of medical services.</li> </ul>
<p>■ <b>CHANGE</b></p> <ul style="list-style-type: none"> <li>- Pure invention,</li> <li>- Technological discontinuities,</li> <li>- Discontinuities in input costs,</li> <li>- Significant shifts in world financial markets,</li> <li>- Surges of world or regional demands,</li> <li>- Political decisions by foreign governments.</li> </ul>	<ul style="list-style-type: none"> <li>- Possibilities of local inventions and/or medical breakthroughs,</li> <li>- Availability of alternative technologies or techniques,</li> <li>- Sudden creation of a regional demand for specific medical services,</li> <li>- Other country (or countries) has decided to send their patients to this country.</li> </ul>
<p>■ <b>GOVERNMENT</b></p> <ul style="list-style-type: none"> <li>- Subsidies and Policies,</li> <li>- Standards or regulations,</li> <li>- Capital market regulations, tax policies, antitrust loans.</li> </ul>	<ul style="list-style-type: none"> <li>- Government subsidies for medical services and / or related activities,</li> <li>- Government standards or regulations for the production of medical services,</li> <li>- Governmental capital regulations, tax policies and loans to promote the production of medical services.</li> </ul>

Table 9. Comparative analysis between the proposed model of C.A. and the attributes identified in the existing literature on medical services at the Mexico - U.S. border area.

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## **CHAPTER IV. THE TIJUANA-SAN DIEGO REGION**

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#### **IV. THE TIJUANA - SAN DIEGO REGION**

After analyzing the existing studies on health along the Mexico-U.S. border, the evidence show that there are some C.A. in the provision of medical services on the Mexican side of the border. Nevertheless, in order to verify the development potential of this sector and identify with more precision the elements related to C.A., two surveys were conducted at the Mexican border city of Tijuana. This city was selected mainly for three important reasons:

- Tijuana, together with its 'sister city' of San Diego in the United States have a current population in excess of 3.5 million<sup>1</sup>, making the Tijuana-San Diego region the most populated region in the border area.
- From the approximately 5 million monthly border crossings that take place between the city of Tijuana and its 'sister city' San Diego in the United States, 250,000 border crossings are made from the U.S. to Tijuana to obtain medical or dental services<sup>2</sup>; and
- Medical services are well developed in the area.

The development of the cities of Tijuana and San Diego has always been strongly related since they were founded. History, social and cultural ties as well as economic activities have been responsible for the existing relationship between both cities. Despite what it looks as an uneven development, both cities have been able to rely in what they have, sharing what they have and, to some extent, complementing each other in what they lack. In order to understand why this relationship exists, a brief explanation of how both cities have developed is needed.

#### IV.1 THE HISTORY OF TWO CITIES

The Tijuana-San Diego region is located west, at the intersection between the Mexico - U.S. border line and the Pacific Ocean. Although both cities are part of different countries, they are located in a large geographical area, sharing the same natural characteristics like climate, topography, vegetation and resources (see maps 2a and 2b). Similar to the other pairs of cities along the border, a sense of regionality has also emerged.

The evolution and development of Tijuana from its origins to the present day has been tied to its northern neighbor, San Diego, in California. This relationship has generated an unusual urban growth and an intense relationship that many people see as an economic dependency. The interesting fact is that this dependency takes place at both sides of the border. Something that is not always easy to understand, for at the end their relation is more a complementary one.

Since the border line was drawn at the end of the war between the U.S. and Mexico in 1847, both cities became more related than before (see table 10). Mexican origin families formed the base of the population in San Diego, therefore the division between the two countries was not able to stop the social, cultural and family ties. Tijuana at that time was no more than a 'Rancheria' that the Arguello family obtained by concession from the Mexican government. A passing through place for all those going north to San Diego. Actually it was the only resting place nearby and soon a 'Fonda' (restaurant) was developed by the well known Tia Juana (Aunt Jane), an old lady who after all was responsible for the name of the city: Tia Juana ranch became Tijuana ranch. The new settlement, as the rest of the border cities, was politically, economically and geographically isolated from the rest of Mexico, therefore it became easier to have access to San Diego, located less than



20 miles north for the provision of goods, than to travel 100 miles south to the port of Ensenada or make the 2,000 miles trip to Mexico city in order to obtain goods.

Mr. Arguello died without making a will, thus leaving his family with the problem of dividing the land amongst his ten children. It was in 1889 that the first general plan for the city of Tijuana was made. A Mexican engineer, formed in the French tradition of city planning was sent to Tijuana with two main tasks. First, to solve the division of land between the Arguello family; and second, to produce the layout of the new settlement that was rapidly growing. The first plan of the city shows the oldest part of the settlement developing adjacent to the U.S. border gate and the customs house built in the early 1870<sup>3</sup>. As Mexico became independent from Spain in 1828 after the last Spanish base in Mexico was expelled from the Fort of San Juan de Ulua (Veracruz), the new Republican line of thought was to avoid all ideas related to the Spanish colony period. Therefore the 'Law of the Indies' with respect to the foundation of new towns was not taken in consideration in Tijuana. In this case the orientation and layout of streets was made following the border line. Governmental buildings and the church did not share an open plaza. And the first official name of the city 'Tijuana de Zaragoza' was given after one of Mexico's most important Republican heroes: Ignacio Zaragoza. During this period, U.S. influence increased and capital resources from southern California flowed over the border into Tijuana, transforming it from a cattle ranch into an urban settlement fueled mainly by the economic boom in southern California<sup>4</sup>. In the early decades of the twentieth century, while San Diego began its prosperous tuna industry (1900s), Tijuana evolved into a repository for U.S. capital, particularly linked to 'recreational' interests. Amongst some of the U.S. investments that helped reshape Tijuana were a railroad line built from Yuma, in Arizona through Tijuana and on to San Diego in 1885. In

1911 as Mexico was trying to overthrow the dictatorial government of Porfirio Diaz by means of an armed movement (the Mexican Revolution), at the Tijuana-San Diego border area a different type of war was fought. Ricardo Flores Magón, a Mexican socialist thinker, leader of the Mexican Liberal Party and also a former member of Francisco I. Madero's Mexican revolutionary movement, concentrated all his efforts in order to organize a separatist movement at the border area in order to create the 'First Socialist Republic' in the State of Baja California. After 3 years in jail in Los Angeles accused of violating the neutrality laws<sup>5</sup>, Flores Magón, along with his brother and the support of the International Workers of the World movement (I.W.W.), organized an army in Los Angeles using a group of American war veterans and volunteers (later called Filibusters).

With a population of 462 inhabitants, the border city of Mexicali was the first to be attacked and taken by an army of 17 men. The city of Tijuana was later taken by an army of 220 men led by war veterans Caryl Rhys Pryce and Sam Wood. There was strong resistance from Tijuana's army formed by 115 people ( the majority of which were volunteers). The city of Tijuana was held for 45 days, until reinforcement from the Mexican army arrived from the port of Ensenada, located 100 miles south<sup>6</sup>. The Filibusters were successfully expelled from the cities of Tijuana and Mexicali. As a result of these invasions, the population of Tijuana was notably reduced. Nevertheless, due to the fact that there were still many Mexican origin families in San Diego, very soon the social and commercial relations were initiated and the settlement re-established.

By 1915 the 'Panama-California Exposition' took place in San Diego. This event was seen by San Diego and Tijuana's investors as an opportunity to attract tourism to Tijuana. So the 'Tijuana Fair' was organized at that same time, having as

a main attraction, a horse track just yards from the border crossing and east from the Tijuana river.

Following the passing of the prohibition laws of 1919 in the U.S., several breweries and wine factories were built in Tijuana. Another racetrack replacing the previous one was built, and even a rudimentary airport for small private aircrafts was built, together with gambling houses, hotels, bars and other tourist facilities that developed near the border crossing, resulting in an economic boom for the city. Taking advantage of this economic growth, during the 1920s Tijuana improved its economic infrastructure. New roads, bridges and other facilities were built in order to facilitate the access from the U.S.

The 1929 depression in the U.S. led to a repatriation of more than one-half million Mexicans that were legally working in California, filling the shortage of labour created by World War I. Many of these workers stayed in Tijuana. By 1935 the Consolidated Aircraft Corporation (later known as General Dynamics) moved to San Diego from New York, becoming the largest civilian employer. San Diego's population reached 289,000 people by 1940. Parallel to this, between 1934 and 1940 and similar to the other border towns, Tijuana's was near economic collapse. Its geographic location (far from rest of the country) caused high costs of living mainly because all goods were brought and imported from San Diego. To compensate for this effect, the Mexican government created the 'zonas y perimetros libres' (a duty-free zone) allowing the entry of foreign goods and commodities into Tijuana and the rest of the border towns. Although Tijuana's economy recovered and its population nearly doubled<sup>7</sup>, as a result its economy became 'dollarized'. This is to say that the Mexican currency (peso) was not commonly used in Tijuana, everything was priced in U.S. dollars, bank accounts were held in U.S. dollars, even salaries were paid in U.S. dollars.

During World War II, new military bases were built in the San Diego area, employing thousands of workers from all over the U.S. A shortage of agricultural labour led the American government to establish a bilateral agreement (the 'bracero programme') with the Mexican government in 1942. Mexican field workers were allowed to cross the border legally to meet the demand for labour in the U.S. Many of the people who worked periodically in the U.S., were skeptical, and fearing another repatriation policy similar to the one in 1929, preferred to stay in Tijuana, commuting to San Diego on a daily basis<sup>8</sup>. Tijuana also became a point of attraction for elements of the American Navy and Army based in San Diego, who on weekends crossed the border to enjoy Tijuana's lifestyle. Bars, restaurants and cabarets were rapidly developed as the demand increased.

As a result of competition from South America and Japan in the tuna industry, and a slump in the aircraft industry, San Diego's economy was hurt during the 1950s. Increases in shipbuilding and missile production helped balance the losses. At this time also, public health services in Tijuana began to develop as part of the National Health programme. At the beginning, private facilities were subcontracted to attend some of the most complex medical services, like delivery and surgery. Some of Tijuana's oldest hospitals and clinics were built during this period. During the early 1960s, economic conditions in Tijuana began to deteriorate under the weight of an increasing population growth, high unemployment and an overburdened infrastructure. By the year the bracero programme ended (mid-1960s) the global economy had entered a period of economic restructuring that reshaped the ties between Mexico and the U.S. Developing countries were becoming competitive in the manufacture of many goods due to the employment of low-cost labour.

In Tijuana, tourism from San Diego was minimum due to a sharp decline in the aerospace industry in the early 1960s. In an effort to revive the economy and reduce the high unemployment, the Mexican government engaged in two main border area programmes: the 'Programa Nacional Fronterizo' (National Border Programme or PRONAF), aimed at infrastructure improvement and beautification in the border cities; and the 'Programa de Industrializacion Fronteriza' (Border Industrialization Programme or PIF) dedicated to the promotion of economic growth and development.

The PRONAF began in 1961 and provided funds for the construction of buildings, paving roads and extend utilities to industrial parks. All of these projects encouraged investment in tourist facilities both by the Mexican private sector and by U.S. companies. Amongst the most important projects conducted in Tijuana were the widening of Revolution avenue (the city's main tourist avenue), followed by the development of the River Zone which had two main goals. Firstly it was aimed at controlling the floods during the rainy seasons, and secondly it was oriented also to the removal of shanty towns and irregular settlements that were located there (known as 'cartolandia' or cardboard city) in the 1970s. Irregular settlements were allocated at a different area, and the new development became a modern tourist-oriented zone<sup>9</sup>.

The PIF was aimed at alleviating the high unemployment in the border area. The establishment of *maquiladoras* (assembly plants) was authorized in specially designated zones. Dual incentives enticed U.S. firms to move part of their production to Mexico, taxing only the value added (labour) of goods transformed during these stages of production<sup>10</sup>. When the programme opened in 1967 there were 72 U.S. plants in operation in Mexico. And by 1985 there were 735 plants employing over 20,000 workers and generating over one billion dollars annually in

foreign exchange<sup>11</sup>.

Between 1965 and 1976, the Vietnam war caused an upswing in military/defense activities in the U.S. San Diego became a production center of sophisticated equipment. Some Tijuana residents that were legal migrants, were employed thus commuting to San Diego on a daily basis. As previously, the majority of the tourists visiting Tijuana were elements of the Navy and the Army based in San Diego. This time, as roads were improved and better communication links established, the weekend trips included Rosarito and Ensenada along the Pacific coastline, triggering the development of the coastline also as a tourist oriented corridor, where expensive hotels and housing can be found.

By the mid 1970s, the economic relationship between San Diego and Tijuana continued to grow. Trans-border retail trade, tourism, industrial development, real estate transactions, and labour migration, were bringing the two border cities into closer contact<sup>12</sup>. Since 1954 up to 1976, the Mexican economic situation seemed steady. In 1976 after a series of world economic changes and several economic adjustments, the Mexican government initiated a gradual devaluation of its currency. The effects of these adjustments had a terrible effect on the border cities in general. Tijuans realized the problem of not having access to Mexican goods. San Diegans on the other hand took advantage of this situation traveling to Tijuana to buy all sort of goods. A shortage of milk, bread and meat was felt in Tijuana, while Mexican government was trying to adjust the country's economy. American communities that developed between San Diego and Tijuana, like San Ysidro, Chula Vista and National City, faced the lost of all their Mexican customers and some of its American ones too. A large drop in sales was felt and a special Federal Economic Aid to compensate for the effects of the Mexican devaluation of the peso on American border commerce was granted by the U.S. Federal Government to the

California Chamber of Commerce. On the Mexican side of the border, the devaluation of the peso increased the number of American investments, and more maquiladoras began to settle as the economic situation became rather stable.

During 1980, a heavy rain season started flooding the Tijuana river estuary, causing severe property damage to land in the flood plain on the U.S. side of the border. This situation gave way to the opportunity to make public all the pollution problems existing along the border: sewage water from Mexico passing through rivers to the U.S., toxic wastes released into rivers crossing to the U.S., and so on. The terms 'binational planning' and 'trans-border cooperation' began to appear in the print media and public forums as a solution<sup>13</sup>. This led to the First Comprehensive Border Pollution Control Accord, signed in 1983 by U.S. President Ronald Reagan and Mexican President Miguel de la Madrid in order to form a framework for environmental cooperation<sup>14</sup>. By 1988, as the economic situation began to settle, Tijuana's service economy began to recover. San Diego was riding a wave of economic expansion. Many manufacturing companies were settling in Tijuana, and this time not just American ones, but Japanese, Korean and German ones appeared as well.

Almost ten years after the 1983 First Comprehensive Border Pollution Control Accord was signed, the first 'Border Environmental Plan' was produced by the Mexican Secretaría de Desarrollo Urbano y Ecología (SEDUE) and the U.S. Environmental Protection Agency (EPA). By February 1992 the U.S. and Mexican governments released a version of the environmental plan, containing sections on urban development, wild life conservation, protection of marine resources, pesticide control, pollution prevention and an expanded section on environmental health<sup>15</sup>.

This included the construction of an International Wastewater Treatment Plant located in U.S. territory and to be completed in 1995 that will solve the problem of raw sewage spills from Mexico traveling to San Diego through the Tijuana river<sup>16</sup>.

By 1992 and after several negotiations, the governments of Canada, the United States and Mexico engaged on a Free Trade Agreement (North America Free Trade Agreement or NAFTA) that was put in action on January 1st, 1994. Maquiladoras were allowed to locate not just in specially selected areas as previously, but wherever their owners deemed fit. As a result, a mobilization of labour was felt in Tijuana. Many labour-intensive jobs were lost, but the new semi-skilled ones began to appear as more sophisticated maquiladoras continued locating in Tijuana. As NAFTA facilitated the export of goods to the U.S., more foreign owned maquiladoras arrived in order to take advantage of that issue, employing low skill and semi-skilled labour<sup>17</sup>. Small electronic chips assembly, computerized equipment assembly, toys assembly, cardboard boxes cutting and assembly, paper and plastic bags assembly, computer diskettes assembly, television and computer monitors assembly, golf equipment assembly, surfboards and skateboards assembly, wooden furniture finishing, etc., were amongst the assembly plants that began to settle in Tijuana. As the demand for urbanized land increased, many 'industrial parks' appeared in different parts of the city<sup>18</sup>. And according to a recent report, it has been known that at present there are approximately 130,000 people engaged as workers in the maquiladora sector<sup>19</sup>.

#### **IV.2 POPULATION ISSUES.**

San Diego has been the most populous region along the border since at least the beginning of this century (see table 11). Parallel to this, Tijuana has grown to become the second largest city along the northern border (see table 5). Both cities



have growth rates above their national averages, with San Diego at 3 percent and Tijuana nearly double that.

Like the rest of California, San Diego has a highly diversified population not only with respect to Mexicans, but also there has been a notable increase in the number of Asians since 1965. This includes Indochinese refugees during the 1980s as well as Filipino and those from other parts of Asia, entering during the 1970s and 1980s<sup>20</sup>. Although it is true that the majority of San Diego residents are 'white, non-Hispanic' (65 percent), the increase in the Hispanic (largely Mexican origin) population has been rapid (see table 12). Furthermore, a recent study shows that in 1995 the Mexican origin population in San Diego reached 600,000 people, more than 20% of the population<sup>21</sup>. Nevertheless their distribution is uneven throughout the region, and there are areas that are largely Hispanic. Some of the main areas preferred by Hispanics are located along the motor way I-5 (Interstate 5) corridor that leads to Tijuana, south of downtown (the Logan's Heights or *Barrio Logan*), and down to the communities of Chula Vista and San Ysidro clustered around the U.S.-Mexican border (see map 3).

On the other side of the border, the effect tends to be similar. According to a recent report, there are approximately 60,000 American retirees living in the state of Baja California, out of which 30,000 are settled in Tijuana<sup>22</sup>. It has been found also that at present there are proximately 60,000 San Diego workers living in Tijuana that commute on a daily basis to San Diego<sup>23</sup>. This decision has been related to working purposes, health, leisure issues, and costs.

#### **IV.3 BORDER CROSSING FACILITIES AND TRANSIT.**

Commuting from one city to the other, although is rather easy, demands specific requirements from the frequent border crossers, specially the Mexican origin

ones. American law requires Mexicans to have either a passport with a valid visa or a 'border crossing card' issued by the American government to enter legally into the U.S. Although according to Mexican law, Americans entering Mexico (like tourists, visitors or local visitors) are required to have a permit, border city immigration officers in Mexico do not ask Americans for such permits. Therefore access to Mexican border towns is an easy process.

At present in the Tijuana-San Diego region, there are two land ports of entry providing legal access. The oldest one being the port of entry at San Ysidro, located near Tijuana's downtown area, having 24 gates for vehicles and 16 for pedestrians working mainly for tourist purposes, and some of the gates are open 24 hours a day. And the rather new port of entry at Otay Mesa, located towards the east, near the Otay industrial area, that has thirteen vehicular gates and 6 pedestrian gates available mainly for import and export of goods. It opens from 6:00 a.m., until 10:00 p.m. only.

Unfortunately not all the entries to the U.S. by Mexicans are legal. The issue of Mexican illegal migrants has become a serious concern between both countries, and the American government has increased its immigration controls and reinforced its vigilance along the border<sup>24</sup>.

The Tijuana-San Diego border is considered 'the busiest international crossing point in the world'<sup>25</sup>. According to a survey conducted in 1994 there were 5 to 6 million legal crossings northbound at both crossing points on a typical month<sup>26</sup>. Due to the fact that many American nationals live in Tijuana, and many Tijuana residents work legally in San Diego, 96 percent of these crossings were made by residents of the greater San Diego-Tijuana region. This is to say that

between 5 to 6 million monthly border crossings were made by approximately 313,000 'frequent crossers' or individuals that cross the border between 4 and 20 times per month<sup>27</sup>.

Mexicans cross legally to the U.S. on an average of 3.4 million trips a month (56.5 percent of all crossings), while Americans cross the border to Tijuana on an average of 2.6 million trips a month (43.5 percent of all crossings). Some of the reasons given by Tijuana residents to cross the border to San Diego are social visits (2.4 million trips), shopping (1.8 million trips), tourism (700,000 trips), working (500,000 trips), and other purposes (1.2 million trips)<sup>28</sup>. The largest number of trips from San Diego to Tijuana are made by first time crossers or individuals that cross less frequently than once a month (30 percent of the trips). Very frequent crossers (those crossing at least 20 times or more each month) account for only 15 percent of the visits to Tijuana. General tourism (i.e. seeing the sights and tourist related activities as eating in restaurants, attending sport events, gambling, etc.) accounts for 35 percent of the trips (roughly 910,000 trips); these visits range from 15 minutes to as long as 2 weeks<sup>29</sup>.

Americans working in Tijuana (mainly at the maquiladora industry) are responsible for approximately 100,000 trips a month (3.8 percent). Over one million trips are associated with social visits (38.4 percent), and an additional 30,000 trips (1.15 percent) are made primarily for other purposes, but include a social visit as a secondary reason<sup>30</sup>.

Shopping in San Diego is an integral part of life of many Tijuana residents, and they have become an important part of San Diego's Economy. This explains why during the 1976 devaluation of the Mexican peso, several American border towns suffered the consequences of losing their Mexican origin customers. Tijuana area residents spend approximately \$2.8 U.S. billion in San Diego annually. The primary shopping

destinations are in the South Bay area of San Diego County, with 50 percent of all visits to Chula Vista and 16 percent to San Ysidro<sup>31</sup>.

Expenditures made by Americans returning from Tijuana totaled at least \$2.6 U.S. billion a year. And considering that approximately 50 percent of all social visits were related to expenditures of up to \$1.5 U.S. billion a year, this gives a rough expenditure of \$4.1 U.S. billion a year. Although this is a conservative estimate from a complete expenditure report were 'extremely large reported expenditures' were excluded<sup>32</sup>.

As it was explained earlier, U.S. citizens are increasingly choosing to live in Tijuana even though they work in San Diego. Between 10,000 to 40,000 individuals who cross to work in San Diego each month accepted being American citizens. Some of them with flexible time schedules that allows them to live along the pacific coastline, despite the long traveling distances to their job sites<sup>33</sup>.

Interestingly another reason given by border crossers for making the trip across the border was to visit a doctor or a dentist. Approximately 300,000 border crossing events each month accomplished this task. Of these crossings, 50,000 were visits to the U.S. for the services, and 250,000 were visits to Mexico. This is to say that there were an average of 1,660 daily trips to San Diego to receive medical services while there were 8,333 daily trips to Tijuana for the same purpose<sup>34</sup>.

Compared to other reasons for crossing the border to visit Mexico, seeking medical or dental services as the primary purpose accounts for more crossing events than does shopping (222,249) or work (113,495). Thus becoming visits for medical and dental services the third major reason for a visit to Mexico, after social visits and tourism. On the other hand, seeking medical or dental services in the U.S. is a relatively insignificant reason for making the border crossing<sup>35</sup>.

It is important to emphasize this issue due to the fact that the ratio between trips to San Diego and Trips to Tijuana related to medical or dental services is 1 to 5. Being Tijuana the one having the highest demand for medical and dental services by American nationals. An interesting fact when this issue is considered as a foreign demand for medical services.

#### **IV.4 THE PROVISION OF MEDICAL SERVICES IN THE SAN DIEGO-TIJUANA REGION.**

Both countries have different approaches to health care issues. While in the U.S. the public sector deals with some health issues, it is the private sector who plays the most important role. In contrast, in Mexico the public sector deals with the majority of health issues, leaving the private sector only to play a rather small part in the provision of health. As it was explained in last chapter, in the U.S., public health care is provided only to the very poor by means of the MEDICAID programme, and to those over 65 years of age through MEDICARE programme. The poor can also get services through public clinics and hospitals supported by federal government and local taxes. But undocumented persons or residents of cities or counties without these facilities are much more likely not to receive services. In general, people not covered by MEDICARE or MEDICAID have to deal with health issues by means of private health insurance or by paying fee-for-service each time they need health assistance. In general health insurances are rather expensive, and this leaves a large group of people unable to afford such insurances. It has been reported that in San Diego there are approximately 1.6 million people without health insurance, out of which approximately 400,000 are of Latin origin<sup>36</sup>. Besides from this, most health insurance plans apart from being expensive, do not cover pharmaceuticals or dental work.

Physicians in the U.S. must be licensed medical doctors in order to offer their services. The majority of them are in the solo practice of medicine, that is, they practice by themselves. Although there has been an increase in the number of physicians practicing in group settings of 3 to 5 physicians. Some of these small groups are single specialty groups and limit their practices to general practices. Other larger groups (of more than 10 physicians) prefer the multi specialty approach, and in doing so they are able to offer a variety of medical services within the same place. Physicians in the U.S. are amongst the highest income earners. Incomes above \$250,000 U.S. dollars<sup>37</sup> per year are not uncommon, particularly among some specialties, and there is a growing concern as to the social acceptability of such high incomes.

Hospitals in the U.S. are licensed to operate by state government. The application of professional standards comes principally from an accreditation process made by the Joint Commission Accreditation of Health Care Organizations (JCAHO). While not compulsory, the JCAHO accreditation is the best measure there is for assurance to the public that the hospital meets high professional standards, as assurance of its ability to provide an environment for the provision of high quality care. Failure to receive accreditation means that most health insurance programmes will not pay for care in that hospital. It also means that the hospital will have difficulty in recruiting medical staff, and if a teaching hospital, recruiting residents for training purposes<sup>38</sup>.

Another alternative to have access to health services is through Health Maintenance Organizations (HMO's) and Preferred Provider Organizations (PPO's). An HMO is a group of physicians organized to provide medical care to voluntarily enrolled individuals for a fixed, prepaid, periodic payment<sup>39</sup>. A PPO is a health care programme that contracts with selected health care professionals, and whose

members are free to go to any physician, but they will receive a discounted rate if they seek treatment from providers in a specific network<sup>40</sup>. There are some HMO's who have ventured across the border to Mexico, contracting with Mexican physicians, clinics and hospitals, thus taking advantage of the low cost of Mexican medical services.

On the Mexican side of the border, general public health programmes (as SSA, IMSS, ISSSTE, etc.) cover between 85 and 88 percent of the population<sup>41</sup>. Although, there is a group within this category (between 15 to 25 percent) who, regardless of being funded by the public system, are constantly crossing back and forth for private care<sup>42</sup>. Ultimately this leaves 12 to 15 percent of the population without access to public health being the majority, the ones living in rural areas too far from any existing health facilities.

Some of the most important government health programs are oriented to family planning issues. This has become a priority specially at the border region. At present there are two main private health providers working with the government along the border region in the family planning area, the 'Federación Mexicana de Asociaciones Privadas de Salud' (FEMAP) and the 'Fundación Mexicana para la Planificación Familiar' (MexFam)<sup>43</sup>. This last one has most of its resources focused on Baja California.

Physicians in Mexico are also required to be licensed. Licensure is on a national basis, granted by the Secretariat of Health after graduating from medical school, passing the individual using professional examination procedures and the title of 'Doctor' has been granted by the Secretariat of Education<sup>44</sup>.

According to a study done in 1986, only 6 percent of the population in Mexico could afford private care either through cash payments or through insurance<sup>45</sup>. Despite this issue there has been an increase in the number of private clinics and

hospitals in the country. According to the Mexican National Chamber of Hospitals in 1983 there were 1,000 registered hospitals in the country, and by 1992, the number of registered hospitals increased to 2,165<sup>46</sup>. The majority of these hospitals were built in larger cities like Guadalajara, Mexico City, Monterrey and the border cities of Tijuana, Mexicali and Ciudad Juarez.

With respect to hospitals, licensing and accreditation procedures in Mexico differs from U.S. standards. There are two agencies responsible for licensing hospitals: the Ministerio de Salud (Ministry of Health) and the Ministerio de Comercio y Desarrollo Industrial (Ministry of Trade and Industrial Development). There are no private accreditation organizations in Mexico like the American JCAHO. Although there are two relevant Associations in Mexico: the Asociación Mexicana de Hospitales (Mexican Association of Hospitals or AMH) and the Cámara Nacional de Hospitales (National Chamber of Hospitals or CNH), the only legal requirement for hospitals and clinics is the membership from the CNH. The CNH was intended to be like the American JCAHO, but this attempt proved unsuccessful. Nevertheless, there are few major hospitals in Mexico that have been passed the requirements of the JCAHO<sup>47</sup>, and are currently affiliated with U.S. health organizations.

#### **IV.5 HOSPITALS AND CLINICS IN SAN DIEGO.**

Hospitals in the San Diego area are of two types, non-profit and for-profit, and the majority of the clinics are privately owned. They vary according to their size, type of services offered, number of beds, number of physicians and location. In general, the term hospital and clinic is sometimes indiscriminately used to refer to medical groups of more than ten physicians, multi-specialty groups and even solo practitioners, thus making a detailed classification very difficult. According to a report



made in 1985<sup>48</sup> there were a total of 136 clinics and hospitals located in the San Diego area (see appendix 1). Of these, 34 were reported as 'large hospitals'. Interestingly there was a tendency to concentrate in specific areas within the city (see table 13 and map 4).

The highest concentration of clinics and hospitals took place in three areas comprising 7 facilities each (5.1 percent). These areas were, La Mesa (92041-91941)<sup>49</sup>, Chula Vista (92010) and the Downtown northwest area (92103), being Chula Vista the closest to the border area.

The second highest concentration of clinics was six and took place in four areas: Kearny Mesa (92123), Escondido (92025), Downtown East (92105), and El Cajon (92020); followed by the group of five clinics in four areas also: Miramar (92126), San Diego Harbor (92101), North Mission Bay (92109) and Ocean Side (92054).

There were three areas concentrating four clinics: Encinitas (92024), San Diego Bay (92113), (92083), Linda Vista (92111); and there were five areas concentrating three clinics: La Jolla (92037), (92120), (92110), National City (92050) and (92069).

Groups of two clinics were found in eleven areas: (92117), (92104), (92128), (92093), (92028), (92102), (92004), (92071), (92107), (92108), and (92082); followed by the one clinic case in eighteen areas: (92115), (92118), (92134), (92055), (92064), (92061), (92124), (92035), (92129), (92075), (92040), (92065), (92032), (92021), (92070), (92011), (92173), (92131).

An interesting aspect is the concentration of four multi specialty clinics and two large hospitals in two areas: La Mesa (92041-91941), and the Downtown northwest (92103) area; the concentration of three of these clinics and two large hospitals in three areas: La Jolla (92037), Chula Vista (92010) and Kearny Mesa

(92123); and the concentration of three multi specialty clinics in one area: Miramar (92126)<sup>50</sup>. The concentration of these facilities in such areas provoked a predominant medical use, with all sort of activities related to health care, thus being recognized as health care areas.

A study made in 1994<sup>51</sup>, reported that there were 21 large hospitals in the San Diego area varying in size from 150 beds and a staff of 206 physicians, up to 665 beds and a staff of 1,132 physicians. And at another study conducted one year later, it is reported a small increase in the number of large hospitals, rising to 22<sup>52</sup>. Their location follows the same trend as in the 1985 analysis, being the San Diego downtown area the one best served with a total of 8 large hospitals, followed by La Jolla with 3 hospitals and Chula Vista with 2<sup>53</sup>.

An interesting phenomenon with respect to the practice of medicine in San Diego was reported taking place between 1975 and 1983. During this period, the percentage of physicians in solo practice decreased by 10 percent; at the same time practicing groups of 2 to 7 physicians increased 4 percent and practicing groups of more than 8 physicians increased by 34 percent<sup>54</sup>. This shift towards larger group practice was attributed to factors such as:

- An increasing supply of physicians;
- Increasing cost-consciousness among medical consumers and third-party payor;
- Advances in medical technology;
- Rising costs of medical practice and increasing liability risks<sup>55</sup>.

Also related to this change, was the further increasing role played by HMO's and PPO's in the provision of health care. During 1985 there were 8 HMO's and 6 PPO's registered in the County of San Diego<sup>56</sup>. As competition increased, new and

larger HMO's and PPO's appeared extending their coverage and absorbing some of the smaller firms. This allowed smaller firms to affiliate with some of the most prestigious clinics, medical groups and hospitals in the area. And by 1994 there were 10 HMO's and 7 PPO's reported, contributing to the provision of health services in the San Diego (see table 14), with a total of 1'020,352 and 487,586 affiliates respectively<sup>57</sup>.

With respect to the number of physicians in the San Diego area, between 1984-85, there were 2,679 registered physicians in the San Diego Area<sup>58</sup>. Similar to the concentration phenomenon observed in the case of hospitals, physicians tend to concentrate in specific areas too (see appendix 2). In the majority of the cases, physicians tend to concentrate near their sources of employment. Some of the areas physicians concentrated were: Hillcrest (92193) with 396, La Jolla (92037) with 296, Kearny Mesa (92123) with 181, La Mesa (91942) with 177, Grantville (92120) with 139, Chula Vista (91910) with 135, Escondido (92025) with 129, Downtown San Diego (92101) with 97, San Diego East (92138) with 83, and Encinitas (92024) with 78<sup>59</sup>.

And in 1994, an increase in the number of registered physicians in the San Diego area was reported totaling 5,323<sup>60</sup>. Also in 1994, five of the most numerous medical specialties existing in the San Diego area were family practice (12.81 percent), internal medicine (8.08 percent), psychiatry (7.74 percent), anesthesiology (6.22 percent) and pediatrics (6.14 percent)(see table 15).

Following the concentration pattern, in 1994 there were twelve areas that concentrated more than 100 physicians, totaling 3,091 physicians or 58 percent of the total (see table 16). Interestingly each area concentrated different types of

medical specialties. The Hillcrest area contained the majority of internal medicine and psychiatry specialties; La Jolla, the majority of psychiatry and internal medicine specialties; Grantville, the majority of cardiology, internal medicine, pediatrics and radiology diagnostics specialties; Kearny Mesa, orthopedic surgery, pediatrics, pediatrics and radiology diagnostic specialties; Escondido, family practice and anesthesiology specialties; Grossmont (La Mesa), family practice and obstetrics and gynecology specialties; Chula Vista, family practice, pediatrics, obstetrics and gynecology and psychiatry specialties; Area (92138), anesthesiology specialty; Encinitas, family practice and psychiatry specialties; Downtown San Diego, radiology diagnostic and family practice; Poway, pediatrics and psychiatry specialties; and finally La Mesa, concentrated family practice and internal medicine specialties (see table 16 and map 5).

Considering the fact that Chula Vista is one of the areas most visited by Tijuana residents, it is interesting to see that this area tends to concentrate one of the highest amounts of health facilities ( a total of 7, out of which 2 were reported as large hospitals), as well as high numbers of physicians ( a total of 135). It is interesting to see that the existing specialties at that area are family practice, pediatrics, obstetrics and gynecology as well as psychiatrics. If we assume that these can be some of the medical services that Tijuana residents seek on their trips to San Diego, this assumption is consistent with the information from the existing studies on health along the border, with respect to the medical services used by the Mexican origin population in American clinics.

#### **IV.6 HOSPITALS AND CLINICS IN TIJUANA.**

With respect to clinics and hospitals in Tijuana, two sources of information were consulted. According to the official records from the Secretaria de Salud

(Secretariat of Health or S.S.), there were a total of 249 officially registered activities related to health in Tijuana during 1994<sup>61</sup> (see appendix 3), being the majority registered as physicians' offices with 172 facilities, and dental offices with 50 facilities (see table 18).

On the other hand, the 1994 records from the Asociación de Hospitales de Baja California ( the local Hospitals' Association or AHBC) reported a total of 100 privately owned clinics and hospitals in Tijuana<sup>62</sup>. Of these, 26 were registered as hospitals and 49 as clinics (see table 19).

As it can be seen, the two sources of information do not coincide (see table 20). This issue can be explained due to the fact that , similar to what happens in San Diego, the term clinic and hospital is also used indiscriminately. Almost no difference is made when referring to physicians' offices, medical clinics, specialty groups, health centers, beauty clinics and hospitals. Furthermore, the term hospital is in general used to refer either to a 2 bed clinic, or to a 67 bed multi specialty group. At the same time the term clinic sometimes is used to refer to a physician's office or solo practitioners, a beauty clinic (not necessarily under medical supervision) or a medical group.

With this in mind, it is easy to understand why the S.S. reports a total of 4 hospitals, 4 clinics and 172 physicians' offices in the city, while the AHBC reports a total of 26 hospitals and 49 clinics (see table 20). Physicians' offices are not considered as part of their records. Besides this, as their information is considered 'confidential' they refused to explain why some of the health activities reported within their records as clinics, were more similar to the physician's office (or solo practitioner) pattern of activity than to the clinical activity.

This issue in general makes classification difficult, and up to now there is no detailed information with respect to specific characteristics of each activity in order to understand the differences.

In general health activities in Tijuana also tend to concentrate around specific locations (see maps 6 and 7). Using the S.S. official information from 1994 (see table 18), it was found that the largest concentration of health activities took place in the Downtown area, near the border crossing, with a total of 88 activities (roughly 35 percent), out of which 68 were listed as medical activities (27 percent).

The second largest group of clinics was located in the Tijuana River area, comprising 30 activities (roughly 12 percent), with 20 listed as medical activities (8 percent). The third largest concentration of health activities was located at the commercial area of La Mesa, south east of the city, with a total of 18 activities, with 12 listed as medical activities (4.8 percent).

Two other important areas containing health related activities were Playas de Tijuana (near the beach) with 10 activities (4 percent) of which 8 were listed as medical activities (3.2 percent); and the Libertad and Otay areas with nine health activities each (3.6 percent), being these two areas located near the new Otay border crossing. The rest of the health activities were located spread at different sites around the city, in groups of 6,4 and less clinics.

Although the idea that medical services in Tijuana are low quality tends to be prevalent amongst Americans, there are several hospitals and clinics that receive American patients, and furthermore some of these patients are actually referred by American physicians. In addition, there are also several hospitals and clinics that actually are affiliated to American hospitals and/or American health organizations (HMO's and/or PPO's). One of such cases are the 'alternative care clinics'<sup>63</sup>. It is known that two major American organizations work in this way: the Wellness Council

and the Cancer Control Society. What they actually do is to inform cancer patients of alternative care providers in Tijuana, and organize bus tours to these places. According to a 1993 report, seventeen clinics in Tijuana were competing for these patients, and employees of the clinics and organizations for users estimate that 90 percent of the patients using these clinics were U.S. citizens on an average of 75,000 patients a year (roughly 6,250 patients per month), out of which up to 6,000 were from Texas<sup>64</sup>. On another study from 1995 there were reported only 12 clinics offering alternative care in Tijuana; no reference is given with respect to the number of American patients attending these facilities<sup>65</sup>.

With respect to the number of physicians and type of medical specialties available in the city of Tijuana, up to now there is no detailed data available. Although there is a local medical association, being a regular member is not compulsory. Their data files are considered 'confidential' and access to them was denied<sup>66</sup>. Local authorities were unable to supply even a rough estimate with respect to the number of registered physicians in Tijuana. Due to the fact that their files are based on a regional level and further more, they were in the process of actualizing them, for the previous ones were lost<sup>67</sup>. Another source of information, in this case with respect to the amount of graduated physicians, was the School of Medicine from the local University (the Universidad Autónoma de Baja California or UABC). According to their files, between 1990 and mid 1994, 141 physicians graduated from the School of Medicine<sup>68</sup>. Another important issue here is the one dealing with nurse schools. Although the UABC offers studies in nursing care, these studies were not considered as a 'profession'. This left nurses only with a technician degree and therefore with no specialized training. It was until 1996 that the UABC passed a regulation, authorizing the degree of registered nurse to their graduates, and the first generation is expected to graduate by 1988. Nonetheless, the majority of the

large hospitals and clinics instead of receiving trained nurses, prefer to train their own personnel either by on site training or by sending them to other clinics and hospitals to receive special training according to the hospital's needs.

#### **IV.7 COST OF MEDICINE, PHARMACEUTICAL CONTROLS AND ACCESS TO PRESCRIPTIONS.**

Three other important elements present in the use of medical services by American nationals are the issues related to the cost of medicine, access to prescriptions and the differences in controls over specific pharmaceuticals.

First, is the issue of cost. This is mainly due to the fact that labour costs are lower, and that the Mexican government subsidizes several types of medicine. Therefore the average price of medicine in Mexico can vary from half to one tenth of the price of the same medicine in the U.S.<sup>69</sup>. Of course there are also some differences in the dosage within each medicine, but at the end the issue of lower costs becomes a highly attractive situation for American nationals seeking affordable medicine.

Second is the issue of access to prescriptions. In Mexico prescribed medicine is not very common, mainly because the majority of the most commonly used medicine can be bought over the counter without a prescription. Nevertheless there is a classification with respect to medicine also. This is to say that there are some groups of medicine that can be bought up to three times with the same prescription, and other group that can be bought only once with a prescription. This is due to the type of medicine prescribed. Controlled medicine also exist in Mexico and prescriptions are required by law. Even though there is a control over the use of prescriptions, these controls are not as severe as to prevent some physicians actually to 'sell' their prescriptions, despite the need of the prescribed medicine.



This leads us to the third issue that is strongly related to the previous one, the differences in controls over specific type of medicine. Because of the existing differences in government testing requirements, some of the medicine and pharmaceuticals that are controlled or restricted in the U.S., can be easily obtained in Mexico over the counter. Much of the medicine Americans buy in Mexico do not require a prescription, like in the case of some antibiotics. This way, when buying the medicine in Mexico they save time and money because a doctor's consultation is not needed. Controlled medicine, also called restricted drugs, mainly used in alternative treatments or mental disorder treatments in Mexico, need a prescription to be bought. Some of these medicines are not fully approved in the U.S. Although the Food and Drug Administration (FDA) prohibits the importation to the U.S. of these pharmaceuticals, even with a prescription from a foreign physician, many Americans buy them and take them back to the U.S. There have been cases in which American doctors send their patients to Tijuana to buy specific medicine, either because is easier to find, because the dosage (or content) might be higher, or because the price is actually lower in Mexican drugstores (or chemists) than in American ones. This is the case of medicine such as laetrile, which has not received approval by the FDA, and that is frequently part of the maintenance programme for individuals treated at alternative cancer clinics in Tijuana<sup>70</sup>.

As in the case of clinics and hospitals, drugstores also tend to concentrate around specific areas and tend to specialize in selling specific type of medicine. In the majority of the cases these areas coincide with the location of groups of clinics and hospitals, and the medicine mostly sold is related to the type of clinic and hospital as well. There is an important concentration of chemists in the Playas area, where Americans tend to buy mainly DEMEROL and LAETRILE, used for cancer

treatments<sup>71</sup>. Another concentration area is the River zone where Americans buy mainly REDOTEX, used in weight reduction therapies. And the highest concentration of chemists takes place at the downtown area, where Americans look for antibiotics like AMPICILLIN that can be bought without prescription.

The consumption of Mexican origin pharmaceuticals by Americans has provoked controversy and problems among health care associations at both sides of the border. Many Americans have found a way to go into business selling medicine bought in Mexico. Special consideration is given to the case of the controlled medicine that is also classified as 'psychotropic', and medicine containing anabolic (or hormone based) substances that are highly restricted and/or prohibited in the U.S. With respect to controlled medicine, Americans tend to buy mainly two types of this medicine (see appendix 5). For the ones considered as psychotropics, there is a strong demand for TAFIL (called SANAX in the U.S., previously called VALIUM), and EXOTAN which is more or less the same drug. And with respect to anabolics, they buy PRIMOBOLAN, SOSTENON, ESTEN and PERGONAL. The majority of these pharmaceuticals are sold in the downtown area and River Zone drugstores<sup>72</sup>.

Although these controlled pharmaceuticals cannot be obtained in general in Mexico without a prescription, unfortunately there is always a 'cheap physician' that for an average \$20.00 U.S. dollars will sell the prescription to any American, regardless if he or she really needs the medicine<sup>73</sup>. These issues have created serious discomfort mainly to American physicians and chemists who demand more control over medicine and prescriptions on the Mexican side of the border, an issue that has been present on all the Binational Emergency Medical Committee reunions<sup>74</sup>.

#### **IV.8 THE BINATIONAL EMERGENCY MEDICAL CARE COMMITTEE.**

An interesting organization existing at the border area is the Binational Emergency Medical Care Committee of California and Baja California (BEMCC). Although its main goal is to evacuate Americans to the U.S. for medical attention whenever they become sick or injured while visiting or living in Mexico, it also works to take Mexicans that get sick or injured while in the U.S. back to Mexican territory upon request. Before 1976, when the BEMCC was established, American or Mexican ambulances were not allowed to cross international borders to pick up or deliver injured patients. The BEMCC helped to solve this situation and now ambulances of both countries are allowed to cross the border<sup>75</sup>. Despite this achievement, American ambulances are skeptical of crossing the border to Tijuana mainly because they fear a lack of security with respect to their equipment. One of the most impressive efficiency displays between the BEMCC, San Diego local authority and San Diego health services was seen in 1994, when the Mexican presidential candidate was shot in Tijuana. During this emergency, a fully equipped medical helicopter along with trained personnel from the Scripps hospital of San Diego, landed at Tijuana's general hospital less than 20 minutes after the wounded candidate arrived. Their orders were to transfer the wounded patient to the American hospital once he was stabilized. Although the effort was unsuccessful, it was a demonstration of the existing cooperation between the two cities, specially during emergencies.

#### **IV.9 CONCLUSIONS.**

The relationship between the cities of San Diego and Tijuana goes beyond the simple sharing of a geographical area. People travel from one city to the other on a daily basis with minimal restrictions; people of Mexican origin live legally in San

Diego, many San Diegans also live in Tijuana; people commute to work at both sides of the border, and consume goods and services from both cities since the two cities were formed.

Medical services are only one of the many services shared by the Tijuana - San Diego region population. In both cities the health market tends to follow specific trends related to location and demand. In San Diego, the type and cost of medical services is producing an increase in the development of medical services able to be consumed mainly by the average San Diegan worker and some higher income Mexican population. For the wealthy San Diegan, highly specialized hospitals and clinics tend to concentrate at the northern area, while for the high and middle income Mexican population, some hospitals are concentrated at the Chula Vista area, relatively close to the border crossing area. Although proximity to the border cannot be considered highly important for American clinics and hospitals, for they are actually oriented towards the high income groups, recent health programmes show a new trend, tackling what they call 'the existing minorities', including the Spanish speaking population.

On the other hand, Tijuana's proximity to the border and its relationship with San Diego is producing a concentration of medical services in areas near the border crossing or closely related to it. Americans who cross the border walking, find easy access to small clinics and drug stores. Although, as it happens in the city of San Diego, some of the largest and best clinics and hospitals are located relatively far from the border crossing. These are mainly intended for middle and high income groups as well. And in order to have American patients, many of them offer free transport, from and to the border, an issue that has proven an excellent way to maintain the flow of American patients. Although many people say that the

American poor are the ones using Mexican medical services, it cannot be generalized as such. Many of the medical services American nationals seek in Tijuana, like some alternative cancer treatments, cannot be considered cheap at the long term not even for the average American middle income population. It is the unavailability of this service in their city what at the end makes them travel to Tijuana.

And another interesting issue is the existence of the Binational Emergency Medical Care Committee of California and Baja California (BEMCC), a group that although its main intention is to rescue ill or injured American nationals while in the State of Baja California, it also works for Mexicans traveling within the State of California or at specific emergencies.

As a result of this relationship, both cities are beginning to become specialized at specific activities. From all the information analyzed it can be said that in San Diego, the specialization trends are towards activities such as family practice, internal medicine, psychiatry, anesthesiology, pediatrics, otorhinolaryngology (ear, nose and throat), obstetrics and gynecology, orthopedic surgery, radiology and diagnostics, surgery, cardiovascular diseases and emergency medicine. All of these medical activities can be considered highly specialized or skill intensive activities. Interestingly as well is the concentration of these activities around areas such as Sand Diego downtown, Chula Vista, La Jolla, Escondido, Encinitas and La Mesa, areas where the majority of large hospitals and medical groups tend to concentrate also, areas where capital intensive medical activities are taking place (see table 21). This is to say that the city of San Diego tends to specialize in capital intensive activities (those rendered within hospitals) and skill intensive activities (those rendered by specialists).

At the other side of the border, although the information was not as clear as in the case of San Diego, a very general idea can be obtained. The large number of consultorios (or physicians' offices or solo practitioners) and small clinics can be a clear sign that in Tijuana the specialization trends are towards those activities that rely mainly in physicians and/or nurses time. This is to say that Tijuana is specializing in labour intensive activities. Although it cannot be fair to discard the possibility that many of these services are rendered by specialized physicians, there is no sufficient data to demonstrate that the specialization trend is also towards the skill intensive activities.

Being the situation like this, it makes sense to refer to the existing relationship between both cities with respect to medical services as a complementary one. A relationship that has been the result of a division of labour, a pattern that actually makes use of the resources existing at both cities despite the political boundary.

This issue can clearly be related to the existence of C.A. in the provision of specific medical services in Tijuana. Nevertheless, in order to demonstrate this and find the elements related to C.A., there is a need to verify, measure and classify the consumption of medical services by American nationals. A survey was conducted in the city of Tijuana as a way to find out more about this issue. The following chapters analyze the information obtained.

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49. The numbers appearing on parenthesis are postal codes; these numbers are used in order to facilitate the location of the place in the map.
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51.The Large Hospitals were selected according to their 1993 calendar year revenues that go from \$36.3 U.S. million to \$506.2 U.S. million, and not by the number of beds. Marshall, L. (1995)(pp.80-82).

52.Schneider, Pablo. (1995)(p.201).

53.Ibid.

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55.Ibid.

56.Ibid (p.66).

57.Marshall, L. (1995)(pp.79-80).

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60.Schneider, Pablo. (1995)(pp.1-199).

61.S.S.,(1994).

62.It must be said that it is not compulsory to become a member of this association, nevertheless the majority of clinics and hospitals are regular members. This explains why the total amount of clinics and hospitals from the public plus the private sector do not match 249.

A.H.B.C., (1994)

63.These are clinics that offer unorthodox treatment for medical conditions such as cancer, AIDS, and multiple-sclerosis. Many Americans go to these clinics to receive health care treatment that may be in the process of being authorized or are not readily available in the U.S.

64.This is amount is considering that there are no high seasons, this is to say that the 75,000 patients were equally divided amongst 12 months. Furthermore if we take the 6,250 monthly patients and divide them amongst the 17 clinics it will give us approximately 365 patients per clinic per month for a flat season.

Abend,N., and Moss,K. (1993)(pp.129-130).

65.Wolper,S., (1995).

66.Although there was an initial verbal agreement to have access to their files during a telephone interview with Dr. Jose Luis Gaytán, president of the medical association, after internal elections and changes, the new president Dra. Josefina Cota refused to cooperate, arguing that the information was confidential and access to their files was restricted.

Telephone interview with Dr. Jose Luis Gaytán, president of the local medical association in Tijuana B.C., August 1993.

Telephone interview with Dra. Josefina Cota, president of the local medical association in Tijuana B.C. January 1994.

67. Personal interview with Dr. Roberto Escalante, director of Jurisdicción Sanitaria de la Secretaría de Salud (Secretariat of Health), in Tijuana B.C., August 1993.

68. Data from the 'Comisión de Planeación, Servicios Escolares de la Universidad Autónoma de Baja California, May 1995.' In more detail, the number of graduates from the local school of medicine were as follows:

1990 = 35  
1991 = 13  
1992 = 44  
1993 = 38  
(mid)1994 = 11

69. Abend, N., Moss, K., (1993) (p.129).

70. Ibid.

71. For a more detailed information read the interview with Mr. Gilberto Rios, General Manager of 'Farmacias Internacional de Tijuana' in appendix 5.

72. Ibid. 'An American customer from Texas used to buy between \$500 to \$1,000 (U.S. dollars) a month of PERGONAL, a medicine that contains male hormones and anabolics; he had a Gym in Arizona and used to sell the pills to his costumers.'

73. Ibid.

74. During the 11th. United States Mexico Border Symposium, held in the city of San Diego on the 23rd of September 1994, a special group was organized by the Binational Emergency Medical Committee in order to trace and monitor the use and consumption of controlled medicine along the border.

75. The Binational Emergency Medical Care Committee 1994. Information leaflet.

**Table 10. Summary of key dates and historic events  
for the cities of San Diego and Tijuana**

(source: Kjoos, K., 1992.pp.5-6; Morales,R., and Tamayo-Sanchez,J.,1992.pp.49-68; Herzog,L., 1989. pp.109-121).

YEAR	SAN DIEGO	TIJUANA
? - 1542	Both cities are part of the same region where Diegueño and Kumiai tribes roam the area for centuries before the Portuguese explorer Juan Rodriguez Cabrillo sails up the coast from Ensenada and into San Diego Bay in 1542 as probably the first European visitor.	
1769	Spanish explorers build California's first fort ("Presidio"), primarily because of its deep natural harbor. Later that year the Franciscan priest Junipero Serra establishes at the "Presidio" Upper California's first mission and names it "San Diego de Alcalá". San Diego is called 'the birthplace of California' because of these settlements. The records of these travelers describe passing through what now is known as the Tijuana Valley.	
1800	San Diego becomes the Pacific Coast center for cattle hide trade during the 1800s because of its good port.	
1848	The now independent Mexico is at war with the United States since 1847. The war ends in 1848 with the signing of the Guadalupe-Hidalgo Treaty, establishing the border between the two countries. The border passes between San Diego and Tijuana separating them by means of a political border (merely a metal fence).	
1850	California becomes the 31st state of the Union. San Diego is incorporated as a city.	Small ranch settlements crop up in Tijuana. One of the 'rancherías' begins to gain popularity. The 'ranchería' is known as 'Tía Juana' (Aunt Jane), the name of the owner of the only resting place and restaurant along the road.
1867	Alonso Horton buys land and lays out the new city of San Diego closer to the warf	
1885	The California Southern Railroad arrives to San Diego, leading to a significant land boom which goes bust just a few years later. The population reaches 40,000 in 1887 and then drops to 16,000 by 1890.	One of the railroad lines passes through Tijuana: the Yuma - Tijuana - San Diego route. The population is listed a 242 at the turn of the century.
1889		The first General Plan is adopted for Tijuana. The location of the city center is closely related to the border crossing.
Early 1900s	Demand for tuna creates the prosperous tuna industry in San Diego.	The population of Tijuana reaches 350. On May 9th, 1911 Tijuana is invaded by a group of American anarchists organized from Los Angeles and San Francisco and commanded by Caryl Rhys Pryce. The invasion lasted for 45 days until the Mexican army arrived and expelled the Americans.
1915	The Panama-California Exposition brings worldwide attention to San Diego and establishes Balboa Park as a permanent tourist attraction	San Diego and Tijuana investors decide to build the 'Tijuana Fair', as an extension of the Panama-California Exposition, attracting tourism to the city of Tijuana. A racetrack is built only yards from the border
1914-18	San Diego becomes naval center during World War I. By 1920 San Diego counts 75,000 residents.	Mexican agricultural workers are allowed to work in the U.S. Some of those who work in the San Diego area decide to live in Tijuana and cross the border on a daily basis.
1920s	The U.S. falls into economic depression. Alcoholic drinks are forbidden and San Diego sailors and tourists go to Tijuana seeking what they cannot obtain in their city. By 1929 more than half-million Mexican agricultural workers from California were repatriated to Mexico.	Tijuana experiences a strong upswing in economic activity and population growth as a result of the prohibition and depression in the U.S. Many deported agricultural workers settle in Tijuana. By 1930 the population of Tijuana reaches 11,000.
1935	Consolidated Aircraft Corporation (later known as General Dynamics-Convair) moves to San Diego from New York, soon becomes the largest civilian employer. San Diego's population reaches 289,000 in 1940.	Between 1934 and 1940 Tijuana's economy is near collapse. The Mexican government decides to create the 'Zonas y Perimetros Libres' along the border, as a result Tijuana becomes a 'duty-free' area. Population reaches 22,000 in 1940

1940-50	New military bases are built during World War II. Airplane plants employ thousands of workers from throughout the nation. A lot of military personnel trained in San Diego settle there after the war. By 1950 the population of San Diego has increased to 557,000.	In 1942 Mexico and the U.S. sign the 'Bracero Programme', allowing Mexican agriculture workers to cross the border legally to fill labour demands. Many Mexican origin workers that worked in the San Diego area decide to settle in Tijuana. The population increases to 65,000 in 1950.
1950s	The economy is hurt by a slump in the aircraft industry and decline in the tuna industry as a result from competition from South America and Japan. Increases in shipbuilding and missile production help balance the losses. Population reaches 1'033,000 in 1960.	Population reaches 166,000 in 1960 in Tijuana.
1960	High unemployment follows a sharp decline in the aerospace industry in the early 1960s. The population growth rate slows because of a downturn in economic activity.	The Mexican Government runs two important projects: the Programa Nacional Fronterizo (National Border Programme, or PRONAF), to beautify border towns; and the Programa de Industrialización Fronteriza (Border Industrialization Programme, or PIF), allowing the establishment of <i>maquiladoras</i> (assembly plants) in specially marked zones. Tijuana benefits from these programmes and becomes the target for many American Industries.
1965-75	The Vietnam war causes an upswing in military/defense activity. San Diego population begins to grow. Population reaches 1'358,000 in 1970.	During the 70s two of the most important urban projects for Tijuana are conducted: the widening of Revolution avenue (the city's main street), and the development of the River Zone, creating tourist-oriented areas in the city and strengthening tourism. Population reaches 341,000 in 1970.
1976	The effects of the devaluation of the Mexican Peso hits San Diego commerce, specially around the border communities of San Ysidro, Chula Vista and National City. Many businesses close because the absence of Mexican buyers. Many Americans begin to travel to Tijuana to buy cheaper goods. Population reaches 1'862,000 in 1980.	Mexican government devaluates its currency (the Peso). Tijuana's economy was highly dependent on the Dollar market. Tijuans cannot afford to buy American goods anymore. A shortage of Mexican products, mainly milk, bread and meat hits Tijuana as American buyers begin to take advantage of the low costs. Unemployment increases. Population reaches 462,000 in 1980
1980	San Diego rides the wave of economic expansion. Population grows up to 2.498,016 million by 1990 at an annual growth rate of over 3%. The rainy season causes flooding in Tijuana and property losses in the Tijuana River estuary in San Diego. Raw sewage from Tijuana pollutes San Diego's land through the Tijuana River. By 1983 both governments sign the 'First Comprehensive Border Pollution Accord.	The Mexican Peso continues to be devalued. Salaries are getting lower; apart from American industries, Japanese and Korean industries settle in Tijuana too. Mexican banks are privatized and dollar accounts are converted into Mexican pesos. Population reaches 747,000 in 1990.
1991	The recession hits San Diego. Unemployment soars. The population reaches 2.548,728, which is an increase of 2.7 % percent over 1990. The 'First Border Environmental Plan' is produced by both governments but not accepted by local governments. By 1992 an 'Integrated Environmental Plan' is produced as a result of the revision of the 1991 version. The construction of an international wastewater treatment plant in the south bay area of San Diego is considered.	A series of economic adjustments by the Mexican government begin to recover credibility from foreign investors. Mexico and the U.S. discuss the possibilities of a Free Trade Agreement.
1994	The North America Free Trade Agreement (NAFTA) initiates on January 1st. Many San Diego investors begin to analyze the possibility of transferring offices or specific activities to Tijuana. Unemployment increases. Mexicans are blamed for unemployment. Proposition 187 appears as a way to control illegal migrants within California, harming the legal ones also.	The country in general feels uncertain. The south-east part of the country suffers from civil violence. Presidential elections take place at an uncertain political atmosphere. By the end of the year, another devaluation hits the country; this produces many investors to cancel their projects in Tijuana.

Table 11. Population growth in the Tijuana-San Diego region.

(source: Weeks, J.R., 1992, p.17).

YEAR	TIJUANA	SAN DIEGO
1930	11,000	210,000
1940	22,000	289,000
1950	65,000	557,000
1960	166,000	1,033,000
1970	341,000	1,358,000
1980	462,000	1,862,004
1990	747,000	2,498,000

Table 12. Race / Ethnicity in San Diego, 1990.

(source : Weeks, J.R., 1992, p.21)

Race / Ethnicity	Number of persons	Percent
White, non-Hispanic	1,633,281	65.38
Hispanic (any race)	510,781	20.45
Black, non-Hispanic	149,898	6.00
Asian or Pacific Islander (non-Hispanic)	185,144	7.41
American Indian (non-Hispanic)	15,050	0.61
Other (non-Hispanic)	3,862	0.15
<b>TOTAL</b>	<b>2,498,016</b>	<b>100.00</b>

Table 13. Concentration of clinics and hospitals in San Diego.  
 (source: Maynard-Morales, M. 1985)

Location by Zip Code	Maximum number of clinics	Multi-specialty clinic	More than ten physicians
92041	7	3	4
92101	7	3	3
92103	7	4	4
92123	6	1	3
92025	6	1	1
92105	6	1	1
92020	6	-	-
92126	5	2	3
92101	5	1	1
92109	5	-	-
92054	5	-	-
92024	4	1	1
92113	4	-	-
92083	4	-	-
92111	4	-	-
92120	3	-	-
92110	3	1	1
92050	3	-	-
92069	3	-	-
92037	3	3	3

HMO's	Type of HMO			San Diego County affiliates 1994-1993	PPO's	San Diego County affiliates 1994-1993	
	a	b	c				
	1. Kaiser Permanente	●					
2. Aetna Health Plans of San Diego Inc.	●	●	●	142,529 123,088	2. Prudent Buyer Plan, Blue Cross of California	90,037 86,183	
3. Health Net		●		127,689 131,194	3. Blue Shield of California	83,000 76,500	
4. PacificCare-Secure Horizons		●	●	115,000 111,000	4. Preferred Health Network	74,000 74,000	
5. FHP Inc.	●	●	●	64,000 25,786	5. Scripps Community Health Network	25,300 22,000	
6. California Care, Blue Cross of California		●		63,285 47,712	6. CIGNA Health Care of San Diego	23,600 22,000	
7. CIGNA Health Care of San Diego		●		54,000 30,000	7. PPO Alliance.	16,933 16,933	
8. PruCare of California		●		40,546 32,031			
9. Community Health Group		●		31,914 24,311			
10. Sharp Health Plan	●	●	●	14,389 10,694			
TOTAL		1994 1993		1'020,352 914,534	TOTAL	1994 1993	487,586 524,146

Table 14. Largest Groups of HMO's and PPO's in the San Diego area.

(source: Marshall, Lisa. 1995)

- a Group model, consisting of hospitals and doctors that provide care and services exclusively for HMO recipients.
- b Network model, is an HMO that contracts with two or more independent group practices (no solo practices) to provide health care services.
- c IPA, or individual practice association, this is the most common type of arrangement for HMO's. Care is provided by a network of independent physicians practicing alone or in medical groups to care for enrollees.

Table 15. Number of physicians by specialty in the San Diego Area.  
(source: Schneider, P. 1994).

Medical specialty	Number of physicians	Percentage of the Total
1.Family Practice	682	12.81
2.Internal Medicine	430	8.08
3.Psychiatry	412	7.74
4.Anesthesiology	331	6.22
5.Pediatrics	327	6.14
6.Otorhinolaryngology	281	5.28
7.Obstetrics and Gynecology	274	5.15
8.Orthopedic Surgery	235	4.41
9.Radiology, Diagnostic	194	3.64
10.Unspecified	189	3.55
11.Surgery	173	3.25
12.Cardiovascular Disease	170	3.19
13.Emergency Medicine	165	3.10
14.Ophthalmology	157	2.95
15.Pathology Anatomical	127	2.39
16.Neurology	87	1.63
17. Urology	87	1.63
18.Gastroenterology	83	1.56
19.Dermatology	82	1.54
20.Pulmonary Diseases	81	1.52
21.Dentistry	75	1.41
22.Plastic Surgery	75	1.41
23.Allergy and Immunology	44	0.83
24.Podiatry	44	0.83
25.Endocrinology	39	0.73
26.Hematology	39	0.73
27.General Vascular Surgery	35	0.66
28.Physical Medicine and Rehabilitation	33	0.62
29.Rheumatology	31	0.58
30.Surgery, Neurological	28	0.53
31.Neonatal-Perinatal Medicine	27	0.51
32.Surgery Cardiovascular	27	0.51



33.Infectious Disease	25	0.47
34.Oncology	20	0.38
35.Geriatric Medicine	16	0.30
36.Occupational Medicine	16	0.30
37.Radiation Oncology	15	0.28
38.Acupuncture	12	0.23
39.Child Psychiatry	12	0.23
40.Gynecology	12	0.23
41.Thoracic Surgery	12	0.23
42.Surgery, Maxillofacial	11	0.21
43.Nuclear Medicine	9	0.17
44.Oncology, Medical	9	0.17
45.Maternal-Fetal Medicine	7	0.13
46.Pediatric Hematology / Oncology	6	0.11
47.Pediatric Allergy	5	0.09
48.Pediatric Cardiology	5	0.09
49.Critical Care Medicine	4	0.08
50.Surgery, Colon / Rectal	4	0.08
51.Pathology	3	0.06
52.Thoracic, Cardiovascular	3	0.06
53.Public Health	2	0.04
54.Pediatric Critical Care Medicine	1	0.02
55.Pathology, Chemical	1	0.02
56.Pediatric Endocrinology	1	0.02
57.Pediatric Gastroenterology	1	0.02
58.Reproductive Endocrinology	1	0.02
<b>TOTAL</b>	<b>5,323</b>	<b>100.00</b>

Table 16. Areas concentrating more than 100 physicians  
in the San Diego area  
(arranged by specialty and postal code; source: Schneider, P., 1994.)

Medical Code name	Location by Postal Code												TO T
	92103	92037	92120	92123	92025	91942	91910	92138	92024	92101	92064	91941	
A	9	10	1	4	1	1	1	-	1	-	1	-	29
ACP	2	1	1	2	2	-	-	-	-	-	-	-	8
AN	32	19	14	13	23	1	2	130	2	1	3	7	247
APD	-	-	1	3	-	-	-	-	-	-	-	-	4
C	26	27	23	2	12	6	7	-	9	3	2	3	120
CP	2	1	-	4	-	1	-	-	1	-	-	-	9
CPD	2	-	-	2	-	-	1	-	-	-	-	-	5
CCM	-	-	-	-	1	-	-	-	-	1	-	1	3
D	13	19	4	4	2	5	5	-	3	4	7	1	67
DDS	9	1	4	2	-	11	4	-	-	1	-	7	39
EM	9	11	18	17	11	9	3	-	3	4	9	-	94
END	10	8	3	3	1	-	1	-	2	-	-	2	30
FP	21	25	17	5	47	35	26	-	23	14	9	19	241
GE	11	14	7	3	5	5	7	-	1	-	1	1	55
GER	6	1	1	-	-	-	1	-	-	1	-	1	11
GON	1	-	-	-	-	-	-	-	-	-	-	-	1
GYN	2	2	1	-	-	1	-	-	1	-	2	-	9
HEM	9	14	2	-	1	2	-	-	1	-	-	-	29
HPO	3	-	-	2	-	-	-	-	-	-	-	-	5
ID	7	3	1	2	-	-	-	-	-	1	-	1	15
IM	61	55	22	12	13	9	7	1	10	6	6	18	220
MFM	4	-	-	3	-	-	-	-	-	-	-	-	7
N	16	15	7	5	3	5	3	-	-	2	-	1	57
NEP	18	5	3	1	2	4	2	-	-	1	1	-	37
NPM	6	1	1	8	1	-	1	-	-	-	-	-	18
NS	9	4	4	5	1	2	2	-	-	-	-	-	27
NUM	2	3	1	-	2	-	1	-	-	-	-	-	9
OBG	38	23	19	15	15	27	10	-	5	4	9	3	168
OBS	1	-	-	-	-	-	-	-	-	-	-	-	1
OM	1	1	1	2	-	-	-	-	1	6	-	-	12
ONC	9	4	-	3	-	1	-	-	-	-	-	-	17
ONM	2	3	1	-	3	-	-	-	1	-	-	-	10

OPH	30	17	15	5	6	5	9	-	7	6	5	2	107
ORS	36	18	19	33	12	10	5	-	3	9	9	8	162
OTO	10	10	10	5	6	3	3	-	1	2	1	5	56
P	57	68	16	22	6	14	10	1	16	4	10	7	231
PA	-	2	-	1	-	-	-	-	-	-	-	-	3
PAA	22	21	10	18	6	7	4	-	1	2	-	1	92
PCC	-	-	-	-	-	-	-	1	-	-	-	-	1
PCH	1	-	-	-	-	-	-	-	-	-	-	-	1
PD	39	16	22	23	10	10	13	1	10	2	13	7	166
PGE	1	-	-	-	-	-	-	-	-	-	-	-	1
PH	-	-	-	-	-	-	-	-	-	2	-	-	2
PLS	12	16	4	3	-	3	1	-	1	1	2	-	43
PMR	4	2	9	-	3	2	2	-	1	-	-	-	23
POD	4	3	3	1	3	3	6	-	-	1	1	1	26
PUD	18	8	10	8	2	5	5	-	2	1	2	1	62
RD	23	19	22	21	12	18	8	8	1	16	-	-	148
REN	1	-	-	-	-	-	-	-	-	-	-	-	1
RHU	4	12	3	1	2	-	1	-	1	-	-	1	25
RO	2	3	-	1	1	2	-	-	-	3	-	-	12
S	31	26	15	9	4	5	2	-	3	2	3	-	100
SCR	1	1	-	-	-	-	1	-	-	-	-	-	3
SCV	3	6	4	2	-	2	1	-	1	-	-	-	19
SMX	-	2	-	1	-	-	2	-	2	1	-	-	8
SPD	-	-	1	-	-	-	-	-	-	-	-	-	1
TCV	2	1	-	-	-	-	-	-	-	-	-	-	3
TS	2	2	1	-	1	-	1	-	-	1	-	-	8
U	17	11	8	4	6	9	3	-	1	3	1	-	63
US	21	30	7	9	7	6	2	-	1	3	4	3	93
VS	6	5	3	3	4	1	1	-	-	-	1	-	24
TOT	692	569	338	293	237	230	164	142	116	107	102	101	

## Medical Code.

A	Allergy & Immunology	ONC	Oncology
ACP	Acupuncture	ONM	Oncology Medical
AN	Anesthesiology	OPH	Ophthalmology
APD	Pediatric Allergy	ORS	Orthopedic Surgery
C	Cardiovascular Diseases	OTO	Otorhinolaryngology
CP	Child Psychiatry	P	Psychiatry
CPD	Pediatric Cardiology	PA	Pathology
CCM	Critical Care Medicine	PAA	Pathology Anatomical
D	Dermatology	PCC	Pediatric Critical Care Medicine
DDS	Dentistry	PCH	Pathology Chemical
EM	Emergency Medicine	PD	Pediatrics
END	Endocrinology	PGE	Pediatric Gastroenterology
FP	Family Practice	PH	Public Health
GE	Gastroenterology	PLS	Plastic Surgery
GER	Geriatric Medicine	PMR	Physical Medicine and Rehabilitation
GON		POD	Podiatry
GYN	Gynecology	PUD	Pulmonary Diseases
HEM	Hematology	RD	Radiology Diagnostic
HPO	Pediatric Hematology/ Oncology	REN	Reproductive Endocrinology
ID	Infectious Diseases	RHU	Rheumatology
IM	Internal Medicine	RO	Radiation Oncology
MFM	Maternal - Fetal Medicine	S	Surgery
N	Neurology	SCR	Surgery, Colon/Rectal
NEP	Nephrology	SCV	Surgery, Cardiovascular
NPM	Neonatal-Perinatal Medicine	SMX	Surgery Maxillofacial
NS	Neurological Surgery	SPD	Surgery, Pediatrics
NUM	Nuclear Medicine	TCV	Thoracic, Cardiovascular
OBG	Obstetrics & Gynecology	TS	Thoracic Surgery
OBS	Obstetrics	U	Urology
OM	Occupational Medicine	US	Unspecified
		VS	General Vascular Surgery

## Postal Code

Zip Code	Area	Num Phys	Zip Code	Area	Num Phys
92103	Hillcrest (Old Town)	692	91910	Chula Vista	164
92037	La Jolla	569	92138		142
92120	Grantville	338	92024	Encinitas	116
92123	Kearny Mesa	293	92101	San Diego Downtown	107
92025	Escondido	237	92064	Poway	102
91942	Grossmont (La Mesa)	230	91941	La Mesa	101

Table 17. Number of physicians and their medical specialty  
in the community of Chula Vista.  
(source: Schneider, P. 1994)

Medical Specialty	Number of Physicians	Percentage of the total
1.Family Practice	26	15.85
2.Pediatrics	13	7.93
3.Obstetrics and Gynecology	10	6.10
4.Psychiatry	10	6.10
5.Ophthalmology	9	5.49
6.Radiology, Diagnostic	8	4.88
7.Cardiology	7	4.27
8.Internal Medicine	7	4.27
9.Podiatry	6	3.66
10.Dermatology	5	3.05
11.Orthopedic Surgery	5	3.05
12.Pulmonary Disease	5	3.05
13.Dentistry	4	2.44
14.Pathology Anatomical	4	2.44
15.Emergency Medicine	3	1.83
16.Neurology	3	1.83
17.Otorhinolaryngology	3	1.83
18.Urology	3	1.83
19.Anesthesiology	2	1.22
20.Nephrology	2	1.22
21.Surgery, Neurological	2	1.22
22.Physical Medical Rehabilitation	2	1.22
23.Surgery	2	1.22
24.Surgery, Maxillofacial	2	1.22
25.Unspecified	2	1.22
26.Allergy and Immunology	1	0.61
27.Pediatric Cardiology	1	0.61
28.Endocrinology	1	0.61
29.Geriatric Medicine	1	0.61
30.Neonatal / Perinatal Medicine	1	0.61
31.Nuclear Medicine	1	0.61

32. Plastic Surgery	1	0.61
33. Rheumatology	1	0.61
34. Surgery, Colon / Rectal	1	0.61
35. Surgery, Cardiovascular	1	0.61
36. Thoracic Surgery	1	0.61
37. General Vascular Surgery	1	0.61
<b>TOTAL</b>	<b>164</b>	<b>100.00</b>

Table 18. Registered activities related to health in the city of Tijuana  
arranged by type and location  
(source: S.S., 1994. Secretaria de Salud)

Location	Downtown	River Zone	La Mesa	Playas de Tijuana	Colonia Libertad	Otay	Other	TOTAL per type
Hospital	01	00	00	02	00	00	01	04
Medical Clinic	02	00	00	00	00	00	02	04
Sanatorio	01	00	00	00	00	00	01	02
Medical Center	01	02	00	01	00	00	01	05
Medical Unit	01	02	00	00	00	00	01	04
Medical Institute	00	00	00	00	00	00	01	01
Medical Group	00	00	01	00	00	00	00	01
Physician Office	62	20	11	05	03	05	66	172
<i>MEDICAL SUBTOT per location</i>	<i>68</i>	<i>24</i>	<i>12</i>	<i>08</i>	<i>03</i>	<i>05</i>	<i>73</i>	<i>193</i>
Dental Office	19	05	06	01	06	03	10	50
Optician (technn)	01	01	00	00	00	01	00	03
Cosmethol clinic	00	00	00	01	00	00	01	02
Pharmacy	00	00	00	00	00	00	01	01
<b>GRAN TOTAL per location</b>	<b>88</b>	<b>30</b>	<b>18</b>	<b>10</b>	<b>09</b>	<b>09</b>	<b>85</b>	<b>249</b>

Table 19. Registered activities related to medical services  
in the city of Tijuana, arranged by location.  
(source: A.H.B.C., 1994., Asociacion de Hospitales de Baja California)

Location	Downtown	River Zone	La Mesa	Playas de Tijuana	Colonia Libertad	Otay	Other	TOTAL per type
Hospital	07	03	05	02	02	00	07	26
Medical Clinic	13	03	07	01	05	02	18	49
Sanatorio	05	00	02	00	00	00	02	09
Medical Center	01	02	01	01	00	01	02	08
Medical Unit	01	03	00	00	00	01	00	05
Medical Institute	00	01	00	01	00	00	00	02
Medical Group	00	00	00	00	00	00	01	01
<b>TOTAL per location</b>	<b>27</b>	<b>12</b>	<b>15</b>	<b>05</b>	<b>07</b>	<b>04</b>	<b>30</b>	<b>100</b>



Table 20. Number of clinics and hospitals in Tijuana by location and type comparing two sources of information : S.S., 1994, and A.H.B.C., 1994.

LOCATION \ TYPE		Down town		River Zone		La Mesa		Playas de Tijuana		Colonia Libertad		Otay		Other		TOTAL per type	
		SS	AH BC	SS	AH BC	SS	AH BC	SS	AH BC	SS	AH BC	SS	AH BC	SS	AH BC	SS	AH BC
Hospital	SS	1		0		0		2		0		0		1		4	
	AH BC		7		3		5		2		2		0		7		26
Medical Clinic	SS	2		0		0		0		0		0		2		4	
	AH BC		13		3		7		1		5		2		18		49
Sana torio	SS	1		0		0		0		0		0		1		2	
	AH BC		5		0		2		0		0		0		2		9
Medical Center	SS	1		2		0		1		0		0		1		5	
	AH BC		1		2		1		1		0		1		2		8
Medical Unit	SS	1		2		0		0		0		0		1		4	
	AH BC		1		3		0		0		0		1		0		5
Medical Institute	SS	0		0		0		0		0		0		1		1	
	AH BC		0		1		0		1		0		0		0		2
Medical Group	SS	0		0		1		0		0		0		0		1	
	AH BC		0		0		0		0		0		0		1		1
SUB TOTAL per location	SS	06		04		01		03		00		00		07		21	
	AH BC		27		12		15		05		07		04		30		100
Physicia n Office	SS	62		20		11		05		03		05		66		172	
	AH BC		NA		NA		NA		NA		NA		NA		NA		NA
TOTAL per location	SS	68		24		12		08		03		05		73		193	
	AH BC		27		12		15		5		7		4		30		100

SS: S.S., 1994. Secretariat of Health, official records

AHBC: A.H.B.C., 1994 Baja California's Association of Hospitals, members' record

N.A.: Not Available

Table 21. Location of predominant medical activities and the concentration of hospitals in San Diego: a combination of skill and capital intensive activities.

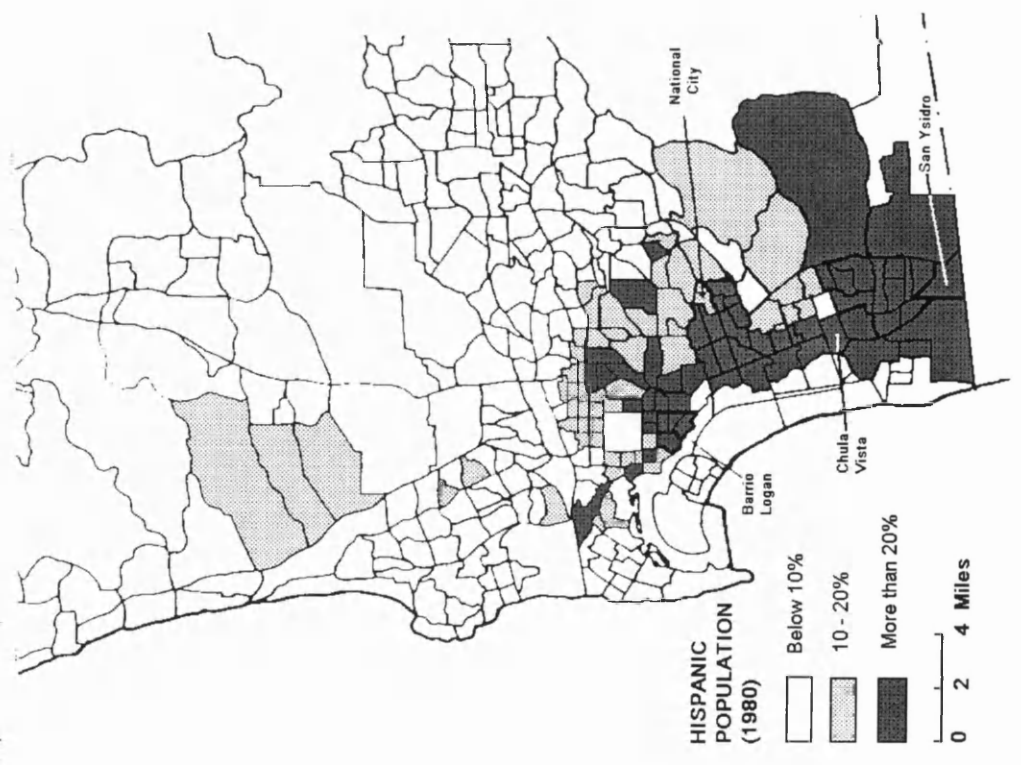
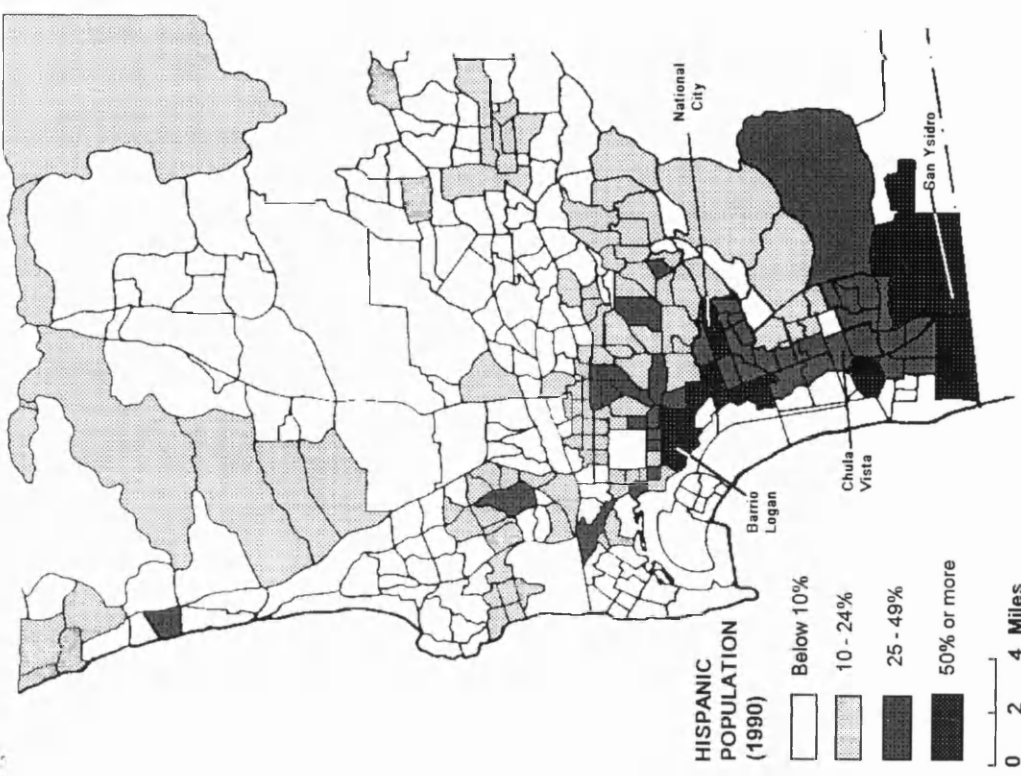
Location		Activity		Concentration of hospitals
Area	Zip Code	Medical specialty	Num. of Physicians	
San Diego Downtown	92101	Radiology	16	7
		Diagnostics Family practice	14	
La Mesa	91941	Family practice	19	7
		Internal medicine	18	
Chula Vista	91910	Family practice	26	7
		Pediatrics	13	
		Obstetrics and Gynecology	10	
		Psychiatrics	10	
Escondido	92025	Family practice	47	6
		Anesthesiology	23	
Kearny Mesa	92123	Orthopedic surgery	33	6
		Pediatrics	23	
		Radiology diagnostics	21	
		Psychiatrics	22	
Encinitas	92024	Family practice	23	4
		Psychiatrics	16	
		Pediatrics	10	
		Internal medicine	10	
La Jolla	92037	Internal medicine	55	3
		Psychiatrics	68	
Grantville	92120	Internal medicine	22	3
		Cardiology	23	
		Pediatrics	22	
		Radiology diagnostics	22	
Poway	92064	Pediatrics	13	1
		Psychiatrics	10	
92138	92138	Anesthesiology	130	
Hillcrest	92103	Internal medicine	61	
		Psychiatrics	57	
Grossmont	91942	Family practice	35	
		Gynecology and Obstetrics	27	



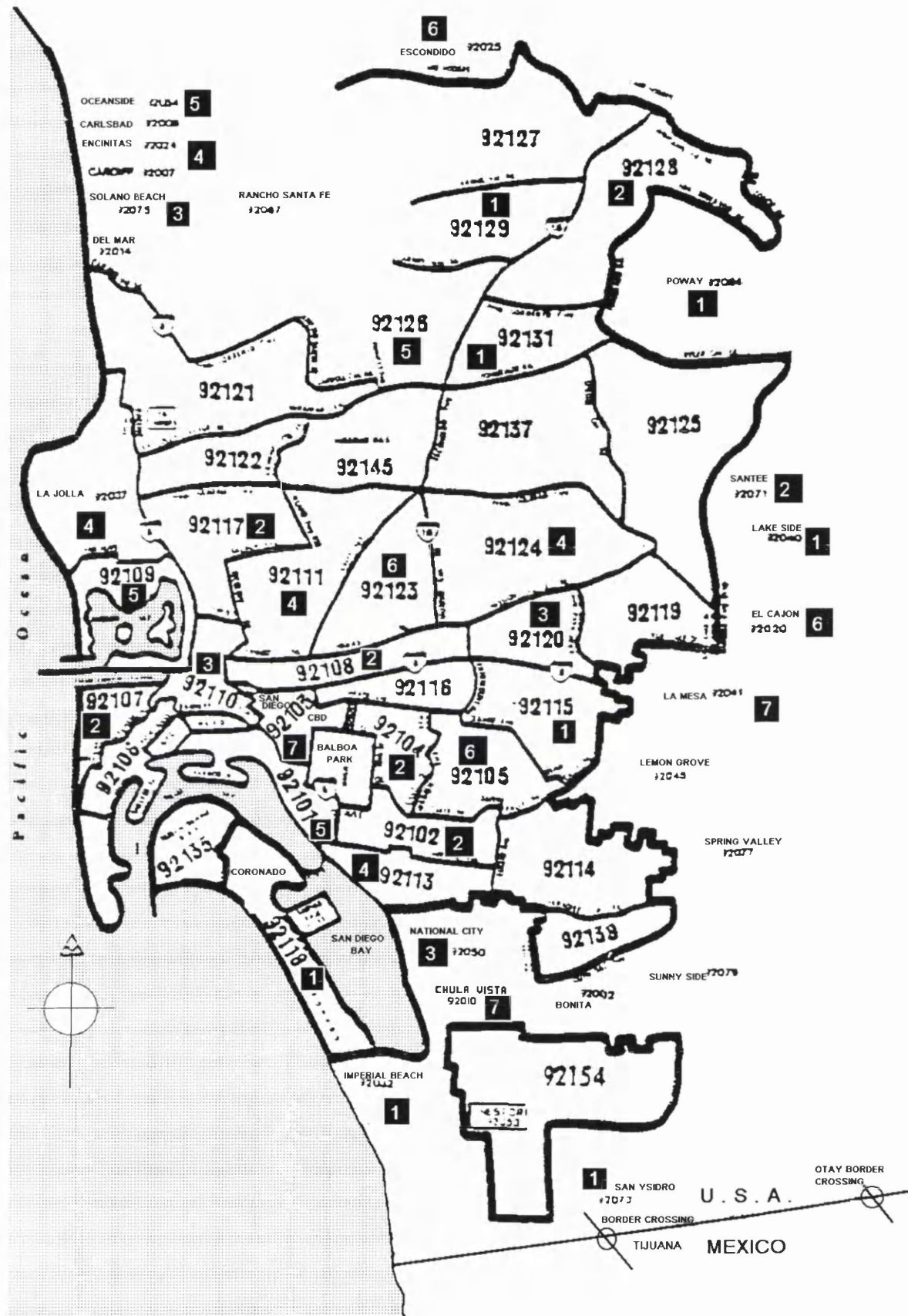
Map 2a. The Tijuana – San Diego region  
(source: INEGI, satellite image, 1993)



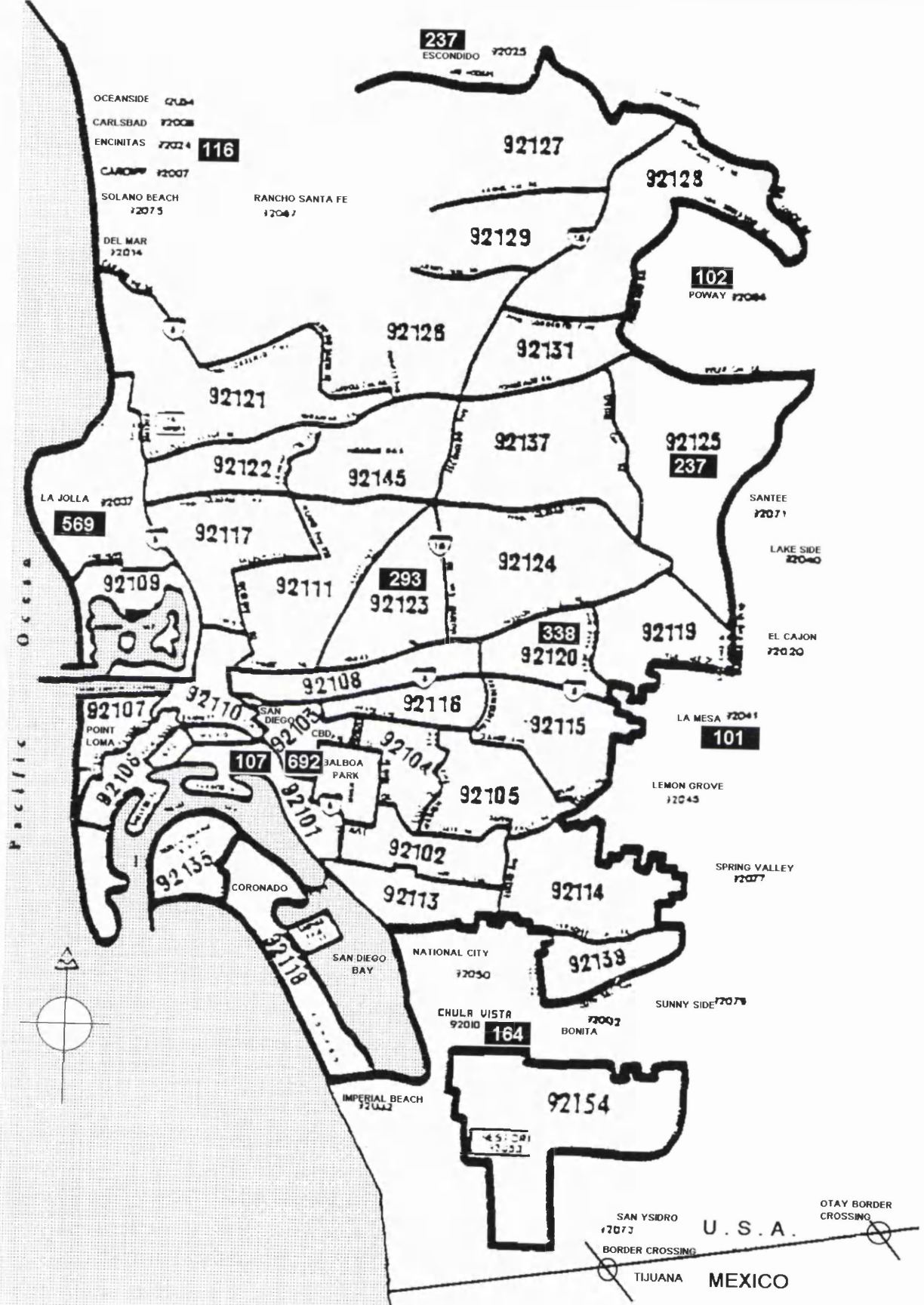
Map 2b. The Tijuana - San Diego region  
(source: Rand McNally's San Diego road map., 1996)



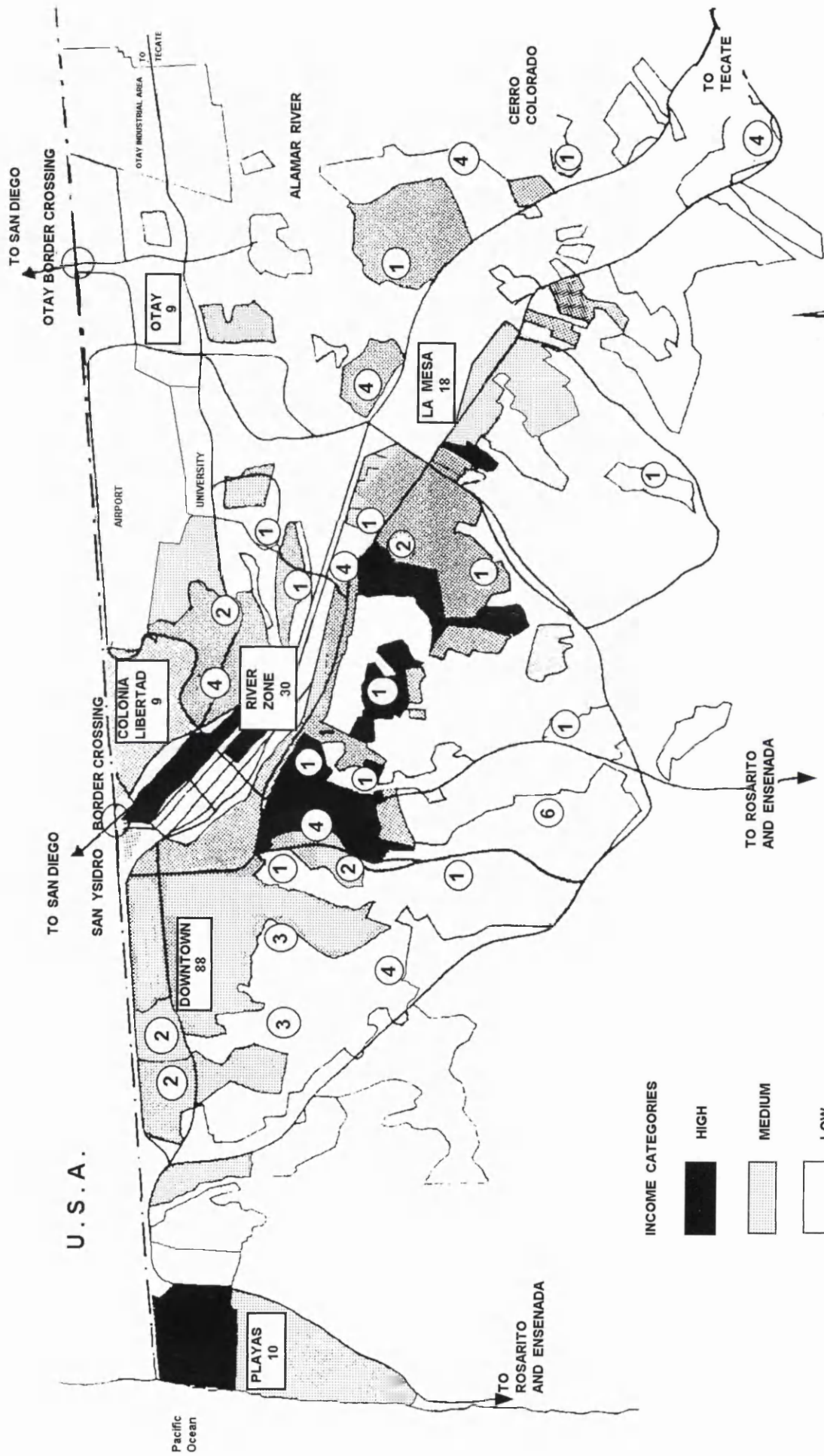
Map 3. Concentration of Hispanic population in San Diego in 1980 and 1990.  
 (sources: 1980 data: Herzog, L., 1990, p.175;  
 1990 data: Weeks, J.R., 1993, p.22)



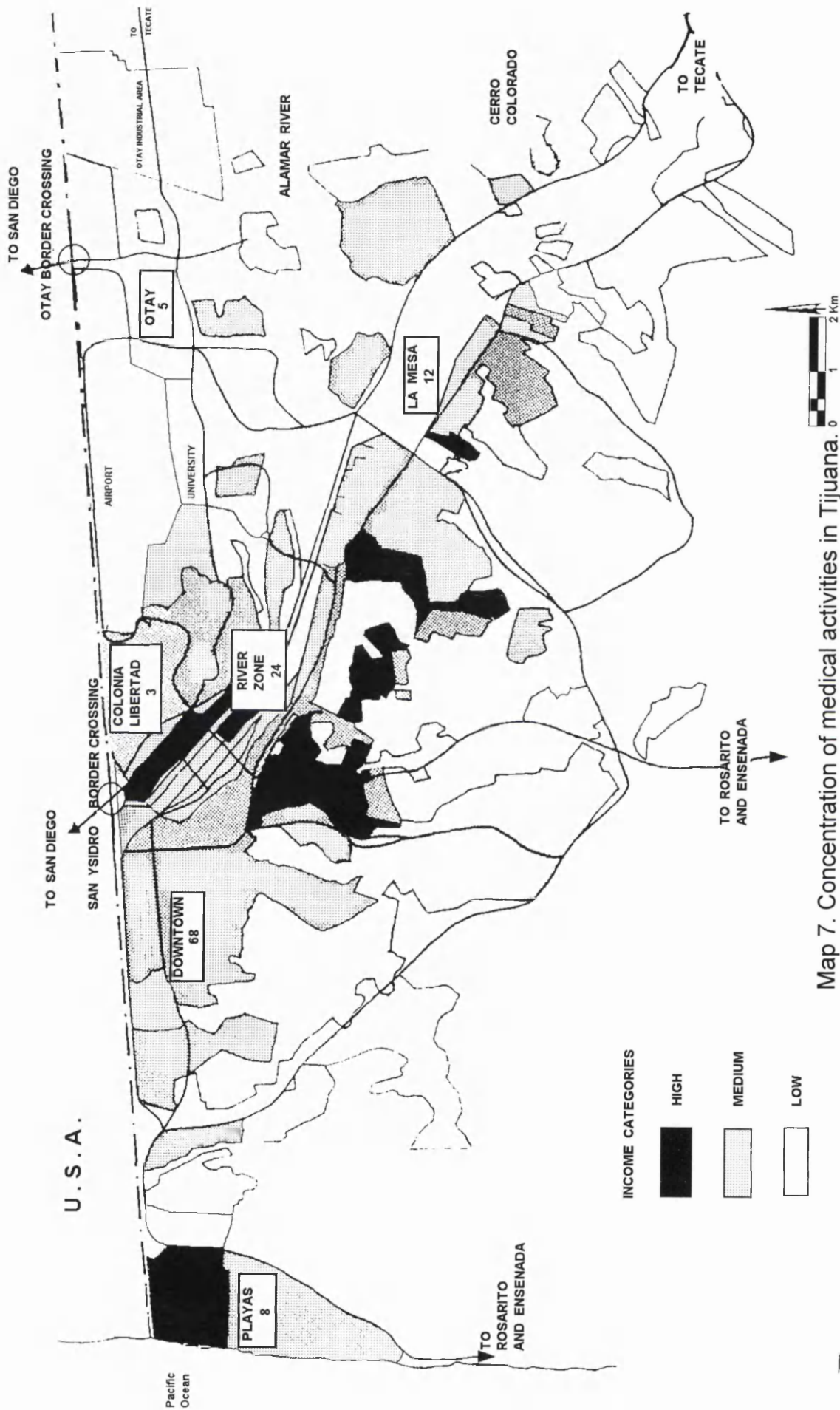
Map 4. General concentration of clinics and hospitals in the city of San Diego (source: Maynard-Morales, 1985)



Map 5. Areas concentrating more than 100 physicians in San Diego (source: Schneider, P. 1994)







**CHAPTER V. MEASURING COMPARATIVE  
ADVANTAGES IN TIJUANA**

## V. MEASURING COMPARATIVE ADVANTAGES IN TIJUANA

In general, measuring C.A. in medical services is not an easy task. According to Jacobs (1987), in the provision of medical services, the medical care process is the output or product in itself, therefore the main difficulty in measuring it stems from the quality factor<sup>1</sup>. As opposed to other services, in medical services, the quality factor varies from physician to physician and between treatments and visits. Thus it is not easy to separate the different activities rendered by physicians, nurses, paramedics, laboratory technicians, and so on, in order to measure quality. At the end it will all be the result of these services used altogether in order to provide a specific medical service and at a specific time.

According to Donabedian (1982), "an assessment of quality is a judgement concerning the process of care, based on the extent to which care contributes to valued outcomes"<sup>2</sup>. Despite the difficulties in trying to separate the activities within the process of care, the process in itself is divisible into two major components: "the technical care, and the management of the interpersonal relationship between the practitioner and the client"<sup>3</sup>. The technical component is related to "where and with what" the care process was rendered, this is a quantitative issue. And the interpersonal relationship is related to the "how", or the way the care process was delivered. this is a qualitative issue that is strongly related to the patient and the outcomes of care. "The outcomes of care that are relevant to an assessment of its quality should include patient knowledge, attitudes and behaviours, to the extend that they result from prior care and contribute to current or future health. And patient satisfaction is one such outcome"<sup>4</sup>.

To reduce the quality measure problem, many empirical studies on C.A. use an approach called 'revealed comparative advantage' (RCA), which looks at

observable data from trade, production and consumption<sup>5</sup>, thus relating the quality factor to measurable elements. Similar to other approaches, this one suggests a measuring process in two stages. The first measuring stage has to deal with the analysis of existing data on trade during specific periods of time. History and statistical records from the city of Tijuana with respect to medical services, have to be consulted and analyzed in order to reconstruct the way the demand of medical services has been changing. As a result of this analysis, the increase or decrease in the demand can be traced. This issue can be useful in order to find out to what extent it correlates to quality factors amongst others.

And the second measuring stage, has to deal with issues of production and consumption. In this case, the way specific services are produced and/or consumed is more closely related to quality factors. In order to measure these issues, elements from the model of C.A. proposed in tables 4 and 9 can be used. Other factors that can also be related to the consumption of medical services, as suggested by Donabedian (1982), are the issues of quality that involve patient knowledge, attributes and behaviours<sup>6</sup>. These elements can be translated into questionnaires to be applied directly at the sources of production and consumption of medical services. This is to say, clinics, hospitals and patients. This can be a more reliable way to verify the existence of C.A. in medical services, and measure its importance with respect to their quality of production and their consumption at the same time.

## **V.1 FIRST STAGE**

### **Tracing changes over time: the evolution of medical services in Tijuana.**

Due to the fact that, as in the rest of the country, in the city of Tijuana health issues are highly related to the public sector, official records on the provision of

health services by the private sector are very scarce. In the early 1960s, and because large facilities were not yet available, the public sector used to subcontract several health services to private clinics and hospitals. Since then and up to now, when existing, data involving the private sector is mixed with data from the public sector. Further more, the majority of physicians apart from working in the public sector, have their private offices where they offer consultation at their spare time. This is a generalized practice that makes it difficult to measure the number of physicians working at each sector.

In general, although the existing information is not very precise, it can be indicative of a shift in the pattern of behavior of the private medical sector in the city of Tijuana specially during the last 10 years.

The 1971 economic census from the Secretariat of Industry and Trade reported 363 private clinics providing medical services, generating 250 employments in the whole State of Baja California<sup>7</sup>. By the year 1988 there were 1,453 clinics employing 3,862 workers<sup>8</sup>. Unfortunately this last data is not specific with respect to how many were from the public sector and how many were from the private sector.

No clear data exists about the period of time when private clinics and hospitals began to proliferate in the city. Although some of the oldest hospitals in Tijuana date from the 1960s, the A.H.B.C. mentioned a notably increase of medical groups of up to 10 physicians and small clinics of less than 10 beds between 1985 and the early 1990s. This situation as well, was parallel to a budget reduction in the public health sector, that lead to a reduction of staff within the public sector.<sup>9</sup>

At present two sources of information exist with respect to the number of private health facilities. The 1994 report from the Secretariat of Health<sup>10</sup> (or Secretaría de Salud or S.S.) shows a total of 193 private activities related to medical

services in the city of Tijuana, out of which there are 4 hospitals, 4 clinics, 2 sanatorios, 5 medical centers, 4 medical units, 1 medical institute, 1 medical group and 172 physicians' offices (see appendix 3). According to this information, it is within the physicians' offices where the majority of private medical services are being produced and consumed in Tijuana. Thus being the labour intensive activities predominant amongst others.

And the 1994 report from A.H.B.C.<sup>11</sup> (the local hospitals association) lists a total of 100 private medical facilities, out of which 26 were hospitals, 49 clinics, 9 sanatorios, 8 medical centers, 5 medical units, 2 medical institutes and 1 medical group (see appendix 4). Considering this information, the situation with respect to the production and consumption of medical services changes. For in this case, private medical services are being produced and consumed mainly at clinics and hospitals. This changes completely the scenery due to the fact that capital intensive activities tend to prevail as against the labour intensive activities.

As it was stated before, the main problem about the inconsistency of the information comes from the indiscriminate use of the terms applied to refer to clinics and hospitals. There is a need to clarify these issues in order to have a sharp picture about the production and consumption of private medical services.

With respect to the increase in the number of physicians, data from the public and private sector is mixed. Thus from the yearly statistics book for the State of Baja California, official data shows that by June 1988 a total of 4,728 people worked in the provision of medical services in the State of Baja California<sup>12</sup> (1,678 physicians and 3,050 nurses), out of which 2,001 people were working in the city of Tijuana (752 physicians and 1249 nurses) (see table 22).

By August 1989 there was a decrease in the number of people working in the provision of public medical care falling to 4,132 individuals (1,425 physicians and

2,707 nurses), of which 1,658 worked in Tijuana (607 physicians and 1,051 nurses). Parallel to this, the demand for public medical services was increasing at a yearly average of 4.16 percent<sup>13</sup>.

According to the economic indicators, in June 1991 there were 7,302 registered people working in the provision of medical services (both in the public and private sectors) in the State of Baja California, out of which 3,839 (52.6 percent) were located in the city of Tijuana<sup>14</sup>. This data does not separate physicians from dentists and nurses, so the overall total cannot be disaggregated. No data was available with respect to 1992 and 1993. Nevertheless, to have a rough idea about the existing number of physicians, the local telephone directory listed a total of 1,053<sup>15</sup> physicians working in Tijuana during 1994.

Although a reduction of 17 percent was felt in the overall number of jobs in public medical services between 1988 to 1989, the situation in general was changing. From 1989 to 1991 there was an extraordinary increase in the amount of jobs (109 percent). Constant official budget constraints in public health sector since 1985, produced a reduction in the number of people employed in the public health sector. As many physicians and nurses were made redundant, they were able to relocate within the private sector. As it was seen, data with respect to the existing number of physicians is not very reliable. Nevertheless an interesting fact can be seen. Similar to what happened in the overall number of jobs generated by medical services, a 20 percent decrease in the number of physicians was felt from 1988 to 1989. And from 1989 to 1994 this amount increased up to 73 percent.

At the same time this situation was taking place, a positive impact in the commercial activities dealing with the provision and sale of medical equipment was felt (mainly refurbished American equipment). As the demand for medical equipment

increased, new providers appeared in the city, becoming this activity the second most important in job creation in the city between 1991 and 1992, generating a total of 987 registered jobs<sup>16</sup>.

Although the existing information is not sufficient to recreate in detail the changes that have been taking place with respect to the provision of medical services, three important and very closely related facts can be mentioned up to now.

First is the issue of governmental reductions of the health expenditure. As the public sector contracted with the main interest of increasing efficiency, this issue triggered the shift of many physicians towards private sector.

Second, and highly related to the previous one, was the increase in the amount of physicians. As many of them were made redundant, they were forced to find their way through the private sector within the city. Interestingly, instead of moving to different locations, they were able to stay in the city, meaning with this that there was actually a demand for their services.

And third, as a result of the previous two issues, is the one related to the way these physicians managed to stay in the city. In order to become competitive in the private health market, several alliances amongst physicians were needed, provoking the increase in the number of medical groups and small clinics during the early 1990s. A phenomenon very similar to the one that took place in San Diego between 1975 and 1983<sup>17</sup>. Although official and private information are not consistent with respect to the difference between physicians' offices in solo practice and small clinics, it can be safe to assume that small clinics are a mixture of both.

From this information it will be risky to conclude that the increase in the number of physicians, clinics and hospitals was the direct result of quality issues. Mere quantity cannot assume quality<sup>18</sup>, thus it is more likely that this phenomenon



was supported by other issues such as cost, location and changes in the public health sector.

## **V.2 SECOND STAGE:**

### **The production and consumption of medical services: designing the data collection tools.**

The issues of production and consumption are the two elements needed to obtain the output of health care, and both are strongly related to quality factors. As was observed by Donabedian (1982), what is important in order to assess quality, is to find out about the outcome of care. The only way to do this is to seek information directly from patients. A criteria to assess quality will pertain to "Structures, to Processes or to Outcomes"<sup>19</sup>. Within this frame, Structures are referred to resources used in the provision of care, including physicians, medical equipment and facilities; Processes are referred to the activities that constitute care; and the Outcomes are the consequences to health of patient satisfaction<sup>20</sup>. As a result of this, structures can be measured in terms of technical components (i.e. medical equipment, facilities, number of physicians, nurses and technicians, etc.), while processes and outcomes cannot always be separated in order to measure them. This means that this second stage of the survey can be divided in two parts. The first part will deal with structures, with the technical components needed to produce medical services, while the second part will deal with processes and outputs or the consumption of medical services. While the first part can be an evaluation of the facilities and personnel, the second part has to be applied directly to the consumers of medical services after receiving the service.

## **V.2.1 Structures or the production of medical services: the quantitative approach**

Following Michael Porter's model of C.A., and the model proposed for the border area in table 4, that was tested in table 9 using elements from the existing literature on health along the Mexico-U.S. border area, several elements can be identified as indicators of the existence of C.A. In order to verify this assumption, a more accurate model, containing as many as possible elements related to the Tijuana case was developed (see table 23). A survey was needed in order to have access to first hand information, thus a questionnaire was designed, translating the elements of C.A. to verify, into measurable elements related to questions (see table 24). Therefore, and following the structure of the proposed model of C.A., the design of the survey was divided in six parts, containing the majority of the elements to verify.

### **V.2.1.1 Factor conditions.-** For this factor, five elements were identified:

- a).-** The availability of physicians, or the amount of people offering their services in the medical sector;
- b).-** Type of clinic or hospital and medical services rendered, in order to verify the size, type and degree of sophistication;
- c).-** Geographic location, or the relationship between its location and the border crossing facilities (although this issue can be more related to the price of land, it can be helpful to learn more about the relationship between physical location, size and type of clinic and hospital); and
- d).-** Existing infrastructure and access to urban services, in order to find out more about what they have and what they need to become more competitive.

**V.2.1.2 Demand conditions.-** For this factor, three elements were selected:

- a).- Verifying the existing demand for medical services by American nationals;
- b).- Verifying possible increases in the demand for medical services by American nationals during the year;
- c).- Identify the type of medical services mostly consumed by American nationals.

**V.2.1.3 Related and supporting industries.-** For this factor, three elements were selected:

- a).- Existing supply of medical equipment;
- b).- Existence of supplementary medical services (such as laboratory analyses, X-ray machines, etc);
- c).- Existing supply of pharmaceuticals.

**V.2.1.4 Firm strategy.-** For this factor, six elements were selected:

- a).- Clinics and hospitals' internal goals;
- b).- Possible communication, exchange of information (and patients), and relationship with American clinics, hospitals and/or insurance companies;
- c).- Personal treatment to patients;
- d).- Quality of the services; and
- e).- Average waiting periods to be received by physicians.

**V.2.1.5 Chance.-** For this factor three elements were selected:

- a).- Local innovative research projects;

b).- New or alternative health treatments;

c).- New or alternative pharmaceuticals.

**V.2.1.6 Government.-** For this factor four elements were selected:

a).- Existence of Governmental incentives and/or support;

b).- Official approval of specific medical controls;

c).- Official minimum salaries; and

d).- Governmental border crossing policies.

As these elements were translated into measurable elements or questions to form the basis of a questionnaire, the research tool was designed also (see appendix 6).

## **V.2.2 Processes and outputs or the consumption of medical services: the qualitative approach**

Following Donabedian (1980, 1982), Cunningham (1991), and Sloan and Chmel (1991), several factors can be identified as being key elements in the quality issue. In general, these factors fall within the realm of quantitative issues and qualitative issues. For the specific case of the city of Tijuana, quantitative issues involve factors such as language, location, cost of care, long term physician relationship, quality of care (as conceived by the patient), convenience and modern facilities and equipment. In this same group are also variables to determine quality of the structures, like measuring the importance of cleanliness, education and training of physician or staff, medical knowledge of the physician or staff,

explanations by staff in understandable terms, up to date equipment, responsiveness, bedside manner or interpersonal communication, amenities such as food and room, new facilities or building and location. And finally, factors of comparison from previous visits.

Within the qualitative factors, a group of six elements were given attributes in order for people to evaluate. First, hospital's attributes such as care in the patients' language, patient care, responsiveness, good doctors, reputation, up to date equipment, cleanliness, adequate food, limited noise, and prompt and accurate billing. At another group are the physician's attributes like effective communication skills, up to date clinical skills, adequate time spent with patient, limited waiting time, and competent office staff. And with respect to more specific services, emergency services and general consult attributes include prompt service, necessary equipment, professional staff, provision for children and emphasis on care, not money. The obstetrical care attributes include being given consistent information and education, being treated uniquely or as an individual, adequate clinical knowledge on the part of obstetrical staff, and responsiveness of staff. The outpatient surgery attributes include responsiveness of staff, privacy and communication with patient and family. And finally Oncology care attributes include sympathetic and caring staff, information given to patients and family members and support given to patients and family members (see appendix 7 ).

### **V.3 CASE STUDIES**

#### **The data collection experience on the quantitative approach**

After completing the first phase of the research, and having the questionnaires designed in order to conduct the survey directly in Tijuana's clinics and hospitals, a sample of the universe was needed. The sample was taken from

the A.H.B.C. list due to the fact that it was the only reliable source of information with respect to location of the facilities, telephone numbers and the persons to contact.

The first idea was to collect data from all of the 100 clinics and hospitals registered at A.H.B.C.'s list. Contact was established with Dr. Alfonso Diaz de Leon Almada, and Dr. Simon Ramirez, President and General Secretary of A.H.B.C. respectively, who in the beginning agreed on allowing the data collection directly from clinics and hospitals' data banks. Furthermore, as they become interested in the survey, decided to apply the questionnaire (for clinics and hospitals) through A.H.B.C reunions, with the idea of keeping a copy of the information in order to continue doing more research themselves. During their August 1994 monthly reunion, the topic was presented and the questionnaires distributed to all of A.H.B.C. members. By early November only four questionnaires were recovered, and an urgent meeting was called in order to find out about the rest of the questionnaires. During the November reunion, surprisingly A.H.B.C.'s President informed that due to the fact that the majority of their members considered the information requested as 'highly confidential' it was decided that the questionnaire was not to be returned. Many of A.H.B.C. members argued that the study will harm their internal policies and interests. A minimum group saw the study on C.A. as a way to promote their good reputation and expand their market horizons in the provision of medical services. Two groups were formed: a majority group against, and a group of ten in favor of the research. As the meeting concluded it was decided that only those in favor were free to submit the answered questionnaire. The only condition asked was that the names of the surveyed clinics and hospitals remained anonymous. By December 1994, only 10 questionnaires were recovered. Code names have been given to each of the surveyed cases in order to maintain their

anonymity. Besides a questionnaire, the survey included also short interviews. In these interviews, directors of clinics and hospitals were asked to expand in any of the questions made in order to explain in detail when the answer seemed limited.

A detailed information of the data collected in each case, along with specific explanations from the interviewees is included in the following part. Appendix 8 shows the condensed data from the questionnaires. The information in the tables is arranged according with the clinics and hospitals number of beds. Table 25 and map 8 shows the location of the surveyed clinics and hospitals.

### **V.3.1 Case H1**

This first case is classified as hospital. It is located at Colonia Libertad, a low-middle income high density residential area, and one of the oldest settlements in the city (see map 8). This hospital was established since 1990, has seven beds with a monthly occupation rate of 2. Employs 3 full time general nurses and a total of 20 independent specialized physicians<sup>21</sup>. The majority of their equipment is refurbished and bought from a local dealer who imports them from the United States. Medical services are offered in Spanish and English. No research projects were conducted at that time, and according to the director, they do not conduct research projects as a regular part of their routine. This hospital maintains communication mainly with local clinics and hospitals. The only time when communication is established with an American clinic or hospital is when specific information about an American patient is needed. Due to the fact that it has no internal laboratory, many patients are referred to other laboratories to have their analyses made.

Both local and non-resident patients are attended in this hospital. Their nationality is asked for clinical records, no passport nor other type of identification is required to verify it. Amongst local users the majority were emigrados<sup>22</sup>, many of

whom live in Tijuana. Unfortunately no information was given with respect to the amount of non-resident users. Both emigrados and non-resident patients, make use of outpatient care services, hospitalization, pediatrics, general surgery, plastic surgery, physicians' offices, gynecology, obstetrics and delivery. Dentistry and emergencies are also highly used by these patients. No information was given with respect to the type of medicine used by them. The majority of these patients prefer to pay fully and in cash for the medical services they use.

When asked if they will allow surveying their non-resident customers they claimed that due to the confidentiality of the information, this could not be possible.

They consider themselves well located and therefore had no problems with the local planning department when deciding on their location. Nevertheless being located at a high density residential area has produced complications. As they claimed, there are no green areas nearby and there is a shortage of public parking spaces.

### **V.3.2 Case H2**

This case is classified as clinic. Is located at Colonia Ciudad Jardin, a low middle income, high density housing area, and it was established since 1990. It has a total of six beds with a monthly occupation rate of 2. Their medical equipment is mainly American refurbished and bought from a local dealer. It has a staff of 3 full time general nurses and a total of 12 specialized physicians, out of which 10 are independent and 2 are full time employers. The independent physicians also have their offices at different locations, and are called when their services are required by a patient. For these purposes, the clinic has always several physicians' offices available within their facilities.



Medical services are offered only in Spanish. No research studies are conducted normally, and no contact with American clinics or hospitals were reported. Although it was stated they had no non-resident patients, nevertheless it was accepted that several emigrados living near the clinic, use this clinic on a regular basis. Very seldom they have people coming from San Diego or Los Angeles, and when they have they were referred by friends or relatives living nearby the clinic. Thus speaking fluent Spanish all of them. Their nationality is confirmed when their place of origin is asked in the clinical records. Although living in Tijuana many of them state being legal American citizens. An increase in the amount of these patients was reported between the months of April, May, June and July. Periods of time coinciding with summer holidays. The average number of emigrado patients during this time was between 20 and 30 per month.

Amongst the medical services used by them were, outpatient care, hospitalization, pediatrics, general surgery, plastic surgery, laboratory, ultrasound, drug store, X rays and electroencephalography. The type of medicine mostly prescribed to these patients is of type I<sup>23</sup>, or controlled medicine. The prescribed medicine, is mainly of Mexican origin. Complementary medical services, like laboratory analyses, have to be conducted elsewhere due to the lack of this facility in this clinic. Medicine also has to be bought at drug stores located out of the premises, and sometimes is difficult to the patient due to the fact that type I medicine is sold at very specific drugstores. These patients pay fully in cash for medical services. When asked if they would permit to survey their non-resident patients, the answer was no, because the type of medicine prescribed to these patients, and because confidentiality was one of the clinic's most important goal.

With respect to location problems and urban services, this clinic had no problems with the local planning department when its location was decided, and

they consider themselves well located. Nevertheless, a need to upgrade the existing public transport, paved streets, public lighting, water and sewage system, public telephones and rubbish collection was acknowledged by them. Because they are located at a high density residential zone, green areas are very scarce. A specialized rubbish collection service was needed by them, or at least one with a daily collection routine. A shortage of public parking spaces was considered their main problem. At present there are no specific upgrading programmes oriented to where this clinic is located, and there are no incentives nor any type of support from local government to promote the development of the area.

### **V.3.3 Case H3**

This case is classified as clinic. Is located at Fraccionamiento Nueva Ensenada, a middle income, low density housing area, far from the city of Tijuana and closer to the city of Ensenada. It was established since 1989, and has 3 beds. The majority of their medical equipment is refurbished and bought from a Tijuana dealer. Has a variable staff of independent specialized physicians and 2 full time general nurses.

Medical services are offered in English and Spanish, no research projects were conducted at the time of the survey. Although it was accepted that sometimes they do conduct research projects, no specific details were given. No contact with American clinics or hospitals was held, and no non-resident nor American patients were reported amongst their regular users. According to them, only Mexican patients use this clinic. American patients only come during emergencies, after which they are transferred to the U.S. Unfortunately they were unable to differentiate between emigrados and local Mexican patients.

This clinic had no problems with the local planning department when deciding on their location. When asked about their performance, they asked for an urgent need to upgrade the existing public transport system, paved streets, public lighting, water and sewage services, green areas and public telephones. Rubbish collection services and public parking areas were considered a serious problem for them. Local government has no specific upgrading programmes for this area and there are no official promotion policies for the provision of medical services.

#### **V.3.4 Case H4**

This fourth case is classified as hospital. Is located at the downtown area, a high density tourist and commercial sector. It was established since 1992, and has nine beds with a monthly occupation rate of 6. Includes a small laboratory for clinical tests. Has a staff of 6 to 10 full time specialized physicians, 4 full time general nurses and 2 laboratory assistants. The majority of their equipment is American refurbished bought from a local dealer. Medical services are offered in English and Spanish. Although sometimes they do, during the time of the survey no research projects or studies were conducted. No contact with American clinics and hospitals were kept. Emigrado and American non-resident patients do attend this hospital on a regular basis. A minimum of 10 of these patients were reported per month, and an increase in the number of these patients within the year was acknowledged but not specified. Nevertheless it was acknowledged that during American holiday periods, the inflow of American patients increase. Their nationality is verified when their address and place of origin is asked for clinical records. These patients use mainly outpatient care, hospitalization, gynecology and obstetrics, dentistry, emergency services and preventive medicine. Laboratory analyses and complementary medical services are conducted internally. Medicine prescribed to

these patients is mainly of Mexican origin, and varies from type I to type V. Because there is no drugstore within the facilities, medicine has to be bought at a nearby drugstore. Due to the supply difficulties, when type I medicine is prescribed, data with respect to the location of the nearest drugstore selling this medicine is given to the patient. All of these patients pay fully in cash for medical services. Nevertheless when asked if they would allow surveying their non-resident patients, the answer was no.

And with respect to location problems and access to urban services as part of their performance, they reported not having any problems with the local planning department when deciding on their location, and no problems with the existing urban services either. Nevertheless they claimed that because it was a high density commercial zone, there were no green areas nearby; rubbish collection services were scarce for their needs, public telephones never worked, and there was a large shortage of public parking spaces. Although the downtown area is of main interest for local government, no special attention is paid to specific needs from medical services located in this area. They are considered as part of the general commercial area.

### **V.3.5 Case H5**

This case is classified as hospital. Is located at Fraccionamiento el Paraiso, an upper middle income, medium density sector that includes a mixed land use zone. It was established since 1981 and has forty five beds with an average occupation rate of 14. Although it has a small drugstore and a laboratory that performs internal clinical tests, these facilities are managed as separate units. Has a staff of 39 specialized physicians, out of which 4 are full time employed and 35 are independent. Also has 30 full time trained nurses, 11 general nurses and 3

paramedics. Some of their medical equipment is new, specially the one in the laboratory; ultrasound and x ray machines have also been bought in San Diego and imported directly by them. The rest of their equipment is refurbished and bought from a local dealer. Medical services are offered in English and Spanish. Although it was accepted that sometimes they do conduct research project, during the time of the survey no research projects or studies were being conducted, and no details were given about previous projects. This hospital maintains contact with American hospitals in San Diego from the SHARP foundation. These contacts include attending patients referred by these hospitals. Medical services used by these patients are specially in the area of rehabilitation, traumatology, orthopedics and pediatrics.

Apart from American patients coming from the SHARP hospitals, there were also emigrado and American non-resident patients amongst their users, being in their majority of two groups: Spanish speaking American nationals living in Tijuana and Latin origin people coming from San Diego and Los Angeles for an average of 30 per month. During the months of June, July and August the number of these patients increases up to 90 per month. Besides language, their nationality is verified when asked their address and place of origin for clinical records.

The majority of these patients use hospitalization, general surgery, physicians' offices, traumatology and orthopedic services, being hospitalization and general surgery the most demanded services. These patients use mainly type II and III medicine of Mexican origin. All analyses are conducted internally, and the prescribed medicine is sold at their own drugstore within their facilities. No data was given with respect to the payment mechanism used by these patients. In this case, when asked if they would allow surveying their non-resident patients, the answer was yes, provided it was during a low season and not for official use.

When asked about location problems and access to urban services as part of their performance, this hospital had no problems with the local planning department when deciding on their location. As for urban services, their only concern was a need to upgrade the existing public lighting and a need of green areas. The location area has been subject to several upgrading programmes due to the fact that it is the connection between two very important regions: the Tijuana River zone, and the La Mesa area, both of high commercial interest. The upgrading projects have included the widening of streets to facilitate the movement of vehicles and a new public lighting system that has not worked as planned. Nevertheless no special considerations are taken for specific needs of clinics and hospitals within this area.

#### **V.3.6 Case H6**

This case is classified as medical group. Is located at the downtown area, and has 3 beds, comprises also a small internal laboratory and a drugstore. The majority of their equipment is refurbished American, bought from a local dealer. Has a staff of 10 specialized physicians, out of which 4 are full time employers and 6 are independent. Includes also 1 full time specially trained nurse and 5 general nurses, 1 chemist and 1 lab technician. Medical services are offered in English and Spanish. Research projects are conducted on a regular basis<sup>24</sup>. This medical group keeps no contact with American clinics or hospitals. It was acknowledged that many local emigrados attend this medical group on a regular basis. Apart from them, non-resident patients, like American retirees coming from San Diego, south Los Angeles and vicinities, were reported amongst their users. Although they verify their patients nationality for clinical records, the amount of patients and the periods of time when this amount increases was not specified.

Medical services mostly used by these patients are amongst others, outpatient care, hospitalization, general surgery, plastic surgery, physicians' offices, gynecology and obstetrics, cardiology, laboratory, ultrasound, dentistry, cancer treatment, drug store, x rays, chemotherapy and tomography. The type of medicine mostly prescribed to these patients was not specified. The existing internal laboratory is used only for small clinical analyses. When complex analyses are needed, patients are referred to larger and more specialized laboratories or hospitals. Full payments in cash were reported as the general paying mechanism by these patients. And when asked if they would allow surveying their non-resident patients, the answer was no because of confidentiality matters.

With respect to location problems and access to urban services as part of their performance, this medical group had no problems with the local planning department when deciding on their location. As for urban services, they claimed an urgent need to upgrade the existing public transport, paved streets, public lighting, water and sewage systems, green areas, public telephones, general and specialized rubbish collection services, and more public parking areas. Similar to the rest of clinics and hospitals located at the downtown area, only maintenance programmes for commercial areas are considered. No special attention is paid to the urban needs of the existing clinics and hospitals.

### **V.3.7 Case H7**

This case is classified as a rehabilitation center. Is located at Colonia 20 de Noviembre, a middle income, medium density residential area near the Tijuana River zone. It comprises only 1 bed and includes a small laboratory and a drugstore. Has a staff of 3 specialized physicians, out of which 2 are full time employed and 1 is an independent physician. The staff also includes 1 specially trained nurse, 1

paramedic, 1 chemist, 3 lab technicians and 1 lab assistant. Medical services are offered in English, French and Spanish, and they do conduct research projects as part of their normal routine<sup>25</sup>. As a drug rehabilitation center, it keeps regular contact with all clinics and hospitals from the American Methadone Association, specially with the ones located in the San Diego area. Sometimes information is also exchanged with Canadian clinics, thus the reason for both languages, English and French. The information and experiences exchanged are mainly in the area of methadone dosage. Coincidentally no non-resident patients were attended here mainly because it is oriented to local residents only. Nevertheless it was acknowledged that many local Spanish speaking emigrados receive treatment here. Their nationality is usually confirmed for clinical records. These patients use mainly the rehabilitation therapies available. Due to the fact that they are prescribed mainly type I medicine, and it is very difficult to find at the average drugstore, this medicine is obtained from their internal drugstore. Because it is a rehabilitation center, it was reported that emigrados prefer it because of the strict confidentiality policies existing in this center. Further more, being located outside the U.S. assures them more confidentiality.

As rehabilitation therapies tend to take long, many non-resident patients settle in the city of Tijuana for periods of up to 18 months until the therapy is finished. Confidentiality was the main reason given to the fact that patients prefer to pay fully in cash for their medical services instead of using health insurance that will lead to information related to their drug problems. Therefore, when asked if they would allow surveying their non-resident patients, the answer was no.

When asked about their location problems and access to urban services as part of their performance, no problems were reported with the local planning department when deciding on their location. Nevertheless they reported an urgent



need to upgrade the existing public transport, paved streets, public lighting, water and sewage services, general and specialized rubbish collection and more public parking areas. Lack of green areas and public telephones were mentioned as non existing and urgently needed. Although the Colonia 20 de Noviembre region has been benefited by some of the upgrading programmes conducted at the Tijuana River zone, the commercial area where this clinic is located has not been the major target of these programmes. And up to now there are no upgrading programmes oriented to the development of this area.

### **V.3.8 Case H8**

This case is classified as hospital. Is located at the Playas de Tijuana area near the beach, a high-middle income, low density residential area. It was established since 1963, it is considered one of the oldest and largest private hospital in Tijuana. Comprises 67 beds with a monthly occupation rate of 46, includes also a well equipped laboratory and a drugstore. Although some of their equipment is refurbished and American bought from a local dealer. After a large investment made in 1985, that included the construction of a new 4 level building to improve the existing facilities, one of their major internal policies has been the upgrading of all the medical equipment. So now, almost all their medical equipment is new, bought in San Diego and imported directly by them. This hospital has a staff of 21 specialized physicians, out of which 6 are full time employed and 15 are independent physicians; includes also 17 specially trained nurses, 8 paramedics, 2 chemists and 1 lab technician. Medical services are offered in English and Spanish. Different research projects are conducted in this hospital on a regular basis<sup>26</sup>. This hospital also maintains contact with American clinics and hospitals from the SHARP foundation, specially the ones from the Chula Vista area in San Diego,

and with two American organizations: the Wellness Council and the Cancer Control Society, thus attending American national patients referred by them. As part of their services, this hospital also offers free transport from and to the border crossing, making it easier for non-resident patients to arrive. Amongst the medical services mostly used by these patients are cancer treatment, surgery and general medical treatment. Besides emigrado and American non-resident patients, this hospital also attends Canadian, Japanese, Korean and German patients, specially during the month of May. During this time the number of non-resident patients increase up to 62 per month. Their nationality is confirmed for clinical records. Amongst the medical services mostly used by the average non-resident patient were outpatient care, hospitalization, general surgery, physicians' offices, laboratory, ultrasound, cancer treatment, drug store, preventive medicine, x rays, chemotherapy, weight loss and tomography. All medical services are conducted within the facilities. The internal laboratory is well equipped, and offers its services to other local clinics and hospitals as well. All types of medicine, specially of Mexican origin are prescribed to these patients and bought at the internal drugstore. Special prescriptions for type I medicine can be obtained here and the medicine is always available in their drugstore. It was reported that non-resident patients pay fully and in cash. Nevertheless, some of them also use the internal partial payment policy, dividing the total amount owed, to be paid monthly until covered in full. This hospital offers health plans and credit to patients, working to some extent as an HMO. And when asked if they would allow surveying their non-resident patients, the answer was no, for their patients do not like to be disturbed.

When asked about their location problems and access to urban services as part of their performance, no problems were faced with the local planning department when deciding on their location. And an urgent need to upgrade the

existing public transport, paved streets, public lighting, water and sewage services, green areas, public telephones, rubbish collection and parking areas was reported by this hospital. Although located at one of the best areas in the city, local government has no special policies oriented to the promotion of private medical services. Therefore some of the latest upgrading works performed around this hospital, like street lighting and some paved streets, have been highly financed by them in agreement with local government.

### **V.3.9 Case H9**

This case is classified as a medical unit. Is located at the Tijuana River zone and it was established since 1986. Has a staff of 10 specialized physicians, all of them independent, 2 trained nurses and 1 paramedic. It includes also a laboratory and a drugstore that are managed as separate units. The majority of their equipment is American refurbished and bought from a local dealer. Medical services are offered in English and Spanish, and no research projects were conducted on a regular basis. This medical unit also maintains contact with all the American clinics and hospitals from the SHARP foundation from the San Diego area, receiving patients referred by them. Amongst the medical services used by these patients were the intensive care unit (ICU), surgery and cardiology. Besides these patients, several pocho, chicano and emigrado patients, as well as American white-English-speaking patients from San Diego, Orange County, Los Angeles and Texas attend this medical unit also, specially during the months of May, June, July and August. No information was given with respect to the number of non-resident patients attending this medical unit during those months. Their nationality is confirmed at their clinical history. Amongst the medical services mostly used by these patients were outpatient care, pediatrics, general surgery, plastic surgery, gynecology and

obstetrics, cardiology, dentistry, drug store and ophthalmology. Being the drugstore and outpatient care the services mostly used by them. Pediatrics, ophthalmology, dentistry and plastic surgery were ranked second in demand. Type II medicine is mainly prescribed to these patients. Laboratory analyses are provided within the facilities, and medicine bought directly from their internal drugstore. It was reported also that although the majority of these patients pay fully in cash, some of them make use of collective insurance plans and third party payor. When asked if they would allow surveying their non-resident patients, the answer was yes provided the information was kept confidential.

With respect to location problems and access to urban services as part of their performance, they reported having no problems with the local planning department when deciding their location. Despite this, an urgent need to upgrade the existing public transport, paved streets, public lighting, water and sewage systems, public telephones and rubbish collection was reported, as well as a need for more public parking spaces. A lack of green areas was reported as one of their main problems. Although based at the Tijuana River zone, their location within the commercial area allows them to have only the services rendered to the average commercial area. As in other cases, the existing urban policies do not pay attention to the special needs of clinics and hospitals.

### **V.3.10 Case H10**

This case is classified as a hospital. Is located at Playas de Tijuana also, and it was established since 1991. It is located very close to a high density commercial area and a large supermarket. Has 35 beds with a monthly occupation rate of 18. Comprises also a laboratory and a drugstore managed as separate units. The majority of their medical equipment is American and refurbished. Has a staff of 9

specialized physicians, out of which 6 are full time employed and 3 are independent physicians; there are also 13 trained nurses, 1 paramedic and 1 chemist. Medical services are offered in English and Spanish, and research projects are conducted on a regular basis<sup>27</sup>. No contact with American clinics or hospitals was reported. Nevertheless, emigrado and American non-resident patients coming from San Diego, Los Angeles and San Francisco attend this hospital. No information was obtained with respect to the number of these patients. Their nationality is confirmed for clinical records. Amongst the medical services mostly used by these patients are: outpatient care, hospitalization, pediatrics, general surgery, gynecology and obstetrics, delivery, cardiology, laboratory, ultrasound, cancer treatment, emergencies, drug store, x rays, nurse care, chemotherapy and weight loss. Being cancer treatment the service mostly used by these patients, followed by outpatient care, hospitalization, and so on. All other services like clinical analyses, x ray test, etc., are conducted within the facilities. Type I, II and III medicines of Mexican origin are mainly prescribed to these patients and bought in their own drugstore. Patients in their majority pay fully in cash for the services they use, other type of payments were credit cards. An in this case, when asked if they would allow surveying their non-resident patients, the answer was no due to the type of medicine prescribed (type I) to their patients, and because of internal confidentiality policies.

With respect to location problems and access to urban services as part of their performance, they reported not having problems with the local planning department when deciding on their location. Nevertheless, they acknowledged an urgent need to upgrade the existing paved streets, public lighting, water and sewage services, public telephones rubbish collection and public parking areas. The lack of green areas was also reported as an existing problem. Its location very close to a high density commercial area creates conflicts with respect to parking spaces and

ambulance arrivals. Although located near hospital H-8, this hospital has not been able to improve its surroundings by dealing with local government, and up to now there are no official policies towards the promotion of private medical services in that area.

#### **V. 4 CASE STUDIES**

##### **The data collection experience on the qualitative approach.**

As it was mentioned in Chapter I, this part of the survey was conducted during the summer of 1998, four years after the first survey. After all this time, still very few A.H.B.C. members were willing to allow their patients to be interviewed. Therefore, the survey was conducted on the street to patients coming out from clinics and hospitals. This issue gave place to a different set of problems. Despite the fact that the directors of clinics and hospitals were informed about the importance of the study and the way the survey was going to be conducted, many of them threatened the interviewers and even called the local police department in order to force them off the sidewalks and away from the proximity of their facilities. Fortunately the police department knew about this issue and took no action against the interviewers, for sidewalks are of public domain. Nevertheless, in only one case (street survey 3), private security guards were sent to take the information from the interviewers and force them away. In this case the survey was interrupted to prevent further confrontation.

The survey was conducted on a typical weekend on August 1998. These dates were selected for two facts:

- a).- from the previous survey it was detected that for medical services the high season included the months of June, July and August; and

b).- The month of August is still summer holiday period and the interviewers were available at that time.

In this occasion, the surveyed clinics and hospitals included some of the facilities from the previous research and others who presented these two conditions:

a).- Those who were located at the Downtown area, Tijuana River area, La Mesa area, and Playas de Tijuana area. These areas were selected for being the areas tourists visit the most;

b).- And those who accepted having U.S. Nationals as patients.

The survey was conducted between 9:00 a.m. and 5:00 pm. on a Saturday and Sunday. The interviewers were volunteer students from Universidad Autonoma de Baja California (UABC) who received previous training.

A total of 241 people were interviewed out of which 202 answered the questionnaire properly , with 39 refusals. A detailed description of the data collected is included in the following part. Appendix 9 shows the condensed data, and Table 26 and Map 9 shows the location of the surveyed facilities.

#### **V.4. 1 STREET SURVEY 1**

This case was a Hospital located at the Playas area (Case H10 from the previous survey), and the survey included a total of 18 cases, out of which, 10 respondents were Mexican nationals, 7 were American nationals and one was from a different nationality and refused to specify it. Only 11 questionnaires were fully answered, the other 7 refused to answer arguing they were on a hurry and had no time. From the people who answered, 8 were Mexican nationals with permanent residence in Tijuana, one Mexican with permanent residence in San Diego and one American

with permanent residence in San Diego. The person who had a different nationality was in transit. The American national residing in San Diego was not Latin origin, but spoke Spanish fluently and recommended that, considering that the people working in this facility were highly responsible, American clinics and hospitals should be allowed to give assistance and training to this Hospital. The age group varied from a 10 year old boy to a 70 year old man, being the predominant group males between 40 and 50 years of age.

**Quantitative factors.**

For this group, the most important factors that influenced their decision about where to go for medical services were quality of care, convenience and modern facilities and equipment that were mentioned 10 times. Location and long term physician relationship were mentioned 8 times, and language and cost of care were mentioned 6 times. In this case, the American national considered quality of care and modern facilities and equipment as the most important factors.

With respect to hierarchy of these factors, location and quality of care were ranked first in three occasions; long term physician relationship was mentioned two times and cost of service was mentioned one only one time. The American national respondent ranked quality of the service first and cost of the service as second.

In measuring the importance of variables in determining the quality of a hospital or doctor, all 11 respondents coincided that cleanliness, explanations by staff in understandable terms, up to date equipment, and responsiveness were factors related to quality were very important. Medical knowledge of the physician or staff and bedside manner or interpersonal communication were mentioned 10 times; language and education and training of the physician or staff were mentioned 9 times; new facility or building and location were mentioned 7 times, and amenities such as food and room was mentioned 6 times. A strong similarity of answers were



given by the American National respondent. The variables that were mentioned as not important were new facility or building and location that were mentioned 2 times and amenities such as food and room that was mentioned 1 time.

In comparing the quality of physician care from previous years, seven respondents accepted they did not know mainly because it was their first visit to the physician. While 2 respondents mentioned the quality was better than two years ago and the other two mentioned the quality was the same as two years ago. With respect to the quality of the clinic or hospital, the answers were very similar, six respondents were first timers, so they did not know, only one considered the quality was better than two years ago and four considered it the same as two years ago.

#### **Qualitative factors.**

In evaluating the hospital attributes 10 respondents considered that patient care, responsiveness, good doctors and up to date equipment were very good. Nine respondents considered care in their language, reputation, cleanliness, limited noise and prompt and accurate billing as very good also; and only six respondents considered adequate food as very good. It is interesting to see that it was mentioned once that care in their language, limited noise and prompt and accurate billing were not good, specially when this answer was given by the American national respondent.

With respect to the physician attributes, 10 respondents considered effective communication skills, limited waiting time and competent office staff as being very good. Only 9 respondents mentioned that adequate time spent with patient was very good, and 8 respondents mentioned that up to date clinical skills were very good. No attributes were mentioned as being not good.

With respect to the services attributes, the majority of the respondents were seeking emergency services and general consult. From these services, professional staff

and emphasis on care, not money, were considered very good by 7 respondents, followed by prompt services that was considered as very good by 6 respondents, and necessary equipment by 5 respondents. Interestingly, prompt service was mentioned by the American national as being not good. Only 2 cases were reported seeking obstetrical care, and the attributes that were considered as very good were being treated uniquely or as an individual, adequate clinical knowledge on the part of obstetrical staff, and responsiveness of staff. The attribute that was considered fairly good was being given consistent information and education. Only one case was reported seeking outpatient surgery, being responsiveness of staff, privacy and communication with patient and family, considered as very good attributes. Similarly, only one case was reported as seeking oncological services, and sympathetic and caring staff, information given to patients and family members and support to patients and family members, were considered as very good attributes.

#### **V.4.2 STREET SURVEY 2**

This case was a Hospital located at the Playas area (Case H8 from the previous survey), and the survey included only 3 cases, being all Mexican nationals, with permanent residence in Tijuana. The age group varied between 20 and 40 years of age. The shortage of surveys was due to the fact that this hospital treats cancer, leukemia and terminally ill patients, many of which are hospitalized and their relatives do not want to be disturbed. Therefore, after several refusals that mentioned this fact, and a recommendation of the Personnel Director, the survey was interrupted. Despite the fact that there were very few respondents, during the survey an average of 25 English speaking, elderly American nationals were identified within the hospital premisses.

### **Quantitative factors.**

For this group, the 3 respondents considered language, cost of care, long term physician relationship and modern facilities and equipment as very important factors in influencing their decision about where to go for health care were. Location, quality of care and convenience were considered as very important also by 2 respondents. Location and convenience were also mentioned by 1 respondent as being fairly important.

In order of importance, the factors that were considered in first place were language, cost of care and long term physician relationship. Quality of care and cost of care were ranked second; location, long term physician relationship and convenience were ranked third. The factors that were ranked last were convenience and modern facilities and equipment.

In measuring the importance of variables to determine the quality of a hospital or doctor, Language, cleanliness, education and training of the physician or staff, explanations by staff in understandable terms, up to date equipment, bedside manner or interpersonal communication and location were considered as very important in the first place. Medical knowledge of the physician or staff, responsiveness, amenities such as food and room, and new facility or building were considered very important in a second place. Interestingly, medical knowledge of the physician or staff, responsiveness, amenities and new facility or building were also mentioned as fairly important.

In comparing the quality of physician care, only one case mentioned it was better than two years ago, while the other two did not know due to the fact that it was their first visit to this physician. The same answers were given when asked about the quality of the hospital care.

### **Qualitative factors.**

In evaluating the hospital attributes, patient care and good doctors were considered as very good by the three respondents. Two of them mentioned care in their language, responsiveness, reputation, cleanliness, limited noise and prompt and accurate billing also as very good; and only one considered up to date equipment and adequate food as very good. For this case, two respondents considered that up to date equipment was fairly good. No attributes were considered as not good.

With respect to the physician attributes, the three cases accepted that effective communication skills, up to date clinical skills and adequate time spent with patient were very good. Only two cases mentioned limited waiting time and competent staff as being very good. These two last attributes were also mentioned as being fairly good.

The three cases were seeking emergency services and general consult, and all of them considered that prompt service, necessary equipment, professional staff and emphasis on care, not money were very good. None of them used provision for children therefore no evaluation was given for this attribute.

### **V.4.3 STREET SURVEY 3**

This case was a Hospital located at the Tijuana River area, and the survey included only 4 cases, being all of them Mexican nationals. Only two of them had permanent residence in Tijuana, while one was a resident of San Diego and the other was from Los Angeles in the U.S.. Only three questionnaires were answered, with one Mexican national not having time to answer but mentioning that the attention received was very good. The Mexican with permanent residence in Los Angeles mentioned he comes to this Hospital because in the U.S. he is sent to the emergency department, a physician prescribes him pain killers and has to wait until

the day after to be received by a specialist. As he mentioned, in general personal attention is better in this Hospital. The age group varied between 49 and 62 years of age. The shortage of surveys was due to the fact that this hospital refused completely to allow their patients to be interviewed. Despite the fact that the survey was conducted on the street, private security guards from the clinic were sent in order to force the surveyors away from the vicinity and tried to take away the answered surveys. In order to prevent further threats the survey was called off having only 3 answered questionnaires.

### **Quantitative factors.**

For this group, 3 respondents considered long term physician relationship, convenience and modern facilities as very important factors influencing their decision about where to go for medical services. Location, cost of care and quality of care were considered as very important by 2 respondents, and language was considered very important by 1 respondent. Coincidentally, language, location and cost of care were also considered as not important by 1 respondent. Furthermore, the two Mexicans with permanent residence in the U.S. considered that language and cost of care were not important.

In order of importance, cost of care, long term physician relationship and quality of care were ranked first; and language, location and modern facilities and equipment were ranked second. In this case, the factors that were ranked last were language, quality of care and modern facilities. Being again the U.S. residents who ranked language and quality of care in the last place.

In measuring the importance of variables in determining the quality of a hospital or doctor, cleanliness, education and training of the physician or staff, explanations by staff in understandable terms, up to date equipment, responsiveness, bedside manner or interpersonal communication, amenities such as food and room, new

facility or building and location, were considered as very important by 3 respondents. Language was considered as not important by the two U.S. residents. In comparing the quality of physician care, all of the respondents accepted it was better than two years ago. It was also mentioned that in 1998 it was the same and worst than two years ago. With respect to the comparison of the quality of the hospital or clinic, all the cases accepted it was better that two years ago.

#### **Qualitative factors.**

In measuring the attributes of the hospital, patient care, responsiveness, good doctors, up to date equipment, cleanliness, limited noise and prompt and accurate billing were considered as very good by 3 respondents; care in their language and reputation were considered as very good by 2 respondents; and adequate food was considered as very good by 1 respondent. The attributes that were considered as not good were language and adequate food, both of them by the U.S. nationals. In measuring the physician attributes, effective communication skills, up to date clinical skills, adequate time spent with patient, limited waiting time and competent staff were all considered as very good by 3 respondents. No attribute was considered as not good.

All of the respondents were seeking emergency services and general consult, and all of them considered prompt service, necessary equipment, professional staff and emphasis on care, not money as very good. Only one respondent mentioned provision for children as being very good.

#### **V.4.4 STREET SURVEY 4**

This case was a Hospital located at the Tijuana River area, and the survey included a total of 48 cases, out of which 38 were Mexican nationals and 10 were American nationals. Only 42 questionnaires were answered (33 Mexican nationals and 9

American nationals). People who did not answer mentioned being in a hurry and having no time for the survey. From those who answered, 36 had their permanent residence in Tijuana, 5 were permanent residents of San Diego and one was from Los Angeles, and all of them were of Latin origin. The age group varied between 15 to 60 years of age, being 30 to 45 years of age the predominant group.

**Quantitative factors.**

For this group, the factors considered as very important in influencing their decision about where to go for medical services were, long term physician relationship mentioned by 42 respondents; modern facilities and equipment mentioned by 41 respondents; quality of care mentioned by 40 respondents; and convenience, cost of care, language that were mentioned by 38, 37, 32 and 24 respondents respectively. American nationals considered long term physician relationship, quality of care, convenience and modern facilities and equipment as the most important factors. The factors considered as not important were location and language that were mentioned by 8 and 4 respondents respectively.

In order of importance, quality of care was mentioned in first place; long term physician relationship in second place; modern facilities and equipment in third place; convenience in fourth place; cost of care in fifth place; language and location in sixth and seventh place respectively. For American nationals the results were the same.

In evaluating the importance of the variables in determining the quality of a hospital or doctor, education and training of the physician or staff, medical knowledge of the physician or staff, explanations by staff in understandable terms, responsiveness, and bedside manner or interpersonal communication were considered as the most important factors by 64 respondents. Cleanliness, up to date equipment, amenities such as food and room, and new facility or building, were considered very good by

40 respondents; while language and location were mentioned by 34 and 27 respondents respectively. When asked to compare the quality of physician care to two years ago, 25 responded it was their first visit therefore did not know; 10 accepted it was better than two years ago, 5 accepted it was the same as two years ago and only one mentioned it was worst that two years ago. Coincidentally, a U.S. national was the one who said it was worst than two years ago. With respect to the quality of the hospital or clinic, 25 said it was their first visit therefore they did not know; 11 mentioned it was better than two years ago and 4 said that it was the same as two years ago.

### **Qualitative factors**

In evaluating the hospital attributes 42 respondents considered care in their language, responsiveness and good doctors were very good. Patient care, reputation, up to date equipment and cleanliness were considered as very good by 41 respondents. Prompt and accurate billing was considered very good by 40 respondents, while adequate food and limited noise were considered as very good by 33 and 24 respondents respectively. The only factor that was considered as not good by three respondents was limited noise.

With respect to the physician attributes, 42 respondents considered effective communication skills as very good; up to date clinical skills, adequate time spent with patient and competent office staff was considered as very good by 41 respondents and limited waiting time was considered as very good by 40 respondents. For this particular case, 10 American nationals considered limited waiting time as very good, followed by effective communication skills, adequate time spent with patient and competent staff that were mentioned 9 times and up to date clinical skills that were mentioned 8 times.

With respect to emergency services and general consult, 15 respondents



considered prompt service, necessary equipment and professional staff as very good. Emphasis on care, not money was considered as very good by 14 respondents and provision for children was considered as very good by 13 respondents. Only one respondent considered emphasis on care, not money as fairly good. For obstetrical care, 6 respondents considered being given consistent information and education, adequate clinical knowledge on the part of obstetrical staff, and responsiveness as being very good. Only 5 considered being treated uniquely or as an individual as very good. And for outpatient surgery, 11 respondents considered responsiveness of staff and communication with patient and family as being very good, while 10 respondents considered privacy as very good.

#### **V.4.5 STREET SURVEY 5**

This case was a Hospital located at La Mesa area, and the survey included a total of 47 cases, out of which 43 were Mexican nationals, 3 were American nationals and 1 was Puerto Rican. Only 39 questionnaires were answered (35 Mexican nationals, 3 American nationals and 1 Puerto Rican). Interestingly in this case, 4 of the people who refused to answer came out of the hospital very angry. One mentioned that there was no physician to attend him, and another mentioned that the physician refused to attend him. The other two simply refused in an angry way. The other four did not answer because they were in a hurry and had no time for the survey. From those who answered, 34 had their permanent residence in Tijuana, 3 were permanent residents of San Diego and 2 did not specify where in the United States had their permanent residence. All of them were Latino origin. The age group varied between 19 to 60 years of age, being the 40 years of age the predominant group.

## **Quantitative factors.**

For this group, the factors considered as very important in influencing their decision about where to go for medical services were long term physician relationship and quality of care, that were mentioned 33 times. Location and cost of care were considered as very important by 28 respondents; language was considered as very important by 27 respondents followed by modern facilities and equipment and convenience that were considered as very important by 26 and 25 respondents respectively. For this case, 2 respondents (American nationals) considered language as being not important.

In order of importance the factors were, long term physician relationship in first place; cost of care and quality of care in second place; modern facilities and equipment in third place; convenience in fourth place; language in fifth place and location in sixth place. Coincidentally, amongst the factors who were considered lastly, were language (9 times), location (6 times), modern facilities and equipment (3 times), cost of care and quality of care (2 times).

In measuring the importance of variables in order to determine the quality of a hospital or doctor, cleanliness was mentioned as very important by 36 respondents; medical knowledge of the physician or staff was considered very important by 35 respondents; explanations by staff in understandable terms was mentioned by 34 respondents; education and training of the physician or staff and responsiveness was mentioned by 32 respondents; bedside manner or interpersonal communication was mentioned by 29 respondents; up to date equipment was mentioned by 27 respondents; location was mentioned by 25 respondents; language was mentioned by 23 respondents and amenities such as food and room was mentioned by 20 respondents. The variables that were considered as not important were, new facility or building (mentioned 2 times), and language and location (mentioned one time

each).

When asked about comparing the quality of physician care to two years ago, 24 respondents mentioned it was their first visit, therefore did not know. Nonetheless, 10 respondents mentioned the quality was better that two years ago, 2 respondents mentioned it was the same as two years ago and one respondent mentioned it was worst than two years ago. With respect to comparing the quality of the hospital or clinic, as well 24 respondent mentioned it was their firs time thus did not know. Nonetheless, 9 respondents mentioned it was better that two years ago, 1 mentioned it was the same as two years ago and one it was worst that two years ago.

### **Qualitative factors**

With respect to the hospital attributes, 33 respondents considered patient care was very good while 30 respondents mentioned good doctors also as being very good. Responsiveness was considered by 29 respondents as very good; reputation was considered as well very good by 28 respondents. Cleanliness, limited noise and prompt and accurate billing was considered as very good by 28 respondents. Care in their language was mentioned by 25 respondents as very good and up to date equipment was mentioned also as very good by 22 respondents. And lastly, adequate food was considered as very good only by 21 respondents.

Amongst the physician attributes, effective communication skills and up to date clinical skills were considered as being very good by 35 respondents; adequate time spent with patient and competent office staff were considered as very good by 30 respondents while limited waiting time was considered as very good by 27 respondents. Interestingly, the attribute that was considered up to 8 times (including 3 American national respondents) as fairly good was the limited waiting time.

With respect to emergency services and general consult, prompt service was

considered as very good by 32 respondents; professional staff and emphasis on care, not money was considered as very good by 30 respondents. Provision for children and necessary equipment were considered as very good by 27 and 23 respondents respectively. Amongst the attributes considered as not good by 1 respondent, were necessary equipment and provision for children. For obstetrical care there was only one respondent (American national), and accepted that being given consistent information and education, being treated uniquely or as an individual, adequate clinical knowledge on the part of obstetrical staff and responsiveness of staff were all very good. For outpatient surgery there was also one respondent, and mentioned that responsiveness of staff, privacy and communication with patient and family were very good.

#### **V.4.6 STREET SURVEY 6**

This case was a Hospital located at La Mesa area (Case H5 from the previous survey), and the survey included a total of 47 respondents, out of which 43 were Mexican nationals, 3 were American nationals and 1 with a non specified nationality. Only 43 questionnaires were answered (39 Mexican nationals, 3 American nationals and 1 non-specified nationality). People who did not respond argued they had no time. From those who answered, 30 had their permanent residence in Tijuana, 7 were permanent residents of San Diego, 5 were from Los Angeles and 1 from Riverside, California. All of them were of Latin origin. The age group varied between 18 and 65 years of age, being 20 to 40 years of age the predominant group.

#### **Quantitative factors.**

For this group, the factors considered as very important in influencing their decision about where to go for medical services were long term physician relationship and quality of care, that were mentioned 40 times. Location was mentioned 39 times as

being very important and modern facilities was mentioned 33 times as being very good. Cost of care and convenience were considered as very good 32 times while language was considered as very good only 30 times. The factors that were considered as not important were language (mentioned 3 times including 2 American nationals), location (1 time, an American national), long term physician relationship (1 time), and convenience (1 time).

In order of importance, the factor that was considered as most important was long term physician relationship that was mentioned 22 times, followed by quality of care that was mentioned 16 times. Location was considered as very important by 9 respondents, while convenience and modern facilities and equipment were mentioned 7 times; language was only considered 3 times. The factors that were considered last were language, that was mentioned 14 times (including 5 American nationals); modern facilities and equipment that was mentioned 7 times (3 American nationals); convenience that was mentioned 6 times; location that was mentioned 3 times (including 2 American nationals); long term physician relationship and quality of care that were mentioned 2 times (including 1 American national), and cost of care that was mentioned only 1 time.

In measuring the importance of variables in order to determine the quality of a hospital or doctor, responsiveness was considered as very important by 41 respondents, followed by cleanliness, education and training of the physician and staff and explanations by staff in understandable terms that were mentioned 40 times. Up to date equipment was mentioned 39 times; amenities such as food and room was mentioned 38 times; bedside manner or interpersonal communication, and location were mentioned 37 times, and lastly, language was mentioned 25 times. The only two factors that were considered as not important were language that was mentioned 2 times (including 2 American nationals), and cleanliness, that

was mentioned 1 time (including 1 American national).

In comparing the quality of physician care, 25 respondents (including 6 American nationals) mentioned it was their first visit to the physician therefore did not know. Nevertheless 13 respondents (including 6 American nationals) mentioned it was better than two years ago, and 4 respondents (including 2 American nationals) mentioned it was the same as two years ago.

In comparing the quality of the clinic or hospital, the results were very similar. 26 respondents (7 American nationals) mentioned it was their first visit to this hospital therefore did not know; while 14 respondents (7 American nationals) mentioned it was better than two years ago, and only one respondent mentioned it was the same as two years ago.

### **Qualitative factors**

In measuring the attributes of the hospital, cleanliness was considered as very important by 41 respondents, followed by patient care, good doctors and reputation that were mentioned 40 times. Responsiveness and prompt and accurate billing were mentioned 39 times as very important, followed by up to date equipment that was mentioned 38 times; limited noise that was mentioned 34 times; adequate food that was mentioned 33 times; and care in their language that was mentioned 32 times. Only one respondent considered that responsiveness was not good. With respect to the physician attributes, effective communication skills was considered as very good by 42 respondents, followed by adequate time spent with patient that was mentioned 41 times; up to date clinical skills and competent office staff that were mentioned 40 times; and limited waiting time that was mentioned 35 times. Only one respondent considered adequate time spent with patient was not good. With respect to emergency services and general consult, necessary equipment, professional staff and emphasis on care, not money were considered as very good

by 41 respondents, while prompt service was mentioned 40 times and provision for children that was mentioned 27 times. No attributes were considered as being not good. With respect to obstetrical care, only 3 respondents (including one American national) used this service and all of them mentioned that being given consistent information and education, being treated uniquely or as an individual, adequate clinical knowledge on the part of obstetrical staff, and responsiveness of staff were very good.

#### **V.4.7 STREET SURVEY 7**

This case was a Clinic located at the Downtown area (Case H6 from the previous survey), and the survey included a total of 47 cases, out of which 44 were Mexican nationals and 3 were South Americans (from Guatemala, Salvador and Peru); none of the respondents mentioned being American nationals. Only 40 questionnaires were answered (37 Mexican nationals and 3 South Americans) the rest did not answer because people were in a hurry and had no time. From those who answered, 30 had their permanent residence in Tijuana, 7 were permanent residents of San Diego and 3 in South America. All of the respondents were of Latin origin. The age group varied between 11 to 60 years of age, being 20 to 40 years of age the predominant group. Due to the fact that there were no American nationals, people who had their permanent residence in San Diego and South America were considered as part of the external demand, this is to say they were considered as foreigners.

#### **Quantitative factors.**

For this group, the factors considered as very important in influencing their decision about where to go for medical services were, quality of care that was mentioned 37 times, followed by cost of care and long term physician relationship that was

mentioned 35 times; location that was mentioned 32 times; language that was mentioned 29 times; and convenience and modern facilities and equipment that were mentioned 27 times. Interestingly, the factors that were considered as not important were language (mentioned 4 times), cost of care (mentioned one time) and convenience (mentioned one time).

In order of importance, the factor that was considered as the most important was long term physician relationship that was mentioned 16 times, followed by quality of care that was mentioned 11 times; language and cost of care that were mentioned 6 times; location and modern facilities and equipment that were mentioned 2 times and convenience that was mentioned one time. The factors that were considered in the last position were modern facilities and equipment (13 times), language (11 times), convenience (7 times), location and long term physician relationship (3 times) and cost of care (1 time).

In measuring the importance of variables in order to determine the quality of a hospital or doctor, the variables that were considered as very important were education and training of the physician or staff, medical knowledge of the physician or staff, up to date equipment and bedside manner that were mentioned by 39 respondents; cleanliness was mentioned by 38 respondents; explanations by staff in understandable terms by 37 respondents; responsiveness by 34 respondents; language by 27 respondents; while new facility or building and location were mentioned by 23 respondents. The variables that were considered as not important were language (mentioned 7 times including 1 foreigner), new facility or building (mentioned 2 times), and location (mentioned 2 times including 1 foreigner).

In comparing the quality of physician care to two years ago, 30 respondents mentioned it was their first visit to this doctor therefore did not know. Six respondents, including 3 foreigners considered the quality was better than two years



ago, while 3 respondents considered it was the same as two years ago. With respect to comparing the quality of the clinic or hospital to two years ago, the results were similar, 31 respondents, including 6 foreigners mentioned it was their first visit to the clinic, therefore did not know. Six respondents, including 3 foreigners mentioned it was better than two years ago and only 2 mentioned it was the same as two years ago.

### **Qualitative factors**

With respect to evaluating the hospital, the attributes that were considered as very good were patient care, good doctors and cleanliness were mentioned by 38 respondents; responsiveness by 37 respondents; up to date equipment by 35 respondents; reputation by 34 respondents; prompt and accurate billing by 28 respondents; language by 27 respondents; limited noise by 17 respondents and adequate food by 7 respondents. The attributes that were considered as not good were, care in their language mentioned 1 time by a foreigner, and prompt and accurate billing mentioned 1 time. Interestingly in this case, the attributes that were considered as fairly good were care in their language by 11 respondents (including 3 foreigners) and limited noise and prompt and accurate billing by 10 respondents. With respect to evaluating the doctor, the attributes that were considered as very good were up to date clinical skills by 39 respondents; effective communication skills and adequate time spent with patient by 36 respondents; competent office staff by 34 respondents and limited waiting time by 15 respondents. In this case, the only attribute that was considered as not good by 1 respondent was limited waiting time. In evaluating the emergency service and general consult, the attributes that were considered as very good were, necessary equipment and professional staff by 32 respondents; prompt service by 31 respondents; emphasis on care not money by 23 respondents and provision for children by 20 respondents. No attributes were

considered as not good. Nonetheless, the attributes that were considered as fairly good were emphasis on care, not money by 9 respondents (including 1 foreigner); provision for children by 5 respondents (including 3 foreigners) and prompt service by 1 respondent).

With respect to obstetrical services, the attributes that were mentioned as very good, were being given consistent information and education, being treated uniquely or as an individual, adequate clinical knowledge on the part of obstetrical staff and responsiveness of staff, all by 1 respondent. No attributes were considered as not good.

#### **V.4.8 STREET SURVEY 8**

This case was a Hospital located at the Downtown area (Case H4 from the previous survey), and the survey included a total of 27 cases, out of which 22 were Mexican nationals and 5 were American nationals. Only 21 questionnaires were answered (16 Mexican nationals and 5 American nationals) the rest did not answer because they were in a hurry and had no time for the survey. From those who answered, 16 had their permanent residence in Tijuana, 1 was a permanent resident of San Diego and 4 did not specify where in the U.S. was their permanent residence. All of them were of Latin origin. The age group varied between 15 to 55 years of age, being 20 to 30 years of age the predominant group.

#### **Quantitative factors.**

For this group, the factors considered as very important in influencing their decision about where to go for medical services were quality of care that was mentioned 20 times, followed by cost of care and convenience mentioned 18 times. Language and long term physician relationship were mentioned 15 times; modern facilities and equipment was mentioned 14 times and location was mentioned 8 times. Amongst

the factors that were considered as not important, language was mentioned 5 times (including 2 American nationals), long term physician relationship was mentioned 4 times, location was mentioned 2 times and cost of care was mentioned once.

In order of importance, the factor that was considered as the most important was cost of care that was mentioned 9 times, long term physician relationship was mentioned 5 times, quality of care was mentioned 4 times, location was mentioned 3 times, language was mentioned 2 times, modern facilities and equipment was mentioned only once. Convenience was not mentioned at all. Some of the factors that were considered as not important were convenience that was mentioned 9 times (including 3 American nationals), language that was mentioned 5 times (including 1 American national), location that was mentioned 2 times (both by American nationals), modern facilities and equipment that was mentioned 2 times and cost of care and long term physician relationship that were mentioned one time each.

In measuring the importance of variables in order to determine the quality of a hospital or doctor, the variables that were considered as very important were cleanliness, education and training of the physician or staff, medical knowledge of the physician or staff and bedside manner or interpersonal communication that were mentioned 21 times. Explanations by staff in understandable terms was mentioned 19 times, up to date equipment, responsiveness and amenities such as food and room were mentioned 16 times. Language was mentioned 11 times and new facility or building was mentioned 10 times. The factors that were considered as not important were language that was mentioned 4 times (including 2 American nationals), new facility or building mentioned 3 times, location mentioned 2 times and responsiveness and amenities such as food and room that were mentioned once.

In comparing the quality of physician care to two years ago, 13 respondents (including 5 American nationals) mentioned it was their first visit to the doctor therefore did not know. Nevertheless, 7 respondents (including 1 American national) mentioned the quality was better that two years ago and only one respondent mentioned it was the same as two years ago. With respect to the quality of hospital or clinic care, the results were very similar, 13 respondents (including 5 American nationals) mentioned it was their first visit to the clinic and therefore did not know, and 7 respondents (including 1 American national) mentioned it was better that two years ago, and only one respondent mentioned it was the same as two years ago.

### **Qualitative factors**

When evaluating the Hospital, the attributes that were considered as very good were cleanliness mentioned 21 times; patient care and prompt and accurate billing mentioned 19 times; responsiveness and good doctors mentioned 18 times; reputation mentioned 17 times; adequate food mentioned 16 times; care in their language mentioned 13 times, and limited noise mentioned 10 times. Amongst the attributes that were considered as not good were limited noise mentioned 2 times (including 1 American national), and care in their language, responsiveness, good doctors and up to date equipment that were mentioned one time each.

With respect to the physician, the attributes that were considered as very good were, effective communication skills, up to date clinical skills and adequate time spent with patient that were mentioned 18 times; competent office staff was mentioned 16 times and limited waiting time was mentioned 15 times. The attributes that were considered as not good were limited waiting time and competent office staff that were mentioned one time each.

With respect to emergency services and general consult, the attributes that were considered as very good were necessary equipment and provision for children that

were mentioned 10 times, professional staff and emphasis on care, not money that were mentioned 9 times, and prompt service that was mentioned 8 times. The attributes that were considered as not good were prompt service and necessary equipment that were mentioned one time each.

With respect to obstetrical care, the attributes that were considered as very good were being given consistent information and education, being treated uniquely or as an individual, adequate clinical knowledge on the part of obstetrical staff and responsiveness of staff, that were all mentioned 2 times each. No attributes were considered as not good in this case.

With respect to outpatient surgery, the attributes that were considered as very good were responsiveness of staff and privacy mentioned 6 times each, and communication with patient and family that was mentioned 5 times. In this case as well, no attributes were considered as not good.

And with respect to oncological care, the attributes considered as very good were sympathetic and caring staff, information given to patients and family members and support to patients and family members that were mentioned one time each. In this case also there were no attributes considered as not good.

## **V.5 CONCLUSIONS.**

During the first survey, three main problems were faced restricting the accuracy of the information collected. Problems with respect to official data, to access to information within clinics and hospitals, and classification problems with respect to the patients.

The first problem arose when the official data with respect to clinics and hospitals in the city of Tijuana was inaccurate. Furthermore, lack of data with respect to the changes that have been taken over time in this particular sector

makes it even more difficult to reconstruct the history of the development of trends. The situation becomes more complicated when other sources of information with respect to the number of clinics and hospitals in Tijuana shows a completely different panorama. The indiscriminate use of the terms hospital, clinic and physician office, in order to refer to either of them, demonstrates that there is a strong need to have a uniform code in order to classify these facilities. Data with respect to them is very scarce and the lack of precision creates confusion.

The second problem was that, although in general there was an apparent lack of importance given to the existing demand produced by American nationals by local physicians, it was obvious that some of them were conscious of it. Three general issues can explain this attitude:

- a.- Clinics or hospitals are not fully aware of this demand, thus it is not considered important by them;
- b.- Clinics and Hospitals are extremely cautious about this issue because revealing information might scare patients away, destroying this market, thus using 'confidentiality' as an alibi in order to restrict the access to this information.
- c.- The clinics or hospitals are fully aware of this trend and they are taking advantage of this situation, and due to the fact that maybe they are not properly declaring their incomes with respect to these patients, they prefer to deny it and restrict the existing information, covering it under the 'confidentiality' umbrella.

In any of these cases, this behaviour is only preventing the development of this sector both, as a service that can be exported, and as an activity that can achieve higher standards of development because of international demand.

And the third problem was with respect to the type of patient described by the majority of the clinics and hospitals. In general they recall having mainly two kinds of patients the emigrado, mainly a Tijuana resident that works legally in San Diego<sup>28</sup>, and the average American national that lives in San Diego and goes to Tijuana for medical service. Regardless of the origin, in both cases they are American citizens. Unfortunately the emigrado group, along with other Latin origin classification such as pochos and chicanos, are not commonly considered American nationals by the majority of Tijuana residents. For the average Tijuana dweller, American nationals are only the white, English-speaking citizens. This situation becomes a serious problem when trying to measure the international demand of medical services by American nationals. As the Latin origin population in San Diego increases, it is to expect that the demand for medical services by this group while in Tijuana, will increase as well. Unfortunately this lack of detail in the existing information also makes it difficult to verify to what extent the majority of the users are of Latin origin.

This issue takes us to the second survey, where the majority of the respondents were of Mexican origin and living in Tijuana. Despite this situation, there was a group of respondents that were of Mexican origin and whose permanent place of residence were either San Diego, Los Angeles or Riverside in California, furthermore there were also American nationals living in Tijuana, all of these being typical emigrado, pocho or chicano cases, not necessarily considered as Americans by clinic and hospital staff.

The second part of the survey was also marked by 2 bad experiences. Survey 2 was interrupted by request of patients and hospital staff. And survey 3 was abruptly interrupted by an act of violence and cancelled in order to prevent a confrontation. This last issue is a typical exercise of power that should not be allowed to take place. Only people who are trying to hide something can act like

that. Thus we can infer that surely there is a hidden agenda within their records. Unfortunately these are the kind of clinics and hospitals that block information and prevent finding out important facts about this sector.

Regardless of these issues, it can be said that, to some extent the surveys reveal the existence of several of the indicators identified with C.A. The next chapter will analyze them one by one in order to validate the original hypothesis.



## REFERENCES

1. Jacobs, P. (1987)(p.4).
2. Donabedian, A. (1982) (p.3).
3. Ibid. (p.4)
4. Ibid.
5. Memedovic, O. (1994)(p.5).
6. Donabedian, A. (1982) (p.4)
7. The State of Baja California comprises four municipalities: Tijuana, Ensenada, Mexicali and Tecate, plus Rosarito, a small town that is expected to become a municipality in short time.  
Secretaría de Industria y Comercio. (1974)(p.141).
8. INEGI (1989)(p.229).
9. Telephone interview with Dr. Simon Ramirez, General Secretary of A.H.B.C. August, 1994.
10. S.S., (1994).
11. A.H.B.C., (1994).
12. COPLADE-INEGI. (1991) table 3.3.12(p.69).
13. Ibid.
14. Gobierno del Estado de Baja California. (1992)(p.40).
15. TELNOR., (1995). Data from 1994 (pp.552-632).
16. Gobierno del Estado de Baja California. (1992)(p.36).
17. Maynard-Morales, M. (1985)(p.3).
18. Donabedian, A. (1982) (p.4).
19. Ibid. (p.6).
20. Ibid.
21. An Independent Physician is a physician that can have his or her office within the clinic or hospital, paying a monthly rent for it but it is not part of the clinic or hospital's permanent staff. Or a physician that although has his or her private office elsewhere, has an agreement with the director of the clinic or hospital in order to perform surgery to his or her patients at a lower fee. Part of this agreement includes also an acceptance of the physician to assist patients other than his or hers, arriving to the clinic or hospitals seeking specific treatment, specially during emergency

calls.

22. The term *emigrado* is used here to refer to all legal migrants, specially those of Latin origin, many of whom prefer to live in Tijuana and commute on a daily basis to work in the city of San Diego. Local slang has different classifications for American nationals of Latin origin, such as '*Pocho*' and '*Chicano*'.

A '*Pocho*' is an *emigrado* that has decided to live in the U.S. and is recognized by his particular accent (it is said that they tend to mix words in English and Spanish indiscriminately thus speaking a mixed language that has been called 'Spanglish' in local slang).

And '*Chicano*' are those people of Mexican descendants (can be the sons and daughters of emigrados) born and living in the U.S. (thus American nationals) that keep their Mexican traditions like language, food, festivities, etc.

23. According to articles 226 to 256 of the Mexican General Health Law (Ley General de Salud), there are five categories of medicine:

*TYPE I.* Medicine that can only be bought with a controlled prescription from a specialized and registered physician having a special permit from the Secretaría de Salud (Health Bureau). These medicines are classified as 'estupefacientes y psicotropicos' (drugs and psychotropics), like strong narcotics and sedatives. These are prescribed only in very special cases. The prescription is used only once and is retained by the Chemist for control;

*TYPE II.* Medicine that can only be bought with a prescription; the prescription can be used only once and it is retained by the Chemist for control; some sedatives are included in this classification.

*TYPE III.* Medicine that can only be bought with prescription, the prescription can be used up to three times and it will be retained by the Chemist afterwards;

*TYPE IV.* Medicine that can be only bought with prescription and the prescription can be used as many times as the physician considers necessary and it will not be retained by the Chemist; and

*TYPE V.* Medicine that can be bought without a prescription and can be obtained from stores different from Chemists (or drugstores).

Ley General de Salud (1994)(p.40).

24. A research on 'Taxol Aminoacids (phase I)' was being conducted when the survey took place on December 1994.

25. An 'Epidemiology, Methadone dosage, and DSM-IV-Dx' studies were being conducted when the survey took place on December 1994.

26. A research on 'shark's cartilage' was being conducted when the survey took place on December 1994.

27. A research on 'Hyperbaric treatment in digestive diseases' was being conducted when the survey took place on January 1995.

28. There is a minor group of people that although are not American citizens, they manage to commute freely to San Diego using their local passports or tourist visas and work illegally in the U.S. This group varies from domestic workers to architects and physicians. Unfortunately there is not enough evidence nor information to measure this sector.

Year	Location		Increase / Decrease Percentage	Type of job		Increase / Decrease Percentage	
	Total State wide	Tijuana		Physicians	Nurses	Physicians	Nurses
1988 <sup>a</sup>	4,728	2,001	n.a.	752	1,249	n.a.	n.a.
1989 <sup>b</sup>	4,132	1,658	-17%	607	1,051	-20%	-15.85%
1991 <sup>c</sup>	7,320	3,839	+109%	n.a.	n.a.	n.a.	n.a.
1994 <sup>d</sup>	n.a.	n.a.	n.a.	1,053	n.a.	+73%	n.a.

Table 22. Number of registered people working in public and private medical services in the city of Tijuana

Key:

n.a. Not Available

a INEGI, 1989. p.229

b COPLADE-INEGI, 1991, p.69

c Gobierno del Estado de Baja California, 1992. pp. 36-40

d TELNOR, 1995. Directorio Telefonico de la ciudad de Tijuana.

	PROPOSED MODEL OF COMPARATIVE ADVANTAGE	FACTORS OF COMPARATIVE ADVANTAGE TO VERIFY IN THE TIJUANA CASE
<p><b>■ FACTOR CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Human resources,</li> <li>- Physical resources,</li> <li>- Knowledge resources,</li> <li>- Capital resources,</li> <li>- Infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of physicians, dentists, nurses, laboratory technicians, paramedics, etc.,</li> <li>- Existence and availability of hospitals, clinics and operation infrastructure.</li> <li>- Availability of well trained physicians, dentists, nurses, laboratory technicians, paramedics etc., and the means for constant preparation,</li> <li>- Access to capital, credits and sources of finance needed to upgrade and maintain in operation hospitals and clinics.</li> <li>- Availability of the necessary infrastructure in order to have proper access to hospitals and clinics.</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of physicians, and skill levels,</li> <li>- Type of clinic and/or hospital,</li> <li>- Geographic location (address) with respect to the border,</li> <li>- Existing infrastructure and access,</li> <li>- Low costs of medical services.</li> </ul>
<p><b>■ DEMAND CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Home demand composition,</li> <li>- Demand size and pattern of growth</li> <li>- Internationalization of domestic demand.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of local demand for specific medical services,</li> <li>- Increase in the size and pattern of demand for these medical services,</li> <li>- Possibility of the existence of international local demand for these medical services.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of a local demand for medical services</li> <li>- Composition of this demand and existence of American national users as part of the local demand,</li> <li>- Increases in the demand by American nationals during the year (seasonality),</li> <li>- Type of medical service consumed by American nationals.</li> </ul>
<p><b>■ RELATED AND SUPPORTING INDUSTRIES</b></p> <ul style="list-style-type: none"> <li>- Competitive supplier industries,</li> <li>- Competitive related industries.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive suppliers of medical equipment,</li> <li>- Existence of competitive industries or activities related to medical services.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive suppliers of medical equipment,</li> <li>- Existence of competitive suppliers for activities related to medical services (i.e. laboratories, x-ray tests, pharmaceutical suppliers, etc).</li> </ul>
<p><b>■ FIRM STRATEGY, STRUCTURE AND RIVALRY</b></p> <ul style="list-style-type: none"> <li>- Domestic firms,</li> <li>- Goals,</li> <li>- Domestic rivalry.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive hospitals and clinics,</li> <li>- Existence of specific competitive goals within hospitals and clinics,</li> <li>- Existence of various hospitals and clinics that will compete between each other in the production of medical services.</li> </ul>	<ul style="list-style-type: none"> <li>- Internal goals (treating patients, quality of services, waiting periods, etc.), and relationship with other local clinics and hospitals,</li> <li>- Relationship with American clinics, hospitals or insurance companies (HMO's or PPO's)</li> </ul>
<p><b>■ CHANGE</b></p> <ul style="list-style-type: none"> <li>- Pure invention,</li> <li>- Technological discontinuities,</li> <li>- Discontinuities in input costs,</li> <li>- Significant shifts in world financial markets,</li> <li>- Surges of world or regional demands,</li> <li>- Political decisions by foreign governments.</li> </ul>	<ul style="list-style-type: none"> <li>- Possibilities of local inventions and/or medical breakthroughs,</li> <li>- Availability of alternative technologies or techniques,</li> <li>- Sudden creation of a regional demand for specific medical services,</li> <li>- Other country (or countries) has decided to send their patients to this country.</li> </ul>	<ul style="list-style-type: none"> <li>- Local research projects,</li> <li>- Alternative technologies,</li> <li>- Special type of medicine,</li> <li>- American insurance policies decisions.</li> </ul>
<p><b>■ GOVERNMENT</b></p> <ul style="list-style-type: none"> <li>- Subsidies and Policies,</li> <li>- Standards or regulations,</li> <li>- Capital market regulations, tax policies, antitrust loans.</li> </ul>	<ul style="list-style-type: none"> <li>- Government subsidies for medical services and / or related activities,</li> <li>- Government standards or regulations for the production of medical services,</li> <li>- Governmental capital regulations, tax policies and loans to promote the production of medical services.</li> </ul>	<ul style="list-style-type: none"> <li>- Government incentives and/or support,</li> <li>- Differences in medical controls,</li> <li>- Differences in salaries,</li> <li>- Easy border crossings.</li> </ul>

Table 23. Factors of comparative advantage to verify in the Tijuana case analysis.

<b>PROPOSED MODEL OF COMPARATIVE ADVANTAGE FOR THE CITY OF TIJUANA</b>		<b>SURVEY KEY QUESTIONS</b>
<p><b>■ FACTOR CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Human resources,</li> <li>- Physical resources,</li> <li>- Knowledge resources,</li> <li>- Capital resources,</li> <li>- Infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of physicians and their skill levels,</li> <li>- Type of clinic and hospital,</li> <li>- Geographic location (address) with respect to the border,</li> <li>- Existing infrastructure,</li> </ul>	<ul style="list-style-type: none"> <li>- Name and type and size of clinic or hospital,</li> <li>- Location,</li> <li>- Number of people working in the clinic or hospital,</li> <li>- Medical services offered.</li> </ul>
<p><b>■ DEMAND CONDITIONS</b></p> <ul style="list-style-type: none"> <li>- Home demand composition,</li> <li>- Demand size and pattern of growth</li> <li>- Internationalization of domestic demand.</li> </ul>	<ul style="list-style-type: none"> <li>- Existing demand of medical services by American nationals,</li> <li>- Monthly increases (or reductions) in this demand ,</li> <li>- Type of medical service mostly consumed by American Nationals.</li> </ul>	<ul style="list-style-type: none"> <li>- Attendance of American national patients,</li> <li>- Number of American national patients,</li> <li>- Increases in the attendance of American national patients,</li> <li>- Type of medical services consumed by American nationals,</li> <li>- Type of pharmaceuticals used by American nationals.</li> </ul>
<p><b>■ RELATED AND SUPPORTING INDUSTRIES</b></p> <ul style="list-style-type: none"> <li>- Competitive supplier industries,</li> <li>- Competitive related industries.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of competitive suppliers of medical equipment,</li> <li>- Existence of competitive activities related to medical services (i.e. laboratories, x-ray tests, etc),</li> <li>- Existence of pharmaceutical suppliers.</li> </ul>	<ul style="list-style-type: none"> <li>- Supply of medical equipment,</li> <li>- Existence of medical laboratories, x-ray tests, etc,</li> <li>- Supply of pharmaceuticals.</li> </ul>
<p><b>■ FIRM STRATEGY, STRUCTURE AND RIVALRY</b></p> <ul style="list-style-type: none"> <li>- Domestic firms,</li> <li>- Goals,</li> <li>- Domestic rivalry.</li> </ul>	<ul style="list-style-type: none"> <li>- Internal goals (quality, waiting periods, personal treatment to patients,</li> <li>- Communication and / or exchanges of information with American clinics, hospitals and / or insurance companies.</li> </ul>	<ul style="list-style-type: none"> <li>- Clinic or hospital's internal goals,</li> <li>- Average waiting periods,</li> <li>- Type of personal treatments,</li> <li>- Communication or exchange of information or patients with American clinics, hospitals and/or insurance companies.</li> </ul>
<p><b>■ CHANCE</b></p> <ul style="list-style-type: none"> <li>- Pure invention,</li> <li>- Technological discontinuities,</li> <li>- Discontinuities in input costs,</li> <li>- Significant shifts in world financial markets,</li> <li>- Surges of world or regional demands,</li> <li>- Political decisions by foreign governments.</li> </ul>	<ul style="list-style-type: none"> <li>- Innovative local research projects,</li> <li>- Innovative or alternative therapies,</li> <li>- Innovative or alternative pharmaceuticals.</li> </ul>	<ul style="list-style-type: none"> <li>- Research projects,</li> <li>- Alternative therapies,</li> <li>- Alternative pharmaceuticals.</li> </ul>
<p><b>■ GOVERNMENT</b></p> <ul style="list-style-type: none"> <li>- Subsidies and Policies,</li> <li>- Standards or regulations,</li> <li>- Capital market regulations, tax policies, antitrust loans.</li> </ul>	<ul style="list-style-type: none"> <li>- Governmental incentives and / or support,</li> <li>- Differences in medical controls,</li> <li>- Differences in salaries,</li> <li>- Easy border crossings.</li> </ul>	<ul style="list-style-type: none"> <li>- Governmental support,</li> <li>- Access to infrastructure and public services: <ul style="list-style-type: none"> <li>- Water,</li> <li>- Paved streets,</li> <li>- Public lighting,</li> <li>- Public transport, etc.</li> </ul> </li> </ul>

Table 24. Elements used during the questionnaire design.

Table 25. Location of the surveyed clinics and hospitals

Name of Clinic / Hospital	Id. Code	Location	Postal Code	Year of Establishment	Date of survey
1. Hospital	H1	Colonia Libertad	22300	1990	Sept. 14 1994
2. Clinic	H2	Colonia Jardin	22140	1990	Sept. 14 1994
3. Clinic	H3	Fraccionamiento Nueva Ensenada	22880	1989	Sept. 20 1994
4. Hospital	H4	Calle 7a. Zona Centro	22200	1992	Sept. 23 1994
5. Hospital	H5	Fraccionamiento El Paraiso	22440	1981	Dec. 14 1994
6. Group	H6	Calle 2a. Zona Centro	22200	not available	Dec. 16 1994
7. Center	H7	Colonia 20 de Noviembre	22430	not available	Dec. 19 1994
8. Hospital	H8	Fraccionamiento Playas de Tijuana	22200	1963	Dec. 23 1994
9. Unit	H9	Desarrollo Urbano Rio Tijuana	22320	1986	Jan. 04 1995
10. Hospital	H10	Fraccionamiento Playas de Tijuana	22206	1991	Jan 10 1995

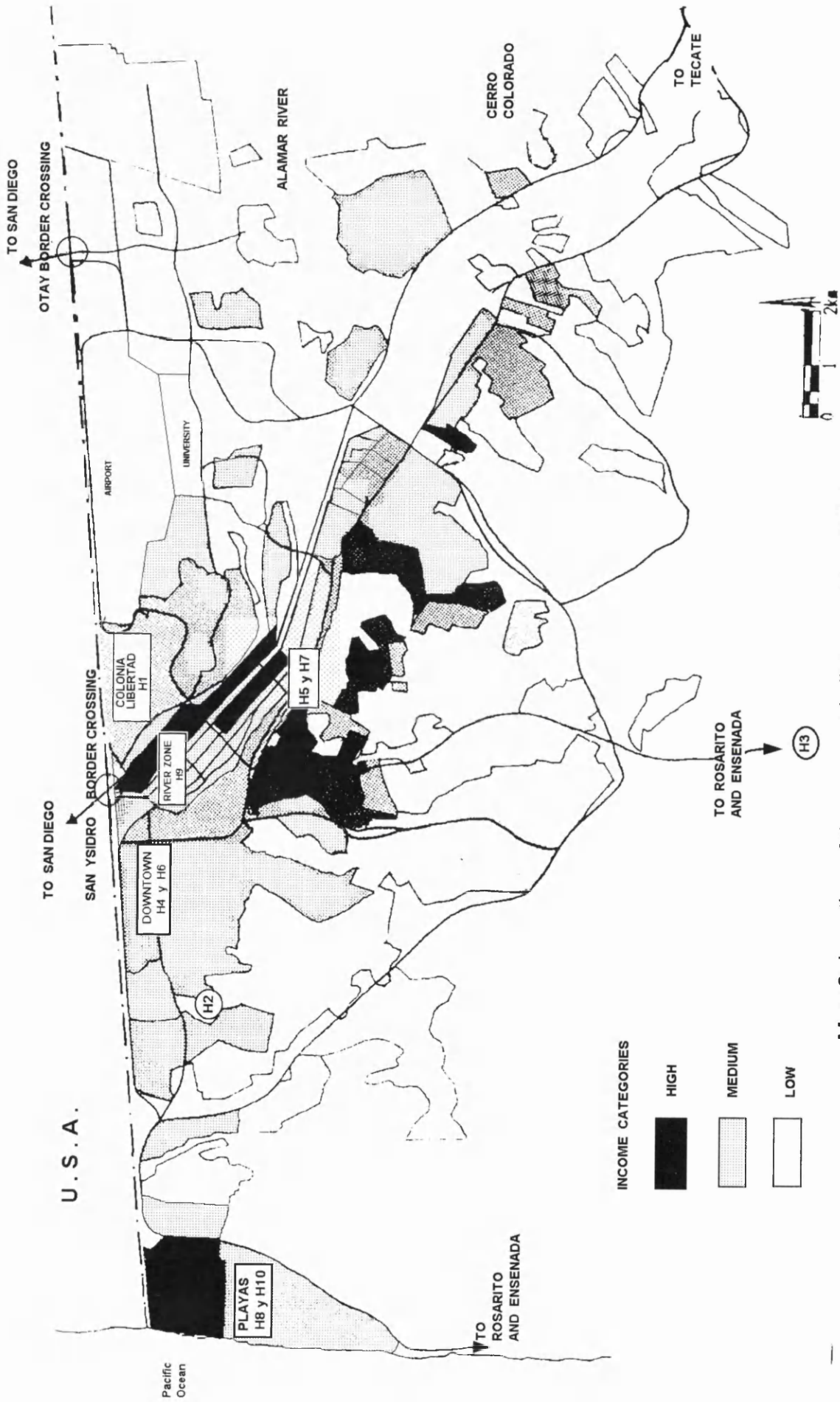
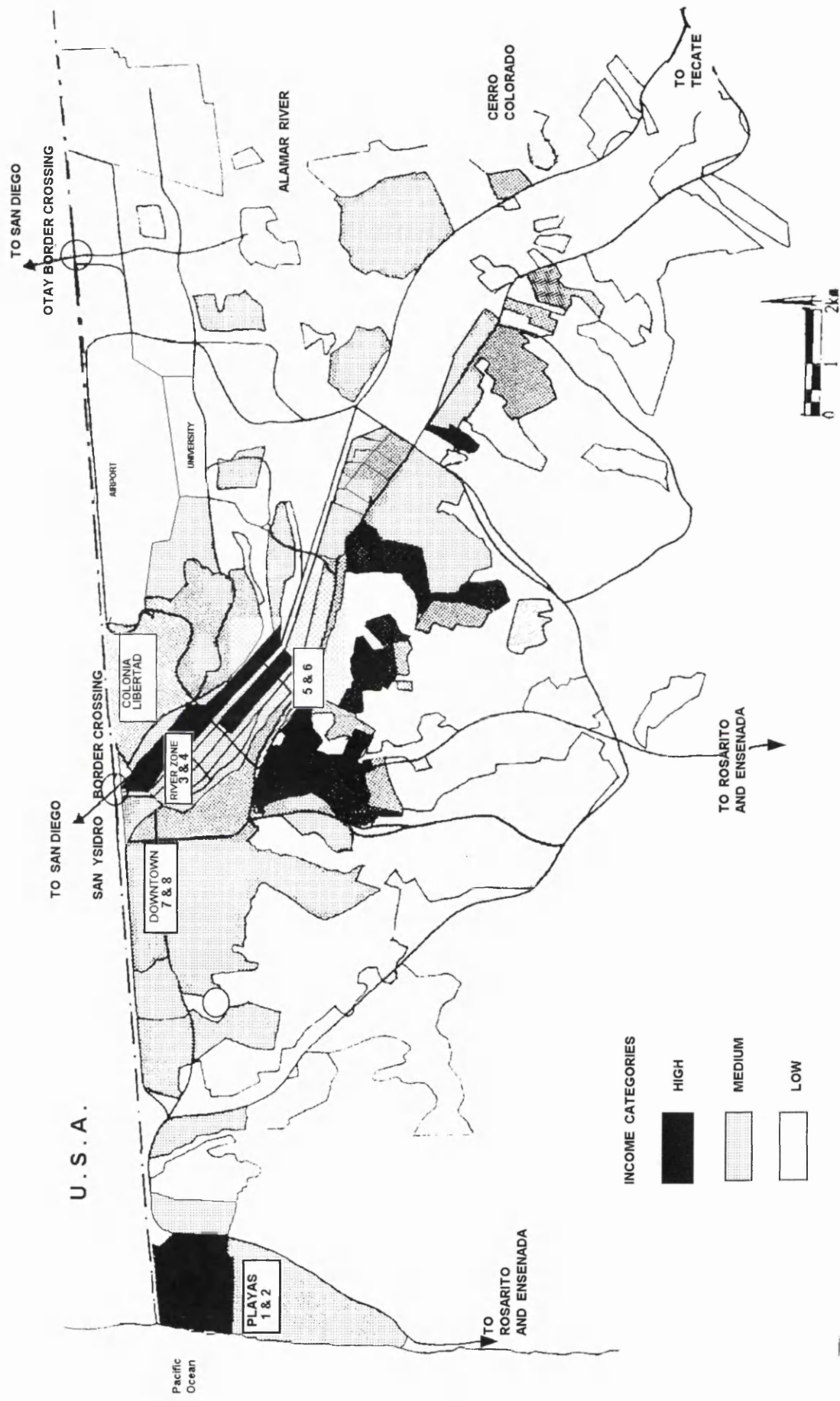


Table 26. Location of the street surveys with respect to clinics and hospitals

Number of street survey	Clinic/Hospital	Location	Postal Code	Date of survey
Street survey 1	Hospital	Fraccionamiento Playas de Tijuana	22200	August 1998
Street survey 2	Hospital	Fraccionamiento Playas de Tijuana	22200	August 1998
Street survey 3	Hospital	Desarrollo Urbano Rio Tijuana	22320	August 1998
Street survey 4	Hospital	Desarrollo Urbano Rio Tijuana	22320	August 1998
Street survey 5	Hospital	Fraccionamiento Del Prado	22440	August 1998
Street survey 6	Hospital	Fraccionamiento El Paraiso	22440	August 1998
Street survey 7	Group	Calle 2a. Zona Centro	22200	August 1998
Street survey 8	Hospital	Calle 7a. Zona Centro	22200	August 1998





Map 9. Location of the Street Surveys in the city of Tijuana

**CHAPTER VI. FINDINGS ON THE EXISTENCE OF  
COMPARATIVE ADVANTAGES**

## **VI.1 SURVEY FINDINGS: the quantitative approach**

Each one of the questions included in the first survey was analyzed in order to obtain more detailed information with respect to the quantitative aspects related to the existence of C.A. in medical services. Although there were only ten cases, it is interesting to note that several facts tend to be repetitive, thus becoming highly significant in order to understand how these issues can be related to C.A.

### **VI.1.1a Location, size of hospital and staff employed**

(see appendix 7, table 1)

To start with, it can be said that the ten surveyed facilities were classified differently. There were a total of five hospitals, two clinics, one medical group, one medical center and one medical unit. This classification has nothing to do with the number of beds nor size of the facility. In the case of the five hospitals, only three have more than 20 beds and two have less than 10 beds. As for the rest, they fall into the category of 1 to 10 beds group. According to their location (see map 8), two of the largest hospitals were located at the Playas de Tijuana area, and one at the El Paraiso area. The other two small hospitals were located at the Downtown area and at the Colonia Libertad area. Also located at the Downtown area was the medical group. The medical unit was located at the Tijuana River area, and the clinics were located at the Colonia Jardin area, and at the Fraccionamiento Ensenada area. And finally, the medical center was located at the Colonia 20 de Noviembre area. From the total of the surveyed facilities, six have less than ten beds and three have more than twenty beds. Case H9 did not answer this question, but considering the number of physicians employed, it was included between the group of less than ten beds.

Their location with respect to the border crossing area reveals that the Tijuana River zone, the Downtown area and the Colonia Libertad area, close to the border, continue to be important locations for the less than 10 beds group. The Playas de Tijuana and the Fraccionamiento el Paraiso areas, located rather far from the border crossing area were preferred by larger facilities from the more than 20 bed group.

By crossing this information with the size of clinics and hospitals it can be safe to assume that smaller clinics and hospitals tend to locate near the border crossing area, while larger hospitals prefer locations relatively far from this area. Although proximity to the border is important for all of them, the physical size of the facility has to be considered as playing an important role in its location. Two main explanations can be used for this behavior:

**a.-** One includes the cost of land factor. It is true that proximity to the border crossing assures them a constant influx of patients. It is also true that smaller clinics occupy smaller areas, while larger facilities need more space. As the cost of land tends to get expensive near the border crossing area, it becomes unprofitable for larger facilities, thus looking for a different location, where land is less expensive and has specific accessibility characteristics, becomes an alternative;

**b.-** And the other involves specific characteristics of the area. While smaller facilities do not require a completely quiet environment to offer their services (like consultation), larger facilities with hospitalization services do require more quiet environments, thus in their majority, prefer to locate as far as possible from noise and traffic congestion of the downtown and the border crossing areas.

Either one of these explanations applies to each of the facilities surveyed, therefore it can be said that the size of the facility determines to some extent its location.

#### **VI.1.1b Type of medical services offered on clinics and hospitals**

(See appendix 7, table 1.1)

Amongst the surveyed facilities, different medical services were provided in general. Some of the facilities were able to offer a wide variety of services, while others tended to be more specialized.

From the ten cases surveyed, nine facilities offered amongst their services outpatient care and physicians' offices. Eight offered hospitalization, pediatrics, general surgery, plastic surgery and gynecologist and obstetrics. Seven offered ultrasound and drugstore services. Six offered delivery, cardiology, laboratory analysis, x-ray and emergency services. Five offered emergencies, preventive medicine and oncological medicine. Four offered dentistry, ophthalmology, nurse care, chemotherapy and intensive care services. Three offered cancer treatment, intensive therapy, tomography and pathology services. Two offered nutritionist and weight control, physiotherapy and physical therapy. And only one offered either electroencephalography, traumatology, orthopedics, nurse training, short stay surgery, student interns, blood bank, ambulances, hyperbaric chamber, intensive care unit (or U.C.I.), rehabilitation, special medical treatment, and drug rehabilitation services.

It is not surprising that the larger facilities were able to offer the majority of the services, including some sophisticated capital intensive services as well. While smaller facilities concentrated on labour and skill intensive services in their majority. Nevertheless, this situation does not prevents the smaller facilities to offer

sophisticated and capital intensive services also, specially when they are integrated by specialized physicians.

By crossing this information with the location variable, it becomes clearer that in general, the facilities located near the border crossing area are of two types: those who offer as many labour intensive medical services as possible, and those who are more specialized and offer some capital intensive medical services relying also on skill and labour intensive medical services. Although larger facilities are able to offer mainly capital intensive medical services, at the end these services are also heavily supported by skill and labour intensive activities. As it was stated earlier, unfortunately it is difficult to separate the amount of services rendered by physicians, nurses and paramedics, from the amount of services that used the hospital's facilities and equipment. Thus in general, services rendered at all hospitals tend to be considered as capital intensive.

Also in this case, the relation between proximity to the border, the space requirements of specific medical services and the cost of land, played an important role in the type of medical services offered at different facilities. As medical services needed more space, the farther from the border crossing they were located.

#### **VI.1.1c Medical equipment**

It can be said that all the surveyed facilities were in general well equipped. Apart from some of the larger facilities that have rather new American medical equipment, the rest have refurbished American medical equipment. As it was seen, this has been the result of high cost of new equipment and high import tariffs for medical equipment. And also as a result of this situation, in general all clinics and hospitals pay special attention to keeping their equipment in good conditions, thus maintenance services are frequently required. This has led also to an increase in the

number of small offices offering maintenance services for specialized medical equipment. With the elimination under NAFTA of tariffs for goods classified in the 'A' category, that includes medical equipment from January 1st., 1994<sup>1</sup>, it has become more feasible to have access to new equipment.

### **VI.1.2 Language or Languages in which medical services are provided.**

(appendix 7, table 2)

In this case all the surveyed facilities offered their services in Spanish as a first language; 9 offered them in Spanish and English; and only one facility offered them in Spanish, English and French. Definitively this is the result of an existing international demand. Thus in order to cope with this demand, clinics and hospitals need to become bilingual (or trilingual). As stated by themselves, the fact that many local physicians actually have made their specialities or received some training at American universities and hospitals, makes things more easy. Further more, it is commonly known also that some local physicians actually perform surgeries at American hospitals, meaning with this that they are also qualified to work in the U.S.<sup>2</sup>

### **VI.1.3 Medical Research Projects being conducted**

(appendix 7, table 3)

Although the majority of the surveyed facilities accepted conducting medical research projects sporadically, only four facilities were actually conducting research projects at the time of the survey. Case H7 was conducting studies in epidemiology and different methadone dosages, and case H6 was conducting studies on taxol dosages, and phase I of aminoacid dosages. Similar to them, case H10 was conducting studies with respect to hyperbaric treatment in digestive diseases; and

case H8 was doing specific studies with respect different treatments involving shark's cartilage dosages. In this case there were no correlation between location, size of the facility and the ability to conduct medical research projects.

#### **VI.1.4 Contacts and/or exchanges with American hospitals.**

(appendix 7, table 4)

According to the findings, in general four facilities were maintaining contact with American hospitals. Case H7 was in contact with all the clinics and hospitals from the American Methadone Association; case H9 was in contact with the SHARP clinics from San Diego; case H5 was also in contact with the SHARP clinics, and it was later known that since July 1994, they signed an affiliation agreement with SHARP's services<sup>3</sup>. Case H8 was too in close contact with the SHARP clinics and hospitals of Chula Vista, plus the Wellness Council and the American Cancer Control Society. It has been known that the SHARP medical group from San Diego has begun to develop in the city of Tijuana mainly as a P.P.O. since 1989<sup>4</sup>. In this way they have been able to send American patients to receive treatment in Tijuana. Interestingly no correlation was found between the size of the facility, location and the ability to maintain contact with American clinics and hospitals. Nonetheless, it can be said that the SHARP group mainly tends to look for easy access and the best equipped facilities as a main characteristic, and also those who will be able to offer a similar quality of medical services as in the U.S.

#### **VI.1.5 Medical services exchanged with American clinics and hospitals**

(appendix 7, table 5)

According to the findings, case H7 offered methadone dosage treatment to patients coming from Canada and the U.S. Although nothing was said with respect



to who referred these patients, it can be assumed that the American Methadone Association has played an important role in the development of this facility. Case H9 offered intensive care unit (U.C.I.), general surgery and cardiology to patients referred by the SHARP clinics. Case H5 offered rehabilitation services, traumatology, orthopedics and pediatric services to patients from the SHARP clinics. Case H8 offered cancer treatment, surgery and specialized medical treatment to patients from SHARP clinics and from the Wellness Council and the Cancer Control Society. Although the services provided within cases H5 and H8 fall into the realm of the capital intensive activities (for being hospitals), in general the medical services exchanged with American clinics and hospitals dwell heavily on skill and labour intensive activities. In both cases H7 and H9, the services exchanged are mainly within the group of the skill-labour intensive activities, although there are some capital and skill intensive activities as well. It can be said that in their majority, medical services exchanged with American clinics and hospitals are within the category of skill-labour intensive activities.

#### **VI.1.6 Attention to NON-RESIDENT patients.**

(appendix 7, table 6)

Apart from having patients recommended from American hospitals, many of the surveyed facilities received additional groups of non-resident patients. A total of 8 of the facilities accepted having them on a regular basis, being these five from the 1 to 10 beds group, and the three hospitals from the more than twenty beds group. Case H3 declared not having non-resident patients, and this can be a result of being located far from the city, becoming a local users' hospital (see map 8). Nevertheless, they mentioned that American patients do attend their facilities mainly during emergencies. With respect to case H7, a small inconsistency was found. Although

accepted not having non-resident patients, it was later accepted having contact with American hospitals. The explanation given was that the majority of their patients are also local residents of American origin (or emigrados). This was also the result, as clarified by them, of the length of the rehabilitation therapies. The results from this question are consistent with the information from a study conducted in 1994<sup>5</sup>, in which it was reported a high number of border crossings from Tijuana to San Diego in order to obtain dental and medical services.

No strong correlation was found between the size of the facility and demand of medical services by non-resident patients.

#### **VI.1.7 Increase in the number of NON-RESIDENT patients during the past year.**

The assumption that there might be a fluctuation of demand during the year was proven positive in this question. From the 1 to 10 beds group, the same five cases that accepted receiving non-resident patients, declared the existence of a yearly variation in the demand of services from these non-resident patients. From the more than twenty bed group, all three cases also declared the existence of a yearly variation in the number of non-resident patients. Although case H7 acknowledged having emigrado patients, they argued that also due to the length of their therapies, they were unable to monitor increases of demand during the year.

#### **VI.1.8 Periods of the year when there was an increase in the number of NON-RESIDENT patients.**

(appendix 7, table 8)

The seasonality, or periods of the year in which there is an increase in demand, could not be fully clarified due to the fact that not all the hospitals monitor this issue. Thus, in general they were unable to specify the month or months in

which there is an increase in the number of non-resident patients. Only two cases from the 1 to 10 bed group, H2 and H9, declared having an increase in the number of their non-resident patients between the months of April and June. Being May, June and July the months they considered 'high season'. And two cases from the more than twenty beds group, H8 and H5, declared having an increase in the number of their non-resident patients between the months of May and August. The month of May was considered 'high season' for case H8, and the month of July was considered 'high season' for case H5. In the case of H1 and H4 it was declared that due to the fact that this seasonality was variable, and that the number of their non-resident patients was variable as well and the amount of patients was very low, therefore they were unable to specify with precision a month or months during the year where the seasonality took place, nor the increase in the number of patients. Cases H6 and H10 declared not having an official register in which they can assess their answer, therefore decided to say that it was unknown with precision. Nevertheless, the information coincides with the summer season holidays. Although it was assumed that the winter season would be a high season as well due to the fact that many retirees ('winter birds') travel to locations seeking a better climate, it seems that their presence is not strongly felt in the city. Therefore it can be said that a seasonality effect does take place and that coincides with the summer holiday period.

#### **VI.1.9 Number of NON-RESIDENT patients during this time.**

(appendix 7, table 9)

Only two cases from the 1 to 10 beds group and two from the more than twenty beds group were able to give detailed data with respect to the number of their non-resident patients during the year. Case H2 declared receiving between 20 and

30 non-resident patients per month during their four months 'high season' period, while case H4 accepted having only approximately 10 non-resident patients per month, although it was not specified during which month or months. Case H5 declared receiving an average of 90 non-resident patients per month during their three months 'high season' period, and case H8 accepted receiving approximately 62 non-resident patients per month during their one month 'high season'. Although the information was not very precise and clear, it can be seen that larger and better equipped facilities tend to have a higher number of non-resident patients during the high season, despite their location relatively far from the border crossing area. In these cases, communication with patients, transport, good quality of roads and signs as well as accessibility were the most important infrastructure related factors for their success. On the other hand, case H4, despite its location at the downtown area had a smaller number of non-resident patients during their high season. In this case it can be said that the size of the facility more than the location, tends to be the key point for the number of non-resident patients. Although it can be argued that in the cases of H5 and H8, communication links with American clinics and hospitals was an important feature.

Despite the fact that a study conducted in 1994 mentioned an average of 250,000 monthly trips from San Diego to Tijuana to obtain dental and/or medical services<sup>6</sup>, and another study from 1993 reported an average of 6,250 American nationals being attended at 17 alternative cancer clinics in Tijuana<sup>7</sup>, the differences in the amount of patients declared in these cases can be considered as a the result of either one of the following two issues:

- a.- Local clinics and hospitals do not keep clear track of their non-resident patients because it is not important for them; or
- b.- Local clinics and hospitals do not want to tell the correct amount

of non-resident patients because they are not properly declaring the incomes related to these patients.

In any of these cases, they are obstructing the proper development of medical services.

**VI.1.10 Mechanism used to find the NON-RESIDENT patients' nationality.**

(appendix 7, table 10)

From the group of the ten surveyed facilities, eight of them declared using the clinical record as the main tool employed to verify their non-resident patients' nationality. In these cases their address and telephone number in their hemicentra is asked for medical records, and also as a way to maintain contact with them in the future. All the admission forms are initially filled by the patient or by a responsible person, and then verified when the information is filed.

Only case H5 used language and accent to define the patient's nationality. Cases H9 and H10 besides using the clinical records to identify their patient's nationality, also used language and accent as a secondary source to verify the patient's nationality.

Another small inconsistency was located with respect to case H7, for it was previously acknowledged not having non-resident patients, and at this question answered that it used the clinical records to verify their nationality. It can be said that in general the sources of verifying the nationality of the patient is in general of good quality, mainly because this is data of high value for the accountants and the promoters of the facility.

**VI.1.11a Medical services most commonly used by NON-RESIDENT patients.**

(appendix 7, table 11A)

Different results were obtained from the two groups of facilities, when specifying the services mostly used by non-resident patients. Seven facilities indiscriminately declared that outpatient care, hospitalization and general surgery were being used by non-resident patients. Six facilities identified gynecology and obstetrics, and drugstores as the services being used by non-resident patients. Four facilities identified physicians' offices, pediatrics, plastic surgery, ultrasound, laboratory, x-rays and dentistry as the services used by non-resident patients. Three facilities identified emergency surgery, cardiology, emergencies (general), chemotherapy and cancer treatment as services used by non-resident patients. In two facilities delivery, preventive medicine, tomography and weight control services were identified as services consumed by non-resident patients. And finally either one of the facilities identified ophthalmology, nurse care, electroencephalography, traumatology, orthopedics, U.C.I. (or intensive care unit), rehabilitation, medical treatment (special), and drug rehabilitation, as services consumed by non-resident patients. As previously, the same inconsistency with case H7 appears here also, when identifying the Drugstore (Chemist) and drug rehabilitation as the most used services by non-resident patients, when previously declared not having non-resident patients.

As it can be seen, the majority of the services used by non-resident patients fall in the category of skill and labour intensive activities. The issue that many of them are actually rendered within a hospital converts them into capital intensive activities. Nevertheless it can be argued that in their majority, these services dwell more within the realm of the skill and labour intensive activities.

**VI.1.11b Medical services most commonly used by NON-RESIDENT patients in order of importance.**

(appendix 7, table 11B)

When asked to identify the medical services used by non-resident patients in order of importance, a different panorama appeared. Although only three facilities in total were able to identify them, the three cases show different trends.

Case H5 assigned hospitalization a first place, followed by general surgery in second place, and traumatology, orthopedics and rehabilitation in third place, and finally physicians' offices in fourth place

Case H9 considered outpatient care and drugstore services in first place, followed by pediatrics in second; ophthalmology in third; dentistry in fourth; plastic surgery in fifth; general surgery and U.C.I. in sixth; cardiology in seventh and gynecology and obstetrics in eight place.

And case H10 identified cancer treatment in first place; followed by outpatient care in second; hospitalization in third; gynecology and obstetrics in fourth; nutrition and weight loss in fifth; emergencies in sixth; the drugstore in seventh; laboratory in eighth; x-rays in ninth; cardiology in tenth; pediatrics in eleventh; delivery in twelfth; general surgery in thirteenth; chemotherapy in fourteenth; ultrasound in fifteenth, and finally nurse care in sixteenth place.

The information here is variable. Due to the fact that there is only information with respect to hospitals (cases H5, H9 and H10 are all hospitals), it seems that all the activities fall into the realm of capital intensive services. As it was previously suggested, despite being rendered within hospitals, also in these three cases the skill and labour intensive activities tend to be predominant over the capital intensive ones. This information is consistent with the qualitative survey, for the majority of the patients were seeking emergency services and general consult. A more in detail

research is needed here in order to disaggregate the activities to see which services are more consumed. In this way it could be assess if the consumed services are within the capital, skill or labour intensive type of activities.

#### **VI.1.12 Type of medicine used by NON-RESIDENT patients in Tijuana's hospitals.**

(appendix 7, table 12)

In general, in five cases it was accepted that non-resident patients were using mainly type I and type II medicine. Four cases acknowledge prescribing mainly type III medicine and in one case it was accepted that all type of medicines were prescribed, including alternative remedies. The same inconsistency with case H7 appears here, when stated that its non-resident patients were mainly prescribed type I medicine, though in previous questions declared not having non-resident patients. From the more than twenty beds group, case H8 declared that non-resident patients were prescribed all types of medicines; case H10 declared prescribing type I to type III medicine, and only case H5 declared prescribing type II and III medicines. It can be said that in general non-resident patients are frequently prescribed type I and II medicine, meaning with this that there must be having a controlled prescription to be used only once or up to three times. This information is consistent with the issue that it is within the Playas and the downtown areas, where these pharmaceuticals tend to be mostly sold<sup>8</sup>. This is mainly the result of the type of facilities located in those areas.

#### **VI.1.13 Payment mechanism used by the NON-RESIDENT patients.**

From the 1 to 10 bed group, five cases declared that their non-resident patients used to pay in cash and in full for the medical services used; and only one



case (H9) declared accepting collective insurance from non-resident patients as a form of payment. Coincidentally, in this same facility health plans and health policies were offered as part of their promotion policies, following very closely the structure and management style of an HMO.

From the more than ten beds group, only two cases declared that their non-resident patients used to make partial payments in cash in order to cover the costs of the services used.

In general it can be said, that cash payments in full tend to be the main way used by non-resident patients to cover the costs of medical services, therefore the issue related to American poor using Mexican medical services cannot be accepted in full. These American patients might be considered poor within their country but with respect to Mexican standards, they are able to afford the total cost of medical services.

A possible explanation for this fact can be related to the issue that many American insurance do not cover medical services in Mexico. Thus American patients are forced to pay in cash. Nonetheless, as they are able to cover the expenses, the final cost is lower than in the U.S. Despite this, the qualitative survey showed a different scenario. Patients did not considered cost as a very important factor in influencing their decision about where to go for medical services.

**VI.1.14 Location problems with the local planning department (i.e. construction permits, land use permits, etc.),**

(appendix 7, table 14)

All cases declared not having any kind of problems with the local planning department for settling in their present location. Despite the fact that all of them are located within commercial, residential and tourist areas, no strong requirements

were enforced to them by local planning authorities. This is an interesting point, due to the fact that in the following next question, the majority of the problems they face are heavily related with their location. Therefore this issue proved to be something that was not considered seriously either by the local planning authorities, or by the same owners of the medical facilities that did not comply with the local public parking codes.

**VI.1.15 Urban services required for a better performance by hospitals in Tijuana.**

(appendix 7, table 15)

Despite the fact that all of the surveyed facilities were located at different parts of the city, the main issues mentioned by the majority as problematic, were more related to improving the existing infrastructure.

From the one to ten bed group, five cases asked for improvements in the existing public transport, paved streets, public lighting, water and sewage systems and rubbish collection service. Four cases asked for improvements in the existing public telephones system, a specialized rubbish collection services and public parking spaces as well. And only two cases asked for improvements in the existing green areas. From this same group, six cases declared not having access to green areas at all; three cases do not have access to public parking; two cases do not have access to public telephones; and one case has no access to public rubbish collection. From the more than twenty beds group, the three cases asked for improvements in the existing public lighting; two cases asked for improvements in the existing paved streets, water and sewage systems, public telephones, general and specific rubbish collection and public parking areas; and only one case asked for improvements in the existing public transport and green areas. From this same

group, only one case declared not having access to green areas.

As can be seen, the major problem tends to be related to public parking spaces. As mentioned previously, this issue tends to be contradictory at the end, due to the fact that it is the clinic or hospital's responsibility to provide parking spaces to patients, and besides, there are local codes that specify the number of parking spaces clinics and hospitals have to provide according to their size and/or number of beds. Therefore if the facilities mentioned not having problems with the local planning department, and they still have a shortage of parking spaces, then a piece of information is missing. The local planning department should have known that the number of parking spaces considered by the specific clinic or hospital were below the required standards.

There are three possible explanations for this issue. The first is related to their location within commercial areas. If they were classified as commerce, then their parking requirements were different, thus at the end creating a shortage of parking spaces. And the other is related to the existing codes that had fallen short in their standards. And the third one will be related to clinics and hospitals declaring less area (to reduce their local taxes), thus having less parking spaces. In any of the cases, both issues should be reviewed in order to seek a solution to this problem. Nevertheless, there was no correlation between the size of the facility and the parking spaces problems. It seems that regardless of the type and size of the facility, the problem persists. Another interesting issue was the one related to green areas. As it was also mentioned, many of the facilities are either located at residential, commercial or tourist areas.

According to local codes, all of these areas have different green area requirements. As clinics and hospitals tend to settle there, no special considerations are provided to these kind of facilities, being forced to find a solution by themselves.

In case H8, there was a partial agreement between this facility and local government, so the same facility was able to create and manage its own green areas. Nevertheless this is not always possible for there is not always available area, specially at commercial and tourist zones that are already consolidated. This is an issue that has to be taken into consideration from the city's zoning proposal. For some reason, the city lacks a zoning code. Nevertheless, this has resulted in an interesting set of mixed land uses that, nevertheless have to be dealt in different ways.

In general, problems related to public lighting, water supply, sewage, drainage and street paving are all local government responsibility and have always been considered as problematic, as local government has not been able to cope with existing demands.

## **VI.2 SURVEY FINDINGS: the qualitative approach**

Similar to the previous analysis, the information from the second survey was also reviewed in detail in order to verify issues related to qualitative aspects. In this case there were 202 street surveys made at 8 clinics and hospitals, of which 175 were Mexican nationals, 24 American nationals and 3 South Americans. In the case of the American nationals, only one was identified as a white Anglo-American, speaking fluent Spanish. The rest were identified as Latin origin, speaking proper Spanish. From this group of people, 159 had their permanent residence in Tijuana, 40 in the United States in general (26 from San Diego, 6 from Los Angeles, 1 from Riverside and 7 not specified), and 3 in South America. The fact that 39 Mexican origin people had their permanent residence in the United States is an example of the way this sector of the population commute to Tijuana for medical services. It is

unknown how many of the surveyed people who had their permanent residence in Tijuana were also legal American citizens, despite the fact that they present themselves as Mexican nationals. This issue becomes more complicated, for there has been changes in the Mexican naturalization law, allowing legal Mexican migrants living in the U.S., to maintain both nationalities despite their permanent place of residence.

#### **VI.2.1 Factors influencing their decision about where to go for health care.**

(see appendix 8)

With respect to the factors that influenced people's decision about where to go for medical care, long term physician relationship and quality of care were predominant in 5 cases, while modern facilities and equipment was predominant in 3 cases, followed by cost and convenience. The factors that were considered in the last position were language and location. Therefore , knowing the physician beforehand and the quality of care, become the key elements in deciding where to go for health care.

#### **VI.2.2 Factors influencing their decision about where to go for health care, in order of importance.**

(see appendix 8)

When asked to select the same factors in order of importance, long term physician relationship was ranked first in 5 cases, followed by quality of care in second place, followed by care in third place; modern facilities and equipment in fourth place; location in fifth place; language in sixth place and convenience in

seventh place.

From this first two question becomes clear that people place a high value in the long term physician relationship over quality. This is not to say that quality is not important, but that there is a possibility that the quality factor can be strongly related to knowing and feeling confident with the physician. Language was not considered important at all because in general Mexican origin people tend to take for granted that being Spanish their mother tongue, language is irrelevant.

### **VI.2.3 How important is each variable in determining the quality of a hospital or doctor?**

(see appendix 8)

For this question, several variables were predominant, nonetheless, measuring them according to the number of times they were mentioned, cleanliness becomes the most important variable, followed by medical knowledge of the physician or staff in second place. In a third category, education and training of the physician or staff and explanations by staff in understandable terms were even, followed by responsiveness and bedside manner or interpersonal communication that were also even. In fifth place is, up to date equipment, while language and amenities such as food and room were sixth; location was seventh and new facility or building was the last.

In this case, people consider extremely important how clean a hospital or physicians office is, as well as the medical knowledge of the physician or staff, while less attention is paid to issues of location and how new the building is.

#### **VI.2.4 How does the quality of physician care compares to two years ago?**

(see appendix 8)

In this case, although 126 respondents mentioned being on their first visit, 49 mentioned the quality was better that two years ago and 18 mentioned it was the same as two years ago, while only 3 respondents mentioned it was worst than two years ago. This is to say that almost 37 percent were actually frequent users

#### **VI.2.5 How does the quality of hospital (clinic) care compares to two years ago?**

(see appendix 8)

For this case, very similar results were obtained, 127 respondents mentioned being their first visit, while 51 respondents mentioned the quality was better than two years ago and 13 mentioned it was the same as two years ago. Only one respondent mentioned it was worst that two years ago.

From these two questions it is interesting to note that around 63 percent of the respondents were on their first visit to the physician or hospital, while only around 37 percent of the respondents were able to compare the quality from previous visits. It can be said that in general new visitors are predominant over the frequent users of medical services.

#### **VI.2.6 Attributes of the hospital (qualitative factors)**

(see appendix 8)

When evaluating the qualitative factors of the hospital or clinic, patient care was considered the most important factor, followed very closely by good doctors and cleanliness. Responsiveness was ranked fourth, followed by reputation in fifth, and prompt and accurate billing in sixth place. Up to date equipment was in seventh

place, while care in their language was in eighth place and limited noise and adequate food in the last two positions.

From these results it can be inferred that, while in the majority of the hospitals and clinics surveyed, patient care, good doctors and cleanliness are considered as very good, some of them suffer from noise and adequate food problems.

### **VI.2.7 Physician attributes**

(see appendix 8)

With respect to physician attributes, effective communication skills was considered as very good in 7 of the 8 cases, followed by up to date clinical skills and adequate time spent with patient in second place. Competent office staff was in third position while limited waiting time was considered last. This is to say that, although physical have effective communication skills, up to date clinical skills, and spend adequate time with patients, there might be a problem with issues related to waiting periods. This factor was frequently mentioned by people in the existing studies on health along the border. It was considered as a key element in deciding to go to Mexico for medical services to take this issue into consideration, for it has to be maintained as part of the good quality issues.

### **VI.2.8 Emergency services and general consult**

(see appendix 8)

In measuring the attributes of these services, professional staff was strongly recognized as being very good in 6 cases, while prompt service, necessary equipment and emphasis on care and not money were considered in second place, and provision for children in the last position. This information is consistent with the results of the previous one, by affirming that in general these services are rendered



by professional staff. The fact that prompt service was ranked in a second position brings about the issue of the waiting time problem, an issue that has to be reconsidered. Another issue is related with the necessary equipment that was also ranked in second position, meaning that people are realizing that the equipment is not as new as should be. And finally, the issue of the provision for children has to be reviewed also, for it was mentioned in the last position.

### **VI.2.9 Obstetrical care**

(see appendix 8)

With respect to this service, the attributes that were considered as very good in the majority of the cases were, adequate clinical knowledge on the part of obstetrical staff, and responsiveness of staff. In second place were, being given consistent information and education, and being treated uniquely or as an individual.

The results of this question in not consistent with the result of the physician attribute with respect to the communication skills and being given consistent information. In obstetrical care, nurses are also involved in this process, therefore, the relation and communication skills of nurses and physicians should be reviewed.

### **VI.2.10 Outpatient surgery**

(see appendix 8)

In this case, responsiveness of staff was considered as very good in the majority of cases, with privacy and communication with patient and family in second place. As well, this information is consistent with the two previous questions with respect to the responsiveness of staff and how professional the staff is. With respect to privacy issues, these should be reviewed as well as communication skill with patient and family that were mentioned in the previous question.

## **VI.2.11 Oncology care**

(see appendix 8)

There were only 2 cases on people attending this services and in both cases the three attributes were highly evaluated. Sympathetic and caring staff, information given to patients and family, and support to patients and family members were all considered as very good.

## **VI.3 THE EXISTENCE OF COMPARATIVE ADVANTAGES.**

As was previously analyzed, several indicators show the existence of what can be recognized as elements of C.A. Following the model proposed in chapter III, the quantitative and qualitative indicators fall mainly within the realm of factor conditions, demand conditions, related and supporting industries and chance. With respect to firm strategy and government interventions, the situation is not very clear (see table 27).

### **VI.3.1 FACTOR CONDITIONS.**

For the issue of factor conditions, the information was subdivided into five indicators:

#### **a.- Availability of physicians.**

As it was seen, there are approximately 1,053<sup>9</sup> physicians working in Tijuana. Many of them work at both, the public and the private sector, managing to work part time at the public sector and the rest of the time at their own clinics. Nevertheless, there are also physicians that are fully devoted to the public sector as there are also those devoted to the private sector. Interestingly all the surveyed facilities had specialized physicians, some full time employed and some independent physicians.

As it was also clarified during the interview, many of the physicians have attended courses in the U.S. Therefore it can be said that their knowledge base and the quality of the rendered service tends to be similar to the quality of the service found in the U.S. Despite the fact that many people tend to measure quality by the type of medical equipment, at the end is communication and personal relation with the physician what is mostly appreciated.

In the case of nurses there is a small problem. In general it can be said that nurses in Tijuana fall into the category of 'auxiliary nurses'. Very few can be considered 'general nurses' and less than few are 'specialized nurses'. The fact that nurse training is not considered a profession, reduces the chances of people obtaining the degree. Even though the local University (U.A.B.C.) has already created the degree of general nurse (as a profession), the first generation has not graduated yet, thus the nurses-to-be continue to receive their training directly from physicians within hospitals and clinics without any professional recognition. At the end this issue affects their life standards, for the majority of them tend to be underpaid. The same applies to paramedics, although, since recently some of them (specially the local red cross paramedic team), have been receiving special training from American paramedics as part of the cooperation programme instrumented by the Binational Emergency Medical Committee<sup>10</sup>. In general, the quality of physicians and their staff was considered as very good. Results from the qualitative approach show that health personnel in general are highly professional and responsive.

#### **b.- Type of clinic or hospital**

It can be said that in general there is a tendency towards small facilities of less than ten beds, than large facilities of more than ten beds. This can also be related to the fact that it is easier to manage and control the quality of the service in a rather small facility than on a big one. It is also indicative of the issue that, as

large facilities fall into the category of the 'capital intensive' type of medical services, all of the services rendered within their premises will be more expensive than those general services that can be rendered at a small facility. Furthermore, as the number of smaller facilities increase, these tend to become more specialized in specific medical services. This issue also takes them to the point of needing sophisticated equipment, falling also into the realm of the capital intensive activities. Nevertheless because operation costs at a small facility are lower than at a large facility, they can maintain a low price of their service as well. Even though there are some differences in the use of terms, information with respect to the existing number of health facilities from S.S. and A.H.B.C., can be crossed, resulting in a general predominance of small clinics and physicians' offices over large health facilities. With respect to the quality of the facilities, in general it was considered as very good, specially with respect to being clean. The only issues that should be reconsidered are the ones related to noise, adequate food and privacy.

### **c.- Geographic location**

Although location with respect to the border crossing is important, the size of the facility is also a determinant factor. It can be said that smaller facilities find it easier to locate near the border crossing or at the central area mainly because of their size, allowing them to assure an influx of non-resident patients arriving as pedestrians (local and tourists). The smaller the facility the less amount of land it will occupy, so the rent can be affordable. Small specialized facilities also fall into this group. Another classification can be easy access by car. In this case all the facilities located at the Tijuana River zone can fall in this category. In this case, it can be found small and medium size facilities, mainly medical groups and specialized groups. Despite the fact that the price of land is high, some large facilities are also located in this area. And finally is the case of large hospitals. These tend to locate

far from the border crossing area and far from the central area. For them, communication with their patients, communication with American clinics and hospitals, communication links by means of good roads and signs are determinant factors. Nonetheless, in general people do not pay too much attention to location as part of the quality of a clinic or hospital. This can be explained by the fact that the majority of the users are Tijuana residents, who know how to arrive to the facility.

#### **d.- Access to infrastructure and existing needs**

It can be said that in general, the surveyed facilities have good access to infrastructure. Although streets need to be repaved and public lighting and telephones maintained, they are supplied with running water, drainage, sewage system and electricity. Their main needs are in the area of upgrading and maintenance. With respect to the transport problem, this issue in general tends to be predominant within the case of the small facilities.

In the case of large facilities, the tendency to provide transport to their patients directly to and from the border crossing, or from specific points in San Diego, has become an asset more than a liability. For them the main concern is with respect to the good conditions of the roads and signs.

As it was mentioned, problems related with public parking is an issue that has to be reviewed between the facilities and local authorities, for it seems that some of them do not comply with local codes on parking standards.

### **VI.3.2 DEMAND CONDITIONS.**

The three elements identified for in this issue were proven correct.

#### **a.- Local/international demand.**

In almost all cases there was a demand of medical services by American nationals. Although emigrados, pochos and chicanos were predominant and in

some cases considered as local residents, there were also groups of people from Canada, Germany, Japan and Korea attending some facilities in Tijuana. Meaning with this that there is not only an local international demand but also an external demand for medical services. Although some of this demand arrive as tourists, or for working purposes, many of them are Tijuana residents despite the fact that many of them are actually American nationals. As was mentioned in the qualitative survey, from 202 interviewed people, 24 mentioned being American nationals, and 40 had their permanent residence in the U.S. This is to say that many Mexican origin people are legal U.S. residents crossing the border for medical services. Nonetheless, at the end is the consumption of the service what it matters. In this case it would be necessary to find out more about the means by which they arrived to the city, to see if it is possible to improve them and/or promote them.

**b.- Increase and/or variations in the demand.**

With respect to variations in the demand or the seasonality issue, its existence was proven correct. The period in which the demand for medical services increases is mainly related to the summer holidays. Winter holidays were not considered important regardless of having people coming from Canada and the north of the U.S. in general. The fact that they are mainly passing through the city towards locations south of the peninsula, prevents them to make an important impact in the consumption of medical services.

**c.- Type of medical services demanded.**

And finally, with respect to the medical services mostly used by American nationals (see table 28 ), it can be said that in general they fall in the category of the labour intensive and skill intensive activities. Being labour intensive all those activities consuming mainly nurses, paramedics or physicians time. These activities are generally rendered at physicians' offices in the form of general consultation. On

the other hand, skill intensive activities are all those consuming specialized physicians' time. These activities can also be rendered at physicians' offices, or at medical groups and hospitals. Although some medical services such as hospitalization, general and plastic surgery and drugstores can be considered capital intensive for the need of special facilities, at the end they rely mainly on skill and labour intensive activities. Due to the fact that in general small clinics and physicians' offices are predominant over large health facilities, and all services rendered on them are considered amongst the skill and labour intensive activities, thus it can be said that the majority of the services consumed by non-resident patients and American nationals fall into the realm of the labour and skill intensive medical activities. Amongst them, emergency services, general consult, obstetrical care, outpatient surgery and oncology were considered of good quality during the qualitative survey, being responsiveness and professional staff the most valued attribute in them.

### **VI.3.3 RELATED AND SUPPORTING INDUSTRIES.**

With respect to the issue of related and supporting industries, several aspects have to be mentioned.

#### **a.- Supply of medical equipment.**

As it was mentioned, the majority of the facilities have access to American equipment, either new or refurbished. The presence of suppliers of these equipment in the city of Tijuana has increased notoriously. Although at present many clinics and hospitals are beginning to buy their equipment directly from the dealers, another type of service has also developed as a result: the maintenance of medical equipment. Mexican accessories such as surgical gloves, syringes, etc., have also developed as a result of an increase in the demand. During the qualitative survey,

several nurses and paramedics mentioned that in general the supply of medical equipment within clinics and hospitals was not a problem, and that despite the fact that some equipment was refurbished it was always well kept and maintained.

**b.- Supplementary medical services.**

In several of the existing facilities there are laboratories for clinical tests. Larger facilities are better equipped with these type of services and are able to offer their services to smaller facilities. Medical groups and specialized groups also are able to perform sophisticated tests due to the fact that some times they share expensive equipment. Further more, separate and highly specialized laboratories also support these activities, specially those related with x-ray tests, blood tests, scanning, ultrasound, tomography and so on. Despite this fact, not all laboratories were in good conditions. During the qualitative survey, several laboratory technicians complained about shortages in the supply of reactives and disposable material for their work. Some of them even mentioned being asked to save and re-use already used tubes, a practice that is not recommended for high quality laboratories. More attention should be placed in the way laboratories work and are managed.

**c.- Supply of pharmaceuticals.**

The majority of the prescribed medicine is of Mexican origin. Very few are imported. In this case, local providers of pharmaceuticals have increased their amount of supply to local drugstores and to clinics and hospitals that have this service. Controlled medicine continues to be a restricted issue, even with respect of its supply to drugstores. As the demand of pharmaceuticals continue it is expected that tighter controls will be enforced.



### **VI.3.4 FIRM STRATEGY.**

With respect to this issue, it was rather difficult to find specifically what were the firms' strategies. Even though all facilities have their own strategies, they do not always talk about them.

#### **a.- Internal goals.**

In general all the cases mentioned that amongst their internal goals, the most important one was the quality factor. And with respect to this factor they mentioned several issues related to it. Amongst others, they mentioned better personal treatment, fast service and no low waiting periods, accurate diagnoses, good equipment, and a clean and friendly environment as some of the most related to the quality factor. Some of these factors were verified during the qualitative approach and proved positive. People recognize them as elements related to good quality.

#### **a.1 Personal treatment.**

Although it was considered amongst the issues related to good quality, personal treatment was also valued as an important element within the facility. Actually this issue is at the end what makes people want to go back to a specific facility. In this issue everybody is involved, from administrative staff, to nurses, paramedics and physicians. An interesting factor is the issue that in the U.S. this kind of behavior has been disappearing. The issue of personal treatment was sought as a paramount difference between medical services in the U.S. and Mexico<sup>11</sup>. As it was mentioned by Dr. Ramirez, a good personal treatment is the beginning of all medical treatments, a good personal treatment is the beginning of healing<sup>12</sup>. In general, good patient care was considered as one of the best attributes of the surveyed hospitals.

#### **a.2 Fast service and no long waiting periods.**

And with respect to this issue, the main concern of all the facilities was the

long waiting periods. In order to reduce this issue they organize their timetables according to the days and hours in which patients increase, specially over the weekend, in order to have always group of physicians available for consultation. Despite this fact, although the qualitative survey mentioned that physicians spend adequate time with patients, other patients considered the waiting time was rather long. This observation cannot be precise, sometimes physicians spend a good deal of time with a patient and the one waiting complains until his or her turn.

### **a.3 Accurate diagnoses.**

In order to assure that the diagnoses will be accurate, several clinics and hospitals rely on a constant series of actualization seminars for their staff. Weekly reunions in order to discuss specific cases are also promoted within the facilities. And also the good condition of their medical equipment is also important in order to have accurate diagnoses. The qualitative approach shows also that responsiveness of physicians and staff was evaluated as very good in general, while up to date equipment was not mentioned as very important when deciding where to go for medical services.

### **a.4 Good condition of medical equipment.**

Strongly related to the previous issue is the case of giving the proper maintenance to the existing medical equipment. As part of their policies, many clinics and hospitals are changing their old refurbished equipment for new medical equipment. After interviewing several nurses and paramedics, this issue was corroborated, and the qualitative survey shows that despite the fact that people do not pay too much attention to the nature of medical equipment, in general this issue is moderately taken into consideration.

### **a.5 Good and clean environment.**

Finally, the issue of a good and clean environment was mentioned as part of

the quality issue. In this case, both the internal as well as the external environment were considered important. In several cases, due to their location within commercial areas, the external environment was not considered by them as a nice environment. From the qualitative survey, cleanliness was considered as a very good hospital attribute. For some cases and due to the fact that they are located at extremely busy areas, limited noise was mentioned as a problem, and to some extent privacy as well.

**b.- Communication with American clinics and hospitals.**

This issue was considered important amongst some of the facilities internal goals because by keeping this link they would be able to maintain a specific number of American patients. For them, in order to maintain within this communication link, the factor quality was essential.

**c.- Low cost of services.**

And finally, the cost of medical services was addressed as well as part of their internal goals as important. With respect to this topic, cost in general are discussed within the AHBC monthly reunions in order to maintain the same basis and keep competitive at the same time. This does not necessarily means that all medical services have the same cost in all clinics and hospitals. What it is discussed in those reunions are the minimum costs from which depart to add extra costs. As membership to AHBC is on a voluntary basis, this results in more differences amongst the costs of medical services in general (see appendix 9). Nonetheless, from the qualitative survey it can be seen that in general people do not consider cost as an important factor influencing their decision about where to go for health care. In general people give priority to quality and long term physician relation and not cost.

### **VI.3.5 CHANCE.**

In this case it seems this issue has played one of the most important roles in the development of this trend.

#### **a.- Local innovations and research projects.**

It has been by chance that the differences in control over therapies, prescriptions and medicines exist between the two countries. Thus the issue that many of the treatments used in local clinics or hospitals are not readily approve in the U.S., presents a strong advantage with respect to possibilities of local innovations as a result of research projects.

#### **b.- Alternative health treatment.**

As well, the differences in controls between the two countries has produced that many facilities in Tijuana experiment with alternative health treatments, specially in those cases related to cancer and leukaemia. Although many physicians doubt the usefulness of some treatments, at the end the research on them continues and the demand for them increases.

#### **c.- Alternative pharmaceuticals.**

Also strongly related to the previous issue, is the one that deals with alternative pharmaceuticals. As controls over pharmaceuticals are different between the two countries, it is to expect that this issue will continue to increase in importance.

### **VI.3.6 GOVERNMENT.**

As for this issue, apart of the existing considerations within NAFTA with respect to cross border trade in services, it can be said that up to now, neither country has done anything about this trend, therefore there are rather few topics to consider.

### **a.- Government interventions.**

Both governments are more preoccupied with the issue of transmissible diseases. Viruses know no boundaries nor borders, thus strong binational public health programmes are being implemented along the Mexico-U.S. Interestingly, while this takes place within the public health sector, no attention is paid to the private health sector. Within the context of NAFTA, services in general are considered. Chapter XII addresses the issue of cross-border services, and sets the main guidelines in order to advise local groups, on a voluntary basis, to get together and discuss the creation of common licensing and certification mechanisms<sup>13</sup>. Up to now, these reunions have not taken place yet. Since recently the American government has begun to consider using Mexican medical services as a way to reduce their health expenditure, specially in the area of special care, mental disorders and the elderly. Nevertheless, up to now nothing has been achieved. Dr. Warner's works from the University of Texas at Austin, have always been focusing in this issue and it is expected that in the short term he will be able to develop a first draft in order to extend MEDICARE services to Mexico. In this way, American retirees will be able to receive medical services in Mexico paid in part by MEDICARE. One of the sectors that has begun to take advantage of this situation is the American private sector. Some American health groups are beginning to invest in Mexican clinics and hospitals upgrading and improving their facilities and services, in order to send their patients from the U.S.<sup>14</sup>. From a different perspective, American private insurance companies are developing international and binational health programmes and policies that are sold in the United States and are valid also in Mexico. American HMO's and PPO's are setting the pace entering to the Mexican health market, either with specific contacts or with joint investments. This is an issue that is also considered within NAFTA<sup>15</sup>. Apart from the guidelines contained in

NAFTA<sup>16</sup> with respect to investment (chapter XI), cross-border trade in services (chapter XII), financial services (chapter XIV), temporary entry of business and persons (chapter XVI), and intellectual property (chapter XVII), at the end it can be said that up to now, the Mexican government has not played an important role in the development of the private health sector.

**b.- Differences in medical controls.**

As it becomes more notorious, the issue of the differences in medical controls between the two countries is beginning to put some pressure within specific cities. Medical groups from San Diego continue to demand more control in Mexican drugstores. Interestingly it seems that up to now there are no intentions to equalize these controls. Although NAFTA contemplates the production of specific regulations between medical groups along the border, this issue is mainly related to the recognition of licenses to certificates for professional practice<sup>17</sup>.

**c.- Salaries.**

Another issue related to the use of Mexican medical services by American nationals is the one related to salaries that at the end have a strong impact on the final cost of the services. The cost of medical services in Mexico tend to be lower than in the U.S. because salaries in Mexico are also lower than in the U.S. This is a topic than in general the Mexican government has been using to attract foreign investments. Therefore it is not expected to be severely changed in the near future. As for professional salaries, there is a minimum salary base, but not a maximum, therefore in this case physicians must find the proper way to fix their salaries. As it was mentioned earlier, in general the incomes of physicians are always amongst the highest. This cannot be said for nurses and paramedics. As part of the qualitative survey, several nurses and paramedics were interviewed and salary was their constant complain. In some cases they mentioned doing many activities physicians

should be doing and not being paid extra. Clinic and hospital managers should find the way to give incentives to their personnel in order to keep them working at a friendly environment.

**d.- Border crossing policies.**

The relatively easy border crossing between the two countries has always played an important role in the development of the cities of San Diego and Tijuana. The Mexican government in general has facilitated this process mainly as a way to maintain a tourist flow to the city. Furthermore, Mexican migration law has been adapted in order to allow Mexican migrants (either emigrados, pochos and chicanos) to maintain both nationalities. A situation that simplifies the issue of living in Tijuana and commuting to San Diego, but also making it more difficult to classify the user of medical services in Tijuana. From the other side of the border, the American government has begun to reinforce their border crossing controls. Although their main concern are the illegal crossings and drug smuggling, at the end everybody has to comply with their rules. Waiting lines for up to 4 hours in order to cross the border to the U.S., are very common, while waiting lines for near 2 hours to cross the border to Tijuana is becoming also common. As migration and border crossing controls become more tight, this issue can become a relative problem.

## **VI.4 CONCLUSIONS**

Despite the fact that the two surveys cover only 10 clinics and hospitals and 202 interviews with patients, and no strong conclusions can be made, the existence of all factors related to C.A. is demonstrated. All of the identified elements can be improved and promoted in order to develop this sector towards an international market. In general small health facilities are predominant over large health facilities,

thus being this a clear case of the production of skill and labour intensive activities on them. Nevertheless, more detailed studies need to be conducted. Apart from a transversal research, a linear research or time related survey needs to be made as well in order to verify the increase or the reduction of demand for medical services in Tijuana. Unfortunately some data files do not exist, while the existing ones either are in an aggregated form or are extremely unreliable. Furthermore, as clinics and hospitals fear revealing this information, access to accurate data is going to be a rather difficult task if these medical groups are not convinced about the positive aspects involved in the development of this sector.

Monitoring the trends is as important as the development of this sector. It is normal that as time goes by, these issues will change from the local to the global levels, thus the need to monitor them in order to be prepared for these shifts and be able to adjust to them. It is paramount to begin to convince local government, state government and local medical groups about the importance of developing medical services towards an export oriented service. The development of international trade in health services can result in several positive aspects for both countries. As one country finds the way to reduce its health expenditure without reducing its supply of medical care, the other country will be able to improve the general quality of its medical services and upgrade and boost its public health sector, thus creating more sources of employment. Although this sounds as the perfect ideal there are also some risks involved. The final chapter will analyze different alternatives, as well as its risks.



## NOTES

1.Schneider, P., et. al. (1994).

2.Such is the case of Dra. Patricia Aubanel, a physician practicing in Tijuana, who gave treatment to Mother Theresa of Calcutta at the SCRIPPS hospital of La Jolla, in San Diego.

Telephone interview with Dr. Simon Ramirez, general secretary of A.H.B.C. Tijuana B.C., August 1994.

3.Duerksen, S.(1994).

4.Although the date is not precise, SHARP's group presence begun firstly in Ensenada with very poor results. It was after that they decided to move to Tijuana. Telephone interview with Dr. Simon Ramirez, general secretary of A.H.B.C., Tijuana B.C., August, 1994.

5.On a normal month it was reported an average of 250,000 trips from San Diego to Tijuana in order to obtain dental and/or medical services.

San Diego Dialogue Report. (1994).

6.Ibid.

7.Abend, N., and Moss, K. (1993).

8.For a more detailed information, read the interview with Mr. Gilberto Rios, general manager of 'Farmacias Internacional de Tijuana' in appendix 5.

9.TELNOR,(1995).

10.Personal interview with Celia G. Diaz, Executive Director of the Binational Emergency Medical Committee in Chula Vista, California., U.S.A. September 1994.

11.The majority of the clinics and hospitals coincided in saying that in the U.S. medical services are getting too impersonal and mechanical. That physicians spend very few time with patients and that this leaves patients feeling they are not receiving enough attention. The average time for a medical visit in the U.S. tends to be in the ranges of 15 to 20 minutes, while in Tijuana, the shortest medical visit lasts 30 minutes.

12.Telephone interview with Dr. Simon Ramirez, general secretary of A.H.B.C. Tijuana B.C., August 1994.

13.NAFTA. (1992) (Chapter XII)

14.Chapter XI that deals with investments, states that all three NAFTA countries agreed not to revert or reduce the existing liberalization regarding the establishment of foreign-owned hospitals and clinics in their territory, and that all three NAFTA countries allow 100 percent foreign investment in health facilities.

Ibid. Chapter XI.

15.Chapter XIV dealing with financial services states that firms that form joint ventures with Mexican insurers may increase their foreign equity participation in

such ventures in steps from 30 percent in 1994, to 51 percent by 1998 and to 100 percent by the year 2000. These firms will not be subject to individual or market share limits.

Ibid. Chapter XIV.

16.Ibid.

17.Chapter XII that deals with cross-border trade in services, creates in its article 1210.5 a procedure for the future negotiation of the recognition of licenses to certificates for professional practice.

Ibid. Chapter XII.

Table 27. Comparative analysis between the proposed model of comparative advantages and the survey results.

INDICATORS	THEORETICAL MODEL OF COMPARATIVE ADVANTAGE FOR THE TIJUANA CASE	SURVEY RESULTS
<p>■ FACTOR CONDITIONS</p>	<ul style="list-style-type: none"> <li>- Availability of physicians,</li> <li>- Type of clinic and/or hospital,</li> <li>- Geographic location (address) proximity to the border crossing,</li> <li>- Existing infrastructure and access,</li> </ul>	<ul style="list-style-type: none"> <li>- At present there are approximately 1,053 physicians in the city of Tijuana.</li> <li>- According to the Secretariat of Health (S.S.), there are 249 officially registered activities related with the provision of health, out of which 172 are physicians' offices and 50 dentists' offices, 4 hospitals, 4 medical clinics, 2 sanatorios, 5 medical centers, 4 medical units, 1 medical institute and 1 medical group.</li> <li>- According to the local hospitals' association (AHBC), there are 100 health facilities in Tijuana, out of which 26 are hospitals, 49 clinics, 9 sanatorios, 8 medical centers, 5 medical units, 2 medical institutes and 1 medical group.</li> <li>- The largest hospital has no more than 67 beds, being 1 to 10 the average number of beds.</li> <li>- In general small clinics and physicians' offices are predominant over large health facilities.</li> <li>- The majority of small health facilities tend to concentrate near the border crossing area, while more complex health facilities are located far from it.</li> <li>- In both cases, they rely on easy access, either on a walking distance or through good quality roads and signals. Though many users mentioned location was not a very important factor when deciding where to go for medical services.</li> </ul>

<p><b>■ DEMAND CONDITIONS</b></p>	<ul style="list-style-type: none"> <li>- Local / international demand.</li> <li>- Increase and / or variations in the size of the demand.</li> <li>- Type of medical services demanded.</li> </ul>	<ul style="list-style-type: none"> <li>- On a normal month, there are approximately 250,000 trips from San Diego to Tijuana to obtain medical or dental services (SANDAG, 1994).</li> <li>- In general it can be said that the amount of non-resident patients tends to increase during the summer holidays ( May, June and July).</li> <li>- The number of non-resident patients tend to be variable between different clinics and hospitals, from between 10 and 90 patients per month, up to 365 patients per month.</li> <li>- Americans tend to use mainly outpatient care, gynecology and obstetrics; hospitalization, general surgery, plastic surgery, pediatrics, dentistry and drugstore is ranked second.</li> <li>- Amongst more sophisticated clinics and hospitals, cardiology, laboratory services, ultrasound, emergencies and x-ray, are mainly used by American nationals; delivery, preventive medicine, ophthalmology, chemotherapy, tomography and electroencephalography are ranked second.</li> <li>- Hospitalization, general surgery, outpatient care, laboratory, ultrasound, cancer treatment, drugstores, x-rays, chemotherapy and weight reduction were mostly consumed in hospitals of more than 20 beds.</li> <li>- In general Americans consume skill and labour intensive activities, rendered at small clinics and physicians' offices, although some of them are rendered at hospitals, making them capital intensive services.</li> </ul>
<p><b>■ RELATED AND SUPPORTING INDUSTRIES</b></p>	<ul style="list-style-type: none"> <li>- Supply of medical equipment.</li> <li>- Supplementary medical services (i.e. chemical labs, x-ray labs, etc).</li> <li>- Supply of pharmaceuticals.</li> </ul>	<ul style="list-style-type: none"> <li>- At present activities related to the supply of medical equipment are the second most important in job generation.</li> <li>- American medical equipment can be bought new from the U.S.</li> <li>- The Mexican market supplies some IV solutions, plastic parts and some ultrasound equipment</li> <li>- The majority the large hospitals have their own chemical laboratory and sophisticated medical equipment.</li> <li>- External specialized laboratories and medical groups also support special supplementary medical activities.</li> <li>- Mexican pharmaceuticals are highly consumed by American patients, and the supply of this pharmaceuticals is on a regular basis.</li> <li>- Only controlled pharmaceuticals tend to be difficult to locate.</li> </ul>

<p>■ FIRM STRATEGY</p>	<ul style="list-style-type: none"> <li>- Internal goals.</li> <li>- Communication with American clinics or hospitals.</li> <li>- Low cost of services.</li> </ul>	<ul style="list-style-type: none"> <li>- Maintaining high quality in the provision of medical services.</li> <li>- Quality is understood as related to: <ul style="list-style-type: none"> <li>Good personal treatment;</li> <li>Fast service and no long waiting periods;</li> <li>Accurate diagnoses;</li> <li>Good condition of medical equipment;</li> <li>Good and clean environment.</li> </ul> </li> <li>- Referral of patients, affiliation agreements or joint ventures are the main elements used in order to guarantee communication with American clinics and hospitals.</li> <li>- The quality factor is essential in order to maintain communication with American clinics and hospitals. And the majority of patients considered quality as a very important factor in determining where to go for medical services.</li> <li>- Low cost of medical services were also considered amongst the firms strategy. Nonetheless, many interviewed patients considered cost was not a very important factor in determining where to go for medical services</li> </ul>
<p>■ CHANCE</p>	<ul style="list-style-type: none"> <li>- Local innovations and research projects.</li> <li>- Alternative health treatments.</li> <li>- Alternative pharmaceuticals.</li> </ul>	<ul style="list-style-type: none"> <li>- Research projects have become the source of alternative treatments.</li> <li>- Many of the researches are also supervised by American organizations.</li> <li>- The use of treatments not readily available in the U.S. guarantees also the presence of American patients.</li> <li>- The use of pharmaceuticals not yet approved or no longer in use in the U.S. have the same effect.</li> </ul>
<p>■ GOVERNMENT</p>	<ul style="list-style-type: none"> <li>- Government interventions.</li> <li>- Differences in medical controls.</li> <li>- Salaries.</li> <li>- Border crossing facilities.</li> </ul>	<ul style="list-style-type: none"> <li>- Governments at both countries are more concern with the issue of transmissible diseases.</li> <li>- NAFTA provides guidelines for cross-border trade in services.</li> <li>- These guidelines are in relation to investment, financial services, licensing and certification of professionals, financial services, temporary entry of business persons and intellectual property.</li> <li>- Differences in controls over prescriptions and medicines between Mexico and the U.S. has become a central issue of many binational medical reunions, up to now they are still maintained.</li> <li>- Low salaries in Mexico are to be maintained as part of National policies to attract foreign investments.</li> <li>- The Mexican government has reduced its barriers to Americans and tourists in general in order to cross the border to Mexico; the American government continues to tighten its restrictions for Mexicans to enter to the U.S.</li> </ul>

Table 28.- Type of medical services consumed by American nationals at the surveyed clinics and hospitals in the city of Tijuana.

TYPE OF SERVICE	CLASSIFICATION OF SERVICE	NUMBER OF FACILITIES PROVIDING THE SERVICE IN GENERAL (From a Total of 10)	NUMBER OF FACILITIES WITH NON-RESIDENT PATIENTS USING THE SERVICES
1. Outpatient Care	L	9	7
2. Hospitalization	C	8	7
3. General Surgery	C-S	8	7
4. Gynecology / Obstetrics	S-L	8	6
5. Pharmacy / Drug store	C-L	7	6
6. Physicians' Offices	L	9	4
7. Pediatrics	L	8	4
8. Plastic Surgery	C-S	8	4
9. Ultrasound	C	7	4
10. Laboratory	C	6	4
11. X Rays	C	6	4
12. Dentist	S-L	4	4
13. Emergency Surgery	C-S	6	3
14. Cardiology	S-L	6	3
15. Emergencies (general)	S-L	5	3
16. Chemotherapy	C-L	4	3
17. Cancer Treatment	S-L	3	3
18. Delivery	C-S	6	2
19. Preventive medicine	L	5	2
20. Tomography	C-S	3	2
21. Nutritionist / Weight Control	L	2	2
22. Ophthalmology	S-L	4	1
23. Nurse Care	L	4	1
24. Electroencephalography	C-S	1	1
25. Traumatology	S-L	1	1
26. Orthopedics	S-L	1	1
27. U.C.I.	C-S	1	1
28. Rehabilitation	S-L	1	1
29. Medical treatment (special)	S-L	1	1
30. Drug rehabilitation (methadone)	S-L	1	1
31. Oncological medicine	S-L	5	-
32. Intensive Care	S-L	4	-
33. Pathology	L	3	-
34. Intensive Therapy	S-L	3	-
35. Physiotherapy	L	2	-
36. Physical Therapy	L	2	-
37. Blood Bank	C-L	1	-
38. Student Interns	L	1	-
39. Nurse training	L	1	-
40. Ambulance	C	1	-
41. Short Stay Surgery	S-L	1	-
42. Hyperbaric Chamber	C	1	-
43. AIDS treatment (alternative)	S-L	1	-

key:

C Capital intensive activity  
S Skill intensive activity  
L Labour intensive activity

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**CHAPTER VII. CONCLUSIONS:  
FROM CROSS BORDER TO INTERNATIONAL  
TRADE IN HEALTH SERVICES**

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## VII.1. CROSS BORDER TRADE

The use of Mexican private medical services by American nationals is an issue that cannot be denied even though many clinics and hospitals hide the information. This phenomenon, known as well as cross border trade in medical services, although not new, was not considered important until lately. In general, these issues were more related to licensing and some royalties, and not necessarily to patients from developed countries traveling to developing countries<sup>1</sup>.

As has been mentioned, issues related to lower cost, skilled personnel, geographic location, proximity, natural endowments, and cultural and linguistic affinities, are amongst the elements related to C.A. and on which at present, several countries are beginning to rely in order to promote trade in health services. Two cases deserve mentioning: Cuba, that has linked health care with tourism through SERVIMED, a trading company created by the government; and Jordan, that since the beginning of the 1990s has been upgrading and modernizing public hospitals and medical schools in order to become the medical center of the Arab world<sup>2</sup>.

As cities are considered more as centers of service provisions<sup>3</sup>, it is within this sector that the majority of the development opportunities are. In the case of the city of Tijuana, the service sector is a major part of its economy, and cross border trade in health services has become an important factor. This cross border trade can also be considered as a form of international trade in health services. And as elements of C.A. are existing in two forms, qualitative and quantitative, there is no reason to think that the city cannot benefit from them. Furthermore, similar to the development of these elements of C.A. and the development of specialization trends between Tijuana and San Diego, it is very likely that comparable situations can be taking place at other 'sister cities' along the Mexico - U.S. border area. Cities at both



sides of the border can be specializing in specific and complementary health services. Thus it can be said that different regional health markets can also be developed as a result of this trend.

Up to now, little is known about the way this trade has been taking place. From the Mexican side of the border in general, data is unreliable and in many cases does not exist.

With respect to the case of the city of Tijuana, several issues have to be re-analyzed and re-considered in order to understand how this sector of the economy has developed. This knowledge can be later used to improve the situation and promote cross border trade into an international trade in health services .

## **VII.2. MAIN CHARACTERISTICS**

From the six modes of trade in international health services trade suggested by UNCTAD (1994): movement of consumers (patients and students), movement of supplies (health personnel, consultant and commercial presence), and pure trade across the borders (by electronic media, transport samples , etc)<sup>4</sup>, it can be said that in the case of the city of Tijuana at least three of them are taking place.

Movement of consumers, in the form of movement of patients is the most common one; and at present movement of suppliers or commercial presence in the form of affiliates or joint ventures, as well as pure trade across the border in the form of telemedicine are beginning to appear. The possibility that the movement of personnel (mainly physicians) is taking place, is also an important issue. It is very likely that due to the predominant Latino population in the city of San Diego, several Mexican physicians will cross the border (using tourist visas) in order to pay home visits to their patients. As this trend is not yet documented it cannot be proved, nevertheless it cannot be discarded either.

The general characteristics of the cross border trade in medical services in the city of Tijuana can be understood as the result of a division of labour. It can be said as well that this division of labour between the city of Tijuana and its 'sister city' of San Diego in the U.S. has been the result of the specific features existing in each city, known as well as elements of C.A. It has been mentioned that geographic proximity, cultural and language affinities, low cost and good quality are amongst the features existing in the city of Tijuana. Equally important as well are the issues of competitiveness associated with labour intensity, and the cost-quality relation.

This division of labour has also produced specialization trends at both cities. As has been seen, while San Diego specializes in capital and skill intensive medical activities rendered in larger and well equipped hospitals, the city of Tijuana specializes in skill and labour intensive activities rendered mainly in physicians' offices and small specialized clinics. Also as a result of this division of labour, and as a way to reduce their expenditures, many American health companies and organizations are beginning to invest in Mexican private health facilities, either in the form of joint ventures, affiliations or by making contact with specific health providers as in the case of HMOs and PPOs. This can be considered as well as a recognition that in general the quality of private Mexican medical services are acceptable by U.S. standards. It is necessary to clarify that this trend is taking place at the border region, specially at large Mexican border towns. Meaning with this that a National policy towards the development of private medical services as an export industry could be risky. Considering that the border area is the center of this trend, a regional approach is more accepted. Thus, properly promoted, these border cities could become centers of regional development in the area of health services, with the potential of becoming exporters of medical services.

It is also interesting to note that within the group of American patients, the

presence of emigrado, chicano and pocho patients was frequently mentioned, becoming an important part of the group, or better said a predominant part of the group. As legal American citizens and retirees, either of Latin origin or not, settle in the city of Tijuana, it is expected that the demand for medical services will increase. Thus the Latin origin population and American retirees in general are the most common type of patient. Furthermore, as Mexican origin migrants are allowed to keep the Mexican nationality (thus reinforcing the concept of *binational*), an increase in the amount of this patients can be expected in the near future, specially in the city of Tijuana. Its close relationship with a growing Mexican origin population from San Diego and Los Angeles can be the key element for the health sector.

Alternative care clinics and the differences in controls over pharmaceuticals, apart from low cost, are also attractive issues for American patients. Although being an existing advantage for the city of Tijuana, this issue must be analyzed in more detail due to the controversial effect it has been having in relation to the lack of control over prescriptions related to the use of specific type of pharmaceuticals.

The presence of suppliers of pharmaceuticals and medical equipment has also increased in the city of Tijuana, an important issue due to the fact that they support the development of the health sector.

With respect to the pattern of demand of private medical services, it was found that the flow of patients is not constant. Although several studies reveal large numbers of people crossing the border to Tijuana for medical services during the year, this effect also known as seasonality, was not being considered. One of the interesting issues that in particular this study has identified, is that this trend is actually unevenly distributed throughout the year. Between three and four months coinciding with summer holidays, were considered in general as the high season for private medical services. This is to say that the rest of the year, demand drops

severely. Unluckily specific and more complete data with respect to these changes in the pattern of demand were not available and needs to be more documented.

Local clinics and hospitals continue to hide information related to foreign demand. Fear of losing patients is amongst the most common argument given for not releasing information. Internal information is considered highly confidential and not to be freely consulted by outsiders. This is a sad situation, for as has been mentioned, this behaviour not only obstructs the development and improvement of this sector, but is also preventing a potential increase in the demand, the creation of more jobs and the overall improvement of the quality of life in the city.

The majority of the surveyed cases mentioned existing infrastructure problems. Road and public lighting conditions were mentioned as rather poor. Green areas, public telephones and public parking spaces were also mentioned as lacking. And finally, rubbish collection services were also mentioned as deficient. Infrastructure in general was creating performance problems. As clinics and hospitals continue to appear in the city, not taking in consideration the land use and zoning codes<sup>5</sup>, these problems will continue to exist. This is not to say that by following the existing regulations the problems will disappear, but at least these actions can reduce the amount of problems related to infrastructure and land use.

Many things need to be reviewed, and several actions considered as well if this cross border trade is to be promoted into an international trade in health services.

### **VII.3. SOME PROPOSALS**

Due to the particular characteristics of the existing pattern of cross border trade in medical services in the city of Tijuana, the following recommendations try to cover as many as possible all the situations that were considered as either,

obstacles or problematic for the development of cross border trade in health services. Several health officials were consulted. Given a scenario where international trade in health services was the key factor, they made observations and gave recommendations in order to reduce risks and improve the quality of medical services.

### **VII.3.1 Existing demand**

One of the first problems to solve is the one related to the recognition of an existing demand. The majority of the surveyed cases accepted having American nationals as patients. Interestingly, during the street surveys, many of the respondents although claimed to be Mexicans, they had their permanent residence somewhere in the U.S. and travelling to Tijuana for medical services. This situation creates confusion in the sense that several clinics and hospitals actually think these population ( U.S. residents of Mexican origin) cannot be considered as Americans. And on the other side is the case of clinics and hospitals that, although are aware of the demand of medical services by American nationals, they continue to deny it because those transactions are not statistically registered for taxation. For both of these cases there is a need to begin registering all medical service transactions according to the permanent place of residence and source of employment of the patient in order to verify if it can be considered as an international transaction and an export of medical services.

The seasonality effect existing in the pattern of demand throughout the year is an issue that at present can be considered more as a disadvantage than an advantage. Instead of having specific periods of the year in which there is an increase in the demand on medical services, it is recommended to have a more regular pattern of demand. By having such pattern of demand, a constant flow of

patients can be maintained in clinics and hospitals, assuring this way the creation of permanent sources of employment related to these services. Therefore there is a need to curve down the seasonality effect by designing specific special promotional programmes or tourist packages that will result in a more regular pattern of demand. This does not necessarily means not having a high season, but at the end is an effort to reduce the negative impacts generated by the reduction in demand. As mentioned by Dr. Daniel Kennedy, it is not difficult to promote Mexican medical services in San Diego, Los Angeles or in New York. The only thing needed is to assure that these services are going to be of good quality. Once this issue is secured, patients are going to prefer to cross the border to Tijuana for medical services<sup>6</sup>.

Along the problems faced by non-resident patients with respect to the use of private medical services in Tijuana, the one related to the reimbursement of treatment costs by insurance companies was also considered amongst the most important ones. Lack of malpractice insurance for the establishments and/or for individual medical providers is as well another issue that can be considered as a problem.

Both of these issues should be taken into consideration in order to increase and assure a regular pattern of demand. Existing health insurance and coverage in Mexico must be reviewed carefully. Many American health insurance companies have begun to make joint ventures with Mexican companies, expanding their services throughout the border<sup>7</sup>.

### **VII.3.2 Professional associations**

The role of professional associations will become very important in this case, for they are closely related to issues of quality and control. These professional

associations should be organized to discuss with their American counterparts, issues related to standards of establishing and operating health service institutions; standards for medical practice, mechanisms to guarantee the quality of care, and certification and licensing requirements<sup>8</sup>, as well as the cost of services as part of competition and the use of controlled pharmaceuticals. The analysis of these issues should take into consideration that some of them are amongst the strongest existing elements of comparative advantage for the city of Tijuana, therefore they should have to be maintained and protected in order to keep these advantages. Things in this area are not going to be easy. The local medical association has not enough power to incorporate the majority of the physicians<sup>9</sup>. Furthermore, the Secretariat of Health, a Federal Department whose main task is to keep an updated list of all registered physicians and the quality of clinics and hospitals, has not been able to do its job properly. Lack of budget and personnel are amongst the most commonly given excuses<sup>10</sup>. The situation is conflictive at the moment due to the fact that three different official departments are involved in the building and operation process of clinics and hospitals. Local planning department is in charge of building permits; Secretariat of health is in charge of registering the facility and the physicians working in it; and the Secretary of Commerce is in charge of registering the operation of the clinic or hospital. None of these departments ever exchange information amongst them in order to verify nor condition one permit to the other. There is a strong need to design a procedure in which a facility cannot be registered nor in operation if it does not comply with building and zoning standards.

Detailed data with respect to the number of physicians, speciality and experience, as well as with detailed records of the number and type of clinics and hospitals and the services rendered, should be available and periodically updated in order to promote them outside the country. Links and communication with

American clinics and hospitals need to be promoted as well as a medical data bank for both cities.

An important issue that involves professional groups and governments as well, is the one dealing with the issue of certification. It must be clarified that NAFTA does not consider amongst the professionals mentioned in the agreement, the free movement of physicians. According to NAFTA, professionals willing to work in any one country should comply with all the necessary regulations defined by the country in which the professional wants to work<sup>11</sup>. Up to now and within the line of NAFTA, temporary entry of business persons is limited to teaching and research, needing the businessperson to comply with existing migration measures applicable to temporary entry<sup>12</sup>.

No specific regulations exist with respect to the case where the patient is the one traveling to the other country. Thus there is also a need to design a certification procedure that will guarantee the quality of the services rendered to foreigners. This task seems to be one of the most difficult, for it needs a teamwork between the local medical association, A.H.B.C., and S.S., something that up to now has been difficult to put together. Professional associations should also have to evaluate the position of maintaining exceptions to the entry of foreign professionals in the light of the enormous opportunities that will be provided by liberalization and proximity to the United States market. As this particular issue has not been dealt with yet, professional groups on both sides of the border should accelerate their efforts in order to arrive at a certification model that will work for the Tijuana-San Diego area. And finally is the certification of health facilities. In the U.S., the JCAHO certifies that hospitals meet international standards of quality and infrastructure. In Mexico there is no similar organization. As was mentioned by Dr. Salcedo-Carrion, this issue is at present, the major headache for several clinics and hospitals in Tijuana, for the



majority do not meet international standards and are poorly designed. In some cases, it is almost impossible to use hospital size beds, due to the fact that doors are too narrow. Many clinics and hospitals were originally private houses or commercial offices, and as they grew, no attention was paid to internal measurements nor international standards<sup>13</sup>.

Therefore, there is an urgent need to begin an upgrading process in order to assure that these facilities comply with international standards, and professional associations should be the ones to promote the importance of upgrading amongst their affiliates.

### **VII.3.3 Universities and educational institutions**

Universities and educational institutions should also take part in the development of trade in health services. Being the source of knowledge and professional formation, Mexican universities should get involved with American universities and research institutions by means of academic agreements, exchange programmes and/or research projects. Educational services provided to foreign students can also be considered as an international trade in health services. Furthermore, engaging with American Universities and research institutions in research projects and activities, would give Mexican universities the direct benefits of innovation, becoming widely recognized for their seriousness and responsibility, thus attracting foreign students, and forming part of the export sector as well. In the near future these centers of knowledge can be linked to research centers and science parks, as has happened in different parts of the world. This will only be possible if university medical facilities, clinics, research hospitals and teaching are closely related<sup>14</sup>. Licensing and certification should be another topic concerning educational institutions as well as the development of norms and regulations along

with professional organizations and public health departments<sup>15</sup>. Considering that the Secretariat of Education certifies the degree of physician at the national level, it should be considered in the process of certifying specializations and post degree studies as well.

#### **VII.3.4 The role of government**

Governments in this case should adopt the role of promoters and facilitators. A new set of regulations have to be created in order to permit an increase of trade as a means of reducing costs and ensuring the strength of the quality and coverage of health care. A new challenge for governments will be to continue to steer and regulate the health sector including private providers, for the benefit of public health<sup>16</sup>. They should focus on developing legislation and regulations that support values of national health policy such as equity and sustainability. In this case, governments should allow market mechanisms to determine the pattern of development. In the meantime they should develop initiatives for developing export industries that seek to improve the public health system by utilizing resources derived from the export of health services. If the private sector is to improve the quality of medical services, this benefit should benefit the rest of the population as well<sup>17</sup>. According to a proposal of Academia Nacional de Medicina, in the case of Mexico, there is a strong need to have explicit regulations with respect to the establishment of health units. Thus it should be convenient to decentralize the operative functions of certification of the attention units, maintaining a similar quality standard at the national level<sup>18</sup>

Of special interest is the issue of salaries. As in the rest of the world, physicians' incomes are amongst the highest. This cannot be said for nurses and paramedics. During the street survey, many nurses and paramedics complained that they were

underpaid with respect to the amount of work they do. In some cases, highly specialized nurses receive general nurse's salaries. As the majority of clinics and hospitals share this information, there are very few chances that a nurse can be better paid in other clinic or hospital. An evaluation of this issue should be taken into consideration, specially after nurses receive specialized training or receive their degree from a University.

Governments should also pay special attention to regulations to protect national producers against unfair practices and competition on the part of foreign health providers<sup>19</sup>. And most of all, special attention should be paid to the implementation of a constant monitoring process. A close view of the development of this sector is needed in order to be able to make the necessary adjustments and shifts according to global changes.

And as suggested by UNCTAD (1994), in order to have a positive impact on economic development by exporting health services, several important aspects must be considered:

- a) Devising schemes and policy mechanisms that permit the transfer of technology, financial resources, and skills that are among the benefits derived from international trade in this sector, to national health systems;
- b) Utilizing the development of export activities to supplement national efforts to develop the health sector, including its modernization;
- c) Designing policies on technology and investments aimed at generating positive multiplier effects by producing foreign exchange, skilled employment, reductions in imports and increased competitiveness without compromising the local population's access to services<sup>20</sup>.

Technology plays an important role in the quality of medical services. Included in this issue are all the equipment, medications, and organizational schemes. It is necessary to develop a rapid evaluation process of new technologies in order to have a cost effective analysis of these new technologies and be more objective during the decision taking process<sup>21</sup>.

The development and upgrading of the existing infrastructure system becomes paramount here. Special attention should be paid to the specific demands for the development of this sector. The condition of streets, roads, road signals and public lighting should be improved; water supply and electricity must be assured; public telephones should be in good conditions and the issue of public parking spaces must be solved.

But most of all, the rubbish collection problem has to be solved, for at present several clinics and hospitals are mixing contaminated rubbish along with common rubbish in general containers, and disposing used liquids and material through the drainage system. As mentioned earlier, this issue should become priority in order to reduce the risk of a general infection or the spread of a disease in the city.

#### **VII.4 RISKS INVOLVED**

Many risks may result from the development of international trade in health services. Chances that many clinics and hospitals will prefer non-resident patients over local patients exist; cost of some medical services might tend to become rather expensive for local users as a result of the use of sophisticated equipment, etc. As the Mexican public health system continues to be reviewed in order to decentralize it, allowing several medical services to be provided by the private sector, there is a strong need to legislate this issues in order to assure coverage and cost of health

services to Mexican patients<sup>22</sup>. As was observed by Dr. Gonzalez Block, health is a right in Mexico and has to be assured and protected despite whatever is happening at the private sector<sup>23</sup>. All of these issues will have to be analyzed in detail in order to reduce the negative impacts upon the local population.

Amongst some of the most important factors to take care in this case is the one related to the differences in controls over pharmaceuticals and prescriptions. It is very common to hear the expression that Mexican border towns have become the U.S. backyard. For all the things that are not allowed nor permitted in the U.S., Americans find the way to do them in Mexico<sup>24</sup>.

The fact that specific medicine can be obtained more easily in Mexico, or that some therapies not yet approved in the U.S. can be used in Mexico, can result in the creation of high-risk experimental health facilities that use people as guinea pigs. How far can these issues be allowed in Mexico?. In order to prevent this happening, there is a strong need to devise a set of regulations about the things that will not be permitted within Mexican territory. Regulations that consider environmental aspects due to the use or disposal of specific hospital residues also have to be developed. Professional associations on both sides at the border, along with universities and educational institutions should work on these issues in order to assess the risk levels and potential dangers underlying research projects and specific medical activities.

Another important issue is the one relating to the uncontrolled rise in cost of local medical services and the lack of access to them by local patients. In order to prevent or reduce this impact, arrangements should be made at the Federal level, along with professional associations, to require a proportion of the beds and services to be made available to the public sector. In this case, local population will receive the benefit of a high quality medical service<sup>25</sup>. To some extent this will

reduce the negative impact, while extending the benefits to the rest of the population. Specific regulations and sanctions should also be developed in order to prevent clinics and hospitals skew the supply of health services in order to serve only foreign demand.

## **VII.5 TOWARDS INTERNATIONAL TRADE IN HEALTH SERVICES**

To speak about international trade in health services is to go one step further from the existing cross border trade in health services. It means that many other aspects are to be considered not only as a regional market but as part of the world market. Similar to the U.S., other countries face increasing costs of health services as well as a rapid increases in size of its aging population. Care for the elderly is considered amongst the most expensive types of medical care. As an example of this issue, the Japanese government has been making several efforts to solve its problem of medical services for the elderly. By having an agreement with the Australian government, they were able to develop a project called 'silver town' in Adelaide, Australia with Japanese investment. This project includes a special resort with hospital facilities, equipped with advanced medical services to serve in part, Japanese retirees while staying in Adelaide.

As the movement of persons as consumers tends to grow in different forms, the international market in health services is more likely to increase. Thus countries in general are beginning to take into consideration all the issues related to the presence of elements related to C.A. in health services in order to benefit from them.

One of the most important factors needed to promote health services at an international level is the one related to data and reliable information about existing health facilities. This is something that has always been a problem in developing

countries, and the city of Tijuana is no exception. Nevertheless, efforts should be made to keep data updated and readily available. Within the specific context of NAFTA, trade in services in general has a specific chapter. Nevertheless, no special attention is given to trade in health services, for it is expected that this will arise as the result of meetings from professional groups, an issue that until now has not happened.

It can be said that, in general Mexico has a potential comparative advantage over the United States in the provision of specific medical services. And that these comparative advantages tend to concentrate along the Mexico - U.S. border area. Thus, for this particular case, comparative advantage in private medical services are related to a specific region. Due to the fact that this region (known as the border region) is strategically located, it should be no problem for this sector to enter into an international trade market. Liberalization of this sector does not necessarily requires it to abandon all regulations, on the contrary, as stated by OECD (1989), liberalization through the removal of discrimination against foreign service providers, may in fact require some strengthening of particular regulations where prudential controls or consumer interests are at stake. While liberalization and de-regulation are often closely linked, they are not the same<sup>26</sup>.

If Mexico is to engage into an international trade in health services, there is a need to plan this process. A strategic planning process that can be divided in stages. As general ideas for the short run, an international trade within the context of NAFTA will include amongst others:

- 1 The establishment of procedures for the recognition of health insurance in the countries participating within NAFTA (Canada, United States and Mexico).
- 2 Finding a way that Medicare and Canadian health departments could extend

their coverage for medical services obtained in Mexico.

- 3 Promoting the establishment in Mexico of clinics and hospitals for the elderly and chronic patients, able to receive American and Canadian patients.
- 4 Finding the way to establish Mexican Health Units in Canada and the United States, to offer their services to the growing Latino population, specially at the agricultural sector where this group is predominant.
- 5 Developing compatible information systems to speed up information with respect to international patients, specially at the border area.

And at the long term, some ideas will be:

- 1 To evaluate the financing possibilities from Mexican health agencies, to pay for medical services rendered to Mexicans in the United States and Canada when needed.
- 2 To keep a three side group (Canada, United States and Mexico), that will continuously analyze the ways to improve the health mechanisms in order to obtain positive results for the majority of the population within the three countries.

## **VII.6 CONCLUSIONS**

Well developed transportation, common or similar language, cultural affinities, friendly patient-doctor relationship, readily available information on health facilities abroad, established links with health institutions in the country of origin of patients and low cost of services, all contribute to making the option of looking for health care in a foreign country more attractive.

Although it can be risky to generalize that, as in the case of the city of Tijuana, the rest of the border cities have elements of C.A., the results of this study



give light into a new line of research topics that can be developed. Surveying a random sample of 10 cases from the approximate 100 existing clinics and hospitals in the city of Tijuana, and making 202 street interviews during a weekend, makes it difficult to make strong conclusions. Information with respect to clinics and hospitals' main characteristics does not exist, data with respect to physicians is unavailable, and information related to nationality of patients and non-resident patients is in general unknown or concealed. All these issues makes it even more difficult to have a clear picture about the size and pattern of behaviour of the existing international demand form specific private medical services.

As this study is the first of its kind, and despite its limited coverage, it can be said that the results were consistent with the initial hypothesis. This is to say, that there are elements of C.A. in the provision of specific private medical services in the city of Tijuana. It is interesting to see that amongst the obtained results, all the elements related to comparative advantages were present in quantitative and qualitative aspects. In some cases specific skill and labour intensive medical services were identified as highly consumed by American patients, and the key factors that were influencing the decision of where to go for medical service were, amongst others, the quality of medical services and long time physician relationship.

By crossing this information with what is happening within the same sector in the city of San Diego, some very general conclusions were made with respect to specialization trends as a result of a division of labour. Complementarity instead of dependency was considered to be the existing relation between the cities of Tijuana and San Diego.

A glimpse on the pattern of behaviour of this existing demand was made, and an attempt to identify to some extent, the type of patient, as well as the yearly pattern of behaviour, revealing the existence of a high season.

In a situation like this, the existence of elements of comparative advantage in the city of Tijuana need to be examined in more detail in order to promote the development of this sector and obtain benefits for the majority of the population for several reasons.

First, as a result of international competition private medical services in Tijuana will improve their quality; thus an increase in demand may result as it becomes known as highly qualified medical services. This issue can be used as well as a way to improve and boost the public health sector, reducing the possible negative social impacts.

Second, as medical services tend to develop in Tijuana, more direct and indirect jobs will be created. More physicians, qualified nurses and paramedics will be needed. Parallel to this, more specialized laboratories and laboratory technicians will be needed; medical equipment suppliers, medical equipment maintenance and other type of related jobs will be created parallel to the development of this sector.

And thirdly, the city of Tijuana will diversify its local economy from being a city dedicated mainly to assembly plants (maquiladoras), to an exporter of medical services based on skill and labour intensive activities.

Nevertheless, before engaging in this development trend, further studies should be conducted. A data base is needed with respect to the existing number and type of clinics and hospitals, as well as with respect to the number of physicians and their specialty. A survey to identify the origin of the users of medical services as well as the predominant groups amongst the non-resident patients is also needed in order to further develop the comparative advantages directly related to them. A marketing study should be conducted to develop better promotional policies targeted to potential users of Mexican private medical services. And a constant monitoring

process of the development of this sector should be implemented.

At another level, more complex studies need also to be conducted. Studies related to the qualification of trade flows; the evaluation of current supply vis-a-vis potential demand in terms of human resources, technology, and other resources; studies of comparative advantages as opposed to the trade barriers that limit the participation in the major markets; and studies of the direct impact of movement of health personnel to foreign countries<sup>27</sup>. Interestingly the PanAmerican Health Organization (PAHO), the World Health Organization (WHO) and the United Nations Conference on Trade and Development (UNCTAD) have, since recently, shown strong interest in the development of international trade in health services, thus offering a different type of support<sup>28</sup>. Therefore it is recommended that for further studies in this topic, the above organizations should be contacted and involved as part of the research.

## REFERENCES

1.UNCTAD (1997)(p.16).

2.Ibid. (pp.19,20). An interesting effort was made by the United Kingdom that created the National Health System Overseas Enterprise (NHSOE) since 1988, a marketing arm to facilitate the export of health services provided by the public sector, unfortunately and according to Prof. Christopher Abel from the Geography Department from the University of London, this enterprise failed (Abel, Christopher, November 1997)

3.Harris, N., Fabricius, I. (1996)(p.9)

4.UNCTAD (1994)(p.18).

5.Land use and zoning references do exists within the Development Plans of the city. Unfortunately there is no law nor regulation that supports them, thus people can always ask for an amendment to the Development Plan, either by appealing to the Planning Department that very easily approves any demand, or by bribing government officials.

6. Dr. Daniel Kennedy, Personnel Department Manager, Hospital OASIS de Tijuana, telephone interview by Jorge Augusto Arredondo Vega, March 1999.

7.Such is the case of AETNA that is working together with Seguros Monterrey de Mexico, one of the most important insurance company in Mexico.

8.UNCTAD (1994)(p.50).

9. As mentioned by Dra. Behr, despite the fact that within 'El Colegio de Medicos de Tijuana' (the local medical association), exists a commission to deal with all issues related to certification and quality, very few things have been solved, and only a couple of them are related to NAFTA. Dra. Esthela Behr, President of 'El Colegio de Medicos de Tijuana' (local medical association), telephone interview by Jorge Augusto Arredondo Vega, March 1999.

10.Despite the fact that Dr. Bustamante was relentless to give information, at the end he accepted that there are too many things that need to be done as soon as possible, for the city is growing very fast and the number of clinics and hospitals as well as physicians (and those who call themselves physicians) keeps growing. Dr. Jose Guadalupe Bustamante, General Director of Jurisdiccion Sanitaria de la Secretaria de Salud de Tijuana, telephone interview by Jorge Augusto Arredondo Vega, March 1999.

11.NAFTA (1992)(ch. XII).

12.Ibid (ch. XVI)

13.Dr. Eduardo Salcedo Carrion, President of Asociacion de Hospitales de Baja California. Tijuana B.C.,telephone interview by Jorge Augusto Arredondo Vega, March 1999.

- 14.Harris, N., Fabricius,I. (1996)(p.9).
- 15.Academia Nacional de Medicina (1994) (p.48).
- 16.UNCTAD (1997)(p.5).
- 17.Dr. Miguel Angel Gonzalez Block, Executive Coordinator ICHSRI, Fundacion Mexicana para la Salud (FUNSALUD). Mexicali B.C. January 1998, Internet inerview by Jorge Augusto Arredondo Vega, August 1998.
- 18.Academia Nacional de Medicina (1994) (p.48).
- 19.UNCTAD (1994)(p.50).
- 20.Ibid.
- 21.Academia Nacional de Medicina (1994) (p.49).
- 22.Dr. Jose Guadalupe Bustamante, op.cit.
- 23.Dr. Miguel Angel Gonzalez-Block, op.cit.
- 24.This issue has been strongly argued in the case of several American assembly plants that do not comply with American environmental standards. Due to the fact that Mexican environmental standards are less strict, they locate in the city of Tijuana. Although these issues have been lately taken care of by means of new and more strict environmental laws, the general belief still prevails.
- 25.Dr. Miguel Angel Gonzalez-Block, op.cit.
- 26.OECD (1989) (p.14).
- 27.UNCTAD (1994)(p.52).
- 28.Ibid.

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## **APPENDIX 1**

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List of clinics and hospitals in San Diego  
(source: Maynard-Morales, M., 1985.)

NAME	POSTAL CODE	TYPE OF SERVICES			MORE THAN 10 PHYS	SPECIALIZATION AREA
		1	2	3		
Allied Home	92069	*				
Alvarado Comm.	92120					
Alvarado Comm. E	92041					
Apple Med.Clinic	92131		*			
Bay Gen. Comm.	92010					
Beach Area Clin.	92109	*				Gen.Med.& Women.
Birth Control	92105	*				Birth Control
Care Point	92083		*			
Carlsbad & O.Sde	92054	*				
Centre City Hosp	92101	*				Immediate Care
Chicano Comm.	92113	*				
Children's	92123	*				
Chula Vista Comm	92010					
Clermont Comm.	92117					
College Park	92115					
Coronado	92118					
Comm.Med.Center	92113	*				Soc.Serv.& Gen.Med
E.County Comm.	92020	*				
El Cajon Valley	92010					
Emerg.Doctors	92025		*			
Emerg.Medical	92111		*			
Escondido Comm.	92025	*				
Extra Care Med.	92020		*			
Extra Care Med.	92071		*			
Extra Care Med.	92126		*			
Fallbrook	92028					
Green H.Scripps	92037		*	*	*	
Grossmont	92041					
Harbor View	92101					
Health Serv.Dep.	92120	*				
Health Serv.Dep.	92020	*				

Health Serv.Dep.	92105	*				
Health Serv.Dep.	92109	*				
Health Serv.Dep.	92054	*				
Health Serv.Dep.	92025	*				
Health Serv.Dep.	92010	*				
Health Serv.Dep.	92113	*				
Health Serv.Dep.	92083	*				
Hill Side	92104					
Imp.Beach Comm.	92032	*				Women & Gen.Med
Indian Health	92082	*				
Indian Health	92021	*				
Ind.Med.Center	92123		*			
Ind.Med.Center	92126		*			
Ind.Med.Center	92083		*			
Ind.Med.Center	92101		*			
Ind.Med.Center	92071		*			
Ind.Med.Center	92050		*			
Instant Care	92105		*			
Instant Care	92102		*			
Kaiser El Cajon	92020					
Kaiser S.D.	92120	*				
Linda Vista Hlth	92111	*				Pediatric & Gen.Med
Mercy	92103	*				
Mid City Comm.	92105	*				
Mission Bay Mem.	92109					
Nat.Med.Assoc.	92113	*				
Naval Reg.Balboa	92134					
Naval Reg.Pendel	92055					
N.County Health	92040	*				
N.County Health	92082	*				
N.County Health	92070	*				
N.County Health	92069	*				
N.County Health	92004	*				
N.County Health	92024	*				
N.County Health	92065	*				



Op.Samahana	92050	*				
Otay Comm.Clinic	92011	*				
Palomar Memorial	92025					
Paradise Valley	92050					
Parkway Med.	92105			*	*	
Plann.Parenthood	92020	*				Pre-natal care
Plann.Parenthood	92025	*				Pre-natal care
Pomerado	92064					
Raleigh Hills	92020					
ReadiCare Center	92024		*			
ReadiCare Center	92111		*			
ReadiCare Center	92041		*			
ReadiCare Center	92010		*			
Rees-Stealy Med.	92101			*	*	
Rees-Stealy Med.	92010			*	*	
Rees-Stealy Med.	92041			*	*	
Rees-Stealy Med.	92124			*	*	
Rees-Stealy Med.	92126			*	*	
S.D.Diag.Rad.	92123				*	RADIOLOGY
S.D.Diag.Rad.	92123				*	RADIOLOGY
S.D.Diag.Rad.	92126				*	RADIOLOGY
S.D.Phys & Surg.	92102					
S.D.Amer.Indian	92103	*				
S.D.Rescue Mssn	92101	*				
S.Ysidro Health	92173	*				
Scripps Clinic	92004			*	*	
Scripps Clinic	92010			*	*	
Scripps Clinic	92128		*	*	*	
Scripps Clinic	92035			*	*	
Scripps Clinic	92025			*	*	
Scripps Clinic	92129			*	*	
Scripps Clinic	92041			*	*	
Scripps Clinic	92123			*	*	
Scripps Clinic	92075			*	*	

Scripps Mem.Enc.	92024					
Scripps Mem.L.J.	92037		*	*	*	
Senior Cit.Comm.	92103	*				
Sharp Cabrillo	92110					
Sharp-Hos Prompt	92107		*			
Sharp-Hos Prompt	92109		*			
Sharp Mem.	92123		*			
Smith Hanna Med.	92104			*	*	
Smith Hanna Med.	92126			*	*	
Smith Hanna Med.	92041			*	*	
Smith Hanna Med.	92110			*	*	
Smith Hanna Med.	92010			*	*	
Smith Hanna Med.	92128			*	*	
Spec.Med.Clinic	92037			*	*	
Spec.Med.Clinic	92117			*	*	
Spec.Med.Clinic	92024			*	*	
Tri-City	92054					
Tri-City West	92054	*				
UCSD/Fam.Med.Cnt	92103	*		*	*	
UCSD/Prim.Care	92103	*		*	*	
UCSD/Cancer Cntr	92103	*		*	*	
UCSD/Hemodial.Cn	92103	*		*	*	
UCSD/Med.Group	92093			*	*	
UCSD/Med.Group	92093			*	*	
UCSD/Med.Group	92107			*	*	
Urgent Med.Care	92054		*			
Veterans Admon.	92161					
Veterans Admon.	92108	*				Diag.Eval& Exam.
Veterans Admon.	92108	*				Surgical care
Vista Comm.Clin.	92083	*				
Vista Comm.Clin.	92028	*				
Villa View Comm.	92105	*				
Walk-in Emergen	92069		*			
X Ray Med. Group	92041				*	Radiology

KEY.

**Maximum concentration of "clinics with more than ten physicians"  
in the city of San Diego in 1985 (by postal code).  
(source: Maynard-Morales, 1985)**

NAME OF THE CLINIC	POSTAL CODE
Rees-Stealy Medical Center	92041
Scripps Clinic	92041
Smith-Hanna Medical Group	92041
X-Ray Medical Group	92041
UCSD/Family Medical Center	92103
UCSD/Primary Care Center	92103
UCSD/Cancer Center	92103
UCSD/Hemoidal Center	92103
Scripps-Memorial, La Jolla	92037
Specialty Medical Clinic	92037
Green H. Scripps	92037
Rees-Stealy Medical Center	92010
Scripps Clinic	92010
Smith-Hanna Medical Group	92010
Rees-Stealy Medical Center	92126
San Diego Diagnostic Radiology	92126
Smith-Hanna Medical Group	92126
San Diego Diagnostic Radiology	92123
San Diego Diagnostic Radiology	92123
Scripps Clinic	92123
Scripps Clinic	92128
Smith-Hanna Medical Group	92128
UCSD/Medical Group	92093
UCSD/Medical Group	92093
Parkway Medical Group	92105
Rees-Stealy Medical Group	92101
Rees-Stealy Medical Group	92124
Scripps Clinic	92004
Scripps Clinic	92035

Scripps Clinic	92025
Scripps Clinic	92129
Scripps Clinic	92075
Smith-Hanna Medical Group	92104
Smith-Hanna Medical Group	92110
Specialty Medical Clinic	92117
Specialty Medical Clinic	92024
UCSD/Medical Group	92107

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## APPENDIX 2

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# NUMBER OF PHYSICIANS IN SAN DIEGO

## ARRANGED BY POSTAL CODE

(source: Schneider, P., 1995 )

Postal Code	Num.Physicians	Postal Code	Num.Physicians
90022	001	92023	001
90048	002	92024	116
90057	005	92025	237
91719	002	92026	011
91720	003	92027	004
91767	001	92028	036
91791	002	92029	001
91901	007	92033	001
91902	047	92036	002
91903	002	92037	569
91908	002	92038	015
91910	164	92039	001
91911	055	92040	010
91912	003	92041	002
91913	003	92042	003
91914	001	92046	001
91915	001	92054	020
91932	005	92055	017
91935	001	92056	070
91941	101	92064	102
91942	230	92065	010
91944	001	92067	018
91945	007	92069	026
91950	072	92071	015
91962	001	92072	001
91973	002	92075	034
91977	005	92078	001
91978	005	92082	003
92004	003	92083	079
92007	005	92084	006
92008	030	92085	002
92009	010	92088	003
92010	007	92093	082
92011	001	92101	107
92014	043	92102	024
92017	001	92103	692
92019	006	92104	013
92020	050	92105	027
92021	054	92106	029
92022	001	92107	014
		62108	056

Postal Code	Num.Physicians	92350	001
92109	091	92354	001
92110	094	92373	001
92111	057	92381	002
92112	001	92399	001
92113	004	92423	001
92114	013	92501	003
92115	045	92506	001
92116	032	92530	003
92117	090	92543	023
92118	059	92544	003
92119	023	92545	002
92120	338	92553	001
92121	028	92555	002
92122	053	92562	047
92123	293	92563	001
92124	010	92571	002
92126	023	92572	001
92127	004	92583	004
92128	077	92586	012
92129	014	92587	003
92130	023	92590	018
92131	029	92591	021
92133	004	92592	006
92134	085	92595	012
92135	001	92653	002
92136	002	92668	001
92138	142	92799	002
92139	005	93720	002
92142	004	93901	002
92154	008	94549	001
92159	003	94598	001
92160	001	94611	001
92161	044	95991	002
92163	003	96150	001
92166	002		
92168	001		
92173	012		
92176	001		
92177	010		
92182	007		
92183	001		
92210	001		
92243	005		
92330	006		
92343	003		
Postal Code	Num.Physicians		

<b>TOTAL OF PHYSICIANS=</b>	<b>5,278</b>
<b>ZONES WITH MORE THAN 10 PHYSICIANS=</b>	<b>65</b>
<b>ZONES WITH MORE THAN 100 PHYSICIANS=</b>	<b>11</b>

(92103) Old Town	692
(92037) La Jolla	569
(92120) Grantville	338
(92123) Montgomery Field	293
(92025)	237
(91942) Grossmont	230
(91910) Chula Vista	164
(92138)	142
(92024) Encinitas	116
(92101) San Diego (downtown)	107
(92064) Poway	102



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## **APPENDIX 3**

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**1994 List of registered activities related to health in Tijuana by location**  
**S.S., 1994., Secretaría de Salud (Secretariat of Health)**  
**Departamento de Jurisdiccion Sanitaria.**

NAME OF CLINIC / HOSPITAL	LOCATION
CENTRO MEDICO DE ESP.	Down Town Tijuana
CENTRO MEDICO INTERNATIONAL HEALTH	Playas de Tijuana
CENTRO MEDICO / CONSULTORIO DENTAL	Postal
CENTRO MEDICO PROFESIONAL	Rio Tijuana
CENTRO MEDICO CARDIOLOGO	Rio Tijuana
CLINICA COSMETOLOGICA JULIETA GALANT	Chapultepec
CLINICA MEDICA LA LUZ	Down Town Tijuana
CLINICA MATERNO-INFANTIL BERENCIE	Reforma
CLINICA COSMETOLOGICA DE MINERVAS	Playas de Tijuana
CLINICA MEDICA DE LOS REYES	Down Town Tijuana
CLINICA MEDICA DE LOS POBRES	Altamira
CONSULTORIO MEDICO	Union de Com. del Correo
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO DR. DELA RIVERA BARCELO S	Down Town Tijuana
CONSULTORIO MEDICO	La Mesa
CONSULTORIO DENTAL	Mesa de Otoy-Universidad
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Guaycura
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO RADIOLOGO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO URIBE OSORIO ALBERTO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Guaycura
CONSULTORIO MEDICO	Reforma y Asbaje 15
CONSULTORIO MEDICO DR. M.RODRIGUEZ	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO GENERAL	Playas de Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO CIRUJANO	Independencia
CONSULTORIO MEDICO	Col. Revolucion

CONSULTORIO DENTAL RANGEL	Down Town Tijuana
CONSULTORIO MEDICO FAMILIAR	Lucio Blanco
CONSULTORIO DENTAL	La Mesa
CONSULTORIO MEDICO	La Presa
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	Aguila Americana 19907
CONSULTORIO DENTAL	Libertad P/B
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	El Paraiso
CONSULTORIO MEDICO DR. VAZQUEZ JUAREZ A.	Rubi
CONSULTORIO MEDICO	Playas de Tijuana
CONSULTORIO MEDICO	Juarez
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO CIRUJANO DENTISTA	Sanchez Taboada
CONSULTORIO DR. FIGUEROA VELAZQUEZ G.	Cacho
CONSULTORIO MEDICO FAMILIAR	Libertad
CONSULTORIO DENTAL AGUA CALIENTE	Down Town Tijuana
CONSULTORIO BIO-DENTAL	Down Town Tijuana
CONSULTORIO MEDICO PSIQUIATRICO	Playas de Tijuana
CONSULTORIO MEDICO	Alamos
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO CIRUJANO DENTISTA	Libertad
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO CIRUJANO DENTISTA	Down Town Tijuana
CONSULTORIO MEDICO	Libertad P/B
CONSULTORIO MEDICO	Mesa de Otay
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO CIRUJANO DENTISTA	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Los Altos
CONSULTORIO DENTAL	Libertad P/B
CONSULTORIO MEDICO	Magisterial
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL DISCO	La Mesa

CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Del Prado
CONSULTORIO DENTAL	Rio Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Independencia
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Playas de Tijuana
CONSULTORIO MEDICO	Las Huertas
CONSULTORIO MEDICO MEXICO	Morelos
CONSULTORIO MEDICO	Mesa de Otay
CONSULTORIO MEDICO	Mesa de Otay
CONSULTORIO MEDICO	Villarreal
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Mesa de Otay
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Libertad P/B
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Aleman
CONSULTORIO MEDICO	Independencia
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO DENTAL	Libertad P/A
CONSULTORIO MEDICO	Independencia
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	La Mesa
CONSULTORIO MEDICO SEVILLA CUEVAS	La Mesa
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO WOLLEY FUMAGALLY E.	Rio Tijuana
CONSULTORIO MEDICO DE LA FAMILIA	Down Town Tijuana
CONSULTORIO DENTAL	Libertad P/B
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO PENUNURI YEPIZ F.	Rio Tijuana
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana

CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Col. Revolucion
CONSULTORIO MEDICO	Col. Revolucion
CONSULTORIO MEDICO	20 de Noviembre
CONSULTORIO MEDICO SAN ANDRES	Altamira
CONSULTORIO CIRUJANO DENTISTA	Down Town Tijuana
CONSULTORIO MEDICO	Ruiz Cortinez
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO DENTAL	Mesa de Otay
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO CUSTODIO	Down Town Tijuana
CONSULTORIO DENTAL	Rio Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL	Playas de Tijuana
CONSULTORIO MEDICO PSIQUIATRICO	Cacho
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	Miramar
CONSULTORIO MEDICO	Ruiz Cortinez
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO DENTAL	Viva Tijuana, Rio Tijuana
CONSULTORIO MEDICO-DENTAL	Altamira
CONSULTORIO MEDICO GENERAL	Los Arboles
CONSULTORIO DR. HERNANDEZDE LA MORA L.	Down Town Tijuana
CONSULTORIO DENTAL	Independencia
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Los Olivos
CONSULTORIO MEDICO OTORRINOLARINGOLOGIA	Rio Tijuana
CONSULTORIO MEDICO	Francisco Villa
CONSULTORIO MEDICO	Independencia
CONSULTORIO PARTICULAR MEDICO	Down Town Area
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Ruiz Cortinez

CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL	J.Sarabia 2216
CONSULTORIO MEDICO DR. MADRIGAL DIAZ G.	Soler
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO DENTAL	Ruiz Cortinez
CONSULTORIO MEDICO	Paraiso
CONSULTORIO MEDICO	El Lago
CONSULTORIO MEDICO	La Mesa
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	La Mesa
CONSULTORIO DR.JUAN CARLOS VARGAS	Down Town Area
CONSULTORIO MEDICO INTEGRAL	Rio Tijuana
CONSULTORIO MEDICO	Linda Vista
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO FUENTES ANGULO JUAN	Col. Revolucion
CONSULTORIO MEDICO	La Mesa
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO MENDEZ Y NOBLE S.C.	Rio Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL	Rubi
CONSULTORIO DENTAL	La Mesa
CONSULTORIO MEDICO PADILLA RAMIREZ ARTURO	Info. Presidentes
CONSULTORIO MEDICO	Paraiso
CONSULTORIO DENTAL IDEAL	Down Town Tijuana
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO DENTICENTER	Rio Tijuana
CONSULTORIO MEDICO	Cacho
CONSULTORIO MEDICO OFTALMOLOGICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DE EMERGENCIAS	Rubi
CONSULTORIO MEDICO	Buenos Aires

CONSULTORIO MEDICO	El Rubi
CONSULTORIO MEDICO	Alamos
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Cacho
CONSULTORIO MEDICO	Rubi
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO CIRUJANO DENTISTA	La Presa
CONSULTORIO DENTAL	Postal
CONSULTORIO MEDICO	Guaycura
CONSULTORIO DENTAL	Lib. La Presa
CONSULTORIO MEDICO EXEL	Rio Tijuana
CONSULTORIO MEDICO	Los Alamos
CONSULTORIO MEDICO	R.Fierro y A.Gonzales
CONSULTORIO MEDICO	La Mesa
CONSULTORIO DENTAL BAJA	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL	Down Town Tijuana
CONSULTORIO MEDICO	Francisco Villa
CONSULTORIO MEDICO CIRUJANO	Datileros 07
CONSULTORIO MEDICO	La Mesa
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	Gabilondo
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	B. Vista
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO DR.HERNANDEZ	Down Town Tijuana
CONSULTORIO MEDICO	Lomast del Colorado
CONSULTORIO DENTAL	La Mesa
CONSULTORIO MEDICO	Rio Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL AGUA CALIENTE	La Mesa
CONSULTORIO MEDICO	La Mesa
CONSULTORIO OFTALMICA INTERNACIONAL	Rio Tijuana

CONSULTORIO MEDICO	San Antonio de los Buenos
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO DENTAL	Libertad P/A
CONSULTORIO MEDICO ENFERMERO Y PARTERO	Down Town Tijuana
CONSULTORIO MEDICO	Down Town Tijuana
CONSULTORIO MEDICO	La Presa
CONSULTORIO MEDICO CIRUJANO Y PARTERA	Mesa de Otay
CONSULTORIO MEDICO	Guaycura
CONSULTORIO MEDICO J.RAZO	Down Town Tijuana
CONSULTORIO MEDICO	Obrera
CONSULTORIO MEDICO-DENTAL	Rubi
CONSULTORIO MEDICO	Los Alamos
CONSULTORIO DENTAL	La Mesa
CONSULTORIO MEDICO GONZALES	Francisco Villa
CONSULTORIO MEDICO	Playas de Tijuana
CONSULTORIO DENTAL BERNAL	Down Town Tijuana
FARMACIA GABY	Latinos
GRUPO MEDICO AGUA CALIENTE	La Mesa
HOSPITAL MORELIA	Down Town Tijuana
HOSPITAL SANTA LUCIA	Aleman
HOSPITAL E. CONTRERAS	Playas de Tijuana
HOSPITAL DEL MAR	Playas de Tijuana
INSTITUTO PSICO. Y PSIQUIATRICO	Col. Revolucion
OPTICAS DEVLIN (TECNICOS)	Down Town Tijuana
OPTICAS DEVLIN (TECNICOS)	Rio Tijuana
OPTICAS DEVLIN (TECNICOS)	Mesa de Otay
SANATORIO SAN FRANCISCO	Americas
SANATORIO SENABIL	Down Town Tijuana
UNIDAD MEDICA Y CONSULTORIO DENTAL	Francisco Villa
UNIDAD MEDICA ISRAEL	Rio Tijuana
UNIDAD MEDICA SANTA CECILIA	Down Town Tijuana
UNIDAD DE NEUROPEDIATRIA	Rio Tijuana



General information

Medical hospitals:	004
Medical clinics	004
Medical sanatorio	002
Medical center	005
Medical unit	004
Medical institute	001
Medical group	001
Physicians' offices	172

<b>Tot.</b>	<b>193</b>
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Dental offices	050
Optician (technician)	003
Medical pharmacy	001
Cosmetology clinic	002

<b>GRAN TOTAL</b>	<b>249</b>
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## APPENDIX 4

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**1994 Directory of clinics and hospitals in Tijuana**  
**Asociación de Hospitales de Baja California, AHBC**  
 (Baja California Hospitals' Association)

NOMBRE O DENOMINACION SOCIAL	DIRECTOR MEDICO	TEL	DOMICILIO
1. HOSPITAL AMERICAN BIOLOGICS DE MEXICO.	Dr. Rodrigo Rodriguez.	81 31 37	Calle Azucena No. 15 Fracc. del Prado.
2. CENTRO DE LA CONDUCTA.	Dr. Luis Calderón.	84 77 53	Ave. 20 de Noviembre No. 302 Col. 20 de Noviembre.
3. CENTRO INTERNACIONAL DEL PACIFICO.	Dr. Gilberto Lopez	80 29 03	Calle Nubes No.449, Secc. Jardines del Sol Playas de Tijuana.
4. CENTRO MEDICO EXCELL, S.A.	Dr. Julio Hernandez F.	34 22 90	Av. Paseo de los Héroes No. 2907 Zona del Río.
5. CENTRO MEDICO FLORENCE, S.A.	Sra. María de Jesús López.	84 80 43	Ave. General Ferreira No. 2224 Col. Cacho.
6. CENTRO MEDICO DIAMANTE.	Dra. Triana Lomeli Reyna.	25 10 62	Carretera Buenos Aires S/N.
7. CENTRO MEDICO QUIRURGICO NUEVA TIJUANA.	Dr. Jesús Paredes A.	23 37 65	Av José López Portillo No. 141 Mesa de Otay.
8. CENTRO OFTALMOLOGICO DE TIJUANA.	Dr. Arturo Chayet.	83 25 48	Paseo Tijuana No. 403, 3er Piso Zona del Río.
9. CLINICA BAN-HER.	Dra. Gloria Hernández.	85 30 58	Ave. Chapultepec y Garibaldi Col. Juárez.
10. CLINICA BERNARDETTE BRISAS	Dr. Elias Gutierrez.	86 93 16	Bldv. Díaz Ordaz No. 1200-17 Las Brisas.
11. CLINICA BERNARDETTE INSURGENTES.	Dr. Francisco Gutierrez.	25 00 32	Bldv. Insurgentes No. 243 Carretera a Tecate.
12. CLINICA BERNARDETTE MESA DE OTAY.	Dr. Elias Gutierrez.		Ave. Lopez Portillo No. 19301 Mesa de Otay.
13. CLINICA BUENA VISTA.	Dr. Gustavo Sanchez.	82 10 69	Av. de la Paz No. 455 Col. Buena Vista.
14. CLINICA BUGAMBILIAS.	Dr. Jesús A. Perez Robles.	82 29 86	Ejército Nacional No. 1245 Fracc. Tomás Aquino.
15. CLINICA CEMECIE.	Dr. Jaime Caloca.	34 20 90	Ave. Abelardo L. Rodríguez No. 10 Zona del Río.
16. CLINICA CIRUGIA INTEGRAL.	Dr. José Luis Salas M.	86 51 20	Plaza Agua Caliente No. 4558 P.17 Of. 1708.
17. CLINICA CORVALEN.	Dr. David Gómez Cortez.	84 41 91	Ave. Chula Vista No. 95 Col. Chula Vista.
18. CLINICA DE LA SALUD.	Dra. Esther Peña.	88 07 47	Ave. Madero No. 1144 Zona Centro.
19. CLINICA DIVINO MAESTRO.	Dra. Obdulia Alvarez.	38 10 47	Ave. Padilla No. 214 Col. Federal.
20. CLINICA FLORENCIA.	Dra. Elsa Flores	85 60 20	Ave. Mutualismo No. 529 Zona Centro.
21. CLINICA GARCIA GONZALES.	Dr. Porfirio García González.	85 80 63	Calle 6a. No. 1814 Zona Centro.
22. CLINICA GUADALUPANA	Dr Domingo Romero.	83 10 19	Calle 5a. No. 337 Col. Libertad.
23. CLINICA HOSPITAL SAN JUAN DE DIOS 5 Y 10.	Dr. Simón Ramirez Aranda.	86 03 85	Calle "A" No. 28 Fracc. Esmeralda, La Mesa.

24. CLINICA JESAN.	Dr. Andrés Ixta Hernández.	83 24 87	Defensores de Baja California 700 Col. Ruiz Cortínez.
25. CLINICA LIBERTAD.	Dr. Lauro Palomares.	83 22 82	Ave. Pino Suárez No. 1401 Col. Libertad.
26. CLINICA MADRID.	Dr. Ramiro A. González.	86 94 16	Calle Madrid No. 6 Col. Durango.
27. CLINICA MANNER.	Dr. José L. Velásques.	80 44 22	Calle Heráclio Bernal No. 1 Fracc. Soler.
28. CLINICA MATERNIDAD JARDIN.	Dr. José de Jesús Serrano.	80 00 80	Ave. Pino No. 394 Col. Jardín.
29. CLINICA MATERNO INFANTIL DEL PARQUE.	Dr. Abraham Sanchez.	85 28 87	Calle 4a. No. 1421 Zona Centro.
30. CLINICA MATERNIDAD SAN ANGEL.	Dr. Joel Rodríguez.		Camino Hidalgo No. 9486 Fracc. Mariano Matamoros.
31. CLINICA MEDICA DEL REY.	Dr. Juan M. Reyes.	85 13 29	Ave. Niños Héroes No. 823 Zona Centro.
32. CLINICA MEDICA LOS PINOS.	Dr. Mario Mavikos.	89 49 45	Blvd Díaz Ordaz. Km. 14 y 1/2.
33. CLINICA MODERNA.	Dr. Armando Fernandez de L.	85 86 37	Calle 8va. No. 279-5 Zona Centro.
34. CLINICA NOVA.	Dr. Guadalupe Abascal.	84 45 85	Calle Obispado No. 7 Fracc. Monterrey.
35. CLINICA PRIMAVERA.	Dr. José Rodríguez O.	85 17 21	Ave. Mutualismo No. 353 Zona Centro.
36. CLINICA QUINTANA.	Dr. Ignacio Quintana.	80 67 82	Paseo Playas No. 425, Jard. del Sol. Playas de Tijuana.
37. CLINICA QUIRURGICA MARDAN.	Dr. José Adan Sanchez.	86 01 92	C. Chavez No. 219 Fracc. Guadalajara.
38. CLINICA RENACIMIENTO.	Dr. Joaquín P. Merlos.	26 15 26	Ave. Cruz del Sur No. 227 Fracc. Sanchez Taboada.
39. CLINICA REVOLUCION.	Dr. Victor Guerrero.	85 66 78	Ave. Revolución No. 274-4 Zona Centro.
40. CLINICA SAN ANTONIO.	Dr. Manuel A. Gutierrez.	80 46 41	Ave. Pensador Mexicano No. 35 Fracc. Los Altos.
41. CLINICA SAN ANTONIO HUERTAS.	Dr. Antonio Tejeda.	86 92 35	Calle Almendra No. 3823 Fracc. Las Huertas.
42. CLINICA SAN JOSE.	Dr. Ricardo Gómez.	88 16 44	Ave. Mutualismo No. 6022 Zona Centro.
43. CLINICA SAN MARTIN.	Dr. José Luis Lara.	83 19 18	Ave. Pino Suárez No. 1373 Col. Libertad.
44. CLINICA SAN MARTIN MIRAMAR.	Dr. Eduardo Salcedo.	80 80 89	C. Columba Domínguez No. 3403 Col. Miramar.
45. CLINICA SAN RAMON.	Dr. Marco A. Contreras.	85 02 44	Calle 6ta. No. 1647 Zona Centro.
46. CLINICA SANTA BRIGIDA.	Dr. Arnulfo Guerrero.	37 85 69	Calle Abraham Gonzalez No. 141 Col. Francisco Villa.
47. CLINICA SANTA FE.	Dr. Benjamn Siqueiros.	83 22 40	Calle 3ra. y Aquiles Serdán No. 600 Col. Libertad.
48. CLINICA SANTA ISABEL.	Dr. Arturo López Ramirez.	85 59 49	Ave. 5 de Mayo S/N., E y Michoán Zona Centro.

49. CLINICA SANTA JULIA.	Dr. Javier Gómez Aguilar.	37 70 30	C. Abraham González No. 164 Col. Francisco Villa.
50. CLINICA SANTA TERESITA.	Dr. Román Cruz Olais.	84 54 05	Calle Mártires de Chicago No. 702-10 Col. Obrera.
51. CLINICA SANTISIMA TRINIDAD.	Dr. Trigio Castañeda.	89 15 60	Bldv Díaz Ordaz No. 4055 La Mesa.
52. CLINICA UNIDAD DE TRATAMIENTO INT.	Dr. José Francisco Patiño.	85 67 09	Calle 8va. No. 2121 Zona Centro.
53. CLINICA Y MATERNIDAD DR. EFRAIN T.	Dr. Efrain Torres Barragan.	82 38 58	Calle 16 No. 506 Col. Libertad.
54. CLINICA COSM. MODERNA DE CORTA ESTANCIA.	Dr. Alejandro Quiroz.	34 19 03	Misión de San Diego No. 1527- 301 Zona Centro.
55. GRUPO MONTE MORIACH (C.FILADELFIA).	Dr. Hazael Hatchett Gtez.	28 04 54	Ruta Morelos No. 9207 Fracc. Mariano Matamoros.
56. HOSPITAL ALEMAN.	Dr. Luis A. Chavarrin.	80 58 28	Mar Báltico No. 224 Col. Alemán.
57. HOSPITAL CALIFORNIA.	Dr. Carlos Alexandrini.	82 30 11	Ave. Ferrocarril No. 442 Col. Libertad.
58. HOSPITAL DE LA MUJER Y DEL NIÑO.	Dr. Alfredo Terreros.	34 24 24	Calle Diego de Rivera No. 2312 Zona del Río.
59. HOSPITAL DE LA PIEDAD.	Srita. Blanca Alicia Guzmán.	85 85 32	Ave. 'G' No. 644 Zona Centro.
60. HOSPITAL DEL CARMEN.	Dr. Francisco Díaz Martinez.	81 72 79	C. Manuel Doblado No. 402 Col. Gabilondo.
61. HOSPITAL DEL MAR.	Dr. Francisco Contreras P.	30 00 97	Paseo Pedregal No. 2763 Playas de Tijuana.
62. HOSPITAL DEL PRADO.	Dra. Maria Luisa Riedel.	81 49 00	Calle Bugambilias No. 50 Fracc. del Prado.
63. HOSPITAL DEL RIO.	Dr. Raúl Martínez.	34 30 80	Calle Rufino Tamayo No. 9 Zona del Río.
64. HOSPITAL DEL BUEN SAMARITANO.	Dr. Cesar Tamez.	37 70 18	Maclvio Herrera No. 54 Col. Francisco Villa.
65. HOSPITAL DE EMERGENCIAS MEDICAS.	Dr. Jorge Salas.	87 18 16	Calle 2da. No. 1210 Zona Centro.
66. HOSPITAL ERNESTO CONTRERAS.	Dr. Ernesto Contreras.	80 18 50	Paseo Playas No. 1 Playas de Tijuana.
67. HOSPITAL FAMILIAR BELEN.	C.P. Paulina Casillas.	85 08 94	Calle 3ra. No. 300 Zona Centro.
68. HOSPITAL FUNDADORES.	Dr. Refugio González.	84 56 82	Bldv. Fundadores No. 1000 Col El Rubí.
69. HOSPITAL GUADALAJARA.	Dr. Javier Virgen.	85 90 60	Calle 2da. No. 1413 Zona Centro.
70. HOSPITAL GUZMAN.	Dr. Fernando Guzman.	80 00 37	Calle Mulegé No. 22 Col. Herrera.
71. HOSPITAL INGLES.	Dr. Eduardo Cárdenas.	84 74 43	Calle 10ma. No. 2212 Zona Centro.
72. HOSPITAL INSURGENTES.	Dr. Rafael Michel Esparza.	25 16 16	Bldv. Insurgentes No. 200-D Plaza Can.
73. HOSPITAL LORAN DE TIJUANA.	Dr. Cesar España Montage.	25 80 51	Bldv. Insurgentes No. 9120 La Presa.

74. HOSPITAL NOTRE DAME.	Dr. Arturo Pichardo.	81 51 22	Calle Brasilia No. 1 Fracc. El Paraiso.
75. HOSPITAL PRAGA, S.A.	Dr. Javier Velasco.	82 44 04	Ave. Aquiles Serdán No. 1020 Col. Libertad.
76. HOSPITAL REAL DE V.H.	Dr. Emilio Vargas H.	34 32 66	Edmundo O'Gorman No. 157 Zona del Río.
77. HOSPITAL SANTA ELOISA.	Dr. Arturo Herrera.	30 41 66	Jose María Larroque No. 990 Fracc. Soler.
78. HOSPITAL Y CENTRO MEDICO DE TIJUANA.	Dr. José Antonio Madero.	85 40 70	Calle 7a. No. 1827 Zona Centro.
79. INSTITUTO BINACIONAL DE LAS CALIFORNIAS.	Dr. Fernando Ramirez.	83 29 44	Paseo Tijuana No. 406 2do. Piso Zone del Río.
80. PROMOTORA DE CLINICAS DE BAJA CALIFORNIA.	Dr. Armando García C.	83 27 70	Paseo Tijuana No. 406 3er. Piso. Zona del Río.
81. HOSPITAL REGIONAL MEMORIAL	Dr. Nicolas Osuna.	87 10 94	Calle Primera No. 1221 Zona Centro.
82. SANATORIO AMERICAS.	Dr. Alfonso Diaz de Leon.	85 25 05	Calle 6ta. y Ave 'D' Zona Centro.
83. SANATORIO BALCAZAR.	Dr. Jose M. Balcazar.	85 66 21	Calle 3ra. No. 1333 Zona Centro.
84. SANATORIO DE JESUS.	Dr. Septimio Cardenas M.	85 22 67	Ave. 5 de Mayo No. 704 Zona Centro.
85. SANATORIO DIAZ DE LEON.	Dr. Jesus Mendez B.	85 61 45	Calle 7ma. No. 1715 Zona Centro.
86. SANATORIO PARIS.	Dra. Josefina Aceves.	87 15 92	Ave. Paris No. 470-B Col. Altamira.
87. SANATORIO PARIS LA MESA.	Dr. Alfonso Villa Lopez.	81 67 85	Ave. Lopez Lucio No. 229 La Mesa.
88. SANATORIO SAN FRANCISCO.	Hna. Elizabeth Waldrom.	81 76 46	Gobernador Balarezo No. 1090 Col. America.
89. SANATORIO SANTA MARIA.	Dr. Jesus Nuñez.	88 03 46	Calle Xochitl No. 259 Col. Morelos.
90. SANATORIO SENABIL.	Dr. Karim Chalita.	85 48 40	Calle 3ra. No. 1830 Zona Centro.
91. UNIDAD DE CIRUGIA DE CORTA ESTANCIA.	Dr. Benito Rodriguez.	34 23 08	Diego de Rivera No. 22308 Zona del Río.
92. UNIDAD DE CORTA ESTANCIA ZENDO.	Dr. Jorge Zavala Reyes.	85 25 66	Calle 2da. No. 7565; 'F' y Mutualismo Zona Centro.
93. UNIDAD MEDICA OTAY.	Dr. Miguel Cornejo Bravo.	82 18 48	Calzada Tecnológico No. 817-2 Otay Universidad.
94. UNIDAD QUIRURGICA LEDA.	Dr. Carlos Buenrostro V.	84 94 68	Bldv. S. Taboada No. 10116-402 Zona del Río.
95. UNIDAD QUIRURGICA PLAZA.	Dr. Juan Luis Prado B.	84 09 58	Erasmus Castellanos No. 18 Zona del Río.
96. CLINICA STELLA MARIS.	Dr. Gilberto Alvarez M.	34 34 44	Edmundo O'Gorman No. 1571 Zona del Río.
97. INSTITUTO GENESIS WEST. PRO VIDA, S.A.	Dr. Jorge Armando Llamas.	30 13 13	Calle de las Rocas No. 231 Secc. Jardines, Playas de Tijuana.
98. CLINICA MAT. Y PED. DE NTRA SRA. DEL NIÑO JESUS.	Dra. Sonia Frausto Perez.	81 61 96	Av. Arete No. 10

General Information:

HOSPITALS	26
CLINICS	49
SANATORIOS	09
MEDICAL CENTERS	08
MEDICAL UNIT	05
MEDICAL INSTITUTE	02
MEDICAL GROUP	01
<b>TOTAL</b>	<b>100</b>

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**APPENDIX 5**

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**INTERVIEW WITH Mr. SR. GILBERTO RIOS.**  
**General Manager of 'Farmacias Internacional de Tijuana, B.C.'**  
**a group of 11 pharmacies located in Tijuana**  
**MARCH 26 DE 1994.**

**Mr. RIOS:**Interviewee: Mr. Gilberto Rios.  
**J.A.:**Interviewer: Jorge Augusto Arredondo-Vega.

**J.A.:** What are some of the conditions to sell prescribed medicine?

**Mr. RIOS :** The prescription must show the location of the clinic; there are many doctors that arrive with their prescriptions without their address; they must have an established clinic in Tijuana, Tecate, or Rosarito (that still is a delegation of Tijuana, not a municipality yet); Tecate (although it is another municipality) one can provide the medicine because it belongs to the sanitary jurisdiction of Tijuana. We do not provide medicines from prescriptions specifying controlled medicine (or psychotropics) that come from Ensenada or Mexicali, neither from other parts of the country, there are special requirements in order to supply a prescription that calls for controlled medicine.

Then is the product regulation issue. Group 2 products can only be sold no more than two pieces (or packages) per persons, when it comes in a small presentation. There are products that come in two presentations a small one and a large one. Take for instance VALIUM, the small presentation (or box) has 20 pills and the large has 90; we can sell two boxes comprising a maximum total of 40 pills in one prescription, but if the large presentation comes with 90 pills we can not provide more than one box. And like that, there are many products that come in two presentations. The prescription also has its conditions in order to obtain the medicine. It has a maximum validity of 30 days, and an expired prescription cannot be used to buy

medicines, this is with respect to Group 2 medicine.

Group 3 medicine is more flexible. The amount of medicine to be prescribed is left open to the physician's criterion. If the physician prescribes 20 pills, I will sell 20 pills. We have customers coming from the United States to buy anabolics and hormonal based products, like the ones used by weight lifters and bodybuilders. According to the law, we can only sell this prescribed medicine up to three times only, we stamp the prescription and return it each time it is used. After the third time, we retain the prescription. However I myself retain the prescription after the first time for internal control, why? you may ask. Because each box has at least 20 pills, that is a lot of medicine, and needs to be kept under control. So after retaining the prescription I call the physician and tell him that, if he wants me to sell this or that person, this type of medicine, then I will keep the prescription after the first time. The majority of the physicians say it is okay, because then they will know when the patient needs more medicine, and will come for another prescription. On the other hand if I provide a patient up to 3 times the medicine, he or she is going to have 60 pills, and it is very risky. Although this is permitted within the sanitary code, because group 3 medicine is up to the physicians' criterion, I have developed my own internal controls. Nevertheless a patient cannot ask a physician to prescribe more medicine than the amount allowed by the sanitary code. I recall a customer from Texas, a rather old man and his wife. They used to order between \$500.00 U.S. dollars up to \$1,000.00 U.S. dollars of pharmaceuticals containing anabolics. And then, they will come and collect the medicine. Some of the pharmaceuticals they bought were sometimes between \$100.00 U.S. dollars and \$300.00 U.S. Dollars each. I am talking about ANABAR, an American pharmaceutical not allowed to be sold in the U.S. This product is not sold anymore in Mexico either, it has been banned. There was one person here in Tijuana, that began producing it in his laboratory. Coincidentally the

laboratory was closed down by the government, not because he was producing anabolics in the form of ANABAR, but because it was discovered that the major investor was General Antonio Noriega from Panama. It was all discovered by the FDA and the CIA, not by the Mexican government.

Yes, this product ANABAR, has been replaced by another one called PRIMOBOLAN, and now many Americans are buying this product. They also buy SOSTENON and ESTEN that are very similar because they are hormone based. They also buy DECADUROBOLIN, another anabolic, PRIMOBOLAN and PROVIRON as well. This last one is highly consumed also by the Mexican origin population, it is very effective, harmless, with no complications and is prescribed mainly to the elderly that want to feel young again, if you know what I mean. In such cases I always stamp the prescription each time they buy the product, and after the third time I retain the prescription. Yes, all these products are highly consumed by Americans.

Another case I recall was a client I had from Arizona. He used to order by phone also up to \$1,000.00 U.S. dollars of a contraceptive called PERBONAL per month. Until it became so suspicious that we stopped selling him the product. According to the literature, when taken a high dosage, it produces such an effect in muscles that begin to grow very easily. Sorry, I don't think is actually a contraceptive, I think is the opposite, something to activate the reproductive system, I forgot the general name of these products. Nevertheless, this product produces an effect in muscles that is highly valued by bodybuilders. That was why this client came from as far as Arizona to buy hundreds of this product. Later we discovered he had a gymnasium, that was why he was very keen in making his telephone orders and long trips so he will collect the product. He used to come with his wife, believe me she had the body of a man, packed with muscles, very slim and with a nice waist, but bulky

arms and legs.

And in group 3 medicine, restrictions are not very tight, and the majority of the tourists come especially to buy also anabolic and hormonal medicine within this group, meaning that their content is very low. Bodybuilders use this type of medicine a lot. And it is all upon the physician, if the physician prescribes 20 pills, I will provide the customer with 20 pills, but retain the prescription after the first time. This is a very special condition of group 3 medicine that I have been enforcing within our pharmacies, specially when it deals with American customers. Now, if the client is from Tijuana and the prescription asks for analgesics (not anabolic nor hormonal medicine), then I will stamp the prescription and give it back to be used up to three times. Why do I do that? Because it is obvious that one box of analgesics will not be enough to regain a healthy condition. Therefore a second or third box is going to be needed before getting rid of a disease (this is, if we are dealing with analgesics of course). Now, we have yet another type of medicine, the ones prescribed by physicians, dealing with weight control and obesity, all these patients are definitely Americans. Local consumers of that type of medicine are very few, but the number of American clients is very high. With those clients and that class of medicine, physicians also use group 3 products. However almost all the physicians ask us to retain the prescriptions after the first time. For example, they use PONDEREX along with ASENTIX or ESBELTAC. Therefore because it is a mixture of three different pharmaceuticals, the same physicians ask us to retain the prescription, also as a way for them to control the treatment, and prevent people from extending the treatment by themselves without the physician's advice. Although by law it is not compulsory to retain it after the first time, it is a security measure enforced by the same physicians. And because the majority of the clients are Americans, both of them, physician and patient, agree because this way the physician will be sure that after

finishing the prescribed medicine, the patient will return for more and the physician can keep track of the way the patient is responding. These products are sold in high quantities because there is a large clientele demanding them.

**J.A.:** Are there specific areas in the city where specific medicine tends to be sold more?

**Mr. RIOS:** Certainly, there are several zones. For example in the Downtown area we sell a lot VALIUM prescribed mainly to American clients by "weekend doctors", Americans consume VALIUM very much. On the other hand, at the River zone, we sell a lot of weight reduction and weight control medicine also to American customers. Sometimes our wholesale providers cannot keep up with the demand, because they are also controlled. They are not allowed to sell more than a specific amount of medicine to pharmacies, despite the increase in the demand. This is terrible, specially when you are on your own. Fortunately we are a chain of 11 pharmacies, and in some of the others the demand is not so high. So we have the advantage of actually buying the prescribed medicine from our other pharmacy. Wholesale providers of medicine have their controls and restrictions also. Sometimes they limit the amount of specific medicine for six pieces at one pharmacy and five pieces at the other per requesting. Although there are some wholesale providers that come up to two times a day, the majority only come once a day. They have their Federal restrictions per shipment also . And in the River zone very often we run out of weight control and weight reduction medicine.

**J.A.:** Do you keep a registration book for all this medicine?

**Mr. RIOS :** Yes, it is compulsory. Upon the product arrival, either from group 2 or group 3, we have to register the invoice number in the book. The registration book also asks information such as: date of arrival, source, number of invoice, prescription number and date, name of physician, professional registration number, amount of

medicine prescribed, amount of medicine sold, etc. This is because the registration book is foliated, we can do this only in the group 2 medicine because we retain the prescriptions. In group 3 is not compulsory to carry off folios, because the majority of the prescriptions are returned, therefore it is almost impossible to carry folios, but in the group 2 yes, we need to write down the prescription number, and so on. This book is required by law. The Secretariat of Health has asked for another conditions also. We are to fill a monthly report (in special forms provided by them), in which we have to declare how much medicine we buy, and how much medicine we sell, by type and quantity. This is an easy task at pharmacies where they have a low demand. But in our case , we deal with approximately 100 prescriptions per day at each pharmacy, multiplied by month, that's a lot of work.

**J.A.:** Don't you have this done by computer?

**Mr. RIOS :** Well we tried to sort these report by computer, but the Secretariat of Health said that computer reports were not valid, that it was an alternative that was going to be studied in the near future. That in the meantime everything should have to be done manually. Nevertheless, we now have everything done by computer, it is a lot faster, and then the information is typed at the official forms. Even the pay list, the monthly cheques, taxes, and so on is done now by computer. The Secretariat of Health claimed that in 4 or 5 years more they will have the proper software to be loaded in all computers, so that the data base will be the same in the whole country. Makes sense but they are taking too long.

**J.A.:** What about the fieldwork of Pharmacists?

**Mr. RIOS:** Within Pharmacies the field of work is very wide. There is always a shortage of staff. Unfortunately there are no schools for pharmacy attendants. We need to train ourselves our own people. We have been told that the Secretariat of Education was looking at the possibilities of creating a special training school for

pharmacy attendants at the CONALEP level. This is something that does not exist in the whole country, therefore I think it is going to be very difficult. According to the law, we are required to have a chemist as a responsible person, and a pharmacy technician. What we do is, we train our own people because there is no such professional education in the whole country. According to the law also, these people must have at least one year experience. So after training them we take them to the Secretariat of Health and they are examined by means of a written exam. The main problem with this exam is that it dwells mainly in basic chemistry knowledge and has very little to do with pharmaceuticals, pharmaceutical dosage and prescribed medicine. The main problem is that the people preparing those exams are mainly chemists without any experience nor idea at all about how a drugstore works and functions.

**J.A.:** Going back to the issue of the medicines consumed by American nationals, how do you know they are American nationals?

**Mr. RIOS:** Well, it is very simple, when any one comes to the drugstore and has a prescription, the prescription must have his or her name. So if the written name is in English, he or she are American nationals.

**J.A.:** And what do you do when an emigrado, a chicano or a pocho goes to your drugstores? remember that the majority of them have Spanish names despite the fact that they are American nationals by law.

**Mr. RIOS:** Well we have a lot of emigrados coming from Los Angeles to buy medicine also. The only way we can guess their nationality is by their accent. You know that emigrados have a very particular accent, they tend to speak Spanish with a Californian accent, emphasising the soft pronunciation of the letters 'sh' instead of the short and strong way 'ch' sounds in Spanish. They don't say 'leche', they say 'leshe'; they don't say 'mucho', they say 'musho', you know what I mean. Apart from

that, there is no way we have to know their nationality. Sometimes when they are into conversation we realize that they are legal American citizens, but that is all. They are not required by the law to show any type of identification in order to buy medicine. The Secretariat of Health (or S.S.) cannot ask me not to sell medicine to Americans only because they are Americans.

Even knowing that in general Americans buy mainly two types of products that are considered as 'psychotropics' within the classification of medicine, we can still sell them medicine. Americans buy TAFIL, that in the U.S. is called SANAX and has become very popular as it replaced the old VALIUM. And also buy VALIUM, even knowing that has been replaced by TAFIL, some Americans are old fashioned and prefer VALIUM. Those are the two main controlled products Americans buy mostly, with respect to psychotropics of course. These pharmaceuticals are sold at the downtown area and also at the River area as I said. It is interesting because in general the Tijuana physician does not prescribe VALIUM very frequently. The majority of them prescribe EXOTAN and ACTIBAN instead. These are relatively new products that work very similar as VALIUM, but less risky. And even so, they do not prescribe it just like that. I have a friend, Dr. Heredia, who before prescribing ACTIBAN, he sends his patients to see a psychiatrist. After that, if the psychiatrist agrees as well on the medicine, then he will extend the prescription. And there is another medicine that has become very popular also, is called ROIDMOL. But unfortunately it has become popular amongst the drug addicts and the vicious people. It is not uncommon that these people will ask one of those unscrupulous physicians to prescribe them ROIDMOL and they pay the physician \$20.00 U.S. dollars for the prescription. One little box of ROIDMOL contains 30 pills, if supplied up to two boxes this will mean 60 pills. These pills can easily be sold in the black market for \$2.00 U.S. DOLLARS each, this means making around \$120.00 U.S.



dollars out of two small boxes that cost no more than \$5.00 U.S. DOLLARS each, can you imagine this? It is very frequent to see in the newspaper when these people are caught by the police. The name of the pill is never revealed, instead it is always reported as ROCHE pills, that is the name of the laboratory that produces them. This product is very seldomly prescribed by a physician from Tijuana, I mean a respectful and professional physician. Instead, local physicians prescribe ALCION, that's a hypnotic pharmaceutical as effective as ROIDMOL . Nowadays they have reduced the narcotic content within ALCION mainly in order to prevent it from being commercialized by the drug addicts. We have developed a way to control the selling of this pharmaceuticals within our drugstores. I am very sorry but we rely mainly in how the customer looks like and approaches us. If he or she is very suspicious, ragged type, dirty looking, weird look in the eyes, like a vandal or someone into drugs, we do not sell the medicine. Fortunately when people ask for this medicine we already know them as regular customers, thus we trust them, but this is only an internal policy. You know, I used to assist the police department long time ago in identifying the pills bad people sell on the streets. I remember a small yellow pill called by the street sellers 'yellow jackets' it was nothing more than NEMBUTAL ; there was another one referred to as 'red devil' it was actually SECONAL; then there was another one with two colours that used to call 'rainbow' it was DUINAL; and finally there were the 'bennys' that were BENSAZINA. Every time the police caught a street vendor they will call me to identify the pills. They don't call me anymore because the American government has produced a small booklet with colour pictures of the pills and their pharmaceutical names, but it was quite an experience.

**J.A.:** With respect to the registration books and internal controls at each drugstore, do you think I can have access to them?

**Mr. RIOS:** Definitely not, nobody is going to allow you not even to browse their

books. And it depends to which drugstore you go. For example if you ask me, I will ask you to wait until we don't have a lot of work to do, or I will send you to one of our drugstores with very few sales, I am sure you are not interested in these drugstores, are you?

**J.A:** Well, no, but what I suggested is actually to conduct a study about the type or pharmaceuticals sold at each drugstore by location, a scientific survey with statistical records.

**Mr. RIOS:** That can be very risky, because then the Secretariat of Health can make very easy assumptions with respect to the selling of controlled pharmaceuticals. For example if you take my records and find out that at our downtown drugstore we sell 30, 40 or up to 90 packets of VALIUM per week, if you do not specify who buys them and under what circumstances, then the Secretariat of Health can easily close the drugstore arguing that we only sell psychotropics. You see, it is not that simple and you have to be very careful not to make simple assumptions.

**J.A:** Even if the statistics are used for academic purposes only?

**Mr. RIOS:** As I said, these statistics are very dangerous for the owners of drugstores. How can you assure me that your study will not be consulted by someone from the Secretariat of Health and the information contained used wrongly. You cannot control that, once the information is released, it becomes very dangerous. Silly things like targeting this or that drugstore, just because I hate the owner, or maybe because I want to have a monopoly and wham!, there you have it, you even end up in jail. I am sorry but this is the way it is, one has to protect himself even from the authorities. The authorities are run by people and that's where the main problem begins. But let's leave it there okay?

**J.A.:** Is there a local drugstore association ?

**Mr. RIOS:** Yes, but it is not compulsory to be a regular member. Many drugstores

don't register because it is not good for their purposes, you know what I mean. There was a drugstore in Tijuana that made a lot of money for selling controlled medicine even without asking for a prescription, I am sure you remember, I am talking about 'Botica Cher'. It was very famous because it was one of the only drugstores that will be open 24 hours, and it was during the night that the majority of the controlled medicine was sold without prescription. It was cancelled several times by the Secretariat of Health for this issue. Imagine if you go to them and ask them to show you their records, they are going to ask you to leave immediately.

**J.A.:** Is there a lot of pressure in order to control this problem, the selling of prescriptions in order to buy controlled medicine?

**Mr. RIOS:** Yes, the pressure comes mainly from chemists and physicians from San Diego, they are the ones always asking Mexican authorities to have stronger restrictions. But what they more concerned with the differences in costs than with access to controlled medicine. You see, in the U.S. things are very different. Drugstores are supplied with what are called a 'bulk size' units direct from the laboratories or suppliers. This is to say, huge bottles containing up to 1,500 pills. This is because in the U.S. you don't get you medicine in the original pack. When you are prescribed a medicine, the physician specifies the number of pills. It can be 20, 10 or 15, it is up to the physician, and that is the amount of pills the drugstore dealer will put in your container. And if at the end of your prescription says 'refill', the physician also states the number of times your container can be refilled, it can be 2 or 3 times and that is it. This means that when the product is bought at 'bulk size', the cost is very low, and when you buy the product you realize it is very expensive. This means also that drugstore owners in the U.S. make huge profits. That is why they see cheap Mexican medicine as a threat to their interests, because means loosing customers through the border. And yet there is another issue. There are people that buy

pharmaceuticals in Mexico and go selling them in the U.S. Take for example the illegal workers, they don't have access to health services, and worst of all they cannot afford it. The cheapest consultation in the U.S. costs approximately \$60.00 U.S. dollars, an amount of money that an illegal field worker cannot pay. This is where these people make their money. Amongst the same workers they know who sells remedies and medicine. So if someone has a headache, they just ask and someone else will tell where to go for an aspirin or a remedy. And it is not cheap, believe me, they end up paying one or two dollars per aspirin! How do these people are able to take the medicine to the U.S.? don't ask me.

**J.A.:** Going back to the classification of medicine, when you were talking about Group 2 and Group 3 of medicines, does this means there is a Group 1 also?

**Mr. RIOS:** Yes there is a Group 1, and very few physicians can prescribe this type of medicine. They are considered highly controlled narcotics, and you need a special prescription, stamped by the Secretariat of Health in Mexico city, not the regional one but the Federal one. These prescriptions are not given to any physician, you have to make a special application and send along your C.V., and after that, you have to wait for a long period of time to see if your specific case has been approved and the prescriptions granted. Then you will be allowed a very small amount of prescriptions. These are printed on a specially yellow tinted paper, and strictly controlled by means of an invisible stamp, like in notes, and a control number. It is very difficult to find a physician able to have these prescriptions. I once sold DEMEROL that was prescribed in one of such prescriptions. The problem at that time was, the problems we had in order to supply the product. Our provider needed to make a special request to the Secretariat of Health in Mexico and send all the information that was required from him and from the drugstore as well, in order to be authorized to sell the pharmaceutical. After that, there was yet another long procedure in order to have the

laboratory deliver the exact amount of units authorized by the Secretariat of Health. We don't sell it anymore, at present there approximately two or three authorized places where you can buy DEMEROL, provided you have the proper prescription. Both places are located in Playas de Tijuana and, and they are not mainly drugstores, one is a Sanatorio and the other is a Cancer clinic.

**J.A.-** I was reading the other day some articles that said that the American poor were the ones making trips to the border in order to get low cost pharmaceuticals and medical services, but what about people with leukaemia or cancer that cannot continue receiving treatment in the U.S. because the treatment they need is not available in the U.S., do you know something about this issue.

**Mr. RIOS.-** Yes, I know mainly from the type of medicine that is sold at different parts of the city. I can easily tell you that all the clinics and hospitals located in Playas de Tijuana are cancer clinics. We sell oncological products only by request, but not to the general public because they are too expensive, and at the end is not profitable. Besides they are very difficult to obtain even for us. We have asked several laboratories to provide us with those pharmaceuticals and they just don't pay attention. There is an intermediary in Mexico city called 'Specialized Products' that sells us the products, but it has to be through him, no one else. He sells the product at public price, and we have to pay extra for handling and delivery at the airport, and we are forced to sell it to the Social Security for the same price that is marked on the outside label, that is the same price we paid for it, so we loose some money there. That is why it is not profitable. We used to sell a lot, but not anymore. At the clinics and hospitals located in Playas, I am sure it must be profitable, because the product is sold mainly to rather wealthy Americans, and the cost can be increased as much as the dealer wants, because at the end there is no alternative for the Americans, they cannot buy the product not even in their country, as simple as that.

With respect to this, there was a physician who made a lot of money out of LEATRIL, a product made from seeds of yams or apricots, I am not sure. The use of this medicine was never approved in the U.S., it never went beyond the experimental stage, so it was never licensed to be sold to the public. Its efficiency was never demonstrated. I am sure there are still some places where they use it a lot.

**J.A.:** With respect to the use of MEDICARE by Americans in Tijuana, do you know something about it?

**Mr. RIOS :** Many physicians here accept MEDICARE insurance, you just have to see their advertisements, specially at the downtown clinics. Several places in Ensenada also accept it. Just go to San Miguelito, there are lots of retirees there. I worked in Ensenada for 10 years, and every morning the Americans will queue up to buy American newspapers at a small store near my drugstore. And I will chat with them from time to time. They used to buy medicine also from my drugstore, and the majority of them were living in San Miguelito and travel to Ensenada to see a doctor and use their MEDICARE in order to pay the physician, it is a very common procedure. You can find many retirees also at San Antonio del Mar and in Rosarito, they live in their campers or R.V.'s as they call them. Some of them make the trip from Canada too. The weather is very nice there, that is why they like it so much, and besides nobody bothers them, it's like having a piece of paradise for yourself. They don't live in Playas de Tijuana anymore because there are no camper parks there, and renting a flat for them there becomes quite expensive. They prefer to live in their campers because they only pay a small fee to occupy a piece of land, and when they get fed up or bored, they can always move along or go back to the U.S., they have their own means of transport. But yes, whenever you find American retirees it means that the physicians are accepting their MEDICARE insurance. Of course that MEDICARE will only cover the same services as in the U.S., nothing more than that.

You see, MEDICARE is very difficult. My wife is emigrada and she has MEDICARE. She worked for a long time in the U.S. and now she has retired. Nonetheless they keep deducting from her pension around forty something dollars per month. I remember once she needed to go to a clinic in the U.S. and forgot to pay the difference. Because MEDICARE does not covers medical services in full, this means that at the end you have to pay something. Well my wife completely forgot. One day she received a notification through the mail threatening, either she paid or she had to go to court. The notification said that, if she refused to pay her bills during a specific period of time, she was going to be prosecuted. She got very scared and at the end she paid everything. She doesn't goes to clinics in the U.S. anymore, she prefers to go to the IMSS here in Tijuana. By being my wife and family, she is entitled to use the Mexican public health service. And this is something that many Americans had discovered also. They have found that they can also enroll within the Mexican public health service. They only have to show the proper Mexican visa and they will be charged a very small fee per year, and they are fully covered, including pharmaceuticals, dentistry and all the services that are covered in Mexico.

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## **APPENDIX 6**

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**Marque una o mas opciones, utilizando números para definir cantidades cuando sea necesario.**

**A-5.- Número de Médicos que trabajan en la Clínica / Hospital**

(1)

	MEDIO TIEMPO	TIEMPO COMPLETO	POR HORAS	
<input type="checkbox"/> Médico independiente	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
<input type="checkbox"/> 2-5 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
<input type="checkbox"/> 6-10 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
<input type="checkbox"/> Mas de 10 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4

**A-6.- Cuántos Médicos son:**

(2)

Empleados por la Clínica/Hospital	<input type="checkbox"/>	1
Independientes	<input type="checkbox"/>	2

**A-7.- Cuántas personas, además de los Médicos, trabajan en la Clínica/Hospital?**

(3)

<input type="checkbox"/> Enfermeras	1
<input type="checkbox"/> Paramédicos	2
<input type="checkbox"/> Químicos responsables	3
<input type="checkbox"/> Técnicos-Laboristas	4
<input type="checkbox"/> Personal/Laboratorio	5
<input type="checkbox"/> Personal Admvo. gral	6
<input type="checkbox"/> Otros (especifique)	7

**A-8.- Que servicios médicos ofrece esta Clínica/Hospital?**

(4)

(marque una o varias)

Consulta externa	1
Medicina Preventiva	2
Hospitalización	3
Ginecología/Obstetricia	4
Partos	5
Pediatría	6

Oftalmología	7
Cuidados intensivos	8
Cirugía general	9
Cirugía de emergencia	10
Cirugía Plástica	11
Dentista	12
Nutrición	13
Patología	14
Cardiología	15
Electroencefalografía	16
Neurofisiología	17
Quimioterapia	18
Fisioterapia	19
Medicina Oncológica	20
Tratamiento/ SIDA	21
Transplante de Riñón	22
Terapia Intensiva	23
Terapia Física	24
Emergencias	25
Consultorios Médicos	26
Farmacia	27
Laboratorio	28
Banco de Sangre	29
Diálisis Sanguínea	30
Rayos X	31
Tomografía	32
Ultrasonido	33
Estudiantes Internos	34
Enfermería	35
Escuela de Enfermería	36
Ambulancia	37
Helipuerto	38
Otros (especifique)	39

CONFIDENTIAL

<p><b>A-9.-</b> En qué idiomas se ofrecen los Servicios Médicos?</p> <p style="text-align: right;">Inglés Francés Español</p>	<p><b>(5)</b></p> <p>1 2 3</p>
<p><b>A-10.-</b> Se realizan proyectos de investigación médica en esta Clínica/Hospital?</p> <p style="text-align: right;">Si No</p>	<p><b>(6)</b></p> <p>1 2</p>
<p><b>A-11 .-</b> Mencione tres de los mas recientes proyectos de investigación realizados en esta Clínica/Hospital.</p> <p>1.- _____</p> <p>2.- _____</p> <p>3.- _____</p>	<p><b>(7)</b></p> <p>1 2 3</p>
<p><b>A-12.-</b> Mantiene éste Clínica/Hospital, algún tipo de intercambio de pacientes con otras Clínicas / Hospitales de Estados Unidos para tratamiento médico en general?</p> <p style="text-align: right;">Si No</p>	<p><b>(8)</b></p> <p>1 2</p>
<p><b>A-13.-</b> Mencione tres de las Clínicas/Hospitales con los que mas comunmente intercambia pacientes.</p> <p>1.- _____</p> <p>2.- _____</p> <p>3.- _____</p>	<p><b>(9)</b></p> <p>1 2 3</p>
<p><b>A-14.-</b> Mencione tres de los servicios médicos mas solicitados en estos intercambios</p> <p>1.- _____</p> <p>2.- _____</p> <p>3.- _____</p>	<p><b>(10)</b></p> <p>1 2 3</p>

<p><b>A-15.-</b> Recibe esta Clínica/Hospital, pacientes no residentes? (ej. emigrados, norteamericanos, canadienses, etc.)</p>	<p><b>(11)</b></p>
<p style="text-align: right;">Si</p> <p style="text-align: right;">No</p>	<p>1</p> <p>2</p>
<p><b>A-16.-</b> Existe variación en el número de sus pacientes no residentes en el año?</p>	<p><b>(12)</b></p>
<p style="text-align: right;">Si</p> <p style="text-align: right;">No</p>	<p>1</p> <p>2</p>
<p><b>A-17.-</b> Durante que mes (o meses) recibe más pacientes no residentes?</p> <p>_____</p>	<p><b>(13)</b></p> <p>1</p>
<p><b>A-18.-</b> Cuantos pacientes no residentes recibe durante este tiempo? (promedio)</p> <p>_____</p>	<p><b>(14)</b></p> <p>1</p>
<p><b>A-19.-</b>Cuál es el mecanismo que se utiliza para saber su nacionalidad?</p>	<p><b>(15)</b></p>
<p style="padding-left: 40px;">Revisión de pasaporte en historia clínica</p>	<p>1</p>
<p style="padding-left: 40px;">Revisión de lugar de residencia en historia clínica</p>	<p>2</p>
<p style="padding-left: 40px;">Apariencia física</p>	<p>3</p>
<p style="padding-left: 40px;">Idioma o acento del paciente</p>	<p>4</p>
<p style="padding-left: 40px;">Otro (especifique)_____</p>	<p>5</p>
<p><b>A-20.-</b>Cuáles son los servicios médicos mas comunmente utilizados por estos pacientes ? (marque una o varias opciones utilizando números en orden de importancia, 1,2,3.)</p>	<p><b>(16)</b></p>
<p style="padding-left: 40px;">Consulta externa</p>	<p>1</p>
<p style="padding-left: 40px;">Medicina Preventiva</p>	<p>2</p>
<p style="padding-left: 40px;">Hospitalización</p>	<p>3</p>
<p style="padding-left: 40px;">Ginecología/Obstetricia</p>	<p>4</p>
<p style="padding-left: 40px;">Partos</p>	<p>5</p>
<p style="padding-left: 40px;">Pediatria</p>	<p>6</p>

Oftalmología	7
Cuidados intensivos	8
Cirugía general	9
Cirugía de emergencia	10
Cirugía Plástica	11
Dentista	12
Nutrición	13
Patología	14
Cardiología	15
Electroencefalografía	16
Neurofisiología	17
Quimioterapia	18
Fisioterapia	19
Medicina Oncológica	20
Tratamiento/ SIDA	21
Transplante de Riñón	22
Terapia Intensiva	23
Terapia Física	24
Emergencias	25
Consultorios Médicos	26
Farmacia	27
Laboratorio	28
Banco de Sangre	29
Diálisis Sanguínea	30
Rayos X	31
Tomografía	32
Ultrasonido	33
Estudiantes Internos	34
Enfermería	35
Guardería	36
Ambulancia	37
Helipuerto	38
Otros (especifique)	39

CONFIDENTIAL

**A-21.-** Que tipo de medicina se les receta a estos pacientes en general?

**(17)**

- Medicamentos del Grupo 1:  
(estupefacientes o Psicotrópicos)
- Medicamentos del Grupo II
- Medicamentos del Grupo III
- Otros

- 1
- 2
- 3
- 4

**A-22.-** Cual es el mecanismo de pago mayormente utilizado por sus pacientes no-residentes?

**(18)**

- Efectivo, pago total
- Efectivo, pago parcial
- MEDICARE
- Seguro de vida particular
- Otro (Especifique)

- 1
- 2
- 3
- 4
- 5

**A-23.-** Que servicios urbanos requiere para el mejor funcionamiento de esta Clínica/Hospital?

**(19)**

	EXISTENTE	NO EXISTENTE	
Transporte Urbano	<input type="checkbox"/>	<input type="checkbox"/>	1
Calles pavimentadas	<input type="checkbox"/>	<input type="checkbox"/>	2
Alumbrado público	<input type="checkbox"/>	<input type="checkbox"/>	3
Agua	<input type="checkbox"/>	<input type="checkbox"/>	4
Drenaje	<input type="checkbox"/>	<input type="checkbox"/>	5
Areas verdes	<input type="checkbox"/>	<input type="checkbox"/>	6
Teléfonos públicos	<input type="checkbox"/>	<input type="checkbox"/>	7
Recolección normal de basura	<input type="checkbox"/>	<input type="checkbox"/>	8
Recolección especial de basura	<input type="checkbox"/>	<input type="checkbox"/>	9
Areas de estacionamiento	<input type="checkbox"/>	<input type="checkbox"/>	10
Otro (especifique) _____			11

A-24- Tuvo algún problema con el departamento de planeación local para ubicarse en esta zona?

Si  
No

(20)  
1  
2

A-25- Mencione por lo menos tres causas de los problemas.

- 1.- \_\_\_\_\_
- 2.- \_\_\_\_\_
- 3.- \_\_\_\_\_

(21)  
1  
2  
3

**OBSERVACIONES:**

Permitiría Usted que se aplicara una encuesta similar a ésta a sus pacientes no residentes ?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**PRESTACION DE  
SERVICIOS  
MEDICOS**

**THE PROVISION OF MEDICAL  
SERVICES**

QUESTIONNAIRE NUM.	_____
CLINIC NUM.	_____
DATE	_____ _____ _____
	day month year
TIME	_____ _____
AM	_____  PM _____

(ENGLISH VERSION)

**Questionnaire to be answered by Directors of Clinics and Hospitals .**

The following questionnaire is a joint research being conducted by the Facultad de Arquitectura from the Universidad Autónoma de Baja California in México and the Development Planning Unit (D.P.U.) from the University College, London in England, as part of the M.Phil/Phd. Programme in Urban Planning.

The main purpose behind this research is to measure the trans-border use of medical services in the city of Tijuana in order to establish its development potential.

All the information collected as a result of this research will be strictly confidential, and will only be used for academic purposes not to be released for official affairs.

***Please write in capital letters, mark one or several options when needed and always use a pen or a dark marker.***

**A.- GENERAL INFORMATION.**

**A-1.- Name of the Clinic/Hospital:**

\_\_\_\_\_

\_\_\_\_\_

**A-2.-Address:**

\_\_\_\_\_

\_\_\_\_\_ Zip Code \_\_\_\_\_

**A.3.- Number of beds :** \_\_\_\_\_

Occupation rate: \_\_\_\_\_

**A-4.- Year of foundation** \_\_\_\_\_

**Mark one or several options using numbers to specify amounts when needed.**

**A-5.- Number of Physicians working in the Clinic/Hospital (1)**

	HALF TIME	FULL TIME	PART TIME	
<input type="checkbox"/> Solo Practitioner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
<input type="checkbox"/> 2-5 Physicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
<input type="checkbox"/> 6-10 Physicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
<input type="checkbox"/> More than 10 Physicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4

**A-6.- How many Physicians are: (2)**

Clinic/Hospital employees	<input type="checkbox"/>	1
Independent	<input type="checkbox"/>	2

**A-7.- How many people besides the physicians, work in this Clinic/Hospital? (3)**

<input type="checkbox"/> Nurses	1
<input type="checkbox"/> Paramedics	2
<input type="checkbox"/> Chemists	3
<input type="checkbox"/> Lab Technicians	4
<input type="checkbox"/> Lab General Staff	5
<input type="checkbox"/> Management Staff	6
<input type="checkbox"/> Other (specify)	7

**A-8.- What medical services are offered in this Clinic/Hospital? (4)**

(select one or more)

Outpatient Care	1
Preventive Medicine	2
Hospitalization	3
Gynecologist/Obstetrics	4
Delivery	5
Pediatrics	6
Ophthalmology	7
Intensive Care	8

General Surgery	9
Emergency Surgery	10
Plastic Surgery	11
Dentist	12
Nutritionist	13
Pathology	14
Cardiology	15
Electroencephalograph	16
Neurophysiology	17
Chemotherapy	18
Physiotherapy	19
Cancer Treatment	20
AIDS Treatment	21
Kidney Transplant	22
Intensive Therapy	23
Physical Therapy	24
Emergencies	25
Physicians' Offices	26
Pharmacy	27
Laboratory	28
Blood Bank	29
Blood Dialysis	30
X Rays	31
Tomography	32
Ultrasound	33
Student Interns	34
Nursery	35
Nursing School	36
Ambulance	37
Heliport	38
Other (specify)	39

CONFIDENTIAL

<p><b>A-9.-</b> In what languages are the medical services usually offered?</p> <p style="text-align: right;">English French Spanish</p>	<p><b>(5)</b></p> <p style="text-align: center;">1 2 3</p>
<p><b>A-10.-</b> Do you practice any kind of medical research in this Clinic/Hospital?</p> <p style="text-align: right;">Yes No</p>	<p><b>(6)</b></p> <p style="text-align: center;">1 2</p>
<p><b>A-11 .-</b> If so, please mention three of the latest research projects</p> <p>1.- _____</p> <p>2.- _____</p> <p>3.- _____</p>	<p><b>(7)</b></p> <p style="text-align: center;">1 2 3</p>
<p><b>A-12.-</b> Do you maintain any kind of patients exchange for treatment with American Clinics/Hospitals?</p> <p style="text-align: right;">Yes No</p>	<p><b>(8)</b></p> <p style="text-align: center;">1 2</p>
<p><b>A-13.-</b> If so, please mention three American Clinics/Hospitals taking part in these patients' treatment exchange</p> <p>1.- _____</p> <p>2.- _____</p> <p>3.- _____</p>	<p><b>(9)</b></p> <p style="text-align: center;">1 2 3</p>
<p><b>A-14.-</b> Please mention three medical services that are mostly involved in this exchange</p> <p>1.- _____</p> <p>2.- _____</p> <p>3.- _____</p>	<p><b>(10)</b></p> <p style="text-align: center;">1 2 3</p>

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<p><b>A-15.-</b> Does this Clinic/Hospital receives non-resident patients/clients (Americans, Canadian, legal migrants)?</p> <p style="text-align: right;">Yes No</p>	<p style="text-align: right;"><b>(11)</b></p> <p style="text-align: center;">1 2</p>
<p><b>A-16.-</b> Is there any increase of non-resident patients/clients during the year?</p> <p style="text-align: right;">Yes No</p>	<p style="text-align: right;"><b>(12)</b></p> <p style="text-align: center;">1 2</p>
<p><b>A-17.-</b> During which month(s) do you experience this (these) increase(s)</p> <p>_____</p>	<p style="text-align: right;"><b>(13)</b></p> <p style="text-align: center;">1</p>
<p><b>A-18.-</b> How many non-resident patients/clients (average) do you see per week during this (these) high season(s)</p> <p>_____</p>	<p style="text-align: right;"><b>(14)</b></p> <p style="text-align: center;">1</p>
<p><b>A-19.-</b> What is the mechanism you employ to find out their nationality?</p> <p style="padding-left: 40px;">Passport checking during paperwork</p> <p style="padding-left: 40px;">Address given by the patient</p> <p style="padding-left: 40px;">Physical appearance</p> <p style="padding-left: 40px;">Patients' language or accent</p> <p style="padding-left: 40px;">Other (specify)</p> <p>_____</p>	<p style="text-align: right;"><b>(15)</b></p> <p style="text-align: center;">1 2 3 4 5</p>

**A-20.**-What are the medical services most commonly used by non-resident patients/clients?

(select one or several in order of importance, 1,2,3.)

**(16)**

Outpatient Care	1
Preventive Medicine	2
Hospitalization	3
Gynecologist/Obstetrics	4
Delivery	5
Pediatrics	6
Ophthalmology	7
Intensive Care	8
General Surgery	9
Emergency Surgery	10
Plastic Surgery	11
Dentist	12
Nutritionist	13
Pathology	14
Cardiology	15
Electroencephalograph	16
Neurophysiology	17
Chemotherapy	18
Physiotherapy	19
Cancer Treatment	20
AIDS Treatment	21
Kidney Transplant	22
Intensive Therapy	23
Physical Therapy	24
Emergencies	25
Physicians' Offices	26
Pharmacy	27
Laboratory	28
Blood Bank	29
Blood Dialysis	30
X Rays	31

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Tomography	32
Ultrasound	33
Student Interns	34
Nursery	35
Nursing School	36
Ambulance	37
Heliport	38
Other (specify)	39
_____	
_____	

**A-21.-** What type of medicine do these patients consume in general?

**(17)**

Restricted medicine	1
Controlled Medicine	2
Prescription Medicine	3
Other	4

**A-22.-**What is the paying mechanism mostly used by your non-resident patients / clients?

**(18)**

Cash, payment in full	1
Cash, partial payment	2
Insurance or Third Party Payment	3
Do not pay	4
Other (Please specify)	5
_____	

<b>A-22.- What Urban services would you require for a better performance of this Clinic/Hospital?</b>			<b>(19)</b>
	EXISTING	NON EXISTING	
Public Transport	<input type="checkbox"/>	<input type="checkbox"/>	1
Specially paved streets	<input type="checkbox"/>	<input type="checkbox"/>	2
Street lighting	<input type="checkbox"/>	<input type="checkbox"/>	3
Water	<input type="checkbox"/>	<input type="checkbox"/>	4
Sewage System	<input type="checkbox"/>	<input type="checkbox"/>	5
Green Areas	<input type="checkbox"/>	<input type="checkbox"/>	6
Public Telephones	<input type="checkbox"/>	<input type="checkbox"/>	7
Trash collection	<input type="checkbox"/>	<input type="checkbox"/>	8
Specific Trash collection (special)	<input type="checkbox"/>	<input type="checkbox"/>	9
Parking Areas	<input type="checkbox"/>	<input type="checkbox"/>	10
Other (specify) _____			11
<b>A-24.- Did you experienced any kind of trouble with the local planning department for settling in this area?</b>			<b>(20)</b>
		Yes	1
		No	2
<b>A-25.- If so, specify three main reasons.</b>			<b>(21)</b>
1.- _____			1
2.- _____			2
3.- _____			3

**OBSERVATIONS:**

Would you allow us to apply a similar questionnaire to your non-resident patients/clients ?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# STREET SURVEY

## FICHA DE CONTROL

	CLINICA NUM _____
	TOTAL DE CUESTIONARIOS _____
	CUESTIONARIOS CONTESTADOS (Mex _____ U.S. _____ ) Total _____
	CUESTIONARIOS NO CONTESTADOS (Mex _____ U.S. _____ ) Total _____
	Fecha _____
<b>NACIONALIDAD (Nationality)</b> Mexicana _____ Americana (American citizen) _____ Otro (Other) _____ <b>Grupo de edad (Age group)</b> _____ <b>Residencia permanente (Permanent residence)</b> Tijuana _____ San Diego _____ Otro (Other) _____	

### I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)		
	Muy importante (Very important)	Medio importante (Fairly important)	No importante (Not important)
Idioma Ingles o Español (Language, English or Spanish)			
Ubicación (Location)			
Costo del servicio (Cost of the care)			
Relación de tiempo con el medico (Long term physician relationship)			
Calidad del servicio (Quality of care)			
Conveniencia (Convenience)			
Instalaciones / equipo moderno (Modern facilities / equipment)			

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 a 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)		
	Muy importante (Very important)	Medio importante (Fairly important)	No importante (Not important)
Idioma Inglés o Español (Language, English or Spanish)			
Ubicación (Location)			
Costo del servicio (Cost of care)			
Relación de tiempo con el médico (Long term physician relationship)			
Calidad del servicio (Quality of care)			
Conveniencia (Convenience)			
Instalaciones / equipo moderno (Modern facilities / equipment)			

**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**  
*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)		
	Muy importante (Very important)	Medio importante (Fairly important)	No importante (Not important)
Idioma, Inglés o Español (Language, English or Spanish)			
Limpieza (Cleanliness)			
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)			
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)			
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)			
Equipo actualizado (Up to date equipment)			
Perceptividad del medico o del personal (Responsiveness)			
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)			
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)			
Instalaciones o edificio nuevo (New facility or building)			
Ubicación (Location)			

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**  
*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)		
	1996	1997	1998
Mejor que hace dos años (Better than two years ago)			
Peor que hace dos años (Worst than two years ago)			
Igual que hace dos años (Same as two years ago)			
No sabe (Don't know)			

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)		
	1996	1997	1998
Mejor que hace dos años (Better than two years ago)			
Peor que hace dos años (Worst than two years ago)			
Igual que hace dos años (Same as two years ago)			
No sabe (Don't know)			

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)		
	Muy buena (Very good)	Medio buena (Fairly good)	No buena (Not good)
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)			
Cuidado del paciente (Patient care)			
Perceptividad del medico o del personal (Responsiveness)			
Buenos médicos (Good doctors)			
Reputación (Reputation)			
Equipo actualizado (Up to date equipment)			
Limpieza (Cleanliness)			
Comida adecuada (Adequate food)			
Ruidos mínimos (Limited noise)			
Cobros claros y rápidos (Prompt and accurate billing)			

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)		
	Muy bueno (Very good)	Medio bueno (Fairly good)	No bueno (Not good)
Habilidades de comunicación efectivas (Effective communication skills)			
Habilidades clínicas actualizadas (Up to date clinical skills)			
Tiempo adecuado con el paciente (Adequate time spent with patient)			
Tiempo de espera limitado (Limited waiting time)			
Personal de oficina competente (Competent office staff)			

**8 SERVICIOS DE CONSULTA GENERAL Y EMERGENCIA***(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)		
	Muy bueno (Very good)	Medio bueno (Fairly good)	No bueno (Not good)
Servicio rapido (Prompt service)			
Equipo necesario (Necessary equipment)			
Personal profesional (Professional staff)			
Preparaciones para niños (Provision for children)			
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)			

**9 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)		
	Muy bueno (Very good)	Medio bueno (Fairly good)	No bueno (Not good)
Se le dió información y educación consistente (Being given consistent information and education)			
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)			
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)			
Perceptividad del personal (Responsiveness of staff)			

**10 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)		
	Muy bueno (Very good)	Medio bueno (Fairly good)	No bueno (Not good)
Perceptividad del personal (Responsiveness of staff)			
Privacía (Privacy)			
Comunicación con el paciente y la familia (Communication with patient and family)			

**11 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)		
	Muy bueno (Very good)	Medio bueno (Fairly good)	No bueno (Not good)
Personal cuidadoso y compadecido (Sympathetic and caring staff)			
Entrega de información a pacientes y sus familiares (Information given to patients and family members)			
Apoyo a pacientes y sus familiares (Support to patients and family members)			

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## **APPENDIX 7**

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**THE TIJUANA CASE**  
**CONDENSED INFORMATION FROM QUANTITATIVE SURVEY**  
(Survey conducted during August 1994 and January 1995)

1. Location, size of hospital and staff employed (arranged by number of beds).

	1 TO 10 BEDS							MORE THAN 20 BEDS		
1. Hospital/Clinic	Center	Group	Clinic	Clinic	Hospital	Hospital	Unit	Hospital	Hospital	Hospital
Identification Code	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
Year of foundation	n.a.	n.a.	1989	1990	1990	1992	1986	1991	1981	1963
2. Location	Col. 20 de Nov.	Down Town area	Frac. Nva. Ens.	Col. Jardin	Col. Libertad	Down Town area	River zone	Playas area	Frac. Paraiso	Playas area
Zip Code	22430	22200	22880	22140	22300	22200	22320	22206	22440	22200
3. Number of Beds	1	3	3	6	7	9	n.a.	35	48	67
4. Occupation rate	0	n.a.	n.a.	2	2	6	n.a.	18	14	46
5. Number of physicians	3	+10	n.a.	12	20	6-10	10	9	39	21
6. Type of physician:										
a. Employed	2	4	n.a.	2	0	6-10	0	6	4	6
b. Independent	1	+6	n.a.	10	20	n.a.	10	3	35	15
7. Personnel:										
a. Nurses	1	6	2	3	3	4	2	13	41	17
b. Paramedics	1	0	0	0	0	0	0	1	0	8
c. Chemists	1	1	0	0	0	0	1	1	3	2
d. Lab Techns	3	1	0	0	0	0	0	0	0	1
e. Lab Personnel	1	0	0	0	0	2	0	0	0	0
f. Management	5	3	2	0	1	3	3	8	13	n.a.
g. Other	0	0	1	0	0	0	0	0	13	n.a.

n.a. = not available

## 1.1 Medical services offered in the clinic or hospital.

MEDICAL SERVICE	Type of med. serv.	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES			TO TAL
		H7	H6	H3	H2	H1	H4	H9	H10	H5	H8	
1. Outpatient care	L	0	0	-	0	0	0	0	0	0	0	9
2. Hospitalization	C	-	0	-	0	0	0	0	0	0	0	8
3. Pediatrics	L	-	0	-	0	0	0	0	0	0	0	8
4. General Surgery	C-S	-	0	-	0	0	0	0	0	0	0	8
5. Plastic Surgery	C-S	-	0	-	0	0	0	0	0	0	0	8
6. Physicians' Offices	L	0	0	-	0	0	0	0	0	0	0	9
7. Gynecology/Obstet.	S-L	-	0	-	0	0	0	0	0	0	0	8
8. Delivery	C-S	-	-	-	0	0	0	-	0	0	0	6
9. Cardiology	S-L	-	0	-	-	-	0	0	0	0	0	6
10. Laboratory	C	-	0	-	-	-	0	0	0	0	0	6
11. Ultrasound	C	-	0	-	0	-	0	0	0	0	0	7
12. Dentist	S-L	-	0	-	-	0	0	0	-	-	-	4
13. Cancer Treatment	S-L	-	0	-	-	-	-	-	0	-	0	3
14. Emergencies	S-L	-	-	-	-	0	0	-	0	0	0	5
15. Pharmacy/Drugstore	C-L	0	0	-	0	-	-	0	0	0	0	7
16. Preventive Medicine	L	-	0	-	-	-	0	-	0	0	0	5
17. Ophthalmology	S-L	-	-	-	-	0	0	0	-	0	-	4
18. X Ray	C-L	-	0	-	0	-	0	-	0	0	0	6
19. Nurse Care	L	-	0	-	-	-	-	0	0	-	0	4
20. Chemotherapy	C-L	-	0	-	-	-	-	-	0	0	0	4
21. Intensive Therapy	S-L	-	-	-	-	-	-	0	-	0	0	3
22. Nutrition/Weight	L	-	-	-	-	-	-	-	0	-	0	2
23. Tomography	C-S	-	0	-	-	-	-	-	-	0	0	3
24. Electroencephalog	C-S	-	-	-	0	-	-	-	-	-	-	1
25. Traumatology	S-L	-	-	-	-	-	-	-	-	0	-	1
26. Orthopedics	S-L	-	-	-	-	-	-	-	-	0	-	1
27. Nurse training	L	-	-	-	-	-	-	-	-	0	-	1
28. Emergency surgery	C-S	-	-	-	0	0	0	-	0	0	0	6
29. Short stay surgery	S-L	-	-	0	-	-	-	-	-	-	-	1
30. Oncologic medicine	S-L	-	0	-	-	-	0	-	0	0	0	5
31. Students interns	L	-	-	-	-	-	0	-	-	-	-	1
32. Intensive care	S-L	-	-	-	0	-	-	-	0	0	0	4
33. Pathology	L	-	0	-	-	-	-	-	-	0	0	3
34. Physiotherapy	L	-	-	-	-	-	-	-	-	0	0	2
35. Physical therapy	L	-	-	-	-	-	-	-	-	0	0	2
36. Blood bank	C-L	-	-	-	-	-	-	-	-	-	0	1
37. Ambulances	C	-	-	-	-	-	-	-	-	-	0	1
38. Hyperbaric chamber	C	-	-	-	-	-	-	-	0	-	-	1
39. U.C.I.	C-L	-	-	-	-	-	-	0	-	-	-	1
40. Rehabilitation	S-L	-	-	-	-	-	-	-	-	0	-	1
42. Medical treatment	S-L	-	-	-	-	-	-	-	-	-	0	1
43. Drug rehabilitation	S-L	0	-	-	-	-	-	-	-	-	-	1
44. AIDS (alternative)	S-L	-	-	-	-	-	-	-	-	-	0	1

key:

C Capital intensive activity.

S Skill intensive activity.

L Labour intensive activity.

2. Language or Languages in which medical services are provided.

Language	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. English	●	●	●	-	●	●	●	●	●	●
2. French	●	-	-	-	-	-	-	-	-	-
3. Spanish	●	●	●	●	●	●	●	●	●	●

3. Medical Research Projects being conducted

Research Projects	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Yes	●	●	-	-	-	-	-	●	-	●
2. No	-	-	●	●	●	●	●	-	●	-
3. Specify	EPIDEMIOLOGY STUDIES DSM - IV - Dx	TAXOL AMINOACIDS (Phase I)	-	-	-	-	-	HYPERBARIC TREATMENT IN DIGESTIVE DISEASES	-	SHARK'S CARTILAGE

- H7 Epidemiology and methadone dosage
- H6 Taxol and aminoacids studies
- H10 Hyperbaric treatment in digestive diseases
- H8 Shark's cartilage dosages

4. Contacts or exchanges for treatment with American hospitals.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Yes	●	-	-	-	-	-	●	-	●	●
2. No	-	●	●	●	●	●	-	●	-	-
3. Specify	AMERICAN METHADONE ASSOCIATION	-	-	-	-	-	SHARP HOSPITAL	-	SHARP HOSPITAL	SHARP HOSPITAL CHULA VISTA WELLNESS COUNCIL AMERICAN CANCER CONTROL SOCIETY



### 5. Medical services provided to American hospitals

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Medical Service(s) provided	METHADONE DOSAGE	-	-	-	-	-	UCI SURGERY CARDIOLOGY	-	REHABILITATION TRAUMATOLOGY ORTHOPEDICS PEDIATRICS	CANCER TREATMENT SURGERY MEDICAL TREATMENT

key:

Medical service	Type of activity	Medical service	Type of activity
Methadone dosage:	Labour intensive	Traumatology:	Skill-labour intensive
U.C.I. or Intensive Care Unit:	Capital-labour intensive	Orthopedics:	Skill-labour intensive
Surgery:	Capital-skill intensive	Pediatrics:	Labour intensive
Cardiology:	Skill-labour intensive	Cancer treatment:	Skill-labour intensive
Rehabilitation:	Labour intensive	Medical treatment:	Labour intensive

### 6. Attention to NON-RESIDENT patients.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Yes	-	●	-	●	●	●	●	●	●	●
2. No	●	-	●	-	-	-	-	-	-	-

### 7. INCREASE in the number of NON-RESIDENT patients attended during the past year.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Yes	-	●	-	●	●	●	●	●	●	●
2. No	●	-	●	-	-	-	-	-	-	-
3. Unknown	-	-	-	-	-	-	-	-	-	-

8. Periods of the year when there was an increase in of NON-RESIDENT patients.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. January	-	-	-	-	-	-	-	-	-	-
2. February	-	-	-	-	-	-	-	-	-	-
3. March	-	-	-	-	-	-	-	-	-	-
4. April	-	-	-	●	-	-	-	-	-	-
5. May	-	-	-	●	-	-	●	-	-	●
6. June	-	-	-	●	-	-	●	-	●	-
7. July	-	-	-	●	-	-	●	-	●	-
8. August	-	-	-	-	-	-	●	-	●	-
9. September	-	-	-	-	-	-	-	-	-	-
10. October	-	-	-	-	-	-	-	-	-	-
11. November	-	-	-	-	-	-	-	-	-	-
12. December	-	-	-	-	-	-	-	-	-	-
13. Variable	-	-	-	-	●	●	-	-	-	-
14. Unknown	●	●	●	-	-	-	-	●	-	-

9. Number of NON-RESIDENT patients during this time.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Number of patients	n.a.	n.a.	n.a.	20-30	n.a.	+10	n.a.	n.a.	~90	~62

n.a = not available.

10. Mechanism used to find the NON-RESIDENT patients' nationality.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Passport check	-	-	-	-	-	-	-	-	-	-
2. Clinic history /verbal address	●	●	-	●	●	●	●	●	-	●
3. Physical appearance	-	-	-	-	-	-	-	-	-	-
4. Language/accnt	-	-	-	-	-	-	●	●	●	-
5. Other	-	-	-	-	-	-	-	-	-	-

11A. Medical services most commonly used by NON-RESIDENT patients.

MEDICAL SERVICE	Type of med. serv.	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES			TO TAL
		H7	H6	H3	H2	H1	H4	H9	H10	H5	H8	
1. Outpatient care	L	-	0	-	0	0	0	0	0	-	0	7
2. Hospitalization	C	-	0	-	0	0	0	-	0	0	0	7
3. Pediatrics	L	-	-	-	0	0	-	0	0	-	-	4
4. General Surgery	C-S	-	0	-	0	0	-	0	0	0	0	7
5. Plastic Surgery	C-S	-	0	-	0	0	-	0	-	-	-	4
6. Physicians' Offices	L	-	0	-	-	0	-	-	-	0	0	4
7. Gynecology/Obstetrics.	S-L	-	0	-	0	0	0	0	0	-	-	6
8. Delivery	C-S	-	-	-	-	0	-	-	0	-	-	2
9. Cardiology	S-L	-	0	-	-	-	-	0	0	-	-	3
10. Laboratory	C	-	0	-	0	-	-	-	0	-	0	4
11. Ultrasound	C	-	0	-	0	-	-	-	0	-	0	4
12. Dentist	S-L	-	0	-	-	0	0	0	-	-	-	4
13. Cancer Treatment	S-L	-	0	-	-	-	-	-	0	-	0	3
14. Emergencies	S-L	-	-	-	-	0	0	-	0	-	-	3
15. Pharmacy/Drugstore	C-L	0	0	-	0	-	-	0	0	-	0	6
16. Preventive Medicine	L	-	-	-	-	-	0	-	-	-	0	2
17. Ophthalmology	S-L	-	-	-	-	-	-	0	-	-	-	1
18. X Rays	C-L	-	0	-	0	-	-	-	0	-	0	4
19. Nurse Care	L	-	-	-	-	-	-	-	0	-	-	1
20. Chemotherapy	C-L	-	0	-	-	-	-	-	0	-	0	3
21. Intensive Therapy	S-L	-	-	-	-	-	-	-	-	-	-	0
22. Nutrition/Weight	L	-	-	-	-	-	-	-	0	-	0	2
23. Tomography	C-S	-	0	-	-	-	-	-	-	-	0	2
24. Electroencephalograph.	C-S	-	-	-	0	-	-	-	-	-	-	1
25. Traumatology	S-L	-	-	-	-	-	-	-	-	0	-	1
26. Orthopedics	S-L	-	-	-	-	-	-	-	-	0	-	1
27. U.C.I.	C-L	-	-	-	-	-	-	0	-	-	-	1
28. Rehabilitation	S-L	-	-	-	-	-	-	-	-	0	-	1
29. Medical treatment (special)	S-L	-	-	-	-	-	-	-	-	-	0	1
30. Drug rehab. (methadone)	S-L	0	-	-	-	-	-	-	-	-	-	1
40. AIDS treatmnt (alternative)	S-L	-	-	-	-	-	-	-	-	-	0	1

key:

- C Capital intensive activity.
- S Skill intensive activity.
- L Labour intensive activity.

11B. Medical services most commonly used by NON-RESIDENT patients in order of importance.

MEDICAL SERVICE	Type of med. serv.	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
		H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Outpatient care	L	-	-	-	-	-	-	1	2	-	-
2. Hospitalization	C	-	-	-	-	-	-	-	3	1	-
3. Pediatrics	L	-	-	-	-	-	-	2	11	-	-
4. General Surgery	C-S	-	-	-	-	-	-	6	13	2	-
5. Plastic Surgery	C-S	-	-	-	-	-	-	5	-	-	-
6. Physicians' Offices	L	-	-	-	-	-	-	-	-	4	-
7. Gynecology/Obstetrics.	S-L	-	-	-	-	-	-	8	4	-	-
8. Delivery	C-S	-	-	-	-	-	-	-	12	-	-
9. Cardiology	S-L	-	-	-	-	-	-	7	10	-	-
10. Laboratory	C	-	-	-	-	-	-	-	8	-	-
11. Ultrasound	C	-	-	-	-	-	-	-	15	-	-
12. Dentist	S-L	-	-	-	-	-	-	4	-	-	-
13. Cancer Treatment	S-L	-	-	-	-	-	-	-	1	-	-
14. Emergencies	S-L	-	-	-	-	-	-	-	6	-	-
15. Pharmacy/Drugstore	C-L	-	-	-	-	-	-	1	7	-	-
16. Preventive Medicine	L	-	-	-	-	-	-	-	-	-	-
17. Ophthalmology	S-L	-	-	-	-	-	-	3	-	-	-
18. X Rays	C-L	-	-	-	-	-	-	-	9	-	-
19. Nurse Care	L	-	-	-	-	-	-	-	16	-	-
20. Chemotherapy	CL	-	-	-	-	-	-	-	14	-	-
21. Intensive Therapy	S-L	-	-	-	-	-	-	-	-	-	-
22. Nutrition/Weight	L	-	-	-	-	-	-	-	5	-	-
23. Tomography	C-S	-	-	-	-	-	-	-	-	-	-
24. Electroencephalograph.	C-S	-	-	-	-	-	-	-	-	-	-
25. Traumatology	S-L	-	-	-	-	-	-	-	-	3	-
26. Orthopedics	S-L	-	-	-	-	-	-	-	-	3	-
27. U.C.I.	C-L	-	-	-	-	-	-	6	-	-	-
28. Rehabilitation	S-L	-	-	-	-	-	-	-	-	3	-
29. Medical treatment (special)	S-L	-	-	-	-	-	-	-	-	-	-
30. Drug rehab. (methadone)	S-L	-	-	-	-	-	-	-	-	-	-
40. AIDS treatmnt (alternative)	S-L	-	-	-	-	-	-	-	-	-	-

key:

- C Capital intensive activity.
- S Skill intensive activity.
- L Labour intensive activity.

12. Type of medicine used by NON-RESIDENT patients in Tijuana's hospitals.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Type I (Psychotropic)	●	-	-	●	-	●	-	●	-	●
2. Type II	-	-	-	-	-	●	●	●	●	●
3. Type III	-	-	-	-	-	●	-	●	●	●
4. Other (alternative)	-	-	-	-	-	-	-	-	-	●

13. Payment mechanism used by the NON-RESIDENT patients.

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Cash (full pay)	●	●	-	●	●	●	-	-	-	-
2. Cash (partial pay)	-	-	-	-	-	-	-	●	-	●
3. MEDICARE	-	-	-	-	-	-	-	-	-	-
4. Life Insurance	-	-	-	-	-	-	●	-	-	-
5. Other	-	-	-	-	-	-	COLLECTIVE INSURANCE	-	-	-

14. Location problems with the local planning department.  
(i.e. construction permit, land use permit, etc.)

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES		
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8
1. Yes	-	-	-	-	-	-	-	-	-	-
2. No	●	●	●	●	●	●	●	●	●	●
3. Specify	-	-	-	-	-	-	-	-	-	-

15. Urban services required for a better performance

	1 TO 10 BEDS FACILITY							MORE THAN 20 BEDS FACILITIES			TO TAL
	H7	H6	H3	H2	H1	H4	H9	H10	H5	H8	
<b>Upgrade existing</b>											
1. Public transport	●	●	●	●	-	-	●	-	-	●	6
2. Paved streets	●	●	●	●	-	-	●	●	-	●	7
3. Street lighting	●	●	●	●	-	-	●	●	●	●	8
4. Water	●	●	●	●	-	-	●	●	-	●	7
5. Sewage	●	●	●	●	-	-	●	●	-	●	7
6. Green areas	*	●	●	*	*	*	*	*	●	●	10
7. Public telephones	*	●	●	●	-	*	●	●	-	●	8
8. Rubbish collection	●	●	●	●	-	-	●	●	-	●	7
9. Special rubbish coll	●	●	●	*	-	-	●	●	-	●	7
10. Parking areas	●	●	●	*	*	*	●	●	-	●	9
11. Other	-	-	-	-	-	-	-	-	-	-	
<b>*Non- existing</b>											
12. Public transport	-	-	-	-	-	-	-	-	-	-	
13. Paved streets	-	-	-	-	-	-	-	-	-	-	
14. Street lighting	-	-	-	-	-	-	-	-	-	-	
15. Water	-	-	-	-	-	-	-	-	-	-	
16. Sewage	-	-	-	-	-	-	-	-	-	-	
17. Green areas	●	-	-	●	●	●	●	●	-	-	6
18. Public telephones	●	-	-	-	-	●	-	-	-	-	3
19. Rubbish collection	-	-	-	-	-	-	-	-	-	-	
20. Special rubbish col	-	-	-	●	-	-	-	-	-	-	1
21. Parking areas	-	-	-	●	●	●	-	-	-	-	3
22. Other	-	-	-	-	-	-	-	-	-	-	

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## **APPENDIX 8**

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**CONDENSED INFORMATION FROM THE QUALITATIVE SURVEY**  
**GENERAL INFORMATION**  
**(Información general)**

<b>Total of people surveyed</b>	<b>202</b>	<b>Place of residence</b>	
<b>Mexican origin</b>	<b>175</b>	<b>Tijuana</b>	<b>159</b>
<b>American origin</b>	<b>24</b>	<b>United States</b>	<b>40</b>
<b>South Americans</b>	<b>3</b>	<b>South America</b>	<b>3</b>

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Street survey								
	1	2	3	4	5	6	7	8	
Idioma Ingles o Español (Language, English or Spanish)	3	1	3	6	3	5	4	3	28
Ubicación (Location)	2	2	2	7	2	2	3	5	25
Costo del servicio (Cost of the care)	3	1	2	5	2	4	2	2	23
Relación de tiempo con el medico (Long term physician relationship)	2	1	1	1	1	1	2	3	12
Calidad del servicio (Quality of care)	1	2	2	3	1	1	1	1	12
Conveniencia (Convenience)	1	2	2	4	5	4	5	2	24
Instalaciones / equipo moderno (Modern facilities / equipment)	1	1	1	2	4	3	5	4	21

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Street survey								
	1	2	3	4	5	6	7	8	
Idioma Ingles o Español (Language, English or Spanish)	4	1	2	6	5	5	3	5	31
Ubicación (Location)	1	2	2	7	6	3	4	4	29
Costo del servicio (Cost of the care)	3	1	1	5	2	4	3	1	20
Relación de tiempo con el medico (Long term physician relationship)	2	1	1	2	1	1	1	2	11
Calidad del servicio (Quality of care)	1	2	1	1	2	2	2	3	14
Conveniencia (Convenience)	4	2	2	4	4	4	5	7	32
Instalaciones / equipo moderno (Modern facilities / equipment)	4	2	2	3	3	4	4	6	28



**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Street survey								
	1	2	3	4	5	6	7	8	
Idioma, Inglés o Español (Language, English or Spanish)	3	1	2	3	8	7	5	4	33
Limpieza (Cleanliness)	1	1	1	2	1	2	2	1	11
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	3	1	1	1	4	2	1	1	14
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	2	2	1	1	2	2	1	1	12
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	1	1	1	1	3	2	3	2	14
Equipo actualizado (Up to date equipment)	1	1	1	2	6	3	1	3	18
Perceptividad del médico o del personal (Responsiveness)	1	2	1	1	4	1	4	3	17
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	2	1	1	1	5	5	1	1	17
Instalaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	5	2	1	2	9	4	7	3	33
Instalaciones o edificio nuevo (New facility or building)	4	2	1	2	10	6	6	5	36
Ubicación (Location)	4	1	1	4	7	5	6	6	34

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Street survey								
	1	2	3	4	5	6	7	8	
Mejor que hace dos años (Better than two years ago)	2	1	-	10	10	13	6	7	49
Peor que hace dos años (Worst than two years ago)	-	-	1	1	1	-	-	-	3
Igual que hace dos años (Same as two years ago)	2	-	1	5	2	4	3	1	18
No sabe (Don't know)	7	2	-	25	24	25	30	13	126

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Street survey								
	1	2	3	4	5	6	7	8	
Mejor que hace dos años <i>(Better than two years ago)</i>	1	1	2	11	9	14	6	7	51
Peor que hace dos años <i>(Worst than two years ago)</i>	-	-	-	-	1	-	-	-	1
Igual que hace dos años <i>(Same as two years ago)</i>	4	-	-	4	1	1	2	1	13
No sabe <i>(Don't know)</i>	6	2	-	25	24	26	31	13	127

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL** *(Hospital attributes)*

Atributo (Attribute)	Street survey								
	1	2	3	4	5	6	7	8	
Cuidado en su idioma, Inglés o Español <i>(Care in your language English or Spanish)</i>	2	2	2	1	6	9	6	6	34
Cuidado del paciente <i>(Patient care)</i>	1	1	1	2	1	2	1	2	11
Perceptividad del medico o del personal <i>(Responsiveness)</i>	1	2	1	1	3	5	2	3	18
Buenos médicos <i>(Good doctors)</i>	1	1	1	1	2	3	1	3	13
Reputación <i>(Reputation)</i>	2	2	2	2	4	4	4	4	24
Equipo actualizado <i>(Up to date equipment)</i>	1	3	1	2	7	6	3	8	31
Limpieza <i>(Cleanliness)</i>	2	2	1	2	5	1	1	1	15
Comida adecuada <i>(Adequate food)</i>	3	3	3	4	8	8	8	5	42
Ruidos mínimos <i>(Limited noise)</i>	2	2	1	5	5	7	7	7	36
Cobros claros y rápidos <i>(Prompt and accurate billing)</i>	2	2	1	3	5	5	5	2	25

**7 ATRIBUTOS DEL MÉDICO** *(Physician attributes)*

Atributo (Attribute)	Street survey								
	1	2	3	4	5	6	7	8	
Habilidades de comunicación efectivas <i>(Effective communication skills)</i>	1	1	1	1	1	1	2	1	9
Habilidades clínicas actualizadas <i>(Up to date clinical skills)</i>	3	1	1	2	1	3	1	1	13
Tiempo adecuado con el paciente <i>(Adequate time spent with patient)</i>	2	1	1	2	2	2	2	1	13
Tiempo de espera limitado <i>(Limited waiting time)</i>	1	2	1	3	3	4	4	3	21
Personal de oficina competente <i>(Competent office staff)</i>	1	2	1	2	2	3	3	2	16

**8 SERVICIOS DE EMERGENCIA Y CONSULTA GENERAL***(Emergency service and general consult)*

Atributo (Attribute)	Street survey								
	1	2	3	4	5	6	7	8	
Servicio rapido (Prompt service)	2	1	1	1	1	2	2	3	13
Equipo necesario (Necessary equipment)	3	1	1	1	4	1	1	1	13
Personal profesional (Professional staff)	1	1	1	1	2	1	1	2	10
Preparaciones para niños (Provision for children)	4	-	2	3	3	3	4	1	20
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	1	1	1	2	2	1	3	2	13

**9 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Street survey								
	1	2	3	4	5	6	7	8	
Se le dió información y educación consistente (Being given consistent information and education)	2	-	-	1	1	1	1	1	7
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	1	-	-	2	1	1	1	1	7
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	1	-	-	1	1	1	1	1	6
Perceptividad del personal (Responsiveness of staff)	1	-	-	1	1	1	1	1	6

**10 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Street survey								
	1	2	3	4	5	6	7	8	
Perceptividad del personal (Responsiveness of staff)	1	-	-	1	1	-	-	1	4
Privacía (Privacy)	1	-	-	2	1	-	-	1	5
Comunicación con el paciente y la familia (Communication with patient and family)	1	-	-	1	1	-	-	2	5

**11 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Street survey								
	1	2	3	4	5	6	7	8	
Personal cuidadoso y compadecido (Sympathetic and caring staff)	1	-	-	-	-	-	-	1	2
Entrega de información a pacientes y sus familiares (Information given to patients and family members)	1	-	-	-	-	-	-	1	2
Apoyo a pacientes y sus familiares (Support to patients and family members)	1	-	-	-	-	-	-	1	2

**FICHA DE CONTROL**

SITE NUM \_\_\_\_\_ **1**

TOTAL DE CUESTIONARIOS \_\_\_\_\_ **18**

CUESTIONARIOS CONTESTADOS (Mex\_ **9** U.S. **1** ) Total \_\_\_\_\_ **11**

CUESTIONARIOS NO CONTESTADOS (Mex\_ **1** U.S. **6** ) Total \_\_\_\_\_ **7**

Fecha Agosto 1998

**NACIONALIDAD (Nationality)**  
 Mexicana **9** Americana (American citizen) **1** Otro (Other) **1**

**Grupo de edad (Age group)** **10 - 70 predomina 40 - 50**

**Residencia permanente (Permanent residence)**  
 Tijuana **8** San Diego **2** Otro (Other) **1**

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	6	2	2	1	3	0
Ubicación (Location)	8	2	2	1	1	0
Costo del servicio (Cost of the care)	6	2	2	1	3	0
Relación de tiempo con el medico (Long term physician relationship)	8	2	0	0	3	1
Calidad del servicio (Quality of care)	10	3	1	0	0	0
Conveniencia (Convenience)	10	2	1	1	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	10	3	1	0	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	0	0	1	1	0	0	0	0	3	1	2	1	0	0
Ubicación (Location)	3	0	0	0	1	1	1	0	2	1	1	1	0	0
Costo del servicio (Cost of care)	1	1	0	0	2	1	2	1	0	0	1	0	2	0
Relación de tiempo con el médico (Long term physician relationship)	2	0	1	1	1	0	2	1	1	1	1	0	0	0
Calidad del servicio (Quality of care)	3	2	3	0	2	0	0	0	0	0	1	1	0	0
Conveniencia (Convenience)	0	0	0	0	2	0	2	2	2	0	1	0	2	0
Instalaciones / equipo moderno (Modern facilities / equipment)	0	0	3	1	1	1	2	0	0	0	0	0	1	1

**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	9	2	2	1	0	0
Limpieza (Cleanliness)	11	3	0	0	0	0
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	9	3	2	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	10	2	1	1	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	11	3	0	0	0	0
Equipo actualizado (Up to date equipment)	11	3	0	0	0	0
Perceptividad del médico o del personal (Responsiveness)	11	3	0	0	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	10	3	0	0	0	0
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	6	1	1	1	1	0
Instalaciones o edificio nuevo (New facility or building)	7	2	2	1	2	0
Ubicación (Location)	7	1	2	2	2	0

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	0	0	0	0	2	0
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	0	0	0	0	2	1
No sabe (Don't know)	0	0	0	0	7	2

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	0	0	0	0	1	0
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	0	0	0	0	4	1
No sabe (Don't know)	0	0	0	0	6	2

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	9	2	1	0	1	1
Cuidado del paciente (Patient care)	10	3	0	0	0	0
Perceptividad del medico o del personal (Responsiveness)	10	2	0	0	0	0
Buenos médicos (Good doctors)	10	3	0	0	0	0
Reputación (Reputation)	9	3	1	0	0	0
Equipo actualizado (Up to date equipment)	10	2	1	1	0	0
Limpieza (Cleanliness)	9	2	2	1	0	0
Comida adecuada (Adequate food)	6	1	1	1	0	0
Ruidos mínimos (Limited noise)	9	2	0	0	1	1
Cobros claros y rápidos (Prompt and accurate billing)	9	2	0	0	1	1

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	10	3	0	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	8	1	0	1	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	9	3	0	0	0	0
Tiempo de espera limitado (Limited waiting time)	10	2	0	0	0	0
Personal de oficina competente (Competent office staff)	10	3	0	0	0	0

**8 SERVICIOS DE EMERGENCIA Y CONSULTA GENERAL***(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	6	0	0	0	1	1
Equipo necesario (Necessary equipment)	5	0	1	0	0	0
Personal profesional (Professional staff)	7	1	0	0	0	0
Preparaciones para niños (Provision for children)	1	0	0	0	0	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	7	1	0	0	0	0

**9 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)	1	0	1	0	0	0
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	2	0	0	0	0	0
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	2	0	0	0	0	0
Perceptividad del personal (Responsiveness of staff)	2	0	0	0	0	0

**10 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)	1	0	0	0	0	0
Privacia (Privacy)	1	0	0	0	0	0
Comunicación con el paciente y la familia (Communication with patient and family)	1	0	0	0	0	0

**11 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)	1	1	0	0	0	0
Entrega de información a pacientes y sus familiares (Information given to patients and family members)	1	1	0	0	0	0
Apoyo a pacientes y sus familiares (Support to patients and family members)	1	1	0	0	0	0

**FICHA DE CONTROL**

<b>SITE NUM</b> <u>  2  </u>	
<b>TOTAL DE CUESTIONARIOS</b> <u>  3  </u>	
CUESTIONARIOS CONTESTADOS (Mex <u>  3  </u> U.S. <u>  0  </u> )	<b>Total</b> <u>  3  </u>
CUESTIONARIOS NO CONTESTADOS (Mex <u>  0  </u> U.S. <u>  0  </u> )	<b>Total</b> <u>  0  </u>
Fecha Agosto 1998	
<b>NACIONALIDAD</b> ( <i>Nationality</i> )	
Mexicana <u>  3  </u> Americana ( <i>American citizen</i> ) <u>  0  </u> Otro ( <i>Other</i> ) <u>  0  </u>	
<b>Grupo de edad</b> ( <i>Age group</i> ) <u>  20 - 40  </u>	
<b>Residencia permanente</b> ( <i>Permanent residence</i> )	
Tijuana <u>  3  </u> San Diego <u>          </u> Otro ( <i>Other</i> ) <u>          </u>	

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	3	0	0	0	0	0
Ubicación (Location)	2	0	1	0	0	0
Costo del servicio (Cost of the care)	3	0	0	0	0	0
Relación de tiempo con el medico (Long term physician relationship)	3	0	0	0	0	0
Calidad del servicio (Quality of care)	2	0	0	0	0	0
Conveniencia (Convenience)	2	0	1	0	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	3	0	0	0	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	1	0	0	0	0	0	1	0	0	0	1	0	0	0
Ubicación (Location)	0	0	0	0	1	0	0	0	2	0	0	0	0	0
Costo del servicio (Cost of care)	1	0	1	0	0	0	1	0	0	0	0	0	0	0
Relación de tiempo con el médico (Long term physician relationship)	1	0	0	0	1	0	0	0	1	0	0	0	0	0
Calidad del servicio (Quality of care)	0	0	2	0	0	0	1	0	0	0	0	0	0	0
Conveniencia (Convenience)	0	0	0	0	1	0	0	0	0	0	0	0	2	0
Instalaciones / equipo moderno (Modern facilities / equipment)	0	0	0	0	0	0	0	0	0	0	2	0	1	0



**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	3	0	0	0	0	0
Limpieza (Cleanliness)	3	0	0	0	0	0
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	3	0	0	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	2	0	1	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	3	0	0	0	0	0
Equipo actualizado (Up to date equipment)	3	0	0	0	0	0
Perceptividad del médico o del personal (Responsiveness)	2	0	1	0	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	3	0	0	0	0	0
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	2	0	1	0	0	0
Instalaciones o edificio nuevo (New facility or building)	2	0	1	0	0	0
Ubicación (Location)	3	0	0	0	0	0

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	0	0	0	0	1	0
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	0	0	0	0	0	0
No sabe (Don't know)	0	0	0	0	2	0

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	0	0	0	0	1	0
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	0	0	0	0	0	0
No sabe (Don't know)	0	0	0	0	2	0

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	2	0	1	0	0	0
Cuidado del paciente (Patient care)	3	0	0	0	0	0
Perceptividad del medico o del personal (Responsiveness)	2	0	1	0	0	0
Buenos médicos (Good doctors)	3	0	0	0	0	0
Reputación (Reputation)	2	0	1	0	0	0
Equipo actualizado (Up to date equipment)	1	0	2	0	0	0
Limpieza (Cleanliness)	2	0	1	0	0	0
Comida adecuada (Adequate food)	1	0	1	0	0	0
Ruidos mínimos (Limited noise)	2	0	1	0	0	0
Cobros claros y rápidos (Prompt and accurate billing)	2	0	1	0	0	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	3	0	0	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	3	0	0	0	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	3	0	0	0	0	0
Tiempo de espera limitado (Limited waiting time)	2	0	1	0	0	0
Personal de oficina competente (Competent office staff)	2	0	1	0	0	0

**8 SERVICIOS DE EMERGENCIA (Emergency service)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	1	0	0	0	0	0
Equipo necesario (Necessary equipment)	1	0	0	0	0	0
Personal profesional (Professional staff)	1	0	0	0	0	0
Preparaciones para niños (Provision for children)	0	0	0	0	0	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	1	0	0	0	0	0

**9 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)						
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)						
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)						
Perceptividad del personal (Responsiveness of staff)						

**10 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)						
Privacía (Privacy)						
Comunicación con el paciente y la familia (Communication with patient and family)						

**11 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)						
Entrega de información a pacientes y sus familiares (Information given to patients and family members)						
Apoyo a pacientes y sus familiares (Support to patients and family members)						

**FICHA DE CONTROL**

SITE NUM   3  

TOTAL DE CUESTIONARIOS   4  

CUESTIONARIOS CONTESTADOS (Mex   3   U.S.   0  ) Total   3  

CUESTIONARIOS NO CONTESTADOS (Mex   1   U.S.   0  ) Total   1  

Fecha Agosto 1998

**NACIONALIDAD** (*Nationality*)

Mexicana   4   Americana (*American citizen*)   0   Otro (*Other*)   0  

**Grupo de edad** (*Age group*)   10 - 60  

**Residencia permanente** (*Permanent residence*)

Tijuana   2   San Diego   1   Otro (*Other*)   1   L.A.

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	1		1		1	
Ubicación (Location)	2		0	0	1	
Costo del servicio (Cost of the care)	2		0	0	1	
Relación de tiempo con el medico (Long term physician relationship)	3		0	0	0	0
Calidad del servicio (Quality of care)	2		0	0	0	0
Conveniencia (Convenience)	3		0	0	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	3		0	0	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	0	0	1		0	0	1		0	0	0	0	1	
Ubicación (Location)	0	0	1		2		0	0	0	0	0	0	0	0
Costo del servicio (Cost of care)	1		0	0	0	0	0	0	1		1		0	0
Relación de tiempo con el médico (Long term physician relationship)	1		0	0	1	0	1	0	0	0	0	0	0	0
Calidad del servicio (Quality of care)	1		0	0	0	0	0	0	1		0	0	1	
Conveniencia (Convenience)	0	0	0	0	0	0	0	0	1		2		0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	0	0	1		0	0	1		0	0	0	0	1	

**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	0	0	1		2	
Limpieza (Cleanliness)	3		0	0	0	0
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	3		0	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	3		0	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	3		0	0	0	0
Equipo actualizado (Up to date equipment)	3		0	0	0	0
Perceptividad del médico o del personal (Responsiveness)	3		0	0	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	3		0	0	0	0
Instalaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	3		0	0	0	0
Instalaciones o edificio nuevo (New facility or building)	3		0	0	0	0
Ubicación (Location)	3		0	0	0	0

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	3		0	0	0	0
Peor que hace dos años (Worst than two years ago)	0	0	0	0	1	
Igual que hace dos años (Same as two years ago)	0	0	0	0	1	
No sabe (Don't know)	0	0	0	0	0	0

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	1		0	0	2	
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	0	0	0	0	0	0
No sabe (Don't know)	0	0	0	0	0	0

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	2		0	0	1	
Cuidado del paciente (Patient care)	3		0	0	0	0
Perceptividad del medico o del personal (Responsiveness)	3		0	0	0	0
Buenos médicos (Good doctors)	3		0	0	0	0
Reputación (Reputation)	2		1		0	0
Equipo actualizado (Up to date equipment)	3		0	0	0	0
Limpieza (Cleanliness)	3		0	0	0	0
Comida adecuada (Adequate food)	1		0	0	1	
Ruidos mínimos (Limited noise)	3		0	0	0	0
Cobros claros y rápidos (Prompt and accurate billing)	3		0	0	0	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	3		0	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	3		0	0	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	3		0	0	0	0
Tiempo de espera limitado (Limited waiting time)	3		0	0	0	0
Personal de oficina competente (Competent office staff)	3		0	0	0	0

**9 SERVICIOS DE EMERGENCIA Y CONSULTA GENERAL**

*(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	3					
Equipo necesario (Necessary equipment)	3					
Personal profesional (Professional staff)	3					
Preparaciones para niños (Provision for children)	1					
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	3					

**10 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)						
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)						
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)						
Perceptividad del personal (Responsiveness of staff)						

**11 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)						
Privacía (Privacy)						
Comunicación con el paciente y la familia (Communication with patient and family)						

**12 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)						
Entrega de información a pacientes y sus familiares (Information given to patients and family members)						
Apoyo a pacientes y sus familiares (Support to patients and family members)						

**FICHA DE CONTROL**

SITE NUM   4    
 TOTAL DE CUESTIONARIOS   48    
 CUESTIONARIOS CONTESTADOS (Mex  33  U.S.   9 ) Total  42   
 CUESTIONARIOS NO CONTESTADOS (Mex   5  U.S.   1 ) Total   6   
 Fecha Agosto 1998

**NACIONALIDAD** (*Nationality*)  
 Mexicana  38  Americana (*American citizen*)  10  Otro (*Other*)   0   
**Grupo de edad** (*Age group*)   15-60  predomina 30-45  
**Residencia permanente** (*Permanent residence*)  
 Tijuana  36  San Diego   5  Otro (*Other*)   1  L.A.

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	32	7	6	2	4	0
Ubicación (Location)	24	5	9	2	8	2
Costo del servicio (Cost of the care)	37	8	6	3	0	0
Relación de tiempo con el medico (Long term physician relationship)	42	9	0	0	0	0
Calidad del servicio (Quality of care)	40	9	1	0	0	0
Conveniencia (Convenience)	38	9	2	0	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	41	9	0	0	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)													
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Idioma Inglés o Español (Language, English or Spanish)	22	5	1	0	0	0	0	0	5	1	5	1	7	2
Ubicación (Location)	15	3	7	2	1	0	0	0	2	1	5	2	11	1
Costo del servicio (Cost of care)	24	5	6	1	1	0	0	0	5	1	5	2	0	0
Relación de tiempo con el médico (Long term physician relationship)	27	7	6	1	1	0	4	1	0	0	0	0	0	0
Calidad del servicio (Quality of care)	38	8	1	1	1	0	4	0	1	0	0	0	0	0
Conveniencia (Convenience)	25	5	8	1	3	2	5	1	0	0	0	0	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	26	6	2	1	4	1	4	1	5	0	0	0	0	0



**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	34	7	1	1	4	0
Limpieza (Cleanliness)	40	8	0	0	1	1
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	41	9	0	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	41	9	0	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	41	9	0	0	0	0
Equipo actualizado (Up to date equipment)	40	8	1	1	0	0
Perceptividad del médico o del personal (Responsiveness)	41	9	0	0	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	41	9	0	0	0	0
Insatalaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	40	8	1	1	0	0
Instalaciones o edificio nuevo (New facility or building)	40	8	1	1	0	0
Ubicación (Location)	27	6	10	2	4	1

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	4	1	7	3	10	3
Peor que hace dos años (Worst than two years ago)	0	0	0	0	1	1
Igual que hace dos años (Same as two years ago)	4	0	5	0	5	0
No sabe (Don't know)	0	0	0	0	25	6

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	3	1	9	3	11	3
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	4	0	4	0	4	0
No sabe (Don't know)	0	0	0	0	25	6

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	42	9	0	0	0	0
Cuidado del paciente (Patient care)	41	9	1	0	0	0
Perceptividad del medico o del personal (Responsiveness)	42	9	0	0	0	0
Buenos médicos (Good doctors)	42	9	0	0	0	0
Reputación (Reputation)	41	9	0	0	0	0
Equipo actualizado (Up to date equipment)	41	8	1	1	0	0
Limpieza (Cleanliness)	41	9	1	0	0	0
Comida adecuada (Adequate food)	33	5	5	3	0	0
Ruidos mínimos (Limited noise)	24	6	10	3	3	0
Cobros claros y rápidos (Prompt and accurate billing)	40	9	2	0	0	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	42	9	0	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	41	8	0	0	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	41	9	0	0	0	0
Tiempo de espera limitado (Limited waiting time)	40	10	0	0	0	0
Personal de oficina competente (Competent office staff)	41	9	0	0	0	0

**9 SERVICIOS DE CONSULTA GENERAL Y EMERGENCIA**

*(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	15	3	0	0	0	0
Equipo necesario (Necessary equipment)	15	3	0	0	0	0
Personal profesional (Professional staff)	15	3	0	0	0	0
Preparaciones para niños (Provision for children)	13	3	0	0	0	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	14	3	1	0	0	0

**10 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)	6	2	0	0	0	0
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	5	1	0	0	0	0
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	6	2	0	0	0	0
Perceptividad del personal (Responsiveness of staff)	6	2	0	0	0	0

**11 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)	11	2	0	0	0	0
Privacía (Privacy)	10	2	0	0	0	0
Comunicación con el paciente y la familia (Communication with patient and family)	11	2	0	0	0	0

**12 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)						
Entrega de información a pacientes y sus familiares (Information given to patients and family members)						
Apoyo a pacientes y sus familiares (Support to patients and family members)						

**FICHA DE CONTROL**

SITE NUM 5

TOTAL DE CUESTIONARIOS 47

CUESTIONARIOS CONTESTADOS (Mex 35 U.S. 3 ) Total 39

CUESTIONARIOS NO CONTESTADOS (Mex 8 U.S. 0 ) Total 8

Fecha Agosto 1999

**NACIONALIDAD** (*Nationality*)  
 Mexicana 35 Americana (*American citizen*) 3 Otro (*Other*) 1 (*Puerto Rico*)

**Grupo de edad** (*Age group*) 19 - 60 predomina 40's

**Residencia permanente** (*Permanent residence*)  
 Tijuana 34 San Diego 3 Otro (*Other*) 2 (no especificado)

**131. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	27	4	10	0	2	2
Ubicación (Location)	28	5	15	0	0	0
Costo del servicio (Cost of the care)	28	5	9	1	0	0
Relación de tiempo con el medico (Long term physician relationship)	33	6	6	0	0	0
Calidad del servicio (Quality of care)	33	4	6	0	0	0
Conveniencia (Convenience)	25	6	13	0	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	26	4	13	2	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

*(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	7	1	6	1	4	0	2	0	2	0	5	3	9	1
Ubicación (Location)	6	0	5	1	3	1	3	1	6	1	7	0	6	1
Costo del servicio (Cost of care)	14	0	5	2	3	1	5	1	8	2	2	0	2	0
Relación de tiempo con el médico (Long term physician relationship)	20	2	14	3	2	1	1	0	1	0	1	0	0	0
Calidad del servicio (Quality of care)	14	1	9	1	9	0	4	2	1	0	0	0	2	2
Conveniencia (Convenience)	8	2	9	1	3	1	7	1	7	1	3	0	1	0
Instalaciones / equipo moderno (Modern facilities / equipment)	10	1	4	0	6	1	6	0	5	1	6	1	3	1

**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	23	4	13	2	1	0
Limpieza (Cleanliness)	36	6	1	0	0	0
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	32	6	4	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	35	6	2	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	34	6	4	0	0	0
Equipo actualizado (Up to date equipment)	27	3	9	3	0	0
Perceptividad del médico o del personal (Responsiveness)	32	6	5	0	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	29	5	8	1	0	0
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	22	4	15	2	0	0
Instalaciones o edificio nuevo (New facility or building)	20	3	15	3	2	0
Ubicación (Location)	25	3	11	3	1	0

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	8	0	9	0	10	0
Peor que hace dos años (Worst than two years ago)	1	0	1	0	1	0
Igual que hace dos años (Same as two years ago)	3	0	2	0	2	0
No sabe (Don't know)	0	0	0	0	24	6

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	8	0	9	0	9	0
Peor que hace dos años (Worst than two years ago)	1	0	1	0	1	0
Igual que hace dos años (Same as two years ago)	2	0	1	0	1	0
No sabe (Don't know)	0	0	0	0	24	6

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	25	3	10	3	0	0
Cuidado del paciente (Patient care)	33	6	2	0	0	0
Perceptividad del medico o del personal (Responsiveness)	29	4	5	1	0	0
Buenos médicos (Good doctors)	30	5	5	1	0	0
Reputación (Reputation)	28	3	7	3	0	0
Equipo actualizado (Up to date equipment)	22	5	13	1	0	0
Limpieza (Cleanliness)	26	4	9	2	0	0
Comida adecuada (Adequate food)	21	4	12	1	0	0
Ruidos mínimos (Limited noise)	26	1	8	4	0	0
Cobros claros y rápidos (Prompt and accurate billing)	26	3	9	3	0	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	35	6	0	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	35	6	1	0	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	30	6	5	0	0	0
Tiempo de espera limitado (Limited waiting time)	27	3	8	3	0	0
Personal de oficina competente (Competent office staff)	30	5	5	1	0	0

**8 SERVICIOS DE CONSULTA GENERAL Y EMERGENCIA**

*(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	32	4	2	2	0	0
Equipo necesario (Necessary equipment)	23	4	10	2	1	0
Personal profesional (Professional staff)	30	5	4	1	0	0
Preparaciones para niños (Provision for children)	27	5	4	1	1	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	30	5	4	1	0	0

**9 CUIDADOS DE OBSTETRICIA** *(Obstetrical care)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)	1	1	0	0	0	0
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	1	1	0	0	0	0
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	1	1	0	0	0	0
Perceptividad del personal (Responsiveness of staff)	1	1	0	0	0	0

**10 CIRUGÍA MENOR** *(Outpatient surgery)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)	1	0	0	0	0	0
Privacía (Privacy)	1	0	0	0	0	0
Comunicación con el paciente y la familia (Communication with patient and family)	1	0	0	0	0	0

**11 ONCOLOGÍA** *(Oncology care)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)						
Entrega de información a pacientes y sus familiares (Information given to patients and family members)						
Apoyo a pacientes y sus familiares (Support to patients and family members)						

**FICHA DE CONTROL**

SITE NUM   6    
 TOTAL DE CUESTIONARIOS   47    
 CUESTIONARIOS CONTESTADOS (Mex   39   U.S.   3  ) Total   43    
 CUESTIONARIOS NO CONTESTADOS (Mex   4   U.S.   0  ) Total   4    
 Fecha Agosto 1998

**NACIONALIDAD (Nationality)**  
 Mexicana   39   Americana (American citizen)   3   Otro (Other)   1    
**Grupo de edad (Age group)**   18 - 65 predomina 20-40    
**Residencia permanente (Permanent residence)**  
 Tijuana   30   San Diego   7   Otro (Other)   5   L.A. + 1 Riverside

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	30	9	10	3	3	2
Ubicación (Location)	39	12	4	2	1	1
Costo del servicio (Cost of the care)	32	13	5	1	0	0
Relación de tiempo con el medico (Long term physician relationship)	40	14	2	0	1	0
Calidad del servicio (Quality of care)	40	14	3	0	0	0
Conveniencia (Convenience)	32	11	10	3	1	0
Instalaciones / equipo moderno (Modern facilities / equipment)	33	12	9	1	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7) (Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)**

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	3	2	4	3	4	0	4	1	4	0	10	3	14	5
Ubicación (Location)	9	3	2	1	5	1	12	4	3	2	7	0	3	2
Costo del servicio (Cost of care)	7	3	12	4	13	4	1	0	5	3	4	0	1	0
Relación de tiempo con el médico (Long term physician relationship)	22	8	7	1	2	1	2	1	4	1	4	2	2	0
Calidad del servicio (Quality of care)	16	5	10	3	7	2	5	2	2	0	1	1	2	1
Conveniencia (Convenience)	7	4	2	1	5	3	6	2	12	3	5	1	6	0
Instalaciones / equipo moderno (Modern facilities / equipment)	7	3	5	1	4	0	7	1	6	2	5	3	7	3



**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	25	7	14	5	2	2
Limpieza (Cleanliness)	40	13	1	0	1	1
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	40	14	2	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	40	14	2	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	40	14	2	0	0	0
Equipo actualizado (Up to date equipment)	39	13	3	1	0	0
Perceptividad del médico o del personal (Responsiveness)	41	14	1	0	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	37	13	1	1	0	0
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	38	14	1	0	0	0
Instalaciones o edificio nuevo (New facility or building)	35	12	7	2	0	0
Ubicación (Location)	37	13	5	0	0	0

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	5	3	4	3	13	6
Peor que hace dos años (Worst than two years ago)	1	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	3	1	2	1	4	2
No sabe (Don't know)	2	1	2	1	25	6

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	5	2	3	2	14	7
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	0	0	0	0	1	0
No sabe (Don't know)	3	2	3	2	26	7

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	32	11	9	3	0	0
Cuidado del paciente (Patient care)	40	13	3	1	0	0
Perceptividad del medico o del personal (Responsiveness)	39	13	1	2	1	0
Buenos médicos (Good doctors)	40	13	2	1	0	0
Reputación (Reputation)	40	14	2	0	0	0
Equipo actualizado (Up to date equipment)	38	13	3	0	0	0
Limpieza (Cleanliness)	41	14	1	0	0	0
Comida adecuada (Adequate food)	33	12	1	1	0	0
Ruidos mínimos (Limited noise)	34	11	9	3	0	0
Cobros claros y rápidos (Prompt and accurate billing)	39	14	3	0	0	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	42	14	1	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	40	13	2	1	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	41	14	1	0	1	0
Tiempo de espera limitado (Limited waiting time)	35	12	7	2	0	0
Personal de oficina competente (Competent office staff) <sup>40</sup>	40	13	1	0	0	0

**9 SERVICIOS DE CONSULTA GENERAL Y EMERGENCIA**

*(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	40	14	1	0	0	0
Equipo necesario (Necessary equipment)	41	14	0	0	0	0
Personal profesional (Professional staff)	41	14	0	0	0	0
Preparaciones para niños (Provision for children)	27	9	1	0	0	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	41	14	0	0	0	0

**10 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)	3	1	0	0	0	0
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	3	1	0	0	0	0
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	3	1	0	0	0	0
Perceptividad del personal (Responsiveness of staff)	3	1	0	0	0	0

**11 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)						
Privacia (Privacy)						
Comunicación con el paciente y la familia (Communication with patient and family)						

**12 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)						
Entrega de información a pacientes y sus familiares (Information given to patients and family members)						
Apoyo a pacientes y sus familiares (Support to patients and family members)						

**FICHA DE CONTROL**

SITE NUM 7

TOTAL DE CUESTIONARIOS 47

CUESTIONARIOS CONTESTADOS (Mex 37 U.S. 0 ) Total 40

CUESTIONARIOS NO CONTESTADOS (Mex 7 U.S. 0 ) Total 7

Fecha Agosto 1998

**NACIONALIDAD (Nationality)**

Mexicana 37 Americana (American citizen) 0 Otro (Other) 3 (Guatemala, Salvador, Perú)

**Grupo de edad (Age group)** 11 - 60 predomina 20-40

**Residencia permanente (Permanent residence)**

Tijuana 30 San Diego 7 Otro (Other) 3 (Guatemala, Salvador, Perú)

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

(How important are the following factors in influencing your decision about where to go for health care?)

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	29	7	7	3	4	0
Ubicación (Location)	32	9	8	1	0	0
Costo del servicio (Cost of the care)	35	7	3	3	1	0
Relación de tiempo con el medico (Long term physician relationship)	35	9	5	1	0	0
Calidad del servicio (Quality of care)	37	8	2	2	0	0
Conveniencia (Convenience)	27	7	12	2	1	1
Instalaciones / equipo moderno (Modern facilities / equipment)	27	6	13	4	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7)**

(Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	6	4	4	1	2	1	5	1	9	0	3	0	11	3
Ubicación (Location)	2	1	4	3	4	0	9	1	10	2	6	1	3	1
Costo del servicio (Cost of care)	6	1	13	4	12	3	4	0	3	1	1	0	1	1
Relación de tiempo con el médico (Long term physician relationship)	16	2	8	2	7	5	4	1	2	0	0	0	3	0
Calidad del servicio (Quality of care)	11	4	9	0	10	0	6	5	1	0	3	1	0	0
Conveniencia (Convenience)	1	1	1	1	1	0	5	1	8	4	17	3	7	0
Instalaciones / equipo moderno (Modern facilities / equipment)	2	1	2	0	3	0	6	0	6	2	8	4	13	3

**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	27	8	6	1	7	1
Limpieza (Cleanliness)	38	9	1	0	0	0
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	39	9	0	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	39	9	0	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	37	9	2	0	0	0
Equipo actualizado (Up to date equipment)	39	9	0	0	0	0
Perceptividad del médico o del personal (Responsiveness)	34	8	5	1	0	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	39	9	0	0	0	0
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	14	3	0	0	0	0
Instalaciones o edificio nuevo (New facility or building)	23	6	11	2	2	0
Ubicación (Location)	23	5	14	3	2	1

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	1	0	1	0	6	3
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	2	1	4	1	3	0
No sabe (Don't know)	0	0	0	0	30	6

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	1	0	1	0	6	3
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	1	0	2	0	2	0
No sabe (Don't know)	1	0	1	0	31	6

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	27	5	11	3	1	1
Cuidado del paciente (Patient care)	38	9	1	0	0	0
Perceptividad del medico o del personal (Responsiveness)	37	9	2	0	0	0
Buenos médicos (Good doctors)	38	8	1	1	0	0
Reputación (Reputation)	34	7	5	2	0	0
Equipo actualizado (Up to date equipment)	35	8	4	1	0	0
Limpieza (Cleanliness)	38	8	1	1	0	0
Comida adecuada (Adequate food)	7	2	1	0	0	0
Ruidos mínimos (Limited noise)	17	5	10	0	0	0
Cobros claros y rápidos (Prompt and accurate billing)	28	9	10	0	1	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	36	8	3	1	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	39	9	0	0	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	36	8	3	1	0	0
Tiempo de espera limitado (Limited waiting time)	15	4	23	5	1	0
Personal de oficina competente (Competent office staff)	34	9	5	0	0	0

**8 SERVICIOS DE CONSULTA GENERAL Y EMERGENCIA***(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	31	6	1	0	0	0
Equipo necesario (Necessary equipment)	32	6	0	0	0	0
Personal profesional (Professional staff)	32	6	0	0	0	0
Preparaciones para niños (Provision for children)	20	4	5	3	0	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	23	5	9	1	0	0

**9 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)	1	1	0	0	0	0
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	1	1	0	0	0	0
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	1	1	0	0	0	0
Perceptividad del personal (Responsiveness of staff)	1	1	0	0	0	0

**10 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)						
Privacía (Privacy)						
Comunicación con el paciente y la familia (Communication with patient and family)						

**11 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)						
Entrega de información a pacientes y sus familiares (Information given to patients and family members)						
Apoyo a pacientes y sus familiares (Support to patients and family members)						

**FICHA DE CONTROL**

SITE NUM 8

TOTAL DE CUESTIONARIOS 27

CUESTIONARIOS CONTESTADOS (Mex 16 U.S. 5 ) Total 21

CUESTIONARIOS NO CONTESTADOS (Mex 6 U.S. 0 ) Total 6

Fecha Agosto 1998

**NACIONALIDAD** (*Nationality*)  
 Mexicana 16 Americana (*American citizen*) 5 Otro (*Other*) 0

**Grupo de edad** (*Age group*) 15 - 55 predomina 20 - 30

**Residencia permanente** (*Permanent residence*)  
 Tijuana 16 San Diego 1 Otro (*Other*) 4 (U.S.A. no especificado)

**I. FACTORES CUANTITATIVOS (QUANTITATIVE FACTORS)**

**1 ¿QUE TAN IMPORTANTES Y QUE TANTA INFLUENCIA TUVIERON LOS SIGUIENTES FACTORES EN LA TOMA DE DECISIONES SOBRE A DONDE IR PARA RECIBIR SERVICIOS MEDICOS?**

*(How important are the following factors in influencing your decision about where to go for health care?)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma Ingles o Español (Language, English or Spanish)	15	3	1	1	5	2
Ubicación (Location)	8	2	11	4	2	0
Costo del servicio (Cost of the care)	18	4	2	2	1	0
Relación de tiempo con el medico (Long term physician relationship)	15	4	2	2	4	0
Calidad del servicio (Quality of care)	20	5	1	1	0	0
Conveniencia (Convenience)	18	6	2	0	0	0
Instalaciones / equipo moderno (Modern facilities / equipment)	14	5	6	1	0	0

**2 ¿CUAL FACTOR ES EL MAS IMPORTANTE PARA USTED EN SU DECISIÓN SOBRE A DONDE IR PARA RECIBIR SERVICIO MÉDICO? (enumere en orden de importancia del 1 al 7) (Which is most important to you in your decision on where to go for health care? use numbers from 1 to 7 in order of importance)**

Factor (Factor)	Valor (Value)													
	1		2		3		4		5		6		7	
Idioma Inglés o Español (Language, English or Spanish)	2	2	0	0	4	1	5	1	2	0	3	1	5	1
Ubicación (Location)	3	0	3	1	4	1	1	0	5	1	6	1	2	2
Costo del servicio (Cost of care)	9	2	6	1	2	1	1	1	1	1	0	0	1	0
Relación de tiempo con el médico (Long term physician relationship)	5	1	4	1	1	1	4	1	5	2	0	0	1	0
Calidad del servicio (Quality of care)	4	1	7	2	3	1	3	1	1	0	3	0	0	0
Conveniencia (Convenience)	0	0	0	0	1	0	4	1	2	1	5	1	9	3
Instalaciones / equipo moderno (Modern facilities / equipment)	1	0	1	0	6	1	3	1	5	1	3	3	2	0



**3 ¿QUE TAN IMPORTANTE ES CADA VARIABLE PARA DETERMINAR LA CALIDAD DEL HOSPITAL O DEL MÉDICO? (ENUMERE EN ORDEN DE IMPORTANCIA DEL 1 AL 7)**

*(How important is each variable in determining the quality of a hospital or doctor? use numbers from 1 to 7 in order of importance)*

Factor (Factor)	Valor (Value)					
	Muy importante (Very important)		Medio importante (Fairly important)		No importante (Not important)	
Idioma, Inglés o Español (Language, English or Spanish)	11	3	6	1	4	2
Limpieza (Cleanliness)	21	6	0	0	0	0
Educación y entrenamiento del médico o del personal (Education and training of the physician or staff)	21	6	0	0	0	0
Conocimientos del médico o del personal (Medical knowledge of the physician or staff)	21	6	0	0	0	0
Explicaciones del personal en términos entendibles (Explanations by staff in understandable terms)	19	6	2	0	0	0
Equipo actualizado (Up to date equipment)	16	5	5	1	0	0
Perceptividad del médico o del personal (Responsiveness)	16	4	3	2	1	0
Comportamiento durante el tratamiento o comunicación interpersonal (Bedside manner or interpersonal communication)	21	6	0	0	0	0
Insatallaciones y accesorios, como el cuarto y la comida (Amenities such as food and room)	16	4	3	1	1	0
Instalaciones o edificio nuevo (New facility or building)	10	4	8	2	3	0
Ubicación (Location)	6	2	13	4	2	0

**4 ¿CÓMO COMPARARÍA LA CALIDAD DEL CUIDADO MÉDICO CON LA DE HACE DOS AÑOS?**

*(How does the quality of physician care compares to two years ago?)*

Valor (Value)	Calidad relativa del cuidado médico (Relative quality of physician care)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	2	0	2	0	7	1
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	1	0	1	0	1	0
No sabe (Don't know)	2	0	2	0	13	5

**5 ¿CÓMO COMPARARÍA LA CALIDAD DEL HOSPITAL (CLÍNICA) CON LA DE HACE DOS AÑOS?**

*(How does the quality of hospital (clinic) care compares to two years ago?)*

Valor (Value)	Calidad relativa del hospital (clínica) (Relative quality of hospital or clinic)					
	1996		1997		1998	
Mejor que hace dos años (Better than two years ago)	2	0	2	0	7	1
Peor que hace dos años (Worst than two years ago)	0	0	0	0	0	0
Igual que hace dos años (Same as two years ago)	1	0	1	0	1	0
No sabe (Don't know)	2	0	2	0	13	5

**II. FACTORES CUALITATIVOS  
(QUALITATIVE FACTORS)**

**6 ATRIBUTOS DEL HOSPITAL (Hospital attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy buena (Very good)		Medio buena (Fairly good)		No buena (Not good)	
Cuidado en su idioma, Inglés o Español (Care in your language English or Spanish)	13	3	6	2	1	0
Cuidado del paciente (Patient care)	19	6	2	0	0	0
Perceptividad del medico o del personal (Responsiveness)	18	6	2	0	1	0
Buenos médicos (Good doctors)	18	6	2	0	1	0
Reputación (Reputation)	17	4	4	2	0	0
Equipo actualizado (Up to date equipment)	3	4	5	2	1	0
Limpieza (Cleanliness)	21	6	0	0	0	0
Comida adecuada (Adequate food)	16	3	4	2	0	0
Ruidos mínimos (Limited noise)	10	5	8	0	2	1
Cobros claros y rápidos (Prompt and accurate billing)	19	6	2	0	0	0

**7 ATRIBUTOS DEL MÉDICO (Physician attributes)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Habilidades de comunicación efectivas (Effective communication skills)	18	6	3	0	0	0
Habilidades clínicas actualizadas (Up to date clinical skills)	18	5	3	1	0	0
Tiempo adecuado con el paciente (Adequate time spent with patient)	18	5	3	1	0	0
Tiempo de espera limitado (Limited waiting time)	15	4	5	2	1	0
Personal de oficina competente (Competent office staff)	16	5	5	2	1	0

**8 SERVICIOS DE CONSULTA GENERAL Y EMERGENCIA***(General consult and emergency service)*

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Servicio rapido (Prompt service)	8	1	2	0	1	0
Equipo necesario (Necessary equipment)	10	1	0	0	1	0
Personal profesional (Professional staff)	9	1	2	0	0	0
Preparaciones para niños (Provision for children)	10	1	1	0	0	0
Enfasis en el cuidado y no en el dinero (Emphasis on care, not money)	9	1	2	0	0	0

**9 CUIDADOS DE OBSTETRICIA (Obstetrical care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Se le dió información y educación consistente (Being given consistent information and education)	2	1	0	0	0	0
Se le trató de manera única o como individuo (Being treated uniquely or as an individual)	2	1	0	0	0	0
Conocimiento clínico adecuado de parte del personal de obstetricia (Adequate clinical knowledge on the part of obstetrical staff)	2	1	0	0	0	0
Perceptividad del personal (Responsiveness of staff)	2	1	0	0	0	0

**10 CIRUGÍA MENOR (Outpatient surgery)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Perceptividad del personal (Responsiveness of staff)	6	2	0	0	0	0
Privacía (Privacy)	6	2	0	0	0	0
Comunicación con el paciente y la familia (Communication with patient and family)	5	2	1	0	0	0

**11 ONCOLOGÍA (Oncology care)**

Atributo (Attribute)	Valor (Value)					
	Muy bueno (Very good)		Medio bueno (Fairly good)		No bueno (Not good)	
Personal cuidadoso y compadecido (Sympathetic and caring staff)	1	1	0	0	0	0
Entrega de información a pacientes y sus familiares (Information given to patients and family members)	1	1	0	0	0	0
Apoyo a pacientes y sus familiares (Support to patients and family members)	1	1	0	0	0	0

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## APPENDIX 9

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Average cost of private medical services in Tijuana during 1996-97  
(all costs are in U.S. dollars)

	General consult	Cardiology consult (includes electro cardiogram)	Urology consult	Normal delivery	Cesarea (two day hospitalization) does not include honoraries	Ultrasound for pregnant women
1.- Hospital Morelia Calle 4a. 1239 Zona Centro	25.00					
2.- Hospital de la Mujer y del Niño Diego Rivera 2312 Zona Rio Tijuana				385.00	700.00	
3.- Hospital del Prado Bugambillas 23 Fracc. del Prado		130.00	30.00			
4.- Hospital Notre Dame Brasilia 1 Col. el Paraiso					800.00	
5.- Clinica Excelsior Calle 6a. 2843 Zona centro.				400.00		
6.- Clinica Leipzig Paseo de ls Heroes 9188 Zona Rio Tijuana	30.00					
7.- Clinica del Dr. Heredia Blvd Diaz Ordaz y carretera a la Presa La Mesa	5.00					
8.- Unidad de Gastroenterologia y Proctologia Centro Medico Lucerna G.Gedovius 7 Zona Rio Tijuana	25.00					50.00

9.- Centro Oncologico de Tijuana Gral. Ferreira 2250 Col Cacho	30.00						
10.- Centro de Diagnostico Integral San Francisco Calle 3a, 7428 Zona centro						23.75	
11.- Radiologia e Imagen Calle 4a. 7983 Zona centro						30.00	
12.- Rayos x y ultrasonido Calle 4a. 7443 Zona centro						25.00	

\* Hospital de la Mujer y del Niño

**CESAREA**

2 days hospitalization  
Accessories and pharmaceuticals (average)  
Honoraries  
Gynecologist / Surgeon  
Anesthesiologist  
Pediatrician

**Cost in US dollars**

700.00  
100.00  
1,000.00  
250.00  
150.00  

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2,200.00

**TOTAL**

**GENERAL CONSULT**

Pediatrician 22.50  
Gynecologist 30.00  
Ortopedist 35.00  
Ophtalmologist 30.00

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