

*MIDLAND HEALTH BOARD*

*PUBLIC HEALTH  
ANNUAL REPORT*

*LONGFORD / WESTMEATH  
COMMUNITY CARE AREA*

*1989*

Midland Health Board

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ANNUAL REPORT

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Community Care Area

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## FOREWORD

This report is a starting point of an initiative which seeks to describe the health of a community care area's population, and how it compares nationally, and which in time will endeavour to recommend the health services that are needed, and assess that those provided are in fact producing the right results. It is the first major review of local public health for some years and as such must begin in a small way. Lack of good information is a problem, as are the systems we have of compiling data for useful interpretation.

We begin by showing the distribution of health and disease across the population, as measured by health indicators and mortality statistics. Summaries of some local research reports carried out in recent years are also included which cover important issues and their implications for services. Infectious diseases and their prevention are an increasing source of public concern, so we have also included incidence statistics for some of the more important ones and preventive strategies, including surveillance systems, outbreak control and immunisation/vaccination.

I would like to thank Doctors Maire O'Connor and Lelia Thornton, Registrars in Public Health Medicine, who have put major work into the compilation of this report.

*Sheelah Ryan*

Dr Sheelah Ryan

Director of Community Care / MOH

## 1. THE ANNUAL REPORT

The working party established by the Minister for Health in 1988 to define the role of community medicine recommended that an annual report of the health of the population should be prepared and that it should be the responsibility of the proposed Director of Public Health. It recommended that the annual report should contain standard data to facilitate inter-regional comparison but that the report should also address issues of local concern. The Acheson Report "Public Health in England" had previously made similar recommendations.

A working party was set up in the UK by the Royal College of Physicians to provide advice and guidance on the preparation of these annual reports. According to the report of this group, the annual report will be the Director of Public Health's independent professional assessment of the health of the resident population. It should present and interpret epidemiological data, identify local health problems including, where possible, unmet need and attempt to evaluate the outcome of existing services. Its recommendations for action should form an important input to the planning process. The long term aim should be to reorientate the allocation of resources by health authorities in their planning processes to deal with perceived public health problems.

In the Longford / Westmeath community care area, the ultimate purpose of the annual report will be to provide the basic epidemiological assessment on which the health board can base decisions in the exercise of its public health responsibility. However in the preparation of this report, the first since the demise of the annual reports of the county medical officer some 20 years ago, it was important not to have unrealistic expectations, limited as we were by time, experience and availability of information. We aimed to produce a report which would serve as a pilot, an outline, a skeleton for future reports, one which would help to identify inadequacies in the health information systems and one which would generate feedback to assist in planning future reports. One very important aspect of this annual report will be a comprehensive evaluation of the methodology of preparation and an evaluation of the content of the report.

In the course of writing this report, we quickly recognised that while much data is available from sources such as the Department of Health and the Central Statistics Office, the problem lay in discovering exactly what was available and how to access this information. In the follow-up evaluation of this report we hope to make recommendations for drawing up a "common data set", as suggested in the UK working party report, in conjunction with other community care areas and the Department of Health and CSO, of data items with a recognisable relevance to public health, which can be made available in a single package issued at the same time each year.

While this annual report may rely heavily on presenting facts and statistics, rather than an evaluation of the health of the population, it is planned that future reports will concentrate

more on analysis of data which would contribute to the solution of health problems of the population and on making recommendations for action. In future reports we would hope to cross the boundary into hospitals and have closer liaison with GPs in order to build up a more complete picture of the health of the population and of the adequacy of the services provided. Areas which among others need to be developed in future reports include: the use of lifestyle indicators, access to health care facilities, health promotion initiatives, and the use of small area population statistics to identify "black spots". It is hoped that this and future reports will become a focus for intersectoral cooperation and will serve to educate both the public and the authorities about public health.

*Maire O'Connor*

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Lelia Thornton

## 2. THE DISTRICT AND ITS POPULATION

### 2.1 INTRODUCTION

The Longford / Westmeath community care area of the Midland Health Board, with a total size of 1,095 square miles, covers the two low-lying counties of Longford and Westmeath in the centre of Ireland (Appendix A).

The population is predominantly rural, with 78% in Co. Longford, and 55% in Co. Westmeath living in rural areas. There are three towns in the area: Athlone, Mullingar and Longford, with populations (of towns and environs) of 14,797\*, 12,127 and 6,835 respectively.

### 2.2 DEMOGRAPHY

Demography is concerned with the study of human populations. Demographic studies involve vital statistics. Vital statistics are concerned with quantitative aspects of deaths, births, fertility and similar characteristics. Such descriptive measures are commonly expressed as rates, for example death rates. This is because absolute numbers are not very informative when it is wished to compare different areas or the same area at different points in time.

The total population of the area in 1986 (which is the last complete year for which population figures are available) was 94,875, of which 63,379 lived in Co Westmeath and 31,496 in Co Longford. The total population of the area increased by 2.4% between 1981 and 1986, while the population nationally increased by 2.8% during this period (an increase of 1.1% for Longford and 3.0% for Westmeath).

#### **Population projections**

Population projection figures show that the population of the country will gradually increase, from 1986 to 2006, by a total of 7.5%. The population of Co Westmeath will show a lesser rise of 3.4%, while the population of Co Longford will drop by 3.0% during the same time period. This may be partly explained by emigration, which is higher in both counties, particularly in Longford, than nationally (table 2.1).

\* this does not include the part of the environs of Athlone which is in Co. Roscommon.



Table 2.1 Average annual rate of estimated net migration (inward vs outward) per 1,000 of average population, for 1981-1986 intercensal period

Total (national)	-4.1
Longford	-5.2
Westmeath	-5.6

Source: Census 86 C.S.O.

### Population by age

The distribution of the population by age group has important implications for the health and demand for services of the population, with young children and the elderly having the highest needs. Table 2.2 gives a breakdown by age group, from the 1986 census figures, of the population of Co.s Longford and Westmeath, and nationally. The proportion of people in each age band of the two counties broadly reflects the national situation, with a noticeable exception being the high number in the 65+ group in Co Longford. Both counties, but particularly Longford, have a higher percentage dependent population (aged 0-14 and 65+) than the country as a whole.

Table 2.2 Population by age group (and % of total) 1986 census

	total pop	0-14 years	15-24 years	25-44 years	45-64 years	65+ years	depend.pop 0-14& 65+ % total
	-----	-----	-----	-----	-----	-----	-----
Nat- ional	3,540,643 (100%)	1,024,701 (28.9%)	617,524 (17.4%)	922,619 (26.1%)	591,444 (16.7%)	384,355 (10.9%)	(39.8%)
Long- ford	31,496 (100%)	9,427 (29.9%)	4,788 (15.2%)	7,675 (24.4%)	5,489 (17.4%)	4,117 (13.1%)	(43.0%)
West- meath	63,379 (100%)	18,991 (30.0%)	10,980 (17.3%)	15,906 (25.1%)	10,779 (17.0%)	6,723 (10.6%)	(40.6%)

Source: Census 86 C.S.O.

Analysis of 5 yearly population projections up to 2006 reveal a marked drop in the percentage dependent population for the area. This is accounted for mostly by a sharp decrease in the 0-14 age group, reflecting a falling birth rate (table 2.3). Total figures

for the 65+ age band show a slight drop in Longford and nationally over the same time period, with no real change for the Westmeath population. However, closer analysis of this age group shows that the numbers of very old, i.e. 75+, will rise in both counties, at a more or less steady rate. This rise applies particularly in Longford which will have 5.2% of the population in this age group, compared to 4.2% of the national population, by 2001 (table 2.4). These figures are of considerable importance in planning of health services as this group makes disproportionate demands on the services.

Table 2.3 Population projections 1991-2006

	Total pop -----	0-14years % total pop -----	dependent (0-14 & 65+) % total pop -----
1991			
National	3,655,972	26.7%	37.3%
Longford	31,719	27.2%	40.2%
Westmeath	64,708	26.9%	37.4%
1996			
National	3,696,430	24.1%	34.6%
Longford	31,262	23.7%	36.4%
Westmeath	64,844	23.4%	34.0%
2001			
National	3,714,516	22.4%	32.8%
Longford	30,563	21.3%	33.7%
Westmeath	64,533	21.0%	31.6%
2006			
National	3,804,980	21.6%	32.0%
Longford	30,550	20.5%	32.4%
Westmeath	65,531	20.2%	30.9%

Source: Population projections prepared for the National Council for the Aged by John Blackwell

Table 2.4 Percentage population in 75+ age group, from 1986 census and population projections for 1991-2006

	1986 ----	1991 ----	1996 ----	2001 ----	2006 ----
National	4.1%	4.1%	4.2%	4.2%	4.2%
Longford	4.5%	4.8%	5.1%	5.2%	5.0%
Westmeath	3.9%	3.8%	4.0%	4.3%	4.3%

Source: Census 86 C.S.O. and population projections as above

## Geriatric population

Details of the older age-groups and their vulnerable sub-groups are presented in Table 2.5.

Table 2.5 Geriatric population - National, Longford, Westmeath and Longford/Westmeath

Population	National		Longford		Westmeath		L / W	
	No.	%	No.	%	No.	%	No.	%
Total	3,540,643	(100)	31,496	(100)	63,379	(100)	94,875	(100)
65+ yrs.	384,355	(10.9)	4,117	(13.1)	6,723	(10.6)	10,840	(11.4)
65-74 yrs	240,494	(6.8)	2,708	(8.5)	4,268	(6.7)	6,976	(7.3)
75-84 yrs	118,403	(3.3)	1,147	(3.6)	2,014	(3.2)	3,161	(3.3)
85+	25,458	(0.7)	262	(0.8)	441	(0.7)	703	(0.7)
65+ yrs living alone	81,156	(21.1)	908	(22.1)	1,424	(21.2)	2,332	(21.5)
No. of lone couples 65+	41,376		421		680		1,101	

Source: Census 86 C.S.O.

The number of people in the geriatric age group living alone has increased since the 1981 census to 21.5% of the geriatric group in this CCA in 1986. Likewise the number of elderly lone couples and those in the older end of the geriatric population. In the late 1960's and early 1970's, it was sufficient to talk about the geriatric population as a whole. Then in the late 1970's and early 1980's, vulnerable sub-groups such as those living alone, those aged 75-84 years and 85+ years were identified. In the latter half of the 1980's, another vulnerable group have been recognised, that is lone couples aged 65 years or more. In an era where services are prioritised, knowledge of vulnerable groups is vital for planning purposes and service provision.

### 2.3 SOCIAL INDICATORS

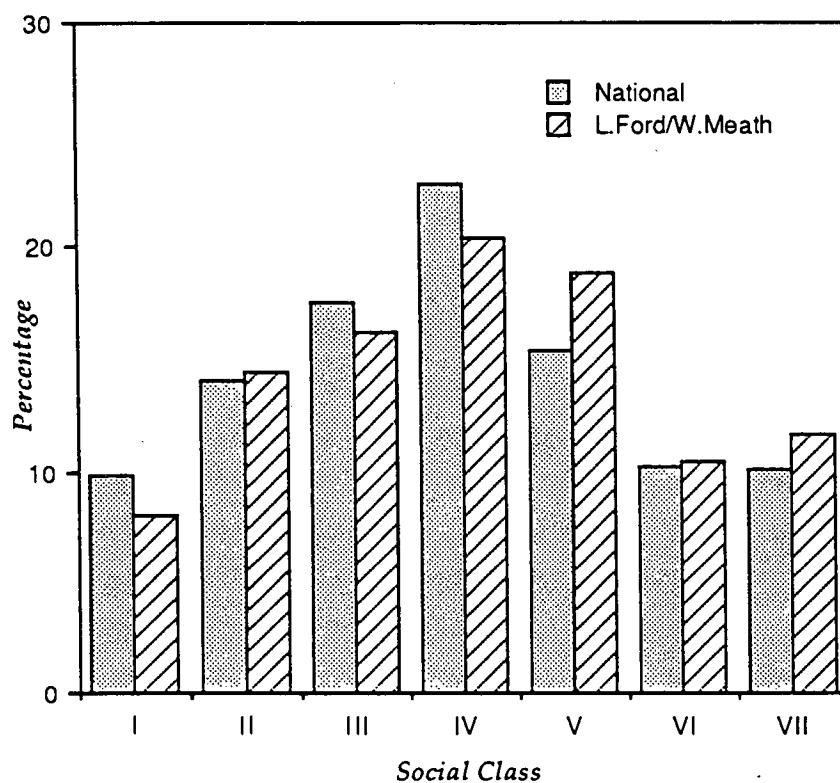
The following figure and tables use a number of indicators which could largely be called "social", to compare the Longford/Westmeath area with the rest of Ireland. This information was extracted from the 1986 Census.

#### Social class

The first figure, figure 2.1, deals with social class. Details of social class categories are in appendix B.

FIGURE 2.1

Social Class : National V Longford / Westmeath 1986.



Source : Census 1986. C.S. O.

This community care area has a large rural-urban mix and consequently comparisons with the nation as a whole are difficult to evaluate. This may be due in part to the disproportionate representation of farmers in these two counties compared with the national figures, where the social class composition of Dublin would be expected to have a large effect.

#### Work status

Another factor examined was that of persons of working age by status of work at the time of the 1986 Census. Details for Longford/Westmeath combined and national figures are presented in table 2.6, while each county separately is presented in appendix C.

Table 2.6 Persons aged 15+ by present status of work. National & Longford/Westmeath, (numbers & as percentage of population aged 15+)

	National		Longford/Westmeath	
	No.	%	No.	%
1st Job Seeker	43,001	(1.7)	1,146	(1.7)
U/E	195,390	(7.8)	3,912	(5.9)
Student	245,210	(9.7)	6,613	(10.0)
Home Duties	653,843	(26.0)	17,677	(26.6)
Retired	199,188	(7.9)	5,575	(8.4)
Unable to work	81,209	(3.2)	2,770	(4.2)
At work	1091,155	(43.4)	28,751	(43.18)
Other	6,946	(0.3)	13	(<0.1)
Total	2,515,942	(100)	66,457	(100)

Source: Census 86 C.S.O.

As is evident from the above, many of the national trends are repeated in this area. Overall Longford has more unemployed (6.1%), fewer students (8.9%), more people engaged in home duties (28.4%) and more people in the retired category (9.2%). Some of these factors may be caused by the problem of numbers mentioned in other sections of this report, i.e. the smaller the total population of interest, the greater the effect of even minor changes within any one category. It will be noticed there are 4.7% unable to work in Westmeath, compared with 3.1% in Longford and 3.2% nationally. In this area many of the larger care institutions are based in Westmeath, e.g. General Hospital, Mullingar and St. Loman's Hospital, Mullingar. This may account for this difference.

### Accommodation

A third factor extracted from the 1986 Census as a "social" indicator was that of accommodation. Table 2.7 presents details of accommodation by households and number of occupants for the counties of Longford and Westmeath combined plus nationally, while details for each county separately are presented in appendix C.

Table 2.7 Accommodation by households & number of occupants.  
Longford/Westmeath & National

	Longford/Westmeath				National			
	Households		Persons		Households		Persons	
	No.	%	No.	%	No.	%	No.	%
House	24,941	(95.6)	89,430	(94.3)	899,665	(91.9)	3289,711	(92.8)
Flat/bedsit	698	(2.7)	1,140	(1.2)	65,217	(6.6)	123,460	(3.5)
Travelling people	28	(0.1)	115	(0.1)	1,247	(0.1)	7,065	(0.2)
Caravan	269	(1.0)	573	(0.6)	9,087	(0.9)	20,362	(20.6)
Temp. Dwell.	39	(<.2)	68	(<.1)	994	(0.1)	1,610	(0.1)
Living Rough	2	--	2	--	94	(<.1)	95	(<.1)
Non private household	103	(0.4)	3,543	(3.7)	3,380	(0.3)	98,340	(2.8)
Total	26,080	(100)	94,875	(100)	979,684	(100)	3,540,643	(100)

Source: Census 86 C.S.O.

As can be seen from the above, there are more people living in houses and fewer in flats/bedsits in this community care area than in the country as a whole. This is not unexpected in view of the effect which large urban centres would have on the overall national figures.

#### GMS eligibility

The final factor examined was that of eligibility for General Medical Services Cards. Table 2.8 shows the numbers of those eligible in the years 1987 to 1989.

Table 2.8 Eligibility for GMS services - Longford, Westmeath, Longford/Westmeath & National 1987 - 1989

	31/12/1987		31/12/1988		31/12/1989	
	No.	%	No.	%	No.	%
Longford	14,805	(47.01)	14,282	(45.35)	14,470	(45.94)
Westmeath	24,481	(38.67)	24,769	(39.08)	23,901	(37.71)
L/W	39,286	(41.41)	39,051	(41.16)	38,371	(40.44)
National	748,724	(37.88)	744,518	(37.45)	709,510	(36.81)

Source: Longford/Westmeath data

## 2.4 ORGANISATIONAL PATTERN OF SERVICES

### Hospitals

There is an acute general hospital in Mullingar which serves the population of the counties of Longford and Westmeath. The health services for the community care area are organised on a sectoral basis, each sector - Mullingar, Athlone and Longford - comprising a population of 30-35,000, with a district/community hospital in each of the Athlone and Longford sectors, with St Mary's Hospital complementing the acute general hospital services for Mullingar.

Acute hospital specialist services are available for the most part within the community care area at the level of the district hospitals and include medical, surgical, paediatric and obstetrics specialities.

The specialities of orthopaedics and ear, nose and throat are provided at regional level within the Health Board.

Access to other specialities eg dermatology, in-patient ophthalmology and the tertiary super-specialities generally involves travelling to centres in the Eastern Health Board.

In-patient psychiatric care is provided at St Loman's Hospital in Mullingar.

### Community care

The community care services now comprise a multidisciplinary team consisting of public health nurses, social workers, environmental health officers, community welfare officers, psychologists, speech therapists, occupational therapists, dentists, a community pharmacist and home helps. The services also include the residential mental handicap services at Lough Sheever and St. Peter's. The major community care services are available at the main centres, although some are delegated out to health centres eg primary public health nursing, community welfare officers, some area medical officers and speech therapy.

Community psychiatry services are organised on a sectoral basis by the St Loman's Hospital service.

While most specialist health services are available within the community care area, or adjoining community care areas, access to services can be a problem to those without cars, particularly in areas where there is no public transport. Health Board transport is very much a discretionary service but, because of poor public transport, it can be a significant cost issue.

### Administration

The administrative centres for the community care programme for Co. Longford and for Mullingar sector are the county clinic in Longford and the county clinic in Mullingar respectively. The new health centre in Athlone is gradually taking over the administration for the Athlone sector, but for the moment this function is for the most part based in Mullingar.

## **Local authorities**

The counties of Longford and Westmeath are served by two county councils, Longford and Westmeath, and two urban district councils, Longford and Athlone. Health Board staff i.e. medical officers, environmental health officers, and a social worker carry out various functions for the local authorities on an agency basis. These include services in the areas of housing, planning and environmental health, and an advisory role on public health issues.



### 3. INFECTIOUS DISEASES

#### 3.1 NOTIFICATION OF INFECTIOUS DISEASES

##### Notifiable infectious diseases

Certain infectious diseases must by law be notified to the Department of Health through the DCC/MOH. The object of reporting of infectious diseases is to allow for immediate action to be taken in the interest of public health and for the planning of services.

Appendix D shows the infectious diseases which are notifiable to the Department of Health. Underreporting of notifiable infectious diseases is well recognised, particularly of the more common diseases. However, the fact that they are underreported does not mean that data from official notifications have no epidemiologic value. For some diseases it is possible to estimate the level of underreporting, and the data on reported diseases can be used to study trends over time and place.

##### Trends and comparison with national figures

Table 3.1 Notifications of selected infectious diseases in 1989 for Longford/Westmeath and nationally, in rates per 100,000 population.

Disease -----	Longford & Westmeath -----	National -----
Measles	2.1	35.2
Mumps	5.3	20.0
Rubella	8.4	12.4
Whooping cough	40.1	62.6
Salmonellosis	19.0	12.1
Gastroenteritis	130.7	96.3
Hepatitis A	133.9*	15.9

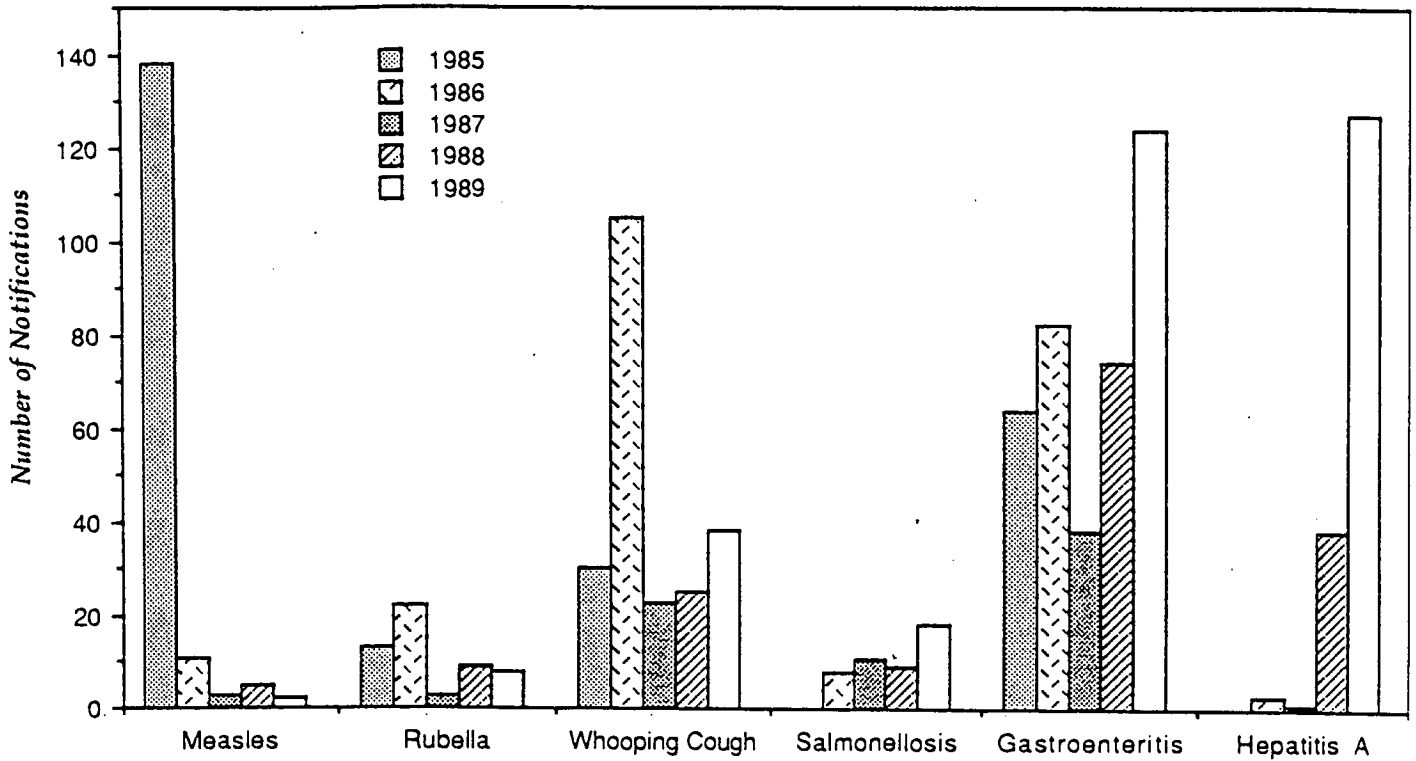
\* outbreak of hepatitis A in Westmeath in 1989

Source: Department of Health

Figure 3.1 shows the trend in notifications of the most prevalent infectious diseases between 1985 and 1989, and Table 3.1 compares the figures for 1989 for Longford/Westmeath and nationally, as rates per 100,000 of the population.

FIGURE 3.1

Annual Notifications of Selected Infectious Diseases 1985 - 1989 Longford / Westmeath



Source : Department of Health

Comment:

Measles notifications dropped dramatically from 1985. This probably reflects the introduction in October 1985 of the national campaign for measles immunisation. This has been accompanied by an equally dramatic fall in hospital admissions for measles and its complications.

While the numbers of notified cases of rubella are relatively low, vigorous efforts must be continued to ensure the highest uptake of vaccine because of the ability of this virus to produce anomalies in the developing foetus.

The level of whooping cough fluctuates, this trend being explained partly by the epidemiology of the disease, and possibly partly by wide variations in the level of uptake of vaccine. This uptake level can be influenced by media publicity relating to both the disease and the vaccine. Despite being a major cause of morbidity in children, whooping cough is often not perceived by the public as a serious disease, while the vaccine is perceived as dangerous - this combination may adversely affect uptake of the vaccination. Vaccination rates were low because of adverse publicity in the early to mid 1980s. The level of vaccination has since improved, particularly in the very young children, but we are still dealing with the effect of the low vaccination of the early 1980s. As these are mainly older children serious morbidity is low, but we still need to be vigilant.

Salmonellosis is an increasingly important notifiable disease in the Longford/Westmeath area, as it is nationally. Cases of food

poisoning due to salmonella have greatly increased nationally during the 1980s and have received much media attention. A similar trend is evident in this area, albeit in small numbers. Intersectoral liaison involving the DCC/MOH, public health, Department of Agriculture and the local authorities remains the critical point of control and prevention. Infection is mainly by eggs, poultry meat and by cross-contamination of other foods from poultry. Frequent and rigorous inspection of food premises and improved training of staff are leading to higher standards of hygiene. The public are advised against the consumption of foods containing raw eggs, maintenance of proper standards of kitchen hygiene and good temperature control throughout food preparation. Surveillance of notifications of cases of salmonella continues to be very important.

Gastroenteritis in the under-twos is the most common notifiable disease in this country, a situation reflected in the local figures in Longford/Westmeath. While the disease is usually mild in most developed countries, it is important because of its prevalence, its demands on health resources, and as a cause of considerable anxiety to parents. Liaison between hospital and community services is essential in the control of gastroenteritis. The main weapon against it is health education, particularly targeted at women during the antenatal period, with regard to hygiene and feeding techniques, with breast feeding affording a high degree of protection. The overall rate of breastfeeding in Longford/Westmeath at 24-27% is low, but the level among the vulnerable groups, particularly the homeless, those in substandard housing and travellers is even lower than this.

The large number of notifications of hepatitis A in Longford/Westmeath in 1989 is explained for the most part by two outbreaks of the disease in Westmeath, one of which was a significant community outbreak (see below). Community outbreaks generally run in cycles depending on the immunity of the population. This would explain the smaller outbreak. The larger one occurred in a large urban community, and while it may be explained by the same theory, investigations are ongoing to rule out a continuing source.

### 3.2 OUTBREAKS OF INFECTIOUS DISEASES

#### Diarrhoeal illness May 1989

In May 1989 the DCC/MOH was notified that there was an outbreak of a diarrhoeal illness in a party of Americans staying in self-catering accommodation outside Mullingar, on the shores of Lough Ennel. The party comprised 18 Americans from a university in New York, who were joined by 2 British and 6 Irish. The purpose of their trip was an archaeological scuba diving project on Lough Ennel.

Six days after arriving in the country, the index case presented with a 3 day history of a gastrointestinal illness. He reported that several other members of the party were also ill with symptoms. A full epidemiological investigation was undertaken.

The attack rate was 67% of Americans and 100% of British.

Campylobacter was isolated from the stool of the index case, and a small, round, featureless virus from another symptomatic member. The investigation revealed that there was a diarrhoeal illness at the university campus in New York in the 3 weeks before the party came to Ireland, and that a small, round, featureless virus was isolated from several of the cases. The most likely mode of spread was person to person, and despite the fact that there was an association between scuba diving and the illness, it was concluded that this finding was coincidental.

#### **Hepatitis A June - August 1989**

Fourteen cases of hepatitis A occurred in 12 children and 2 adults between June and August 1989. Nine of the children were residents in a home for mentally handicapped children, and the remaining cases were all family members of one of these. One child was admitted to hospital but there were no serious episodes of illness. Immunoglobulin was administered to all nursing and attendant staff at the centre. There were no known cases among the staff members and no further cases among residents.

#### **Hepatitis A July - December 1989**

Ninety nine cases of hepatitis A in the Athlone area were notified by GPs between July and December 1989. A full epidemiological investigation of the outbreak took place.

Of 79 primary household cases for whom a questionnaire was completed, 55 were schoolchildren, 2 were in nursery school, 2 were toddlers and there were 20 adults. The age group most affected was 5-9 years. All cases lived within 8 miles of Athlone, with 91% living within the town. Two children were hospitalised for short periods. There were no reports of complicating illnesses and no deaths. Results of investigations indicated the mode of spread to be person to person.

Control measures involved advice on personal and operational hygiene in the home and school, and the use of immunoglobulin for adult household contacts and nursery school contacts. Following control of the acute phase of the outbreak, a low level of infection with 1-2 new notifications per week continued.

### **3.3 TUBERCULOSIS**

There has been no real change in the level of tuberculosis in the area in the past 5 years. Table 3.2 shows the annual figures for new cases of tuberculosis: 1) as reported by the Department of Health and 2) as compiled locally. The discrepancy between the two sets of figures may be explained by several factors:

- 1) the local register was not completely maintained, so some cases were not entered and consequently were not reported to the Department of Health
- 2) some cases were registered the year following that in which the onset of the disease occurred

3) some cases which were diagnosed clinically but were not bacteriologically confirmed were not notified to the Department of Health, but are included in the locally compiled figures.

These inaccuracies came to light as a result of a detailed search of all available records and as such the locally compiled figures are the more accurate ones and are used in table 3.3 and in Figs. 3.2 and 3.3 These discrepancies highlight the need to coordinate information and to have criteria for its collection.

Table 3.2 Comparison of two different sets of annual figures for new cases of tuberculosis in Longford/Westmeath 1985-1989

Source	1985	1986	1987	1988	1989
Dept of Health	23	21	12	na	na
Locally compiled	18	24	22	15	17
National	804	602	581	na	na

na = not available

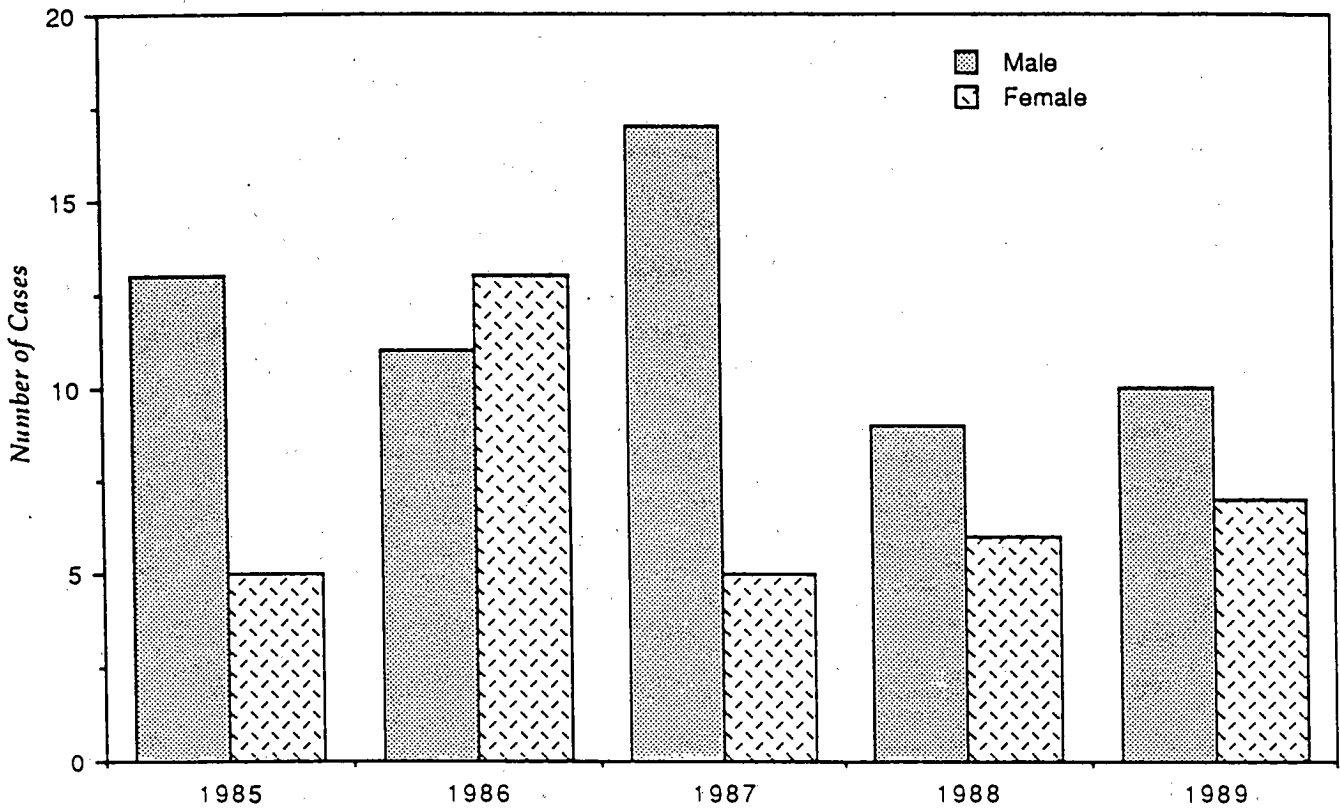
Table 3.3 Annual figures for new cases of tuberculosis in Longford/Westmeath 1985-1989, by age

Age group	1985 no. (%)	1986 no. (%)	1987 no. (%)	1988 no. (%)	1989 no. (%)	total no. (%)
0-14	2 (11)	0 --	0 --	0 --	0 --	2 (2)
15-24	0 --	2 (8)	2 (9)	0 --	0 --	4 (4)
25-44	2 (11)	6 (25)	4 (18)	3 (20)	2 (12)	17(18)
45-64	4 (22)	8 (33)	6 (27)	4 (27)	6 (35)	28(29)
65+	10 (56)	8 (33)	9 (41)	6 (40)	9 (53)	42(44)
unknown	0 --	0 --	1 (5)	2 (13)	0 --	3 (3)
total	18 (100)	24 (100)	22 (100)	15 (100)	17 (100)	96(100)

There is still a level of tuberculosis in the country, mainly in the form of reactivation of old cases, which is probably inevitable as people live longer. There is no national policy for BCG in neonates and therefore different protocols for the prevention of tuberculosis operate in different health boards and within different parts of the same health board.

FIGURE 3.2

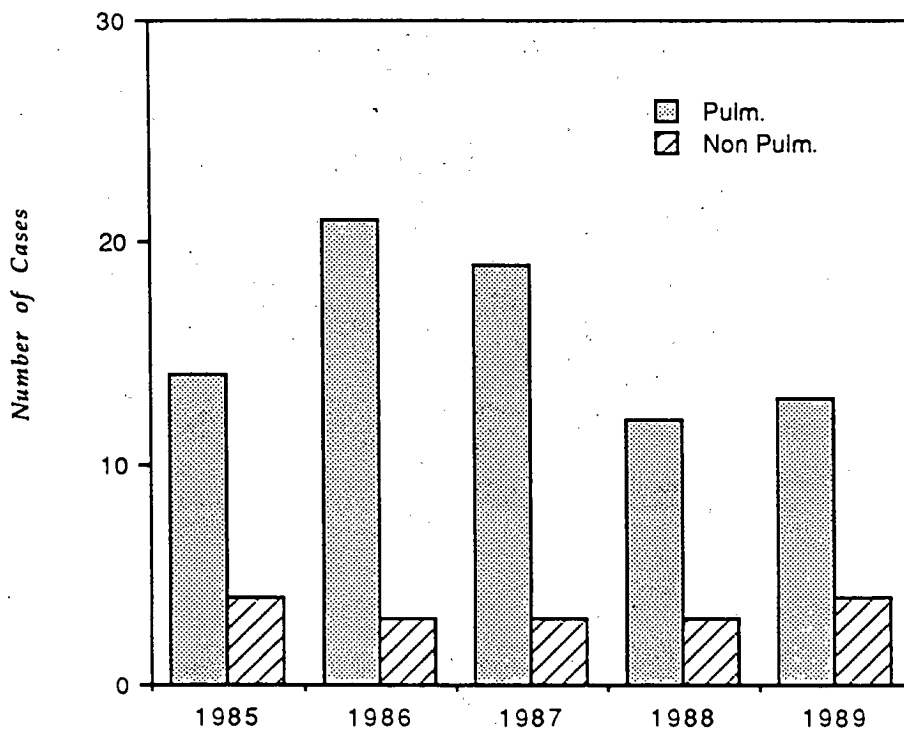
*New Cases of Tuberculosis in Longford / Westmeath 1985 - 1989 by sex*



Source : Longford / Westmeath T.B. Registers

FIGURE 3.3

*New Cases of Tuberculosis in Longford / Westmeath 1985 - 1989 by Site of Infection*



Source : Longford / Westmeath T.B. Registers.

### **3.4 ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)**

Cases of AIDS are reported to the Department of Health on a voluntary basis. There is no reliable information on the local incidence or prevalence, therefore this makes service planning difficult. Due to the very low contact and queries in relation to AIDS within our area we can assume either a very low level of problem so far, or that clients are attending national centres with satisfaction, and that they are not in need of locally based services. However the situation is monitored on an ongoing basis.

#### **AIDS strategy for Longford/Westmeath community care area:**

The DCC/MOH for Longford/Westmeath has responsibility for the coordination of AIDS services for the Midland Health Board.

In March 1987 an AIDS coordinating committee for the Midland Health Board under the chairmanship of the Programme Manager Community Care and representative of all hospitals and community care services was set up to monitor, evaluate and review on an ongoing basis the measures being taken and necessary to implement and interface with the national strategy in the context of controlling the spread of AIDS.

Since then, seminars have been held locally for the education and information of key personnel and heads of services, GPs and post-primary teachers. These seminars have been addressed by leading experts on AIDS and also by the registrars in community medicine.

A selected number of the staff have attended courses organised nationally and in the U.K. on the subject of AIDS and they have relayed the information and expertise gained on these courses to other staff members.

A 24 hour helpline freefone service in the community care area provides advice, amongst other matters, on AIDS, with secondary back-up from public health doctors as required.

Information booklets and leaflets produced by HEB/Department of Health are circulated to the public, staff and GPs as appropriate.

There is a community care policy for medical and nursing staff on the use of gloves, disinfectants and the disposal of needles.

Screening for HIV can be arranged through the DCC/MOHs office, either in the local laboratory or advice can be given about where testing can be arranged in other major centres. Pre-screening counselling is mandatory.

#### **AIDS education in the schools:**

In 1989 the Departments of Education and of Health jointly produced an educational package on AIDS for school leavers and piloted it in a number of schools around the country, including 3 schools in the Longford/Westmeath community care area. It is hoped that the revised package will shortly be made available to all school leavers.

### 3.5 CHILDHOOD IMMUNISATION

#### Tuberculin testing and BCG:

BCG is not routinely administered at birth as the prevalence of tuberculosis in the Longford/ Westmeath community care area is well below the level at which WHO recommends neonatal BCG. Tuberculin testing is routinely carried out on all children entering primary school and again in 5th class. BCG is administered at this stage if medically indicated. This policy facilitates the use of the Mantoux or Heaf test as a useful tool epidemiologically and in diagnosis. The policy is likely to change in the future with an emerging Department of Health policy, possibly in line with the UK where BCG is given routinely only to at-risk groups. The pattern of AIDS infection may influence this policy.

#### Primary immunisation - Diphtheria, Tetanus, (Pertussis), and oral Polio:

Primary immunisation is carried out at the recommended ages of 3, 5 and 11 months, either by the AMOs, as part of a service offered to all in the local health centre, or by GPs. If the DCC/MOH has not received notification of primary immunisation of a child by the age of 12 months a letter of reminder is sent to the parents. Periodically, PHNs and GPs are notified of defaulters. Uptake figures for primary immunisation are shown in table 3.4. This shows that, by the age of 20 to 32 months, there was an uptake figure for completed courses of primary immunisation of 88.9%, of which 35.3% were administered by the AMOs and 64.7% by the GPs. The figure for initial primary immunisation injections in this cohort was 94.2%.

Table 3.4 Summary immunisation data - completed DT and DPT courses for children born in 1988 (01.01.1988 to 31.12.1988) as recorded on 30.08.1990 (i.e. children aged 20-32 months)

	AMO -----	GP -----	Total -----
DT	37 (8%)	120 (14.1%)	157
DPT	427 (92%)	730 (85.9%)	1157
None	-- --	-- --	164
Total	464 (100%)	850 (100%)	1478

\* DT = diphtheria, tetanus      DPT = diphtheria, pertussis, tetanus  
AMO = area medical officer



## **Measles/Mumps/Rubella:**

The MMR programme was introduced in October 1988. The vaccine is administered by the GPs at a recommended age of 15 months, and the uptake figures are monitored by the DCC/MOH. In order to encourage a high uptake rate, a call/recall system is in operation. This involves an initial letter to the parents of a child, on reaching the age of 15 months, advising them to bring their child to their family doctor for MMR. Each month a list is sent to each GP of the children in their practice who have reached the age of 15 months. The names of children reaching 18 months of age, for whom no notification of MMR vaccination has been received, are sent to the PHNs in the area. A reminder letter is also sent to each parent. Reminders are again sent, intermittently, to parents of children of two years and over who have not received MMR.

The uptake rate of MMR by the age of 18 months in the Longford/Westmeath community care area is approximately 87%. This figure is higher than the national average, but still falls below the target figure of 95% which will be necessary if the disease is to be eradicated.

A screening questionnaire was sent in 1989 to parents of children in Junior Infant classes of all primary schools. Those who indicated that the child had not already received MMR vaccine were offered the vaccine. The schools are an ideal setting for "mopping up" defaulters.

## **Rubella:**

Rubella vaccination is offered to all girls in 6th class in primary school. The uptake rate is approximately 98%. Defaulters are vigorously followed up by the school health nurse, AMOs and GPs.

## **3.6 ADULT IMMUNISATION**

### **Advisory role:**

The office of the DCC/MOH provides a service for GPs consisting of advice on all vaccines and on vaccination for foreign travel.

### **Pre-employment screening:**

This was introduced in 1988 for all new permanent health board employees in the Longford/Westmeath community care area and includes:

Rubella screening for all females, with follow-up vaccination if required

Hepatitis B vaccination, depending on the risk category of the employee

Tuberculin testing and BCG if indicated.

### **Hepatitis B:**

The hepatitis B vaccination policy involves:

a) an advisory role to other agencies, e.g. local authorities, private health care centres, about recommendations for vaccination of certain categories of their employees. The health board facilitates them in procuring the vaccine.

b) vaccination of health board employees who are deemed to be in the high risk categories, as defined by the medical officer.

The initial hepatitis B vaccination campaign started in 1988 and continued into 1989 with vaccination of all at-risk hospital employees in the area. Following this, all new employees considered to be at risk are offered the vaccine. A system now needs to be evolved for recall of staff for boosters.

### **Influenza:**

Influenza vaccine is supplied free of charge to those who are considered by the GP to be at risk. It is distributed in the autumn of each year to the GPs via the health centres.

### **3.7 "COOK CHILL"**

In the design stage of Phase 1 of the General Hospital, Mullingar, it was decided that "cook chill" would become the method of preparation of food for Co Westmeath hospitals. "Cook chill" had not previously been used in the Midland Health Board.

"Cook chill" is a catering system based on the full cooking of food, followed by fast chilling and storage in controlled low temperature conditions above freezing point (0 to +3 °C), and subsequent thorough reheating close to the consumer before consumption. It can be used for up to five days including the day of cooking.

Planning for the introduction of the new system began in 1988, with training of all staff involved in 1989. The new "cook chill" system was put into operation in October 1989. It consists of a central processing unit at the General Hospital, Mullingar, with satellite centres at St Mary's Hospital, Mullingar, St Loman's Hospital, Mullingar, and St Peter's Centre, Castlepollard.

There are strict guidelines to which the operation of the system must conform to ensure quality and safety. Monitoring of the "cook chill" system occurs at two levels:

- 1) supervisory management, under the direction of the Programme Manager, Hospital Care.
- 2) standards and safety committee, chaired by the DCC/MOH, in liaison with the consultant pathologist.

The Department of Health guidelines on "cook chill" have been adapted to the specific operation of the system in Westmeath by the above committee and monitoring on a day to day level is carried out by the EHOs and the laboratory. Safety standards have been exceptionally high since the implementation of the surveillance system - as assessed by operational inspections, sampling of foodstuffs and swabbing of surfaces.

## 4. FERTILITY AND BIRTHS

### 4.1 FERTILITY

The **General Fertility Rate (GFR)** is the number of live births per 1,000 women of childbearing age (15-44) in the population.

Table 4.1 General Fertility Rate 1989

---

National	67.9
Longford/Westmeath	74.9
Longford	74.4
Westmeath	75.1

Source: Vital Statistics 1989, Dept. of Health; Census 86 C.S.O

The GFR for the Longford/Westmeath area combined, and for each county separately, was higher than the national figure.

### 4.2 BIRTH RATE

The **Crude Birth Rate** is the number of births per 1000 population. In 1989 the local and national crude birth rates were

Ireland: 14.7

Longford/Westmeath: 15.1

### 4.3 BIRTH NOTIFICATION FORM

A new 4-part birth notification form was introduced in the early 1980s and achieved complete national coverage in 1985. This integrated system provides on one form for an official document of registration, information to the CSO for vital statistics, notice to the DCC/MOH in the area of residence, a hospital record and information to the Department of Health.

The information contained in the birth notification forms is used in the preparation of an annual report on perinatal statistics by the Department of Health. These reports will be of great use in the future, but to date the most recent report relates to 1986 and so the figures are out of date.

In the Longford/Westmeath area a computerised child health register was developed in 1987. Selected information from the birth notification form is entered into this system. The information contained in the following tables was extracted from this local register. There may be some inaccuracies in terms of the total numbers of births, where some children born to mothers previously resident outside the area but who have since moved into the area, are included. Table 4.2 displays this inaccuracy:

Table 4.2 Comparison of total births in 1987-1989 to mothers resident in Longford/Westmeath, data from L/W Child Health Register vs Department of Health Vital Statistics

Source	Total births Longford/Westmeath		
	1987	1988	1989
-----	----	----	----
Child health register	1698	1576	1429
Vital stats, Dept of Health	1631	1493	1429

#### 4.4 LOW BIRTH WEIGHT AND PREMATUREITY

Both low birth weight and prematurity are the most important factors affecting perinatal mortality (Tables 4.3 and 4.4). There is a strong association between socioeconomic factors and low birth weight. Low birth weight is also an indicator of outcome of antenatal care.

Table 4.3 Birth weight of babies born in 1987-1989 to mothers normally resident in Longford/Westmeath

Birth weight	1987		1988		1989	
	no.	(%)	no.	(%)	no.	(%)
-----	-----	-----	-----	-----	-----	-----
≥2.5kg	1537	(95.0)	1427	(95.1)	1327	(96.8)
<2.5kg	80	(5.0)	73	(4.9)	44	(3.2)
( <1.5kg	18	(1.1)	19	(1.3)	7	(0.5))
Total births*	1698		1576		1429	

\* Birth weight was unrecorded for 81 (4.8%), 76 (4.8%), and 58 (4.1%) respectively.

Source: L/W Child Health Register

Table 4.4 Gestation of babies born in 1987-1989 to mothers normally resident in Longford/Westmeath

Gestation	1987		1988		1989	
	no.	(%)	no.	(%)	no.	(%)
<37 weeks	67	(4.2)	90	(6.0)	50	(3.6)
37-41 weeks	1398	(86.9)	1323	(88.0)	1202	(87.5)
42+ weeks	144	(8.9)	91	(6.0)	122	(8.9)
Total births*	1698		1576		1429	

\* Gestation was unrecorded for 89 (5.2%), 72 (4.6%), and 55 (3.8%) respectively.

Source: L/W Child Health Register

#### 4.5 RUBELLA STATUS

The rubella status of the mother as recorded on the birth notification form is displayed in Table 4.5. The large percentage of unknowns is probably explained both by omissions in recording of data and by failure to carry out the blood test in some. While the percentage of mothers found to be non-immune is low, it is still unacceptable in view of the serious implications of rubella for the foetus. A target of 100% protection must be set for the future.

Table 4.5 Maternal rubella status, Longford/Westmeath 1987-1989

	1987		1988		1989	
	no.	(%)	no.	(%)	no.	(%)
Immune	1349	(97.3)	1290	(97.9)	1009	(98.9)
Non-immune	37	(2.7)	27	(2.1)	11	(1.1)
Total births*	1698		1576		1429	

\* Rubella status unknown in 312 (18.4%), 259 (16.4%), and 409 (28.6%) respectively.

Source: L/W Child Health Register

#### 4.6 INFANT FEEDING PRACTICES

Table 4.6 displays the type of feeding of the baby on leaving hospital and shows a consistently low level of breast feeding during the period 1987-1989. The percentage of babies still being breastfed by 6 weeks of age is lower again. These figures are disappointing in view of the recognised benefits of breast feeding, particularly in the at-risk groups, and should be targeted as an area for improvement for the future.

Table 4.6 Type of infant feeding, Longford/Westmeath 1987-1989

Type of feeding -----	1987		1988		1989	
	no.	(%)	no.	(%)	no.	(%)
Breast	412	(27.1)	390	(27.4)	271	(24.1)
Artificial	1106	(72.9)	1035	(72.6)	855	(75.9)
Total births*	1698		1576		1429	

\* Type of feeding unknown in 180 (10.6%), 151 (9.6%), and 303 (21.2%) respectively.

Source: L/W Child Health Register

#### 4.7 BIRTHS OUTSIDE MARRIAGE

The percentage of births outside marriage in Longford/Westmeath, as detailed in table 4.7, is less than half the national figure.

Table 4.7 Births outside marriage, Longford/Westmeath, 1989 \*

	Number -----	% total births -----
Longford/Westmeath	84	5.9%
Longford	24	5.4%
Westmeath	60	6.1%
National	6522	12.6%

#### 4.8 PLACE OF DELIVERY

Table 4.8 Births to mothers resident in Longford/Westmeath in 1989 by hospital of delivery \*

Hospital	Longford		Westmeath	
	no.	(%)	no.	(%)
Mullingar	156	(35.3)	508	(51.4)
Portiuncula	173	(39.1)	363	(36.9)
Coombe	33	(7.4)	42	(4.3)
Rotunda	12	(2.6)	22	(2.2)
NMH	23	(5.2)	18	(1.9)
Lisdarn	35	(7.8)	6	(0.6)
Regional Hosp, Galway	0	--	9	(0.9)
Drogheda (Lourdes)	0	--	9	(0.9)
Mount Carmel, Dublin	8	(1.8)	3	(0.3)
Louth	1	(0.3)	1	(0.1)
Portlaoise	0	--	3	(0.3)
Other	2	(0.5)	2	(0.2)
Total	443	(100)	986	(100)

\* The source of the above 2 tables is a manually maintained PHN record. The figures may not be completely accurate.

With the development of paediatric services locally the percentage of hospital births taking place within the community care area, i.e. the General Hospital Mullingar, will probably increase. There has already been a change in this direction since 1983 when 41% of births were in the General Hospital Mullingar (42% of Westmeath births and 38% of Longford births) - with 46.5% of births for Longford/Westmeath combined now taking place in the General Hospital Mullingar.

#### 4.9 CONGENITAL ABNORMALITIES

Accurate data on congenital abnormalities are not available at the moment. They are entered on the computerised child health register under a field which also includes prematurity. The perinatal statistics produced by the Department of Health for 1985/1986 contain only deaths from congenital abnormalities. Most abnormalities eventually come to the attention of the PHN or AMO, but often not until the age of 2 years when the parent becomes eligible to apply for Domiciliary Care Allowance.

## 5. MORTALITY

Mortality is not a mirror reflection of the health of the population as some illnesses e.g. myocardial infarctions more frequently end in death than others e.g. the common cold. However, as death is a definite endpoint, it is more easily measured than morbidity and can be taken to partially reflect the health of a population.

### 5.1. DEATH RATE

A death rate may be expressed as a crude death rate or as an adjusted or standardised death rate. The former is a summary rate based on the actual number of deaths in a total population over a given period. Two factors contribute to the magnitude of a crude death rate: one is the probability of dying for individuals and the other is the age distribution of the population. Since age is a major factor influencing risk of death, the higher the proportion of elderly people in the population, the higher the crude death rate for that population. Consequently in comparing crude death rates, the underlying age distribution of the population should be taken into account. However, despite this limitation crude death rates continue to be used, in part because they are summary rates and in part because they can be calculated from a minimum of information. The crude death rate is calculated as follows:-

Crude Death Rate:-

$$\frac{\text{Number of deaths among residents in an area in a calendar period} \times 1,000}{\text{Average population in the area in that period}}$$

In Table 5.1 the number of deaths by sex and the crude death rates are presented for the years 1987 to 1989 for this community care area and nationally.



Table 5.1 Mortality by sex 1987 - 1989  
Longford, Westmeath, Longford/Westmeath & National

	Longford			Westmeath		
	1987	1988	1989	1987	1988	1989
Male	225	204	178	320	322	332
Rate per 1000males	13.9	12.6	11.0	10.0	10.0	10.4
Female	168	164	155	238	265	256
Rate per 1000females	10.9	10.7	9.6	7.6	8.5	8.2
Total	393	368	333	558	587	588
Rate per 1000 pop.	12.5	11.7	10.7	8.8	9.3	9.3

	Longford/Westmeath			National		
	1987	1988	1989	1987	1988	1989
Male	545	526	510	17,002	16,989	16,518
Rate per 1000males	11.3	10.9	10.6	9.6	9.6	9.3
Female	406	420	411	14,411	14,586	14,585
Rate per 1000females	8.7	9.0	8.8	8.1	8.2	8.2
Total	951	946	921	31,413	31,575	31,103
Rate per 1000 pop.	10.0	10.1	9.7	8.9	8.9	8.8

Source: Vital Statistics, Dept. of Health 1987-1989

Due to the differences in the underlying age structure of each of these populations it is difficult to comment on the differences in the crude death rates. Presumably some if not all of the differences reflect the impact of the older end of the geriatric population in Longford as compared with the effect of the young population in areas such as Dublin, Belgard on the national figures.

## 5.2 STANDARDISED MORTALITY RATIO

Mortality may be expressed as crude rates or may be expressed in an adjusted or standardised manner. A difficulty arises when comparisons are made between the death rates in different regions due to the fact that the age distribution of the population varies considerably from region to region, e.g. from one county to another. Thus, if a particular county has a large proportion of elderly persons, the crude death rate per 1,000 population

will be relatively high even if the health conditions in that county are better than average. To overcome this difficulty, standardised mortality rates or ratios are calculated.

The standardised mortality ratio (SMR) takes into account the demographic features of the populations in question, standardises for them and therefore allows valid comparisons to be made. The SMRs for counties are obtained by calculating the mortality rate for each age group in the county, then multiplying the mortality rate in each age group by the population in the country of that age group, summing the products and dividing the resultant by the total population of the county in all age groups.

Therefore, SMRs differ from crude death rates (CDR) depending on the composition of the population. In certain areas, the SMRs differ appreciably from the crude rates, the extreme in 1987 being in Dublin, Belgard which had a CDR of 3.31 and an SMR of 7.71, reflecting the very young age structure in Dublin, Belgard. In Leitrim, the opposite was the case i.e. the CDR was 15.24 but when standardised the SMR was 9.79. This was due to the comparatively large elderly population in that county. In 1987, the SMRs were lowest in Galway County Borough (6.60) and highest in County Longford (11.07). However, once again caution must be used in interpreting these figures as due to the relatively small number of deaths in each age group per county, 1 or 2 fewer deaths in any group could have a disproportionate effect on SMR. Table 5.2 presents the CDR and SMRs for the 2 counties of this community care area for 1987 and also nationally.

Table 5.2 Crude & standardised mortality ratios/1,000 population National, Westmeath & Longford - 1987

	C.D.R.	S.M.R.
	-----	-----
National	8.87	8.87
Longford	12.48	11.07
Westmeath	8.80	9.98

Source: Vital Statistics, Dept. of Health 1987.

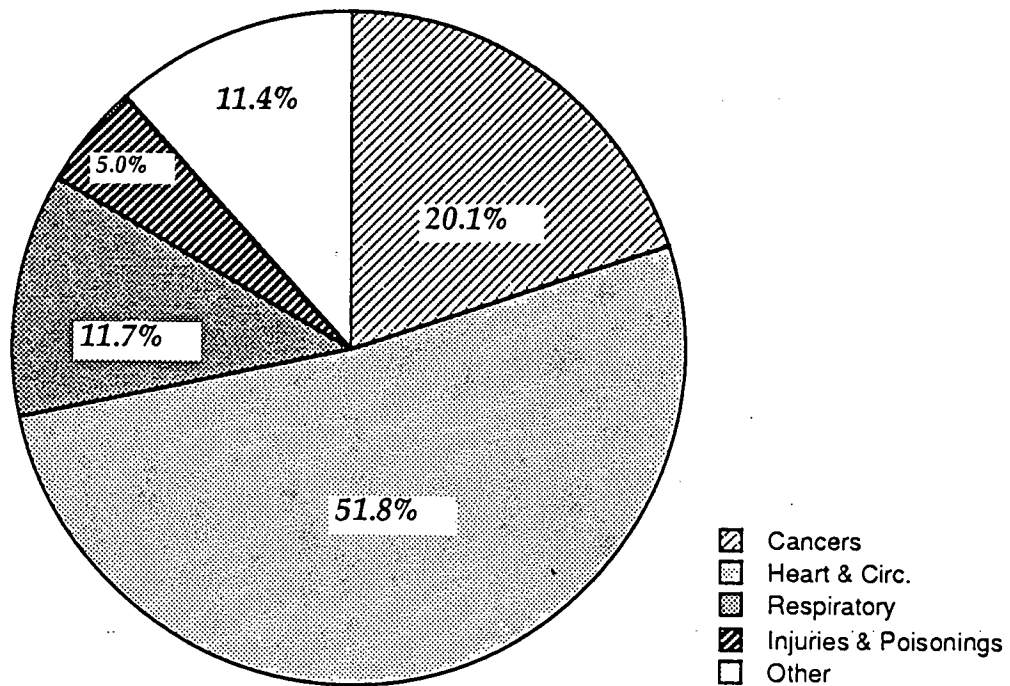
The significance of these figures will only become evident over a few years, when the trend in the SMR for each county and nationally can be monitored.

### 5.3 AETIOLOGY OF MORTALITY

Figure 5.1 represents the main causes of death in Longford/Westmeath in 1989. Appendix E presents a more detailed presentation of all causes of death by sex and age group for this community care area and nationally for the year 1987. Once again, due to relatively small figures it is difficult to comment on a particular aetiology for any single age group.

FIGURE 5.1

*Mortality by Principal Groups of Causes Longford / Westmeath - 1989*



Source : Vital Statistics 1989 - Department of Health

Longford/Westmeath reflects the national profile of causes of mortality and the relative importance of different aetiological groups at different ages e.g. injuries and poisonings in the age group 1-14 years and 15-24 years, while ischaemic heart disease and other heart diseases gain prominence for the age group 45-64 years. Figure 5.1 serves to emphasise the importance of four groups of diseases i.e. diseases of the circulatory system, malignant neoplasms, respiratory diseases and injuries and poisonings.

#### 5.4 CANCER MORTALITY

In view of the relative contribution to mortality caused by malignant neoplasms it was decided to review these in more detail under the headings:-

1. Death rates from malignant neoplasms 1987.
2. Deaths from malignant neoplasms, 1987 by gender.
3. Deaths from malignant neoplasms 1988 + 1989, with details of actual numbers and as a percentage of total deaths.
4. Deaths from malignant neoplasms 1989 as a percentage of total malignant deaths.
5. Relative risk and preventive measures.

## 1. Death rates from malignant neoplasms 1987

In 1987, as can be seen from the following table, the crude death rate for malignant neoplasms was 1.96 nationally and 2.22 for Longford. However, when standardised to allow for age structure, this difference largely disappeared.

Table 5.3 Death rates from malignant neoplasms 1987: National, Longford & Westmeath, rates per 1,000 population

---

	C.D.R. -----	S.M.R. -----
National	1.96	1.96
Longford	2.22	1.98
Westmeath	1.77	1.80

Source: Vital Statistics, Dept. of Health 1987.

## 2. Deaths from malignant neoplasms, 1987

Unfortunately, the figures for 1988 and 1989 are not yet available on malignant deaths by sex. Table 5.4 represents the figures for 1987. Once again caution must be used in the interpretation of such relatively small numbers. In view of the effect of such small numbers, interpretation is limited to noting the consistency of known gender trends e.g. stomach neoplasms and those of trachea, bronchus and lungs being relatively more common in males.

Table 5.4 Deaths from malignant neoplasms 1987 by sex  
National, Longford & Westmeath

National	Male		Female	
	No.	%	No.	%
Stomach	316	(8.3)	168	(5.3)
Colon	348	(9.2)	357	(11.3)
Rectum, Rectosigmoid & Anus	154	(4.1)	91	(2.9)
Trachea, Bronchus, Lungs	1,015	(26.8)	419	(13.2)
Female breast	---	---	601	(18.9)
Cervix Uteri	---	---	65	(2.0)
Leukaemia	122	(3.2)	96	(3.0)
Other	1,838	(48.4)	1,376	(43.4)
Total	3,793	(100)	3,173	(100)

Longford/Westmeath

	Longford				Westmeath			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Stomach	3	(7.7)	1	(3.2)	8	(13.3)	2	(3.8)
Colon	6	(15.4)	3	(9.7)	4	(6.7)	7	(13.5)
Rectum, Rectosigmoid and Anus	---	---	1	(3.2)	2	(3.3)	1	(1.9)
Trachea, Bronchus, Lungs	9	(23.1)	4	(12.9)	14	(23.3)	5	(9.6)
Female Breast	---	---	8	(25.8)	---	---	7	(13.5)
Cervix Uteri	---	---	---	---	---	---	---	---
Leukaemia	2	(5.1)	---	---	1	(1.7)	1	(1.9)
Other	19	(48.7)	14	(45.2)	31	(51.7)	29	(55.8)
Total	39	(100)	31	(100)	60	(100)	52	(100)

Source: Vital Statistics, Dept. of Health 1987.

3. Deaths from malignant neoplasms - 1988 and 1989 - as a percentage of all deaths

For the years, 1988 and 1989, the mortality from malignant neoplasms by specific type in Longford/Westmeath are detailed in Table 5.5. Appendix F presents details for the two counties separately.

Table 5.5 Deaths from malignant neoplasms 1988 & 1989  
National & Longford/Westmeath  
number & as a percentage of all deaths

	National		1989		L'ford/W'meath		1989	
	1988		No.	%	No.	%	No.	%
	No.	%	No.	%	No.	%	No.	%
Malignant Deaths	7,126	(22.6)	7,194	(23.1)	184	(19.3)	185	(23.5)
Stomach	472	(1.5)	435	(1.4)	14	(1.5)	17	(2.2)
Other G.I.T. & Peritoneum	1,917	(6.1)	1,873	(6.0)	49	(5.1)	49	(6.2)
Respiratory	1,511	(4.9)	1,586	(5.1)	34	(3.6)	41	(5.2)
Breast	613	(1.9)	685	(2.2)	16	(1.7)	14	(1.8)
G.U.T.	1,076	(3.4)	1,046	(3.4)	31	(3.2)	22	(2.8)
Lymph. & Haeme.	560	(1.8)	601	(1.9)	15	(1.6)	22	(2.8)
Other	977	(3.1)	968	(3.1)	25	(2.6)	20	(2.5)
All deaths	31,575	(100)	31,103	(100)	955	(100)	788	(100)

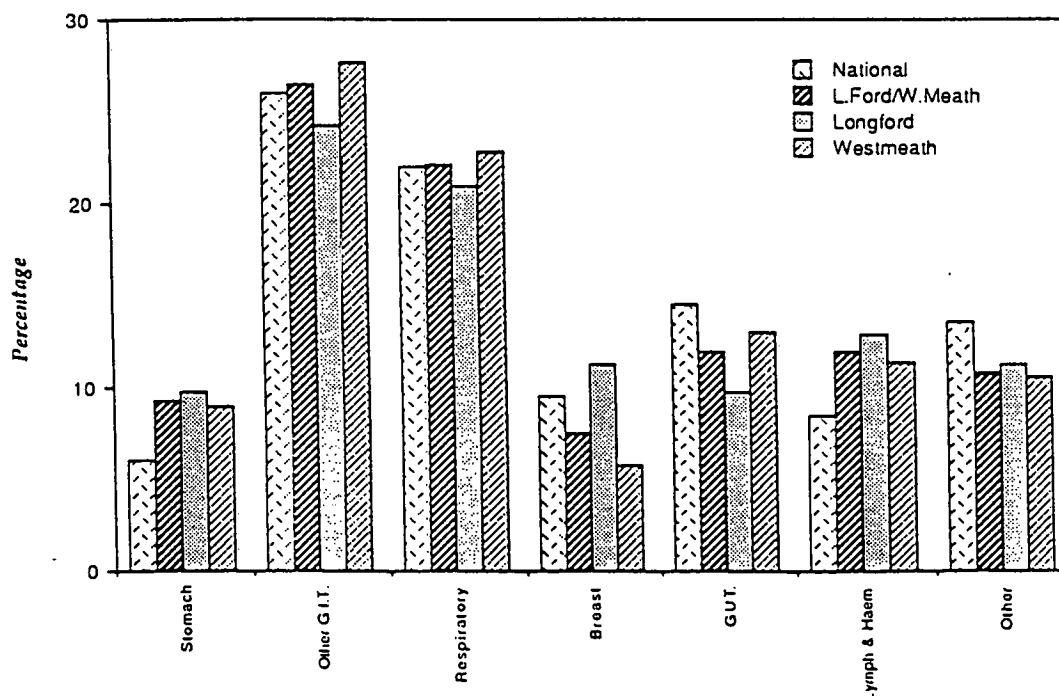
Source: Vital Statistics, Dept. of Health 1988,1989

The above table indicates that this community care area does not differ greatly from the rest of the country in aetiology of death from malignant neoplasms. However, it also clearly illustrates the effect which even minor changes in numbers can have on the profile of a relatively small population.

#### 4. Deaths from malignant neoplasms 1989

Figure 5.2 presents the individual neoplasms in terms of their contribution to all cancer mortality in 1989. It serves to emphasise the significance of neoplasms, many of which are preventable, e.g. those of the respiratory system by non smoking and stomach and other GIT by attention to dietary factors.

FIGURE 5.2 Deaths from Malignant Neoplasms 1989 as a Percentage of Total Cancer Deaths - National, Longford / Westmeath, Longford & Westmeath



## 5. Relative risk and preventive measures

Of the deaths occurring in 1989, approximately one fifth were due to malignant neoplasms. While the SMRs for cancer in this community care area compare relatively well with that for the country as a whole, it must not detract from the fact that many of these deaths are preventable. To take just one example: in 1989 21% of cancer deaths in Longford and 22.8% of cancer deaths in Westmeath were due to cancer of the trachea, bronchus and lungs. Of all the remediable risk factors for cancer, smoking is the one with the greatest potential importance. Smoking is a risk factor for many other types of cancer.

In epidemiology, which is the study of the distribution and determinants of diseases and injuries in human populations, the term relative risk is used to denote the added risk which a person exposed to a factor, e.g. cigarette smoking has of developing a disease, e.g. lung cancer, when compared with a person not exposed to that risk factor, e.g. the non-smokers risk of developing lung cancer. It is calculated as follows :-

Relative Risk

$$\frac{\text{Incidence rate among exposed}}{\text{Incidence rate among unexposed}}$$

Table 5.6 below shows a list of the major conditions with a relative risk of greater than 1.5 for active or passive smoking, for example, taking the non-smokers' (active and passive) risk of lung cancer as one, that of his/her smoking colleague is 22 times higher! The values presented in this table are representative figures taken from the large number of studies which have been reported in the literature.

Table 5.6 Relative risk of disease in smokers  
(non-smokers = 1)

Smoking Status	Diagnosis	Relative Risk
Active Smokers	Coronary artery disease	2.5
	Lung cancer	22.0
	Chronic bronchitis	20.0
	Acute bronchitis	3.0
	Strokes	1.8
	Other cancers *	2.5
	Peripheral arterial diseases	8.0
Passive Smokers	Perinatal death	1.5
	Childhood respiratory infection	1.5
	Childhood meningitis	1.9

\* stomach, oesophagus, nose, throat, kidney and cervix.

Source: Annual Report 1989 Dept. of Public Health Medicine  
Central Birmingham Health Authority

**Preventive measures:** Apart from the terrible mortality toll associated with smoking, it also accounts for considerable morbidity. This is reflected in time lost from work, a major part of the workload for health care services and the use of a large amount of health care resources.

In 1990, regulations were introduced to control smoking in specified areas. A major component of a campaign to reduce smoking must be to help people to avoid starting the habit. Teaching people how to resist pressure from friends and media, alongside the promotion of a positive image for non-smokers must be seen as an area of high priority in the health promoting work of all community care areas.

According to the Kilkenny Health Project, two out of three smokers wish they did not smoke and would like to give it up. With this in mind and with the help of the Irish Cancer Society, stop smoking support groups were established in this community care area by public health nurses. It is hoped that these will be expanded in the future and promoted in all areas including work places.

## **5.5 CHILDHOOD DEATHS**

### **Data gathering**

On reviewing childhood mortality it was felt that there were some discrepancies in the data available from the different sources. The figures produced by the Central Statistics Office on mortality refer to deaths registered in that year. The Director of Community Care/Medical Officer of Health and/or the Superintendent Public Health Nurse are usually notified of deaths in particular age groups in their area e.g. children. Much of this information is provided by public health nurses (PHN) who are particularly involved with children aged 0-6 years.

A review of the notification/registration of children's deaths in Longford-Westmeath was carried out for the years 1988 and 1989. The Central Statistics Office provided the registration numbers of each child registered as dying in the 2 counties in the years 1988 and 1989. These in turn were used to obtain the relevant data for all the deceased children. Prior to this each PHN was asked to provide similar data on all children who had died in their district over that period. The central file in the community care offices was also checked. The results are presented in Table 5.7.



Table 5.7 Sources of Information on Childhood Deaths 1988+1989  
(Longford-Westmeath)

Year no.	Age	Deaths registered with CSO + known to PHN (%)		Deaths registered with CSO only (%)		Deaths known to PHN only (%)		Total	
		no.	(%)	no.	(%)	no.	(%)	no.	(%)
1988	0<28d	0	-	1	(14.3)	6	(85.7)	7	(100)
	28d-1y	6	(85.7)	-	-	1	(14.3)	7	(100)
	1y-4y	1	(100)	-	-	-	-	1	(100)
	5y-15y	7	(100)	-	-	-	-	7	(100)
1989	0<28d	4	(40)	-	-	6	(60)	10	(100)
	28d-1y	3	(60)	-	-	2	(40)	5	(100)
	1y-4y	2	(100)	-	-	-	-	2	(100)
	5y-15y	6	(66.4)	-	-	3	(33.3)	9	(100)

Of the 22 children's deaths which we know occurred in 1988 in this CCA using all the above sources, 15 (68.2%) had been registered with the CSO by May 1990. Using the same sources, of the 26 children who had died in 1989, 15 (57.7%) had been registered with the CSO by May 1990. However, for both years the PHNs were aware of all but 1 of the deaths even though many had occurred outside the infant and pre-school age group prioritised for PHN child-care activity. This would indicate that the PHNs are sources of data for their districts. However, this data must be gathered, streamlined and turned into information.

Using the CSO figures the neonatal mortality rate and infant mortality rates for this area in 1989 were 2.1 and 4.9 respectively. The figures for 1988 were 0.7 and 9.4. However using both the figures from the CSO and PHNs the rates for 1989 were 7.0 and 10.5, while for 1988 they were 4.7 and 9.4.

As previously mentioned the CSO figures refer to deaths registered in a particular year, so where there is a delay in registration or where a death occurred towards the end of a calendar year, the death may not be registered in the year of occurrence. This would explain some of the differences evident above. Where the PHNs notified more neonatal deaths the birth notification form was checked or the maternity hospital contacted to ensure that these infants had been born alive. A possible explanation, which at this stage was not impossible to confirm or refute was that the infant although born alive had in fact been notified directly to the Department of Health (i.e. not to the CSO) as a late foetal death.

Discrepancies or inaccuracies in such data are important because not only are the rates deduced from this data used to indicate trends over time but are also used for national and international comparisons. To use information effectively the data gathered must be accurate, reliable and available to those who require it. The above section serves to emphasise the need to streamline data gathering systems, both within each community care area and

nationally. In fact, producing this Annual Report has been a major effort in terms of data gathering and information collection and has helped identify at least some of the gaps and duplications in our current systems.

Table 5.8 Summary - Childhood mortality statistics

	National			Westmeath-Longford		
	1987 ----	1988 ----	1989 ----	1987 ----	1988 ----	1989 ----
No. of live births	58,433	54,300	51,659	1631	1493	1429
Birth rate	16.5	15.3	14.7	17.2	15.7	15.1
Late foetal mortality	416	369*	320*	14	6&	5&
Late foetal mort. rate	7.1	6.7	6.2	8.6	4.0	3.5
Early neonatal mort.	194	268*	204*	----	6&	9&
Early neonatal mort. rate	3.3	4.9	3.9	----	4.0	6.3
Perinatal mortality	610	637	524	21	12&	14&
Perinatal mort. rate	10.4	11.7	10.1	12.8	8.0	9.8
Neonatal mortality	252	299	222	9	7& 9#	10& 3#
Neonatal mort. rate	4.3	5.5	4.3	5.5	4.7& 0.7#	7& 2.1#
Post neonatal mort.	212	201	168	7& 5#	7& 5#	5& 4#
Post neonatal mort. rate	3.6	3.7	3.1	3.1	4.7& 3.3#	3.5& 2.8#
Infant mortality	464	500	390	14	28& 28#	15& 7#
Infant Mort. rate	7.9	9.2	7.5	8.6	9.4& 9.4#	10.5& 4.9#
Childhood mortality	239	240	262	10	8&	11&

\* = Approximate figures from Department of Health (DoH).

& = Using figures obtained from sources in L/W & CSO.

# = Using figures from Vital Statistics (DoH /CSO).

(See section on Data-Gathering)

### Mortality at a young age

Ideally to plan and evaluate services, patterns of morbidity and mortality should be analysed. However, mortality rather than morbidity is what is measured and reported as it is easier to measure in terms of agreed end-points. In the area of mortality at a young age, there are various recognised measurement periods as death at different ages tends to be of more importance to different services, e.g. the number of still-births is of more

professional interest to a maternity unit than the number of childhood deaths. The picture is reversed for a paediatric unit.

### Stillbirths and stillbirth rate (Foetal Death - SBR)

A stillbirth or foetal death is defined as death prior to the complete expulsion or extraction from its mother of a product of conception irrespective of the duration of pregnancy. A foetal death is indicated by the fact that after separation the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscle. The SBR is calculated as the number of stillbirths in a calendar period per 1,000 births i.e.

$$\frac{\text{Number of stillbirths} \times 1,000 \text{ in a calendar period}}{\text{Total number of live and still births in that period}}$$

As stillbirths occur when a mother should be under the care of maternity unit, deaths in this period are of particular interest to staff in these units.

Compared to the total number of births, there are relatively few stillbirths both nationally and at community care area level, therefore caution must be used in the interpretation of such figures. However, they can be of use to show trends over time.

All births including stillbirths are notified to the Director of Community Care/Medical Officer of Health in each community care area, the Department of Health and the Registrars of Births. As far as could be ascertained, 5 stillbirths occurred to women resident in this community care area in 1989 and 6 in 1988. Of the 6 in 1988, 4 were recorded in the central file in the community care area. In 1989 only 2 were in the central file. The remainder were notified by the PHNs when they were asked to provide details of all childhood deaths in their districts in 1988 and 1989. The figures notified to the Department of Health for this community care area for these years are not yet available.

In 1989 the SBR nationally was 6.2 (approximately). For this community care area it was 3.5. For 1988 the figures were 6.7 nationally (approximately) and 4 for this community care area. The national figures can only be given as approximations here, as the final figures have not yet been released by the Department of Health.

**Aetiology of stillbirths:** In 1989, there was a total of 5 stillbirths in this area. The figure for 1988 was 6. Details of aetiology are shown in Table 5.9.

Table 5.9 Aetiology of stillbirths 1989 and 1988

	1989 ----	1988 ----
Anoxia	1	---
Abruptio Placentae	1	---
Foetal Anomaly	---	2
Maceration	---	1
Cause unknown/Not stated	3	3
Total	5	6

Source: Longford/Westmeath data

In both these years, for 50% of the stillbirths the cause was either unknown or not stated. As is evident, in the case of the former, no preventive measures can be put in place until a cause is at least postulated. Compared with 1988, there was no stillbirth due to foetal anomaly in 1989. Those in 1988 were both due to neural tube defects, i.e. spina bifida and anencephaly. There is a national trend of a falling incidence of neural tube defects, the aetiology of which is still not clear.

#### Early neonatal mortality (ENNM)

A second period used to measure death at a young age is death in the first week of life, i.e. early neonatal death. This refers to death of a live born infant in the first week of life. The ENNM rate is calculated as follows:-

$$\frac{\text{Number of early neonatal deaths in a calendar period} \times 1,000}{\text{Total number of live births in that period}}$$

As for stillbirths, deaths so soon after birth are of professional interest to maternity units. However, now with the trend towards providing paediatric units in all maternity units these deaths are also a cause of concern for paediatric units. As for stillbirths, due to their relatively small numbers, care must be used in the interpretation of such figures.

In 1989, 9 children died in the first week of life in this community care area, of whom 4 died in the first 24 hours. Six children died in the first week of life in 1988, of whom 2 died in the first 24 hours. The details are shown in Table 5.10. Nationally, approximately 204 children died in the first week of life in 1989, compared with 268 in 1988

Table 5.10 Early neonatal mortality - 1989 and 1988

	<24 hours -----	24hours-7 days -----	Total -----
1989	4	5	9
1988	2	4	6

Source: Longford/Westmeath data & CSO

The ENNM Rate for this community care area in 1989 was 6.3, compared with 3.9 (approximately) nationally. In 1988, the figures were 4.0 for this area, compared with 4.9 (approximately) nationally. Once again approximate figures are used for the national rates as the final figures are not yet available from the Department of Health.

**Aetiology of early neonatal deaths:** Table 5.11 presents the causes of early neonatal deaths in this area for 1989 and 1988.

Table 5.11 Aetiology of early neonatal deaths 1989 - 1988

AETIOLOGY -----	1989 -----	1988 -----
Prematurity	2	---
Prematurity with RDS	1	2
Prematurity with intraventricular haemorrhage	1	---
Chromosomal Anomalies	2	---
Congenital Heart Disease	2	1
Sudden Infant Death Syndrome	1	---
Hypovolaemia	---	1
Hypoxia (2nd to cord prolapse)	---	1
Aetiology not stated/unknown	---	1
Total	9	6

Source: Longford/Westmeath data & CSO

There were 9 deaths in the first week of life in 1989. Of those four who died in the first 24 hours in 1989 in this area, 50% (2) had congenital anomalies while the remainder (2) were premature. Congenital anomalies accounted for 44.4% (4) of all deaths in the first week of life, while prematurity and its complications accounted for a further 44.4% (4). Overall, prematurity and congenital anomalies accounted for all but one of the early neonatal deaths in 1989 i.e. 88.8%. In 1988 this figure was 50%.

#### Perinatal mortality and perinatal mortality rate (PMR)

Perinatal deaths include stillbirths and early neonatal deaths. The PMR is defined as the number of stillbirths together with the number of deaths within the first seven days of life in a calendar period per 1,000 total (live and still) births in the same period. It is calculated as follows:-

Number of stillbirths and deaths within the first  
7 days of life during a calendar period x 1,000

-----  
Total (live and still births) during the same period

The PMR reflects events around the time of birth and is an indicator of the quality of obstetric and neonatal care.

The PMR for this area in 1989 was 9.8. In 1988 it was 8.0. The national figures for the same period were 10.1 in 1989 (approximately) and 11.7 in 1988 (approximately). The national PMR in 1981 was 13.6. The trend over time has been for the rates to decline, a reflection of the improved obstetric and neonatal care.

The adjusted PMR excludes all deaths in infants with congenital anomalies, whether fatal or non-fatal. The adjusted PMR for this Area in 1989 was 7.0 while in 1988 it was 6.0. At present many congenital anomalies are not preventable as opposed to many of the fatalities in the adjusted PMR. Hence, the significance of the latter.

#### Neonatal mortality and neonatal mortality rates

A neonatal death is a death of a live born infant under the age of 4 weeks. Deaths in the neonatal period are governed mainly by prenatal influences e.g. congenital anomalies, prematurity. The neonatal mortality rate is calculated as the number of neonatal deaths in a calendar period divided by total live births in the same period, multiplied by 1,000 i.e.:

Number of neonatal deaths in a calendar period x 1,000

-----  
Total live births in that period

Nationally this rate has been declining from 6.5 in 1981 to 4.3 in 1989, as shown in Table 5.12. However, as these rates are based on small numbers they are subject to random fluctuations and caution should be exercised in their interpretation. This is even more true when looking at rates in areas smaller than nationally, for example a community care area.

Table 5.12 Neonatal death rates 1981 - 1989

	National -----	Longford/Westmeath -----
1981	6.5	5.7
1982	6.6	6.0
----	---	---
1987	4.3	5.5
1988	5.5	0.7 (CSO) 4.7 (All)
1989	4.3	2.1 (CSO) 7.0 (All)

Source: Vital Statistics, Dept. of Health  
CSO & Longford/Westmeath data

There were 10 deaths in the neonatal period (0-28 days) in 1989 in the Longford/Westmeath area. Of these, 9 occurred in the first week of life, while the remaining one occurred at 8 days. In this case, the cause of death was congenital heart disease. The different rates here reflect the information provided by the Central Statistics Office and that gathered by using local and Central Statistics Office data.

### Post-neonatal mortality and post-neonatal mortality rate

Death in the neonatal period largely reflects prenatal influences, while death in the post-neonatal period is more generally environmental in origin. The post-neonatal mortality rate is calculated as the number of deaths in infants, 28 days and over and under 1 year in a calendar period per 1,000 live births in the same period i.e.:-

Number of deaths of infants, 28 days and over and under 1 year during a calendar period x 1,000

-----  
Live births during the same period

In 1989, in this CCA, 5 children died in the post-neonatal period. Of these, 3 (80%) died from Sudden Infant Death Syndrome (SIDS). In 1988, SIDS accounted for 5 (60%) of the deaths in the post-neonatal period. At this stage many deaths from SIDS are not preventable, due to the lack of knowledge of the underlying cause. Research is ongoing on SIDS to try to understand and prevent this syndrome. As is evident from Table 5.13, congenital anomalies accounted for a further 40% (2) of deaths in 1989 and 28.6% in 1988.

Table 5.13 Aetiology of post-neonatal deaths 1989-1988

	1989	1988
Sudden Infant Death Syndrome	3	4
Congenital Heart Disease	2	1
Chromosomal Anomaly	0	1
Viraemia	0	1
TOTAL	5	7

Source: CSO & Longford/Westmeath data

### Infant mortality and infant mortality rate

Infant mortality includes the deaths of all live-born children who die in the first year of life. It reflects paediatric care and environmental influences. The infant mortality rate (IMR) is calculated as follows:-

The number of deaths in the first year of life in a calendar period x 1,000

-----  
Total number of live births in the same period

Nationally, the IMR has declined from 10.3 in 1981 to 8.8 in 1989, as can be seen from table 5.14. Once again, with small numbers caution must be used in their interpretation. Due to the small figures the local trends are more difficult to interpret, but they are going in the same direction.

Table 5.14 Infant mortality rates 1981-1989

	National -----	Longford/Westmeath -----
1981	10.0	8.5
1982	11.0	10.2
----	---	---
1987	7.9	8.6
1988	9.2	9.4 (CSO) 9.4 (All)
1989	7.5	4.9 (CSO) 10.5 (All)

Source: CSO & Longford/Westmeath data

#### Infant mortality - aetiology

Overviewing the total age period (0-1 year) , congenital anomalies accounted for 7 (46.7%) of the 15 deaths in 1989 in this CCA, while SIDS accounted for 4 (26.7%). Therefore further reductions in the numbers of children dying before reaching their first birthday must involve tackling both these problems.

#### Childhood deaths (age 1-14 years) 1989 - 1988

In Tables 5.15 and 5.16 below are details of the deaths of children who died both nationally and in this community care area in 1988 and 1989, between the ages of 1 and 14 years. Although relatively few in number, they represent a large loss in potential to their community and grief to their families.

Table 5.15 Aetiology of childhood deaths 1989 - 1988 age 1 - 4years, National & Longford/Westmeath

	National		Westmeath/Longford					
	1988		1989		1988		1989	
Age 1 to 4 years:	no.	%	no.	%	no.	%	no.	%
-----	-----	-----	-----	-----	-----	-----	-----	-----
Accidents and Adverse Effects	32	(30.5)	33	(27.5)	--	--	--	--
Drowning	--	--	--	--	--	--	1	(50)
Asphyxia (fire fumes)	--	--	--	--	--	--	1	(50)
Aspiration Pneumonia	--	--	--	--	1	(100)	--	--
Other	73	(69.5)	87	(72.5)	--	--	--	--
Total 1-4yr Deaths	105	(100)	120	(100)	1	(100)	2	(100)

Source: Vital Statistics, Dept. of Health, CSO & Longford/Westmeath data



Table 5.16 Aetiology of childhood deaths 1989 - 1988 age 5 - 14 years, National & Longford/Westmeath

Age 5 to 14 years: -----	National				L'ford/W'meath			
	no.	%	no.	%	no.	%	no.	%
Malignant Neoplasm	22	(16.3)	26	(18.3)	--	--	--	--
Brain Tumour	--	--	--	--	1	(14.3)	--	--
Leukaemia	7	(5.2)	8	(5.6)	1	(14.3)	2	(22.2)
Aplastic Anaemia	--	--	--	--	--	--	1	(11.1)
Encephalitis	--	--	--	--	--	--	1	(11.1)
Accidents and Adverse Effects	60	(44.4)	57	(40.1)	--	--	--	--
Road Traffic Accident	--	--	--	--	4	(57.1)	2	(22.2)
Congenital Arrhythmia	--	--	--	--	1	(14.3)	1	(11.1)
Raised Intracranial pressure 2nd to obstr. shunt	--	--	--	--	--	--	1	(11.1)
Cause not stated	--	--	--	--	--	--	1	(11.1)
Other	46	(34.1)	51	(35.9)	--	--	--	--
Total 5-14yr Deaths	135	(100)	142	(100)	7	(100)	9	(100)

Source: Vital Statistics, Dept. of Health  
CSO & Longford/Westmeath data

Deaths in the age groups 1 to 14 years are relatively rare, but many of these are preventable. Accidental deaths accounted for 36.4% (4) of the deaths which occurred in the age group 1-14 years in 1989 in this community care area. The figure for 1988 was 50% (4). With such a carnage from accidents it is appropriate that the year 1990 has seen the launch of new regulations for road users, the launch of a new video on accidents in the home by the Health Promotion Unit and a campaign by the Department of the Environment on accident prevention.

## 6. RESEARCH PROJECTS 1985 - 1989

### 6.1 VACCINATION UPTAKE

Dr. Pat Doorley (1985)

The uptake of primary immunisations (DPT, DT and Polio) in this community care area were analysed for a 12 month period by geographical area, social class and vaccine provider i.e. area medical officer or general practitioner. The principal outcome of the study was the identification of geographical areas with poor uptake and the implementation of schemes to remedy this.

### 6.2 RUBELLA SCREENING AND VACCINATION

Dr. Pat Doorley (1986)

This project involved screening 1,500 female health staff for rubella status. Screening was by questionnaire with validation by use of records and blood tests. The results showed that 97% of staff screened were immune. However, among the non immune were many younger staff members. To remedy this, rubella education was incorporated into the health board's health education programme.

### 6.4 REVIEW OF ANTE-NATAL SERVICES

Dr. Pat Doorley (1987)

This study was carried out on behalf of the Committee on Services for Mothers and Children. One of the aims of the study was to determine women's views of ante-natal services provided by hospitals and General Practitioners in the community care area. As a result of the study recommendations were made and adopted which shortened waiting times at clinics and provided more space in clinics.

### 6.3 RUBELLA STATUS AMONG POST-NATAL POPULATION

Dr. Pat Doorley (1986)

Using the data from birth notification forms, information was obtained on the rubella status of women in this community care area. Based on this information, a policy was proposed and adopted for targeting the non immune women who delivered their children in hospitals in the community care area.

## **6.5 THE DEVELOPMENT OF A COMPUTERISED CHILD HEALTH REGISTER**

Dr Chris Buttanshaw (1987)

A register of all births in the Longford / Westmeath community care area since 1st January 1987 has been maintained on a microcomputer. A system of information gathering was devised and the necessary computer programme written to keep the register up to date with information on child health. The system has been applied to produce analyses of data on breastfeeding, birth weight, premature labour, social grouping and immunisation uptake. These figures have been used in the management of the service. The system can administer the measles/mumps/rubella immunisation programme.

The system demonstrates that a low cost computerised child health information system can be installed in a community care area and successfully operated without specialised computer personnel back-up.

## **6.6 STUDY OF ASTHMA IN SCHOOLCHILDREN IN LONGFORD / WESTMEATH**

Dr Diana Kiely (1987)

A prevalence and follow-up study of asthma in schoolchildren was undertaken. This was the first prevalence study of asthma in Ireland.

The study found that asthma was common in childhood, with a prevalence of 12.3% in the schoolchildren studied. This figure was lower than the 18% found in New Zealand schoolchildren, but similar to the figure found in other studies. Other findings of the study were that the disorder was undertreated and, to a lesser extent, underdiagnosed, that it resulted in considerable disability as measured by loss of schooldays and restriction of activities at home, and that there was considerable parental anxiety in relation to the use of anti-asthmatic drugs.

These findings had important implications at local and at national level for the management of childhood asthma, particularly in relation to the proper use of anti-asthmatic medication. The recommendations are currently being implemented by the Asthma Society of Ireland.

## **6.7 IN-PATIENT ASSESSMENT STUDY, ST JOSEPH'S HOSPITAL, LONGFORD**

Dr Chris Buttanshaw (1988)

The study was designed to assess the use of in-patient beds in St Joseph's, with a view to planning for the future needs of the elderly community for long stay beds.

Information was obtained on the total number of beds, age and sex structure of the residents, duration of stay, and source of and reason for admission. The patients were assessed in terms of ideal placement, taking into account the patient's disabilities, and their home and social circumstances.

The study found that planning for the provision of long stay beds was hampered by the lack of designation between convalescent, acute, rehabilitation, welfare and long stay beds. The ratio of beds to elderly population was extremely high compared to national figures, 35% of in-patients had been resident for 5 years or more, and 46% of patients were admitted for social reasons compared with a national average of 32.3%.

Placement options were defined and recommendations were drawn up for the future designation of beds in St Joseph's. The study provided a sound basis for planning the future provision of placements for the elderly.

#### **6.8 EVALUATION OF DOMICILIARY OXYGEN SERVICE IN LONGFORD / WESTMEATH**

Dr Diana Kiely 1988

This study was undertaken as it was recognised that, while in many cases domiciliary oxygen can improve the quality of life or even prolong life, it is often prescribed and used in an unscientific manner.

The objective of the study was to evaluate the service with a view to recommending guidelines to reduce inappropriate use and so avoid wastage of resources.

The study involved: (1) a review of all the recipients of domiciliary oxygen, detailing the history of illness and patterns of usage of oxygen, and (2) a review of the procedure involved in providing the service, including assessment and referral practices, maintenance of registers, delivery and return of equipment, and monitoring of invoices.

Analysis of the results showed that in Longford / Westmeath community care area domiciliary oxygen was prescribed primarily for symptomatic relief, many users were inadequately assessed prior to initiating treatment, procedures for processing requests, for ensuring return of equipment, and for monitoring of invoices were inadequate.

As a result of these findings recommendations were made which included prior assessment of the patient by a consultant physician, with completion of a standardised request form, and tightening up of administrative procedures.

These recommendations have been implemented and have led to a considerable streamlining of the service, and reduction in demand and in costs.

## 6.9 CHILD SEXUAL ABUSE

Dr. Elizabeth Keane (1989)

A Profile of Victims and their Families in relation to Intervention and Short-term Outcome.

The sexual abuse of children is a problem which has come into prominence in the last few years. There is a lack of research into its epidemiology and management. The first part of this study was based on a retrospective chart review of 80 cases of alleged sexual abuse in terms of victim, family intervention and outcome characteristics in this community care area. Girls were three times as likely to be victims as boys. The mean age of the victim at the onset of the abuse was 4.5 years and at presentation 10.1 years. Pre-school children accounted for 17.5% of victims. The majority (82.5%) of children were subjected to more than one episode of abuse and in 40% of these the duration was longer than three years. In most cases the abuser was male and either a family member or known to the family. Males were significantly more likely than females to be victims of extrafamilial abuse.

In terms of family characteristics the majority (67.5%) of families were in social classes 5 or 6, more than twice as many as in the area population.

Following intervention and investigation 72.5% of cases were confirmed. One in 10 of the children entered foster care while 60% remained at home with both parents. Almost half of the perpetrators, who were household members, remained at home. Criminal charges were brought against the abuser in 17.5% of cases, half of these were convicted and one was imprisoned.

The second part of the study consisted of an interview with 16 of the mothers of victims. The majority (87.7%) received no formal education beyond primary school level. One in 3 reported physical abuse and 1 in 4 sexual abuse, during childhood. In general the mothers were satisfied with the support, information and communication received from health personnel following intervention. They were unanimous in their demand for a reform of the legal systems in relation to child sexual abuse.

Following this study, Dr. Keane made recommendations on the need for preventive programmes for pre-school and school-going children, the need to evaluate policies of intervention and management, the need for the outcome for perpetrators to be examined and the need to instruct children of all ages on how to defend themselves from perpetrators of sexual abuse.

## 6.10 AN ASSESSMENT OF THE HEALTH NEEDS OF THE RURAL ELDERLY ALONE

Dr. Maire O'Connor (1989)

This study was undertaken to obtain information from the rural elderly living alone on health needs as perceived by themselves with a view to improving current community geriatric services.

Questionnaires covering 119 items were administered to a stratified sample of 200 elderly participants who lived alone. Information on current community services was obtained from the relevant service providers.

Analysis of the results showed that 50% of the elderly participants lived in accommodation with inadequate bathroom facilities, while only 38.9% were content to stay in their current accommodation without alteration. A large minority (37.9%) of the participants felt their finances were inadequate for their needs, while 15.7% of the study participants were unsure of their eligibility for various entitlements. Of those surveyed 17.6% had personal experience of crime, while 39.4% lacked a means of obtaining help in an emergency. In terms of physical well-being and cognitive ability, those surveyed were comparable with other Irish studies. Overall, the majority (61.7%) perceived themselves as enjoying excellent or good health.

The unmet demand for services other than transport varied from 11.6% for laundry services to 0% for public health nurse visits. Transport services were judged to be inadequate by half (51.5%) of the study group. The lack of a system for systematically gathering service information was noted.

In the light of these findings, a number of recommendations were made with regard to meeting the health needs of the current elderly population and developing an adequate system to do so in the future.

## 6.11 LIBRARY SERVICES: COMMUNITY CARE, MULLINGAR

Ms. Sandra Keating (1989)

A usable, efficient library source is essential both as a reference/information centre and for continuing education. This becomes even more important in areas physically distant from university libraries.

The library collections in the County Clinic are situated in the offices of the Director Community Care/Medical Officer of Health and the Superintendent Public Health Nurse. In 1989, the books in the library collections were catalogued, classified and arranged in subject order on shelves. The catalogue itself uses a card system and is arranged alphabetically in author and title order, with an index to the subject sequence. Also, in 1989 a system was established whereby photocopies of journal articles, inter-library loans and literature searches could be requested through the librarian in Central Office.

Plans for 1990 include extending the library collection with recognised journals and books so that accreditation in training for Public Health from recognised areas will not be endangered.

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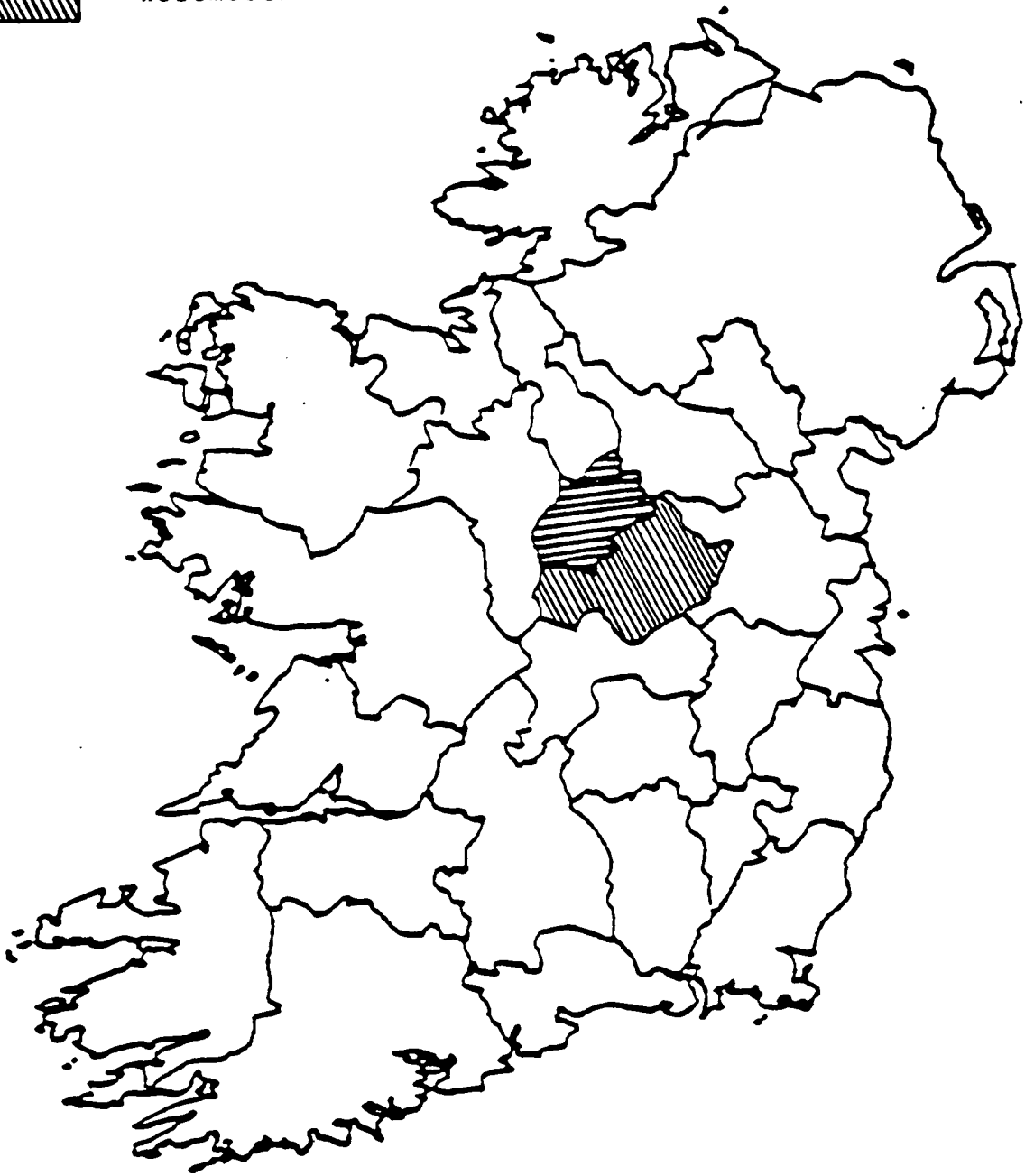
I R E L A N D



Longford



Westmeath



APPENDIX B

SOCIAL CLASSES

Social Class	I	Higher Professional Higher Managerial + Proprietors Farmers, farming 200 acres or more
Social Class	II	Lower Professional Lower Managerial Farmers, farming 100-199 acres
Social Class	III	Other Non-Manual Workers Farmers, farming 50-99 acres
Social Class	IV	Skilled Manual Workers Farmers, farming 30-49 acres
Social Class	V	Semi-skilled Manual Workers Farmers, farming less than 30 acres
Social Class	VI	Unskilled Manual Workers
Social Class	VII	Social Class Unknown

Source: Census 86

APPENDIX C

Table 2.6 Persons aged 15+ by present status of work. Number & as a percentage of population aged 15+. Longford & Westmeath

	Longford		Westmeath	
	No.	%	No.	%
1st job seeker	354	(1.6)	792	(1.8)
U/E	1,343	(6.1)	2,569	(5.8)
Student	1,969	(8.9)	4,644	(10.5)
Home duties	6,269	(28.4)	11,408	(25.7)
Retired	2,020	(9.2)	3,555	(8.0)
Unable to work	676	(3.1)	2,094	(4.7)
At work	9,433	(42.7)	19,318	(43.5)
Other	5	(<0.1)	8	(<0.1)
Total	22,069	(100)	44,388	(100)

Source: Census 86

Table 2.7 Accommodation by households & number of occupants Longford & Westmeath

	Longford		Persons		Westmeath		Persons	
	No.	%	No.	%	No.	%	No.	%
House	8,577	(95.7)	30,038	(95.4)	16,364	(95.6)	59,392	(93.7)
Flat/bedsit	203	(2.3)	335	(1.1)	495	(2.9)	805	(1.2)
Travelling people	19	(0.2)	73	(0.2)	9	(<.1)	42	(<.1)
Caravan	117	(1.3)	236	(<.8)	152	(0.9)	337	(0.5)
Temp. Dwell.	16	(0.1)	23	(<.1)	23	(0.1)	45	(0.1)
Living Rough	2	(<.1)	2	(<.1)	---	---	---	---
Non private household	32	(0.4)	789	(2.5)	71	(0.4)	2,754	(4.4)
Total	8,966	(100)	31,496	(100)	17,114	(100)	63,379	(100)

Source: Census 86

## APPENDIX D

### Notifiable infectious diseases

Acute anterior poliomyelitis	Gonococcal infection
Acute encephalitis	Syphilis
Acute viral meningitis	Non specific urethritis
Anthrax	Chancroid
Bacillary dysentery	Granuloma inguinale
Bacterial meningitis (including meningococcal septicaemia)	Lympho-granuloma venereum
Brucellosis	Infectious hepatitis B
Cholera	Chlamydia trachomatis
Diphtheria	Trichomoniasis
Food poisoning (bacterial other than salmonella)	Candidiasis
Gastro-enteritis (when contracted by children under 2 years)	Pediculosis pubis
Infectious mononucleosis	Ano-genital warts
Infectious parotitis	Molluscum contagiosum
Influenzal pneumonia	Genital herpes simplex
Legionnaire's disease	
Leptospirosis	
Malaria	
Measles	
Ornithosis	
Plague	
Rabies	
Rubella	
Salmonellosis (other than typhoid or paratyphoid)	
Smallpox	
Tetanus	
Tuberculosis	
Typhoid and Paratyphoid	
Typhus	
Viral haemorrhagic disease (including Lassa fever and Marburg disease)	
Viral hepatitis type A	
Viral hepatitis type B	
Viral hepatitis type unspecified	
Whooping cough	
Yellow fever	

APPENDIX E

Mortality by principal groups of causes, age & sex. Longford, Westmeath & National, 1987. (M=male F=female)

National

Aetiology	All Ages		<1 year		1-14 years	
	No.	%	No.	%	No.	%
Malignant Neoplasms M	3,793	(22.3)	2	(0.7)	16	(11.9)
F	3,173	(22.0)	1	(0.5)	18	(17.1)
Ischaemic Heart Dis M	6,164	(36.3)	--	--	2	(1.5)
/Other Heart Dis. F	4,446	(30.9)	--	--	3	(2.9)
Hypertension M	110	(0.6)	--	--	--	--
F	129	(0.9)	--	--	--	--
Cerebrovasc. Disease M	1,387	(8.2)	--	--	--	--
F	1,822	(12.6)	--	--	--	--
Other diseases of M	511	(3.0)	--	--	1	(0.7)
Circulatory System F	526	(3.6)	1	(0.5)	--	--
Diseases of Resp. M	2,088	(12.3)	9	(3.3)	6	(4.5)
System F	1,880	(13.0)	9	(4.7)	9	(8.6)
Injuries and M	980	(5.8)	7	(2.6)	65	(48.5)
Poisonings F	487	(3.4)	3	(1.6)	38	(36.2)
Other M	1,969	(11.5)	253	(93.4)	46	(35.2)
F	1,948	(13.6)	179	(92.7)	37	(35.2)
Total M	17,002	(100)	271	(100)	134	(100)
F	14,411	(100)	193	(100)	105	(100)

Aetiology	15-24 yrs		25-44 yrs		45-64 yrs		65+ yrs	
	No.	%	No.	%	No.	%	No.	%
Malignant Neoplasms M	18	(6.5)	108	(17.5)	943	(28.9)	2,706	(21.7)
F	19	(22.9)	153	(46.6)	836	(45.2)	2,146	(18.1)
Ischaemic Dis M	6	(2.2)	126	(20.5)	1,396	(42.8)	4,634	(7.2)
/Oth. Heart DF	1	(1.2)	29	(8.8)	378	(20.4)	3,965	(33.5)
Hypertension M	--	--	1	(0.2)	20	(0.6)	89	(0.7)
F	--	--	--	--	8	(0.4)	121	(1.0)
Cerebrovasc.D.M	1	(0.4)	25	(4.1)	163	(5.0)	1,198	(9.6)
F	2	(2.4)	13	(4.0)	115	(6.2)	1,692	(14.3)
Oth. Diseases M	--	--	3	(0.5)	58	(1.8)	449	(3.6)
Circ. Syst. F	--	--	8	(2.4)	26	(1.4)	491	(4.1)
Resp. System M	8	(2.9)	19	(3.1)	192	(5.9)	1,854	(14.9)
F	4	(4.8)	12	(3.6)	153	(8.3)	1,693	(14.3)
Injuries & M	219	(79.6)	261	(42.4)	206	(6.3)	222	(1.8)
Poisonings F	39	(47.0)	64	(19.5)	71	(3.8)	272	(2.3)
Other M	23	(8.4)	73	(11.7)	283	(8.7)	1,293	(10.5)
F	18	(21.7)	49	(15.1)	262	(14.3)	1,473	(12.4)
Total M	275	(100)	616	(100)	3,261	(100)	12,445	(100)
F	83	(100)	328	(100)	1,849	(100)	11,853	(100)

APPENDIX E (continued)

Longford

Aetiology	All Ages		<1 year		1-14 years	
	No.	%	No.	%	No.	%
Malignant Neoplasms	M	39 (17.3)	---	---	---	---
	F	31 (18.5)	---	---	1 (50.0)	
Ischaemic Heart Dis.	M	83 (36.9)	---	---	---	---
/Other Heart Dis.	F	37 (22.0)	---	---	---	---
Hypertension	M	2 (0.9)	---	---	---	---
	F	---	---	---	---	---
Cerebrovascular Disease	M	42 (18.7)	---	---	---	---
	F	44 (26.2)	---	---	---	---
Other Diseases of Circulatory Syst.	M	7 (3.1)	---	---	---	---
	F	6 (3.6)	---	---	---	---
Diseases of Resp. System	M	24 (10.7)	---	---	---	---
	F	25 (14.9)	---	---	---	---
Injuries and Poisonings	M	9 (4.0)	---	---	---	---
	F	8 (4.8)	---	---	1 (50.0)	
Other	M	19 (8.4)	3	(100)	1 (100)	
	F	17 (10.0)	1	(100)	---	---
Total	M	225 (100)	3	(100)	1 (100)	
	F	168 (100)	1	(100)	2 (100)	

Aetiology	15-24 yrs		25-44 yrs		45-64 yrs		65+ yrs	
	No.	%	No.	%	No.	%	No.	%
Malignant Neoplasms	M	---	---	---	13	(32.5)	26	(15.0)
	F	1 (33.3)	4 (66.6)	12	(44.4)	12	(9.4)	
Isch. Heart	DM	---	3 (42.9)	5	(12.5)	65	(37.6)	
/Oth. Heart	DF	---	---	5	(18.5)	32	(25.2)	
Hypertension	M	---	---	---	---	2	(1.2)	
	F	---	---	---	---	---	---	
Cerebrovasc. Disease	M	---	---	2	(5.0)	40	(23.1)	
	F	---	---	1	(3.7)	43	(33.9)	
Oth. Disease	M	---	---	1	(2.5)	6	(3.5)	
Circ. Syst.	F	---	---	1	(3.7)	5	(3.9)	
Respiratory System	M	---	---	3	(7.5)	21	(12.1)	
	F	---	---	3	(11.1)	22	(17.3)	
Injuries & Poisonings	M	1 (100)	3 (42.9)	2	(5.0)	3	(1.7)	
	F	2 (66.6)	---	2	(7.4)	3	(2.4)	
Other	M	---	---	---	---	---	---	
	F	---	---	---	---	---	---	
Total	M	1 (100)	7 (100)	40	(100)	173	(100)	
	F	3 (100)	6 (100)	27	(100)	127	(100)	

APPENDIX E (continued)

Westmeath

Aetiology		All Ages		<1 year		1-14 years	
		No.	%	No.	%	No.	%
Malignant	M	60	(18.8)	---	---	---	---
Neoplasms	F	52	(21.8)	---	---	1	(25.0)
Ischaemic Heart Dis.	M	115	(35.9)	---	---	---	---
/Other Heart Dis.	F	84	(35.3)	---	---	---	---
Hypertension	M	3	(0.9)	---	---	---	---
	F	2	(0.8)	---	---	---	---
Cerebrovascular	M	36	(11.3)	---	---	---	---
Disease	F	35	(14.7)	---	---	---	---
Other Diseases of	M	10	(3.1)	---	---	---	---
Circulatory Syst.	F	9	(2.7)	---	---	---	---
Diseases of Resp.	M	43	(13.4)	---	---	---	---
System	F	18	(5.5)	---	---	---	---
Injuries and	M	19	(5.9)	---	---	1	(100)
Poisonings	F	8	(3.4)	---	---	3	(75.0)
Other	M	34	(10.7)	4	(100)	--	--
	F	30	(15.8)	6	(100)	--	--
Total	M	320	(100)	4	(100)	1	(100)
	F	238	(100)	6	(100)	4	(100)

Aetiology		15-24 yrs		25-44 yrs		45-64 yrs		65+ yrs	
		No.	%	No.	%	No.	%	No.	%
Malignant	M	---	---	---	---	16	(27.1)	44	(18.2)
Neoplasms	F	---	---	3	(60.0)	9	(27.3)	39	(20.6)
Ischaemic H. D.	M	---	---	3	(33.3)	20	(33.9)	92	(38.0)
/Oth. Heart D.	F	---	---	---	---	11	(33.3)	73	(38.6)
Hypertension	M	---	---	---	---	---	---	3	(1.2)
	F	---	---	---	---	---	---	2	(1.1)
Cerebrovasc.	M	---	---	---	---	6	(10.2)	30	(12.4)
Disease	F	---	---	---	---	4	(12.1)	31	(16.4)
Circulatory	M	---	---	---	---	1	(1.7)	9	(3.7)
System Dis.	F	---	---	---	---	1	(3.0)	8	(4.2)
Diseases of	M	---	---	---	---	1	(1.7)	42	(17.4)
Resp. System	F	---	---	1	(20.0)	3	(9.0)	14	(7.4)
Injuries and	M	5	(100)	6	(66.6)	4	(6.8)	3	(1.2)
Poisonings	F	---	---	---	---	1	(3.0)	4	(2.1)
Other	M	--	--	--	--	11	(18.6)	19	(7.9)
	F	1	(100)	1	(20)	4	(12.3)	18	(9.6)
Total	M	5	(100)	9	(100)	59	(100)	242	(100)
	F	1	(100)	5	(100)	33	(100)	189	(100)

Source: Vital Statistics, Dept. of Health 1987.

APPENDIX F

Table 5.5 Deaths from malignant neoplasms 1988 & 1989. Longford & Westmeath. Number & as a percentage of all deaths.

	Longford		1989		Westmeath		1989	
	1988		No.	%	1988		No.	%
	No.	%	No.	%	No.	%	No.	%
Malignant Deaths	64	(17.4)	62	(18.6)	120	(20.4)	123	(27.0)
Stomach	4	(1.1)	6	(1.8)	10	(1.7)	11	(2.4)
Other G.I.T. and Peritoneum	18	(4.9)	15	(4.5)	31	(5.2)	34	(7.5)
Respiratory	12	(3.3)	13	(3.9)	22	(3.7)	28	(6.2)
Breast	3	(0.8)	7	(2.1)	13	(2.2)	7	(1.5)
G.U.T.	16	(4.3)	6	(1.8)	15	(2.6)	16	(3.6)
Lymph. & Haeme.	2	(0.5)	8	(2.4)	13	(2.2)	14	(3.1)
Other	9	(2.4)	7	(2.1)	16	(2.7)	13	(2.9)
All deaths	368	(100)	333	(100)	587	(100)	455	(100)

Source: Vital Statistics, Dept. of Health 1988, 1989