Waterford
Healthy City

Healthy Cities 21st Century

Making Health our Business
A health profile for Waterford City

Waterford City Development Board

An Bord Forbartha Phort Lairge

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A health profile for Waterford City

Introduction

In 2010 Waterford City became a member of the World Health Organisation's Healthy Cities Network. In becoming a member of the Healthy Cities Network the City committed to implementing actions across four main themes:

- Health and health equity in all local policies,
- Caring and supportive environments,
- Healthy living, and
- Healthy urban environments.

Making Health our Business – a health profile for Waterford City and ***Making Health our Business – a picture of health*** have been developed to meet both the requirements of the WHO Healthy Cities Network and to inform the development of policies and actions to enhance and improve the health and well-being of all in Waterford City.

Health is created in the places where we live, work and play therefore all sectors in the city have a role to play. The many factors that influence health are known as health determinants. While individual and lifestyle factors are easily recognised as having an influence on health, a wide body of research also shows that social and economic conditions impact on the health status of whole populations[1]. Those who are poorer and come from lower socio-economic groups die younger and suffer more illness than those who come from a more affluent background. ***Making Health our Business – a health profile for Waterford City*** looks at the links between social conditions and health and at the factors that influence health. It summarises the main data and information available for Waterford City and provides the context for a population health approach to health and well-being in the city. It aims to provide an easily understood introduction to the determinants of health to help all individuals, groups and organisations in the city set their work in this context. ***Making Health our Business – a picture of health*** uses the 'miniature village' concept to present an overview of health and well-being in the city.

Methodology

The development of Making Health our Business – a health profile for Waterford City was guided by a Profile Advisory Group comprised of members of the Healthy Cities Steering Group and a Research Advisory Group comprised of specialist staff from Waterford Institute of Technology, the Health Service Executive and Waterford City Council.

At the outset a strategic decision was taken to draw on existing data sources (secondary research) rather than engage in collecting new data (primary research) to compile a picture of health for the city. In 2008, Waterford City Council compiled a detailed socio-demographic profile of the city from Census 2006 small area statistics. The seven Neighbourhood Profiles[2] and 'People Matters' – Intra City Profile[3] are the main source for population and socio-demographic data. Other local data, used extensively in compiling the document include:

- The Quality of Life Survey, conducted in 2005 on behalf of the City Development Board.
- The Crime and Safety Survey, conducted in 2007 on behalf of the Joint Policing Committee.
- Trusse Hasse Relative Index of Poverty for Waterford City.
- Services and facilities data provided by organisations such as Waterford Local Sports Partnership, Waterford City Childcare Committee, Waterford City Council, Waterford City Vocational Educational Committee, and the Health Service Executive.

Health status data was drawn predominantly from the following sources:

- The Health Status of the Population, 2008
- The Health of the South East, 2009
- Survey of Lifestyle, Attitudes and Nutrition (SLAN), 2007
- Health Behaviour in School Children (HBSC), 2007
- Making Chronic Conditions Count, 2010
- The Public Health Information System, 2010

The data was collated and reviewed by the Research Advisory Group over the period October 2010 to June 2011, under the guidance of the Profile Advisory Group.

On reviewing the data, it became clear that while census data is available to Electoral Division level, the smallest geographical area that health related statistics are available for, in the main, is Waterford Local Health Office Area (LHO area) which includes the geographical areas of Waterford City, Waterford County and a small area of South Kilkenny. Furthermore, some data, for example that drawn from SLAN 2007 and socio-economic data such as Survey of Income and Living Conditions, is only available to the South

East regional area (Counties Waterford, Kilkenny, Wexford, Carlow and South Tipperary). In addition to the challenges presented by disparate geographic boundaries and sampling frames, the datasets reviewed span different time periods between 2005 to 2010.

To address these limitations, the Research Advisory Group have chosen to present the data in a manner that illustrates the link between the determinants of health and health outcomes in ***Making Health our Business – a health profile for Waterford City*** and use the 'miniature village' concept in ***Making Health our Business – a picture of health***, to present the diverse datasets in a manner that represents their pattern in a population of 100 people to facilitate interpretation of the data for local use.

Miniature village

The 'miniature village' is a way of presenting population information in a manner that is consistent and easy to understand. It is used to provide a picture of health and well-being in the document ***'Making Health our Business – a picture of health'*** available at www.waterfordhealthycities.ie.

Profile of the population

Introduction

This section presents a summary of the key demographic characteristics of the population of Waterford City which have an influence on health. For a detailed socio-demographic profile of the city and its neighbourhoods see 'People Matters' – Intra City Profile and the seven Neighbourhood Profiles prepared for the City Development Board.

Fixed factors such as age and gender have an influence on individual health status, and can cause differences in health outcomes within a population.

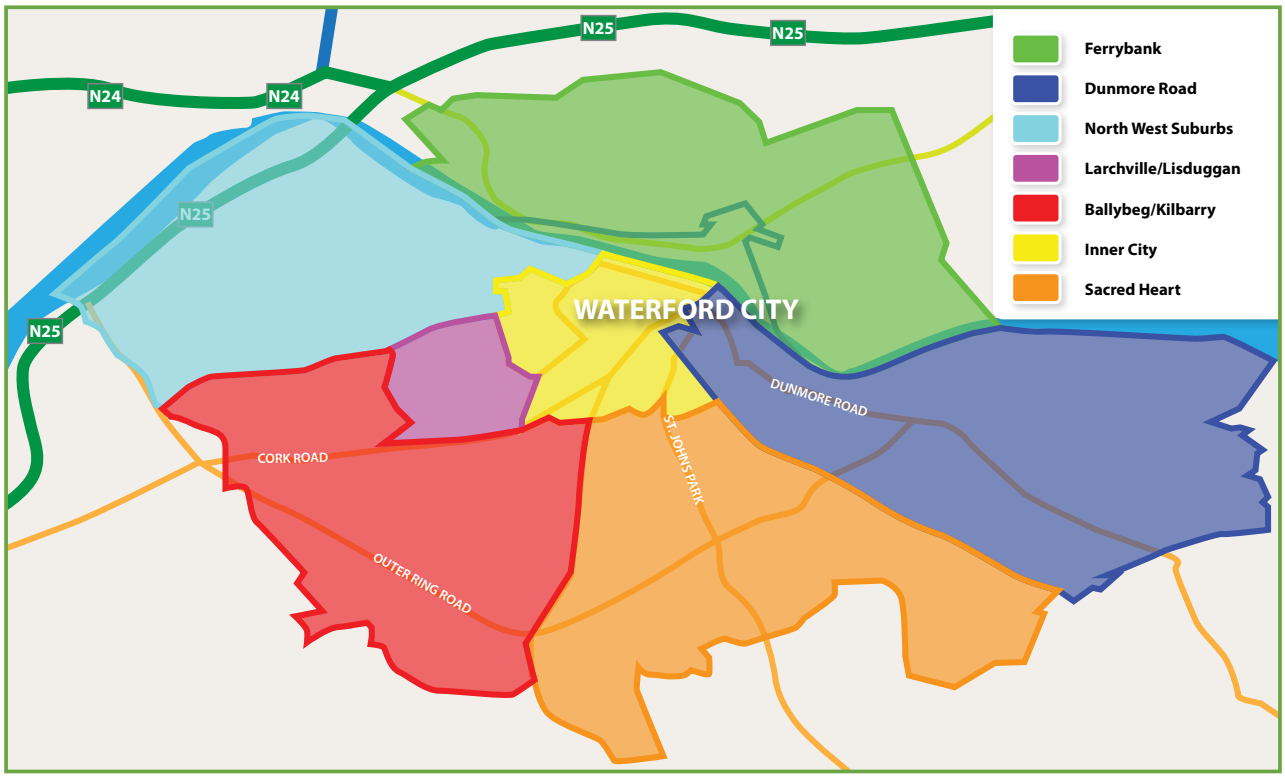
Gender:
Women live almost 5 years longer than men[5].
More women than men have diabetes[4].
More men than women have coronary heart disease[4].
Age:
More people aged 65 years and over have a chronic disease[5].

Demographics

Waterford City is the largest urban centre in the South East region of Ireland, with a population of 49,241 (Waterford City and suburbs)[3]. It is designated as the regional capital by the 2002 National Spatial Strategy(6). The city experienced the lowest population growth (5.1% including suburbs) of all urban centres in the south east region for the period 2002 to 2006[3].

There are seven distinct neighbourhoods in the city. Figure 1 presents a map of the neighbourhoods and Table 1 presents the population of each neighbourhood.

Figure 1: Map of the neighbourhoods



Source: www.waterfordcitycouncil.ie

Table 1: Population by neighbourhood

Neighbourhood	Population 2006
Waterford City & suburbs	49,241
Ballybeg/Kilbarry	3,709
Inner City	10,604
Dunmore Road	14,120
Sacred Heart	7,926
North West Suburbs	3,913
Ferrybank	4,429
Larchville/Lisduggan	4,540

Note: The population of the suburb of Kilcullaheen is included in neighbourhood of Ferrybank.

Gender

There are slightly more women (23,126) than men (22,622) living in the city, giving a male/female ratio of 0.98.

Births

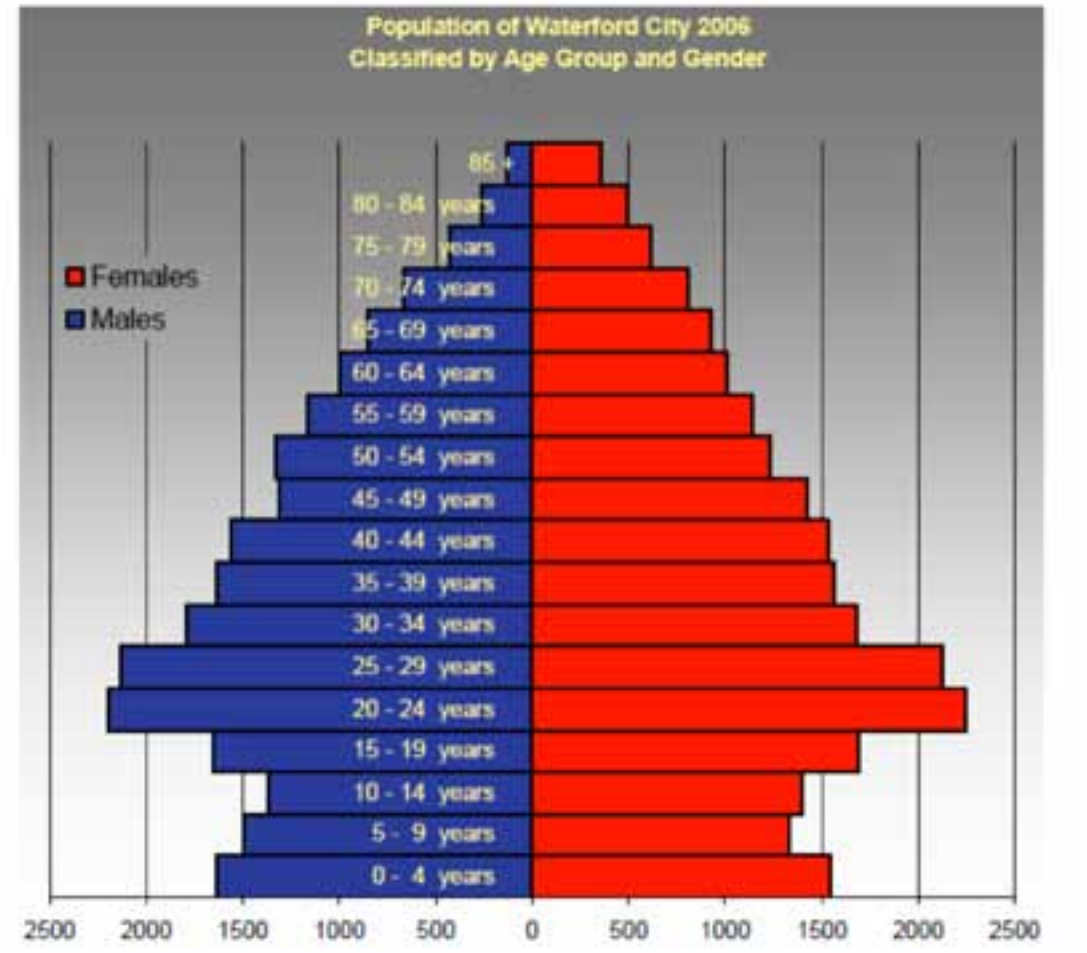
The birth rate for Waterford City in 2009 was 18.2 per 1,000 of the population. While slightly higher than the national average, it also shows an increase on the 2007 birth rate of 16.3[7].

Almost five out of ten births in the city are outside marriage, the highest number within the region. While only 4% of births in the region were to women aged under 20 years, the city has one of the highest rates of teenage pregnancy in the South East region[7].

Age and life expectancy

Almost two in every ten people living in the city are aged 14 years and younger, while just over one in ten are aged 64 and over. The majority of people aged 65 and over live in the Inner City and Dunmore Road neighbourhoods. Over half of the children living in the city live in two neighbourhoods, Dunmore Road and Sacred Heart. Figure 2 provides a population pyramid for Waterford City by age and gender.

Figure 2: Population pyramid for Waterford City[2]



In general, a boy born in Waterford City can expect to live to 75 years of age and a girl can expect to live to 80 years of age. Analysis carried out by the Central Statistics Office shows that people living in affluent areas have a greater life expectancy at birth than those living in less affluent and deprived areas[8]. When correlated with the Trusse Hasse Relative Deprivation Index for Waterford City, this shows that within the city life expectancy can range from 74 to 78 years of age for men and 80 to 83 years of age for women. Life expectancy for the Traveller population is significantly lower than this at 62 years for a Traveller man and 70 years for a Traveller woman[9].

The dependency ratio is a measure of the proportion of a population which is made up of dependents, people who are too young – below 15 years, or too old – over 65 years to work. A rising dependency ratio indicates that fewer workers are available to provide for the needs of those who are unable to work. The overall dependency ratio for the city is 45.5%, the lowest in the South East[7]. The youth dependency ratio for the city is 27.9% and the old dependency ratio is 17.6%[3]. In the ten years from 1996 to 2006 the number of people aged over 65 in the city grew by a quarter (27.1%) from 4,355 to 5,529, while the number of children aged 14 and under reduced by 8.2% from 9,560 to 8,778[3].

Disability

Long term illness and disability are associated with poverty as individuals may not be able to fully participate in the work force and may have considerable additional medical and other costs. Almost one in ten (9.6%) of people in the city are living with a disability, which is similar to the national picture[5]. Almost half (45%) are aged between 15 and 64 years of age[3]. Of these only 5% are unable to work due to their disability.

Ethnicity

Waterford City has a small but diverse ethnic population, which includes an Irish Traveller community of 90 families[9]. Figures 3, 4 and 5 provide an overview of the ethnic and cultural diversity within the city.

Figure 3: Population by Nationality

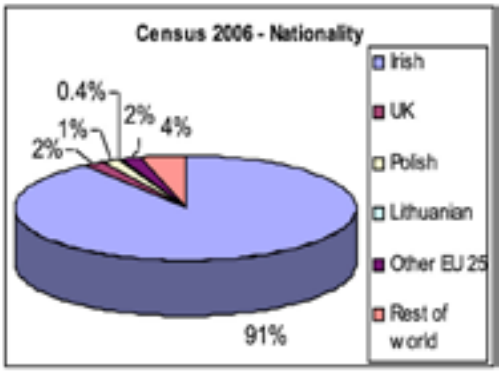


Figure 4: Population by Culture

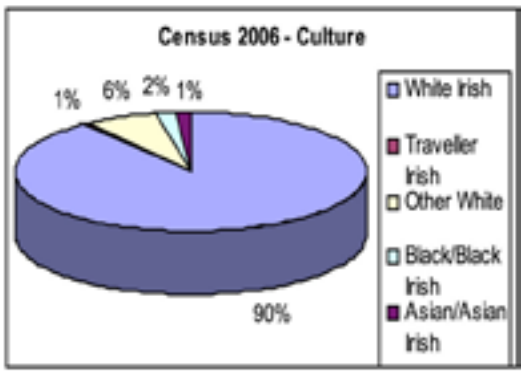
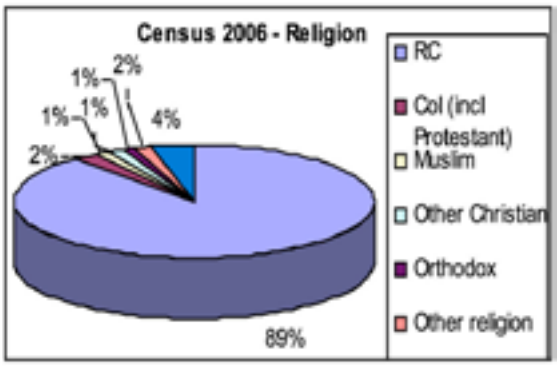


Figure 5: Population by Religion



Summary

In general the city has a stable population, with a significant population of children and young people and a growing birth rate. The population of older people (65 years and over) is also growing. While life expectancy is currently at an all time high, the underlying health inequalities are reflected in the gap in life expectancy between the highest and lowest socio-economic groups in the city.

Health inequalities

Introduction

This section provides an overview of how health inequalities occur, illustrating the links between socio-economic conditions and health.

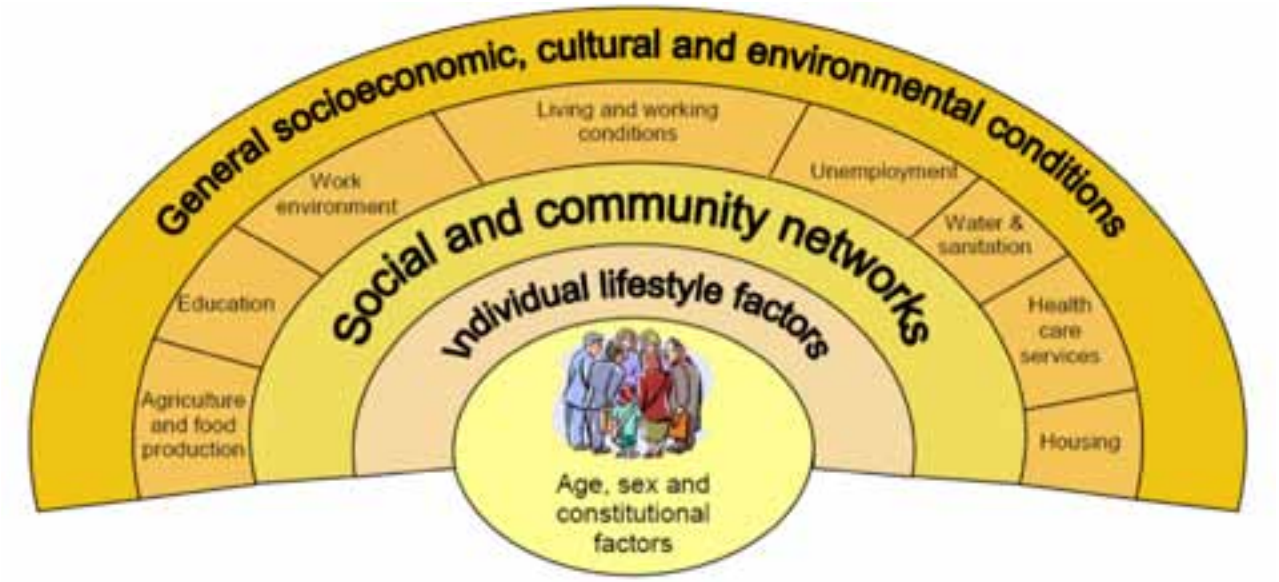
Health inequalities (or inequities) are the differences in health between sections of the population which occur as a result of differences in social and educational opportunities, financial resources, housing conditions, nutrition, work patterns and conditions and unequal access to health services. A substantial body of research has established that those who are poorer or are disadvantaged are more likely to face more illness in their lifetime and die younger than those who are better off(1). This means that the chances of a long and healthy life are not the same for everyone. Health equity means that everyone should have a fair opportunity to achieve their full health potential, and that no-one should be disadvantaged from achieving this potential if it can be avoided.

Factors that influence health: how inequalities occur

The many factors that influence health are known as health determinants. A wide range of health determinants have been described by Dahlgren and Whitehead in the 'determinants of health' model (Figure 6). The model highlights that there are many different factors and levels that influence the health and well-being of individuals.

Each layer impacts on overall health outcomes for individuals and populations. For example, being a man increases your chances of developing coronary heart disease, if you also smoke you add to that risk. If your parents smoked when you were a child, you are more likely to smoke. If you are in a lower socio-economic group (which is influenced by type of work, income and education) you are more likely to smoke. Other than the 'fixed factors' such as age, gender and genetics, the 'determinants of health' are considered amenable to change but require action at different levels.

Figure 6: Determinants of Health



Source: Dalghren and Whitehead

Fixed factors

'Fixed' influences are factors such as age, sex and genetic factors. These play a role in the health potential of the individual, but cannot be changed. However, an individual's health status is a reflection of their lifetime experience, therefore investing in actions to improve social and living conditions can have an impact on the future health of the population.

Individual lifestyle factors

Individuals can directly influence their health through personal lifestyle behaviours such as smoking, use of alcohol and drugs, being physically active and healthy eating. However, an individual's ability to make healthy choices may be affected by wider socio-economic conditions.

People who reported difficulty being able to afford sufficient food for their household were almost twice (17% vs 9%) as likely to not meet healthy eating guidelines[12].

A low income, one parent household would have to spend Đ8 out of every Đ10 (80%) of their weekly disposable income to buy healthy food for the week[13].

Smoking rates are highest in the lowest socio-economic groups – almost one in three smoke (32%) compared with 1 in 5 (20%) in the highest socio-economic group[14].

Social and community networks

Social and community networks are the immediate social surroundings of individuals – family, friends and the local community. These can have an impact on the health of individuals.

Children, whose parent or parents smoked when they were growing up, are more likely to smoke[46].

Suicide rates are highest in lower socio-economic groups and suicide is a particular risk for people alienated from society[5].

Living and working conditions

The general conditions an individual encounters in their daily activities and life can impact on their health. These include factors such as education, employment, transport, the built environment including housing and access to health and social care.

Almost all (95%) of those in the highest socio-economic class reported that their quality of life was good or very good, compared with only nine out of ten (88%) of those in the lowest socio-economic[14].

Quality of Life scores were higher in more affluent areas of the city such as the Dunmore Road neighbourhood (67), and lower in areas such as the Inner City (58) and Larchville/Lisduggan(60)[15].

Education

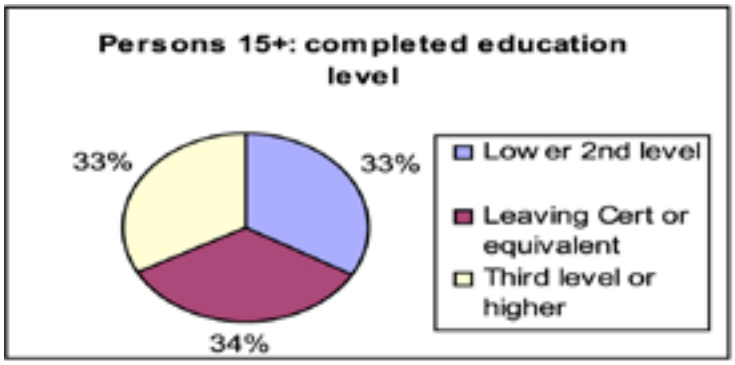
Education provides improved job opportunities, increasing choice and a sense of control over life, as well giving better access to information and services. At an economic level, greater levels of education create wealthier economies, both locally and nationally. Figure 7 shows that one third of the labour force have a completed their education with a 3rd level or above qualification, one third with a Leaving Certificate or equivalent qualification, and one third with lower secondary level only.

At 35 years of age, having completed their education, a man with a third level qualification can expect to live 2.5 years longer than a man who completed second level only and 5.5 years longer than one who completed primary level only. A similar picture is seen for women[8].

Of ten children who begin second level, one will leave before completing the Junior Certificate cycle and two before completing the Leaving Certificate cycle[47]

Across Europe, leaving school early is associated with risks such as early pregnancy, increased illness and social exclusion[5]

Figure 7: Waterford City - completed education levels[2]



Employment

Paid employment not only secures income, but it also has a positive impact on self-respect, self-esteem and mental health generally. Unemployment is associated with a decline in mental health, as well as poorer physical health, alcohol and drug use and social isolation.

In December 2010, the official unemployment rate for the region was 18.1% compared with 14.1% nationally[16].

Babies born to parents who are unemployed are over twice as likely to be at risk of having a low birth weight compared with those whose parents are in professional employment[17]. Low birth weight babies have a greater risk of death in the first year of life, as well as poorer developmental, educational, behavioural and socio-economic outcomes in childhood, teenage years and adulthood.

Housing

Cold, damp and overcrowded housing is a major heath risk and is most prevalent in deprived areas. People in poor housing frequently report ill health, particularly respiratory disease(18). Poor housing is also expensive to heat, which may result in fuel poverty. Poorer quality housing also tends to increase differences between affluent and deprived areas, as those who can move out do so as soon as they can afford to.

Travellers living in caravans or on sites with very basic cooking and cleaning facilities experience more illness and die much younger than the rest of the population. They may also face difficulty accessing services due to high illiteracy as well as prejudice.

In 2008, 932 families in Waterford City were identified as in need of housing. More than one third of these were one parent with child/children families[19].

Almost all, nine out of ten houses are connected to a public water supply and sewage system (95%) and have central heating (85%). In 2006 one in every five houses in the Inner City and Ballybeg/Kilbarry neighbourhoods had no central heating[2].

A Traveller boy can expect to live 13 years less and a Traveller girl 10 years less than their counterparts in the general population[9].

Transport

Lack of access to transport can have a significant impact on both an individual's living standard and their health status. Transport helps social contacts and increases work opportunities. Lack of transport may mean higher food costs as people without a car find it difficult to get to a supermarket, which may lead to poor nutrition.

Active travel helps people increase their levels of physical activity, which in turn benefits their health. Active travel is the term used to describe everyday or routine journeys that use physical activity such as walking or cycling alone or with public transport[20].

More people in higher socio-economic groups take part in recreational physical activity, while more people in lower socio-economic groups use active travel[14].

Only one in four (24.3%) people walk or cycle to work or school[2].
Only one in four people (28%) are sufficiently active for full health gain[14].

Three out of ten households (29%) in the city do not own a car[2].

Health care and social services

People from disadvantaged backgrounds typically suffer poorer health than those who are better off. Of the lower income groups, those with medical cards use GP services most frequently. For those without a medical card, having a high income increased the likelihood that they had used GP services in the previous 12 months[21]. This may indicate that those on lower incomes who do not qualify for a medical card restrict their use of GP services.

Disadvantaged groups often have less access to health care and social services, partly due to the location of services and partly because they may not have the level of health and communication knowledge and skill (health literacy) required to use these services effectively.

In 2010, almost three out of ten people (30%) held a medical card, with a further almost five out of ten (47%) having private health insurance and just over two out of ten people (23%) having neither[22].

Eight out of ten people (84%) in general report having good or very good health. Of those living in consistent poverty only six out of ten (57%) report having good or very good health[21].

Just over two out of ten people (23%) in general report having a chronic illness.
Of those living in consistent poverty five out of ten (47%) report having a chronic illness[21].

In the UK women from lower socio-economic groups are less likely to attend for both breast and cervical screening[23].

One in four people (24%) have poor literacy skills, however five out of ten (52%) will experience health literacy difficulties[24].

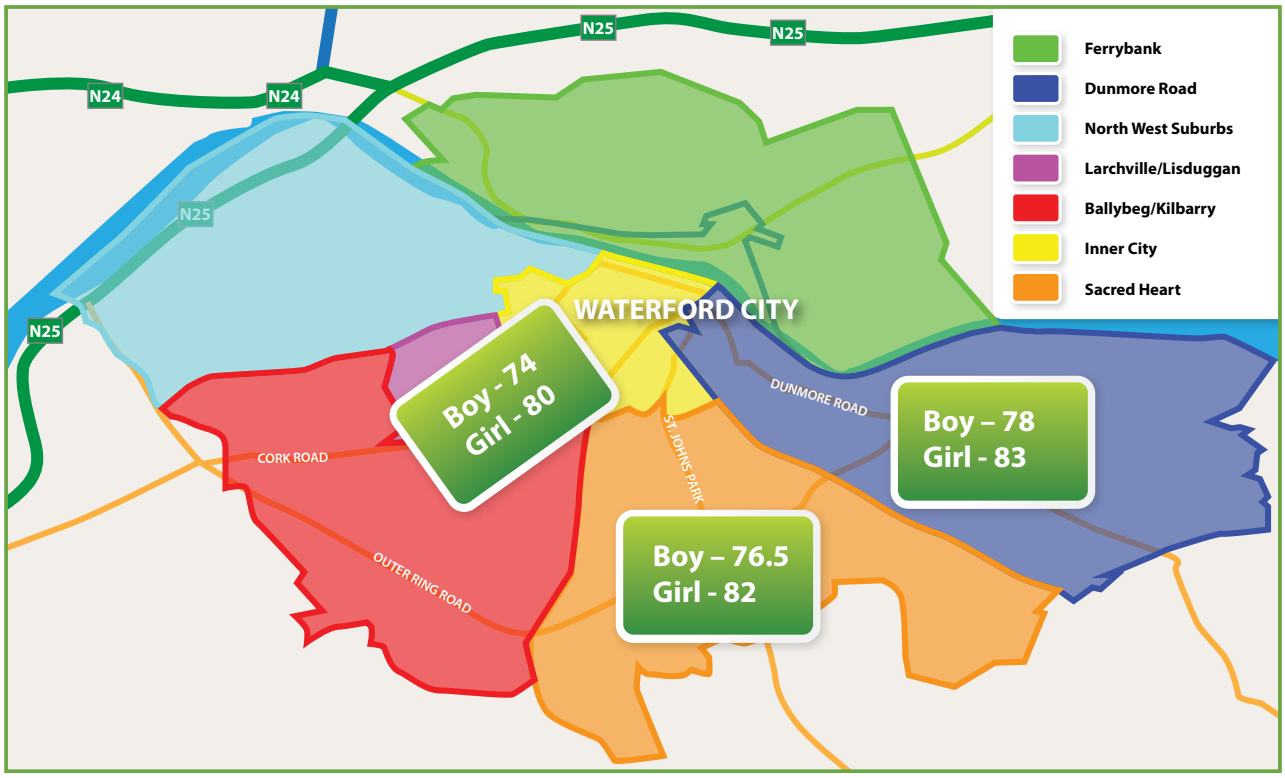
General socio-economic, cultural and environmental conditions

The general conditions in society have a powerful bearing on all the determinants of health. For instance the general standard of living can influence an individual's choice of housing, lifestyle, education opportunities and employment. While employment law and regulations have a bearing on individual's working conditions.

The Trusse Hasse Relative Index of Deprivation ranks Waterford City is the 4th most deprived county in Ireland[25]. The Index, which is calculated using ten indicators across the dimensions of demographic profile, social class and labour market situation, shows that within the city there are areas of significant disadvantage and areas of affluence. The impact on health is reflected in the differences in life expectancy across the neighbourhoods when the Index rankings are correlated with data on mortality differentials reported by the Central Statistics Office, shown in Figure 8.

Men living in the most affluent areas of the city can expect to live 4 years longer than those living in the most deprived areas of the city. For women the gap is 3 years[8].

Figure 8: Difference in life expectancy across neighbourhoods



Summary

There is a clear link between socio-economic factors and health. To improve the health and well-being of the population, the socio-economic factors that underlie poverty and deprivation need to be addressed.

Lifestyle

Introduction

This section provides an introduction to how health behaviour impacts on health. It identifies the main chronic diseases and the associated risk factors. It presents information on the main lifestyle risk factors.

Chronic diseases, such as high blood pressure, angina, heart attack, stroke, diabetes, cancer and depression cause significant illness and death as well as poor quality of life. Because the population is growing and ageing, without significant changes to the risk factors for these illnesses, we can expect the numbers of people living with chronic disease to grow.

One of the factors that impacts on health is health behaviour. While lifestyle choices are individual choices, they are known to be affected by people's knowledge, attitudes and skill, which in turn are affected by education, income and cultural beliefs. Factors such as poverty, education, poor housing and the physical environment as well as lifestyle choices such as smoking, drinking alcohol and physical inactivity are established risk factors for chronic diseases. It is estimated that 80% of chronic disease and cancer could be prevented if the major risk factors were eliminated[7].

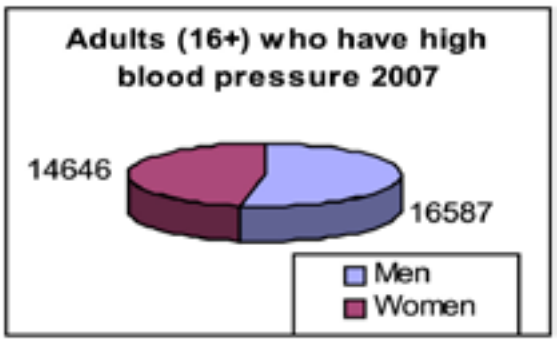
Chronic diseases

Chronic diseases are diseases that last for a long time and gradually cause greater illness and poorer quality of life leading to premature death. Chronic diseases are often called non-communicable diseases, because they are not spread from person to person like infectious diseases.

80% of GP visits and 60% of hospital day beds are related to chronic diseases and their complications. Chronic diseases are estimated to account for two-thirds of emergency medical admissions to hospital.

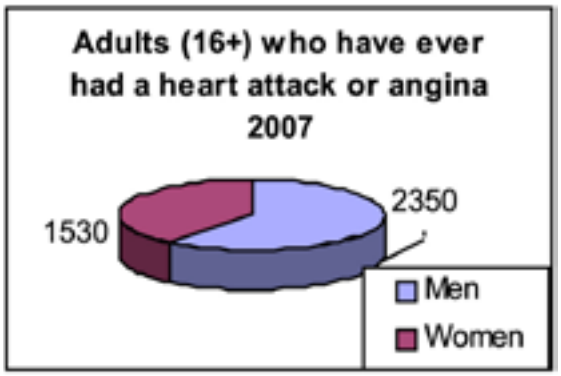
The following tables provide an overview of the level of chronic diseases in Waterford Local Health Office area and outline the main lifestyle risk factors associated with the disease.

Table 2: High Blood Pressure



- Slightly more men than women have high blood pressure.[4]
- One in every four adults (26%) have high blood pressure. [4]
- High blood pressure is a risk factor for developing stroke and coronary heart disease. [4]
- Lifestyle risk factors for high blood pressure include smoking, being overweight, lack of physical activity and a diet high in salt and fat. [4]

Table 3: Coronary Heart Disease (angina, heart attack)

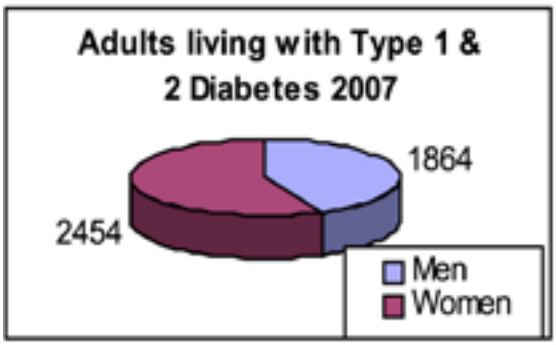


- Four in every 100 adults (4.1%) have ever had coronary heart disease.[4]
- More men than women have coronary heart disease. [4]
- Lifestyle risk factors for coronary heart disease include high blood pressure, smoking, being overweight and lack of physical activity. [4]

Table 4: Chronic Obstructive Pulmonary Disease

- At present it is the tenth most common chronic disease, but is expected to the third most common chronic disease by 2036.[10]
- The main lifestyle risk factor for chronic obstructive pulmonary disease is smoking.[10]

Table 5: Diabetes



- Five in every 100 people (5%), aged 16+, have diabetes.[4]
- More women than men develop diabetes.[4]
- The main lifestyle risk factor for diabetes is being overweight. [4]

Heart age in Waterford City.

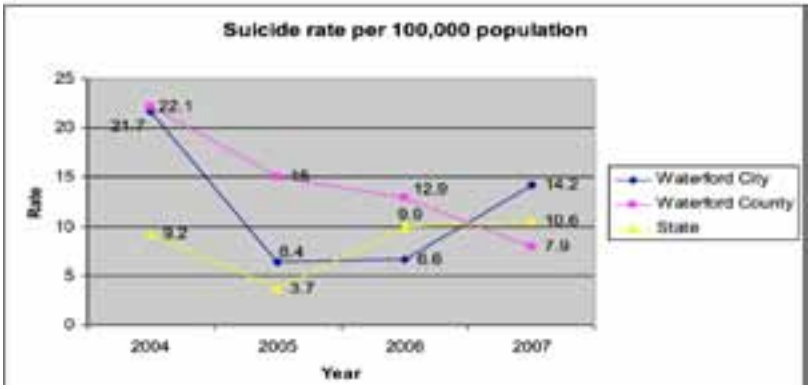
Risk factors for stroke and heart disease include high blood cholesterol, high blood pressure, cigarette consumption and diabetes. Using the Framingham Risk Model the heart age of the population was calculated. This shows that the 10-year risk of a heart or stroke event for a 60 year old man is 18.4%, corresponding to a heart age of 68 years. The equivalent level of risk for a 60 year old woman is 8.6%, equivalent to a heart age of 68 years[48].

Table 6: Cancer

- Of the 29,775 people diagnosed with cancer in 2009, 887 were from Waterford (3%).[26]
- The most common cancers are skin (non-melanoma), breast, prostate, colorectal and lung cancer.[26]
- Four out of ten men (42%) and five out of ten women (50%) diagnosed with cancer currently will live for 5 years or longer.[26]
- Up to half (50%) of all cancers can be prevented. Lifestyle risk factors for all cancers include smoking, being overweight, poor diet, and lack of physical activity.[26]

Table 7: Depression & suicide

- WHO estimate that one in five people will experience depression in their lifetime.
- It is estimated that one in ten people (10%) in Waterford are suffering from mood or anxiety disorders.[27]
- Between one and two people in every one hundred people (1.49%) in Waterford are in receipt of social welfare benefit for depression.[27]
- The suicide rate in Waterford City decreased from a peak in 2004, though it rose again in 2007.



	Waterford		
Year	**City**	**Co**	**State**
2004	10	13	493
2005	3	9	481
2006	3	8	460
2007	7	5	458

Lifestyle risk factors for chronic diseases

The main lifestyle risk factors for chronic diseases are smoking, physical inactivity and being overweight. Diet and alcohol intake are lifestyle behaviours which also have an impact on chronic disease.

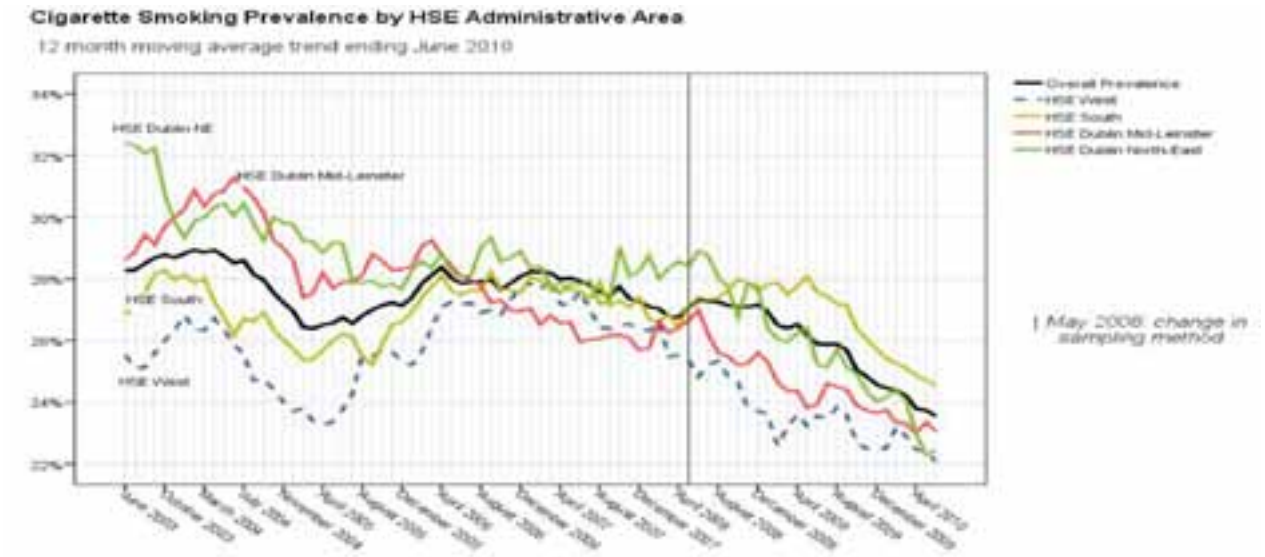
Smoking

The Office for Tobacco Control's monitoring of smoking behaviour shows that smoking rates for the HSE South, which includes the South East, are higher than both the national average and rates for other HSE areas (Figure 8).

One in four of people (28%) are current smokers[14].

Of those who smoke, one in three (32%) are from lower socio-economic groups, compared with one in five (20/21%) from the highest socio-economic group[14]

Figure 9: Smoking rates by HSE Administrative Area



Source: Office of Tobacco Control

Physical activity

Being physically active can reduce the risk of developing chronic diseases. It also reduces psychological distress, anxiety and depression. Physical activity helps to maintain a healthy weight as well as helping loose excess weight. And for older people being physically active reduces the risk of falls.

The National Guidelines for Physical Activity set out the levels of physical activity needed for health gain by different population groups. Active travel helps people meet the guidelines on physical activity for health[19].

One in four adults (28%) adults are sufficiently active for health gain[14].

Three in four adults (72%) are not sufficiently active for health gain. Of these one is considered not active at all[14].

More men than women are sufficiently active for health gain[14].

Only half of primary school children (53%) achieve the recommended level of physical activity[28].

By 15 years of age almost one in four young people (28%) do not achieve the recommended level of physical activity[28].

Just over one in ten people (13.4%) aged over 65 years of age are considered sufficiently active for health benefit, compared with four out of ten (42%) 18-29 year olds[14].

The World Health Organisation estimates that physical inactivity is responsible for 6% of all deaths across Europe. It is also contributes to the 13% of deaths from high blood pressure and 5% of deaths from overweight and obesity[28].

Providing adequate facilities for physical activity is one way to support people to make the choice to be active. Drawing from Local Authority budget data (excluding funding provided through Department of Sport and Tourisim) an average of €57 per capital is spent on sport and recreation infrastructure in the city[27]. The number of public playgrounds in the city has increased from one in 2002 to nine in 2010. There are over ninety-five recreational facilities that cater for physical activity in the city. The facilities are generally open to a wide range of age groups, and one quarter (25%) are owned by or leased from Waterford City Council. There are two public swimming pools in the city.

Weight

Being overweight or obese is a major risk factor for chronic disease. Having a Body Mass Index (BMI) between 25-29.9 is overweight, with a BMI of 30 or more being obese. In general people tend to underestimate their BMI[12].

Lifestyle behaviours such as diet and physical activity contribute to individuals being overweight and obese. However, the evidence is that the growing levels of overweight and obesity in the population are a consequence of the complex relationship between lifestyle factors and social, environmental, economic and cultural factors[29].

Almost two out of three adults (66%) are an unhealthy weight - overweight or obese[12].

More men than women are overweight[12].

Three in ten girls (27%) and two in ten boys (18%) in primary school are overweight and obese[28].

It is estimated that about 2,000 premature deaths are caused by overweight and obesity in Ireland and 6% of all health costs are caused by obesity related illnesses. The annual hospital costs for obesity related illness in adults and children was calculated as Ð13.7 million in 2004[29].

Diet

A poor diet can overtime lead to weight gain and increased risk of chronic diseases such as high blood pressure, coronary heart disease and Type II diabetes. Eating five or more servings of fruit and vegetables a day is one of the four positive lifestyle behaviours linked with living longer. The others are not smoking, being physically active, and drinking alcohol in moderation[31].

Two out of three people (65%) are eating the recommended amount of fruit and vegetables[12].

Most people (86%) are eating more than the recommended amount of foods that are high in fat, sugar and salt[12].

Five in ten people (48%) are snacking between meals[12].

Only one in five (20%) are eating the recommended amount of milk, cheese and yoghurt foods. These are important for building and maintaining healthy bones[12].

The overall level of tooth decay in Waterford has declined with children whose water supply was fluoridated or who had participated in a school-based fluoride mouth-rinse scheme having less tooth decay than those who don't. Almost all households in the city are connected to the public water supply,

which is fluoridated. However, tooth decay remains a significant problem in areas without a fluoridated water supply, with 15 year olds on average experiencing decay in four teeth. Over a third of this group reported eating sweet snacks and drinks three or more times a day[48].

Alcohol

Alcohol is considered a main risk factor for premature death, physical and mental ill-health. Alcohol-related problems are not confined to the consequences experienced by the drinker, harm is also caused to others through health and social problems such as road traffic accidents, suicide, relationship difficulties, domestic violence and work absenteeism[32].

Nine out of ten adults report that their intake of alcohol was within the recommended low risk guidelines. Of these more women than men drink within the guidelines. In Ireland, the age at which young people first use of alcohol ranges from 12 years of age to 22, with the median being 16 years.

Two in ten people (21%) do not drink alcohol, with more people in the lower socio-economic class (almost three out of ten – 27.6%)) not drinking alcohol compared with the highest socio-economic class (one out of ten – 14.5%)[14].

Two in ten people (21%) reported 'binge' drinking (drinking six or more drinks in one sitting). Almost three times as many men (31%) reported binge drinking at least once a week compared with women (11.4%). Binge drinking rates were highest in the youngest age groups, and were higher in the lowest socio-economic group[14].

Waterford has the 4th highest incidence of treated problem alcohol use in the country[33].

Alcohol was identified as the main (62.9%) problem substance people in Waterford received treatment for in 2008, followed by heroin (12.9%), cannabis (8.7%) and cocaine (6.4)[34].

Summary

Because the population is growing and ageing the level of chronic disease is expected to continue to rise unless changes are made to the risk factors. The main lifestyle and socio-economic risk factors are common to most of the chronic diseases. These risk factors need to be addressed at both an individual, community and policy level.

Social environment

Introduction

This section provides an introduction to how social environments impact on health through social capital. It provides an overview of the networks and structures that exist in the city to support and facilitate the development of social capital.

Social and community networks include the immediate social environments of individuals, such as families, friends and communities. These play an important role in supporting health, particularly for individuals living in disadvantaged circumstances. Good social relations and supportive networks contribute to health by making people feel cared for and valued.

People who do not trust their neighbours are significantly less likely to consider themselves in good health than those who do[35].

Individual social isolation and exclusion is associated with premature death, and poorer physical and mental health[35].

Improved social environments in schools, at work and in communities encourages participation and contributes to improved self-esteem.

Social capital

Social capital is the term used to describe the value of social networks which create bonds between similar people and bridges between diverse groups. At a basic level it relates to how people interact with one another and the goodwill (in terms of information, influence and solidarity) available to individuals and groups arising from this. It is considered important for well-functioning communities and neighbourhoods. Social capital is linked to economic success, lower crime rates and better health[36].

Social capital is difficult to measure, but a number of characteristics such as levels of trust, participation in voluntary associations, processes to engage citizens in decision making and diversity in use of space at neighbourhood level can be used as indicators.

Six in ten (64.1%) people agree that people can be trusted[15].

More than one in ten adults (14.7%) are involved in voluntary activities. Of these just over half (51.2%) are male. Almost two thirds of volunteers do so with social, charitable and sporting organisations[2].

In 2010, 6985 young people aged 0-14 years and 5,481 aged 15-17 years participated in groups or organisations funded by the Waterford City VEC[37].

Processes to engage citizens in decision-making

Five Strategic Policy Committees [Transport & Infrastructure, Economic Development & Planning, Housing, Environment, Community, Social & Cultural Development] inform the development of policy for the city. These consist of elected representatives (City Councillors) and representatives of other stakeholders. Waterford City Community Forum is an umbrella body for all community and voluntary groups within the city. It has representatives on each of the Strategic Policy Committees.

Between 2000 and 2004 several Community Needs Assessments (CNAs) were carried out to inform development plans for the areas within the city. These addressed both built infrastructure and community support issues, and were confined to the following areas Ballybeg, Larchville/Lisduggan, Ferrybank, Kilcohan and the Inner City.

Diversity in use of space at neighbourhood level

Sustainable neighbourhoods are mixed use areas with a feeling of community which offer a range living, working, commerce/economy, and social/recreation opportunities. The Neighbourhood Profiles[2] provide a detailed breakdown of the range of services and infrastructure within each neighbourhood, and provide the basis for sustainable neighbourhood planning in the city. Since these were compiled in 2008 City Council have established Neighbourhood Offices in each of the neighbourhoods and An Garda Síochána have reconfigured the Community Policing Service in line with the revised neighbourhood structure. The configuration of community health or primary care services provides for seven Primary Care Teams. The HSE has three satellite health centres (Ferrybank, Ballybeg and Sacred Heart neighbourhoods) in addition to the main Health Centre in the Inner City neighbourhood. Childcare services are well dispersed across the city, as are the primary and secondary schools.

Social networks

Social networks, informal and formal, provide opportunities for people and groups to build and use their social capital. People living in the city generally feel they have good social support networks.

Six in ten (57%) people were satisfied with the level of support from their neighbours[14].

People who have participated in projects or initiatives provided by community development organisations tend to have higher levels of involvement in local community networks and volunteer more of their time than those who didn't participate[38].

Waterford City has a mature formal community development structure, which is undergoing a significant period of restructuring.

Table 8: Community Development structures

Pre – 2010	2010/2011 Subsequent to changes in national policy
Waterford Area Partnership	Waterford Area Partnership -operates the Local Community Development Programme (LCDP) across the seven neighbourhoods in the city.
Ballybeg Community Development Project	Ballybeg Community Development Project
Larchville/Lisduggan Community Development Project	St Brigids Family Resource Centre
Traveller Community Development Project	Sacred Heart Family Resource Centre
St Brigids Family Resource Centre	Traveller Community Development Project
Sacred Heart Family Resource Centre	Womens Development Network
Womens Development Network	Mens Development Network
Mens Development Network	

There are a number of community groups in areas such as Ferrybank, however two neighbourhoods in particular lack a formal community structure – Dunmore Road and the North West Suburbs. There are a range of 'community of interest' groups such as the Older Peoples Network and Lesbian, Gay, Bi-sexual and Transgender (LGBT) Network. In 2010, there were 329 community and voluntary organisations listed

on the Volunteering database compiled by Waterford Area Partnership, and 126 sporting organisations on the Local Sports Partnership database for Waterford City.

Many of the community and voluntary organisations, in particular the Community Development Projects and Family Resource Centres incorporate specific health projects and initiatives into their annual work plans, which would suggest that there is significant experience and expertise in community health within the city. A city-wide structure or network to support this work does not exist.

Summary

Waterford has a strong social and community network, which has the capacity to increase social capital and positively influence health and well-being in the city. However, changes to the organisation of the formal community development sector across the city, the absence of a formal community structure in some neighbourhoods and the lack of a city-wide forum for health may limit this potential.

Built environment

Introduction

This section provides an introduction to the built environment of the city and how it impacts on health. Waterford City is the oldest Viking settlement in Ireland dating from the 12th Century. The city has a distinct archaeological heritage which is visible in the preservation of the many historic buildings and the old city walls.

Since the early 19th century the strong connection between health and urban planning has been evident. For example improved sanitation, through sewage and water services, as well as improved housing conditions proved to have the most impact in reducing and eventually eliminating infectious diseases such as cholera and typhoid in towns and cities. In recent years urban planning and transport policies have been identified as having an impact on physical activity at individual and population level, which in turn has an impact on levels of chronic disease, overweight and obesity.

Healthy urban design is concerned with creating socially supportive environments that meet all citizens expectation for safety, accessibility, comfort and active living, which in turn support health and well-being.

Water, air and noise

Drinking water quality is very good, with all EU measures of water quality being met on a regular basis (98% - chemical & 100% - microbiological)[39]. In 2009, people in the city used 4,319,315m^3 of water, this increased by 2% in 2010 to 4,415,450 m^3 (equivalent to the water required to fill 1,766 Olympic size swimming pools). Almost all (98%) commercial premises have water meters installed while very few (0.3%) non-commercial premises and homes have water meters.

Waterford City lies at the estuary of the River Suir, which is joined upstream by the the Rivers Nore and Barrow. River water quality is affected by the environment along the river from its source to its estuary therefore the whole of the South East has an impact on the quality of water in the River Suir. The quality of water in the River Suir is good[40]. The Johns River flows through the city into the River Suir. The water quality in the Johns River, while poor, has shown some improvement in recent years[40]. Waterford City has no designated bathing areas within its boundaries.

Motor vehicles (cars, buses, lorries), and burning of fuel for power generation plants and home heating cause the release of air bourne particles and gases such as PM_{10}, PM_{25} and NO_2 which can have a direct

impact on health by increasing the risk, frequency and severity of respiratory disease and infections. Air quality in Waterford City in general is good due to the prevailing Atlantic air flow, lack of significant heavy industry and power generation plants, the city size and the ban on purchasing 'smoky fuel'[41].

Environmental noise can have a direct impact on mental health through annoyance, sleep disturbance, anger and depression.

Seven in ten people (68%) are satisfied with the levels of noise. There were some differences at individual neighbourhood level those living in Ballybeg (50%) and the Inner City (51%) being less satisfied than those living in the Dunmore Road(86.8%)[15].

Crime and safety

There is a high level of satisfaction with personal safety in the city[5]. CSO figures for the Waterford Garda Division for the first quarters (Jan-March) of 2009, 2010 and 2011 show that the number of public order, disorderly conduct, burglary, possession of drugs for personal use, driving or in-charge of a vehicle under the influence of alcohol or drugs, sexual and harassment offences show consistent downward trend. Table 9 shows the number of deaths from road traffic accidents and the number of injuries from road traffic accidents between 2005 and 2009.

Tackling crime caused by alcohol and drug use and reducing antisocial behaviour is seen as important by people living in the city[42].

Between 1998 and 2008 three cyclists were killed in road traffic accidents in Waterford[43].

Between 1997 and 2006 two children were killed in road traffic accidents in Waterford[44].

Between 1997 and 2006 17 motorcyclists were killed in road traffic accidents in Waterford[45].

Table 9: Number of deaths and injuries from road traffic accidents in Waterford

	Number of deaths	Number of injuries
2005	9	298
2006	8	234
2007	6	240
2008	7	225
2009	3	240

Source: Road Safety Authority

Since 2005, in the city alone, three people have died in road traffic accidents[49]

Transport

Almost one in three households (29%) within the city do not have access to a private car, while two thirds have access to one or more cars. Table 10 provides an overview of car ownership by neighbourhood.

Table 10: Car ownership by neighbourhood[2]

Area of Waterford	No Car	1 Car	2 Cars	3 or more Cars
Waterford City	29.%	43%	23%	5%
Ballybeg Kilbarry	29%	48%	198%	5%
Dunmore	15%	39%	39%	7%
Ferrybank	18%	48%	29%	6%
Larchville/Lisduggan	26%	50%	19%	5%
Inner City	53%	37%	8%	2%
Sacred Heart	22%	49%	24%	4%
Northwest	19%	49%	26%	6%

Active travel is the term used to describe routine or daily journeys, such as travel to work, school, shops or visiting friends, using physical activity such as walking or cycling alone or with public transport rather than cars. Active travel helps people achieve the recommended level of physical activity, which benefits their health and reduces their risk of developing chronic disease. Research shows that countries with the highest levels of active travel have the lowest obesity levels[29]. Other benefits include less road traffic injuries and improved quality of life in neighbourhoods with increased opportunities for social interaction contributing to the development of social capital.

One in four people (24.3%) travel to work or school by car[2].

There are 17km of cycle lanes across four main routes into the city, with 72 bicycle stands in the city centre.

There are over 13 bus routes connecting the city with the neighbouring towns and cities across Ireland. Bus Eireann operates six city routes and a further 3 routes are operated by a private company.

Four in ten people (37.6%) were satisfied with the public/private transport mix in the city[15].

Two in every three (65.1%) were unhappy with the effect traffic congestion was having on their daily lives. Dissatisfaction was higher (seven out of ten – 73%) in the neighbourhoods of Larchville, Inner City and Dunmore Road[15].

Younger people are more likely to walk or cycle. Men are more likely to cycle while women are more likely to walk. People in the higher socio-economic groups are almost twice as likely to be physically active in their leisure time or take part in sport, while people in the lower socio-economic groups are more likely to walk or cycle for routine journeys. People's ability to and their likelihood of choosing active travel is influenced by a number of issues including lack of information on public transport and cycle routes and their impression of the cost of public transport, the amount of time active travel would take and the safety of walking and cycling compared with car journeys[20].

Housing and living conditions

One in four houses (25.1%) in the city have been built before 1960, with the majority of houses being built before 1990. One in three houses (37.4%) in the city is rented (from the local authority, private landlords or voluntary bodies). This is higher than the national average of one in four (25.4%) for rented housing.

Almost nine out of ten houses (85%) within the city have central heating, although there are differences at neighbourhood level with one in five houses in the Inner City and Ballybeg/Kilbarry areas not having central heating. The majority of houses (95%) are connected to the public sewage system and public water supply.

Five in ten people (54%) feel they had some level of choice in selecting their current accommodation, with those on lower income generally feeling that they had less choice[15].

Four in ten people (39%) felt that their accommodation was a real home rather than just a place to live[15].

Most homeowners in the city feel that their homes are in good repair, with less than one in ten (6.1%) indicating that their homes need a lot of repair[15].

Waterford City does not have a municipal landfill site or incineration facility, it does have a civic recycling facility. The number of bring banks has increased from 19 in 2009 to 25 in 2011. In 2009, 2,874 tonnes of household waste was collected through the bring banks and civic recycling facility.

Almost all (99%) of households have access to three bin waste separation and collection services[39].

Green space

Green and open space in urban environments have many benefits including providing a habitat for local wildlife, providing recreational opportunities as well as a pleasant contrast to the built infrastructure.

Waterford City covers 4,168 hectacres.

There are three community based horticulture projects in the city with community gardens.

There are nine designated playgrounds across the city and a number of municipal parks including the Peoples Park and Wyse Park.

The development of Kilbarry Nature Park, on the reclaimed landfill site, will add a further 20 hectares of green space to the city.

Summary

Recent years have seen significant developments which have greatly enhanced the built environment of the city. It is vital that the development of the physical, economic and social infrastructure of the city continues to support and enhance health and well-being.

Health is our business – priority areas and recommendations

Making Health our Business – a health profile for Waterford City provides an overview of the many factors that influence health and well-being, with a specific focus on Waterford City where possible. It demonstrates the clear link between socio-economic conditions and health outcomes for individuals and populations.

In the course of analysing and reviewing the data and evidence the Research Advisory Group identified two priority areas for improving health and well-being in the city:

- the need to address the risk factors for chronic diseases, and
- the need to reduce the risk of deprivation, with a particular focus on improving education levels and employment opportunities.

The 'determinants of health' model demonstrates the many factors that influence health. Often initiatives and programmes focus on providing people with more knowledge, motivation and better skills to help them change their behaviour or cope better. However, because the range of factors that influence health are not within the control of any one individual this approach can have limited success. The WHO Healthy Cities Network emphasises the need to for individuals, organisations and civic decision makers to work together through policies, plans and actions to create social, community, physical and economic environments that support health.

As a member of the WHO Healthy Cities Network, our response to these health challenges should take a lifecycle approach - ensuring that all policies and actions work to reduce the gap between those with the greatest life expectancy and those with the lowest. In particular, consideration should be given to how we can:

- ensure that socio-economic policies and actions address the underlying causes of deprivation and poverty, as well as strengthening individuals and communities,
- engage with the Strategic Policy Committees to ensure the integration of health into all policy decisions in the city, and
- ensure that relevant short, medium and long-term targets are set and monitored for all actions and programmes.

In this context the Research Advisory Group make the following recommendations:

1. Develop the 2005 Quality of Life survey as a tool for monitoring the medium term impact of policies and actions.

2. Identify, implement and evaluate evidence based, sustainable programmes that strengthen understanding of and ability to reduce all risk factors for chronic illness and increase positive lifestyle behaviours:
   - Healthy eating,
   - Physical activity,
   - Not smoking, and
   - Drinking alcohol in moderation.

3. Strengthen neighbourhood identity and social capital through collaborative and integrated neighbourhood planning.

4. Strengthen city-wide community networks for health to enable all organisations involved in community health promotion:
   - share and learn from each others experience,
   - respond in a co-ordinated and strategic manner to community, neighbourhood and city needs, and
   - engage collectively with statutory partners and the civic decision making structures.

5. Use health impact assessment methods to ensure that urban planning, development policies and actions contribute to health and well-being, at community and individual level.

References

1 WHO (2008) Commission on the Social Determinants of Health: Closing the gap in a generation: health equity through action on the social determinants of health

2 Waterford City Development Board (2008) Neighbourhood Profiles: Dunmore Road, Larchville/ Lisduggan, Inner City, Sacred Heart, North West Suburbs, Ballybeg/Kilbarry, Ferrybank

3 Waterford City Development Board (2008) 'People Matters' – Intra-City Profile

4 Institute of Public Health (2010) Making Chronic Conditions Count – a systematic approach to estimating and forecasting population prevalence on the island of Ireland

5 Health Service Executive (2008) Health Status of the Population of Ireland

6 Department of Environment, Heritage & Local Government (2002) National Spatial Strategy 2002-2020 People, Places, Potential

7 Health Service Executive (2009) Health Status of the population of the Health Service Executive South East

8 Central Statistics Office (2010) Mortality Differentials in Ireland

9 Kelliher C et al (2010) All-Island Traveller Health Study – Our Geels

10 Health Service Executive National Respiratory Framework 2008 (unpublished)

11 Central Statistics Office (2010) Survey of Income and Living Conditions 2009

12 Department of Health & Children (2008) SLAN 2007 – Dietary habits of the Irish Population

13 Friel et al (2004) The financial cost of healthy eating in Ireland

14 Department of Health & Children (2007) SLAN 2007

15 Waterford City Development Board (2005) Quality of Life Survey for Waterford City

16 Central Statistics Office (2010) Quarterly Household Survey Q4 2010

17 Institute of Public Health (2006) Unequal at Birth – inequalities in the occurrence of low birth-weight babies in Ireland

18 Marmot Review Team (2011) The Health Impacts of Cold Homes and Fuel Poverty

19 Department of Environment, Heritage & Local Government – Local Authority Housing Need Report 2008

20 Institute of Public Health (2011) Active Travel – Healthy Lives

21 Layte R et al (2007) Poor Prescriptions – Poverty and access to community health services

22 Central Statistics Office (2011) Health Status and Health Service Utilisation Report Q3 2010

23 Gordon-Dseagu V (2008) Cancer and Inequalities: an introduction to current evidence

24 National Adult Literacy Agency (2002) Health Literacy Policy

25 Trusse Hasse Economic Consultants (2008) Relative Poverty Index for Waterford City

26 Cancer in your area www.irishcancersociety.ie

27 www.healthwell.ie accessed 20/6/2010

28 Department of Health & Children (2007) Irish Health Behaviour in School Children Survey,

29 Health Service Executive (2008) Framework for Action on Obesity

30 Heavey P et al (2009) Childhood Obesity Surveillance Initiative in Ireland

31 Khawe et al (2008) Combined impact of health behaviours and mortality in men and women. The EPIC-Norfolk Prospective Population

32 Health Service Executive (2008) Alcohol Related Harm in Ireland

33 Health Research Board (2009) Treated Problem Alcohol Use in Ireland – Figures from the National Drug Treatment Reporting System

34 Health Service Executive – South (2009) Data Co-ordination Overview of Drug Misuse 2008

35 Farrell et al (2008) Tackling Health Inequalities – an all-island approach to social determinants

36 Humphreys E & Dineen D (2007) Summary report – Evaluation of Social Capital in Limerick City and Environs (unpublished)

37 Waterford City Vocational Education Committee – personal communication

38 Waterford Institute of Technology (2010) Investigation of social participation and social capital in the community of Ballybeg (unpublished)

39 Environmental Protection Agency (2011) The provision and quality of drinking water in Ireland

40 Environmental Protection Agency (2010) River water quality in Waterford City and County

41 Environmental Protection Agency (2008) Irelands Environment

42 Waterford City Council & Joint Policing Committee (2007) What are your community safety priorities? Survey report

43 Road Safety Authority Pedal Cyclist Road Casualties 1998-2008

44 Road Safety Authority Child Casualties 1997-2006

45 Road Safety Authority Motorcyclist Road Collision Statistics 1997-2006

46 HSE (2010) Tobacco Control Framework

47 Department of Education & Science (2011) Retention rates of pupils in 2nd level schools (1991-2004 cohorts)

48 Oral Health of Children and Adolescents in the South East Region,1998/99. Health Service Executive South Eastern Area, 2004

49 Waterford Garda Síochana (2011) Personal communication

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Development Board

An Bord Forbartha
Phort Lairge

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