DUBLIN CITY UNIVERSITY

The School of Communications

The role of Communications in Preventative Medicine and Health Promotion : The Kilkenny Health Project.

A Thesis submitted to the Dublin City University in candidacy for the degree of Master of Arts.

by

Barbara Wallace, Wexford, 1989.

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DECLARATION

I, Barbara Wallace, being a candidate for the degree of Master of Arts as awarded by Dublin City University, declare that while registered as a candidate for the above degree I have not been a registered candidate for an award of another University. Secondly, that none of the material contained in this Thesis has been used in any other submission for any other award. Further, that the contents of this Thesis are the sole work of the author except where an acknowledgement has been made for assistance received.

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ACKNOWLEDGEMENTS

My thesis supervisor has been Professor Farrel Corcoran and I find it difficult to express my gratitude to him for his unfailing patience, advice and encouragement. I would also like to thank Dr. Bill Doris for his constructive comments as second thesis supervisor, and also for his encouragement during my 'qualifying' years at the College.

Dr. Emer Shelley's help and practical advice was much appreciated as was that of Dr. Liam Gorman whose advice saved me many hours of work.

Carmel Creagh deserves an award for her patience with the many text changes despite the vagaries of the word processor. The presentation of this work is a tribute to her tenacity and standards.

I wish to express my thanks to Niall McConnell whose eagle eye found many inconsistencies and punctuation errors in my work and whose steady hand gave a professional touch to the tables and figures. To him and to my children for their support and encouragement throughout my period of study and work, I wish to say a special 'thank you'.

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ABSTRACT

(Barbara Wallace)

Mortality rates for coronary heart disease in Ireland are amongst the highest recorded in the developed countries which provide reliable statistics. It is the consensus of health authorities worldwide, that a health promotion programme, aimed at the population as a whole can effect a reduction in the risk factors associated with the onset of coronary heart disease.

The main objective of such a programme is to improve the length and quality of life. However, the probability of reducing health care costs through preventative medicine, is an added incentive, especially to a country such as Ireland which has limited public funds.

Coronary heart disease prevention programmes in countries such as Finland and the United States of America were said to have been successful in causing a reduction in the incidence of, and the risk factors associated with coronary heart disease. This prompted the appeal by the Irish Heart Foundation to the Department of Health to initiate a similar programme in Ireland.

The Kilkenny Health Project, the first programme of its kind in Ireland was set up in 1984. A baseline survey was carried out in County Kilkenny to be followed by a five year health promotion programme and a post programme survey. The effectiveness of the health promotion programme would be measured by the pre and post surveys and also by a comparison with a reference County, Offaly. In Offaly, there would be no health promotion between the first and final surveys.

The aim of this study is to examine the elements of a community health promotion programme, and in particular the aspects of such a programme where the likelihood of a successful outcome is enhanced by effective communication.

As a first step we examine theories of communication which are relevant to such a programme. Next we look at two models of coronary heart disease prevention programmes and also at aspects of public communication campaigns where failure to achieve the stated objectives of the programme was attributed to a lack of effective communication. One of the problems here is that despite the importance of health promotion,

there are few comprehensive and adequately researched programmes to act as a model, and none of these which are available is based in Ireland.

We then examine in some detail, the health promotion or education programme of the Kilkenny Health Project, to see how effective the use of communications was in making the population of Kilkenny aware of the existence and objectives of the project. This examination embraces the pre programme planning, the ongoing evaluation by postal surveys and an exercise in formative research through original field-work.

Finally we look at the results of a postal survey carried out in Kilkenny and in the reference County, Offaly, at the half way stage of the programme (two and a half years). This gives us an indication of how successful or otherwise the public health communication campaign was in communicating the project message to the population of County Kilkenny, and justifies making recommendations for future work in Ireland in public health campaigns.

CHAPTER 1.

INTRODUCTION

In May 1977, the Thirtieth World Health Assembly resolved that "the main social target of governments and World Health Organization (WHO) in the coming decades should be the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life". (WHO 1985 p.1).

This goal was thought to be crucial for two reasons. Firstly, despite the financial resources devoted to the health sector and the development of new drugs and medical techniques in the previous 30 years, people's level of health was lower than it could be. Secondly, despite the overall high level of development in Europe and the scientific, economic and educational level of most countries, the massive challenge of inequalities in health still have to be met.

A strategy was adopted towards the achievement of "Health for All by the Year 2000".

For the first time, all governments in the European Region agreed not only to adopt a single health policy but to intensify their efforts to improve health. "A new era in health development was inaugurated.....". (WHO 1985 p.3).

"Health for All" was to be achieved by people themselves. They should be given a positive sense of health so that they could live full and active lives.

The contemporary policy of WHO maintains that a well informed, well motivated and actively participating community is a key element for the attainment of the goal of Health for All.

To this end, the general public should be systematically informed regarding health-related problems and developments and care should be taken to provide such information in a way that is easy to grasp, will arouse interest and enhance commitment.

People may do things that damage their health because they know nothing of the risks or of the healthier alternatives, or because their values do not give sufficient motivation to change their behaviour in response to what they know. Information regarding the health implications of a particular behaviour is not enough. For instance, smokers often know that smoking is bad for them. It is considered essential therefore to equip people with the skills necessary to change their habits, to motivate them to learn and apply the skills and to provide the back-up, social and environmental, to help them to maintain the new behaviour.

The key to solving many health problems lies in the hands of people outside the health sector. Nevertheless it is a basic tenet of the Health for All philosophy that people must be given the knowledge and influence to ensure that health development in communities is made not only for, but also with, and by, the people.

WHO suggests that the focus of health care systems should be on primary health care. The basic needs of each community should be met by providing services as close as possible to where people live and work. These should be accessible and acceptable to all and based on full community participation.

Obviously ill health and poverty are closely related to each other and to people's lifestyles. One of the major factors to be considered in health care development is equality. Socially and economically privileged people have a wider range of options available to them in seeking a healthy lifestyle, while the disadvantaged are still trying to exist. WHO point out that it is important therefore that support for health improvement should come from all sectors of the community. Promoting health policies which emphasise reducing risks in the physical, economic and social environment requires coordinated action from politicians, government at national and local levels, industry, commerce, and the media.

This work cannot be left to the health authorities alone, since they do not have command of all the resources needed to deal with all aspects of the problem of poor health.

WHO sees the need to tackle two basic issues if Health for All is to be reached by the year 2000. First health inequalities among countries and groups within countries must be reduced and secondly, quite apart from reducing disease and its consequences, the general level of health must be improved.

"Health for All" has four dimensions, as regards health outcomes, involving action to:

* Ensure equity in health by reducing the present gap in health status between countries and groups within countries.

* Add life to years by ensuring the full development and use of people's integral or residual mental and physical capacity to derive full benefit from, and to cope with life in a healthy way irrespective of their age or acknowledged handicap.

* Add health to life by reducing disease and disability.

* Add years to life by reducing premature deaths and thereby increasing life expectancy. (WHO 1985),

In an effort to determine Ireland's health status compared to that of other countries, we will examine the incidence of premature death.

Although premature death is only one measure of health outcome, mortality statistics are routinely collected by government health agencies and therefore allow for comparison over time and between countries. (Shelley 1986).

In the case of Ireland it is interesting to note that despite increasing expenditure on medical services, improvement in life expectancy in middle aged Irish men has been modest. (Table 1).

TABLE 1. Expectation of life at selected ages for Irish males and females in 1950-1952 and in 1982. (Shelley 1986).

	Males		Females	
	1950-52.	1982.	1950-52.	1982.
Age 0.	64.5	70.1	67.1	75.6
1.	66.9	69.9	68/8	75.4
25.	44.8	46.9	46.6	51.9
45.	27.0	28.1	28.9	32.6

From Table 1 we note that life expectancy at birth for an Irish male in 1982 showed approximately a six year increase from the 1950/52 figure. The increase in life expectancy of a 45 year old male during the same period was just one year.

If we look at the life expectancy at birth for males and females in the Member States of the Council of Europe (Tables 2a and 2b), we see that Irish men and women have a low life expectancy compared with men and women in the other States.

TABLE 2a. Male life expectancy at birth (in years) for Member States of the Council of Europe. (Shelley 1986)

Country.	Period	Years.
1 Iceland	1981-1982	73. 9
2. Sweden	1982	73. 4
3. Switzerland	1982-1983	72. 8
4. Netherlands	1982-1983	72.75
5. Norway	1982-1983	72.69
6. Spain	1980	72.54
7. Cyprus	1978-1983	72.31
8. Greece	1980	72.15
9. Denmark	1982-1983	71.50
10. UK	1980-1982	70.80
11. France	1982	70.71
12. Italy	1977-1979	70.61
13. Germany F.R.	1981-1983	70.46
14. Malta	1983	70.38
15. Ireland	1982	70.10 ←
16. Belgium	1979-1982	70.04
17. Luxembourg	1980-1982	70.00
18. Austria	1983	69.53
19. Portugal	1979-1982	69.10
20. Turkey	1980-1985	60.60

In a comparison of the life expectancy at birth for males in the Member States of the Council of Europe in Table 2a, we see that Irish males with a 70.1 year life expectancy have the 6th lowest rate.

TABLE 2b Female life expectancy at birth (in years) for Member States of the Council of Europe. (Shelley 1986).

Country	Period	Year
1. Norway	1982-1983	79.54
2. Switerzland	1982-1983	79.50
3. Netherlands	1982-1983	79.48
4. Iceland	1981-1982	79. 4
5. Sweden	1982	79. 4
6. France	1982	78.85
7. Spain	1980	78.59
8. Denmark	1982-1983	77. 5
9. Italy	1977-1979	77.19
10. Germany	1981-1983	77. 9
11. Cyprus	1978-1983	76.98
12. U.K.	1980-1982	76. 9
13. Belgium	1979-1982	76.79
14. Luxembourg	1980-1982	76. 7
15. Portugal	1979-1982	76. 7
16. Austria	1983	76.61
17. Greece	1980	76.35
18. Ireland	1982	75. 6 ←
19. Malta	1983	73.82
20. Turkey	1980-1985	65. 6

In Table 2b we see that Irish females have the 3rd lowest rate of life expectancy (75.6 years) of the 20 member states.

If Ireland is to attempt to improve the life expectancy of it s population, it is necessary to identify the major causes of death.

In the developed countries approximately half of the deaths, nearly one-third of the permanent disability, and a high proportion of health service utilisation, are due to heart diseases. (WHO 1973).

Examination of the causes of death in Ireland shows that for men and women of all ages, heart disease and stroke are the largest single causes

of death, being responsible for 50% of all mortalities. (Table 3a and 3b).

TABLE 3a. Causes of death in 1983 in men at all ages and in those aged 25-64 years in Ireland. (Shelley 1986).

All Ages:		25-64 Years:	
Heart disease stroke etc.	49.9%	Heart disease stroke etc.	47.0%
Cancers	19.5%	Cancers	25.5%
Chronic chest disease.	7.1%	Accidents and poisoning.	11.0%
Infections	6.7%	Chronic Chest disease.	4.9%
Accidents and poisoning	5.8%	Infections	3.3%
All other causes.	11.0%	All other causes.	8.3%
TOTAL:	100%	Total:	100%

In Table 3a we see that almost half (49.9%) of deaths in all ages of men were due to heart disease. In men of 25 years to 64 years, the proportion of deaths was only slightly lower - (47.0%).

TABLE 3b. Causes of death in 1983 in women at all ages and those aged 25-64 years in Ireland. (Shelley 1986).

All Ages.		25-64 Years.	
Heart Disease stroke etc.	50.5%	Cancers.	41.6%
Cancers	19.7%	Heart disease stroke etc.	32.1%
Infections	9.1%	Accidents and poisoning.	7.3%
Chronic chest disease	4.2%	Chronic chest disease.	4.6%
Accidents and poisoning	3.5%	Infections	3.6%
All other causes	13.0%	All other causes	10.8%
TOTAL:	100%	TOTAL:	100%

In Table 3b, we see that heart disease causes one in three of all deaths of women in the 25-64 year age group. As with Irish men, heart disease accounts for half (50.5%) of the deaths in the 'all ages' category.

In 1985, the mortality rates from coronary heart disease showed Irish men and women to have one of the highest rates of the 30 developed countries which provide reliable statistics. (Figure 1) (Coronary Heart Disease Prevention Action in the U.K. 1988).

FIGURE 1. Coronary Heart Disease Mortality Rates for men and women aged 40-69. Age standardised rates per 100,000 for 1985 unless otherwise stated.
(Coronary Heart Disease Provention Action in the U.K.1988).

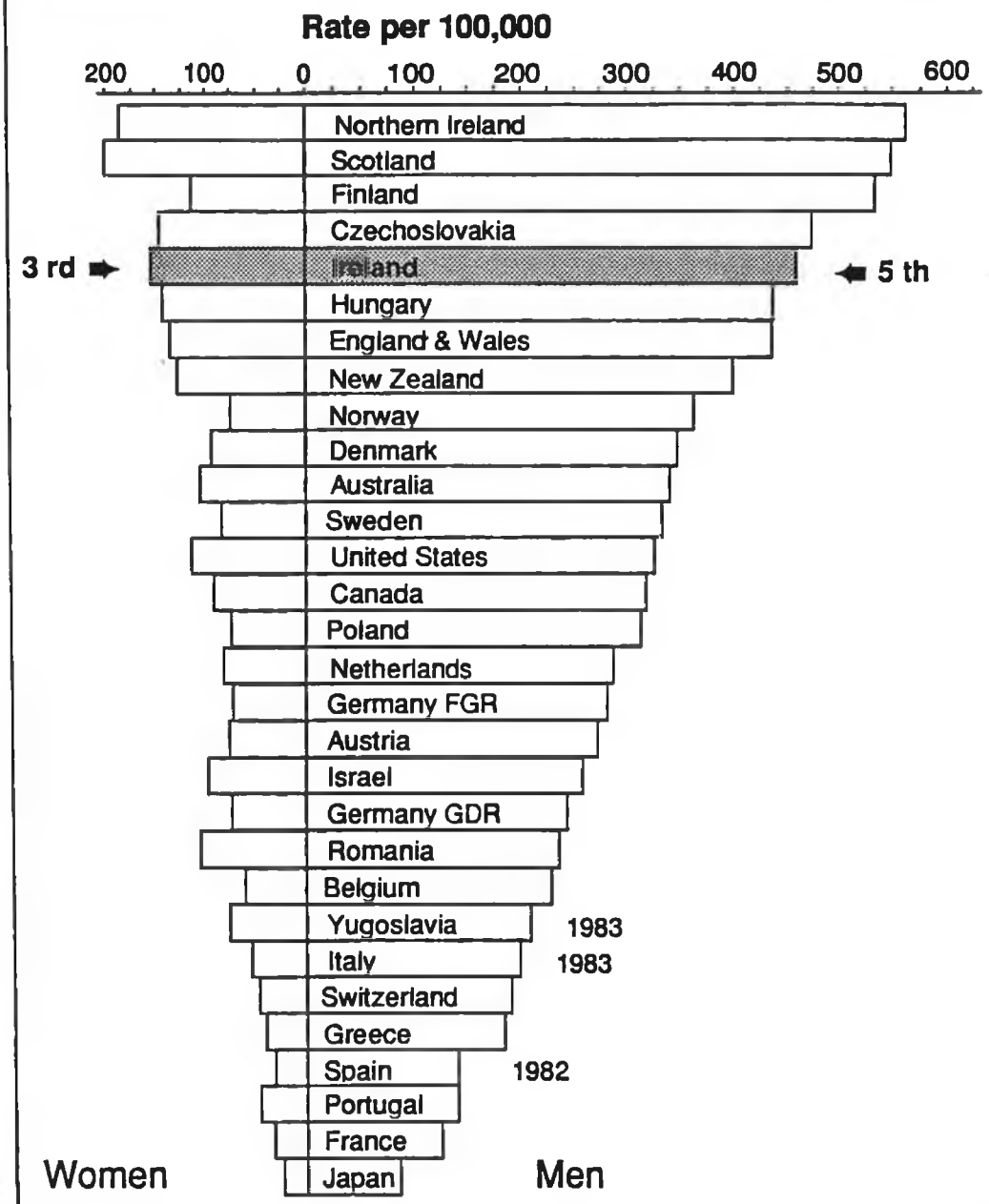
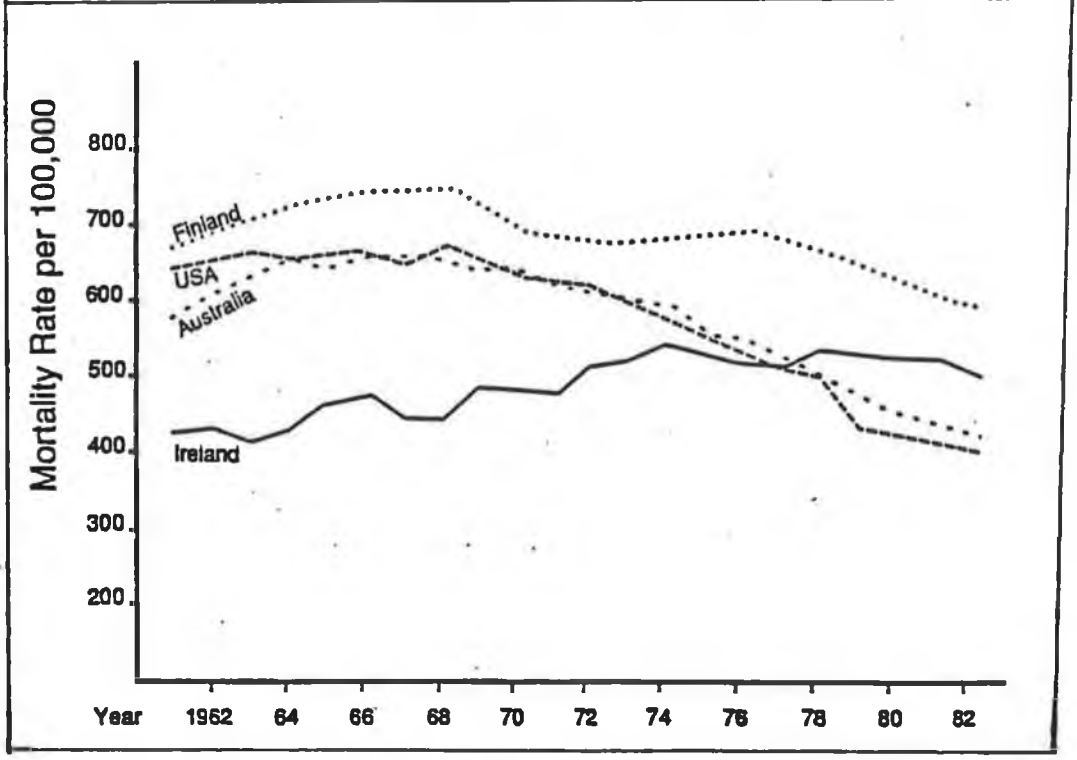


Figure 1 shows coronary heart disease mortality rates in 1985 for men and women aged 40-69 years in 30 developed countries. Here we see that Irish men have the 5th highest rate of death from coronary heart disease and Irish women are 3rd from the top of the league.

Between 1968 and 1983, death rates from coronary heart disease increased in Irish men between the ages of 55 and 64 years. During the 1970's there was little evidence of change in death rates from coronary heart disease in Irish women of the same age group. (Shelley 1986)

However, during the same period a decline in the mortality rates for coronary heart disease occurred in a number of other countries, notably, Australia, the United States and Finland. (Fig.2).

FIGURE 2. Age standardised mortality rates for coronary heart disease per 100,000 males aged 40-69 from 1962-1982. (World Health Organization)



In Figure 2 we see that between 1962 and 1982

there was a reduction in the mortality rates due to coronary heart disease in Finland, Australia and the United States, whereas in Ireland the rate increased from 421.4 to 479 per 100,000.

This decline has been associated with changes in health care, in health behaviour and in the creation of public awareness of coronary heart disease risk factors.

Coronary heart disease is caused by a build-up of fatty deposits in the coronary arteries which in turn prevents an adequate blood flow to the heart, thereby causing disease of the heart. Coronary heart disease can be fatal. Those who survive a heart attack can be left chronically disabled. Clinical observation, laboratory research and population studies, all indicate factors which are associated with the development of the disease, some of which can be changed.

Characteristics or risk factors which have been identified by the World Health Organization's Expert Committee as being the main contributors to coronary heart disease are:-

* A habitual diet which is high in saturated fats and cholesterol in the blood.
* Cigarette smoking habit.

* Elevated blood pressure.
* Obesity.
* Physical inactivity.
* Excess alcohol consumption.

It is the concensus of health authorities worldwide that the evidence of major benefits, as a result of preventive measures in some of these key risk areas, is such as to warrant action at the general population level.

WHO decided in 1982 that with regard to several key preventative measures, the balance of evidence indicates sufficient assurance of safety and a sufficient probability of major benefits to warrant action at the population level. (WHO Expert Committee 1982).

The WHO Expert Committee on the Prevention of CHD maintains that for this action to be effective, a health programme must be aimed at the population as a whole. It must reach not only those at highest risk but also the large number of people in whom risk factors are only moderately elevated, a group where most coronary heart diseases occur. It is also recommended that children and young people, as well as the middle-aged, should be included on the basis that the onset of CHD starts at a young age, when behaviour patterns such as

eating, smoking and exercise are generally established.

Whereas the main objectives of such a community preventative programme are humanitarian, to encourage all to attain a level of health that will allow them to lead a socially and economically productive life - there are economic considerations which are also worth noting.

It is said that medicine, as we understand it, has little to do with health and all to do with sickness. "Western medicine", Short (1987 p.1136) says, "seeks to intervene to reduce suffering and prolong life once an illness is diagnosed."

But is an emphasis on curing the best approach? Indicators of health for countries whose spending on health service is high, support the argument that increased expenditure on health services does not necessarily create a healthier society.

To counterbalance the traditional emphasis on curing, the importance of preventive medicine and health promotion is being firmly promoted by health authorities. The probability of reducing health care costs is an added incentive to this change of emphasis. (McCron & Budd 1981).

If medical costs continue to rise, even the wealthiest countries will be unable to offer universal health care cover. In 1951, European countries devoted 3% to 4% of their resources to health services. " In 1981, that figure soared to six to ten per cent and was rising." (Morrow 1981 p.15).

In Ireland, expenditure on health services increased from 5.5% to 7.2% of GNP between 1975 and 1980. This was due to a growing demand for health care; greater costs incurred due to the use of new technologies and procedures and the increased role of the state in bearing the costs of health care.

In 1986 the health services in Ireland cost over £1.2 billion (about one fifth of all public expenditure). The vast proportion of this was used to cope with sickness. Only an insignificant proportion was used to maintain health. If the situation could be reversed, if more money could be spent on sickness prevention, and on health promotion, as health authorities currently suggest, it should ultimately lead to a decreasing demand on medical care services and a resultant saving of limited public funds. (HEB n.d.).

According to Short (1987), a 1% increase in medical services only reduces mortality by 0.1% . Short tells us that in contrast to this, "the effects of education on mortality are double those of medical care and are much less expensive to provide.

The economic implications are said to extend beyond the direct costs of providing health care. These include for instance:-

- the payment of disability benefits

- lost output of the patient or caring relatives if they are in employment - this reduces the level of income of the community as a whole.

- lost output in Ireland due to absenteeism is 5% of GNP. Most of this is due to sickness. (HEB n.d.).

In the community cardiovascular disease prevention programme in North Karelia, Eastern Finland, which succeeded in reducing mortality and morbidity (impaired health) from CHD., the cost of the programme was said to be modest compared to the costs of traditional health services in the area. The eight year programme, which included the planning stages as well as the education programme, cost 1.1 million US dollars. This

amount was equal to the costs of maintaining 4 or 5 beds in a Finnish University Hospital for the same period of time. (Puska et al 1981). It was estimated that this 1.1 million dollars investment on prevention, saved over 4 million dollars in disability payments.

The North Karelia Project initiated in 1970 effected a sharp decrease in male mortality rates within two years of the start of the project. The experience gained from the Programme was subsequently applied to a programme for the rest of Finland effecting a reduction, albeit a less spectacular one, in coronary heart disease mortality.

In this Community Prevention Programme in Finland and in others, notably one at Stanford in the United States of America, where significant reductions in the incidence of CHD were reported, specific theoretical concepts were developed and tested. These were based on the belief that the development of a society and culture which favours healthy behaviours, supported by community networks, together with the development of an environment conducive to healthy behaviour, would facilitate individuals in making changes to promote their health and well-being. (Shelley 1986).

The success of the programmes in Karelia and the United States contrasted sharply with the unsuccessful efforts of a number of Irish health agencies such as The Irish Heart Foundation and the Health Education Bureau, to effect a reduction in the incidence of CHD in Ireland. In 1984, the Irish Heart Foundation appealed to the Department of Health to initiate a community coronary heart disease prevention programme based on the experience gained by the North Karelia and Stanford Programmes.

The first programme of its kind in Ireland, the Kilkenny Health Project, was started in 1984 and was officially launched by the Minister for Health, Barry Desmond, T.D., in Kilkenny City in March 1985.

This thesis sets out to examine the elements of a community health promotion programme. Particular attention will be given to an examination of the different elements of the programme where the likelihood of a successful outcome is enhanced by effective communication.

In the next Chapter we will discuss communication and we identify theories of communication which are relevant to a public health campaign or disease prevention programme.

The third Chapter deals with two models of public communications campaigns which aimed to reduce the incidence of coronary heart disease in a community. In this Chapter, we will also look at aspects of public communication campaigns where the failure of the campaign to achieve the stated objectives was attributed to a lack of attention to effective communications.

Chapter four, looks at the Kilkenny Health Project, at what it did and why. The main focus of our attention will be on how effective the use of communications was in making the population of County Kilkenny aware of the existence and objectives of the project.

The last chapter endeavours to assess the success or failure of the work and suggest reasons for these outcomes. It should be noted that as a member of the Education Committee of the Kilkenny Health Project, the present writer has access to information which is not as yet published. This information is utilised especially in the chapter on Kilkenny, as well as sources listed in the references.

CHAPTER 2.

REVIEW OF LITERATURE

A community based programme, which has as its objective the prevention of coronary heart disease can be described as a public communication campaign.

Public communication campaigns are usually associated with a situation where somebody is trying to influence someone else's beliefs or behaviour, using communicative messages. This is not to be confused with advertising campaigns and political campaigns which are only defined as public communication campaigns if there is an element of reform in the outcome, eg., advertising campaigns by a government to encourage the protection of the environment, the wearing of seat belts, or to refrain from driving if you have taken alcohol. "If there is a reform, a public communication campaign may be involved". (Paisley 1981 P.24) Reform in this sense is any action that makes society or the lives of individuals within society, better.

This raises an issue of ethics. What is better? Who decides what is better for whom? McGuire (1981) warns of the need to examine the ethics of

a campaign not just at the early stages but argues that ethical examination of the means as well as the ends should be a continuing process throughout a campaign. He does not say who is to be the arbiter of what is right or better. Paisley suggests that 'better' could be measured or defined by "emerging values in a particular society during a particular period in its history". (Paisley 1981 P.24)

Public communications campaigns can be termed strategies of social control insofar as one group intends to affect the beliefs and behaviour of another group, or they could be described as a type of media campaign - commonly called non-commercial advertising.

Campaigns which are defined as strategies of social control can use one or more of three possible approaches - education, engineering and enforcement. For instance, the U.S. Forest Service use all three approaches in their campaign to protect the forests. Communication campaigns concerned with vandalism, pollution and fire are used as part of the 'education' approach. Foresters endeavour to 'engineer' protection by making vandal-proof trail signs, but if the public persist in damaging the forest then 'enforcement' takes over. The foresters can limit access and can introduce fire permits.

In the public communication campaign begun some years ago in Ireland to urge individuals to conserve energy, education via mass media was used, but so was enforcement. Speed limits were reduced and petrol was rationed. In "No Smoking Campaigns" education is being used, but so is enforcement. Cigarette companies are compelled by law to print warnings on packets, their advertising is restricted and "no smoking areas" are being created in public places.

Engineering and enforcement are not alternatives to education, especially in cases where no right of enforcement exists. In a coronary heart disease prevention programme it might be possible to influence some of the risk factors, for instance, smoking in public places. The possibility however of forcing people to exercise, cease smoking in private or to adopt a particular diet, cannot be entertained. Therefore, it is not a question of which strategy - education, engineering or enforcement must be used in a programme to reduce the incidence of coronary heart disease, but of which type of education. (Paisley 1981)

If education, then, is the only strategy that can or should be pursued, attention must shift to the level of technique - to the process of communicating.

A decision must be taken as to what approach or combination of approaches should be used. The work of programmes with similar objectives must be examined so as to identify the elements which worked and where possible, to incorporate these into the programme. As McGuire (1981) points out, success is more likely if theoretical guidelines are sought.

Finding programmes suitable for this purpose proved problematical in the case of the Kilkenny Health Project. The Kilkenny Health Project has as its objective the reduction of death rates and disability from coronary heart disease by influencing the lifestyle and thereby the risk factors associated with coronary heart disease. Puska et al (1985) suggests that once the aim of a programme has as its objective the influencing of lifestyle and risk factors, the task enters the realm of behavioural and social sciences. Much of the premature death and disability experienced throughout the world is said to have a social and behavioural basis. To effect change, Farquhar (1985a) maintains that social science theory and methods must be used in the compilation of a community prevention programme.

The need for clear theoretical guidelines so as to link the different aspects of the problem - the need for organisational changes in the environment

as well as the need to reach, teach, motivate towards change, and help sustain change, is stressed by Farquhar et al (1985a, 1985b) Puska et al (1985) and Maccoby and Solomon (1981). The application of the social and behavioural approach in the area of Coronary Heart Disease is relatively new despite the importance of health-related issues, there are very few comprehensive and adequately researched studies available. (Table 4) McGuire (1981) describes them as being at a primitive stage of theorising.

TABLE 4. Community-based multifactor CHD reduction and CHD risk factor studies. (Puska et al 1985.)

Description	Country	Years of education
1. North Karelia Project: two counties, one treatment, one reference, *n* = 433,000.	Finland	1972–1982
2. Stanford Three Community Study: three towns, two treatments, one reference, *n* = 45,000.	USA (California)	1972–1975
3. North Coast Project: three towns, two treatments, one reference, *n* = 70,000.	Australia	1977–1980
4. Swiss National Research program: four towns, two treatments, two references, *n* = 40,000.	Switzerland	1978–1980
5. Community Health Improvement Project: two counties, one treatment, one reference, *n* = 224,000.	USA (Pennsylvania)	1979–1986
6. Eberbach-Wiesloch Project: three towns, two treatments, one reference, *n* = 30,000.	Federal Republic of Germany	1976–1990
7. South African Study: three towns, two treatments, one reference, *n* = 16,000.	South Africa	1980–1983
8. Stanford Five City Project: five cities, two treatments, three references, *n* = 350,000.	USA (California)	1980–1986
9. Minnesota Heart Health Study: two towns, two cities, two suburbs, paired treatment and reference, *n* = 356,000.	USA (Minnesota)	1982–1989
10. Pawtucket Heart Health Study: two cities, one treatment, one reference, *n* = 173,000.	USA (Rhode Island & Massachusetts)	1982–1986

Table 4 shows those projects known to the author of studies based on communities and including at least one reference area and involving the use of comprehensive public health education and community organisation methods.

However, those community-based coronary heart disease prevention programmes using a reference area and involving the use of comprehensive health education and community organisation methods which have been assessed, would seem to indicate that measurable differences in experimental and control conditions can be achieved within a reasonable time. Success is attributed to a combination of well-formulated mass media campaigns and an appropriate type of community organisation. However, these studies are not totally relevant to the Kilkenny Health Project. None is based in Ireland or even in Great Britain and from a study of the information that is available, it is evident that many of them had a level of funding and resources greater than that which was available for the Kilkenny Health Project.

The experience of the Stanford Community Projects, and the North Karelia Project showed that a behavioural/social science approach could be reasonably cost effective in changing knowledge and attitude providing that:-

(a) There is a need for change and the potential for change does exist.

(b) It is possible to measure the initial and final states.

(c) The people (change agents) working to effect change are considered to be trustworthy.

(d) There is adequate time for change to occur. (Farquhar 1985a)

We will examine these two projects in some detail in the next chapter but first we will discuss a behavioural/social science approach.

Because of the lack of comprehensive studies which we have already mentioned, the North Karelia Project chose to study four theoretical and somewhat overlapping frameworks for behavioural change in their search for a model.

A COMMUNICATION-BEHAVIOUR CHANGE APPROACH was first examined. The introduction of new behaviours in the community is achieved basically by the use of Mass Media aimed at the population at large.

The Project considered a BEHAVIOURAL CHANGE APPROACH where the emphasis is on persuading

people who have been introduced to the new behaviour, to change. THE INNOVATION DIFFUSION APPROACH was also considered. Proponents of this theory see change occurring through natural networks in the community. Diffusion occurs when a concept or idea reaches individuals within the community through communication is adapted by them and, over time, causes social change.

A COMMUNITY ORGANISATION APPROACH was also examined. This theory argues that broad changes in lifestyle can be achieved only if changes are made in existing community structures - changes which must be sought and initiated by the people themselves.

The 'unified model' produced in North Karelia from a study of the four theoretical approaches was one which included an external input from the Project in the form of a mass media campaign to the population at large, where its effect is mediated through interpersonal communication, and through formal and informal opinion leaders. This two-pronged approach was aimed at increasing knowledge, at persuasion, at teaching practical skills and providing the necessary social and environmental support for the performance and maintenance of the new behaviours. (Puska et al 1985). It was thought that this could be achieved

by using mass media communication to the population at large where the message would diffuse through natural networks prompting collective action, demanding necessary structural changes to be made, thereby enhancing the opportunity for the adoption and maintenance of the new lifestyle.

THE COMMUNICATION CHANGE APPROACH

Because of the degree to which the Kilkenny Health Project used the North Karelia Project (NKP) as a model, we will now examine these four approaches in greater detail. In the course of this examination we will pay special attention to theories of communication, since it is clear that it is one of the most important elements in the project. It is the one process which is common to every facet of human life, as Littlejohn (1983) says, any study of human activity must touch on communication processes in one form or another.

Communication can be identified as the element which is common to each of the four approaches which were studied by the NKP change agents. For

instance, the behavioural change approach uses persuasion, which of course requires effective communications. The community organisation approach relies on pressure from the community to the authorities to effect structural changes, and this requires coordinated and effective communications. The innovation-diffusion approach requires effective communication to pass the new idea or lifestyle to community leaders and they in turn must communicate if they are to pass on and recommend the idea or lifestyle to others. The role of communications in their fourth approach, the communications behaviour approach is evident. New behaviours are introduced into a community through communications, mass and interpersonal. Mass communications is used to take the message to the population at large and interpersonal is used to reach the community leaders. (Puska et al 1985).

The field of communication, as a discipline in its own right, is young. Prior to 1970 four primary fields were responsible for most of the work on the theory of communication - psychology, sociology, anthropology, philosophy. Other disciplines which have contributed to the understanding of communications include, management, journalism, speech sciences, political

science, mathematics and engineering. (Littlejohn 1983).

Scholars from these disciplines share an interest in communication but their main interest, the main thrust of their work is in the concepts of their primary discipline. Communication would generally be subordinate. However, since the early 1970's, an increasing number of scholars whose primary interest is communication have produced research, new journals of communication have been launched and universities have created departments of communications. These scholars, recognising the importance and centrality of communications, have given it emphasis in their work.

Perhaps the most characteristic feature of communication to emerge from this work is its diversity. As Fiske (1982) points out, it ranges from the mass media and popular culture, and language, to individual and social behaviour. It is possible to identify some links within this diversity. For instance, Dance (1970) identifies fifteen distinct conceptual components in the many definitions of communications. (Table 5).

TABLE 5. Conceptual components in communications (Littlejohn 1983).

1. Symbols/Verbal/Speech	"Communication is the verbal interchange of thought or idea" (Hoben, 1954).
2. Understanding	"Communication is the process by which we understand others and in turn endeavor to be understood by them. It is dynamic, constantly changing and shifting in response to the total situation" (Anderson, 1959).
3. Interaction/Relationship/ Social Process	"Interaction, even on the biological level, is a kind of communication; otherwise common acts could not occur" (Mead, reprinted 1963).
4. Reduction of Uncertainty	"Communication arises out of the need to reduce uncertainty, to act effectively, to defend or strengthen the ego" (Barnlund, 1964).
5. Process	"Communication: the transmission of information, idea, emotion, skills, etc., by the use of symbols—words, pictures, figures, graphs, etc. It is the act or process of transmission that is usually called communication" (Berelson and Steiner, 1964).
6. Transfer/Transmission/ Interchange	"The connecting thread appears to be the idea of something's being transferred from one thing, or person, to another. We use the word 'communication' sometimes to refer to what is so transferred, sometimes to the means by which it is transferred, sometimes to the whole process. In many cases, what is transferred in this way continues to be shared; if I convey information to another person, it does not leave my own possession through coming into his. Accordingly, the word 'communication' acquires also the sense of participation. It is in this sense, for example, that religious worshipers are said to communicate" (Ayer, 1955).
7. Linking/Binding	"Communication is the process that links discontinuous parts of the living world to one another" (Ruesch, 1957).
8. Commonality	"It (communication) is a process that makes common to two or several what was the monopoly of one or some" (Gode, 1959).
9. Channel/Carrier/Means/ Route	"The means of sending military messages, orders, etc., as by telephone, telegraph, radio, couriers" (*American College Dictionary*).
10. Replicating Memories	"Communication is the process of conducting the attention of another person for the purpose of replicating memories" (Cartier and Harwood, 1953).
11. Discriminative Response/ Behavior Modifying Response	"Communication is the discriminatory response of an organism to a stimulus" (Stevens, 1950).
12. Stimuli	"Every communication act is viewed as a transmission of information, consisting of a discriminative stimuli, from a source to a recipient" (Newcomb, reprinted 1966).
13. Intentional	"In the main, communication has as its central interest those behavioral situations in which a source transmits a message to a receiver(s) *with conscious intent to affect the latter's behaviors*" (Miller, 1966).
14. Time/Situation	"The communication process is one of transition from one structured situation-as-a-whole to another, in preferred design" (Sondel, 1956).
15. Power	"Communication is the mechanism by which power is exerted" (Schacter, 1951).

In Table 5, Dance summarises these and provides an example of each. In addition, he identifies basic differences in these definitions. They range from their level of abstractness to the whole area of intentionality and judgement: some are quite broad and inclusive, whereas others are quite precise and restrictive.

Nevertheless, a common thread, that communications is social interaction through messages, runs through most definitions. This is also how it is defined within the two main schools in the study of communication, which Fiske terms the Process School and the Semiotic School. However, although these two schools agree on the definition, their approaches, their interpretation of what constitutes 'social interaction through messages', is different. (Fiske 1982).

But before examining these approaches to see which is pertinent to public communication campaigns, we need to know the nature of the communication context which is relevant to such a campaign.

The nature of communications can be divided into two broad groups - interpersonal, generally face to face, or mediated which mainly involves the sending of messages via channels for mass media

consumption. Communication always occurs in a context, whether that is dyadic, group, organisational or mass.

Interpersonal communication tends to be two way, face to face with a high degree of feedback. It can form attitudes and effect changes. (Rogers 1976) One of the fundamental goals of interpersonal communication is to create understanding, without which one cannot communicate. (Watzlawick et al 1967). We have relationships whether we want them or not. In either personal, social or business contexts, it is important that the relationships be good, be harmonious, and that they remain good. For relationships to be good, there must be understanding between the individuals concerned. Understanding is achieved by getting information about the other person and disclosing some about ourselves. (Dance and Larson 1976). Disclosure is usually in direct relationship to the length of time the parties are known to each other, and the degree of trust that exists between them. It increases with relational intimacy. It also increases when rewarded and when there is a need to reduce uncertainty in a relationship. As we can see in Newcomb's and more particularly in Westley and Maclean's theories, disclosure tends to be

reciprocal, to be greater between women than men. Women disclose more with people they like whereas men disclose more with people they trust. (Gilbert 1976). Thus, natural networks are important channels of communication.

Interpersonal communication is fundamental to group organisation. A group can have anything from four or five and up to twenty people interact with one another in such a way as to influence each other. Communication is the essential characteristic of the group. (Littlejohn 1983).

Individuals usually meet frequently and have common interests and perhaps beliefs. They find the group to be rewarding and tend to be unified in their reaction to the environment. (Cartwright & Zander 1968). Persuading an opinion leader in a group to adopt a healthy lifestyle could be a powerful method of effecting changes in the life-style of the other members of that group.

Groups within the community are important in public communication campaigns. A group is said to exert influence on individuals or members' lives for a number of reasons:-

1. It provides stability and gives the person confidence. Peoples' readiness to fight for their country for instance, or to agree to try a new concept, depends on how secure they feel.

2. It provides a means of achieving a goal. If an individual in society feels strongly that the local community should have, say a swimming pool, their chances of achieving that as a group would be greater than as an individual.

3. A group's values and norms influence the individuals or member of that group.

The most important attribute of groups is cohesiveness. Cohesiveness does not imply that they must have similar attitudes, it is the degree to which they realise that they must rely on one another to achieve mutually desirable goals. (Lewin 1948).

A group is thought to be more effective in achieving actual goals if it does not waste energy arguing about how the tasks should be approached. If they are cohesive, they can agree on the secondary issue and apply all of their energy to the main task. Cattell (1948) calls this "synergy". The 'conversion' of groups to the

lifestyle being advocated by a health promotion programme is of major importance.

Interpersonal communication plays a major role in an organisation. The project team or group who direct a public communication campaign is in effect, an organisation. The essence of any organisation is that people are acting in such a way that one person's behaviour is contingent on another's - their behaviours are interlocked. Fundamental to the quality of this interlocking is that there is communication between these people. Weick (1969) believes that all organising activities consist of double interacts. An act is a statement or request by one person to another, the response by another makes this an 'interact'. A double interact is when the first person responds again. A simple or basic activity, but Weick believes that an organisation is built on such activities.

Farace's (1977) Structural Functionalism defines an organisation as a system of at least two people (but usually many more) with interdependence, input, throughput and output. This group must communicate and cooperate to produce some end. He maintains that the most important resource in an organisation is

information - it reduces uncertainty, and communication is in part, the reduction of uncertainty via information. The key concept in Farace's theory related to individual communication, is load. Communication load is the rate and complexity of information inputs to a person. Overload occurs when the load of information exceeds a person's capacity to assimilate the content. This can be either because of the rate at which it is coming to them or because of the complexity of the message. These concepts can apply equally to an individual, a group or an organisation and are important in both interpersonal and in mediated communication.

Now we will examine the second context in which communication occurs - mediated communications. Mediated communication is said to have the ability to create publics, define issues, provide common terms of reference and to allocate attention and power. (Gerbner 1967). It is generally used where the audience to be reached is large and heterogeneous. The messages in mass communication tend to be one way with limited, if any, scope for feedback and it cannot be individualised so that its use is limited to issues for which the same advice is appropriate for many people. Modern technology, print, radio, television, satelite,

make the transmission of information to mass audiences both rapid and cost effective. In general, mediated messages are considered to be fast, flexible and relatively easy to plan and control. (McQuail 1977) Leslie (1981) points out they are particularly useful to reach people in sparsely populated areas, important to the Kilkenny Health Project, where as we will see, almost 50% of the population is dispersed in areas outside the city of Kilkenny.

From this examination of interpersonal and mediated communication it is evident that both are important in the work of a public communication campaign. Mediated communication, with the ability to reach large audiences, is required to set the scene, and to create basic knowledge within the population at large. Interpersonal communication is needed in order to teach, persuade and motivate individuals within that population to act as agents of change and to motivate groups of people to act collectively so as to effect structural changes. So now as we compare the two approaches or schools - the Process and Semiotic, we must bear in mind their relevance to both interpersonal and mediated communications.

The process school draws upon the social sciences, psychology, and sociology in particular, and is concerned with the acts of communication - how communication occurs.

Social interaction according to this school, is the process whereby one person affects the behaviour, state of mind or emotional response of another. If the effect is different or smaller than that intended,the communication is considered to have failed. Intention is a crucial factor, in the process school, if the meaning received is not identical with the meaning intended by the sender,communication is not thought to have taken place. The stages in the process are then thought to be at fault, and the medium, channel, receiver, noise and feedback elements are examined.

The process school views communication as the transmission of messages. It s core is concern with efficiency, and accuracy, with how the senders and receivers encode and decode, the assumption being that it is the transfer of the message from A to B that is important in influencing or effecting the behaviour or state of mind of another.

The semiotic school draws upon linguistics and the

arts subjects and addresses itself to how communication works. Semiotics define social interaction as that which identifies the individual as a member of his culture, community, his sharing of common beliefs, knowledge or customs. The semiotic school does not consider that misunderstandings constitute a communication failure. It does not assume that messages pass through stages. When the meaning that people take in response to messages sent to them are very different from what was intended, it is called 'mis-communications'. (Kreps & Thornton 1984). Communication in the Semiotic School is seen as a process of creating meaning or creating understanding. Where your meaning differs from my meaning it is not considered failure, it is thought to be an indication of social or cultural differences between us.

Theories in the semiotic school seek to explain how signs are used to stand for things in the minds of people. The sender is not so important. What is important, is how the text is read, how it interacts with people in order to allow an exchange of values - values which enable communication to have meaning.

The process school would see a direct link between

smoking or drinking in a television message, and its effect of encouraging the receiver to smoke or drink. Whereas the Semiotic School proponents, would argue that if the viewer is motivated to smoke or drink, the causes must be in their socio-cultural experience not just in the television message. Changing the TV message they argue, will not in itself reduce smoking or drinking in society.

So which approach of the two is appropriate to a public communications campaign or prevention programme, the process or the semiotic?

The example above would seem to indicate that the semiotic approach is the appropriate one for a public health campaign. Experience gained in these campaigns, as we will see, has led to the belief that mediated messages alone will not effect changes in lifestyles. The whole culture needs to be sympathetic to the cause. The majority of the community having been exposed to the new concept and perhaps persuaded that it was right for them, must campaign to have existing community structures adapted, such as the creation of no smoking areas in public places. However, we should not dismiss the process schools' approach completely. I would argue that it has

relevance to some aspects of a public health programme.

There are situations where intention, as in the Process School is important; where it is important that the intention of the sender in relation to the information or the message is clearly received, and understood by the receiver. For instance in giving instructions on health care either from a doctor or nurse to a patient, by telephone, the consequences of misinformation can actually be a matter of life and death. It could be counterproductive if the advice emanating from a health campaign's literature was incorrectly read. This of course could be due to the receiver's "values" as in the Semiotic Approach, but it could also be due to misprints or faulty telephone connections.

The Process Approach

The theory which perhaps best illustrates the Process School approach is Shannon and Weavers' Mathematical Theory of Communication, which is widely accepted as one of the main seeds out of which communication studies have grown. It sees communication as the transmission of messages. (Fiske 1982). The way in which the channels of

information could best be used, was the main preoccupation of the theory, channnels were mainly telephone and radio. Shannon & Weaver claim that the theory, though developed on these two channels, is capable of wide application. However, it could more correctly be called a Theory of Signal transmission.

Shannon & Weaver (1949) identify three levels of problems in the Study of Communication. These are:

Level A: Technical Problems or the Transitional Prospect. How accurately can the symbols of communication be transmitted? How clearly is the message received as defined by Shannon and Weaver? , Can noise, crackling on telephone,or snow on a TV screen be eliminated. These are the problems that the model was originally developed to explain and they are relatively easy to understand.

Level B: Semantic Problems or the Interactional Prospect. How precisely do the transmitted symbols convey the desired meaning? These problems are harder to solve. They range from the meaning of

words to, for example, what meaning an Irish agricultural programme might have for a native of Hong Kong. Shannon & Weaver do not explore the cultural factors at work, but as Fiske (1982) points out, "the meaning is at least as much in the culture as in the message."

Level C: Effectiveness Problems or the Behaviouristic Perspective. How well does the perceived meaning affect conduct in the desired way?

Shannon and Weaver deny that they intend to convey that communication is propaganda or manipulation, that X has succeeded in communicating with Y only if Y responds as X wishes him to.

In their model, Shannon and Weaver acknowledge that there is a need to extend the concept of noise to cope with problems. Noise, whether it originates in the channel, the audience or the sender of the message always confuses the issue of intention and should be minimised.

Perhaps the most important aspect of Shannon and

Weavers' theory, which at first sight might not appear to have much relevance to a public communication campaign, is their concept of redundancy. This extends their concept from the purely technical into the social dimension. Redundancy is that which is predictable or conventional in a message. A message of high predictability is said to be redundant, to be of low information. For instance, if two friends meet face to face, one says to the other - My name is -, I am wearing a black coat - this would be a highly predictable message, therefore redundant, or low in information. Fiske 1982 maintains that a degree of redundancy is essential to practical communications. Increasing redundancy is said to help overcome the problems of a message which is at variance with the receivers' beliefs or understanding. It is also thought to be essential to 'say' such a message more than once, preferably in different ways. Redundancy also helps to solve the problem of communicating with a large audience. A heterogeneous audience will need a message with a high degree of redundancy. Speech must be more redundant than writing. The reader can read something a number of times until he understands it, a hearer only hears the message once. This theory of redundancy is somewhat related to

Farace's 'load' and 'overload'. As we saw, Farace considers it essential to keep the rate and complexity of information to a person, within their capacity to assimilate and understand.

Redundancy theory is invaluable in helping to overcome practical communication problems. These problems may be associated with accuracy, errors, or they could be connected with channel and noise, the nature of the message or with the audience. This is of immense importance in giving health messages. The World Health Organization (1985) advises that in giving the general public information about health-relatted problems, care should be taken not just to provide the information but to provide it in a way that is easy to understand, so as to attract the attention of the people and encourage them to adopt the idea. Messages in health communication campaigns then should be high in predictability; they should be redundant.

Two other concepts, Feedback and the Medium, the result of work by various students working with the original Shannon and Weaver Model, are important in the study of communication. Feedback is simply the transmission of the receiver's reactions back to the sender which helps the communicator or sender to determine whether the

receiver understands and accepts the message. It enables him to adjust or change the message if necessary. It is also applicable in face to face communication. People can indicate by their facial expression whether they agree or understand whether your message has had any effect. Feedback is particularly useful in mediated communications. Field research and evaluations throughout the period of a public communication campaign can provide feedback. The medium can be described as the physical means of converting the message into a signal which is capable of being transmitted via a channel. It can be divided into three categories, the first is presentational - the voice, face, and body, the use of natural languages, spoken words, expressions and gestures. The second category is representational media, such as books, paintings, photographs or architecture. The third category is the mechanical media; telephones, radio, television and video, all of which are transmitters of the presentational and representational media.

Presentational media, as it is defined here, could be described as language. Language is central to human communication and the signs and codes that are used in language may be verbal or non verbal. The way sentences are structured is an indication of the intention of the sender. This is the basis

of ordinary language philsophy, pioneered by Wittgenstein (1953) and subsequently developed by Austin (1964) and Searle (1969). In his theory of paralanguage, Trager (1958) examines the effect of voice, pitch, quality of articulation, relaxed or forceful. There is a saying, "it's not what you say, it's the way that you say it."

The way in which speech can be used to persuade, the basis of Aristotles' theory of Rhetoric, affords another example of how a non-verbal code can effect a verbal code by adding nuance to a verbal message, just as a facial expression can. A look of disbelief can be more powerful than the words "I believe you."

Both Birdwhistell (1970) and Hall (1966) agree that communication makes use of all sensory channels. Birdwhistell's theory of Kinesics concentrates on the perceptible body motions which have significance to a particular culture, for instance, a wink would mean the same thing to individuals in one culture; it might mean something totally different or have no meaning at all in another culture. Hall's theory of proxemics deals with the use of space. How space is used, either in living accommodation or in the space one individual keeps between him and another, says or communicates something. He

argues that just as language varies from culture to culture, so too do the other elements of communication. For instance in some Eastern cultures, smell is important, whereas it is not in most Western civilisations. In the West, sight, sound and touch are of greater significance. In the design and execution of a message or programme aimed at influencing the attitudes and beliefs of a community, success or failure may depend on the extent to which the agent takes these 'differences' into consideration.

Non-verbal communication is limited in that it can only tell you the communicator's present attitude to a subject, it cannot tell you what they thought last week. This might seem to indicate that its use is limited for face to face communication. However, Harrison (1973) whilst acknowledging the role of non-verbal communication in interpersonal communication, considers mediated messages to be a special form of non-verbal code. The voice or printed word may say something different from the visual message. A written text can have a 'tone of voice' a photograph can convey depression or joy. We will examine this further in Barthes theory of connotation.

Howard Lasswell's model of communication is said

to be a verbal version of Shannon and Weavers which can be applied to any kind of communication, but is most often applied to mass communications. Lasswell (1948) suggests that changing any one element in the Shannon & Weaver model, can influence the effect:

- Who says what in which channel, to whom, with what effect.

In Lasswell's theory, as it applies to a public communication campaign, the credibility of the sender might make the difference as to whether the message beamed via a certain channel to the community was to influence their attitude on the prevention of coronary heart disease, or it might not. Or perhaps the element to change would be how the message was phrased. Although most mass communication research has implicity followed this model (Fiske 1982), it is not very helpful as it does not explain when and how these dysfunctions operate.

Schroder, Driver and Strenfert (1967) argue that the way in which a person deals with information is in direct relationship with their depth of knowledge and the complexity of the information which they are attempting to understand. This theory of cognitive complexity is developed further by Crockett in his theory of Cognitive

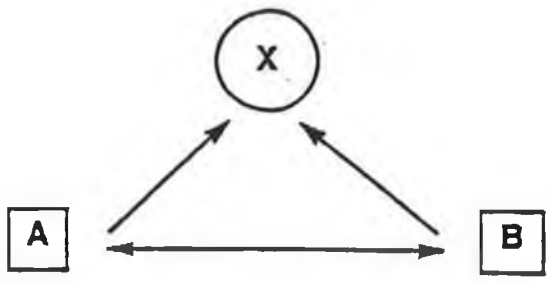
Complexity and Impression Formation (1965). He concentrates on how individuals process information about other people. Cognitively complex people are thought to be able to put perceptions into a broader network of understanding; they have a greater ability to reconcile contradictory attributes of others. They therefore tend to adjust their messages to the other person's understanding or viewpoint, thereby making communication more effective. People tend to select and act on information that is consistent with their own attitudes, beliefs and culture, and the more cognitively complex the person is, the more they will exercise their own judgement in relation to the message.

This theory has two points of importance to our search for theories relevant to a public communications campaign. One, health messages must not be so specialised or technical as to be above the comprehension of the average citizen. Indeed there is a school of thought that says that a message should be capable of being understood by those with the lowest level of knowledge. This has relevance, not just to the design of a message but to whole programmes where the degree of knowledge of the target audience should be known to the message and programme designer beforehand. The

second point to be noted is that cognitively complex people, can adjust their messages to other people's understanding or viewpoint. Such people would be ideal "opinion leaders" acting as carriers of information on a new lifestyle to a community.

The effect of messages or information and how people process or react to it is the basis of Newcomb's (1953) work. This has obvious relevance to a public communication campaign as we will see. For Newcomb, the role of communications in society is to maintain equilibrium within a social system, to create cognitive consistency. The model works on the premise that people cannot live with inconsistencies for very long. In his triangular model (Figure 3) A and B are communicator and receiver and could be either individuals or government and people, a public communication project team or community. X is part of the social environment. ABX is a system which means that its internal relations are interdependent.

Figure 3 - Newcomb's minimal A-B-X System.



Newcomb argues that if A and B are friends and X is either something or someone known to them both, it will be important that A & B have similar attitudes about X. If they do not, the system will not be in equilibrium and they will be under pressure to communicate until they can arrive at broadly similar attitudes to X. The greater the importance of X in their system, the greater will be this pressure to communicate so as to reach broad agreement. Equally, if X changes, A & B will immediately consult with each other to get a feeling for how the other is reacting to the change. They will communicate to establish what Fiske (1985) calls their 'co-orientation' to the new X.

The perceived need for people to talk together about a new idea in order to reach consensus indicates the importance of 'converting' groups and opinion leaders in a community at the early stages of a campaign. This theory also emphasises the importance of communications. The public communications campaign X, needs to be in constant communication with the people A and B and they in turn need information about the campaign.

Fiske (1982) points out that in a democracy where information is regarded as a right, it is not always seen as a necessity. Without it we cannot

be part of society. We must have information about our social environment so as to know how to react to it and to identify in our reaction, factors that we can share with our peers. (Fiske (1982). For example, let us assume that the health promotion message of a public communication campaign is X, a new, perhaps revolutionary way of thinking for members of the community A and B. According to Newcomb's model, the normal reaction of A and B on being confronted with this change X, would be to avoid the adoption of a radical stance to X. They would therefore immediately talk together to get more information and reach a consensus of opinion in relation to the suggested new lifestyles.

In an extension of Newcomb's work on cognitive consistency which they adapted specifically for the mass media, Westley and MacLean (1957) argue that, not only do people need information in order to remain in equilibrium, but that they are dependent on the mass media for this information. (Figure 4).

FIGURE 4. Westley and MacLean's Adaptation of Newcomb's A-B-X model, showing an editorial function C..

In figure 4, B is a person or the community, X is the new concept or idea, A is now a journalist and C is an editorial - communicating function. B no longer communicates directly with A to discuss X, the new idea or concept. A is now a journalist who sends the information about X into his media C. B has now lost first-hand information about X because he no longer has direct contact with A. Westley and MacLean see A and C playing dominant roles and with B, very much at their mercy. B's need for information and orientation increases but his means of satisfying this is restricted; he becomes dependent on the mass media.

This belief, led to theories of mass society, and the notion that those who control the media, control the minds and hearts of the mass public. (Gerbner 1956). Although this belief was refuted in later work, such as that on selected exposure, the two step flow, and diffusion, as we will see, it cannot be dismissed. Modern technology has resulted in a school of thought which gives the mass media prominence again. The mass media are considered to be effective in creating 'basic awareness' of a cause or issue, or 'setting the agenda'. The mass media are therefore important in public communications campaigns. We will examine theories which are 'critical' as well as those which 'support' this belief.

The Mass Media.

Theories of Mass Society developed in the 1950's at a time when development or change was a predominantly one way flow of information from government agencies to the people. There was little understanding of communications as a Social Process. The term communications was used primarily as transmission channels for diffusing information on technology or health. (Tulungwa 1981).

Models for communication programmes such as Westley and MacLean's were based on their theories of media effects - the proven cause and effects nature of mass media. Rogers (1976) suggests that the 'hypodermic' needle model was thought to be able to act as a magic multiplier for development. Mass media seemed to be ideally suited to reach large audiences rapidly with persuasive and informative messages about details of predetermined development. However, the relative power of mass media communication in leading to development was assumed rather than proven.

Communicators and researchers began to question previous assumptions, and were particularly critical of earlier inattention to the fact that

contemporary mass media theory was never cited where a development principle had been adopted. In many cases it was found that the message carried by the mass media was not explicit. It might urge a community to save energy but not tell them how to do this. For instance, a message might advocate the adoption of a low fat diet so as to reduce the incidence of coronary heart disease, but if it did not tell people what a low fat diet was, they might not be able to make the necessary changes. Some people would have sufficient knowledge about fat and diet to be able to act on this message, but others might not. They might not know how to cook their traditional foods so as to control fat content. A further deterrent to the adoption of the new diet might be the unavailability in the local area of the types of foods, low in fat, suitable for such a diet. There is a clear implication that structural support is needed to augment media messages where changes in lifestyle or new developments are being advocated.

In a discussion on the design and planning of the Stanford Five City Project, Farquhar (1985b) points out that only certain types of behaviour or messages are learned by exposure to mass media. Mass media is thought to be more effective when used to give basic knowledge, or when used as an

initial model so as to support the efforts of community organisations.

"Mass media channels are primarily knowledge creators, whereas, interpersonal networks are important at persuading individuals to adopt or reject". (Rogers 1983 p.273).

And so belief in the ability of the mass media to effect change by acting as a hypodermic syringe, injecting large amounts of advice into a community began to lose favour. A study of the 1940 Presidential Election in the United States of America (Lazarsfeld 1944) which was being used to support the hypodermic needle model showed that almost no voting choices were influenced directly by the mass media. "People appeared to be much more influenced in their political decisions by face to face contact with other people than by mass media directly. (Lazarsfeld & Menzel 1963 p.96). This was supported by later research findings indicating that "the role of mass communication in facilitating development has only been contributory rather than direct and powerful". (Tuluhungwa 1981 p.34).

The information gathered seemed to indicate also that ideas often flow from radio to print to

opinion leaders and from these to less active sections of the population. (Katz 1955).

Katz and Lazarsfeld's two step flow theory - the process whereby an innovation or new idea, diffuses throughout a community which replaced the hypodermic needle model, was in turn developed to a multiple-step diffusion model. (Littlejohn 1983).

Crockett's theory of cognitive complexity has clear implications in the mass society context. Whilst recognising that certain effects occur with the use of the mass media, proponents of the cognitive complexity or selective exposure theory would " deny the mass 'sheep like' effect commonly feared". (Littlejohn 1983 p.272).

The relative power then of the mass media in development was mainly assumed rather than proven in theories of Mass Society. Nevertheless, the mass media have an important role to play in creating awareness of an issue or cause. We will therefore examine the mass media channels thought to be powerful.

There is belief among professional communicators in Ireland that national media channels, including

national daily papers, are considered more powerful in influencing rural audiences than are the local newspapers. As a source, they are not necessarily perceived to be more reliable or truthful but the belief is that if a national paper gives the matter space, it must be important. There are a number of theories but little evidence as to what is the best channel to use, television, radio, newspapers, books or film.

A study by Katz, Gurevitch and Hass (1973) indicated that people tend to use newspapers, radio and television to connect themselves to society, but use books and films to escape from reality for a while. The better educated tend to use print media, those with less education, the electronic and visual media. Newspapers, magazines and other reading matter are considered to be more effective in giving health information because of their scope for treating the subject in some detail. Women are reported to be more likely to read about health topics than men.

These trends have been confirmed by more recent work, Cantor et al (1979) and Miller and Cantor (1980) who found newspapers to be consistently more effective as a source of health education than either television or radio. Gallop polls in the United States have shown a degree of mistrust

of print, a tendency to be cautious in believing all that is printed because of a belief that messages have a political or commercial motive. This could be based on the perceived power of the editor to distort a message which we will examine.

Television however is indisputably the medium with the largest audience and is used by a section of society, the less well educated, who do not benefit from the print media. (Baggaley 1987). In 1979 it was reported by the Carnegie Commission that 64% of Americans rely on television as their principal source of news and that the average high school graduate spent nearly 50% more time watching television than learning in the classroom. The popularity of television is borne out by research in Ireland and in other countries.

In Canada for instance, a special Senate Committee nationwide survey, into effects of mass media, reported in 1970 that:-

37% of those questioned, thought television to be 'most factual'.

28% favoured newspapers.

59% found television to be 'most influential'.

25% thought newspapers to be 'most influential'.

60% thought television to be 'most educational'.

21% thought newspapers to be 'most educational'.

(Schulte 1983).

A national survey on sources of influences in Ireland (MRBI 1987) showed the media as second to home and the family as the most important source of influence. (Table 6).

Table 6. Main Source of Influence in Ireland. (Market Research Bureau of Ireland 1987).

	1987 %	1983 %
Home and the family	51	61
The Media	30	24
The Church	10	11
Government and Politicians	3	3
Don't know: None	6	1

In Table 6, we see that the media was cited as the second most important source of influence, both in 1983 and 1987. The 1987 figure of 30% shows a increase of 6% from the 1983 figure.

Those most influenced by the media were said to be middle classes (38%), single people (38%), the under 34's (36%) and by people living in urban areas (33%). People over 65 (19%) and small farmers (20%) were shown to be less influenced by

the media. In the same survey television was seen to be the source of most interesting comments on current affairs. (Table 7)

Table 7. Source of Most Interesting Comments. (Unprompted mentions) (Market Research Bureau of Ireland 1987).

	1987	1983
	%	%
Television	53	53
Radio	21	20
Daily newspapers	16	15
Family/Friends	13	19
People at work	6	9
Sunday newspapers	2	2

In Table 7, we see that the perceived source of the most interesting comments on current affairs is television (53%) followed by Radio (21%).

An MRBI (1987) Report shows that television is said to make a higher than average impact among rural people; among females rather than males, among the under 24 and over 65 year olds and also the working and small farming classes. Radio was cited more by people aged 50 years upwards and by large farming households. Daily papers, whilst evenly distributed across all
age groups, are notably associated with the middle classes and with large farmers. The level of agreement with the concept that " I rely on newspapers to keep me informed" was 55%, whereas 35% disagreed or strongly disagreed.

Different channels have different attributes and

different people prefer different channels. Irrespective of which channel is chosen, attention to the content of the message and the technique used in the production are essential if the message is to reach and impress the target audience.

In an unpublished survey carried out for a commercial client, the findings showed that the client's advertisement was named by 81% of the respondents (unprompted recall). The interesting fact is that the three main competitors of the client company, who spent approximately the same amount of money on their campaigns, and used the same channels, were only named (unprompted recall) by 3% - 15% of the respondents. The 'catchiness' of the jingle was thought to be the reason in the case of the one with the 81% recall.

Success in the use of the media in a mass health promotion campaign depends not just on how professionally the technology is handled and how much exposure can be achieved, but on how relevant and memorable the message. Pre testing is an essential method of ensuring the best results but the financial constraints of health campaigns usually means that this step is omitted. (Baggalley 1987). Financial constraints also

preclude the production of, or exposure in sufficient quantities of programme material. Persuasive strategies, Zaltman suggests, are not possible when the system does not have access to the resources necessary to sustain the change. (Zaltman 1977).

The perceived power of the mass media in influencing people's attitudes and beliefs has fluctuated from prominence in the hypodermic needle era, pre 1970, to disfavour with the advent of the two step flow and the diffusion models,which we will be discussing in detail as it is one of the four major approaches examined by the North Karelia Project. Before we do this however, we will look at a school of thought which gives prominence to the role of mass media again. The proponents of the agenda setting function of the media, suggests that the editors and broadcasters play an important part in shaping our social reality. This is different, yet similar to the mass audience or mass society concept. Whilst acknowledging the power of these people, it does not suggest that they are, or indeed can, deliberately cause major change. The suggestion is that their choice of news or programme material shapes our social reality. It mentally organises our world. "The mass media may

not be successful in telling us what to think, but they are stunningly successful at telling us what to think about." (Cohen 1963 p.13).

One method which attempts to prove or disprove distortion in the media is content analysis. Content analysis seeks to produce an objective, measurable verifiable account of the manifest content of messages. Words are often counted, for instance, the number of times that Kennedy used particular words in the four TV debates during the 1960 election campaign, were counted. (Table 8).

Table 8. Kennedy and Nixon: Word frequency. Frequency of use per 2500 words. (Fiske 1982).

Word	Kennedy	Nixon
Treaty	14	4
Attack	6	12
War	12	18

The data in Table 8 would indicate that Nixon's attitude was more aggressive than Kennedy's. (Fiske 1982).

The Glasgow media group (1980) analysed television news coverage of industrial disputes. They

discovered a disproportionate amount was given to items on strikes in transport and public administration compared to those in engineering. Yet the facts showed that this did not represent the truth.

But although content analysis can reveal that there is distortion, as Fiske (1982) says, it cannot answer the question why. Is it simply accidental or is it part of a deliberate plan on the part of the owners or editors? Accidental or what I would call benign distortion can occur for instance in what we call pack journalism. Pack journalism is simply the situation which arises when journalists travel or socialise together. They tend to 'see' the story from the same perspective. (Schulte 1983). This is more likely to occur if they are away from base, either at a special event or even at a Press Conference convened to give specific information on a particular event or topic. Another related situation can arise in feature writing. Unlike 'news', 'features' have no specific deadline. If an article is carried by RTE or the Irish Times, it is easier to get it published subsequently by the other media. If what they would consider the perceived 'leaders' consider it worthy of space, it must be worthy of space.

The deliberate distortion in the mass media by 'interference' from editors or owners begs not only the question how but why. In fact if we knew why, it becomes easier to discover how. If the editor for instance believes implicitly that smoking damages health, his attitude towards smoking will tend to influence his choice of words in the message, the amount of space which he allocates to the subject, or the way in which he shows a photograph.

Realistic metonym, exploiting the truth factor of a natural index, such as a photograph and building on it by disguising its real or true nature, is a technique widely used by editors. It can influence how the story is read. The degree to which his readers agree or disagree with his attitude may influence the editor but this in turn could depend on his position in his organisation - strong or weak, and the relative strength of his medium in the community. He may also be influenced by the economics of the medium. If the manufacturers of tobacco or dairy products are big advertisers, he may consider it politic not to be seen to encourage a lifestyle which advocates cutting out smoking and reducing fat intake.

Gerbner (1970) who developed a theory as to how content analysis could shed light on the deep cultural values of a community, argues that the importance lies not in the individual television or radio programme or printed article but in the patterns that lie within the whole output. "A culture communicates with itself through its total mass media output and this communication maintains or modifies the broad consensus of values in a culture." (Fiske 1982 p.127).

These patterns or views are absorbed gradually by the receiver without them really becoming conscious of the process, and this marks the parting or perhaps the merging of the way as far as the Process Approach is concerned. We are now entering the realm of attitudes and beliefs.

Success in the use of mass media in a public communication campaign depends not only on how professionally or otherwise the technology is handled, and on how much exposure is achieved, but also on the content of the message, verbal or non verbal. Does the content reflect the editor's attitude or what he perceives to be the public's attitude to a given topic? If so, does he try or indeed succeed in influencing the attitude or beliefs of his audience and if so, how?

As we have noted, the extent to which the reader is important, how he or she reads the text, how that text interacts so as to allow an exchange of ideas, or values, will enable communication to have meaning. The classic information-processing model assumes that changes in knowledge and beliefs, will automatically lead to changes in attitudes and behaviour, which will automatically lead to changes in behaviour. (Flay 1981) Medical practice, it is said, has long been based on an assumption that it was sufficient just to tell people of the changes which they should make in their lifestyle in order to have them change their behaviour. But "numerous studies and everyday practice shows that this is seldom the case". (Puska et al 1985) However, the results of successful public communication campaigns suggest that behaviour will not change by communication unless the communication is persuasive. We will now examine the Semiotic Approach to see if the theories therein can help us to find an effective way of achieving the basic objectives of a public communications campaign of persuading people to reform.

The Semiotic Approach

As we have seen, the Process Approach emphasises the importance of transferring the message from A to B. In the Semiotic Approach, the emphasis is on the generation of meaning. For communications to take place we have to create a message out of signs, and the more we use the same signs or codes, the closer our meaning of a message or topic is likely to be. Theorists in the Semiotic School concentrate on what it is that makes a message out of marks on paper or sounds in the air. They prefer the term 'reader' to 'receiver' because it implies a greater degree of activity. We learn how to read and so we bring to it our own attitudes and emotions. The linguist, F. de Saussure and the philosopher and logician, C.S. Peirce are considered to have been among the leaders in the study of semiotics. (Fiske 1982). Saussure saw language as a system of signs that express ideas. For him, the semiological perspective is central to any serious study of communications. (Culler 1981). He argues that it is comparable to the system of writing, to the alphabet of deaf mutes, symbolic rituals or military signals and that it, in effect, is the most important of these systems.

Three fundamental classes of signs stand out as requiring different approaches, the icon, the index, and the sign-proper, which is sometimes called a symbol. An icon involves actual resemblance between signifier (a form) and signified (associated) meanings. A portrait signifier is recognised as a portrait because it resembles the person of whom it is a portrait, not because of convention. In an index, the relation between a signifier and signified is causal; smoke means fire because fire is generally the cause of smoke; tracks are signs of the type of animal likely to have produced them. In signs proper or symbols, the relation between signifier and signified is arbitary and conventional. Shaking hands conventionally signifies greeting; cheese is by convention an appropriate way to end a meal. (Culler 1981).

In an iconic relationship, the signifier looks or sounds like the signified, in an arbitary relationship, the two are related only by agreement among the users. (Fiske 1982). The sign relates to reality only through the concepts of the people who use it. Thus the word CAR (as written or said) has a mental concept attached to it which will be broadly the same to most people.

People can frequently disagree about, say the colours green and blue. These people share language, are looking at the same reality, yet do not share the concept that link the signs (green or blue) to that reality. (Fiske 1982).

Peirce (1931-58) and later Ogden & Richards (1923-49) presented similar models to show how signs signify. A triangular relationship between the sign, user and the external reality, was the basis of their models. It stresses three senses of meaning.

- Meaning in the symbol: What does the word mean?
- Meaning in the referrent: What is the meaning of this thing?
- Meaning in the person: What does this mean to me?

Richard's most valuable contribution to these theories is said to be his belief that the important meaning is in the person. The relationship between the person and the symbol is arbitary and is affected by the thought of the person. Langer (1942) agrees that the most important aspects of meaning are beyond the word level, they are instruments of thought and humans

have the ability to abstract, to put these concepts into an order that makes sense to them. However, words can be symbols also. The Red Cross is a symbol, numbers are symbols, the only reason why the shape of 2 refers to a pair of objects is because it is a convention or a rule of a culture, that this shape denotes two units of something to people in that culture. (Fiske 1982). Whereas deSaussure's work, as developed by Peirce, Ogden & Richards, and Langer, defines meaning in terms of the association between the symbol and what that symbol depicts or what image it conjures up for the individual.

Osgood's (1967) theory of meaning and Barthes (1973) theory of connotation seek to explain how this association arises. Osgood argues that the reader needs to be studied, that it is important to know what their feelings, attitudes or emotions are towards certain concepts. Osgood developed a technique which he called the semantic differential for the purpose of measuring meaning. Semantic differential research has been well applied by social psychologists to persuasion and attitude research. (Littlejohn 1983).

Osgood's findings, using this technique,led him to the theory of Semantic Space. One's meaning of

a sign will depend on learned associations in one's own life. Thus, whereas the word 'Mother' may mean the person who gave me birth, the term might also mean warmth, goodness, loving care to one person, and selfishness, harshness, indifference, to the other, depending on what their individual experience was with their respective mothers.

The importance of the person, of the audience, the belief that the audience is at least as important as the sender, is the basis of theories of uses and gratifications. This approach argues that an audience has a complex set of needs which it seeks to satisfy in the mass media, amongst other ways such as holidays or sports, hobbies and work. According to Fiske (1982) it assumes that the message is what the audience make of it and not necessarily what the sender intends. Although the theory of uses and gratifications was developed to explain the effects of the portrayal of violence in mass communication, it fits well with theories of face to face communication such as Newcomb's. (page 52). The latter argues that we need to feel part of our social environment and that we use communications with our peers to satisfy this need.

Roland Barthes (1977) uses the term 'connotation' to describe this process, the interaction that occurs when the sign meets the feelings of the user and the values of his or her culture. Our tone of voice, how we speak connotes the feelings or value about what we say. The choice of words is often, choice of connotation. What one person calls a 'dispute' would be termed a 'strike', 'oiling the wheels of commerce' might be simple bribery to another person. In relation to a healthy lifestyle - healthy food might mean eating a more or less normal diet simply substituting brown bread for white, or cutting surplus fat off meat, whereas to others it might mean, nut roasts, vegetarian meals or what they would view as extreme changes in eating habits.

These examples show emotional or subjective connotations. Connotation is largely arbitary, specific to one's culture. Barthes uses the term denotation for what he calls the common sense obvious meaning of a sign. A black and white photograph of a street scene denotes that particular street. A street scene denotes an urban road alive with buildings. If a colour film, using a soft focus were used, this street could appear a warm happy place for the residents. If a black and white film were used using hard

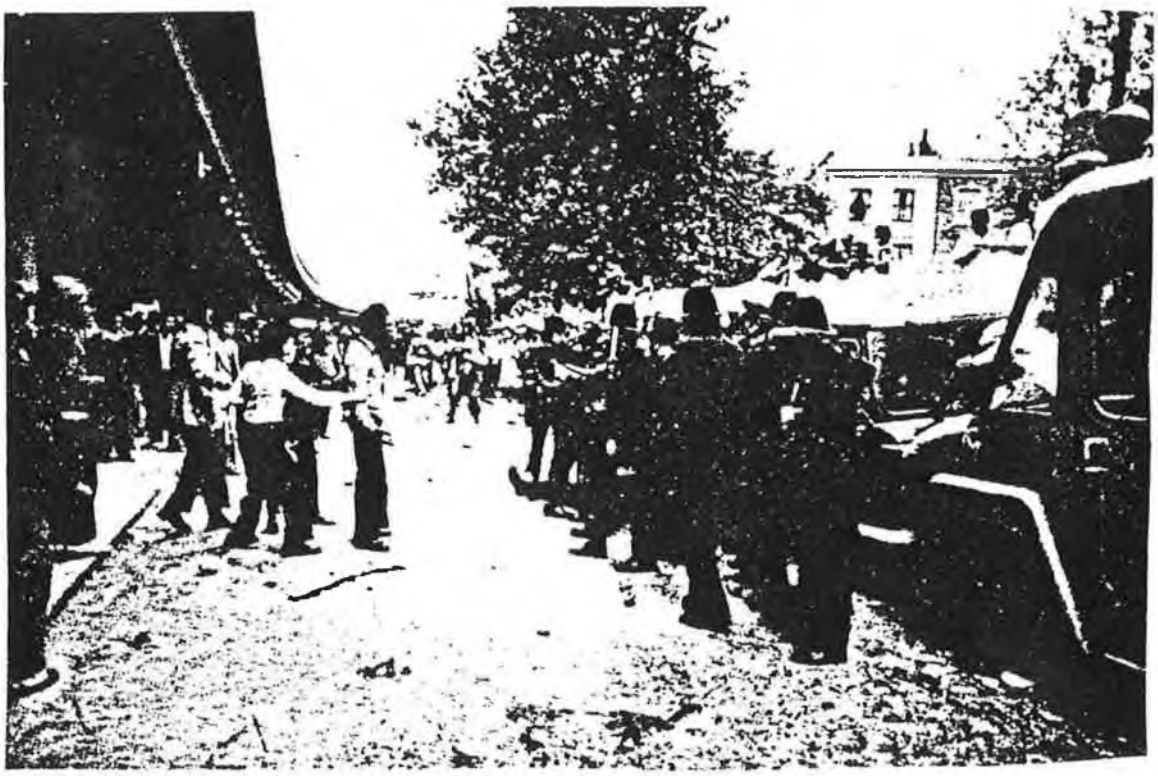
focus and giving strong contrasts, the two photographs would have the same denotative meaning. The difference would be in their connotation. (Fiske 1982).

An interesting example of how even young children are aware of the ability of the camera to 'lie' was evident in a "Keep Wexford Beautiful" project competition. Children were encouraged to identify, clean up and maintain an area in their locality which was overgrown, or one which was capable of being improved. Their intitial entry would identify the place but the final report had to have a 'before' and 'after' photograph. Many of the children had black and white photographs for the 'before' and coloured photographs for the 'after' scene. In many cases the angle of the 'after shot' was complimentary to the overall picture, whereas the 'before' one was taken at a less attractive angle. For instance, one 'before' photograph in black and white of an overgrown historic graveyard was taken at a low level which gave the impression that the nettles and weeds were much higher than they were. The 'after' photograph in colour was taken from a higher angle.

Editors and photographers in newspapers,television and video can and do use this technique, as we have mentioned (page 68). Realistic metonym does

not call attention to the 'creativity' involved in its presentation, it appears natural. It is iconic and not arbitary. (Fiske 1982) Another example is in Fiske 1982 p.108-110

Figure 5a. Notting Hill. (Fiske 1983).



The photograph in figure 5a was taken in 1976 at the Nottinghill Carnival in London which turned into a skirmish between young black people and the police. The photograph, as taken by the photographer, has as its focal point the group of black youths and the policemen. The crowd of black onlookers, the urban setting (the underside of a flyover and terrace of houses on the right) and the tree are secondary. We read these signs,

match them to our mental concepts (our attitude towards the police, and towards black people) which are the result of our cultural experience. We recognise the uniformed men as police and not, say the army.

Figure 5b. Observer Review. (Fiske 1983)

Now we look at figure 5b, the Observer's treatment of the photograph. Here Fiske believes that the attitude of the Observer's editor is evident. He cropped the photograph to probably read - The police are not aggressive, despite the batons, one shields his face defensively, one has been knocked over and two have their backs to the youths. The young blacks indicate that the confrontation is one of race and generation gap. It is an indication, a metonym of internal stress and conflict within society. The crowds of blacks in the background shows that it is their

neighbourhood but this reading can only be made by those who would know the Nottinghill area. The Observer cropped the photograph by making it long and narrow so that our eyes swing from left to right as we look at it. This reinforces the connotations of confrontations. The only softening influence - the tree has gone. All people would not 'read' this picture in the same way. To some this picture might read, police restraint and tolerance. To others, it might denote police weakness or even fear and yet to others it might show police intrusion into peoples' lives.

Social class is said to influence the judgement which the individual will make. Social forces other than class are said to influence the reading also; these include education, occupation, political affiliation, geographical region religion or family. (Fiske 1982). This is somewhat similar to Bernstein's theory which argues that it is not necessarily social class which determines how a message is read, but the degree to which people in any group or category share the same understanding or meaning. (Bernstein 1973). Determining a proposed target audiences' probable reaction to a message is necessary so that the message can be structured to take this into account. The words tend to strengthen or assist

the person to think a certain way. Barthes describes words used to headline or caption photographs as 'anchorage" - words that help the person to fix or decide on the message. They tell us why the photograph was considered worth printing and frequently tell us how to read it.

In the case of the Observer's treatment of the Nottinghill photograph, Fiske (1982) points out that the words themselves, the heavy black print used for the words and their position (between the two main photographs) all serve to encourage us to read it in the way that the editor views it or wishes us to view it.

This is not to say that this manipulation of the audience will result in attitude change. An individual's attitude system is said to be influenced by the information which is received but integration theory argues that the degree to which it does so, depends on two things. One, the degree to which peoples' individual judgements tell them that the news is right or wrong, good or bad, called valence and second, if people think that the information is probably true they are more likely to pay attention, to give it more weight. (Littlejohn 1983). The credibility of the source is a likely factor here.

Aronson (1975) suggests that opinions are influenced by people who are considered to be expert and trustworthy. This is somewhat similar to Lasswell's emphasis on the credibility of the sender. This credibility according to Aronson, can be increased if the person argues against their own perceived self interest or if it is obvious that they have nothing to gain personally. Further, this trustworthiness increases if they do not appear to be trying to influence opinion.

The lessons to be learned from Semiotic theories of signification must be borne in mind also in the production of educational and promotional literature.

In this practical application of the Semiotic Approach, we see for the first time in our search, theories which help to explain exactly how distortion can be inserted into and be controlled by editors or owners of the media, if they so wish. This is something which we failed to do using the Process Approach. The exclusive use of mass media in a public communications campaign is not thought to affect behaviour change directly but as we noted (page 37) it has an important

agenda-setting role, it can change knowledge and attitudes.

However, the objective of a public communication campaign is not simply to change peoples' attitudes but to influence their beliefs to such an extent that it motivates them to change their behaviour. Once the aim of the programme has been defined as the influencing of behaviour, the task is said to enter the realm of the behavioural and social sciences (see page 23). We will now look at the behavioural/social change approach, the second of the four approaches examined by the North Karelia Project. In our search for relevant theories we will endeavour to identify the degree to which communications, verbal and non verbal, interpersonal or mediated, are significent. But first of all let us find out exactly what is meant by a behavioural social change approach.

Behavioural Change Approach

The social psychological approach deals with the factors that determine a person's change of behaviour and is based on Bandura's work on social learning. (Puska et al 1985). Traditional learning argues that behaviours, that are positively reinforced increase in frequency. It also

considers that the individual has little or no control over these reinforcements or supports. Contemporary social learning theory on the other hand, whilst accepting the importance of reinforcers, argues that people not only make choices about behaviour but they also control the reinforcers in their environment. Bandura argues that "the person's relationship with the environment is an open system, always modifiable by providing the individual with appropriate skills for self-management and motivating him or her to make use of them". (Maccoby & Solomon 1981 p.107).

A social learning approach seeks to find out not just how learning occurs in an individual, but how information exchanges take place with others in order to explain how behaviour changes. The central idea in social learning is that an individual can learn by observing a powerful model and without there being a verbal exchange between them. It can be interpersonal or can be via the mass media, especially the visual media, such as video, television or film. Social learning theory recognises the importance of external factors to the individual in behaviour change.

Newcomb's theory of cognitive consistency, and

Westley & Maclean's extension of it, (page 54) whilst recognising the importance of external influences on people, belong to the traditional social learning school. They do not accept that the person can influence these sources of information or that they can bring their own experiences or beliefs into play to effect their acceptance or rejection of the information. Contemporary social learning theory is significant in the other approaches used in the North Karelia Project: the innovation diffusion and the community organisational approaches, as we will see.

Bandura (1977) adopts a cognitive approach to learning and his arguments are broadly as follows. 1. People establish goals that entail rewards or have a positive outcome if achieved. 2. People chose to behave in ways that have the potential for achieving these goals. 3. People interpret the results of behaviour in terms of rewards or punishments and 4. Choices are affected by the perceived successes and failures of the past as well as the anticipated outcome of the future behaviour. In other words, behaviour is shaped by interaction between external conditions and internal cognitive processes.

For example - a woman wants to give up smoking. She has the ability within herself to effect a change - to stop. She can imagine a number of rewards that would be a result of the change - her health might improve, she would save money, she would smell less smoky. These constitute positive thoughts that she is setting up for herself, ones which could help her to change her behaviour. She would then decide whether to get help from a recognised source, e.g. a doctor, and whether to ease off gradually or give them up suddenly. If some of the expected rewards actually happened, she would be encouraged to continue to be a non-smoker. However, if they did not, of if there were negative results like weight gain, she may decide to smoke again. Her behaviour ultimately will be affected one way or the other by her own experiences (cognitive judgement) as a result of her actions. She is motivated in the first instance because of her own cognitive understandings of the outcome of her actions or behaviour.

The information that affects our thinking can come from direct experiment, as experienced by the woman who stopped smoking, or indirectly, by imagining what the outcome of the action might be. We can also be influenced by the actions of significant others - by modelling.

However, this woman's attitude to smoking had first to change. Many people are aware that smoking, lack of adequate exercise and bad dietary habits can contribute to the risk of coronary heart disease, yet they persist in these habits. To change is a human decision and human decisions require more than knowledge that a change is wise or prudent. Fundamentally what is required is to get a change of attitude. Changing behaviour is thought to be relatively easy once attitude is changed. Attitude is said to change because of new information, or of changing judgements of truthfulness.

Fishbein's (1967) contribution to the theory of beliefs and attitudes is important because it highlights the complex and interactive nature of attitutes. Attitudes are closely associated with beliefs and tend to make a person behave in a certain way towards the attitude object, they are learned as part of one's development or education. They may change with new information or experiences during one's life. Fishbein maintains that attitudes though similar to beliefs, differ in that they are evaluative, whereas beliefs according to Fishbein's theory, are probability statements of judgement. Fishbein identified two kinds of belief:-

1. Belief in a thing. When one believes in a thing, one would consider that there is a very high chance that it exists. For instance, if one believes in God, one would be reasonably sure that God exists.

2. Belief about a thing. One may believe that God is omnipotent, a probability statement of a relationship between God and omnipotence.

Beliefs do not always reflect attitudes. Changing behaviour is thought to be relatively easy once an attitude is changed but behaviour change does not always mean that attitude has changed.

Peters (1982) offers an interesting example of this inconsistency between explicitly stated belief or attitude and actual behaviour or action. LaPierre, a white professor toured the United States in 1934 with a young Chinese couple. They stopped at 66 hotels and 184 restaurants. Only one hotel refused them accommodation and no restaurant refused to serve them. Some time later, all of these establishments were asked by letter if they would accept Chinese guests, (there was a strong anti-Chinese bias in the United States at the time) 98% said that they would not. LaPeirre

interpreted these findings as reflecting a major inconsistency between behaviour and attitudes. Almost all of the proprietors expressed an intolerant attitude when questioned by letter whereas they actually behaved in a tolerant fashion. People sometimes change their behaviour, not because of belief or attitude change, they 'comply' so as to reduce dissonance for appearance sake, and especially if most of their friends and peers appear to be converted. In these cases, Handy (1981) says the change in behaviour is not likely to be maintained. The proprietors in this example may have been influenced by the presence of the white professor. Their attitude towards the Chinese people had not changed as their behaviour seemed to indicate. They complied, perhaps for appearance sake, in the presence of the white professor.

Within the domain of attitude/behaviour change, social psychology has drawn heavily on the concept of Newcomb's cognitive consistency which we saw, (see page 52) works from the basic premise that people need to be consistent or at least to see themselves as being consistent.

According to Reich (1976) the theory which has attracted the greatest amount of attention and

experimental work is the theory of cognitive dissonance. Festinger (1957) suggests that when two cognitive inputs to our mental process are out of line, or dissonant, we experience psychological discomfort. We like our world to be balanced. For instance, we may believe that the way we show that we are good wives and mothers is to feed husbands and families well, using plenty of butter, milk, cakes and biscuits. Our most highly regarded friends however, may consider that a proper diet means reducing these items and introducing fibre, salads and fruit. In such a case our cognitive influences become unbalanced. We are uncomfortable. To become comfortable again, to balance our world, we can either change our views so that we are now in line with our friends or we can cease to admire our friends. People generally get rid of dissonance by finding some reason to explain away the information or suggestion, perhaps by downgrading the source of information or finding counter arguments that would seem to be equally valid. If the source of dissonant information is not highly regarded, the dissonance will not be experienced as uncomfortable which means that there will be no need for the people receiving the information to change their views. (Handy 1981).

This as we saw was the basis of Lasswell's (page 50) and Aronson's (page 82), theories which emphasised the credibility of the sender. This is crucial to a heart disease prevention programme where the message tends to be dissonant with peoples' normal lifestyle, and the point has some relevance to the confusing, misleading and sometimes erroneous advice which frequently appears in the printed media - a source considered by many to be highly credible. This is often compounded by the fact that the media give a seemingly authoritative source. "Health education messages will always be resisted. By definition they are dissonant with, or different from the prevalent practice in a community." (Da Cunha 1985 p.401). As Handy (1981) points out, changes in behaviour just to reduce dissonance, to enable the individual to feel more comfortable, are not likely to be maintained.

Getting a new idea adopted even when there are obvious advantages is very difficult. There is often a wide gap between what is known and what is put into use. This was evident as we will see in the results of the postal evaluations in the Kilkenny Health Programme.

There are two areas which we will now examine in

an effort to see how resistance might be broken down and how a new health behaviour might be adopted and maintained. The first is Persuasion and the second one is Diffusion. Persuasion was one of the key steps in the North Karelia 'behaviour change approach'.

Persuasion.

Traditionally persuasion was thought to be the process whereby one person or group affects, influences or changes another person or group (Littlejohn 1983). This has been replaced by an information processing approach which emphasises the credibility of the message source, and the necessity of ensuring that the message would anticipate the counter arguments and would match with the culture of the community. In a preventative innovation the undesired event may or may not occur if the new idea is not adopted. The desired consequences are thus uncertain. In this situation it is believed that the individual's motivation to adopt is weak.

Persuasive strategies, (Zaltman 1977) are indicated when:

- it is not possible to exert power.
- the problem is not recognised or deemed to be important.

- there is doubt that the particular solution being advocated is likely to be effective.

For instance, if the members of a community were aware that coronary heart disease caused the death of many of their neighbours and families but did not see any relationship between the deaths and the excessive smoking or the bad diets of the deceased, persuasion would be needed to get them to adopt a health lifestyle. Persuasive strategies are relevant to a CHD prevention programme which cannot 'enforce' but must 'educate' as we saw (page 22).

Persuasion can be used in either interpersonal or mediated messages. Rhetoric Theory as originally set out by Aristotle (1924) is based on using speech as a communication channel in order to effect change and is said to be the faculty of discovering all the possible means of persuasion in a subject. It includes two methods, inartistic and artistic. An inartistic method would include delivery and style of delivery used by the speakers which might include non-verbal mannerisims - the inherent qualities of the speaker himself. Artistic methods are the planned and deliberate organisation of the text so as to appeal to the audience. These according to Aristotle are ethical or personal appeals, creating a bond of understanding between the speaker and audience and termed, 'ethos'. Next

were the emotional appeals, appealing to the sympathies of the audience and termed 'pathos'. And lastly, one that was considered by Aristotle to be important, appealing to the logic of the audience - 'the logical appeal'. (Littlejohn 1983).

In a contemporary Aristotelian approach developed by Hovland and Janis (Janis 1959) people are divided into groups according to their ability; their ability to listen, to apply the message to their own situation, to evaluate the message, to be critical, and to decide whether they agree or do not agree. A high degree of ability to listen, understand and to be able to apply the message to personal circumstances will improve the chances of being persuaded. Such a person might be described by Newcomb as cognitively complex. A high ability to evaluate could reduce persuasibility. In this model, motivation plays an equal role with ability. A person must not only be able to have the ability to do what the persuader wants, but must also be motivated to do it. For instance, even if people have a high ability to listen, understand and to apply the message, but his or her motivation is low, the efforts to persuade are less likely to succeed than if motivation is high.

McGuire (1968) argues that the degree to which a person is influenced by a persuasive message depends also on a number of factors, such as, their age, intelligence and self esteem. Self esteem is important in McGuire's theory. A person with a high self esteem, an extrovert, meeting many people and communicating well, would be deemed a good message receiver thus raising persuasability. People are also influenced by the type or 'tone' of the message being given to them by the non verbal aspects which we discussed, (page 48) Most people are easily influenced by suggestion, it poses no threat. But people vary in their reaction to group pressure and appeals to fear. Some campaigns only use positive appeals but McGuire (1973) says that sometimes the use of negative appeal such as fear arousal, is necessary because of the nature of the behaviour or attitude that is to be changed.

The campaign to reduce the incidence of coronary heart disease in Kilkenny for example, urges people to desist from engaging in habits that are pleasurable - smoking, drinking, eating high fat diets. It also recommends action that necessitates changing what are perhaps, lazy,comfortable, leisure time habits. A campaign based on purely positive appeals might not succeed

unless it is supported by the negative element - what will happen if the healthier choice of lifestyle is not adopted. However, as McGuire (1973) points out, this can have the reverse effect. It can cue off certain characteristics known as flight and fight. This might mean becoming hostile to the communicator or seeking to discredit the source or perhaps by refusing as far as possible to think about the consequences - 'ostrich in the sand' syndrome. There is also an obligation on the change agent to avoid causing undue anxiety or frustration.

The ability to persuade is not confined to interpersonal communication. The media which we have identified as mainly having the ability to provide information to set the scene, can, and do have the power to persuade, to influence and sometimes to change attitudes. Instances where the power of the media influenced opinion so forcefully that action followed include:-

- Media cover of the Ethiopian famine, especially the harrowing scenes on television. This led to the foundation of 'Band Aid' which raised vast amounts of money for the purchase and transport of food to the stricken area.

- The persistence of newspapers, particularly the Washington Post, in investigating the Watergate affair, led to the resignation of the President of the United States of America.

This power could be attributed to the fact that the use of mass media to highlight the situation was believed/thought to be effective, to be capable of influencing public opinion.

Care must be taken however, in the use of persuasive strategies. They can be counter productive and create resistance. Too many claims about the virtues of a product or service, even if accurate, can create a sceptical audience. It is considered wise to understate rather than overstate the probable results from the adoption of a new idea. (Zaltman 1977).

Eicholz and Rogers (1964) present a list of possible sources or causes of resistance. Table 9.

TABLE 9. A framework for the identification of forms of rejection. (Eichholz & Rogers 1964).

Form of Rejection	*Cause of Rejection*	*State of Subject*	*Anticipated Rejection Responses*
1. Ignorance	Lack of dissemination	Uninformed	"The information is not easily available."
2. Suspended judgment	Data not logically compelling	Doubtful	"I want to wait and see how good it is, before I try."
3. Situational	Data not materially compelling	1. Comparing	"Other things are equally good."
		2. Defensive	"The school regulations will not permit it."
		3. Deprived	"It costs too much to use in time and/or money."
4. Personal	Data not psychologically compelling	1. Anxious	"I don't know if I can operate equipment."
		2. Guilty	"I know I should use them, but I don't have time."
		3. Alienated (or estranged)	"These gadgets will never replace a teacher." ("If we use these gadgets they might replace us.")
5. Experimental	Present of past trials	Convinced	"I tried them once and they aren't any good."

In Table 9 we see that these range from rejection through ignorance, through lack of interest having learned of the idea, to failure to maintain change having attempted to do so.

In most instances the target audience are thought to be at fault when change does not occur, whereas it is quite possible that it is caused by mistakes made by the change agency; the change agency may not have paid sufficient attention to identifying the target audiences' attitudes and beliefs, before embarking on the message or campaign. Resistance should be used positively and constructively as a means of shaping the message and programme. But first, the change agent needs to know what the barriers or objections are likely to be.

Farquhar (1985a) and Maccoby & Solomon (1981) maintain that the interests, knowledge, skills, and needs of an audience must be known before a health communication programme can begin.

Formative Research

Formative research is said to provide data and perspective that can help to improve communications during the course of its creation. (Palmer 1981). By using theories and literature in the social sciences, as well as original field testing, it seeks to provide any information that will help to make the communication more effective. This would include information on the

target audience, its values, likes, dislikes, beliefs, and attitudes. It would also provide information, not just on the channels of communication which exist in the community - formal and informal, but on those which are used frequently, and those that are most effective. Original field testing would also investigate the local structures, the amenities available, the norms of the local culture. Formative research as applied to instructional systems such as educational videos, would focus on the specific elements of the presentation, which would make it intelligible, give it appeal, make it memorable and also on its capacity to actually impart knowledge. In motivational or persuasive communication, formative research would investigate the credibility of the sender, the perceived relevance or practicality of the recommended behaviour and most important, the barriers which might have to be surmounted by the recipient in order to adopt the behaviour.

Original field testing does not seek to provide quantitive results and conclusions but seeks "creative observations and recommendations which respect the uniqueness of each situation". (Palmer 1981 p.227). Its aim is to interact with the public and to 'generate a rich variety of creative

hunches and suggestions' to enable the message designers to address the real issues as perceived by the people themselves.

Formative research incorporates the disciplined application of social science theory when appropriate, but the equal emphasis on 'field testing' makes it an extremely useful model to study in the search for ways of influencing the lifestyle of a community. The collection of data on the audience which relate to the medium and message in the actual situation within which the desired behaviour will occur and the use of this information at the pre-production stage of a campaign is eminently logical. People are all different but communities can also have different characteristics, structures and cultures as we will see. (Blitz).

Palmer considers that tests of this kind have the ability to provide critical judgements and creative suggestions which are valuable for the design of a programme. He suggests that one of the strengths of this type of research is that it "brings the intended audience into the presentational design process". (Palmer 1981 p.238).

Formative research is traditionally used to assess the effectiveness of commercial advertising. The results are rarely published, being the property of the advertisers. Many researchers, including the present writer, have very interesting data collected for major clients but such findings cannot be used in a work like this as they are the property of the client who commissioned them. This lack of access to valuable data on audiences, media, and sub-cultures, deprives the designers of public service campaigns of valuable information. Furthermore, public sector clients are often not willing to 'invest' either money or time in the pre-production research for communication campaigns, other than perhaps in the advertising area.

In an effort to begin accumulating a body of general knowledge and practice in this area on public service communications, the Health Message Testing Service was set up by a combination of federal agencies in the U.S.A., under the aegis of the U.S. Department of Health & Human Services 1980. (Palmer 1981) Because pre-production formative research is such an important element of any campaign, we will examine a case study using this method - The Childrens' Television Workshop Health Minutes Project, and a simple case study from Ireland.

The Innovation Diffusion Approach

We have now looked at two of the four aproaches which were examined at the planning stages of the North Karelia Project: The Communication Behaviour Change Approach which saw new behaviour being adopted by individuals within a community as a result of messages beamed at the population at large via the mass media. The second approach, the behavioural change approach is a social psychological approach which suggests that new behaviours tend to originate, at least on a trial basis, from exposure to powerful, influential models. We will now examine the third method thought to be capable of having a health message adopted and maintained - The Innovation Diffusion Approach. In the Innovation Diffusion Theory, new lifestyles are innovations which are communicated or diffused, with time, through the natural networks within a community, causing social change. This approach developed mainly by Rogers (1983) defines diffusion as a particular type of communication in which the information exchanged incorporates new ideas. Innovations are said to fall into three categories. (a) OPTIONAL - Individuals can opt to adopt the new lifestyle or try a new diet or not; (b) COLLECTIVE - Requiring the agreement of a community, for example, the

creation of exercise facilities such as a public swimming pool; (c) AUTHORITY - Decisions made by force, for instance drivers of motor cars must wear seat belts.

The Innovation Decision Process, according to Rogers occurs in five stages:-

1. KNOWLEDGE occurs when the individual or unit in the community learns of the innovation's existence and understands how it functions.

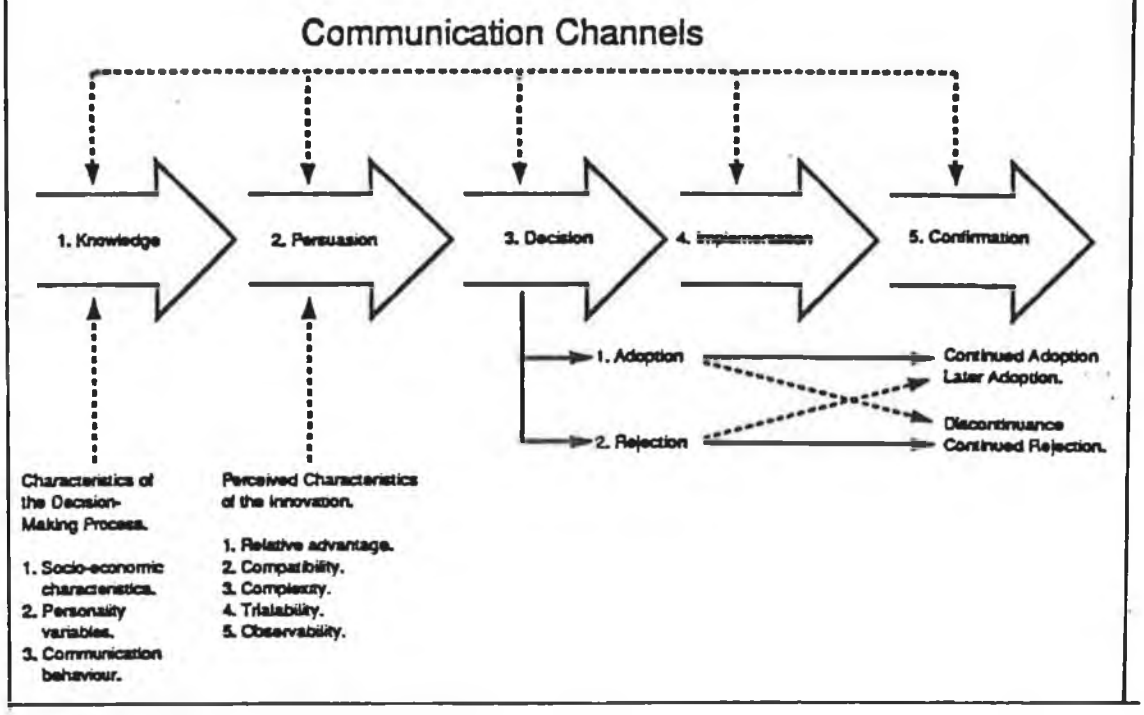
2. PERSUASION occurs when an individual forms a favourable or unfavourable opinion of attitude towards the innovation.

3. DECISION is when the person decides to give the idea a trial or perhaps to reject it either without really considering it or having weighed up the pros and cons.

4. IMPLEMENTATION occurs when the innovation is put into use.

5. CONFIRMATION is when having implemented the idea, the person seeks further information to reinforce their decision.

Figure 6. A model of stages in the innovation-decision process. (Rogers 1983).



In Figure 6 we see that communication affects the individual or receiver as they pass through the four stages of the innovation decision process, from knowledge to persuasion to decision to adopt or reject, to implementations and then to confirmation.

The rate of diffusion can be affected by variables such as - (a) The people themselves, whether they are homophilous, share the same beliefs, attitudes, or not. (b) The social system itself. Is it tolerant of new ideas, traditional or modern? Are there strong indentifiable local networks? Are there many mass communication channels, newspapers, radios, TV's, Videos? (c) The characteristics of the innovation. Is it very different to the local norms or customs? Is it difficult to understand, to try out?

However, some of these variables can be influenced by communication if the message content is designed so as to anticipate possible objections. Here again we find emphasis on this important point. Diffusion theory focuses attention on the interface between mass media and interpersonal influence. Mass media are thought to be more effective in creating basic awareness of the innovation while interpersonal channels are more effective in actual changing attitudes and behaviours.

The power and influence of the individual is stressed in diffusion theory. In any society there are people who by their nature or the position which they hold, are recognised as leaders of opinion. The support of such people is

considered necessary for the success of the innovation-diffusion approach.

People in the innovation-diffusion theory are classified by their willingness to adopt new behaviour and lifestyle. Those who change in the early stages are termed innovators and early adopters. These are frequently also the opinion leaders in the community. Their behaviour is imitated by the rest of the community who are then termed, early majority, late majority or laggards, depending on how quickly they adopt the new idea. In this way the change or new idea spreads throughout the community. The degree to which an individual is able unintentionally to influence another's behaviour is supported by the work of Kars and Gabriel Tarde. Kar's (1983) work in different cultures on the use of contraceptives shows that intentions, social support from significant others, accessibility of knowledge and services are the main factors in the adoption of health-related behaviour. In his S. shape-curve theory, Tarde (1969) explains that a new idea is initially adopted by a few, then the rate accelerates and then decreases again. He argues that the acceleration or take off on the S-curve, begins to occur when the 'powerful models' or leaders in a community use the new idea. In the case of the woman who gave up smoking in our example of the cognitive approach to learning

(page 86) there may have been someone in the community or a friend of whom she thought highly who successfully stopped smoking and reaped the rewards. This might have motivated her to try also and would constitute an 'opinion leader' (Rogers) or 'support from significant others' (Kars) or a 'powerful model'. (Tarde 1903).

The type of society or community has also a strong bearing on the length of time that it takes to have the new idea permeate the entire community. Early adopters and a faster rate of diffusion are more likely to occur in 'modern' rather than 'traditional' communities. 'Modern' could be termed, better educated, more receptive to change, and urban. Whereas, 'traditional' would be considered 'out of date', 'behind the times', mostly rural. In the innovation-diffusion approach, an agent of change is the professional who attempts to introduce the new idea and to influence this innovation-decision process. (Rogers 1983).

The heart of the diffusion process is the imitation by people of their friends who have already adopted the new idea. The evaluation or the discussion about the merits or otherwise of the new concept flows through interpersonal networks. These networks, Rogers (1983 p.294)

tells us are "... invisible routes through which individuals make things happen." In Ireland this is known as "it's not what you know, it's who you know." An example in (Rogers 1983) illustrates networking.

An American Professor of Medicine had a friend whose brother was hurt in a motor accident in Southern Mexico where the law allows the police to detain a driver indefinitely who is at fault. The friend's parents were therefore unable to arrange to have him taken to hospital for treatment. He called his cousin, a surgeon in San Antonio who then called a doctor whom he had met at a conference in Mexico City. This doctor in turn called a doctor friend he knows in a Southern Mexico Province. The brother was flown home to the U.S. in a few hours.

A communication network consists of interconnected individuals who are linked by regular or patterned flows of information. The degree to which individuals are linked or connected to this network affects their adoption of new innovations and as Roger (1983) points out, social modelling, the basis of social learning theory, frequently occurs in diffusion networks. Opinion leaders are very important as catalysts in activating diffusion networks. (Rogers 1983).

Rogers developed the diffusion element of this theory on the classical idea of the two step flow- the flow of new ideas and attitudes diffusing through a community, through the example of opinion leaders. This two step flow concept originated from the work in the 1940 Presidential election study in the USA (Katz 1955) which we mentioned in (page 59). Opinion leaders are important in innovation theory. When opinion leaders who have tried or tested the new idea and are satisfied with it, communicate this opinion through natural, interpersonal networks, there is a wider adoption of that idea. (Rogers 1983).

The project team at North Karelia identified a key problem in this aspect of the model. This was in relation to identifying informal opinion leaders. Unlike formal leaders in a community (eg. municipal leaders or health personnel) informal opinion leaders are not easily identified (Puska 1986) The experiences of the North Karelia team confirmed that opinion leaders are often more exposed to the mass media, circulate more in the community, have a higher social status and show more innovativeness. They found that in a community that is modern, opinion leaders are more

innovative but when the community is traditional, the opinion leaders are not specially innovative.

The rejection of water boiling in a Peruvian Valley (Rogers 1983) is a classic example of how failure to adhere to the principles of the innovation-diffusion theory can lead to failure in having the overall innovation adopted. Water boiling is important for villagers and the urban poor in Peru. Unless they boil their drinking water they contract infectious diseases. A 2 year water boiling campaign conducted by the health authorities in Los Molinos (a peasant village of 200 families), succeeded in getting only eleven housewives to boil water. The task of the change agent - Nelida, was to try to get the other women to boil water daily. Despite the help of a doctor who gave public talks on the need to boil water and fifteen housewives who already did so, Nelida failed. To understand why, the culture, local environment and the individuals in Los Molinos were studied.

The only sources of water in Los Molinos are all contaminated. The villagers favoured one in particular - they liked its taste. Typhoid and other water-borne diseases could be reduced by boiling water before consumption. Rogers describes three of the village housewives - one

who boils water to obey custom, one who was persuaded by the health worker and one, of many, who rejected the innovation.

Mrs. A adopted the innovation, she began to boil water,but not because she believed that boiling water killed germs. She has no understanding of germ theory. She suffers from chronic sinus infection. Boiled water and illness are closely related. By custom, only the ill used cooked or hot water. There is also the belief that extremes of hot or cold must be avoided by the sick, therefore, raw water which is very cold must be boiled to overcome the extreme temperatures. Mrs. A boils water in obedience to local custom because she is ill.

Mrs. B was persuaded to adopt the new idea. She came to Los Molinos from a village high in the mountains. She always worried about the lowlands' diseases. Nelida to her was a friend who showed her a way to protect her family and herself from disease. Because Mrs. B is an outsider, she will never be totally accepted by the villagers. Because they are not important as a reference group, deviation from the village norms does not upset her or cause any dissonance.

Mrs. C rejects the innovation. She does not understand germ theory. She argues that since people drown in water, so too must germs - unless they are fish! If they are so small that they cannot be seen, how can they hurt a grown person? She maintains that there are enough real problems around - hunger, poverty, without bothering about tiny fish that one can't see, touch or hear. A firm believer in the local custom whereby only the sick have hot water, she finds the idea of using boiling water uncomfortable - dissonant. Only the sick must drink boiled water.

Nelida failed for a number of reasons: If she had researched the existing beliefs and attitudes of the villagers before she embarked on her programme, she would have discovered the local custom concerning hot water. An important factor affecting the adoption rate of any innovation is its compatability with the values, beliefs and past experience of the community as we saw in Crockett's theory of Cognitive Complexity and Impression Formation, (see page 50). This enables the change agents to adapt their message so as to anticipate likely resistance. Yet again we see the importance of formative research in a message or programme at the pre-production or action stage. Interpersonal networks were not established. Nelida worked with the wrong housewives. Mrs. A was seen as sickly and Mrs. B

was not considered a model. Nelida ignored village opinion leaders who could have activated local networks and spread the innovation.

The credibility or acceptance of the 'change agent' is also an important factor in people's willingness to change. More effective communication takes place between those whose socio-economic level or cultural background are similar to that of the 'change agent'. Nelida, who was middle class by Los Molinos standards, had more success with the middle class locals than the lower status women. To them she was a snooper sent by the Department. Furthermore, she was an 'outsider', and technically proficient, which created further barriers between them.

In general, Nelida was too innovation oriented and not client oriented. Because she was unable to put herself in the role of village housewives, her attempts at persuasion failed because the message was not relevant to their beliefs. Nelida did not begin where the villagers were and they never could understand or follow her.

An interesting point emerges here. There is no reference by Rogers in the example from Peru to the use of mass media, which, according to the

innovation-diffusion theory can reach and influence opinion leaders. It is questionable as to whether a small impoverished community did have mass media as we understand it. Would mass media have influenced the opinion leaders? If so, would it have prompted them to seek the information from Nelida or to have sought a more hygienic water system from the local authorities? Would it have created a channel feedback to the health authorities via opinion leaders?

Rogers would describe a community health prevention project such as the North Karelia Project or the Kilkenny Health Project as a preventative innovation; an idea that an individual adopts in order to avoid the possible occurrence of an unwanted event in the future. The uncertainty of the problem occurring, reduces the individual motivation to adopt the idea. The rate of the adoption of the preventative innovations can be quite slow. This Rogers (1983) says, can be closed by a 'cue to action' an event that helps turn a favourable attitude into a behaviour change. A 'cue to action' in the prevention of coronary heart disease might be the Ash Wednesday 'No Smoking Day' or it could be the death from coronary heart disease of a close relative or friend whose lifestyle was clearly at variance

with that recommended for a health lifestyle in the prevention of coronary heart disease. A recent newspaper report (Irish Independent, 7th August, 1988) told of a mother and daughter who were badly burned when an aerosol tin which they were using suddenly went on fire. This could be termed a 'cue to action' in the campaign to protect the ozone layer in the atmosphere which is being damaged by the use of aerosols. Its effectiveness would be strengthened by the fact that it was not part of the campaign's message. It could not be construed as being 'threatening'.

We have now looked at theories of communication of the Process School and the Semiotic School and we have studied three of the four major approaches used by the change agents of the North Karelia Project. The Communication Behaviour Change Approach, The Behavioural Change Approach, and the Innovation Diffusion Approach. These concentrate to varying degrees on the individual, their attitudes, beliefs, behaviour and what effects these. Medical practice in the past had been based on the assumption that it was sufficient to just tell people of the changes that they should make in their lifestyles in order to have them change their behaviour. Numerous studies and

everyday practice however, shows that this is seldom the case. "Behaviour is embedded in a complex way in the social and physical environment". (Puska et al 1985a p.157) Many, if not most of the great achievements in public health have been the result of emphasis on the environment. It is considered that the risk factors associated with coronary heart disease are primarily determined by environmental factors and social forces. The most natural and effective way of changing these is to work through the community. The community then should be the main target audience, not individuals within that community. This now takes us to the last of the four main approaches as identified by the North Karelia Project- The Community Organisation Approach.

The Community Organisation Approach

Much of the health education messages in the past have been focused on the individual, - persuasion to stop smoking, to change diet, to wear seat belts etc. It appeals to people to do something about their health and fails to recognise how little control people have over their own lives, for example, the rising rate of unemployment, pollution of the air and water. This approach does not recognise the influence of social and econmic conditions over which individuals have

limited control. (Black 1987). However limited the social learning theory argues that the individual can both influence and be influenced by the environment. Every community has a network of structures that exercise influence over individual behaviour and lifestyle. Puska (1985a) states that broad ranged changes in a community can only be achieved through these existing structures. In the community organisation approach, as used by the North Karelia Project, the community, aware of a problem and of the changes required, receive the co-operation of the outside influences needed to enable these changes to be made.

Resistance to the adoption of a new idea can often be attributed to the lack of local community involvement. A number of health care programmes and important health campaigns may have failed because they lacked an essential public health principle - community participation or community involvement. (EGWU 1987).

Community participation is a process whereby individuals and families assume responsibility for their own health and welfare and that of the community and develop the capacity to identify and suggest ways of contributing to the community's betterment. (WHO/Unicef 1978). There are examples where improvements, far beyond resource

limitations and official expectations were achieved when the community concerned led the way.

In Nigeria, a UNICEF pilot programme on immunization, known as the 'Ondo' experiment, using the 'outside-plus-inside' approach, achieved spectacular success. Within one year, the campaign exceeded its projected 80% immunization coverage objective. (EGWU 1987).

There are some examples of successful programmes using the community development approach in what would be termed developed countries. The work of Hubley and Sheldon (1980) in areas of multiple deprivation in the West of Scotland shows that the community development approach makes it possible to design a health education programme that is relevant to the needs of the people. Health issues cannot be treated in isolation, they must be integrated into the other problems of a community, and active dialogue with the community is an important factor in the success of the campaign.

Sir Compton McKenzie attributed the fact that a small community in Wexford adopted and organised a successful International Opera Festival to the fact that it 'came from the local people and was not imposed on them'. Although there are simple

examples such as these, there is a shortage of well documented studies, especially in the developed countries, proving the efficacy of the community development approach. This begs the question as to why it is recommended and adopted so widely today. Perhaps the answer lies in the failure of previous approaches.

The power within a community to reject externally imposed goals is legendary. This is illustrated by many a spotlessly clean completely unused latrine in a World Health Organisation village project and the revolt against high technology childbirth in modern Western hospitals. (Brown 1987).

In the development of primary health care in Nigeria (EGWU 1987) the rate of success was disappointing despite the fact that when the plans were formulated the programme appeared to be conceptually sound. A possible explanation was thought to be the lack of 'outside plus inside approach'. 'Outside' represented by health planners, civic leaders and those outside the community. 'Inside', being the members of the community. The plan originally evolved from the existing health system which would have been a predominantly 'top down' method, the health professionals and government providing services to

the community. And although as we will see, this approach has been discredited, conversion to the new thinking is not universal. It is important to realise that methods frequently advocated today for the introduction of a new lifestyle in a community may still be based on the old 'top-down' methods.

This 'top-down' approach was part of the basic conception which up to the late 1960's ruled the definition and discussion of development and ultimately guided national development programmes. It sought to explain the transition from traditional to modern society in terms of a capital intensive extension of social development.

The term 'traditional' was applied to nations of Latin America and Asia, poor by GNP yardstick, most of them previously colonised and still dependent. Modern society was the term applied to the 'developed' Western powers. To an extent, the previous experience of historic events contributed to this belief. Rapid economic growth in the United States and Europe following the post-industrial revolution and the Second World War led to the assumption that economic growth was development. Industrialisation was seen to be the

key to development. Underdeveloped countries were encouraged to industrialise, irrespective of whether or not they had the resources or had a shortage of labour. Because the developed countries had capital intensive technology and the underdeveloped had not, the assumption was that giving it to them would result in more development. When social technology did not match material technology, the fault was thought to be the 'traditional' way of thinking and mass media was widely used in an effort to modernise traditional values. This necessitated borrowing from outside the country so that gradually the struggling economy became economically dependent instead of politically independent.

Economic growth was planned centrally with little more than a pious hope that it would 'catch on'. There was an assumption that information on new methods would trickle down, that profit motive alone would be sufficient to effect widespread changes of behaviour.

Natural well-being or progress could be measured by standards of housing, ownership of telephones, radio, cars. Values, happiness, contentment, peace of mind, could not,so that the meaning of

'development' became dehumanised. Performance was measured by GNP irrespective of whether all benefitted or not. No method was used to determine how many did benefit and how many did not or why.

Schramm (1964) somewhat naively suggests that the vast amounts of money and technology which poured into third world countries from governments and banking institutions of the West, were a response to requests from the underveloped countries to - "share their experience and in many cases to invest capital and to provide financial aid". (Schramm 1964 p.15).

A more realistic explanation is that these Western nations, many of whom had already well developed links of a colonialist exploitative nature with the poorer nations needed to protect their own interests. Rising labour costs at home and the need to find new markets made the decision to 'help' the poorer nations which had cheap labour, relatively easy. As Hamelink points out, "the trans-nationalisation of industrial production was further aided by technological developments in air transportation, containerisation and communication". (Hamelink 1977 p.6).

This conception of development based on economic growth and centralised planning was found wanting and the emerging alternatives (Table 10) suggested a need to emphasise equality of distribution, an improvement in the quality of life and self reliance at local level.

Perhaps at this time, as Mowlana (1987) suggests, when the term development was being used to include other than economic or technological growth, when it was being used for a large range of political, social, psychological, cultural and ecological phenomenon, the definition of the term or the context in which it was being used should have been specified.

TABLE 10. Emerging alternatives to the Dominant Paradign of Development. (Rogers 1983).

Main Elements in the Dominant Paradigm of Development	Emerging Alternatives to the Dominant Paradigm	Possible Factors Leading to Alternatives to the Dominant Paradigm
1. Economic growth	1. Equality of distribution	1. Discouraging rates of economic growth during the 1950s and 1960s in most developing nations. 2. A growing loss of faith in the "trickle-down" theory of distributing development benefits.
2. Capital-intensive technology	1. Improving the quality of life 2. Greater emphasis on appropriate technology.	1. Environmental pollution problems in Euro-America and Japan. 2. Realization that there are limits to growth. 3. The post-1973 energy crisis.
3. Centralized planning of development	1. Self-reliance in development at the local level.	1. The experience of the People's Republic of China with decentralized, participatory development, which became widely known elsewhere in the 1970s.
4. Mainly internal causes of underdevelopment	1. Internal and external causes of underdevelopment (amounting to a redefinition of the problem by developing nations).	1. The rise of OPEC power. 2. Shifts in world power, illustrated by voting behavior in the UN General Assembly and in various international bodies.

Development today has three main definitions which though related, are analytically separate. (Tuluhungwa 1981).

1. Development as economic growth, dealing with the issues of quantitative production and utilisation of resources. 2. Development as a change in the nature of social relations, the more equitable distribution of goods and opportunities, elimination of discrimination, creation of equal opportunities - the qualitative changes in societies. 3. Development in the sense of creating an environment which is politically sensitive to the need to attain the first two, economic and social development.

According to this definition, health programmes using the community organisation approach, qualify as development. Economic growth development would follow as a result of an increase in production due to a healthier workforce and a reduction in the amount of public money spent on the treatment of sickness. Social development could be defined as a more equitable distribution of the means to adopt and maintain a healthy lifestyle, making it possible for all to improve the quality and length of life.

The development of an environment sensitive to the need to attain economic and social development corresponds with the necessity, stressed by Farquhar (1985a), Puska (1885), Maccoby and Solomon (1981) for organisational changes in the environment to facilitate a successful outcome of a community health programme.

Understanding development according to the traditional definition is important to a campaign where the interest of and action by the community is thought to be a significant factor. The alternatives to this traditional way of thinking have not been adopted universally. The tendency for a central agency to 'instigate' and 'hand down' developments to a community is still common place especially in the more traditional communities. This is not necessarily the 'fault' of the central authority. In many instances, the people accustomed to being told what was right or good for them, do not realise that they should and could be involved in deciding what is right for their own community or area.

Another area that necessitates care is in the possible mis-interpretation of the term community development. Watt 1987 suggests that whereas the term 'community' conjures up feelings of warmth

and support, the term 'community development' does not. She suggests that the term originated in the Third World at the time of colonial development. In this context it was used to describe the mobilisation into action, of disadvantaged communities. The term, when transferred to the developed countries in the late 60's was used mainly to describe the mobilisation of less well off or socially disadvantaged sections of the community, usually those heavily reliant on Social Welfare or with specific social or economic problems. (Watt 1987). This example is a good illustration of Osgood's theory of meaning and Barthe's theory of connotation which we examined. (page 74)

Gilligan (1987) examines this problem and says that in the past twenty years in Ireland, it seems to have been de rigeur to attach the label of community to any initiative in the social field:

- 'Community Care' as an orientation for services in the elderly, mentally ill and children.

- 'Community Schools' - a title used to denote an initiative in educational reform.

- 'Community Relations' and 'Community Policy' - strategies by the Garda to counter crime.

- 'Community Schemes' and 'Community Programmes' - which were basically set up to tackle unemployment.

If the term community development was understood by a large section of the community to mean 'help for the underprivileged' it could result in large numbers of individuals in the community assuming that the issues being advocated were not relevant to them. It is important therefore that care be taken to ensure that all participants on a community approach to health promotion should understand that community development is the process by which an open ended intervention is made in a locality to assist groups of residents to clarify and deal with problems that the local people themselves have identified . (Harris 1978).

There are some problems in the implementation of the community organisation approach, particularly in the area of health care. Health workers often fail to listen to people because they perceive themselves as having important expertise (Black 1987). They are trained to diagnose illness and suggest remedies. Because they are used to dealing with patients on an individual basis they can feel threatened and may lack the necessary skills to work with the community as a whole. "After years of specialist training, it is hard to

embrace members of the community as equal partners". (Black 1987 p.191).

It is said that it has been difficult to get most doctors enthusiastic about prevention. It is seen to contravene the traditional role to which the medical student aspires. The 'normal' doctor is seen to 'treat' the patient and receive grateful recognition. A doctor involved in prevention is considered odd. (Doyle 1989). This is an area that requires special attention in the education communication work of a health based community organisation programme.

In this Chapter we have shown that a public health promotion can be described as a public communication campaign - one that has as its objective, the influencing of the lifestyle of a population. We observed that programmes which were successful were said to have used a behavioural change approach. This approach consisted of a communication change approach, a behavioural change approach, an innovation diffusion approach, and a community organisation approach. In the belief that each of these approaches depend on effective communication, we studied theories of communication thought to be relevant to each approach. Here we saw that both the Process and Semiotic Approaches offered useful

theories. Theories of persuasion were particularly relevant. For instance, where a population cannot be forced to change existing exercise or dietary habits, persuasion must be used.

We looked at diffusion theory - the theory which argues that new lifestyles are adopted by opinion leaders in a community and then diffused via natural networks, over time, to the community which in turn demands changes in local structures: Changes which enable the new lifestyle to be maintained. We noted that the introduction of new behaviours in the community is achieved basically by the two forms of communication, mediated to the population at large where it would diffuse, by using interpersonal communications through natural networks.

Finally we suggested that communicative messages and communication campaigns are more effective when there is prior knowledge of the attitude and beliefs of the target audience.

We will now examine examples of programmes which used a behavioural/social science change approach and aspects of a programme which illustrate the importance of effective communication in achieving a successful outcome.

CHAPTER 3.

CASE STUDIES AND EXAMPLES

In the previous chapter we explored theories of communication relevant to a public communications campaign, focussing on a behavioural/social science approach. We will now examine in some detail the design, the methods used and the results of two coronary heart disease (CHD) prevention programmes using this approach. These are generally recognised to be the pioneering projects of the work in community-based prevention of CHD. (Puska et al 1985). The Stanford Three Community Study used mass media only, and the North Karelia Project used a combination of mass media and community organisation in their efforts to effect change. We will also look at some aspects of public communication campaigns which did not have the prevention of CHD as the objective: The United Nations campaign in Cincinnati, The Three Village Field Experiment in India and a No Smoking campaign in Ireland. In particular, we will note the problems which were identified in the use of mass media alone as a method of influencing knowledge, attitude, beliefs

and behaviour of a target audience. Finally, we will look at, The Childrens' Television Workshop and, The Coded Welders - a case study from Ireland which incorporates examples of formative research and original field testing.

The Stanford Three Community Study

The Stanford Three Community Study group was influenced in its project design by two theories. One was a formulation by Cartwright, which suggested that mass media alone were not effective in achieving sales, but that personal solicitation was. This led to the belief that it was necessary to stimulate action by interpersonal influence as well as provide knowledge. The other theory was derived from Bandura's - social learning theory which we discussed. (page 85). Bandura views the relationship between the environment and human behaviour as a reciprocal influence process. The environment can shape the individual's behaviour but the individual can influence, can shape his or her environment.

The objectives of the Stanford Study was to observe changes in knowledge, attitudes and risk related behaviour. The overall goal was to achieve a "meaningful reduction in overall risk of heart disease". (Maccoby & Solomon 1981 p.106).

The Stanford change agents decided that the techniques traditionally employed in behaviour change, i.e. either one to one, or one to a group of people, were too costly when endeavouring to influence whole communities. They believed that social learning theory could have application to mass mediated communication as well as face to face communication. They argued that audio-visual portrayals, using either TV or film, and designed by making use of research in persuasion and attitude change, could substitute for individual instruction.

The Stanford Programme used three towns, Gilroy, Watsonville, and Tracy in California, over a three year period. The population ranged from 13,000 to 15,000. Agriculture and agricultural marketing and retail trade comprised the main economic base of all three towns and they all had mutually exclusive media, TV, radio and newspapers. Two of these communities, Gilroy and Watsonville, would receive the educational messages, one, Gilroy, would receive mass media only, and the other Watsonville, would receive mass media plus a face to face initiative aimed at a sub-set of the community - those at high risk.

The third community in Tracy, would receive no treatment. The design of the programme allowed for comparison of the mass media only treatment community, with the media plus face to face treatment community, as well as with the no treatment community.

Aware that a campaign aimed at inducing specified attitudes, knowledge and behaviour changes involves a number of processes, the plan conceptualised behaviour change and mass media management in terms of the steps that are required to move the target population from initial awareness of, and interest in, the new lifestyle being recommended, to the adoption and maintenance of the advocated attitude or behaviour.

The Stanford Project planners were aware that most Health Education Programmes are complex. There are a number of objectives. The target audience have different degrees of knowledge and have different attitudes towards the objectives and it is not possible to do everything at once. A framework of education (Table 11) was developed to break the task into manageable sections. (Farquhar 1985a).

TABLE 11. A Frame work of Education. (Farquhar et al 1985).

Behavioural Steps.	Smoking Control	Diet	Weight	Exercise	Stress Control	Blood Pressure
Awareness						
Knowledge						
Motivation						
Skills						
Action						
Maintenance						

Table 11 shows the CHD prevention programme risk factors along the top and the steps in the individuals' desired behaviour change on the left hand side. These steps correspond with the stages in the innovation decision process (page 105) where we saw the individual moving from basic knowledge to persuasion to decision, to the implementation of the idea and to confirmation.

A central element of the campaign was the use of survey data to guide the design, production and distribution of the educational materials. A pre-test of the core questionnaire or baseline survey was carried out on a similar population in Modesto, California. The results of this survey

along with formative research, evaluation and audience testing, interviews with various local professional and political figures including the owners and managers of local media channels, provided information on the target population. (Maccoby & Solomon 1981). During the course of the campaign, this data was augmented by a series of occasional informal interviews and observations.

A wide variety of media were used in the mass media only and mass media plus face to face towns, serviced by a broad range of materials which were produced by the planners. Local television and radio channels were used extensively to communicate with the target audience. The programme included fifty television spots, three hours of television programming, over one hundred radio spots, and several hours of radio programming in the campaign. Weekly newspaper columns, newspaper advertisements and stories, billboards, and printed material sent via direct mail, calendars and other assorted 'give aways' were also used. The material was all sent by the Project team themselves, directly to the distribution channels so as to ensure that the only difference in the campaign was the degree to which the local media editors varied the amount of the materials which they chose to publish or not

to publish or to broadcast, and as to whether they gave it prime time, eg 8pm versus 6am or position, eg. front pages or not.

The results showed that both treatment communities showed general improvement in contrast to the no-treatment community. (Maccoby et al 1981).
It was found that whereas certain types of new behaviours can be learned by exposure to mass media, others require skills training at an interpersonal level. In the community where there was some face to face counselling, the initial improvement was greater and health education was more successful in reducing cigarette smoking. On balance it was found that mass media can effectively provide information and act as an initial model so as to encourage the development of community organisation and support systems to give the essential practical guidance and advice.

It is not clear however, how the project team arrived at these conclusions. Maccoby says " we tentatively attribute much of the success of the community education campaigns to the quality of the media campaign and to the synergistic interaction of multiple educational inputs and to interpersonal communication stimulated by application of these inputs in a community

setting". (Maccoby 1981. p.115). Atkins (1981) says that the expense of this campaign was so great that care must be taken in extrapolating the findings to more modestly mounted campaigns.

It is interesting to note that in the planning of their second campaign, in The Stanford Five Community Study, the planners opted to use mass media to create awareness only. In this campaign, the public were encouraged to write or call for more detailed and personalised assistance. Health professionals and community groups were also used as a method of getting the message across.

In the Stanford Five Community Study, the core questionnaire or baseline survey had ten sections. These included questions on media use, interpersonal communication patterns, community organisation memberships/involvements and an interpersonal communication network analysis, as well as questions on health matters and attitudes and opinions on specific risk factors.

Although the results of this study are not yet published, Farquhar (1985a) has based a paper on the work of the Stanford Research Group including the Three Community Study and The Five Community

Study. It is interesting to note (Table 12) that this recommends and places emphasis on determining the interest, knowledge and skill needs of the audience before the health communication begins.

Table 12. The health communication-behaviour change formulation. (Farquhar et al 1985).

Communication inputs	Communication functions (for the sender)	Behaviour objectives (for the receiver)
Messages Media Community Events	1. Determine receiver's needs 2. Gain attention (set the agenda) 3. Provide information 4. Provide incentives 5. Provide training 6. Provide cues to action 7. Provide support, self-management	1. Become aware 2. Increase knowledge 3. Increase motivation and interest 4. Learn and practice skills 5. Take action, assess outcomes 6. Maintain action, practise self-management skills 7. Become an opinion leader (exert peer group influence) 8. Give feedback to sender

In Table 12 we see that determining the receiver's needs is the first step in the health communication-behaviour change approach. The remainder of the tasks for the change agents or senders are in the middle column. The desired results in the target audience are in the right hand column. The 'tools' or methods of reaching

the audience are in the left hand column. This approach proposes that people will go through these series of steps as they gradually adopt the recommended attitudes and/or behaviour.

The second step is to gain the attention of the target audience; to create basic knowledge or awareness of the existence of, and the serious implications of CHD, and of the solutions being advocated.

It is considered important that information be presented in simple terms. The WHO report recommended that 'the general public should be systematically informed regarding health-related problems and developments and care should be taken to provide such information in a way that is easy to grasp, will arouse interest and will enhance commitment". (WHO 1985).

Farquhar reminds us that change is said to be more likely to occur if the advantages to the individual are clearly stated in the messages.

For instance, Stop Smoking - you could have a holiday with the money you save.

The 5th step in Table 12, is the provision of skills. Rogers reminds us that the adoption of an

innovation is a human decision and human decisions are based on the willingness to do, knowing what to do, having the means to do, and knowing how to do. Explicit step by step instructions in new methods of say cooking, exercising or giving up smoking are thought to be necessary if old and long established habits are to be changed.

6. Action: Encouragement to act, to try the new skills could be a 'Road Run day' or 'Walk for Fun' day.

7. Maintenance: Farquhar suggests that methods of combatting the temptation to give up the new practice, or of ways of starting off the new idea again, should be built in to the early learning stages of the skills. Social support and approval from the community for the 'converted' is an important aspect of maintenance.

The North Karelia Project

We will now look at the North Karelia Project for the control of coronary heart disease. Because North Karelia had a number of similar characteristics to Kilkenny, such as demographic, geographic, economic, as we will see, and their community-based prevention programme had reported

some successes, it was to be an important model for the Kilkenny Health Project. The North Karelia Project (1972-1982), and the Stanford Three Community Study, (1972-1975), ran almost concurrently and the two projects developed mutually beneficial scientific exchanges. (Puska et al 1985).

The North Karelia Project was started by the Finnish Heart Association in the Spring of 1972 to carry out a planned, comprehensive community programme in North Karelia for the control of coronary heart disease. It was started in response to a petition from the population led by all of the North Karelia Members of Parliament. The programme was aimed at the total population but with special emphasis on the age group where the disease rates were alarming, i.e. middle-aged men. North Karelia is the most eastern of eleven Finnish Counties, is heavily afforested, with lakes, hills, small farms, small towns and small villages. In 1970, the population was 185,303 over 70% of whom lived in rural areas. (Puska et al 1981). "Relative to other areas of Finland, North Karelia had a low socio economic status, high unemployment, and income based on farming and forestry and scarce medical and other services". (Puska et al 1985).

Figures published by the World Health Organization in 1975, showed that for males in the 40-69 age group, Finland had the highest mortality rate. (Table 13) This raised awareness and concern in Finland especially in Karelia where the rates were highest and where the observations of the local community confirmed the statistics.

Table 13. Age Standardised Mortality Rates from heart disease per 100,000 population in 1975. (40-69 years of age group) (Puska et al 1985).

Males		Females	
Finland →	673	202	UK: Scotland
UK: Scotland	615	193	Israel
UK: Northern Ireland	614	189	UK:Northern Ireland
New Zealand	545	180	Australia
Australia	534	171	United States of America
United States of America	528	168	Ireland
Ireland	508	167	New Zealand
UK: England and Wales	498	143	Canada
Canada	473	142 ←	Finland
Czechoslovakia	410	138	UK: England and Wales
Denmark	400	129	Czechoslovakia
Norway	398	125	Hungary
Israel	370	114	Denmark
Sweden	368	110	Bulgaria
Netherlands	363	102	Sweden
Hungary	328	89	Austria
Federal Rep. of Germany	325	87	Netherlands
Belgium	312	86	Norway
Austria	308	84	Belgium
Bulgaria	237	81	Federal Rep. of Germany
Poland	229	70	Yugoslavia
Italy	226	64	Romania
Switzerland	226	63	Italy
Yugoslavia	180	56	Poland
France	152	50	Switzerland
Romania	146	37	France
Japan	69	29	Japan

Table 13 shows that men in Finland had the highest mortality rate from CHD with 673 deaths per 100,000 of the population. Finnish women were 6th highest on the same table with 142 deaths per 100,000 of the population.

This community interest as well as the fact that coronary heart disease was a widespread health problem, pointed to the need for a community-wide approach.

The main objective of the programme was based on the perceived health needs of the community, the reduction of mortality and morbidity from coronary heart disease. The practical objectives and actual intervention measures were based on careful analysis of the community. Important information from this analysis included the mortality and morbidity rates, various lifestyles related to the risk factors, community leadership and social interaction communication channels. Because the support of the population was thought to be important, information was also obtained on how people and their representatives saw the problems and how they viewed the possibilities of solving them. Health personnel and local decision makers were also surveyed on the basis that their cooperation would be essential to the success of

the programme.

The definition of objectives, the community diagnosis and the building of the actual organisation to implement the programme formed the planning stage of the programme. Evaluations to assess the feasibility, effects, process and cost of changes were built into the programme which began with a baseline survey, had a five year intervention or educational health programme and a final survey. Because it was appreciated that baseline measurements were important, and the community was pressing for action, the project team concentrated on establishing baseline measurements and disease surveillance methods before planning the intervention programme. Once the baseline survey was launched in 1972 the project team had more opportunity to plan the intervention activities. (Puska et al 1985).

The baseline survey consisted of a self administered questionnaire which dealt with smoking habits, weight, blood pressure and nutrition, which was completed at home. The physical measurements were done at an examination clinic. It was carried out in the County of North Karelia and a reference area, the County of Kuopio.

It was decided that the intervention programme should concentrate on three of the main risk factors associated with coronary heart disease, smoking, dietary habits and blood pressure. It was known that the level of these factors was high in Karelia whereas the levels of other risk factors, such as obesity and physical inactivity were not. Merely giving information was not considered to be likely to change behaviour which is embedded in a complex way in the social and physical environment. (Puska et al 1985). Once the aim of the programme had been defined as the changing of lifestyle and of risk factors in the entire community, the task was defined as entering the realm of the behavioural and social sciences. A major problem at this stage was the lack of a model or even a unifying theory to serve as a guide.

The need to both reach individuals and to get co-operation from and effect changes in public institutions, pointed to the need to study theories of social learning, theoretical bases for community change and theories of communications. The North Karelia study chose four theoretical somewhat overlapping frameworks for behavioural

change from which they produced a model that unified these approaches in a community-based health programme.

In the previous chapter we examined in detail these four approaches and the theories within each approach. We noted that the communication change approach argued that communications, mass and interpersonal, would introduce new behaviours into a community. The behavioural change approach saw persuasion as being necessary in order to get people to change. The innovation diffusion theory saw change occurring through existing networks which over time would bring information to individuals and thereby cause social change. The community organisation approach considered that changes in lifestyle could only be achieved if community structures could be changed.

Taking what they considered to be the relevant theories within these approaches, the North Karelia change agents created a 'unified model' This model sought to increase knowledge, persuade, teach skills and provide support for the performance and maintenance of new health skills. This was to be achieved by directing mass mediated messages at the entire community where they would diffuse through natural networks prompting action

and changing community structures where necessary. Within the framework of the programme, the actual implementation was sufficiently flexible to adjust in response to opportunities in the community. The project set the objectives and developed the programmes, the activities were carried out mainly by the community. Community resources were mobilised by working closely with official agencies and voluntary organisations and the activities were simple and practical so as to make their implementation feasible for a large section of the target audience.

A significant contribution to the work of the North Karelia Project was the enactment in its first year of a new Public Health Act which changed the emphasis on health care from the existing policy of hospital care, to a network of primary health care centres throughout the country. This, and the setting up of a new university which included a medical school at Kuopio (the reference County) were thought to have been prompted by the publicity generated during the setting up of the project in 1971/1972. The new health centres in the North Karelia area, incorporated the North Karelia Health Project main programme activities into their official five year plan, and the provision of office accommodation

for the project field office within the county health department, further strengthened the work of the project team and gave credibility to them and to their work. Thus, though in theory, the project was initially organised and administered by the project team, in practice it was really integrated with the County health administration. This situation was formalised in early 1974.

It was accepted that it is difficult to adequately communicate new and somewhat complex ideas in a large population which is subject to information, sometimes conflicting, from many sources. (McAlister 1982). All available information channels were used to give information directly to the general public and to health personnel. The work was carried out through personal contact, group activities, health education material and specific campaigns, as well as the mass media.

North Karelia were fortunate to be able to use at least two popular forms of mass media in their programme. North Karelians are said to read two newspapers a day. North Karelia has 3 County and 12 local newspapers. There is popular local radio and although there is no local television, the absence of strong competition from outside channels, due to language differences means that

the North Karelians are not exposed to sophistication in programming or to a great number of choices.

Because there were no local TV channels, the use of television was not emphasised, although a National TV series on the project was said to have been responsible for 1% -2% of the target audience ceasing to smoke and of influencing a further 5% to make changes in their diet.

Local radio was frequently used. The team had continuous contact with local station reporters and official contact with the management of the stations at national level, to ensure formal support.

Newspapers were considered crucial. Texts were prepared by journalists (who were considered better at writing effective text than health professionals) for the main County paper, two minor County Papers and ten small local papers. There was a regular stream of news, health information, texts, reports, question and answer columns, editorials and interviews in the papers throughout the period of the project work. Between 1972 and 1977 a total of 1509 articles were printed. (McAlister 1982). These included health education leaflets on different risk

factors, posters, 'wall' papers (papers designed as a normal newspaper but containing only health messages) and numerous other educational materials. Over one half million in total were designed, printed and distributed. Slides and advertisements were used, as were campaigns for special days - Mother's Day, or local community events, which served as 'cues to action'.

Groups and organisations distributed materials and organised health education meetings. These included schools, shops and places of commerce, clubs, and voluntary organisations. New skills to encourage and maintain the advocated lifestyle were taught. One example here was 'Parties for a long life'. Groups of housewives in a village who belonged to an organisation called 'Martha', gathered regularly to learn new healthy methods of cooking. The sessions included demonstration and participation. Families of the participants were encouraged to join the group afterwards to partake of the 'new' dishes and it was shown that the cost of the meals was less than that of their traditional way of preparing the dishes.

As we mentioned (page 110) the North Karelia Project Team had difficulty in identifying informal opinion leaders. Those who were identified, were invited to become 'lay leaders',

to be trained at short training sessions, and urged to encourage their families, friends and acquaintenances to adopt the suggested new lifestyle.

An appeal to 'national pride' was an important element of the message. The inference being that it was shameful in some way for North Karelia to have the highest incidence of coronary heart disease in Finland and for Finland to be so high in the world table of coronary heart disease. People were urged to change - for the Fatherland.

As to the results of this programme, five years is not considered to be a long enough period of time to reduce the incidence of cardiovascular morbidity and mortality. (McAlister 1982) Some changes however were observed. National records of pension disability payment showed a clear relative reduction in cardiovascular disease pension in North Karelia as compared to the reference area. It was estimated that a $1 million US dollar investment on intervention activities by the project saved over $4 million in disability payments. The cost of the 8 year intervention programme equated with the maintenance of four or five hospital beds in a Finnish University Hospital for the same period of time.

The proportion of male hypertensives dropped sharply among North Karelia middle-aged men (30 - 64 years) while it increased slightly in the reference area. Information about the programme and its aims was disseminated rapidly. Understanding of the risk factors for coronary heart disease increased in North Karelia but only slightly more than the improvement in understanding in the reference area. This was attributed to the fact that the reference area was receiving increasing information from the national media which served both areas.

Changes in risk estimates for smoking, serum cholesterol, blood pressure and total risk showed significant reductions in North Karelia when compared to the reference area. Dietary changes were assessed in the surveys by standard questions on dietary habits. Results showed a greater degree of 'self reported' change, especially in fat intake in North Karelia than in the reference area.

It is thought that the impact of the project may have been greater than the findings showed. For instance, the comparisons with the reference area

might have shown a greater difference if the university and its medical school had not been located in the reference area, which would have served to create awareness in the Kuopio area. Because the objective was to serve the entire Province of North Karelia, different components of intervention were not differentially applied within the Province. Therefore it was not possible to assess the relative contributions or merits of different programmes or methods within the overall project programme. The general trend, not only within Finland on the whole, but internationally, towards a reduction of the risk factors of coronary heart disease makes it difficult to predict with any certainty the precise results of the North Karelia Project. However, the goals of health promotion were met to the satisfaction of those who initiated the action and the project has become popular as a practical and positive example that health promotion and control of modern chronic disease epidemics is feasible. (McAlister 1982).

The Stanford Three Community Study and The North Karelia Project, both coronary heart disease (CHD) prevention programmes, are clearly important models for the Kilkenny Health Project. We will

now examine elements of campaigns where the objective, although not the prevention of CHD, was an endeavour to change the knowledge, attitude and/or behaviour of a target audience. The lessons learned might be applied to aspects of the Kilkenny Health Project.

United Nations information campaign in Cincinnati

A lengthy though unsuccessful United Nations information campaign in Cincinnati also relied on a veritable flood of messages via the mass media to the target audience. Whilst not a disease provention programme using a reference area, as were Stanford and Kilkenny, it illustrates the problems associated with a mass media only campaign especially in the design of the material used.

The campaign objective was to teach the residents of Cincinnati about the United Nations. The results published in 1950 after careful measurement of 'before' versus 'after' samples, showed only marginal change. The main problems were identified as a reliance on quantity rather than quality of messages, messages which did not

emphasise how the UN related to the personal lives of the citizens of Cincinnati. The use of unimaginative, dull, copy and design did not capture the attention of a disinterested audience. Atkins (1981) says that although the campaign failed, it demonstrated an important point, that a heavy flow of messages alone is not sufficient to attract attention or stimulate learning in a mass communication setting.

The importance of the message itself, the channels chosen to convey it, and the actual time of showing, is illustrated yet again in a three village field experiment in India. (Rogers 1976).

Three Village fleld experiment in India

The original purpose of the experiment was to identify where and how distortion caused loss of information in rural development work. Community television, accessible to low income and low literate citizens, was used to show two programmes, one on methods of potato growing and one on wheat growing. The experiment was carried out to assess information gain, the extent of information loss and distortion of televised

information, and to identify the responsible factors. Farmers in the three chosen villages were interviewed before and after the telecasts.

From the 'before' interviews, it was established that the target audience already knew a number of the televised information points on potato growing and that there was a possibility of them learning ten new pieces of information. Approximately four were learned. Of the remaining six that were not learned, one was not remembered at all whilst five on the average were inaccurately recalled. A possible cause for the high failure rate was said to be ignorance of the terms used - the average farmer viewing did not know the meaning of over 58% of the technical terms used. A contributory cause was thought to be viewer fatigue - the experiment took place at night time and when the sowing of Winter crops was at its height. The farmers were tired. A partial solution was thought to be to design programme material which was more interesting, less soporofic and one which used more basic terms.

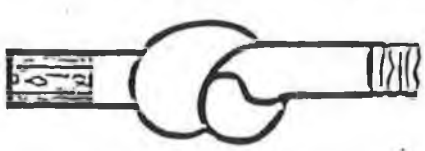
Anti-Smoking Campaigns

A few studies have been conducted to assess the effects of anti-smoking campaigns using a mass

media only approach. A study carried out in Florida in 1970 showed that although non-smokers thought that the spots as broadcast were effective, smokers acknowledged little or no effect on their behaviour. Some may have stopped smoking after seeing some of the more persuasive advertisements, but they had no impact on the vast majority of smokers. (McAlister 1981).

One study in Ireland, whilst not exactly comparable to the previous examples, is relevant. It measured the effectiveness of the use of a clever visual concept using a cigarette knotted (Figure 7). The design was used in an outdoor poster campaign with a TV advertising campaign as back up.

Figure 7. The 'Knot' Symbol.



Results showed that:

- Awareness of anti- smoking advertising had increased by 81% in seven months.

- Non prompted recall of any element of the advertisement showed 48% referring to the word 'knot'.

- The campaign succeeded in highlighting the anti-social nature of smoking. (Crawley et al 1987). However, whereas the pertinent or clever concept had gained attention and was remembered, it was acknowledged that this alone would not effect a significant reduction in smoking.

We will now examine a case study which illustrates the value of interactive on-going evaluation to guide project planning and message production, and demonstrates how important it is to know the attitudes and beliefs of the target audience.

The Childrens' Television Workshop

The Childrens' Television Workshop (CTW) Health Minutes Project, illustrates the role of formative research in the design of a combined television, radio and print campaign which promotes improved health practices. The CTW is a series of fifty 60 second television documentaries on health, with adaptations for radio, and five each of illustrated brochures and full colour posters to

reinforce the messages in the programmes. The target audience is lower to middle income urban dwellers with access to television, in Latin America. The programmes are sponsored and therefore supplied at no charge to the stations. The literature is distributed free to the people by the health authorities. The material is in Spanish and Portugese. Once the need for such a campaign had been established and confirmed by the government officials, a planning seminar was held with high ranking educators, many of whom were Latin American in origin, and with health experts from seventeen nations. As a result of the deliberations of these consultants, five high priority topics were agreed: Maternal and child care, accidents, illness, sanitation and communicable diseases. In addition, specific messages to be conveyed, and health behaviour to be promoted, were identified. It was agreed to address ten messages to each health subject. To maintain the interest and input of these consultants a newsletter was created. This was used to discuss topics, review scripts and production plans during the course of the study.

The formative research of the project was undertaken in two phases, the pre-production phase which included literature reviews and an empirical

study, and the pilot testing phase which consisted of field tests on the approximate content of the ten television programmes. Separate tests were carried out on pilot versions of the accompanying print material.

The pre-production field survey included 50 opinion leaders, eg. (shopkeepers, clinic staff) who would know about the health habits of the target audience, as well as 200 target audience members. (Palmer 1981). Unlike traditional survey research, the yield sought neither valid estimates of population parameters on the basis of a carefully selected sample, nor to produce results and conclusions. By interaction with reasonably typical members of the community it was hoped to gather a variety of creative hunches and ideas that would help the television writers and producers to design messages relevant to these people. Test audiences have the ability to provide such critical judgements and suggestions, according to Palmer and to many other practitioners in the field.

In each of the chosen ten topics, the Health Minutes team surveyed the literature and designed and administered a questionnaire. The ten topics are given below.

1. Individual needs and values were explored to ascertain what could be appealed to in the message design so as to assist in changing the behaviour.

2. Barriers. At the Planning Seminar, attention was drawn to the barriers to good health practices due to either lack of resources, to laziness on the part of the individual or to the influence of others. Latin American health specialists reported that the extended family and neighbours frequently influenced people. It was important to anticipate resistance to the messages.

3. Family members influence. As an extension of the last point, it was decided that it was important to understand the roles of various family members, and to know who was powerful as an adviser. For instance it was known that the husband traditionally ate the largest portion of the available food even when his wife was pregnant. Messages then portrayed a husband encouraging his pregnant wife to eat more than her usual share.

4. Prior improvements in lifestyle. Planners critically addressed the traditional outlook which included a fatalistic orientation to life and a lack of belief in the ability of people to improve

their own well-being. This corresponds with the traditional social learning tradition which we discussed on page ? Examples of improvements in lifestyle and health within the memory of the target audience were highlighted.

5. Examples of previous television and radio campaigns were examined in order to emulate any successful methods previously used to effect change or improvement.

6. Subject matter exploration. For each of the health subjects to be treated, it was considered essential to have detailed information on the existing knowledge and beliefs of the target audience - on gaps in knowledge as well as on any misconceptions.

7. Knowledge of symptoms. This was simply an effort to determine whether people could identify symptoms of a complaint.

8. Vocabulary. It was necessary to find a health vocabulary which was common to the various Spanish speaking countries.

9. An inventory of household medications was undertaken in order to illustrate in the message

the steps which people were already taking to influence their good health and so encourage them to try some new steps or methods.

10. Parents' perceived role as child trainers was researched with a view to promoting this role.

In some of these areas, helpful literature was available. In these cases, the results of the field survey provided endorsement of previous studies. In many cases, partly due to constraints of time or resources, nothing was found and this made the field work invaluable to the message designers,

The second phase of the model, the pilot testing, focused on six characteristics of the audience, on the messages or the recommended health practices. These are listed below.

COMPREHENSION TESTING is the extent to which the audience understands the point of each message.

CREDIBILITY TESTING ensures that the change agents are perceived to be believeable. IDENTIFICATION TESTING seeks to find out which situations within the messages are ones with which people would identify and whether the models are acceptable and

whether characters are people whom the audience might adopt as a model. RELEVANCE TESTING explores the extent to which the messages are thought to be important and useful. DO-ABILITY is an obvious one. It is a test to ensure that the recommended health behaviour is within the practical means of the audience, and is acceptable to the norms of their culture. This category especially seeks potential barriers. INTENTION TESTING is done to assess the motivating power of the message. (Palmer 1981).

Palmer maintains that there are many good reasons to recommend the tailoring of a formative research model to suit the unique information needs of each different campaign. Among these is the focus which it can give to research. Pre-campaign analysis of the audience is helpful in providing the stategist with a more precise idea about which types of effects should be the focal point of a campaign. (Atkins 1981). For instance most cigarette smokers are said to be aware of the health consequences of smoking. With this knowledge in advance, a message planner would not waste time on making the health consequence a major part of a campaign but might perhaps concentrate on the teaching of cessation skills.

The Health Minutes model is an open ended one, since other points of focus for preproduction research and pilot testing come up with each new application. In the Childrens' Television Workshop model, the usefulness as well as the limitations of the model were tested. It was found important not to cause feelings of frustration or guilt about existing unwise health practices. It was found to be essential to ensure that the key point of the message was not overpowered by other elements of the production. The model was considered to be capable of combining simplicity and comprehensiveness. It was also capable of being used to help focus the efforts of research teams working in different countries and inexperienced in research or message design. (Palmer 1981).

It is clear from the survey of actual public information campaigns that formative research is an essential first step in any campaign. A message is not likely to affect a target audience unless it is designed with the prior knowledge of its perceptions, misconceptions, attitudes, knowledge or beliefs. It is important to know whether it is necessary to reinforce or correct existing beliefs. It is equally important to know what channels of communication are used, as

opposed to those which exist. The omission of this step is a common deficiency in communication campaigns and it is often due to the fact that the message or campaign director is not given the resources or the time to carry out the work. This can be for a number of reasons which usually include the following: The client does not,consider it necessary, knows the answers, is not prepared to wait for the results, does not want to spend money on what is perceived as a waste of time, wants action and wants it now. These factors can be illustrated from the following case study taken from the files of the present writer in her capacity as a consultant on information campaign strategies.

The Coded Welders - a case study from Ireland

The managing director of a large structural steel manufacturing company approached the consultant with a view to helping him to solve a problem. His problem, as he saw it, was, that a rumour that he was bankrupt was damaging his business. He was not being asked to quote for work. His theory was that his target audience (international consulting engineering practices) had heard the rumour and had no confidence in his long term survival and

therefore did not ask him to quote. The fact that he was not bankrupt was established, but careful probing elicited the information that he did have a cash flow problem which had resulted in some suppliers demanding cash on delivery. It was normal to assume that this might lead to suppliers, delivery staff, or employees taking delivery, presuming that something was seriously wrong. A suggestion that qualitative research or field testing be done to discover the validity or extent of this supposition and his belief in the rumour, was dismissed as being superfluous, a waste of time, he needed action immediately. He knew what was wrong and he also knew what to do. His 'solution' was to have photographs of himself and his financiers appear in the printed media. To effect this, we would organise an 'event' to which the financiers and media would be invited. When it was evident that the Consultant did not, would not, could not, operate in this manner, he very reluctantly agreed to have the research carried out.

Original field testing and pre-production research to ascertain the target audience's beliefs,

knowledge and attitude about the company, produced interesting information. Not one of them mentioned financial problems of the company as a reason for their behaviour. Practically all said that the reason that they did not ask the company to quote was that new insurance regulations required a specific standard of welding. It was their belief that the company did not have the expertise to do this level of welding. (In fact, the company had acquired this expertise two years previously). Other interesting and useful comments, which although not reasons for not doing business with the company, were mentioned by some respondents. These included slight problems experienced in previous dealings with the company, such as, 'delivery was often late' and 'the factory was not big enough for the fabrication of very large jobs'.

The message and campaign which was prepared two months later did not seek to tell the general public via the mass media that the company had a good relationship with its bank managers. Instead it used a well designed brochure, which was delivered personally by company personnel, to tell

specific professionals, that the company had the expertise to carry out the work to the standards required. This programme was supported in the following months by 'photo stories' in the media. Pictures of very large vessels, (fabricated to the highest standard using the high grade welding) were shown leaving the factory en route to major prestigeous clients. The caption also stated that the job was leaving the factory on or ahead of the scheduled delivery date. The campaign worked. Orders came rolling in. The workforce doubled in the following two years and the factory space was doubled. By tailoring the message to address the misconceptions of the target audience, the message was effective.

So what lessons have we learned from the examples? A common thread running through all of our examples is the fact that a campaign must be driven by research. To be effective, the message must be relevant to the receiver's needs. The success of the Stanford Three City Study is attributed to the sheer volume of media exposure for the message. However, it is important to note that the message was designed using information received from extensive formative research and audience testing. There is no evidence that the

North Karelia planners did extensive pre-testing of the audience but as we noted, there was evidence and widespread acknowledgement by the community that coronary heart disease was a major cause of morbidity and mortality in North Karelia. The Childrens' Television Workshop, the Cincinnati information campaign and the Coded Welders Case Study from Ireland, strongly support the belief that formative research and original field testing are an essential first step in a public communication campaign. In this chapter also, The Three Village experiment in India highlighted the need to pay attention to the channel, position and time of exposure to the message, as well as the actual content of the message. However, as we saw in the references to No Smoking Campaigns, memorable messages alone will not change behaviour.

We will now examine the Kilkenny Health Project in some detail. In so doing, we will pay particular attention to the first steps of the programme, the design of the message and programme. The main focus of our attention will be on the extent and the length of time which it took to create basic awareness of the existence and objectives of the project.

CHAPTER 4

THE KILKENNY HEALTH PROJECT

The unsuccessful efforts of a number of Irish health agencies to effect reduction in the incidence of coronary heart disease in Ireland, contrasted sharply with the Stanford and North Karelia programmes. This prompted the appeal by the Irish Heart Foundation to the Department of Health to initiate a similar community health prevention programme in Ireland.

The Kilkenny Health Project, the first programme of its kind in Ireland was started in 1984. A Board of Directors was appointed, and their work was to be supported by Scientific, Steering, Education and Finance Committees. The project leader was Dr. Emer Shelley. The major sources of finance for the project at this point were the Department of Health, The Irish Heart Foundation, and The Voluntary Health Insurance Board. Representatives of civic and religious institutions in County Kilkenny accepted the invitation to become patrons.

Kilkenny was chosen as the County in which to base the programme. It was thought to be suitable because it had a good mixture of urban and rural communities and people who displayed civic spirit in a number of community development programmes such as Tidy Towns competitions. A number of key

organisations, including the South Eastern Health Board had pledged their support with enthusiasm. Co. Kilkenny was also deemed suitable because of the relatively static population. Of the increase of 9300 in the population between 1971 and 1981, only 3,000 resulted from migration. Natural increase accounted for the other 6,300 The total (all causes) mortality rate for Co. Kilkenny is very similar to the national rate. Of the 345 deaths in 1983 almost 50% were due to a form of heart disease or a related problem. (Shelley, KHP).

Figure 8 Map of Ireland, showing Co. Kilkenny.

Co. Kilkenny, situated in the South East of Ireland, had a population of 70,806 at the 1981 census of population. It has a weak urban structure which is dominated by Kilkenny City and its environs.

The percentage of population living in urban areas within the County (Table 14) is the lowest in the South East Region and is attributed to the inhibiting effect and proximity of several large towns and one City in the adjoining Counties of Waterford, New Ross, Carrick on Suir, Carlow, Thurles, and Portlaoise.

TABLE 14. Centres of Population in Kilkenny as a percentage of the County Population. (From Figures Co.Kilkenny Draft Development Plan, 1984).

Total Population of County Kilkenny (1981) 70,806.

Town	Total Population	Town Population as % of County population.
Kilkenny City and environs.	16,886.	23.85%
Castlecomer	1,548.	
Callan	1,431.	
Thomastown	1,308.	
Graiguenamanagh	1,203.	
Mooncoin	771.	
Ballyragget	756.	
Freshford	747.	
Urlingford	683.	
Piltown	634.	12,844. 18.05%
Gowran	510.	
Bennetsbridge	494.	
Goresbridge	431.	
Johnstown	420.	
Mullinavat	357.	
Moncenroe	335.	
Clogh-Chatsworth	324.	
Kilmacow	242.	
Slieverue	238.	
Kilmoganny	217.	
Inistioge	195.	
Totally Rural areas,	41,076.	58.01%
	70.806.	100%

In Table 14 we see that 23.85% of the entire population of County Kilkenny live in Kilkenny City and environs. All other towns have less than 2,000 people and there is a proliferation of small villages with population ranging from 200-800 people. Over half of the total population (58.1%) live in a totally rural area.

The 1981 census showed that 11% of the population were 65 years or over, 42% were aged between 25 years and 64 years, and 47% were aged under 25 years. This age structure revealed no significant difference from that of the country as a whole.

The employment situation had deteriorated in Co. Kilkenny in recent years, in line with national trends. In the 1981 census of population, it was estimated that almost 90% of the total male labour force were employed, 29% of these were employed in economic activities relating to agriculture. Agriculture and related industries are obviously important economic activities in Kilkenny. Avonmore Creameries in Kilkenny are major producers of milk-based products. Kilkenny farmers produce beet for the nearby sugar factory in Carlow. Kilkenny City also has a large brewery. The total number of people out of work increased by 40% in the early 1980's. Many people

working in the service industry, such as hotels, which employ 31.4% of the workforce, live at home on the family farm or small holding.

Before we discuss the Kilkenny Health Project itself, it is important to note the level of cutbacks in health expenditure whch were taking place in Ireland at the time. (Table 15).

TABLE 15. Non Capital Health Expenditure as percentage of GNP. 1982-1989. (Health Statistics 1988 Department of Health).

	%
1982	7.69
1983	7.68
1984	7.43
1985	7.50
1986	7.50
1987	6.85
1988	6.65
* 1989	6.35 (Est)

* This figure was given to the writer in personal communication with the Department of Health.

Although the figures in Table 15 do not show significant cutbacks in the years 1985-1988, the figures are thought to belie the true situation. The allocation of funding for health to the regional health boards for 1986, for instance, was first made known to them in April of that year.

By this time, the health boards were committed to expenditure in accordance with their expectations and based on the previous year's allocation and their application to the Department of Health for the current year. Many were unable to reduce expenditure within the year. In some cases, redundancy payments to staff being let go absorbed substantial amounts of the allocation. Coupled with this, technological advances and the coming on stream of new hospitals such as Beaumont, Tralee, and Cork Regional Hospitals, which have smaller wards requiring more intensive staffing, necessitated expenditure which did not increase the health service overall.

The Kilkenny Health Project

The Kilkenny Health Project was set up in 1984 with the following aims.

1. To plan and execute a community health programme aimed at altering the environment and behaviour of the population of Co. Kilkenny, so as to reduce the incidence of coronary heart disease by modifying the known risk factors;

2. To evaluate the effectiveness of the programme in altering the knowledge, attitudes and behaviour of the population of Co. Kilkenny in

relation to specific risk factors for coronary heart disease and stroke, for example, smoking, high blood pressure, diet, including cholesterol levels, alcohol consumption, body weight and physical activity;

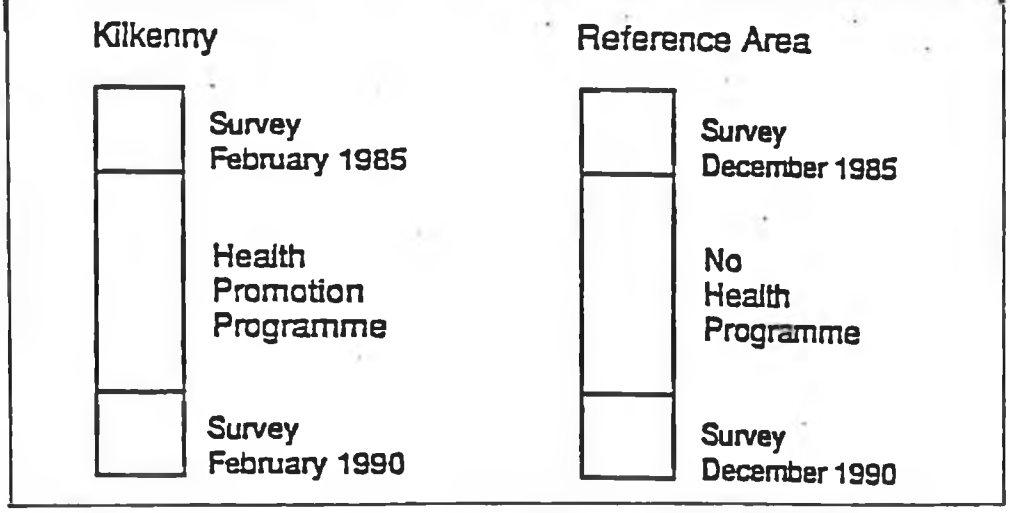
3. To assess the effectiveness of the programme in actually altering the specific risk factors for coronary heart disease and stroke;

4. To monitor the incidence and prevalence of clinical coronary heart disease, and the incidence of stroke throughout the period of the programme and to compare this with available reference data.

5. To assess the practicalities, including the cost factors of using the programme as a model for the promotion of health nationwide. (Shelley 1986).

The plan of the project was to span 5 years from 1985 - 1990. (Figure 9).

FIGURE 9. Proposed methods and time schedule for the Kilkenny Health Project.



In Figure 9 we see that a baseline survey was carried out in County Kilkenny in February 1985 to be followed by a five year Health Promotion Programme and a Post Programme Survey. The reference County was not to have any special health promotion programme in the five year period between the baseline and final survey.

A baseline survey in a random sample, of the population of Co. Kilkenny was undertaken in 1985 and the purpose of this survey was to -

* Estimate the knowledge, attitudes and behaviour relevant to the risk factors of coronary heart disease and the development of the disease.

* Measure the levels of the risk factors for CHD in the sample.

The baseline survey was to be followed by a health promotion or education programme designed with the help of information received from the baseline survey and the experience of other coronary heart disease community prevention programmes such as that of Karelia in Finland. (Shelley 1986).

A post-programme survey, using a different sample of the population would allow estimation of

changes which would have occurred during the course of the programme.

Changes over time in behaviour and in risk factors would be measured in Kilkenny and compared with changes which would occur in a reference County.

For the baseline survey, the sample was chosen by the Economic & Social Research Institute. Their Ransam computer programme was used to extract a random sample of the population from the electoral registers for Co. Kilkenny. The initial contact was by letter. Non-responders were contacted by an interviewer. Survey methods used were similar, where possible, to those used in the WHO Monica Project. (Monitoring Trends and Determinants of Cardiovascular Diseases).

The Monica Project is a World Health Organization working group which, in 1979, began to develop a major international collaborative study. The purpose of this study is to measure over ten years, and in many different populations, the trends in, and determinants of cardiovascular disease. Forty-one Monica collaborating centres, using a standardised protocol, are studying 118 sub-populations with a total population aged 25-64 (both sexes) of about 15 million people.

The target audience for the Kilkenny baseline survey was the population of Co. Kilkenny. As we saw, almost 25% of these lived in the City of Kilkenny or its environs and the remaining 75% were spread throughout the remainder of the County, mainly in rural areas. Almost 50% of the population were under 25 years of age and 42% were between the ages of 25 years and 64 years of age. Unemployment figures were high and rising, and agriculture both in the sense of farming and in the indirect use of agricultural products for industry, was important to the local economy.

A total of 785 people in Co. Kilkenny were surveyed in the Baseline Survey between February and May 1985. This represented 77% of the original sample. The results were not available until April/May 1986. They confirmed that average levels of blood cholesterol were high, as were blood pressure and body weight. Participation in physical activity was low and 27% of the population smoked cigarettes. Levels of knowledge of the causes of coronary heart disease were high.

The Scientific Committee decided on the number and purpose of committees thought to be necessary for the execution of the project programme. This committee were responsible for the design of the

broad framework of the project and the design and execution of the baseline survey in February 1985. The other committees were the Steering, Finance and Education Committees.

The Education Programme. First Year 1985 - 1986

We will now examine some aspects of the Education Programme for the first two and a half years of the Kilkenny Health Project (August 1985 - February 1988). This is the half-way stage of the five year programme, culminating with the 1988 postal evaluation. This 1988 survey included both Kilkenny County and the reference County, Offaly, which received no education.

The Education Programme included many sub-programmes. Programmes to support the learning and practice of skills were organised. These included cookery demonstrations, adult education courses, through the Kilkenny Vocational Education Committee, and training courses for teachers in the County's Primary and Secondary Schools.

It was thought to be important to give special attention to medical and paramedical personnel who are important as opinion leaders and as credible

sources of a health message. Doctors, as we noted (page 129), are not always enthusiastic about prevention and many health workers fail to listen to lay people because they perceive themselves as being the experts.

Contact was made with a variety of community groups throughout the County, which included the Irish Countrywomen's Association, Women's Study Groups, Neighbourhood exercise and drug awareness groups. Talks, outlining the purpose and plan of the Kilkenny Health Project were given to many of these groups and others, such as the County Council members and the Kilkenny City Corporation.

'Cues to action', were also included in the work of the Education Committee. As we saw, these give encouragement and provide an opportunity to try out some of the aspects of the new lifestyle being advocated. These included, Women's Health Weeks, Smile Weeks, (related to oral health) Oral hygiene weeks, Seafood for health week, Lean Meat for health week, No Smoking days, and road runs. The Education Committee also produced information leaflets on the risk factors associated with coronary heart disease.

These sub-programmes are important components of

the Education Programme of the Kilkenny Health Project. They are designed to take the target audience along the steps of the health communication-behavioural change formulation which we examined (page 139) and which took the target audience from awareness through to the adoption and maintenance of the new behaviour or lifestyle.

The focus of our attention will be on the work which was designed to take the population of County Kilkenny to the first steps of the health communication behaviour change formulation - on the creation of basic awareness, in particular, we will examine the preparatory work undertaken so as to ensure the effectiveness of the message and the overall programme. We will examine the programme in chronological order.

In August 1985, the Education Committee was convened. The team of seven people, consisted of the Project Leader (who acted as liaison with the other three committees), two full-time project staff and two consultants (one in Communications) who worked on a part-time basis. Two employees of the Irish Heart Foundation and the Health Education Bureau in Dublin, attended the meetings of the committee. Weekly meetings were held at

first. The available models for similar programmes, such as the Stanford Three Community and the North Karelia, were studied, priorities were identified and the roles of the individual members of the group were agreed. The group then met at monthly intervals.

A strategy or formula used by many communications consultants to guide the planning and execution of communication campaigns, was adopted. This six point plan is based on establishing facts on the target audience, their location, knowledge, attitude and beliefs about the subject to be promoted, their interests and the communication channels most frequently used by them. The information gathered is used to help in the design of the message and programme.

Farquhar's Health Communication Behaviour Change formulation (page 139) suggests that the first function of the change agent or sender is to gain the attention of the receiver and determine his or her needs. In the first year then, the emphasis was on gathering information on the target audience such as the identification of formal and informal opinion leaders, natural networks and channels of communication which existed. The task also included a search for any information which

would indicate the existing level of knowledge or attitudes of the target audience.

Information on the target audience.

The known facts on the target audience related to the numbers, sex, age and location, as published in the census of population. A directory compiled as a project for an RTE/St.Patricks College Maynooth Adults Learning Course, provided limited information on social leaders and voluntary bodies, For other information, the team depended on the 'local knowledge' of members of the Education Committee who lived in Kilkenny.

In July and August 1985 a seven day dietary survey was undertaken. The purpose of the survey was to get more detailed information on diet than would be available from the baseline survey. Thirty men and thirty women were randomly chosen, and visited in their homes by dieticians who explained how they should fill in special food diaries. All food and drink consumed over a 7-day period was weighed, measured and recorded. The findings indicated a need to encourage people to use low fat dairy products and lean meat so as to ensure an adequate intake of calcium and iron, while

keeping fat consumption at an acceptable level.

Towards the end of 1985, a small field study of attitudes to coronary heart disease was also done in Inistioge (Population 195). The findings were made available to the Education Committee in January 1986. Thirty People were 'engaged in conversation' about their beliefs and practices and as to what they perceived as being the typical local beliefs and practices about health matters. In general, people named cancer and arthritis as the most common serious illness. They did not consider coronary heart disease to be a common or frequent disease or as a major cause of death. People were able to identify diet, smoking, lack of exercise and alcohol as reputed factors leading coronary heart disease. However, they did not believe that lifestyle had anything to do with lifespan. The length of one's life was somehow predetermined. They believed that not alone can one's life not be lengthened, but that indeed risk taking can be justified since one will be all right unless 'your number is up,' in which case, "you are gone anyway". (Conroy/Shelley in print). Furthermore, everyday experience did not support the theory that modifying the risk factors, ie, reducing the use of fat in diet or stopping smoking, would prolong life. Interviewees could

cite examples of aged people in the community who were still hale and hearty despite having always eaten fat, bacon, lots of butter and having smoked heavily.

The information which was contained in the findings of these two surveys, that from the census, and the local knowledge of members of the Education Committee, was the total amount of information available as to the existing knowledge and attitude of the target audience.

Information on the formal and informal channels of communication, and on the reading, viewing, and listening habits of the target audience, was not available to the committee.

The Design of the Message

In December 1985, The Education Committee were reminded by the Scientific Committee that although the committee was only 5 months in being, one of the five years of the education or health promotion phase of the project was at an end. It was agreed to design a message, noting the information which was available and with the intention of using new information, to adjust the

message as necessary.

The message designed by the Kilkenny Health Project education team, concentrated on giving basic facts. It was designed so as to make the information as simple and as easy to understand as possible. It was accepted that it must be clear to the less well educated without 'insulting the intelligence' of the better educated. It was also noted that persuasive messages must not unduly alarm people, so, the success of preventative actions would be stated. It was noted also that to understate rather than overstate the likely results of preventative measures was less likely to create resistance to the message.

To ensure consistency of the information, the "Prevention of Coronary Heart Diseases" (WHO 1982) was used as reference for all basic health facts.

The tone, philisophy of, and the approach to, the programme was to be one of sympathy and understanding, of simplicity and practicality. For instance, smokers would not be nagged constantly, but they would be reminded and strongly encouraged to give up smoking once a year. In this way it was hoped that they would

not be discouraged from becoming involved in other project activities. People would be supported in their efforts, not decried for their failures.

The education team next set about the task of communicating this message to the population of County Kilkenny. Due in part to the absence of more detailed information on the target audience, an examination of results of successful health promotion messages was thought to be necessary at this stage.

The review suggested that a persuasive message had most impact if it -

(1) Comes from a number of different but highly credible sources, either powerful models or experts.

(2) Is reported frequently and consistently so that it becomes "lore ". This is important where there is low motivation to attend to the information. A problem here is the potential for selective exposure. People, usually those who most need the advice can decide not to watch, read, or listen. This is where creativity and interest in the design of the message or programme is important.

(3) Is sent via multiple media at accessible times and locations. It is thought that many health promotion programmes failed because they did not even reach the target audience.

(4) Is relevant to the receiver and is consistant with their attitude and value structures.

(5) Is likely to have a high level of support or acceptance from the receiver's local community.

(6) Offers positive suggestions as to how the advocated behaviour can be adopted. (Schramm and Lerner 1976); Flay 1981).

The 'Communication' of the Message - Mass Media

The clear indication of research findings in Ireland as we saw (page 63) was that television was perceived to be an important source of influence, followed by radio and the national daily papers. However, because of the risk of 'contamination' the use of these channels as a means of educating or persuading, was not an option for the Kilkenny Project Education Programme. 'Contamination' is the situation where

there is a risk that the reference county would also receive the benefits of the message, thereby negating the comparison between the treatment (County Kilkenny) and the reference county. In a campaign which does not have this restriction, the use of national media could be significant. Kilkenny did not have local television and had a very weak pirate radio station. The only 'formal' mass media channel of any significance was the provincial paper - The Kilkenny People.

Weekly provincial papers are perceived to be a valuable means of reaching audiences in rural areas. This is based on circulation figures, and the belief that they can afford to give more space to a subject and to the fact they have a longer life - they are usually kept in the home for up to a week.

The Project planners then studied the sales figures of the Kilkenny People. (Table 16) The Kilkenny People is distributed in certain areas of Counties Carlow, Laois, Wexford, Tipperary and Waterford, as well as all areas of Co. Kilkenny. The ABC circulation review shows the average net sales per publishing day of the Kilkenny People, as follows:-

TABLE 16. Net Sales per publishing day of the Kilkenny People.(ABC Circulation Review 1986).

January to June 1986.	July to Dec. 1985.	January to June 1985.
17, 819.	17, 826.	17, 663.

In Table 16, we see that the average weekly sales of the Kilkenny People is 17,700 copies. (ABC Circulation Review 1986, p.18).

"Where" (1987), the Regional Press Data Book shows this figure for the 1986 period January to June as 17,810 and breaks it down into household penetration. (Table 17).

Table 17. Kilkenny People Marketing Area. (Where 1987).

URBAN/RURAL DISTRICTS	POPULATION	HOUSEHOLDS	CIRCULATION	H'HOLD PEN %
Kilkenny MB	9,466	2,604	2,604	100.00
Kilkenny RD	17,384	4,014	3,186	79.37
Urlingford RD	4,279	1,071	848	79.17
Thomastown RD	10,844	2,687	2,076	77.26
Callan RD	5,880	1,584	1,154	72.85
Castlecomer RD	7,421	1,917	1,219	63.58
Slievardagh RD	5,977	1,504	408	27.12
Carrick on Suir RD	3,539	907	244	26.90
New Ross UD	5,386	1,414	264	18.67
Abbeyleix RD	12,257	3,175	550	17.32
Waterford CB	38,473	9,660	1,650	17.08
Ida RD	2,362	596	91	15.26
Carlow RD	22,559	5,522	798	14.45
Carrick on Suir UD	5,566	1,414	145	10.25
Carlow UD	11,722	2,829	283	10.00
Waterford RD	9,631	2,276	93	4.08
Cashel RD	14,461	3,530	62	1.75
New Ross RD	14,428	3,446	53	1.53
Clonmel MB	12,407	3,177	12	0.37
Thurles RD	13,256	3,342	12	0.35
Miscellaneous			2.058	
	227,298	56,669	17,810	ABC Jan-Jun 1986

Counties: Carlow County, Kilkenny County, Laoighis County, Wexford County, Tipperary North County, Tipperary South County, Waterford County Borough

Province: Leinster, Munster

In Table 17 we see that the Kilkenny People has 100% household penetration in Kilkenny City and 63% to 79% penetration in the other areas of the County, such as Castlecomer, Callan, Thomastown and Urlingford.

The Kilkenny People was thus perceived to be an important channel of communication for the project. Agreement was reached with the Editor to publish a Healthy People Column each week. The advice of the Editor and Chief Journalist was sought so as to endeavour to make the copy, (to be submitted by the project team) as attractive and newsworthy as possible. The first of these weekly columns appeared in November 1985.

Other methods of communicating with the target audience were then examined. It was acknowledged that literature relevant to the needs of the people would have to be attractive and well designed. As we saw, one of the factors said to have contributed to the failure of the United Nations Information Campaign in Cinncinatti, was the use of dull and un- imaginative copy which did not capture the interest of a disinterested audience. There were two problems here. One, there were neither tested models for such leaflets, nor time to develop and test new leaflets. Two, there were insufficient resources

available to pay for this work to be done. This called for a great degree of ingenuity and creativity and this was forthcoming from the team. "Home produced" leaflets were supplemented by a limited supply of Irish Heart Foundation and Health Education Bureau brochures until such time as resources made it possible for the team to print a comprehensive range of literature.

Up to this point the extent of the mass media channels available to the KHP was a regular column in the Kilkenny People and infrequent news items in the news pages of that paper. The decision was taken at the end of the first year, to seek exposure in the National media channels. To minimise 'contamination' of the reference County, the information would be of a general nature in relation to CHD and the project's existence. It was accepted that the objective type of reporting which would be desirable, might be difficult to obtain and that controversial or dramatic aspects of a story, whether real or imaginary were likely to be highlighted. It was acknowledged that in the sensitive area of health care, mis-information could be counterproductive.

Non Mediated Communication Channels

It is important to remember in the planning of a

communication programme and most especially where resources are limited, as in the Kilkenny Project, that the mass media is not the only channel of communication which can be used. Although as stated, not the focus of this work, other methods of communication were examined and used by the Education Committee. These sub- programmes, many of which were designed to develop skills, proved to be the source of basic information to many of the target audience.

Lectures and talks were given extensively throughout the County in association with the Irish Countrywomen's Association and other groups. The work and aims of the project were presented to members of Kilkenny Corporation and to the local Health Committee. Local events were used and other special events were 'created' by the project team, and in most instances, these were implemented by existing community groups. These included a Drop-in-Centre. Members of the public were encouraged to 'drop-in' to a local venue, where volunteers offered a cup of tea, advice, encouragement and some literature to those who wished to give up smoking. The distribution of Kilkenny Health Project literature at Piltown Agricultural Show and the Kilkenny Arts Week, and the organisation (with the assistance of Bord

Iascaigh Mhara) of a seafood promotion week, were other events which were organised and carried as part of the education programme.

At the same time, contact was being made with a range of health professionals, education professionals and community groups in the area. Seminars were held for doctors, dentists and public health nurses. The focus was on the potential for preventative action in their everyday practice.

A working party was set up to develop a health education programme suitable for first year students at post-primary level. Seminars were held for post-primary school principals, post-primary teachers and primary school principals. The Kilkenny VEC included a lecture series for adults as part of their adult education programme.

The First Postal Survey

In March 1986 and before the results of the baseline survey results were published, the first postal survey was conducted. The objectives were:

1. To estimate changes since the baseline or pre-programme survey if any, in the knowledge, attitudes and behaviour of the risk factors for CHD amongst the population of Co. Kilkenny.

2. To evaluate the health promotion programme to date.

3. To identify the most frequently used mass media channels of communication.

4. To evaluate the impact of and attitude towards the Healthy People Column.

Sampling size and method:

A sample of 400 people was constructed with the object of asking them to complete a questionnaire (Appendix 1). 78 were chosen at random from those chosen for the baseline survey. (10% of the 780 then surveyed). The balance of 322 were randomly chosen from the Electoral Register using Ransam, the computer based system for drawing random samples from the Electoral Register, developed by the Economic & Social Research Institute and updated each year. A total of 350 from the Electorial Registrar were extracted and the first 322 were chosen. Collection of data was by

questionnaire which was posted with a well constructed letter asking for 'immediate return'. To ensure convenience of coding and uniformity of responses, the questions were a combination of numerical rating scales, agree/disagree items and check lists. There was a 44% response within a three week period.

The findings were as follows - Place of residence was stated as being 'in the Country' by 50% of the respondents and 21.6% said that they lived in a town. This corresponds with the figures in the 1981 Census.

A very high percentage of the respondents did not receive Third Level education (84.1%) and 46% of the total did not continue beyond the age of 16, which presumably means that they did not sit for the Leaving Certificate. In the area of media usage, the findings, (Table 18) follow those of the ABC Circulation Review for 1985, which showed that of the national newspapers, the combined Irish Sunday papers have the highest circulation, and Irish dailies are second most popular.

TABLE 18. Readership of the Media in Kilkenny. (Kilkenny Health Project Postal Survey 1986).

Read regularly -	
Kilkenny People	84.1%
An Irish Sunday	76.0%
An Irish Daily	68.8%
Other Provincials	54.0%
Woman's Way	23.3%
Magill	10.2%

In Table 18, we see that 84% of those surveyed, read the Kilkenny People, 76% read an Irish Sunday paper, and an Irish Daily Paper was read by 68%. Other provincial papers, (Kilkenny News, Munster Express, Waterford News & Star, New Ross Standard and Carlow Nationalist) were read by 54%. Woman's Way was the most popular of the Women's magazines and Magill the most popular general interest magazine.

When asked whether they had ever seen "The Healthy People Column", the project's weekly column in the Kilkenny People, only 54% of the respondents indicated that they had seen the column; and only 48.3% of those surveyed indicated that they actually read the column. These figures are quite low when you consider that 84.1% of the respondents indicated that they read the Kilkenny People Newspaper.

Almost 95% of the respondents indicated that they watched television. 65% indicated that they watched it every day and 30% said that they watched it somedays. Over 69% of the respondents stated that they listened to radio every day, RTE 1 and RTE 2 were said to be most popular.

In order to assess the level of knowledge about the Kilkenny Health Project, the respondents were asked whether they had even heard about the project. (Table 19) and what the project was about (Table 20)

TABLE 19.

Have you heard of the Kilkenny Health Project? (Kilkenny Health Project Postal Survey 1986)

Answer.	Kilkenny City	A Town	The County.	Percentage of total.
Yes	74.0	65.8	62.5	66.5
No.	14.0	23.7	30.7	24.4
No Answer	12.0	10.5	6.8	9.1

In Table 19, we see that 66.5% of the respondents had heard about the project, 24.4% said that they had not and 9.1% did not answer the question. These figures are slightly misleading due to the fact that 24% of the respondents had prior knowledge about the Kilkenny Health Project because they were participants in the 1985

Baseline Survey. Of the 24 respondents who had previously been surveyed, all said that they had heard of the project.

Respondents were asked an open-ended question with respect to what the Kilkenny Health Project was about. They were given a "1" if they were able to give a right answer and a "2" if the answer was considered wrong. An answer was considered 'right' if it mentioned 'coronary heart disease' in the answer.

TABLE 20.

Knowledge about the Kilkenny Health Project and what it is about. (Kilkenny Health Project Postal Survey 1986)

Knowledge.	Right Answer	Wrong Answer	No Answer
Yes (66.5%)	62.4%	23.1%	14.5%
No. (24.4%)	4.7%	0.0%	95.3%
No Answer	0.0%	6.2%	93.8%

Table 20 shows the percentages of right and wrong answers, and indicates that although a majority (66.5%) of the respondents indicated that they had heard of the Kilkenny Health Project, a large percentage of these respondents (23.1%) did not give a right answer when asked what the Kilkenny Health Project was about. Of the 41 respondents

who had participated in the 1985 Baseline Survey, seven did not give a right answer and five gave no answer at all. This information indicates that even prior knowledge of the Kilkenny Health Project had not resulted in a thorough understanding of what the project is about. Fifteen respondents were not coded as giving a right answer because their answer placed emphasis on the Kilkenny Health Project being a 'survey' not a health promotion or a coronary heart disease prevention programme.

It is worth noting that these figures are influenced by the respondents' ability to express themselves. A definition of the Kilkenny Health Project and its purpose is a question that could have brought a different result if asked by an interviewer, rather than by an open-ended question on a questionnaire. Of the 23 who were not correct in their answer and who scored "2", quite a few said that the Kilkenny Health Project had to do with a "survey" not with "preventative health" or "heart disease programme". A few comments written on to the questionnaire asking how they might "join" are also an indication of peoples' lack of real understanding of the project.

In answer to a question as to where they had heard

about the Kilkenny Health Project, the source given by most people was, "a local newspaper" (39.2%). "A National newspaper" was given next by 13.1% and "a friend" was the third most popular source given by 11.4%.

Because the results of the Baseline Survey were not yet available as expected, this survey did not succeed in achieving the first objective, to estimate changes since the introduction of the Kilkenny Health Project in relation to risk behaviours. The comparison could only be made on the 'self professed' changes of the 42 people who had been previously surveyed. These figures showed that their behaviour had improved and was significantly better than that of the 134 who had not been exposed on a one to one basis with members of the Kilkenny Health Project team.

Excluding the 42 people who were previously surveyed, a high percentage of the remainder said that they had never heard of the Kilkenny Health Project. Of those surveyed, 71.6% lived outside the City of Kilkenny. The number of people who had never seen the "Healthy People Column" in the local paper, (46%) would seem to indicate that either the location of the column in the paper was wrong or its appearance was not attractive. The

fact that approximately 34% of those who had seen and read the column, only read it sometimes, could be because the content was not perceived to be relevant or interesting, or it could be because the source was not perceived as being credible. Another reason could have been resistance to what was obviously a "health message".

The survey showed that local newspapers were the most widely read media. It is important to remember that there are wide interpretations of what is meant by 'reading' a paper. In subsequent field work in the rural areas of Kilkenny, "reading" the local paper, when probed, meant reading the Sports Page, Court Cases, and Death Column. This work will be described in detail later.

The results of questions dealing with knowledge, attitude and beliefs in relation to the risk factors associated with coronary heart disease, showed that those who had been previously surveyed had greater knowledge than those who had not. It was evident also that some people in the target audience were responding to the messages from the Kilkenny Health Project and were at the first steps of awareness and knowledge.

Recommendations from the first Postal Survey

The survey indicated a need to:

1. Pay special attention to basic awareness of the programme, especially in the area outside the City of Kilkenny.

2. Adopt a slogan, a simple explanatory statement of the project. Posters, badges, car stickers and all literature should carry this slogan and the project logo or symbol - a cat.

3. Investigate actual channels of communication being used as opposed to those which exist.

4. Give attention to the "Healthy People Column"in the local paper so as to make it more attractive visually and the content more interesting to the readers.

5. Consider the use of the national media, especially those indicated as being popular, radio, television, national Sunday and daily papers and Woman's Way, to publicise the work of the project.

The examination of the results of this first postal evaluation, with the recommendation that these points be incorporated into the second year's programme brought the Education Committee's first year of work to a close.

The experience gained in the first year of the Education Programme, including the findings of the 1986 Postal Survey, were used to plan the second year of the programme.

The Education Programme. Second Year 1986 - 1987

The results of the baseline survey undertaken in February 1985 were published in May 1986. The findings confirmed that levels of knowledge of specific causes of coronary heart disease were high. It also confirmed that the levels of the various risk factors were high. This information was used to modify the message being transmitted in the Kilkenny Health Programme. It was believed that these 'Kilkenny' statistics would make the message more relevant to the people of Kilkenny.

Mass Media

In August of 1986, a meeting was held with the

chief reporter of the local paper to discuss the postal evaluation findings in relation to the "Healthy People Column". The published columns were examined carefully. It was thought that the content might not be attractive to a wide cross section of the population and it was noted that there were a number of recipes in almost every week's issue. It was thought that this might be off-putting to all but those interested in cooking. It was also noted that methods used by newspapers to capture the interest of the readers were not being incorporated in the column. These include the use of illustrations, pictures, and small snippets of information and news from specific areas or about local residents. It was agreed to create a "Healthy Eating Column" to appear immediately beside or beneath the "Healthy People Column". Every effort would be made to provide photographs and line drawings to illustrate the two columns and the content of the "Healthy People Column" would seek to talk more about real people than about facts and figures.

It was also thought advisable to try to get extra photo stories (a photograph with extended captions) into the news pages of the paper on a regular basis so as to capture attention of those who, for whatever reason, did not read the weekly column.

As a further effort to reach those who either did not read the Kilkenny People or the "Healthy People Column" in that paper, it was decided to publish a newsletter on a regular basis. "Catch" (community action towards community health) would be distributed as an 'insert' in the Kilkenny People. Extra copies would be available from the project office and other distribution points, such as clinics, waiting rooms, and newsagents. It was to give information in a practical and interesting way on the different aspects of the programme. Pictures and photographs of local people involved in the campaign, would be used extensively. Contributions from the community would be used where possible. The first issue appeared in 1986.

With the lifting of the 'embargo' on the use of national media for the work of the project, exposure was sought on RTE radio and television and in national magazines and newspapers. Those identified by the respondents in the first postal evaluation were approached and many did carry material. For instance, a lengthy article on the Kilkenny Health Project was published in 'Woman's Way" (identified as the most popular womens' magazine by 23% of the respondents). This featured the experiences of some Kilkenny families and individuals who were adopting the new lifestyle.

RTE television carried 12 minute news items at the prime time after the 6pm news slot and the project leader was interviewed for RTE Radio and the national newspapers. Gay Byrne mentioned some specific elements of the programme, such as the 'No Smoking' campaign on the Gay Byrne Morning Show.

The K.H.P. Slogan and Mascot

"Take care of your heart with the Kilkenny Health Project" was chosen as a slogan. 'Benjy' a cat was adopted as the 'mascot' of the project. A cat was thought to be appropriate because of the locally accepted association of a cat with the County of Kilkenny. A life size model of 'Benjy', the project's logo, a heart within the lettering of the name Kilkenny Health Project and the new slogan were to be used extensively for posters, literature, badges, advertisements and on letterheads. It was the belief of the team that the project message would be more effective with the persistent and consistent use of the basic message through the slogan and use of the logo and mascot.

The first postal evaluation findings had indicated that the project message was not diffusing or

spreading through the communities in the rural areas. This brought us to another of the recommendations, the need to pay special attention to creating basic awareness of the project in rural areas of County Kilkenny. A major problem here was the lack of information on the channels of information being used and on the "natural networks" in operation within the communities in these areas.

The decision was taken to undertake formative research in a selected number of rural towns. By interaction with opinion leaders and with other reasonably typical members of the community it was hoped to gather a variety of creative hunches and ideas which would help in the design of the education programme. It was believed that this work in the 'field' would also serve to 'promote', and 'create awareness' of the project. Plans were drawn up. These were discussed and modified and preparatory work was undertaken in the period September to December 1986. The work was executed in the period January to May 1987.

Formative Research and Original Field Testing

The formative research carried out through

original (qualitative rather than quantative) field work, and combined with an element of promoting the Kilkenny Health Project in the 8 selected towns, became known as the 'blitz'. The 'blitz' had as its objectives:-

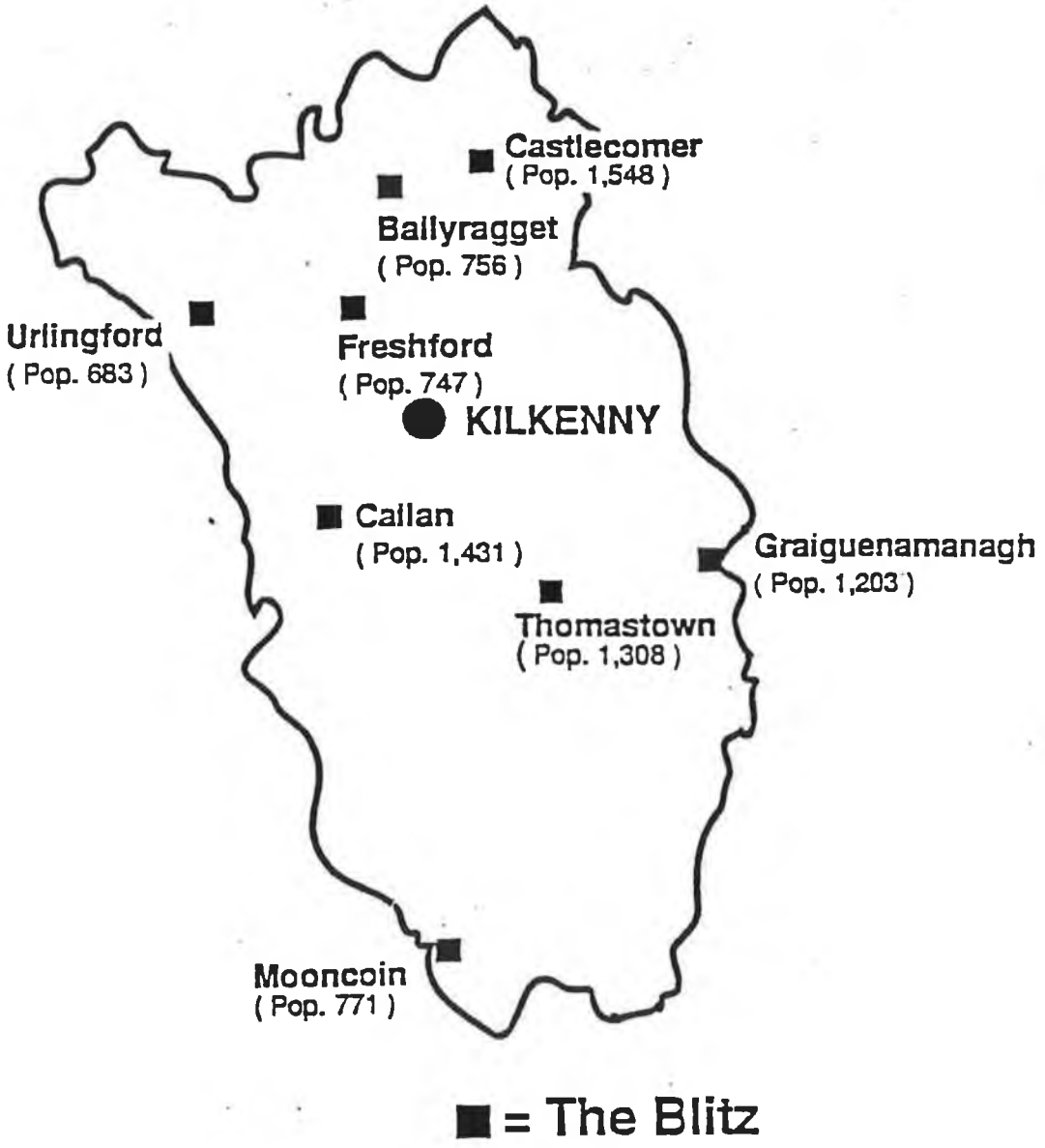
- the identification of existing informal channels of communication such as local events or local publications.

- the gathering of information on local cultures, leisure activities or anything which would be considered to be of help in the design of a message or programme for the Kilkenny Health Project

- the promotion of the Kilkenny Health Project and the objectives of the project where possible. This is frequently a by-product of formative research. In seeking information, one tends to give the reason for the question. This affords an opportunity to speak positively of the 'cause', thus, imparting information.

The towns chosen (Figure 10) were the 8 towns with the highest populations outside of Kilkenny City and environs.

FIGURE 10. The Blitz - Rural Centres Chosen Showing Population.



In figure 10 we see that the eight towns are widely dispersed throughout the County. The total

population of the eight centres is 8,500 or 12% of the total population of County Kilkenny.

The 'blitz' was to be preceeded and followed by a postal survey.

Two postal surveys were carried out, one immediately before (February 1987) and one immediately after (May 1987) the 'blitz'. It was not possible to confine the sampling to the eight towns chosen for the 'blitz'. The survey samples were drawn from the rural area of County Kilkenny. On both occasions, 400 questionnaires (appendix 2) were sent out. This included 76 people who had participated in the baseline survey in 1985.

The response rates were identical. In the first survey, 160 people responded, 159 people responded in the second survey. We will examine the results of these surveys shortly but first we will look at the preparatory work and the actual format of the 'blitz'.

'Blitz' - Advance Work

The advance work consisted of supplementing any known facts about the chosen target areas - the

eight towns, such as population, industries clubs, leisure activities and schools. Opinion leaders and residents who were known to the project team, especially any who had given or promised any support or help, were noted. This was done mainly by 'phone. The team member responsible for the 'blitz', simply 'phoned a local clergyman or the local representative of the Kilkenny People, a Garda resident in the town or other local officials and asked questions.

Press releases were prepared for the 'Area Notes' of the Kilkenny People. These were posted to appear in the issue before the local 'blitz'. The issue of Catch, the project's official magazine which was distributed before the 'blitz', carried a photograph of the life size Benjy with the team member and her car, the registration number plate of which was clearly visible. The caption suggested that people keep a look out for the visit of the team member. It gave the list of towns and the dates of the proposed visit, and promised £5 to anyone who, when asked, could 'recite' the project slogan " take care of your heart with the Kilkenny Health Project".

For distribution in the target towns, 10,000 posters, small hand bills, car stickers and button badges were ordered. The figure of 10,000 was

based on the combined population figure of the 8 centres, 8,500. These all carried the logo and slogan. Extra issues of Catch were printed.

The 'Blitz' - the plan in action

The plan of campaign for the 'blitz' which was carried out in March/April 1987 was as follows:

The team member spent one whole day 9am - 8pm approximately in each target town. On arrival, she left the car covered in project posters, parked in a prominent position in the centre of the town. She called in a systematic way to every business premises, school, religious institution or presbytery in the area. This included shops, garages, fast food outlets, banks, betting shops, public houses, hairdressing salons, post offices, restaurants, hotels, clinics, libraries, garda barracks and factories, in fact wherever people congregated or visited. She endeavoured to find out the existing level of knowledge of the project, the first question being, 'have you ever heard of the Kilkenny Health Project? What do you know of it? What is the slogan? Where and when necessary, the respondents were given the basic messages of the project . Where people, either by their position as opinion leaders, their position in local networks or simply because of an interest

in the subject, were anxious to engage in conversation, their advice on the best method of reaching members of their local community was sought. A considerable amount of valuable information and ideas was gathered in these discussions and many people 'volunteered' to help the 'good work'.

Where permission was granted, promotional material was actually put into position in the premises visited. Posters and car stickers were used in business premises, surgeries, etc., and badges given to members of the staff who were encouraged to wear them, at least for that day.

A door to door drop of the project hand-bill was to have been part of the day's work. It was thought possible that some young people might be found to help. In fact, this was not practical. A door to door drop, even in a small community is very time consuming.

A suggestion in the first centre visited, that the team member should actually speak to pupils in each classroom was followed through in the remaining seven centres and sufficient leaflets, car stickers and badges were left with the teacher for each child to take home. The team member took careful notes throughout the day and constantly

referred to the information on the town which had been gathered beforehand. In this way, existing information was corrected, new information inserted and care was taken to make contact where possible with residents who prior to the 'blitz' had made a contribution or who had offered help to the project's work.

Before driving home each day, the team member completed her notes. As well as factual information, these included her overall impressions of the town, the community and any ideas or suggestions which had been made by them or which had occurred to the team member. At this time also, 'thank you letters' and letters enclosing specific information were drafted. A press release, using a 'story' about the 'blitz' and using information about local people (eg. the names of whose who knew the slogan and won £5) was prepared for distribution. This was sent, not just to the Area Notes of the Kilkenny People but also to channels of communication which had been identified during that day.

The distribution of literature, holding of conversations with members of local communities, and the gathering of information, constituted the 'blitz'. This 'blitz', with the pre- and post-postal surveys was the fourth of the

recommendations of the first year's work to be acted on by the Education Committee; the recommendation to pay special attention to creating awareness of the Kilkenny Health Project in the rural areas.

Before looking at the outcome of the 'blitz' we will examine the findings of the pre and post (Blitz) 1987 postal surveys.

Findings of the Pre and Post 'Blitz' Postal Surveys.

There was increased awareness of the existence of the Kilkenny Health Project (Table 21).

TABLE 21. Awareness of the existence of the Kilkenny Health Project. (Kilkenny Health Project Postal Surveys 1987).

	Number of survey within year					
	First Wave		Second Wave		Total	
	N	%	N	%	N	%
Ever heard of the K H P						
- Missing	2	1.25	1	0.83	3	0.94
- Yes	122	76.25	134	84.28	256	80.25
- No	36	22.50	24	15.09	60	18.81
Total	160	100.00	159	100.00	319	100.00

In Table 21 however, we see that although the proportion claiming to have heard of the project rose from 77% to 85% in the three months between

the two surveys, or waves, the difference fell short of being statistically significant. (P=0.085)

There was an improvement in knowledge of the purpose of the Kilkenny Health Project (table 22).

TABLE 22. Knowledge of what the Kilkenny Health Project Does. (Kilkenny Health Project Postal Surveys 1987).

	Number of survey within year					
	First Wave		Second Wave		Total	
	N	%	N	%	N	%
KHP is a health survey						
Missing	42	26.25	27	16.98	69	21.63
- True	112	70.00	126	79.25	238	74.61
- False	6	3.75	6	3.77	12	3.76
Total	160	100.00	159	100.00	319	100.00
KHP is a newspaper column						
Missing	47	29.37	36	22.64	83	26.02
- True	60	37.50	51	32.08	111	34.80
- False	53	33.12	72	45.28	125	39.18
Total	160	100.00	159	100.00	319	100.00
KHP is not for everyone						
Missing	47	29.37	31	19.50	78	24.45
- True	35	21.88	30	18.87	65	20.38
- False	78	48.75	98	61.64	176	55.17
Total	160	100.00	159	100.00	319	100.00
KHP is being run in schools						
Missing	58	33.12	39	24.53	92	28.84
- True	38	23.75	66	41.51	104	32.60
- False	69	43.12	54	33.96	123	38.56
Total	160	100.00	159	100.00	319	100.00
KHP gives advice over phone						
Missing	48	30.00	30	18.87	78	24.45
- True	101	63.12	126	79.25	227	71.16
- False	11	6.87	3	1.89	14	4.39
Total	160	100.00	159	100.00	319	100.00
KHP holds meetings and classes						
Missing	53	33.12	37	23.27	90	28.21
- True	81	50.62	102	64.15	183	57.37
- False	26	16.25	20	12.58	46	14.42
Total	160	100.00	159	100.00	319	100.00

In table 22 we seen that there was a fall in the numbers who thought that the project was a newspaper column and in those who indicated that the Kilkenny Health Project was not for everyone. All items surveyed reflected an increase in factual knowledge about the activities of the project. For instance, awareness that the project office gave advice over the phone rose from 63.12% to 79.25% and that the project held classes and meetings rose from 50.62% to 64.15.%.

There was an increase in the number who read the Healthy People column in the Kilkenny People. (Table 23).

TABLE 23. Readership of the Healthy People Column. Kilkenny Health Project Postal Surveys 1987).

	Number of survey within year					
	First Wave		Second Wave		Total	
	N	%	N	%	N	%
Reads Healthy People column						
.	11	6.87	12	7.55	23	7.21
- Every week	17	10.62	25	15.72	42	13.17
- Most weeks	24	15.00	19	11.95	43	13.48
- Sometimes	53	33.12	52	32.70	105	32.92
- Never	55	34.38	51	32.08	106	33.23
Total	160	100.00	159	100.00	319	100.00

In table 23 we see that the number who indicated that they read the Healthy People Column every week, rose from 10.62% in the first survey to 15.72% in the second survey. Almost half of those surveyed who read the Health People Column indicated that they found it interesting. (Table 24).

TABLE 24. Opinion of the Healthy People Column (Kilkenny Health Project Postal Surveys 1987).

	Number of survey within year					
	First Wave		Second Wave		Total	
	N	%	N	%	N	%
Opinion of Healthy People column						
.	71	44.37	66	41.51	137	42.95
- Interesting	72	45.00	74	46.54	146	45.77
- Not very interesting	13	8.12	16	10.06	29	9.09
- Dull	4	2.50	3	1.89	7	2.19
Total	160	100.00	159	100.00	319	100.00
More interesting to women than men						
- Missing	21	13.12	73	45.91	94	29.47
- Yes	103	64.37	52	32.70	155	48.59
- No	36	22.50	34	21.38	70	21.94
Total	160	100.00	159	100.00	319	100.00
Column has too much cookery						
- Missing	77	48.12	75	47.17	152	47.65
- Yes	18	11.25	22	13.84	40	12.54
- No	65	40.63	62	38.99	127	39.81
Total	160	100.00	159	100.00	319	100.00

Table 24 shows that an average of 45.77% of those who read the column found it interesting. That it was more interesting to women than to men, was the opinion of 48.59% and only 12.54% considered that the column had too much cookery.

The 'Blitz' Results

Unlike the results of the pre and post 'blitz' surveys given above, the information gathered during the 'blitz'is qualitative not quantitative. By its nature, this form of research depends on the objectivity of the person who is carrying out the work.

For instance, it would not be possible to put a figure on, or express as a percentage of those who acknowledged having heard of the Kilkenny Health Project when the question was asked by the team member. No actual numbers were counted. However, at a rough guess it was thought that between 35% and 50% of those encountered, had heard of the project and knew that it had something to do with the heart. Approximately 10%-15% were thought to be quite knowledgeable and could name most of the risk factors associated with heart disease. These were mainly the more literate and/or leaders of the communities visited.

Where the person could recall how they knew these facts, commonly quoted sources were the local paper or that the Kilkenny Health Project leader or a team member had visited and spoken to their local club. Quite surprisingly, most people interviewed gave television as the answer. Many of these people could recall the programme - the 12 minute item at the 6pm newstime. This was interesting, because at this point in time this was the only exposure which the project had received on television.

As was to be expected, a number of people knew of the dangers of coronary heart disease, and of the risk factors associated with the onset of the disease, before the Kilkenny Health Project was launched.

There was evidence of some confusion between the Health Education Bureau's "no smoking' campaign, the Irish Heart Foundation's and the Kilkenny Health Project's campaigns, as all three campaigns exhort smokers to stop smoking, this is understandable.

In an effort to assess the value of the 'blitz', we will examine the extent to which the information gathered informally, served the stated

objectives (page 212). These included the identification of opinion leaders and channels of communication. It also included the up-dating of facts and figures about the target areas and the communities.

Popular Media

Local newsagents confirmed the findings of the Kilkenny Health Project 1986 postal survey (page 200) which showed that the most popular newspapers were the provincial and Irish Sunday papers followed by the Irish daily papers. In discussion with the agents, the importance of a Provincial paper, other than the Kilkenny People, in border areas of the County was emphasised. This was important because it meant that for a significant number of people in County Kilkenny, the Kilkenny People was not a channel of communication. It was the belief of many of the newsagents, and a fact substantiated by many of the people to whom the team members spoke, that some people simply can no longer afford to buy newspapers and that for most, 'reading' a paper means reading the sports pages, court cases, death columns and television programmes. In other words, the entire paper is not read. There was a belief also that health messages via the media, especially the newspapers,

were conflicting to the point where people said that, "they could not believe any of it".

Local television retailers said that the majority of their customers rented television sets. They also rented video units, videos in their opinion were becoming very popular. The belief was that very few families did not have a television.

Of those people who said that they saw and read the Healthy People Column in the Kilkenny People, most thought it "reasonably interesting". On the other hand, those who had also seen 'Catch', the project's magazine, were enthusiastic about it and thought it to be more attractive than the Healthy People Column.

Parish Bulletins are issued and sold each Sunday in four of the eight towns visited. It is claimed that these are read in every household in the area. In other towns, the clergy still read notices from the altar during the services. Clergy offered to read the Kilkenny Health Project's notices, when requested. Another informal channel identified was in pay packets of employees. A number of industrialists offered to put Kilkenny Health Project literature into their employees pay packets.

There were practical examples of the efficacy of some of these channels of communication. For instance; although the number who could correctly recite the project's slogan and qualify for £5 was not high, a significant number knew the meaning within the slogan and almost all cited the offer of the £5 reward in 'Catch' as their souce. In many cases, people's response on meeting the team member was "oh yes, I read about your proposed visit in the district or local notes in the Kilkenny People". A surprising number of people stopped the team member in the street and engaged in conversation about the project. When asked, they said that they had either read of the proposed visit in 'Catch' or had seen the car which was in the photograph. Others said that their child brought news and literature home from school. A most interesting source and one cited by many of these people was that either they or their neighbour had been told by their local shopkeeper that a Kilkenny Health Project team member was in town. These comments were particularly interesting in that they indicate the importance of local networks as a channel of communication.

Opinion Leaders

The local clergy were thought to be very powerful

in the eight towns visited. This came as somewhat of a surprise, as in the urban areas, the position of local clergy as opinion leaders is thought to have diminished. In areas where there was no elected representative of the Dail or no local Council, opinion leaders were frequently to be found amongst the business and professional people of the town. Clergy, school teachers, formal and informal opinion leaders were enthusiastic about the work of the project and were willing to help in any way. Local shopkeepers provided interesting comments about customers' buying habits. In some areas it was obvious that the demand for high fibre and low fat products from a growing number of customers was forcing the shopkeeper to stock such products. This was thought to have encouraged other shoppers to chose them when shopping, so that there was now a significant demand for items such as wholemeal bread, low fat milk and spreads.

Population Figures

An interesting fact emerged when local people were asked "what is the population of this town?" In every case, they gave a higher figure than that shown in the 1981 census of population (which was used by the team leader in compiling the fact

sheets on each centre). The preliminary results of the 1986 census attributed a 3.2% increase in the population of County Kilkenny to the rural areas. However, the figures being quoted by the locals were, in some cases as high as 40% above the 1981 figures. The explanation was that the local business people considered that the population of the hinterland 'belonged' to the town, the town where these people shop, bank and socialise. This is more than an interesting finding. This is an important piece of local culture or belief. For instance, in attempting to communicate, to reach the people who lived in the total rural areas of Kilkenny, it had not occurred to the project planners to reach them through informal channels in their nearest centre for business and social activity. In ordering promotional materials for the Blitz, the quantity ordered was based on the census of population figures and these amounts proved to be inadequate.

Formal Committees

People who professed an interest in, and volunteered to help the project were asked if they would join an official Kilkenny Health Project committee in their own town. The possibility of

forming local committees had been discussed by the team planners. It was seen as a possible method of ensuring a continuation of the work of the project when the five year's education work would finish. There was a noticeable reluctance on the part of almost all questioned, to commit themselves. As would be expected, local opinion leaders pleaded commitment to many other organisations but both they and others mentioned badly run meetings, - no beginning, end, purpose or discipline in terms of time, as a contributory factor to their lack of enthusiasm. It was suggested that for the course of the Kilkenny Health Project's work, a number of people would be willing to get together to carry out specific tasks. For example to run a 'Drop in Centre' for 'No Smoking Day', or to distribute literature or to organise a meeting.

Traditional Communities

In one of the centres, one which by Rogers' definition would be termed a community with a very 'traditional' way of thinking, a chance remark by an old resident uncovered a fairly widely held belief in that community. Not only was eating lots of 'good' food considered to be the way to a long and healthy life, but being fat was an indication that all was well. This belief, which

was widely held, was said to have originated in the 1930's and 1940's when tuberculosis was rife in Ireland. People suffering from the disease looked what the locals called "scrawny", in other words, very thin. They were sent for treatment to sanitoria and those who recovered were quite plump on their return home.

Another feature of the more 'traditional' community which was evident, was in the sense of pride. In some ways it seemed that the people in each town were pleased, even proud, that their town had been chosen as one to get special treatment or attention - a form of 'local' patriotism. The perception of ourselves as being proud and patriotic was borne out by the findings of a survey carried out by The Market Research Bureau of Ireland (1987). In this survey, rural dwellers were said to be more proud and patriotic than their urban counterparts. This type of pride can manifest itself in several ways, one of which is the need to have their area named or clearly identified with the cause. It has been the experience of the writer that the communities in rural areas and small towns want the name of their area and not the name of their County featured.

In 1981, Wexford County Council, as part of an environment programme printed 'Keep Wexford

Beautiful' on car litter bags, car stickers and other materials which were distributed in the four electoral areas of the County - Enniscorthy, Gorey, New Ross, and Wexford Town. In 1982, because of pressure from Enniscorthy, New Ross, and Gorey, supplies for these areas carried their own town name. This was found to be more expensive but more effective.

The degree to which the eight small towns chosen for the 'blitz' were intrinsically different in character, is an outcome worth noting. It was not the intention of the team member, to include a comparison of the centres in the survey. It was when writing up the notes that the extent and degrees of difference in the centres became evident and prompted deeper probing. The obvious difference between one town and another was in the physical features and buildings. However, to a degree, the people and their outlook were equally different from town to town. There were different degrees of traditional thinking as defined by Rogers (page 108). A possible explanation is the degree to which an area depends on industry as opposed to agriculture or even the numbers of the community who have to travel out of the area each day to employment in a neighbouring town or city. In some towns, however, the differences had their

roots in the past and in the physical features of the surrounding area.

A town which at the turn of the century had a thriving mine, had a legacy of sophistication and a standard of living and education derived from the owners and managers of that time. For instance, in that town, there was quite an extensive fine art auction taking place on the day of the visit of the team member. Yet another town had been dominated by the neighbouring 'Big House' where almost every member of the population depended in some way on the fortunes of the Squire. A third town is surrounded on all sides by either mountains or rivers and although modern transport makes it more accessible than in older times, there is little 'through traffic'. The people here have maintained a very traditional way of living and thinking and are in fact the community where 'being fat' is equated with 'being healthy'.

These observations tend to reinforce the belief that it is important to be aware that different communities have different cultures even when they appear to have very similar characteristics.

Blitz - Recommendations

Three recommendations were submitted to the

Education Committee as a result of the 'blitz'.

1. That contacts made and information gained should be used as a matter of priority.

2. That a mobile unit, a converted bus or dormobile, well stocked with literature and staffed by a member of the project team, should patrol the rural areas of County Kilkenny. In an extension of the 'blitz' concept, it would use local communication channels to alert the community of the proposed visit and the visit would be used to up date the local contacts and information. In time the unit might include the taking of blood pressure or cholesterol levels, and specialists such as dieticians might be available on certain visits. In short, it was felt that the people from rural Kilkenny who comprise 75% of the population of the County should not have to come into the City to the project, the project should go out to these areas.

3. The Healthy People Column should carry items of interest to the communities in the rural areas.

This brought the work of the project to the beginning of the third year.

The Education Programme. Third Year 1987 - 1988.

As stated, we are taking this discussion to include only the first half of the third year which takes the project to the half way stage of the five year intervention programme. There were a number of staff changes which affected the education team. One of the original full time members of the team moved to new employment. This position was filled. The position of the project's resources necessitated cutting out the part time contribution of a second member.

The South Eastern Health Board was forced to curtail expenditure which included reducing staff. The Health Education Bureau was disbanded. Both of these organisations provided important resources to the Project.

In this period, the major thrust with relation to the work which is being reviewed, was towards getting media cover for the activities of the project and on the 1988 postal survey. The amount

of exposure which the project was getting was not considered satisfactory.

It proved very difficult to get the editors of the national media to give space to project activities unless the story was emotive or dramatic. Special interest programmes such as 'Live at Three' (television) and special interest magazines did feature the work of the project in 1987/88. The Kilkenny People gave increased space to the work of the project in the news pages.

Preparations for the second component of the programme, the postal survey, began early in 1988. The objectives which influenced the design of the previous three postal surveys were studied and a decision was taken to make some changes.

Before we examine the findings of this 1988 survey, we will describe these changes and why they were considered necessary.

The first survey, taken in 1986 from a sampling of the County of Kilkenny, was conducted to determine awareness of the project and to ascertain the extent to which Kilkenny People watched television, listened to Radio, read various papers, magazines and questions relating to the

Healthy People Column. It also included a series of health knowledge questions. (Appendix 1).

Because the general level of health knowledge was Considered to be good, it was not assessed in subsequent surveys. Instead, questions designed to assess changing behaviour were introduced.

In 1987 as we noted there were two postal surveys, (Appendix 2a and 2b) this time the sampling was taken from the rural areas of County Kilkenny and they were timed so as to examine the effect of the 'blitz'. This showed trends in Kilkenny over the six month period between the two surveys. The consumption of high fibre and low fat products were shown to have increased and the consumption of salt to fall. The question was, however, whether these improvements in diet simply reflected national changes or whether the rate of change had been accelerated by the work of the project in Kilkenny.

Postal Surveys - Kilkenny and Offaly

The 1988 (Appendix 3) survey which we will now examine, compares Kilkenny with the reference County - Offaly, to see if the rate of change in Kilkenny is greater or less that in Offaly.

As with the previous surveys, the sampling was 400 people from each County, 78 of which were taken from those previously surveyed in the Baseline Survey.

The response rate was similar, 188 Kilkenny People and 180 Offaly people returned the questionnaires within six weeks following posting of the survey.

Changes in leisure, exercise, weight and alcohol in the year preceeding the completion of the questionnaire showed no appreciable difference in the performance of the Kilkenny respondents and those from Offaly.

Reported whole milk consumption fell in the year prior to the survey from a similar level in both counties (74.3% in Kilkenny and 76.5% in Offaly), to 60.8% in Kilkenny and 66.3% in Offaly. It is possible however that the difference was due to the earlier availability of light milk in Kilkenny. Exclusive white bread consumption fell in both Counties, but fewer Kilkenny People than Offaly people reported eating only white bread, both at the time of the survey and one year previously. Butter consumption fell in both Counties, from 50% in both to 40% in Kilkenny and

36% in Offaly.

Changes in dietary habits showed all people professing to have reduced salt consumption. In Kilkenny, 30.65%, in Offaly 28.89% said that they ate less salt. There was a difference in the two Counties in the professed reduction in eating fatty foods, (Kilkenny 50.54%, Offaly 35.56%) and no significant increase in the use of fresh vegetables. The Kilkenny respondents chose the healthier options in each case.

Although an impressive proportion (41%) of the respondents claimed to eat fewer sweets, biscuits and cakes, and more fresh fruit (33%), the rates were similar in both Counties. Similarly there was no difference in the numbers who had increased their consumption of fibre (about 30% in each County).

One of the most significant differences between the Kilkenny respondents and those from Offaly was in smoking habits. Kilkenny had fewer current smokers than Offaly. Attempts amongst smokers to give up smoking, showed that Kilkenny smokers were more likely to have made some attempt to give up (Table 25)

TABLE 25. Smoking Habits Kilkenny Health Project Postal Survey 1988.

	County of survey					
	Kilkenny		Offaly		Total	
	N	%	N	%	N	%
Attempted to give up smoking in last yea	144	77.42	127	70.56	271	74.04
Tried unsucessfully	12	6.45	13	7.22	25	6.83
Cut down only	11	5.91	3	1.67	14	3.83
No attempt	19	10.22	37	20.56	56	15.30
Total	186	100.00	180	100.00	366	100.00
Plan to give up smoking	146	78.49	126	70.00	272	74.32
Plan to try in next year	14	7.53	11	6.11	25	6.83
Plan to try, not next year	1	0.54	4	2.22	5	1.37
Think should give up, no plans	21	11.29	29	16.11	50	13.66
Don't think I should give up	4	2.15	10	5.56	14	3.83
Total	186	100.00	180	100.00	366	100.00

In Table 25, we see that only 10.22% of Kilkenny smokers made no attempt to give up whereas in Offaly, 20.56% of the respondents claimed that they made no attempt to stop.

A series of questions were included which contrastwhat "I do" (or should do) with what "Irish People do" (or should do). This exposed an interesting fact. People were highly critical about what "Irish People" did or should do but seemed to apply different standards to themselves. Tables 26 and 27.

TABLE 26. Health Belief - eating fat. Kilkenny Health Project Postal Survey 1988.

	County of survey					
	Kilkenny		Offaly		Total	
	N	%	N	%	N	%
Irish people eat too much fat						
0	.	.	4	2.23	4	1.10
- Agree	173	94.54	163	91.06	336	92.82
- Disagree	10	5.46	12	6.70	22	6.08
Total	183	100.00	179	100.00	362	100.00
I eat too many fatty foods						
0	2	1.09	4	2.23	6	1.66
- Agree	80	43.72	85	47.49	165	45.58
- Disagree	100	54.64	90	50.28	190	52.49
3	1	0.55	.	.	1	0.28
Total	183	100.00	179	100.00	362	100.00

In Table 26, we see that whereas 94.54% (Kilkenny) and 91.06% (Offaly) people agree that Irish people eat too much fat, only 43.72% (Kilkenny) and 47.49% (Offaly) believe that they themselves eat too much fat.

TABLE 27. Health Belief - Exercise. Kilkenny Health Project Postal Survey 1988.

	County of survey					
	Kilkenny		Offaly		Total	
	N	%	N	%	N	%
Irish people don't exercise enough						
0	3	1.64	3	1.68	6	1.66
- Agree	146	79.78	142	79.33	288	79.56
- Disagree	34	18.58	33	18.44	67	18.51
3			1	0.56	1	0.28
Total	183	100.00	179	100.00	362	100.00
I don't exercise enough						
0	2	1.09	3	1.68	5	1.38
- Agree	88	48.09	100	55.87	188	51.93
- Disagree	92	50.27	75	41.90	167	46.13
3	1	0.55	1	0.56	2	0.55
Total	183	100.00	179	100.00	362	100.00

In Table 27, we see that the same number (approximately 80) of the respondents in Kilkenny and Offaly maintain that Irish people do not exercise enough, only 48.09% (Kilkenny) and 55.87% (Offaly) believe that they need more exercise.

As we can see from these findings, there was no appreciable difference between the knowledge, attitude and beliefs of the people surveyed in County Kilkenny and those surveyed in the reference County, Offaly, at the half way stage of the Kilkenny Health Project programme.

As previously stated, the health promotion phase of the Kilkenny Health Project runs for five years, to 1990. The work of this thesis only evaluates the first two and and a half years of the five year phase.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Despite the amount of financial resources devoted to health care, and the advances in recent years in technology and drugs, people's level of health

is lower than it could be. In 1977 the World Health Organization got agreement from the Governments of all Nations in the European region to intensify their efforts to improve health. The target for the coming decades was the attainment of health for all by the year 2,000.

In Ireland, coronary heart disease is responsible for 50% of all deaths. The World Health Organization have identified a number of risk factors which are the main contributors to coronary heart disease. These include, a diet high in saturated fats, cigarette smoking, high blood pressure, obesity, physical inactivity and excess alcohol consumption.

People damage their health because they do not know of the risks and the healthy alternatives, or because their values do not give them sufficient motivation to change their behaviour. For instance, smokers who know that smoking is bad for them, need to be given the skills to stop, and support for their efforts to maintain the new behaviour. Experience gained in countries such as Finland, and the United States of America, showed that a health promotion programme, aimed at the population as a whole, could be effective in reducing the incidence of coronary heart disease.

This success contrasted with the unsuccessful efforts of a number of Irish health agencies to effect a reduction in coronary heart disease in Ireland.

Whereas the main objectives of such a programme are humanitarian, to enhance the quality and length of life, there are important economic considerations. There is evidence to support the view that increased expenditure on health service, does not create a healthier society. Preventing illness is considered to be, not just more effective, but also less expensive. For instance, in North Karelia, the 1.1 million US Dollars expenditure on prevention was said to save over 4 million US Dollars in disability payments.

This has important implications for a country such as Ireland which has limited resources, and which has an obligation to provide adequate health care.

Encouraged by the example of successful prevention programmes, the Irish Heart Foundation appealed to the Department of Health to initiate a community coronary heart disease prevention programme. The Kilkenny Health Project was officially launched in 1985. The aim of the Kilkenny Health Project was to plan and execute a

community health programme to alter the environment and behaviour of the population of County Kilkenny. The objective was to reduce the incidence of coronary heart disease by modifying the known risk factors. The programme would evaluate the effectiveness of the campaign and the cost factors of using the programme for the promotion of health nationwide.

A baseline survey in Co. Kilkenny to estimate the knowledge, attitude and behaviour relevant to the development of coronary heart disease and to measure the levels of risk factors for coronory heart disease, was to be followed by a five year education programme, at the end of which a post programme survey would determine the changes, if any, which had occurred. The reference County Offaly, was not to have any special health promotion programme in the five year period between the baseline and final survey. Changes over time, in behaviour and in risk factors, would be measured in Kilkenny and compared with changes which would occur in the reference County.

In this thesis, the emphasis is on communication, in particular on the elements of the programme which depend on effective communications for a successful outcome.

A community based health promotion programme which has as its objective the prevention of coronary heart disease, can be described as a public communications campaign. A public communications campaign is seen as someone's intention to influence someone else's beliefs or behaviour using communicated appeals. If there is reform, reform in the sense of action to make society or the lives of individuals better, then a public communications campaign may be involved.

Once the aim of the programme has been defined as influencing the lifestyle and changing the risk factors in a community, the task is said to enter the realm of the behavioural and social sciences. In such a programme, where force cannot be used to effect change, education and persuasion are needed. Success is thought to be more likely in such programmes if clear theoretical guidelines are sought.

Despite the importance of health promotion, there are few comprehensive and adequately researched programmes which can be used as a model, and none of these are based in Ireland. The Kilkenny Health Project studied the work of the Stanford Three Community Study group (United States of America). The Stanford Three Community Study was

of limited value. Apart from the vast resources which were said to have been available to the team, the programme appeared to have been very much a theoretical exercise and therefore not subject to the complexities and the vagaries associated with actually working with different people and cultures.

Because there were greater similarities in the location and resources of the North Karelia project (Finland), it was to become an important model for the Kilkenny Health Project. The North Karelia Project chose four frameworks for behavioural change from which they produced a model that unified these approaches in a community based programme. Each of these approaches and the unified model, require effective communication for a successful outcome.

Many people believe that communication is easy. Few people appreciate the fact that it is very difficult to communicate effectively. This lack of appreciation on the part of programme planners, usually means that an inadequate portion of existing resources are allocated to the communicaton element of the campaign.

In a public health campaign, the message, to be

effective, must not only be transmitted accurately, but it must also be capable of influencing the attitude and behaviour of the receiver.

The extent to which a message is understood and accepted, depends on a number of factors. For instance, the way that sentences are structured can add nuance to a message, the degree to which a message is compatible with a persons existing beliefs, and the degree to which the amount and complexity of the information is kept within the individuals' capacity to process.

Important also to effective communications is the perceived credibility of the sender in terms of the information which they are giving and their ability to adjust the message to anothers' viewpoint.

Similarly in mediated communication, the source is important. This is why (frequent and often conflicting) advice, published in the popular media is a source of concern. These articles are often credited to a relatively unknown but 'impressive sounding' source. There is usually no indication as to whether the work was commissioned by a commerical firm with a vested interest in the

findings or whether it is genuinely objective.

Whereas the power of mediated communication is said to be limited to 'setting the agenda', or 'creating basic awareness' of a cause or project, it is widely believed to be the best and most effective way of gaining the attention of the audience - the fist steps in a communication-change programme. The proposed developments in regional television and local radio channels may further strengthen the role of mass media in public communication campaigns. It is therefore important to be aware that the message can be distorted in mediated communication. For instance, the editor can use realistic metonymy. As we saw in the Nottinghill example, (page 78), he can present the facts of a situation in such a way so as to influence readers' interpretation of the story. Whether this is accidental, is a reflection of the editor's own beliefs, or is simply commerical or political expediency due to pressure from advertisers or shareholders, is immaterial. What is important when seeking media exposure, is to realise that distortion can and does occur.

Once the population has become aware of the new concept, interpersonal communication is required

to teach and to encourage the adoption and maintenance of the new idea or lifestyles. Interpersonal communication is also central to the success of groups. Groups have an important role to play as catalysts in the campaign to encourage local authorities to modify or change existing community structures so that they can support the new lifestyle.

Communication to be effective must be 'two way'. The message, channel and source are important, but the audience is equally important. It is considered to be essential to the design of an effective message, that the receiver's attitude towards the concepts being advocated would be known to the message designers in advance.

Although it is commonly believed that social class determines how a message is read, there is evidence which suggests that the degree to which people share the same meaning, the learned associations in their lives, is more likely to be the determining factor.

The importance of the receiver is central to theories of Dissonance. Health messages are said to be dissonant with, or different from the prevalent practice. If a message makes us feel

uncomfortable, perhaps because we know that we should change our behaviour in line with the advice, we will try to become comfortable. We will either change our attitude and conform, or we will seek to discredit the source or sender of the message. Frequent and often conflicting health advice, particularly in the National media, is often used by individuals to discredit 'uncomfortable' health messages. There is also the problem which is widespread, which shows that there is often a wide gap between what is known and what is put into use. Where an individual's motivation to adopt is weak, persuasive strategies are needed. Appeals to fear may also be used, but this can also create what is called 'flight and fight'. It can create resistance.

Shaping persuasive messages requires knowledge of the attitude of the audience. It is perhaps in the area of anticipating resistance, that formative research and original field testing is most useful. Formative research is better at discovering than at measuring. It can help the message or programme designers to understand the likely response of resisting individuals or communities, to know the channels of communication which are used rather than those that exist, and to appreciate that a community in one area can

have a different culture to a community even twenty miles away.

This information allows the designers to anticipate the problems which can make communication effective or ineffective. Thus we saw in the classical example of innovation diffusion, that Nelida failed in her efforts to change the behaviour of the local community, that is, she failed to persuade people to boil water before use. Nelida obviously was not aware of the local culture in relation to hot water - which saw it as something that only the sick used.

The Coded Welders case study from Ireland (page 167) is an example which can be used to rebut the very commonly held belief that formative research and original field testing is a waste of time and resources. The company's problem was not due to rumours of bankruptcy, it was simply due to the fact that their prospective customers did not know of their new expertise.

The success of the Stanford Three Community Programme is often attributed to the vast resources which were available, to the sheer

volume of exposure to the message via the mass media. The message however was designed using information received from extensive formative research and audience testing. It was interesting to note that for the next Stanford Programme, the Stanford Five City Community Study, the baseline survey included questions which were based on information received in the audience testing and formative research work of the first study. This illustrates one of the attributes of formative research or field testing in helping to guide the design of research programmes.

The North Karelia Project literature does not indicate that original field testing was undertaken at the pre-production stage of the programme. Because of the extent to which the Kilkenny Health Project used this programme as a model, this is worth noting. It could account for the lack of emphasis by Kilkenny on this aspect of the planning stages. However, there was widespread knowledge of, and concern at, the high rate of death from heart disease amongst the population of North Karelia, facts which were borne out by their own observations and which led to their petition to the Government to do something about the situation. This may have led to the belief that field testing was not

necessary: The programme planners already had some evidence of the target audiences' knowledge and attitude to coronary heart disease.

In examining the Education Programme of the Kilkenny Health Project, we have concentrated on the first two and a half years of the work - from August 1985 to February 1988. The programme included many sub programmes to support the learning and practice of skills being advocated.

For instance, it was thought necessary to give special attention to medical and paramedical personnel; their support was important to the project as opinion leaders and as credible sources of a health message. Doctors are not always enthusiastic about prevention and many health workers perceiving themselves to be the experts, fail to listen to other sources of information.

Contact was made with and lectures given to many community groups, who were encouraged to organise local events or programmes to support the work of the project team.

These sub programmes are important components of the Kilkenny Health Project. They are designed to take the target audience from awareness, through

to the adoption and maintenance of the new behaviour or lifestyle. Effective communication is essential to every facet of the work. However, the focus of our attention was on the work which was designed to take the target audience, the population of County Kilkenny, to the first steps of the programme, on the creating of basic awareness. In particular, we examined the pre programme work, the steps that were taken to ensure that the message and the programme would be effective.

Many professional communication practitioners use a six point formula to guide the design of a campaign message and plan.

This, firstly, seeks identification of, and details on, the target audience. Details in this context would include information on the interests, habits, hobbies or leisure-time activities, local cultures, informal networks and channels of communication of the community. The second and third steps seek to establish the attitude, belief and behaviour which the target audience espouse, as opposed to that which the message would seek to have them espouse. In the fourth step, the message is designed using the

information gathered in the first three steps. The fifth step is where this agreed message is transmitted via the popular channels as identified in the first step. Lastly, the sixth point recommends the use of continuous assessments. The information gathered in these surveys is used to up date and modify the message and programme as required.

An examination of the Kilkenny Health Project's strategy when compared to the recommended six point formulae, identifies a number of weaknesses in the pre planning stages, and indicates the importance of using such a formula.

For instance, when the education committee was convened in August 1985, the baseline survey had been designed and executed by the scientific committee (which did not include a communications professional). The findings, which were said to include details on the target audience, were expected weekly. (In fact these findings of the baseline survey were not available until the following April/May 1986, by which time the message was designed and the initial plans were being implemented). Therefore, the only information on the target audience which the education committee had, was their numbers, age,

sex, location and occupation. So the information deemed essential before the planning stages, the fist point of the six point formula, was not available. Neither was it possible to determine what difference if any, there was in the existing knowledge and attitude of the target audience concerning the project, and that which the project wished them to espouse, the second and third points of the formula.

The programme aimed at creating awareness of the prevalence and serious nature of coronary heart disease, of the effectiveness of preventative measures, and of the existence and aims of the Kilkenny Health Project. As to whether the target audience knew that coronary heart disease was prevalent, or believed that the situation was serious, or if they did not, what their actual knowledge, attitude or beliefs were, was not known. It could not be assumed that all of the people of County Kilkenny shared the views of those whose views were recorded in the Inistioge Study. Inistioge, with a population of 195 people, was not typical of all other parts of the County, particularly the city of Kilkenny. Indeed it is possible that the average inhabitant of Inistioge itself would not subscribe to the extreme fatalistic attitude reported in the Study;

that risk taking can be justified because life is predetermined.

On the other hand, the example cited also in the Inistioge Study, that of aged and healthy friends or neighbours who had already been heavy smokers or/and who had always eaten diets high in fats, was supported by reports from members of the team in casual conversation with members of the public in other areas of the county. This enabled the planners to pre-empt this belief when designing the message. It was stated that because people in the past had worked harder physically, had exercised more by walking to Mass, dances and to the cinema, high fat diets were less likely to cause problems.

The Inistioge Study, did indicate a need to emphasise the fact that coronary heart disease, and not cancer was the major cause of death in County Kilkenny, and that adopting a healthier lifestyle could effect an increase in lifespan. In the design of the message, the fourth step of the plan, the problem for the message designers was however, not simply a lack of information on the numbers who held either of these beliefs. The greater problem was not knowing what other widespread and strongly held beliefs were held by

segments of the target audience. A message justifying the need for low fat diet on the basis that modern lifestyles include less exercise, might be totally irrelevant to a significant section of the target audience, or it might not.

Where resources are scarce and time is important, and when successful diffusion of a new lifestyle is dependent on the early adoption of the concept by opinion leaders in the community, irrelevant messages are a luxury that cannot be afforded.

Another barrier in the design of the message was thought to be, a lack of local examples. For instance, mortality and morbidity rates for coronary heart disease were taken for Ireland as a whole, not for the County of Kilkenny. Examples of the success of preventative measures effecting a reduction in the incidence of coronary heart disease were taken from countries such as Finland and the United States of America. It was accepted that the lack of local examples might allow people to consider the information not to be relevant to them, to encourage them to resist the message.

Another small, though not insignificant difference between the North Karelia and Kilkenny Health projects, is the fact that in North Karelia, the

local population led by their Governor, all Karelian members of the National Parliament and representatives of many local official and voluntary organisations, signed a petition for national aid to reduce the coronary heart disease problem in North Karelia. It is not stated as to whether this was a totally spontaneous move or whether it was organised by a specific group. In Ireland, whereas the Irish Heart Foundation 'petitioned' the Department of Health to set up a community-based preventative programme, over a period of time prior to 1984, the populaton of the chosen county, Kilkenny, responded enthusiastically to the suggestions rather than initiated the action to set up the project.

Conscious of these differences and deficiencies in the first steps of the formula, but under some pressure to get on with the programme, the education team designed a message. This gave the basic facts in a simple and direct way. Unfortunately, resources did not allow for the pre-testing of the message.

The next step, the transmission of the message, the fifth of the six being used in the formula was now ready to be implemented. In this step the message is to be transmitted using the most

effective channels of communication: but these were not known. The extensive use of local television (Stanford) and local radio and thirteen local/provincial newspapers (North Karelia) was said to have played an important role in creating awareness of the problem.

Research findings in Ireland, supported the belief that television was an important source of influence, followed by radio and the national daily papers. However, use of these channels for the Kilkenny Health Programme was confined initially to news of the launch and existance of the Irish Pilot Scheme. Persuasive or more detailed information would have 'contaminated' the reference area, County Offaly. Kilkenny did not have local television and only had an almost defunct local pirate radio station.

Editors of the national media, made no secret of the fact that they considered news of the project to have limited appeal. What was termed a 'provincial event' did not merit prime time or space, or in many instances a mention at all.

Creating spectacular headlines or events to create interest or appeal is not always possible or desirable for what is essentially a sensitive and

serious issue.

The opening shot of the 12 minute film which had been screened by RTE as part of the news programme, showed an ambulance, klaxons blaring, speeding up to the local hospital; it necessitated simulating an emergency heart patient being taken to the local hospital. Using scare headlines or potentially worrying news can merit space in the media but this could have an adverse effect on the work of the project.

But even when the 'ban' on detailed messages was lifted, it was very difficult to achieve media cover. If the news or event did not merit television cover, there was a strong possiblilty that the national papers would not give much space to the story. We noted this phenomenon when we discussed pack journalism. It is the experience of practitioners in communications that if the staff journalist or photographer of the medium attends, there is a much better possiblity of the copy appearing. Naturally the attendance of staff members at provincial venues is costly, so the papers send them only on very important occasions.

Research findings indicated that provincial papers were effective in reaching rural populations. A

very high percentage of the population of Kilkenny lived in a totally rural area. Circulation figures showed that the 'Kilkenny People' had a high household penetration in County Kilkenny. It was therefore considered to be an important channel of communication for the Kilkenny Health Project. However, as we noted, having the paper does not necessarily mean reading the paper, and reading the paper can mean different things to different people. The findings of the first postal survey indicated that a significent number of those surveyed never saw the Healthy People Column, the projects' column which the paper carried each week. Many of those who indicated that they had seen it, admitted that they did not read it. A possible cause here was thought to be position or location in the paper, the appearance of the column. However, the more likely explanation is that to many, especially to those who were not committed to a change in lifestyle, the column may have appeared not to be relevant.

It was interesting to note that the project's magazine "Catch", which basically carried somewhat similar material, was considered to be more interesting. "Catch" did feature human interest stories about real people. It was also well illustrated, and carried competitions, none of

which was the case with the column.

Another method of reaching the target audience with the message, was thought to be leaflets with details of the risk factors and the recommended healthy options. The problem here was lack of resources. There was neither tested material available nor resources to pay for this work to be done. This called for a degree of creativity and ingenuity which was forthcoming from the members of the team. These simple 'home' produced leaflets, posters and booklets were quite effective and were popular with the public.

The following point is worthy of inclusion here because it supports one of the basic principles of this work - that effective communication is difficult and that the consequences of poor or ineffective communication can be costly.

In January 1986, the education committee which was still waiting for the findings of the baseline survey, decided to plan the first postal questionnaire. One of the aims of this survey was to measure changes, if any, in the knowledge, attitude and beliefs of the target audience. To guide the design of the questionnaire and in the absence of the baseline findings, it was

imperative to get details of the facts which had been sought in the baseline survey. When these were eventually furnished it became evident that there had been miscommunication as to what constituted 'details on the target audience'.

The 'details on the target audience' which had been sought by the health professionals in the baseline survey, did not include communication variables, instead they consisted of health-related matters such as cholesterol and blood pressure levels, eating, drinking, smoking and exercise habits. Neither empirical nor original field testing methods had been employed in order to gather information on the local cultures, popular hobbies or leisure time activities, natural network systems, formal or informal channels of communication or popular as opposed to existing channels of communication, all of which would be termed 'details on the target audience' by a communication professional.

Although this is an example of miscommunications it is true to say that the main problem was the lack of consultation with a communications consultant at the pre-planning stages of the overall project. The emphasis was on gathering imformation on health-related details on the

target audience. Communication needs were possibly not considered, or if they were they were considered not to be of sufficient importance to be included at this stage.

MAJOR CONCLUSIONS AND RECOMMENDATIONS.

The postal survey results at the half way stage of the programme (1988) did not show any appreciable difference between the knowledge, attitude and beliefs of those surveyed in County Kilkenny and those surveyed in County Offaly. This is not necessarily an indication that the programme failed. It is considered that five years is too short a period in which to effect meaningful change. Other factors must be taken into consideration such as the extent to which the Offaly baseline survey and postal survey served to create awareness of CHD in Offaly.

It would be easy to be critical of what Kilkenny did or of what it did not do. However, there is one point which must be remembered, Kilkenny was trying to effect a major change with minor resources.

The Kilkenny Health Project, the first of its kind in Ireland, did not have a comprehensive and adequately researched study available from which to draw information. The similarities, which made

the North Karelia Project an important model, were mainly in the fact that like Ireland, North Karelia had a high rate of mortality and morbidity from coronary heart disease, had a widely dispersed population, a high rate of unemployment, and a high dependency on agriculture as a means of employment. But there the similarities ended. The differences were more significent. Unlike North Karelia, Kilkenny did not have strong regional or local media. Draconian cut backs in the Irish health care services contrasted sharply with the enactment of supportive legislation and the setting up of a new university in North Karelia.

Other minor but important differences were in the fact that in North Karelia, the population's everyday experience made them aware of the serious situation in relation to coronary heart disease and this lead to their appeal to the Government. In Kilkenny the matter had to be brought to the attention of the population and this message would have been more effective had the message contained mortality and morbidity statistics taken from County Kilkenny and not from Ireland as a whole. Despite these and many other handicaps, a lot of good and effective work was done especially in the area of the teaching of skills, the training of

teachers in Primary and Post Primary schools. The 'cues to action' such as 'no smoking' and 'healthy food' promotions were well organised, well supported by the people and helped to sustain or maintain those who were attempting to change their lifestyle.

The Kilkenny Health Project team succeeded in maintaining a 'non threatening' and 'sympathetic' profile. Their acceptance that people are human and may fail, was in direct contrast to 'zealous reformer'sydrome all too evident elsewhere. Reformed alcoholics, smokers and people who were obese and who have effectively reduced weight can overwhelm and alienate the still to be reformed. The Kilkenny Health Project was alert and sensitive to the changing needs of the community as these became known, and once the project programme was underway, regular surveys were carried out. The findings were used to modify the message and the programme.

But of course it is possible to identify deficiencies and weaknesses in the Kilkenny Programme. Most of the theories and campaigns which were examined indicated the need to know the existing attitude and beliefs of the target audience, and perhaps equally important, to know

the popular channels of communication and local cultures, BEFORE the message and programme is designed. This is an area where Kilkenny was deficient. Gaps in information on the target audience made it difficult to design an effective message and to choose the most effective channels of communication. This brings us back to one of the original points in this thesis - the importance, the centrality of communication is rarely appreciated. The main thrust of campaign studies is in the primary disciplines, in this case, medicine. Communications is generally subordinated to the primary discipline (see page 30). Being subordinate, it does not get an adequate proportion of existing resources, especially at the pre-plan stages.

Let us suppose that the role of communication had been more clearly understood by the group who set up the Kilkenny Health Project in 1984. What differences might there have been in the time scale and/or outcome of the programme?

Firstly, the medical professionals would either have consulted with, or included in their group, a communication professional. Formative research and original field testing would then have been planned and undertaken. Findings on popular

channels of communication could have been tested in the baseline survey and information on the target audience, their attitudes and cultures, might have influenced the design of the survey.

It is difficult to understand why, with access to modern technology, it took just over a year to get the findings from the baseline survey. It is by no means certain that the presence of a communications professional on the committee would have been instrumental in hurrying those along. However, it is quite likely that it would, or at least that any outstanding information required would have been sought by some other method so that the education programme could start on time. The education or health promotion programme was to span five years from the baseline survey in February 1985. But the education committee was only convened in late August of that year. It is possible that the input of a communications professional at the beginning of the project would have resulted not just in an extra six months (minimum) of health promotion, but in promotion which would have included a message more relevant to the target audience and which would have been transmitted via channels which were actually used by the community as opposed to those which existed for other purposes. With the benefit of

information such as that which was gathered in the Blitz - the results of the formative research and original field testing work, the whole emphasis of the programme might have changed.

Members of the project team might have decided that it would be more productive to spent less time in the office and more time in the field on a regular basis. A mobile unit touring outlying areas of the county acting as an extension of the work of the Blitz, supplementing and up dating locally gathered information, could be a powerful method of creating basic awareness quickly and accurately and of giving new information when and as required.

The message might have been made more relevant to each community by suggesting that the community of, say. Thomastown or Inistioge or Callan, could reduce the incidence of coronary heart disease in their community. Modern technology makes the 'personalising' of simple handbills or brochures in this way, relatively inexpensive. These messages might have been distributed in employees pay-packets and by the many local clergy, shopkeepers and other opinion leaders, who pledged their help and support when they were interviewed

during the Blitz. Over a year after the Blitz, the project staff noted that the people who had talked to the team member during the Blitz were found to be more helpful and co-operative when asked to help the project, than those who had not met her.

Supplies of literature and other items, such as car stickers or posters, would have been distributed in sufficient quantities to appropriate centres, in the knowledge that the communities in totally rural areas were 'feeding' off their nearest town.

The problems of gaining access to space in the national media is a problem which would have existed irrespective of when approaches were first made. However, close contact with people in the different communities would have provided material for localised and human interest stories which are popular with both national and provincial media. These would also have served to create a more interesting 'Healthy People' column: Perhaps the popularity of videos throughout rural Kilkenny, as discovered during the Blitz, would have suggested the inclusion of a question in the baseline survey, to test the viability of video as a channel of communication. A positive response

might have prompted the production and use of videos as a method of reaching the target audience with a persuasive message.

This is what might have happened if communication had been given greater emphasis and resources at the start of the Kilkenny Health Project in 1984. As to whether, or to what extent it would have affected the outcome is a matter for conjecture.. It might be argued that it was more important to use the project's limited resources to establish the base levels of health in the community, undoubtedly an essential step in a campaign where a comparison between those and the final measurements would indicate the success or otherwise of the education programme. But surely it is equally important to give that programme the best possible chance of succeeding, by including attention to communication variables.

It might also be argued that the absence of a professional communicator at the start of the project merely delayed the implementation of elements which were found to be effective. It is for precisely this reason and the fact that the project was short of resources that the early input of communications, should have been considered.

The use of non-relevant messages, and the use of channels of communication which are not popular with the target audience can be a waste of money. But it can also waste time. In a campaign which has a relatively short period in which to effect change, and where diffusion is an important element in that change, time is of the essence. The heart of diffusion is the imitation by people of their friends. The more people who accept and adopt the new concept at the start, the greater will be the chances of the programme achieving its objectives.

I suggest that for the Kilkenny Health Project, which had to make major changes with minor resources, time was important. The challenge of designing and implementing a programme to effect a reduction in coronary heart disease in a five year period, and despite the absence of many of the elements thought to be essential to such a programme, would have been assisted by a greater emphasis on communication at an earlier stage of the work.

Throughout this work we have frequently referred to this point. Does this happen because communication is throught to be an automatic human activity, not worthy of purposive intervention, or because communication has traditionally been

subordinate to other disciplines in public campaigns? Perhaps it is just unfortunate that frequently one of the first stages which a communication professional suggests,- original fieldwork and formative research, - is perceived by professionals in other disciplines as a sign of weakness in the ability of communications theory to solve poblems. This is a pity because as Palmer pointed out, 'hunches and hypotheses' generated in the course of research are seldom published in research reports. Yet they are the best information available to guide practical design. Combining both art and science, using common sense and experience as well as the information gained by empirical means, is a practical way of ensuring that the programme suits the community and is likely to be much more cost and time effective than trying to get the community to conform to a programme without adequate preparation.

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APPENDIX 1.

QUESTIONNAIRE KILKENNY HEALTH PROJECT

POSTAL SURVEY 1986

Please tick or fill in the correct answer. Sometimes there are no right or wrong answers. Please tick the one you think is most correct. If you are not sure have a guess. Please answer all questions, and return in enclosed envelope. No stamp required.

FOR OFFICE USE ONLY

1 - 6 | 1 | 0 | 0 | | | |

7 - 9 | 8 | 6 | 1 |

QUESTIONNAIRE

1. Do you live —
In/near Kilkenny City ☐ In a town or village ☐ In the country ☐ 10 ☐ **1**

2. Sex: Male ☐ Female ☐ 11 ☐ **2**

3. Are you aged —
Under 35 years ☐ 35-64 years ☐ 65 years or more ☐ 12 ☐ **3**

4. What age were you when you stopped attending school full time?
_____years of age. 13 ☐ 14 ☐ **4**

5. Do you regularly read (Please tick any of the following) **5**

Irish Daily paper	☐	15 ☐
Irish Evening paper	☐	16 ☐
Irish Sunday paper	☐	17 ☐
Kilkenny People	☐	18 ☐
Kilkenny News	☐	19 ☐
Munster Express	☐	20 ☐
Waterford News and Star	☐	21 ☐
New Ross Standard	☐	22 ☐
Carlow Nationalist	☐	23 ☐
Womans Way	☐	24 ☐
It Magazine	☐	25 ☐
U Magazine	☐	26 ☐
Image Magazine	☐	27 ☐
Aspect	☐	28 ☐
Magill	☐	29 ☐
Irish Business	☐	30 ☐
Success	☐	31 ☐
Business & Finance	☐	32 ☐

6. Have you ever seen the "Healthy People" column in the Kilkenny People?
Yes ☐ No ☐ 33 ☐ **6**

7. Do you read the "Healthy People" column in the Kilkenny People?
Every Week ☐ Most Weeks ☐ Sometimes ☐ Never ☐ 34 ☐ **7**

8. The "Healthy People" column is about — please tick any of the following: **8**

Arts and Crafts	☐	35 ☐
Lung Cancer	☐	36 ☐
Mental Health	☐	37 ☐
Fishing	☐	38 ☐
Heart Disease	☐	39 ☐
General Health	☐	40 ☐
Cooking	☐	41 ☐
How to prevent illness	☐	42 ☐
Sportsmen	☐	43 ☐

9. How often do you watch television?
Everyday ☐ Some Days ☐ Weekends only ☐ Never ☐ ☐ 44 **9**

0. Which of the following do you watch regularly? Tick any of the following: **10**

RTE channel 1	☐	☐ 45
RTE channel 2	☐	☐ 46
BBC channel 1	☐	☐ 47
BBC channel 2	☐	☐ 48
HTV	☐	☐ 49
Channel 4	☐	☐ 50
Others	☐	☐ 51

11. How often do you listen to the radio?
Everyday ☐ Some Days ☐ Weekdays only ☐ Never ☐ ☐ 52 **11**

12. To which of the following do you listen regularly? Tick any of the following: **12**

RTE 1	☐	☐ 53
RTE 2	☐	☐ 54
Kilkenny Community Radio	☐	☐ 55
Other — Specify	☐	☐ 56

3. Please tick the following statements — agree or disagree. **13**

White meat such as chicken, has less fat than red meat such as steak.
Agree ☐ Disagree ☐ ☐ 57

Polyunsaturated margarine (eg. Flora, Vitalite, Dunnes or Sun) is better for health than butter.
Agree ☐ Disagree ☐ ☐ 58

Too much salt is bad for you.
Agree ☐ Disagree ☐ ☐ 59

Low fat and skimmed milk contain as much protein and calcium as whole milk.
Agree ☐ Disagree ☐ ☐ 60

Taking regular exercise helps to reduce the risk of heart attack
Agree ☐ Disagree ☐ ☐ 61

Smokers are more likely to have heart attacks.
Agree ☐ Disagree ☐ ☐ 62

Smoking does less harm to women than to men.
Agree ☐ Disagree ☐ ☐ 63

To maintain good physical condition, one should exercise three or more times per week.
Agree ☐ Disagree ☐ ☐ 64

Headaches are more common in people with high blood pressure.
Agree ☐ Disagree ☐ ☐ 65

A person with high blood pressure usually feels well.
Agree ☐ Disagree ☐ ☐ 66

A person can have serious heart disease and feel well.
Agree ☐ Disagree ☐ ☐ 67

14. Prior to receiving this questionnaire had you ever heard of the Kilkenny Helath Project? Yes ☐ No ☐ (if no — skip to question number 18) ☐ 68 **14**

15. What is the Kilkenny Health Project about— **15**

.....

☐ 69

16. Where did you hear of the Kilkenny Health Project? Tick any of the following:

Relative or Friend	☐	70
Doctor	☐	71
National Newspaper	☐	72
Local Newspaper	☐	73
National Radio	☐	74
Local Radio	☐	75
Can't remember	☐	76

16

17. Have you attended any lectures or talks about the Kilkenny Health Project?
Yes ☐ No ☐

☐ 77 **17**

18. Compared to someone of your age how do you consider your present general health?

Very good	☐
Reasonably good	☐
Reasonable	☐
Not very good	☐
Very bad	☐

☐ 78 **18**

19. How often did you see a doctor during the last year?
_____times.

79 ☐ ☐ 80 **19**

20. When did you last have your blood pressure measured?
(Do not include when donating blood)

During the last 6 months	☐
6 months to 1 year ago	☐
1 year to 5 years ago	☐
More than 5 years ago	☐
Never	☐
Had but can't remember	☐

☐ 81 **20**

21. Have you ever been told by a doctor or other health worker that you have high blood pressure? Yes ☐ No ☐

☐ 82 **21**

22. Have you taken tablets for high blood pressure during the past 2 weeks.
Yes ☐ No ☐

☐ 83 **22**

23. Have you ever had your cholestrol ("Blood Fat") measured?

During the last 6 months	☐
6 months to 1 year ago	☐
1 year to 5 years ago	☐
More than 5 years ago	☐
Never	☐
Had but can't remember	☐
Don't know	☐

☐ 84 **23**

24. Have you ever been told that you have high or raised blood cholesterol or fat level? Yes ☐ No ☐

☐ 85 **24**

25. Which of the following is most likely to provide you with the best advice on keeping yourself healthy? Tick one only

TV/Radio	☐
Doctor	☐
Newspaper	☐
Friend/Relation	☐
Other Health Visitor	☐

☐ 86 **25**

26. Compared to a person of your own age how do consider your present level of physical fitness?

Very good	☐	☐ 87	26
Reasonably good	☐		
Reasonable	☐		
Not very good	☐		
Very bad	☐		

27. Has your leisure-time physical activity, during the past year changed?

Increased very much	☐	☐ 88	27
Increased a little	☐		
Stayed the same	☐		
Decreased a little	☐		
Decreased very much	☐		

28. Has your weight changed in the past year?

Increased	☐	☐ 89	28
Stayed the same	☐		
Decreased	☐		

29. If you have milk, do you usually use: Tick one box only;

Whole milk(ordinary milk)	☐	☐ 90	29
Light milk (low fat)	☐		
Skimmed milk (very low fat)	☐		
I don't drink milk	☐		

30. During the past year, for reasons of health have you: —

Reduced the amount of fat in your diet	Yes ☐	No ☐	☐ 91	30
Used more vegetables or fruit	Yes ☐	No ☐	☐ 92	
Reduced your intake of sugar	Yes ☐	No ☐	☐ 93	
Reduced the amount of salt which you used	Yes ☐	No ☐	☐ 94	

31. In the past year, have you given up smoking? (if non-smoker leave blank) Yes ☐ No ☐ — ☐ 95 — 31

32. In the past year have you taken less drink than you used to? (if non-drinker leave blank) Yes ☐ No ☐ — ☐ 96 — 32

APPENDIX 2a

QUESTIONNAIRE KILKENNY HEALTH PROJECT

POSTAL SURVEY 1987 (1)

Please tick or fill in the correct answer. Sometimes there are no right or wrong answers. Please tick the one you think is most correct. If you are not sure have a guess. Please answer all questions, and return in the enclosed envelope. No stamp is required.

FOR OFFICE USE ONLY

1 - 6 | 2 | | | | | |

7 - 9 | 8 | 7 | 1 |

QUESTIONNAIRE

1. Do you live—
1. In/near Kilkenny City ☐
2. In a town or village ☐ Name of town/village_____
3. In the country ☐

10 ☐

2. Sex: 1. Male ☐ 2. Female ☐

11 ☐

3. Are you aged—
1. Under 30 years ☐ 2. 30-39 years ☐
3. 40-49 years ☐ 4. 50-64 years ☐
5. 65 years or more ☐

12 ☐

4. What age were you when you stopped attending school full time?

_____years of age.

14 ☐☐

5. Compared to a person of your own age how do you consider your present level of physical fitness?

1. Very good 2. Reasonably good ☐ 3. Reasonable ☐
4. Not very good ☐ 5. Very bad ☐

15 ☐

6. Have you changed your leisure-time physical activity during the past year?
1. Increased very much ☐ 2. Stayed the same ☐ 3. Decreased a lot ☐

16 ☐

7. Has your weight changed in the past year?
1. Increased, by at least 4 lbs. or more ☐
2. Stayed the same, more or less ☐
3. Decreased, by at least 4 lbs ☐

17 ☐

8. Compared with this time last year, how much salt do you eat now?
1. More ☐ 2. Same ☐ 3. Less ☐

18 ☐

9. How many times each week do you eat the following:—

Boiled, baked or mashed potatoes? _____times a week — 20 ☐☐

Chips or roast potatoes? _____times a week — 22 ☐☐

Apples, pears, oranges, grapefruit, bananas or any other fresh fruit? _____times a week — 24 ☐☐ / 26 ☐☐

Fish, any kind, including shellfish and fishfingers? _____times a week — 28 ☐☐

Chicken? _____times a week — 30 ☐☐

Fried foods? _____times a week — 32 ☐☐

Digestive biscuits or plain biscuits? _____times a week — 34 ☐☐

Fruit cake or sponge cake? _____times a week

10. Do you usually use:
1. Whole milk ☐ 2. Light Milk (low fat) ☐
3. Skimmed milk (very low fat) ☐
4. Whole milk AND light/skimmed milk ☐
5. I don't drink milk ☐

35 ☐

11. What type of bread do you usually eat?

1. White ☐ Brown ☐ 3. Wholemeal Brown ☐
4. A mixture of white/brown/wholemeal ☐ 5. I don't eat bread ☐

☐ 36

12. What do you usually spread on bread?

1. No spread ☐
2. Butter ☐
3. Spreadable butter ☐
4. Low fat spread ☐
5. Margarine, polyunsaturated, soft ☐
6. Margarine, other soft ☐
7. Margarine, hard ☐
8. Either butter or margarine ☐
9. Other ☐

☐ 37

13. Do you smoke cigarettes now? 1. Yes ☐ 2. No ☐

☐ 38

If you used to smoke cigarettes, how long ago did you stop?

_____years_____months

☐☐☐ 41

14. Do you smoke a pipe or cigars now? 1. Yes ☐ 2. No ☐

☐ 42

15. Compared to someone of your own age how do you consider your present health?

1. Very good ☐ 2. Reasonably good ☐ 3. Reasonable ☐
4. Not very good ☐ 5. Very bad ☐

☐ 43

16. How often did you see a doctor during the last year?

_____times

☐☐ 45

17. When did you last have your blood pressure measured?
(Do not include when donating blood)

1. During the last 6 months ☐
2. 6 months to one year ago ☐
3. 1 year to 5 years ago ☐
4. More than 5 years ago ☐
5. Never ☐
6. Had but can't remember ☐
7. Don't know ☐

☐ 46

18. Have you ever been told by a doctor or other health worker that you have high blood pressure? 1. Yes ☐ 2. No ☐

☐ 47

19. Have you taken tablets for high blood pressure during the past 2 weeks?

1. Yes ☐ 2. No ☐

☐ 48

20. Have you ever had your cholesterol ("Blood Fat") measured?

1. During the last 6 months ☐
2. 6 months to 1 year ago ☐
3. 1 year to 5 years ago ☐
4. More than 5 years ago ☐
5. Never ☐
6. Had but can't remember ☐
7. Don't know ☐

☐ 49

21. Have you ever been told that you have high or raised blood cholesterol or fat level? 1. Yes ☐ 2. No ☐

☐ 50

22. Please tick the following statements — AGREE or DISAGREE

Low-fat and skimmed milk contain as much protein and calcium as whole milk
1. Agree ☐ 2. Disagree ☐

☐ 51

A person with high blood pressure usually feels well.
1. Agree ☐ 2. Disagree ☐

☐ 52

Smoking only harms the smoker. 1. Agree ☐ 2. Disagree ☐

☐ 53

23. Before getting this questionnaire, had you ever heard of the Kilkenny Health Project? 1. Yes ☐ 2. No ☐

If NO, please go to question 25

☐ 54

24. Here are some things, true and false, about the Kilkenny Health Project.
Tick whether you think each is true or false: —

The Kilkenny Health Project is a Health Survey 1. True ☐ 2. False ☐ 55

The Kilkenny Health Project is a newspaper column
1. True ☐ 2. False ☐ 56

Only certain people can take part in the Kilkenny Health Project
1. True ☐ 2. False ☐ 57

The Kilkenny Health Project is being run in schools
1. True ☐ 2. False ☐ 58

You can ring up the Kilkenny Health Project for advice
1. True ☐ 2. False ☐ 59

The Kilkenny Health Project holds meetings and classes
1. True ☐ 2. False ☐ 60

25. Do you regularly read the Kilkenny People newspaper?
1. Yes ☐ 2. No ☐ 61

26. Do you read the Healthy People column in the Kilkenny People?
1. Every Week ☐ 2. Most Weeks ☐ 3. Sometimes ☐ 4. Never ☐ 62
If "never", please go to question 29.

27. With regard to the Healthy People Column:
1. It is interesting? ☐ 2. Not very interesting? ☐ 3. Dull? ☐ 63
Is it more interesting to women than to men? 1. Yes ☐ 2. No ☐ 64
Has it too much about cookery? 1. Yes ☐ 2. No ☐ 65

28. Have you any suggestions as to how we could improve the Healthy People column?

_____

_____

_____

29. Have you any comments or suggestions about the Kilkenny Health Project?

_____

_____

_____

_____

_____

Thank you for your help.

This Questionnaire is part of the research programme of the Kilkenny Health Project, Dean Street, Kilkenny.

APPENDIX 2b

QUESTIONNAIRE KILKENNY HEALTH PROJECT

POSTAL SURVEY 1987 (2)

Please tick or fill in the correct answer. Sometimes there are no right or wrong answers. Please tick the one you think is most correct. If you are not sure have a guess. Please answer all questions, and return in the enclosed envelope. No stamp is required.

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1 - 6

1	0	0			

7 - 9

8	7	2

QUESTIONNAIRE

1. Do you live—
1. In/near Kilkenny City ☐
2. In a town or village ☐ Name of town/village_____
3. In the country ☐

10

2. Sex: 1. Male ☐ 2. Female ☐

11

3. Are you aged—
1. Under 30 years ☐ 2. 30-39 years ☐
3. 40-49 years ☐ 4. 50-64 years ☐
5. 65 years or more ☐

12

4. What age were you when you stopped attending school full time?

_____years of age.

14

5. Compared to a person of your own age how do you consider your present level of physical fitness?

1. Very good 2. Reasonably good ☐ 3. Reasonable ☐
4. Not very good ☐ 5. Very bad ☐

15

6. Have you changed your leisure-time physical activity during the past year?
1. Increased very much ☐ 2. Stayed the same ☐ 3. Decreased a lot ☐

16

7. Has your weight changed in the past year?
1. Increased, by at least 4 lbs. or more ☐
2. Stayed the same, more or less ☐
3. Decreased, by at least 4 lbs ☐

17

8. Compared with this time last year, how much salt do you eat now?
1. More ☐ 2. Same ☐ 3. Less ☐

18

9. How many times each week do you eat the following:—

Boiled, baked or mashed potatoes? _____times a week — 20

Chips or roast potatoes? _____times a week — 22

Apples, pears, oranges, grapefruit, bananas or any other fresh fruit? _____times a week — 24

Fish, any kind, including shellfish and fishfingers? _____times a week — 26

Chicken? _____times a week — 28

Fried foods? _____times a week — 30

Digestive biscuits or plain biscuits? _____times a week — 32

Fruit cake or sponge cake? _____times a week — 34

10. Do you usually use:
1. Whole milk ☐ 2. Light Milk (low fat) ☐
3. Skimmed milk (very low fat) ☐
4. Whole milk AND light/skimmed milk ☐
5. I don't drink milk ☐

35

11. What type of bread do you usually eat?

1. White ☐ Brown ☐ 3. Wholemeal Brown ☐
4. A mixture of white/brown/wholemeal ☐ 5. I don't eat bread ☐

☐ 36

12. What do you usually spread on bread?

1. No spread ☐
2. Butter ☐
3. Spreadable butter ☐
4. Low fat spread ☐
5. Margarine, polyunsaturated, soft ☐
6. Margarine, other soft ☐
7. Margarine, hard ☐
8. Either butter or margarine ☐
9. Other ☐

☐ 37

13. Do you smoke cigarettes now? 1. Yes ☐ 2. No ☐

☐ 38

If you used to smoke cigarettes, how long ago did you stop?

_____years_____months

☐☐☐ 41

14. Do you smoke a pipe or cigars now? 1. Yes ☐ 2. No ☐

☐ 42

15. Compared to someone of your own age how do you consider your present health?

1. Very good ☐ 2. Reasonably good ☐ 3. Reasonable ☐
4. Not very good ☐ 5. Very bad ☐

☐ 43

16. How often did you see a doctor during the last year?

_____times

☐☐ 45

17. When did you last have your blood pressure measured?
(Do not include when donating blood)

1. During the last 6 months ☐
2. 6 months to one year ago ☐
3. 1 year to 5 years ago ☐
4. More than 5 years ago ☐
5. Never ☐
6. Had but can't remember ☐
7. Don't know ☐

☐ 46

18. Have you ever been told by a doctor or other health worker that you have high blood pressure? 1. Yes ☐ 2. No ☐

☐ 47

19. Have you taken tablets for high blood pressure during the past 2 weeks?

1. Yes ☐ 2. No ☐

☐ 48

20. Have you ever had your cholesterol ("Blood Fat") measured?

1. During the last 6 months ☐
2. 6 months to 1 year ago ☐
3. 1 year to 5 years ago ☐
4. More than 5 years ago ☐
5. Never ☐
6. Had but can't remember ☐
7. Don't know ☐

☐ 49

21. Have you ever been told that you have high or raised blood cholesterol or fat level? 1. Yes ☐ 2. No ☐

☐ 50

22. Please tick the following statements — AGREE or DISAGREE

Low-fat and skimmed milk contain as much protein and calcium as whole milk
1. Agree ☐ 2. Disagree ☐

☐ 51

A person with high blood pressure usually feels well.
1. Agree ☐ 2. Disagree ☐

☐ 52

Smoking only harms the smoker. 1. Agree ☐ 2. Disagree ☐

☐ 53

23. Before getting this questionnaire, had you ever heard of the Kilkenny Health Project? 1. Yes ☐ 2. No ☐
If NO, please go to question 25

☐ 54

24. Here are some things, true and false, about the Kilkenny Health Project.
Tick whether you think each is true or false: —

The Kilkenny Health Project is a Health Survey 1. True ☐ 2. False ☐ 55

The Kilkenny Health Project is a newspaper column
1. True ☐ 2. False ☐ 56

Only certain people can take part in the Kilkenny Health Project
1. True ☐ 2. False ☐ 57

The Kilkenny Health Project is being run in schools
1. True ☐ 2. False ☐ 58

You can ring up the Kilkenny Health Project for advice
1. True ☐ 2. False ☐ 59

The Kilkenny Health Project holds meetings and classes
1. True ☐ 2. False ☐ 60

25. Do you regularly read the Kilkenny People newspaper?
1. Yes ☐ 2. No ☐ 61

26. Do you read the Healthy People column in the Kilkenny People?
1. Every Week ☐ 2. Most Weeks ☐ 3. Sometimes ☐ 4. Never ☐ 62
If "never", please go to question 29.

27. With regard to the Healthy People Column:
1. It is interesting? ☐ 2. Not very interesting? ☐ 3. Dull? ☐ 63

Is it more interesting to women than to men? 1. Yes ☐ 2. No ☐ 64

Has it too much about cookery? 1. Yes ☐ 2. No ☐ 65

28. Have you any suggestions as to how we could improve the Healthy People column?

_____

_____

_____

29. Have you any comments or suggestions about the Kilkenny Health Project?

_____

_____

_____

_____

_____

Thank you for your help.

This Questionnaire is part of the research programme of the Kilkenny Health Project, Dean Street, Kilkenny.

APPENDIX 3

QUESTIONNAIRE KILKENNY HEALTH PROJECT

POSTAL SURVEY 1988

Please tick or fill in the correct answer. Sometimes there are no right or wrong answers. Please tick the one you think is most correct. If you are not sure have a guess. Please answer all questions, and return in the enclosed envelope. No stamp is required.

FOR OFFICE USE ONLY

1-6 | 2 | | | | | |

7-9 | 8 | 8 | 1 |

QUESTIONNAIRE

1. Do you live—

1. In or near a city ☐
2. In a town or village ☐ Name of city, town, village _____
3. In the country. ☐

☐ 10

2. Sex: 1. Male ☐ 2. Female ☐

☐ 11

3. Are you aged—

1. Under 30 years ☐
2. 30-39 years ☐
3. 40-49 years ☐
4. 50-64 years ☐
5. 65 years or more ☐

☐ 12

4. What age were you when you stopped attending school full time?

_____ years of age.

☐☐ 14

5. Have you changed your leisure time physical activity during the past year?

1. Increased very much ☐
2. Stayed the same ☐
3. Decreased a lot ☐

☐ 15

6. Has your weight changed in the past year?

1. Increased, by at least 4 lbs. or more ☐
2. Stayed the same, more or less ☐
3. Decreased, by at least 4 lbs. ☐

☐ 16

7. Compared with this time last year, do you

1. Drink less alcohol ☐
2. Drink more alcohol ☐
3. Drink about the same amount ☐ (this includes not drinking)

☐ 17

8. Compared with this time last year, how much salt do you eat now?

1. More ☐ 2. Same ☐ 3. Less ☐

☐ 18

16. Have you taken tablets for high blood pressure during the past 2 weeks?

1. Yes ☐ 2. No ☐ 32

17. Have you ever had your cholesterol ("Blood Fat") measured? 33

1. During the last 6 months ☐
2. 6 months to one year ago ☐
3. 1 year to five years ago ☐
4. More than five years ago ☐
5. Never ☐
6. Had but can't remember ☐
7. Don't know ☐

18. Have you ever been told that you have high or raised blood cholesterol or fat level? 34

1. Yes ☐ 2. No ☐

19. Please tick any of these changes that you have made in the food you usually eat in the last year

1. ☐ I eat less fatty foods 35
2. ☐ I eat more fresh vegetables 36
3. ☐ I eat fewer sweets, biscuits and cakes 37
4. ☐ I eat more fresh fruit 38
5. ☐ I eat more dietary fibre (roughage) 39
6. ☐ I eat less fried foods 40

20. If you smoke now, have you tried to give up in the last year? 41

1. Yes, I tried and stayed off for_____(weeks)_____(days) ☐
2. Yes, I didn't stop, but I cut down for _____ (weeks) ☐
3. No, I haven't tried to give up in the last year. ☐

21. If you smoke now, do you plan on giving up? 42

1. Yes, I plan to make a serious try in the next year. ☐
2. Yes, but I doubt if I will try it in the next year ☐
3. I think I should give up, but I have no plans to do it yet ☐
4. I don't think I should give up smoking ☐

22. Here are some things that people say about health. Mark each one to say whether you agree or disagree with it.

1. Stress is the cause of many heart attacks. 43
   1. Agree ☐ 2. Disagree ☐
2. Irish people eat too many fatty foods. 44
   1. Agree ☐ 2. Disagree ☐
3. Irish people don't get enough exercise. 45
   1. Agree ☐ 2. Disagree ☐
4. Irish people should visit their doctor more often for a check up. 46
   1. Agree ☐ 2. Disagree ☐
5. Irish people would be more healthy if they ate more fruit and vegetables. 47
   1. Agree ☐ 2. Disagree ☐

9. Please tick the sort of milk you mainly use now and the sort that you mainly used this time last year.

	NOW	LAST YEAR
1. Whole Milk	☐	☐
2. Light Milk (low fat)	☐	☐
3. Skimmed Milk (very low fat)	☐	☐
4. Whole milk and light or skimmed milk	☐	☐
5. I don't drink milk	☐	☐

☐☐ 20

10. What type of bread do you usually eat now, and what type did you usually eat this time last year?

	NOW	LAST YEAR
1. White Bread	☐	☐
2. Brown bread	☐	☐
3. Wholemeal brown	☐	☐
4. A mixture of white and brown or wholemeal	☐	☐
5. I don't eat bread	☐	☐

☐☐ 22

11. What do you usually spread on bread now and what did you usually spread this time last year?

	NOW	LAST YEAR
1. No spread	☐	☐
2. Butter	☐	☐
3. Spreadable butter	☐	☐
4. Low fat spread	☐	☐
5. Margarine, polyunsaturated, soft	☐	☐
6. Margarine, other, soft	☐	☐
7. Margarine, hard	☐	☐
8. Either butter or margarine	☐	☐
9. Other	☐	☐

☐☐ 24

12. Do you smoke cigarettes now? 1. Yes ☐ 2. No ☐
If you used to smoke cigarettes, how long ago did you stop?

_____years _____months

☐ 25
☐☐☐ 28

13. Do you smoke a pipe or cigars now? 1. Yes ☐ 2. No ☐

☐ 29

14. When did you last have your blood pressure measured?
(Do not include when donating blood)

1. During the last 6 months ☐
2. 6 months to one year ago ☐
3. 1 year to 5 years ago ☐
4. More than 5 years ago ☐
5. Never ☐
6. Had but can't remember ☐
7. Don't know ☐

☐ 30

15. Have you ever been told by a doctor or other health worker that you have high blood pressure?

1. Yes ☐ 2. No ☐

☐ 31

6. A person who takes care of their health can expect to live longer
   1. Agree ☐ 2. Disagree ☐ 48
7. People who do a lot of hard work need a lot of meat in their diet
   1. Agree ☐ 2. Disagree ☐ 49
8. I eat too many fatty foods
   1. Agree ☐ 2. Disagree ☐ 50
9. I don't get enough exercise
   1. Agree ☐ 2. Disagree ☐ 51
10. I should visit my doctor more often for a check-up
    1. Agree ☐ 2. Disagree ☐ 52
11. I would be more healthy if I ate more fruit and vegetables.
    1. Agree ☐ 2. Disagree ☐ 53
12. Health is more a matter of luck than anything else
    1. Agree ☐ 2. Disagree ☐ 54

THANK YOU FOR YOUR HELP.