



Armenian International Policy Research

G r o u p

Working Paper No. 04/13

## HEALTH CARE IN ARMENIA: CHALLENGES AND PROSPECTS

Susanna Hayrapetyan\*

World Bank

[shayrapetyan@worldbank.org](mailto:shayrapetyan@worldbank.org)

Ara Khanjian

Ventura College

[Akhanjian@vccd.net](mailto:Akhanjian@vccd.net)

January 2004

### Abstract

This article discusses the state and trends of health care in Armenia. It presents previous and current health policies and focuses on future development options. The focus of Armenian authorities and international donors is to emphasize the role of primary health care, which implies providing more resources to the outpatient care and establishing the Family Medicine at the primary health care level. The Republic of Armenia is facing the challenge of improving the access to and the quality of the basic medical services to its poorest population. Technically the poor are eligible to receive health care; however, insufficient public funds, the low quality of the medical staff and informal payments prevent them from getting adequate care. The article describes the negative effects of widespread use of informal payments in health care and possible steps to reduce it. It analyzes topics such as, feasibility of private and public health insurance, rationalization of hospital care, privatization of the health sector, the role of government and budget allocation to health care.

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the Armenian International Policy Research Group. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

Journal of Economic Literature Classification: I18, P20, P35, L51

Keywords: Armenia, health policy, primary health care, transition

---

\* The views expressed in this paper are those of the authors and do not necessarily represent those of the World Bank.

## HEALTH CARE IN ARMENIA: CHALLENGES AND PROSPECTS

An important challenge that the Republic of Armenia is facing is to adopt a health care system, where everyone in the society, including the poor, has access to health services. One aspect of this challenge is the declining trend of the utilization rate of health services by sick individuals. An explanation for this decline is the increasing amounts of formal and informal payments that sick individuals have to make to the health institutions, while at the same time, there is a continuing high rate of poverty in Armenia. If current trends continue, health care in Armenia will increasingly become a privilege for the rich. The result is the deterioration of health care system during the past decade.

In the first part of this article, we will present the conditions of health care in Armenia. Part two discusses health care policy focusing on the need for optimization of the health institutions, such as hospitals and polyclinics. The third part deals with the effects of market failures focusing mainly on health insurance, and the last part discusses the important role of primary health care in Armenia.

### THE STATE OF HEALTH CARE IN ARMENIA

Despite severe economic shocks, such as 60 percent fall of the real GDP from 1991 to 1993, and pervasive poverty during the transition period, and despite the fact that the level of public expenditures for health care was and still is the lowest in the region, and that the quality and utilization of the health services had deteriorated, the health indicators in Armenia, especially those relating to mortality and male life expectancy, showed gradual improvement over the decade, and in some instances they compare favorably to other countries with similar or even higher levels of income.

Mortality has remained stable, except for maternal mortality. Early childhood mortality has declined over the past decade and compares well with other transition countries. Life expectancy at birth has remained high, which was estimated at 70.9 for men and 75.7 for women during 2000 (see table 1.). While male life expectancy compares favorably with the European and Central Asia, ECA, countries' average of 66.7 years, female life expectancy is similar to the regional average of 75.3 years (UNICEF 2002.)

Table 1: Armenia: Selected health status indicators

	1990	1995	1996	1997	1998	1999	2000	2001
Female life expectancy at birth (years)	75.2	75.9	76.2	77.3	78.1	75.5	75.7	75.9
Male life expectancy at birth (years)	68.4	68.9	69.3	70.3	70.8	70.7	70.9	71.0
Maternal mortality (per 100,000 live births)	40.1	34.7	20.8	38.7	25.4	32.9	52.7	18.8
Infant mortality (per 1,000 live births)	18.5	14.2	15.5	15.4	14.7	15.4	15.6	15.4

**Source:** UNICEF, Social Monitor 2002, Innocenti Research Center, Florence, Italy, 2002. Figures for the years 2000-2002 are based on Statistical Yearbook of Armenia, 2002.

Mortality indicators in Armenia should be treated with a degree of caution. There are significant differences between population based surveys and official estimates. Mortality estimates from Armenia Demographic and Health Survey 2000, ADHS 2000, for five-year averages (1996-2000) for infant mortality rates is 36 per 1,000 live births, which is more than twice the official figures during the same period (See Table 1.) The discrepancies between the two sets of data could be explained by different approaches used in measuring the outcomes. There is a difference in methodology in measuring the infant mortality by health providers in Armenia and foreign agencies such as UNICEF. Even though Armenia officially adopted the World Health Organization definition and procedures related to calculation of infant mortality rate, in real life the health providers still did not fully adopt them and used Soviet measurement. The Ministry of Health is planning to train and monitor health personnel on the classification and registration of stillbirths and infant deaths. It is also planning to introduce changes in the regulations that govern the registration of infant deaths to make the infant death registration process easier.

Health status indicators reflect significant differences between rural and urban areas. According to the ADHS 2000, during 1990's the urban infant mortality rate was 35.9 per 1000 live birth, while the rural rate was 52.7, which reflects reduced access in rural areas to adequate antenatal care and supervised delivery. In rural areas, about 11 percent did not receive any antenatal care, compared to only 4 percent in urban areas. While almost all births in urban areas occur in health care settings, 15 percent of births in rural areas occur at home, of which about 30 percent were unassisted by health professionals. These differences in child mortality might be explained by the impact of three major factors linked to poverty: access to affordable health care, mother's education, and nutrition.

From an epidemiological standpoint, Armenia has a disadvantageous disease burden with features of both developed and developing countries. Major adult diseases are similar to those in industrial countries: cardiovascular disease, hypertension and accidents. At the same time, infectious and parasitic diseases are increasing, especially after 1995. The increased incidence of malaria and tuberculosis in Armenia reflects the deterioration of preventive care. The number of documented tuberculosis cases increased from 600 in 1989 to 1350 in 2000.

## **HEALTH CARE POLICY IN ARMENIA**

The economic crisis that Armenia faced after independence had a significant impact on the health sector resulting in a dramatic decrease in the level of health expenditures and a deterioration of the health system. During this period, budgetary spending on health care plunged from about 2.7 percent of the GDP in 1990 to 1.3% in 1997 (TNO, 2000.)

In order to improve health care in Armenia, one of the priorities of the government's health policy is to increase public funds allocated to the health sector. As envisaged in the Poverty Reduction Strategy recently adopted by the government, for the period of 2004-2015 the public expenditures will display growth, with an average of 14%

per annum. In 2015, compared to 2003, public expenditures in the health sector as a percentage of the GDP will increase by 1.1 percentage points to reach the program target of 2.5% of GDP in 2015 (See table 2.) The main sources of such growth in public expenditures in the health sector will be the collection of revenues from domestic sources and projects financed from foreign sources.

**Table 2. Program indicators of state budget expenditures in the health sector**

	2003	2004	2005	2006	2009	2012	2015
<b>Total, billion drams</b>	<b>21.0</b>	<b>24.9</b>	<b>30.8</b>	<b>35.5</b>	<b>52.7</b>	<b>73.3</b>	<b>101.1</b>
% of GDP	1.4	1.5	1.8	1.9	2.1	2.3	2.5
% of state budget expenditures	6.5	7.6	8.6	9.2	10.2	10.9	11.9
Year-on-year % change	31.2	18.6	23.5	15.4	12.4	11.5	11.2

**Source, Government of Armenia, 2003.**

Taking into consideration the higher rate of accessibility of primary health care (out-patient and polyclinic) and its physical proximity to the population, the intra-sectoral redistribution of public expenditures will be carried out with the increase of state budget financing of primary health care. Both hospital and primary health care systems, including family doctors, will have as priorities the health of mothers and children, and the mitigation of socially significant diseases.

The strong emphasis on hospital care in the past and observed decline in utilization led the government of Armenia to introduce the reform process in the health sector with three major concepts: (i) introduction of Basic Benefit Package; (ii) optimization of the health care system; (iii) privatization of health care facilities.

### **Basic Benefit Package and Informal Payments**

Since 1993 hospitals were allowed to sell health services to the public and generate revenues. To provide support to the poor, the government created a program called Basic Benefit Package, BBP, which identified health services that should be provided without charge to a list of vulnerable groups or categories, such as, disabled, orphans under 18, veterans and families of war victims, families with more than three children, children under 18 with one parent. Members of the vulnerable groups, in principle, were allowed to get free health care at hospitals, while the rest of the public paid fees, except for treatment of emergency cases and diseases of social significance, like Sexually Transmitted Diseases, STDs, tuberculosis and malaria. Basic health services at polyclinics were and still are free for everyone, poor and non-poor, while the lab tests are for fee for those not included in the BBP.

As of January 2001, the Government of Armenia extended the free-of charge BBP program eligibility to the beneficiaries of the poverty family benefit system, which is a government adopted means tested benefit program. Preliminary analysis of 2001 Integrated Leaving Conditions Survey, ILCS, in Armenia shows that this policy change might have improved access to health care among the poor. However, the effects would

be possible to examine only once the final results become available (Murrugara and Posarac, 2002.)

In general countries with higher per capita income tend to adopt national health insurance, while poor countries adopt programs that target the poor. Targeting and excluding those who are outside the targeted group increases the cost of administering the program. However targeting the poor, instead of providing public health care to both poor and non-poor, decreases the overall cost of reducing poverty (Van the Walle 1995.) A disadvantage of adopting health programs that are targeting just the poor and exclude the non-poor is the possible resentment of the middle class taxpayers, which could reduce the political support for the poverty reduction programs.

On behalf of the poor, the State Health Agency makes payments to the hospitals and polyclinics. However the amount of payments by the State Health Agency to the health institutions covers about 45% of the cost of the health services (World Bank, 2003.) This implies that the health institutions should generate revenues indirectly. One method is to collect informal payments from patients including the poor and the vulnerable groups. In this case hospitals and polyclinics would collect payments for the services provided to the poor and the vulnerable groups from both the patients and the government. During 1999 about 91 percent of hospital patients made informal payments (Lewis, 2000.) The result was that between 1996 and 1999 the free of charge health care provided by the government wasn't able to prevent 21 percent drop in the health care utilization rate among the largest vulnerable group, families with four or more children. However, the fee-waiver program had a small but statistically significant positive impact on the access to health care by the vulnerable groups (Chaudhury, 2003.) Another negative impact of informal payments is a lack of funds for physical investment and run down hospitals and polyclinics because informal payments are made to the medical personnel and not the institutions.

### **Optimization of Health Institutions**

Only a fraction of the capacity of a large number of hospitals, hospital beds, nurses and doctors is being used. During 1999 the occupancy rate of the 171 hospitals in the country with 23,169 beds was about 40 percent (MOH, 2002a.) Table 3 shows the significant drop in the number of patients admitted to the hospitals, while table 4 shows the drastic reduction in the use of polyclinics. From 1992 to 2002 there was about a seventy five percent drop in the number of visits to polyclinics.

Table 3  
Number of Patients admitted to Hospitals  
(Thousands)

1992	93	94	95	96	97	98	99	00	01	02
354	305	285	281	284	252	235	221	192	187	193

Source, Ministry of Health, 2003

Table 4  
Number of Visits to Polyclinics  
(Millions)

1992	93	94	95	96	97	98	99	00	01	02
20.2	18.5	17.2	16.4	15.8	10.8	7.9	7.5	6.7	5.8	5.4

Source, Ministry of Health, 2003

These numbers could imply that there is an oversupply of hospitals in Armenia and that some hospitals should be closed. The excess capacity of hospital beds reflects the fact that during the Soviet period the government payment to a hospital was based on the number of bed that the hospital maintains. This gave an incentive to build large hospitals with many beds. Another factor in the decrease of patients admitted to the health care institutions was the significant migration of the population of Armenia during the past decade.

Others argue that the problem is not oversupply of hospitals, but lower demand of health services, underconsumption, because about half of Armenia’s population is extremely poor or poor and they can’t afford to pay the hospital fees (European, 2001.) If the cause of overcapacity of hospitals is unaffordability, and low demand, then hospitals shouldn’t be closed down. Instead the government should find ways to provide opportunity to the poor to be able to use hospital care when they need it. At the same time if Armenia’s rapid economic growth rate continues and the benefits of this rapid growth starts to trickle down to the poor, then affordability will increase and hospital occupancy rate would increase.

Probably the reality is between these two extremes of oversupply and low demand; therefore, the government should take measures to reduce the supply of health institutions and to increase demand. This implies that the Ministry of Health has the difficult task to reduce the number of hospitals to an optimum levels. One way of achieving optimization is through consolidation of hospitals that are assigned to perform one specific task, such as consolidating pediatric and maternity hospitals (MOH, 2002a.) During Fall 2003 the government of Armenia began to take measures to consolidate health institutions.

There is an oversupply of doctors in Armenia and their official pay is very low. There is one medical school, which is accredited by the Ministry of health, and that school is public, while there are seven accredited nursing schools. In order to reduce the quantity of physicians the Health ministry was cutting the number of medical students who do not pay tuition, called “state order places” in medical school. That number was reduced from 700 students in 1992 to 250 in 1995 (European, 2001.)

## **Privatization of Health Institutions**

Another aspect of the optimization of health institutions is the privatization process, which happened mostly in the hospital sector in Yerevan and pharmacies all over the country. It appeared that the privatization of individual hospitals with legal requirements to continue to provide health care services went unchecked and counter to hospital sector optimization policy. The privatization process didn't address the problem of overcapacity of hospitals.

In addition, the privatization of hospitals through direct sale to the staff at heavily discounted prices (75%) were not transparent and were not organized efficiently. It failed to motivate insiders to develop a sound business plan based on a thorough consideration of strategic options. The process was not structured to mobilize competition, resources for investment needs, nor to bring to the sector credible private owners.

With the consultation of the World Bank, the government decided to postpone the privatization process and review the health sector privatization strategy to address current gaps such as: lack of links between privatization and hospital rationalization, lack of regulatory functions of the government in health sector with significant autonomy and private participation, lack of transparency of privatization transactions, and lack of clarifications of State Health Agency service contract guarantees to privatized institutions.

Once the numbers of hospitals, doctors and nurses are reduced and consolidation of hospitals occurs, and at the same time government budget allocation to the health sector increases, then the salaries of physicians, nurses, and medical staff will increase and government expenditures on health care will be divided among a smaller number of hospitals, and medical personnel, covering a larger percentage of health care expenses per patient. This will reduce the pressure on hospitals and polyclinics to collect informal payments from the patients including the poor.

We could conclude that in order to increase the accessibility of health care by the poor, optimization of the health system should occur. This will be achieved first by closing a few hospitals through consolidation. Second, government expenditures on health care should increase and finally salaries of medical personnel should go up.

## **PRIVATE AND PUBLIC HEALTH INSURANCE**

In the health care sector there are circumstances where the market fails to provide services or provides them with insufficient amounts generating justifications for government involvement. In Armenia, where the economy is in transition from centrally commended economy to a market economy, markets and appropriate institutions, such as legal and financial, are not fully developed yet; therefore, market failures are more common. The result is a heavy burden on the government to correct market failures and adopt policies, which will make health care more affordable to the poor. Correcting market failures in the health sector improves the efficiency of the economy and promotes equity. At the same time the government should contribute to the development of market institutions, such as legal and financial.

Beside the market failures, another difficulty that Armenia is facing is the existence of an elaborate shadow economy and a large amount of government failure. Therefore a well-intentioned government policy might fail because it ignores government failure and the conditions in the real world. In many situations both the market and the government would generate inefficiency and unfairness. Therefore, the question shouldn't be which system is fair or efficient, instead we should discuss and determine if efficiency and fairness could be improved more through imperfect markets or an imperfect government.

We will focus on three areas where the market fails. First there is large positive externality in providing immunization, fighting infectious diseases, maintaining clean air, providing clean water, adequate sewage disposal, urban sanitation, hospital care for catastrophic illnesses and education about basic public health issues. In Armenia during the past decade, through specific programs most of the children received vaccines for basic health diseases.

### **Imperfect Information**

The second type of market failure in the health care sector is imperfect information. Patients have a limited amount of information about their illnesses, the cost to cure their illnesses, and the competence of the physicians. For this reason in Armenia the government determines prices of basic health services and provides licenses to competent physicians and makes sure that incompetent physicians are not practicing medicine. Physicians are supposed to act in the interest of their patients. In a sense physicians are the agents of the patients. However if the interests of the physicians are different from the interests of the patients, then we will have a case of principal and agent problem. The source of the problem is the fact that physicians are advisors to patients and at the same providers of health care, which creates a conflict of interest. Instead of protecting the interest of patients, physicians might try to increase their revenue by providing medical care that patients don't need.

In Armenia, in order to increase their revenues, some doctors are aggressively looking for patients and acting like "patient hunters." This behavior is the result of the drastic reduction of patients at health institutions and the oversupply of physicians. Some of the physicians are recommending unnecessary procedures or are not disclosing the full cost of the operation at the beginning of the treatment and refusing to complete it without additional payments. Clearly there is significant amount of market failure and there is need for government regulations. A positive result of the increasing role of market in the health sector is that some physicians are trying to raise their revenue by building a good reputation and attracting more patients. They are providing good medical advice and good care and expecting that patients will bring more patients (Lewis, 2000.)

### **Health Insurance**

The third market failure occurs in the health insurance sector. In Armenia insurance industries are not developed yet, and the market fails to provide adequate amounts of health insurance. In the private health insurance market, insurance providers have less information about the health conditions and the life style of insurance buyers



than the buyers. This asymmetric information generates the problems of adverse selection and moral hazard, which increase the cost of insurance. In the case of adverse selection, individuals with health problems would be able to hide their true risk level and cause premiums of the group to rise, which would induce low risk individuals to drop out of health insurance market. In the case of moral hazard, once individuals buy health insurance, they face the temptation to overuse health services, causing overconsumption and higher costs for the insurance companies.

In a transition economy, such as Armenia, where the markets and corresponding institutions are not fully developed yet, problems of adverse selection and moral hazard would be significant. Therefore in Armenia, the market literally fails to provide health insurance. At the same time a significant portion of the population couldn't afford to buy private health insurance, and current tax laws do not give incentives to the employers to provide health insurance to its employees (European, 2001.)

A solution to this market failure is public health insurance. The Ministry of Health prepared a proposal to introduce public health insurance in Armenia. The report indicates that the existing state of health care in Armenia does not satisfies the medical needs of the poor, "The present system of free medical care is mainly declarative and not trusted by the population and health care workers" (MOH, 2002b.) The report advocates the adoption of a Compulsory Medical Insurance system, which would be funded mainly through a tax or a premium based on each employee's income. Two thirds of the tax would be paid by the employer and one third by the employee. The estimated tax is 9% of wages. It is suggested that initially the tax should be only 3% and in the future it should be raised to 9%.

However, beside the social security taxes that employers currently pay for their employees' wages and income taxes that employees pay, an additional 9% or even 3% tax on wages is not politically feasible. At this stage, given the government's relatively low revenues, public health insurance seems to be expensive. The low income of the population and the existence of a shadow economy make the development of public and private health insurance very difficult. Currently Compulsory Medical Insurance is not being considered and establishing public health insurance is just a long-range goal of the government. In general low-income countries instead of adopting public health insurance, focus on public hospitals and clinics (Jack, 2002.)

## **PRIMARY HEALTH CARE**

The purpose of primary health care, PHC, is to detect, diagnose and prevent sicknesses as early as possible. Primary health care involves education of the public about health issues, securing maternal and child health care, immunization and treatment of common and infectious diseases, providing necessary drugs and basic curative care.

It is estimated that, in Armenia, 80% of illnesses could be cured through primary health care which are mainly provided through polyclinics, where specialized physicians work and through small clinics called ambulatories usually located in the provinces (MOH 2002a.) Polyclinics are owned by local governments and only few in Yerevan are owned by the Ministry of Health. At polyclinics the service is free to everyone, rich or poor.

Currently, in Armenia, Primary Health Care shows a mixed picture. Most urban polyclinics continue to operate based on the former Soviet tradition, where there are no family physicians. Instead each doctor is specialized in the health care needs of different age groups and for various specific health problems, including separate medical specialties for women. On the other hand, family medicine has been introduced in Armenia, and is planned to be the main vehicle of preventive health care. Already active family medicine departments function in the Ministry of Health and in the three relevant health educational establishments. There are pilot projects for population enrollment in family medicine and hundreds of trained and retrained health professionals in family health care.

The Ministry of Health, MOH, is emphasizing the important role of primary health care and polyclinics, and therefore, is allocating more funds to them. Table 5 shows that government is planning to increase the role of polyclinics relative to hospitals. The government is planning to increase the funding of polyclinics much faster than to hospitals. This trend would continue and in year 2006 government funding to polyclinics will exceed the funding of hospitals. This is remarkable, when we realize that during 1999 government spending on hospitals was three times more than government spending on polyclinics.

Table 5  
Government Expenditures on Polyclinics and Hospitals  
In billions of Dram

	1999	2000	2001	2002	2003*	2004*	2005*	2006*
Polyclinics	3.0	1.7	3.1	3.4	4.0	8.0	10.9	13.4
Hospitals	9.3	9.4	9.5	8.9	10.6	12.1	13.5	14.3

\*--Projections

Source, Ministry of Health, 2003

---

### **Controversies in Primary Health Care**

The policy of emphasizing primary health care, generated mixed results in different countries; therefore, the success of PHC policy depends on the circumstances of a specific country (Filmer, 2000.) Public expenditure on PHC could generate poor results for two reasons. First government health expenditures might not translate into adequate health care. The main concern is the incentive of health care personnel, who receive public funding for their work, to provide good quality health services. Health care personnel, such as doctors and nurses, are alone with patients and it is difficult to monitor their work. This concern could be addressed in Armenia if the compensation of physicians is based on their performance and the patients have the right to choose their

own doctors. Consequently, physicians that do not provide quality health care will have fewer patients and less income. Therefore, they would have an incentive to provide quality care.

Second, public expenditures on health care could crowd out private primary health care providers. This implies that even if public expenditures generate good quality health services, the overall effect on health care will be minor because private primary health services will be displaced. In Armenia this concern also is not significant because there are hardly any private family physicians providing primary health care. Therefore, government financing of primary health care would not generate a tangible amount of crowding out.

### **Primary Health Care and the Poor**

Based on research in 10 countries, in 7 of 10 countries the poorest quintile benefit proportionately more from primary health care than hospitals, while the highest quintile benefits proportionately more from hospitals than primary care. Hospital care nearly always benefits the rich, which implies that government expenditure on PHC will benefit the poor more than expenditure on hospitals. In other words, the non-poor could benefit more than the poor from overall public health expenditures. However the non-poor benefit more from public expenditure on hospitals than on PHC (Filmer, 2002.)

In Armenia, during 1998-99, 64.4% of patients from the lowest quintile were treated at polyclinics, while only 47.4 percent of patients from the highest quintile were treated at polyclinics. Therefore, most of the poor patients went to polyclinics, however most of the patients of polyclinics were non-poor and the highest quintile used polyclinics more than the lowest quintile. The poor tend to use polyclinic services more often than hospitals, because informal payments at polyclinics are much lower than at the hospitals.

**Table 6. Distribution of Public Expenditures in Health, 1999, Million Dram**

	Consumption quintiles					Total
	1	2	3	4	5	
Hospital	1,699	1,548	1,699	2,340	5,435	12,720
Polyclinic	780	901	894	1,000	1,424	4,999
Diag. Ctrs. and other	192	527	336	288	1,007	2,349
Total	2671	2976	2929	3628	7866	20070

Source: World Bank 2003, page 125.

Out of 5,000 million Dram spent by the government during 1999 on polyclinics, the lowest quintile received 780 million Dram while the highest quintile captured 1,424 million Dram (Table 6.) Government expenditure on health care is regressive because the wealthy benefit from health services more than the poor. Only 13 percent of public health expenditures, 2671 out of 20070 million Dram, were used by the poorest quintile, while

the highest quintile used 40 percent (Table 6). The explanation is that the poor avoid seeking health care because they can't afford formal and informal payments. Only 26 percent of the sick from lowest quintile saw a physician compared to 51 percent of the highest quintile. It is true that mostly the non-poor uses polyclinics; however, public expenditure on polyclinics is the least regressive (World Bank, 2003.)

### **Increasing Role of Family Physicians**

International and foreign organizations, such as World Bank and USAID, are providing funds for specific projects that are aimed to improve primary health care in Armenia. These programs upgrade the primary health care skills of doctors and nurses working in polyclinics. They improve the availability of primary health care in every region including remote villages and improve the quality of primary health care to every individual and family.

Currently when patients need care, most of them go to a hospital. In the future most patients will go first to a polyclinic and the family practitioner will treat them. If the patient needs to see a specialist or needs surgery then the family doctor will send the patient to a specialist or a hospital. The primary health care will be provided through family physicians' group practices, while secondary and tertiary health care will be provided at the hospitals. The family doctors will play the role of gatekeepers for the secondary care (Europe, p. 42).

Hospitals have more prestige and the perception is that doctors who work at the hospitals are better than doctors who work at the polyclinics. The health ministry is promoting the use of family doctors to provide primary health care and in order to improve their quality and increase their credibility is providing training to doctors in the primary health sector (MOH, 2000.) This effort could change the perception that doctors at the polyclinics are less qualified than doctors who work at the hospitals. Through a World Bank project, 200 doctors from polyclinics followed a one-year education program. The goal is to train about 1,500 doctors to become efficient family practitioners. However, training 1,500 for one year and taking them away from their work is difficult. Therefore, the expectation is that the one-year educational program will be broken down into modules and the doctors will receive training in the regional training centers close to their residence.

The number of cases that hospitals treat determines government compensation to hospitals. Before 2002 there was no upper limit for the number of patients that they could treat. This caused an increase in the government expenditures to hospitals and polyclinics because they had incentive to treat as many patients as possible. In 2002 the rule of funding was changed and an upper limit or cap was introduced on the level of government funds allocated to each hospital and clinic.

During Soviet Union, the polyclinics were financed based on attendance. They tend to over report attendance to get more financing. In mid 90s per capita financing scheme introduced. The new guidelines for polyclinics indicate that doctors can't serve more than 2,500 patients, because in order to see more patients they have to spend less time with each patient and reduce the quality of medical care. When doctors take care of 1,500 to 2,000 patients, they will get paid the full rate. If they serve less than 1,500, then they will get paid per patient and their income will decrease. If they receive more than

2,000 patients, their salary will increase for each additional patient, up to 2,500 patients. The ministry of health expects that this link of the compensation of doctors with the number of their patients will reward doctors who have good reputations and whose patients are eager to see them and will improve the quality of health care that the physicians are providing. The idea that patients have the right to choose their own family doctor is an important part of health care reform. (European, 2001)

### **Improving Democracy and Health Care Through Community Participation**

Donor organizations, such as World Bank and USAID, emphasize the concept of community involvement. Many projects that are geared to improve primary health care, also promote active community participation in determining local health care priorities, supervising the implementation of the projects and providing basic health services. One USAID project required the community to form a Civic Action Group of 9-12 members of the community to determine the project that will be adopted and to supervise the implementation of this project. From 1995 to 2000, Civic Action Groups all over Armenia implemented 317 micro-projects. About 7% of these projects were health related, while 60 percent were related to drinking and irrigation network construction (USAID, 2002) Experiences in other countries indicate that forming a village health committee or community health volunteers could make health care more responsive to the needs of the patients, specially the poor. However, implementing participatory approaches on small-scale projects is easier to achieve than on large scale (ADB, 1999.)

During the Soviet Union period the public expected that the state would find solutions to their problems. Therefore, Armenia, similar to other former Soviet Republics, is experiencing a transition period, during which the public is beginning to take responsibility in organizing their communities and participate in solving their local difficulties. With increasing participation of the community members in the decisions of the local concerns, democracy spreads. Community participation and growing democracy would reduce the level of corruption, because when the community is involved in the decisions and the supervisions of projects, informal payments and corrupt behaviors by health care officials would be more difficult.

Decentralization of health care services increases the possibilities of community participation. Since the fall of Soviet Union, in transition economies the central governments still control the design of health care policies. However, the provision of health services is in some cases privatized and in other cases delegated to local authorities.

### **CONCLUSION**

The poor in Armenia could have better access to health care if the government is successful in increasing government spending on health care. The goal is to increase public health expenditure and by the year 2015 bring it to 2.5 percent of the GDP. At the same time some consolidation of hospitals should occur. The result of these two changes would generate the possibility to raise the salaries of medical

personnel, which would reduce the need for informal payment by the patients, specially the poor. Reduction of informal payments would induce the poor to use health care institutions and improve their health. Meanwhile the government should continue to emphasize the role of primary health care, continue to increase the funding of PHC service providers, and encourage communities to participate in designing and implementing health projects. At the same time, if the economy of Armenia continues to grow rapidly and per capita income increases, then eventually adopting an appropriate version of public health insurance will become feasible. The result of all these positive developments would improve the quality and availability of health services in Armenia and provide a better opportunity to the poor to get adequate health care.

## REFERENCES

- Asian Development Bank, 1999, *Policy for the Health Sector*, Manila, Philippines, Published by Asian Development Bank.
- Chaudhury, Nazmul, Hammer Jeffrey, and Murrugarra Edmundo. 2003, The Effects of a Fee-Waiver program on Health Care Utilization among the Poor: Evidence from Armenia. *World Bank Policy Research Working No. Paper 2952*, Washington, D.C.
- Economic Development Research Center, 2003, *Health Care State budget for 2003*, Yerevan, Armenia, published by Economic Development Research Center.
- European Observatory on Health Care Systems, 2001, *Health Care Systems in Transition: Armenia 2001*. Retrieved September 16, 2003, from <http://www.who.dk/document/e73698.pdf>.
- Filmer, Deon, Jeffrey Hammer, and Lant Pritchett, 2000, Weak Links in the Chain: A Diagnosis of Health Policy in Poor Countries, *World Bank Research Observer* 15 No. 2, 199-224.
- , 2002, Weak Links in the Chain II: A Prescription for Health Policy in Poor Countries, *World Bank Research Observer* 17 No. 1, 47-66.
- Government of Armenia, 2003, *Armenia: Poverty Reduction Strategy Paper, PRSP*, Yerevan.
- Jack, William, 2002, Public Intervention in Health Insurance Markets: Theory and Four Examples from Latin America, *World Bank Research Observer* 17 No. 1, 67-88.
- Lewis, Maureen, 2000, *Who is Paying for Health Care in Eastern Europe and Central Asia?* Human Development Sector Unit, World Bank, Washington, DC.

- Ministry of Health of the Republic of Armenia, 2000a, *Family Medicine in the Primary Health Care*, Retrieved July 21, 2003, from <http://www.armhealth.am/page/family.html>
- , 2000b, *Concept of Optimization of the Health Care System of the Republic of Armenia*, Retrieved July 21, 2003, from <http://www.armhealth.am/page/strategy1.html>
- , 2002c, *Concept of Introducing Medical Insurance in the Republic of Armenia*, Retrieved July 21, 2003, from <http://www.armhealth.am/page/strategy3.html>
- Murrugarra, Edmundo, 2002, *Poverty and Health in Armenia*, World Bank working paper, Washington, D.C.
- Murrugarra, Edmundo, and Posarac, Aleksandra, 2002, *Armenia Poverty update 2002*, World Bank working paper, Washington, D.C.
- National Statistical Service of the Republic of Armenia, 2001, *Statistical Yearbook of Armenia*, Yerevan, Armenia.
- National Statistical Service of the Republic of Armenia, Ministry of health of the RA and ORC Macro, 2001, *Armenia Demographic and Health Survey 2000*, Retrieved July 21, 2003, from <http://www.measuredhs.com>
- Peabody, John W., 1999, *Policy and Health: Implications for Development in Asia*, Cambridge University Press, New York, NY.
- TNO, 2000, *The Development of BBP in the Republic of Armenia: The Experience of Previous Years and Proposals for Improvement*, Yerevan.
- Van de Walle D., 1995, Public Spending and the Poor: What We Know, What We Need to Know, *World Bank Policy Research Working Paper*, Washington, DC.
- UNICEF, 2002, *Social Monitor 2002*, The Monee Project, Innocenti Research Center, Florence, Italy.
- U.S.A.I.D., 2002, *Social Transition Program*, Retrieved September, 15, 2003, from <http://www.usaid.gov/am/social.html>
- U.S. Department of Health and Human Services and ORC MACRO DHS, 2003, *Reproductive, Maternal and Child Health in Eastern Europe and Eurasia: A comparative Report*, Published by U.S. Department of Health and Human Services, Atlanta, GA.
- World Bank, 2003, *Armenia Public Expenditure Review*, Poverty Reduction and

Economic Management Unit, Europe and Central Asia Region, Washington D.C.

-----, 2002, *Growth Challenges and Government Policies in Armenia*, World Bank Country Study, Washington D.C.