

Director of Public Health Annual Report

2012



Public Health
Agency



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Pain

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Pseudomonas

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E. coli

Macular

degeneration

Grants and benefits

Bowel screening

Words

Alive

MARA

Dementia

cough

Whooping

AAA screening

Active ageing

Health and wellbeing

Home safety checks

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Foreword



 **Dr Carolyn Harper**

People are living longer than ever before, thanks to better conditions at home and work, vaccines to prevent what used to be fatal infections, earlier diagnosis and better treatment of illness when it occurs. The population of Northern Ireland is getting older and the number of elderly people is projected to increase even further in the future. The trend of ageing populations is being seen throughout the world and is most advanced in highly developed countries. Ageing populations can be regarded as one of humanity's greatest achievements because the trend reflects the many significant advances in health and overall quality of life. This achievement is a great asset to Northern Ireland.

Active ageing

An active, secure and healthy elderly population can present huge benefits. Older people offer great experience and knowledge, not just to their own families and friends, but increasingly to workplaces and society as a whole. In doing so, they continue to contribute to the region's economy. They also add richness to family life and are more likely than younger people to be happy.

However, these benefits also come with challenges. Demand for Health and Social Care (HSC) is now being driven by long-term conditions such as heart failure, stroke, diabetes and dementia, many of which are associated with older age. As the population ages, the number of people requiring support for these and other conditions will increase. Although pensioner poverty has fallen in the last decade, it still affects a proportion of our society and, is one of the main threats to the wellbeing of the elderly population. Many older people have low incomes and, for a considerable number, old age reduces the capacity for work and increases the likelihood of becoming, or remaining, poor.



Meeting the challenges

Addressing the challenges and maximising the benefits can ensure every person fulfils their potential for a long and healthy life. Older people should be included fully in society and be able to live in good health, with dignity and security. To support active ageing and create a positive future, public health programmes focus on the needs of older people in relation to:

- health and wellbeing;
- financial security;
- the ability and opportunity to contribute and be productive;
- the ability to connect with their communities;
- the opportunity to have fun and enjoy life.

Different approaches are required to meet the changing demands on the HSC. New methods need to be better adapted to the needs of older people and should:

- build on existing services for the elderly;
- combine clinical expertise with self-management and peer support;
- enable healthier behaviour;
- take advantage of new technologies.

Tackling pensioner poverty by ensuring older people receive financial support will improve the independence of the elderly and contribute to healthy ageing. Increasing community activities will create a sense of opportunity for people in their later years and encourage vibrant, socially-engaged neighbourhoods. In turn, this will enable older people to live well for longer and will benefit us all by involving the elderly more fully in society.

Healthier choices

It's never too late to make healthier choices. Like younger age groups, older people benefit from stopping smoking, keeping a normal weight and drinking within recommended limits. Being physically active helps mental health and improves muscle and bone strength. A range of initiatives are in place and we're working with Age NI and other partners to develop new, and expand existing, programmes.

My report highlights the range of public health work undertaken to ensure our older people remain in good health for as long as possible. By prioritising the issues around ageing, the population of Northern Ireland will experience huge health, social and economic benefits.



Dr Carolyn Harper
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Further information

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Introduction

Report structure

This is the fourth Annual Report of the Director of Public Health (DPH) for Northern Ireland, detailing the main public health challenges in the region. It also provides information on the wide variety of work undertaken by the PHA and its partners during 2012 to improve the health and social wellbeing of the population. Each report focuses on an underlying theme, and this year the theme is 'older people'.

The report structure reflects the main areas of public health action:

- improving health and reducing inequalities;
- improving health through early detection;
- improving health through high quality services;
- improving health through research;
- protecting health.

For ease of reference, the sections are colour coded.

On page 72, the report also lists core tables for 2011 relating to key statistical data on, among others, population, birth and death rates, mortality by cause, life expectancy, immunisation and screening.

The tables are available as a portable document format (PDF) file on the Public Health Agency (PHA) website at: www.publichealth.hscni.net

Background

The PHA was established to:

- protect public health and improve the health and social wellbeing of people in Northern Ireland;
- reduce inequalities in health and social wellbeing through targeted, effective action;
- build strong partnerships with key stakeholders to achieve tangible improvements in health and social wellbeing.

The PHA takes direct public health action and commissions or facilitates action by others, including a wide range of community, voluntary and statutory partners across all sectors.

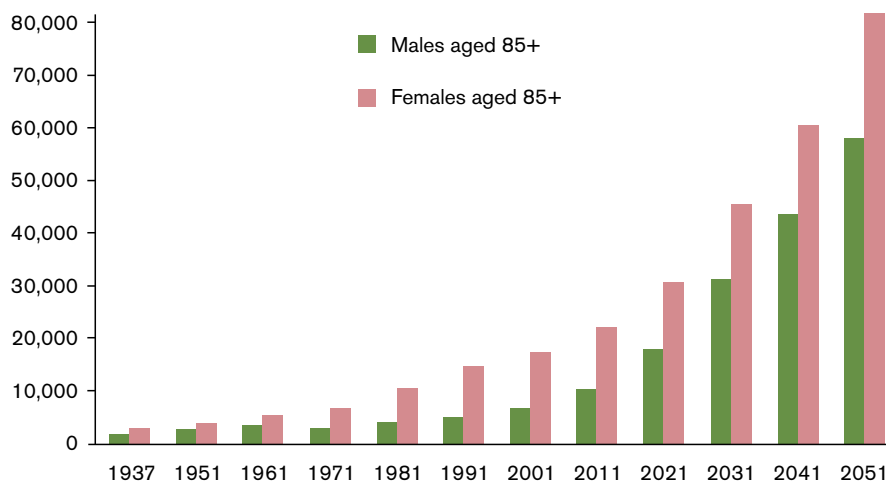
Elderly health: growing older in Northern Ireland

Similar to the rest of the United Kingdom (UK) and many other western societies, Northern Ireland is experiencing increasing numbers of people living to an older age. There are significant opportunities, as well as challenges, presented by an ageing population and the goal of public health programmes is to ensure every person fulfils their potential for a long and healthy life.



There are now 266,000 people aged over 65 years living in Northern Ireland (15% of the population). Over the last 20 years, this has increased by 60,000 people and it is forecast to double again by 2051. The biggest increase has been in people aged 85 years and over, a group that has doubled in size in the last 20 years and which by 2051 will have quadrupled (see Figure 1).¹

Figure 1: Number of people aged 85 years and over in the Northern Ireland population, 1937–2051 (predicted), by gender



Source: Northern Ireland Statistics and Research Agency (NISRA)

The increase in older people is particularly evident in women. In Northern Ireland, there are now five women aged over 65 years for every four men. The difference increases even more for older people, with the number of women aged over 85 years now more than double the number of men in this age group.¹

Life expectancy

The increasing proportion of older people in the population can be attributed to improved life expectancy for both men and women. A 65 year old man living in Northern Ireland can now expect to live another 17 years and a woman of the same age can expect to live another 20 years, which is an improvement compared to 20 years ago (see Table 1).²

Table 1: Life expectancy at 65 years in Northern Ireland, by gender, 1990–92 and 2008–10

	1990–92	2008–10
Male	14 years	17 years
Female	18 years	20 years

Source: NISRA



Although life expectancy has increased in Northern Ireland, a key part of ageing well is individuals enjoying the extra years in good health, free from disability, for as long as possible. Men and women in Northern Ireland can now expect to live in good health until about 60.5 years and 62.5 years respectively.³ Although this is an improvement of about one and-a-half years in the last decade, older people in Northern Ireland are still more likely to live in ill health than they are in the rest of the UK.⁴

Mortality

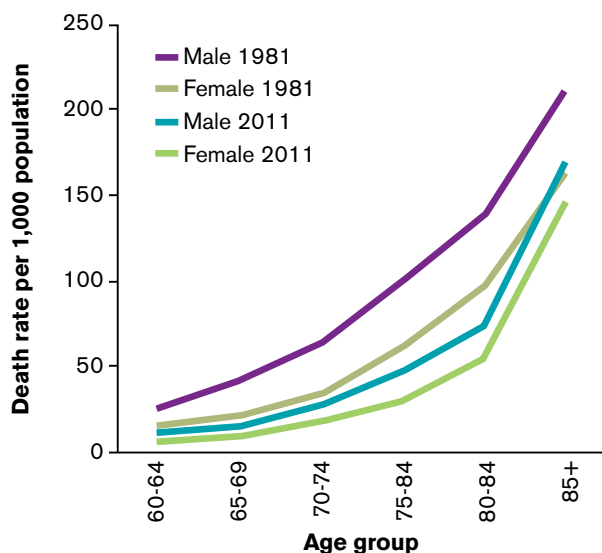
Table 2: Number of deaths in Northern Ireland, by age, 1992 and 2011

	1992	2011
All ages	14,988	14,204
65–74 years	3,726	2,457
75–84 years	5,001	4,223
85–94 years	2,763	3,973
95+ years	348	695

Source: Registrar General Office

Mortality rates have improved in the last 30 years for all of the population, including the elderly (see Table 2). As expected, after 60 years of age, mortality rates increase, with the difference between males and females increasingly evident (see Figure 2). Four out of five deaths in Northern Ireland each year occur in those aged over 65 years.

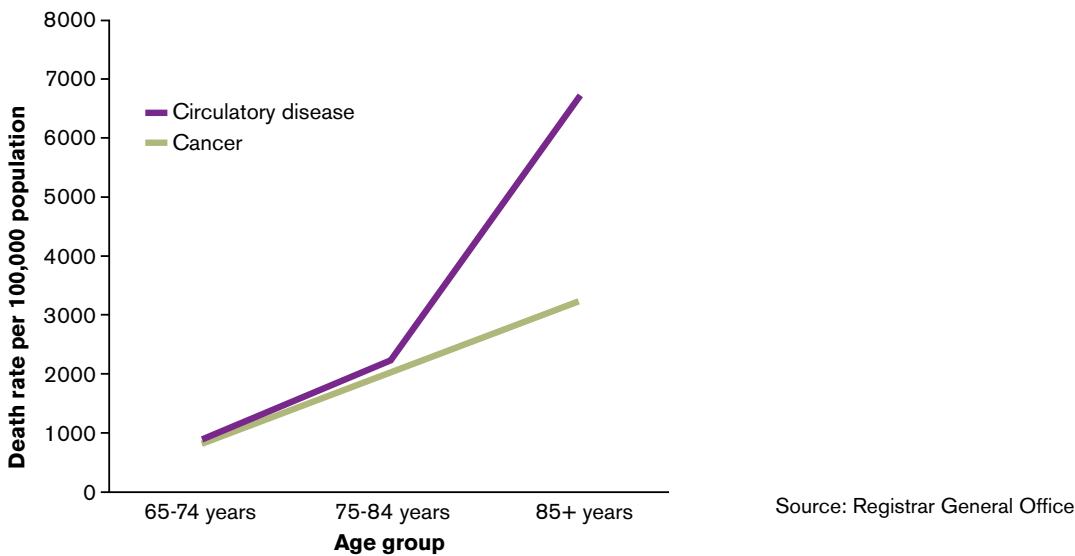
Figure 2: Age-specific mortality rates, by age group and gender, 1981 and 2011



Source: Registrar General Office

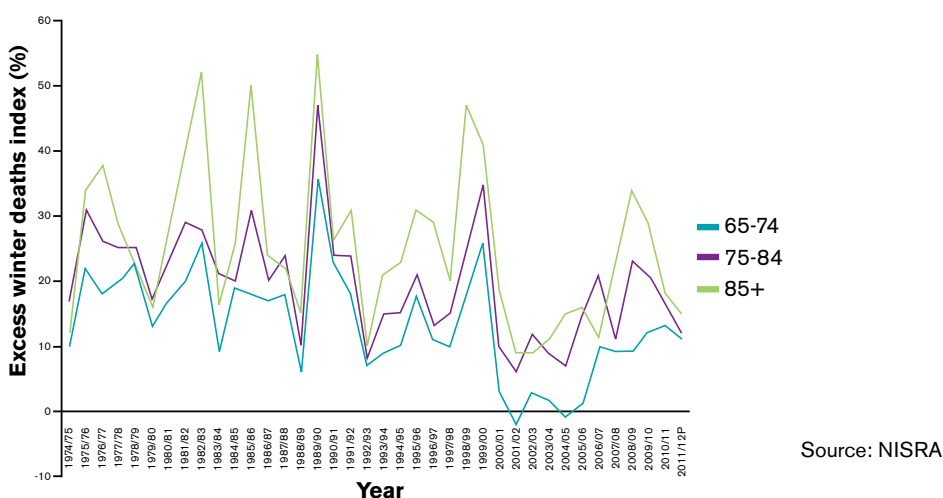
The most common causes of death in adults aged over 65 years are circulatory diseases, such as heart attacks and strokes (30%), cancer (28%), and respiratory diseases (15%). Although mortality rates from cancer increase as people age, mortality rates from circulatory diseases increase more quickly (see Figure 3).⁵ As the population ages, an increasing number of people aged over 75 years are forecast to experience some form of circulatory disease.

Figure 3: Mortality rates from cancer and circulatory diseases, by age group, 2011



Excess winter deaths[‡] are also more prevalent among elderly people. Last year, four out of five excess winter deaths occurred in those aged over 65 years.⁶ Winter deaths fluctuate every year depending on temperatures and levels of flu and other viruses (see Figure 4).

Figure 4: Excess winter deaths index in Northern Ireland, 1974/75–2010/11



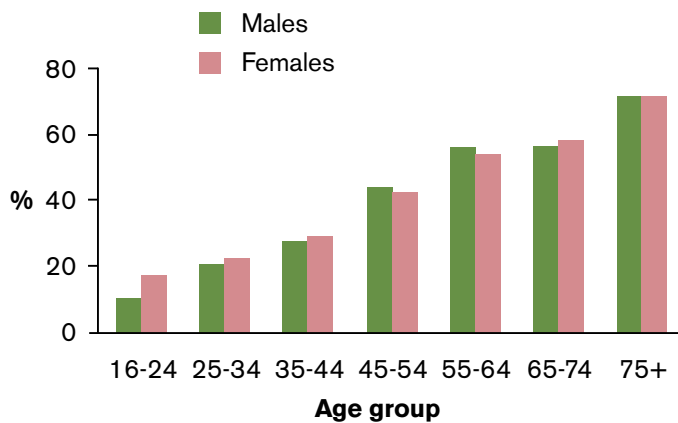
Other contributing factors are the degree to which houses are insulated against cold weather and the preventative measures taken by individuals to keep warm. Vaccination against flu is one of the most effective ways to protect older people and maintain their health during the winter months.

Long-term illness and mental wellbeing

Deteriorating health is commonly associated with older age. Two thirds of people aged over 65 years say they have a long-term illness, with older women more likely than older men to have a long-standing condition (see Figure 5).⁷

[‡] Excess winter deaths is a standard definition used across the UK and by the World Health Organization (WHO). It compares the number of deaths in the winter period (December to March) with the average number of non-winter deaths in the preceding August to November and the following April to July.

Figure 5: People who report having a long-term illness, by age and gender



Source: Health Survey Northern Ireland, 2010/11

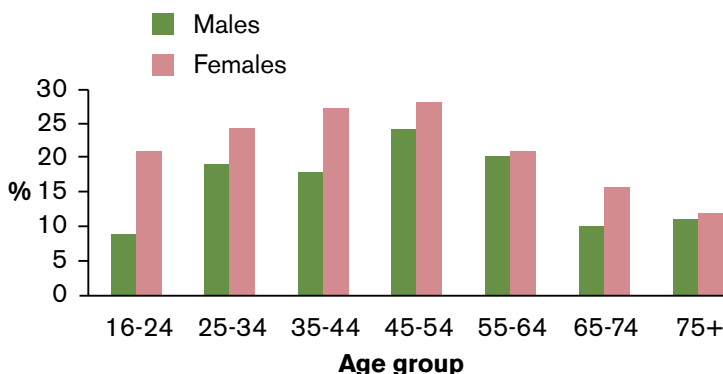
Although long-term illness does not always impact on a person’s ability to live an active life, 20% of people aged over 65 years describe their general health as not good.⁷ Long-term illnesses associated with ageing include:

- arthritis;
- cardiovascular disease;
- stroke;
- asthma;
- diabetes;
- dementia;
- loss of hearing and vision.

As a consequence of deteriorating health, older people are more likely to require hospital services. One in four people aged over 85 years are admitted to hospital as an emergency at least once every year, compared to 1 in 10 people aged 65–69 years. Pneumonia is the most common reason for people aged over 85 years to be admitted to hospital as an emergency.⁸

Mental health and psychological wellbeing are fundamental to overall health and wellbeing. Around one in five men and women aged over 65 years show signs of a possible mental health problem. Younger female pensioners (65–75 years) are more likely to suffer from a mental illness than older female pensioners (over 75 years), with the reverse seen in men (see Figure 6).⁷ These levels of mental ill health are slightly lower than those seen in younger age groups.

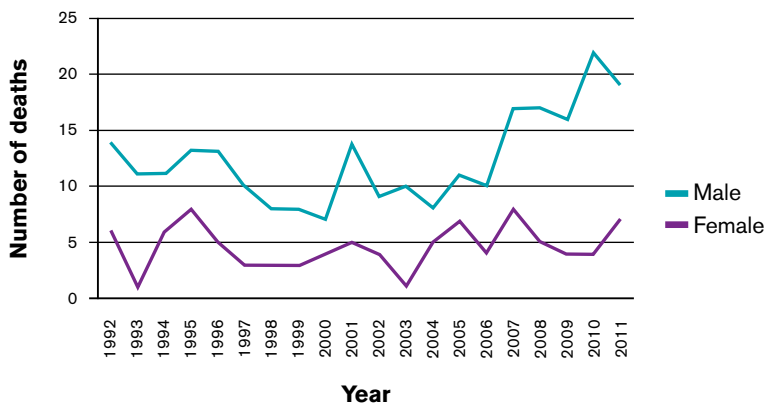
Figure 6: People who show signs of a possible mental health problem, by age and gender



Source: Health Survey Northern Ireland, 2010/11

Depression and other psychological problems can also result from social isolation and loneliness.⁹ Similar to men of any age, men aged over 65 years are more likely than women to take their own life, although the suicide rate for older people is much lower when compared to the rest of the population.¹⁰ Although the annual number of suicides in people aged over 65 years is small, overall they have increased in the last 10 years (see Figure 7).

Figure 7: Number of deaths from suicide in people aged over 65 years registered in Northern Ireland, 1992–2011



Source: Registrar General Office

Lifestyle issues

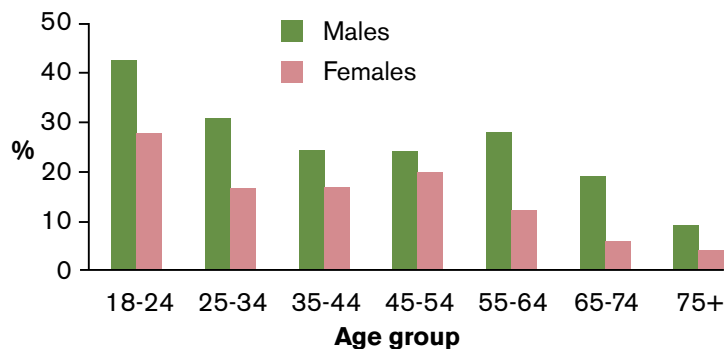
Today's older people reached adulthood during a time when smoking was socially acceptable and common in all age groups. Elderly people who smoke have often been smoking for a long time and have a substantially increased risk of suffering from smoke-related illnesses such as:

- cardiovascular disease;
- respiratory disease;
- stroke;
- dementia.¹¹

Although fewer people aged over 65 years smoke compared to the general population, one in five people aged 65–74 years, and 1 in 10 people aged over 75 years, still smoke.⁷ Evidence shows that stopping smoking, even at a later age, has health benefits.¹¹ Elderly people are less likely than younger people to try quitting smoking, but they are more likely to be successful in the attempts they make.¹¹

Generally, alcohol consumption declines with age and the proportion of non-drinkers increases.¹² In Northern Ireland, 40% of people aged 65–74 years, and 56% of people aged over 75 years, do not drink any alcohol. This is likely to be due to a number of reasons, such as changing life circumstances, historical social attitudes and growing ill health.



Figure 8: People who drink above the weekly alcohol limit, by age and gender

Source: Health Survey Northern Ireland, 2010/11

Among people aged over 65 years who do drink alcohol, about one in five men and 1 in 10 women exceed the weekly recommended level. Elderly people have less tolerance to alcohol, so they may be more vulnerable to its effects. Alcohol misuse in the elderly can lead to increased risk of:

- falls;
- incontinence;
- impaired thinking;
- hypothermia;
- self-neglect.¹²

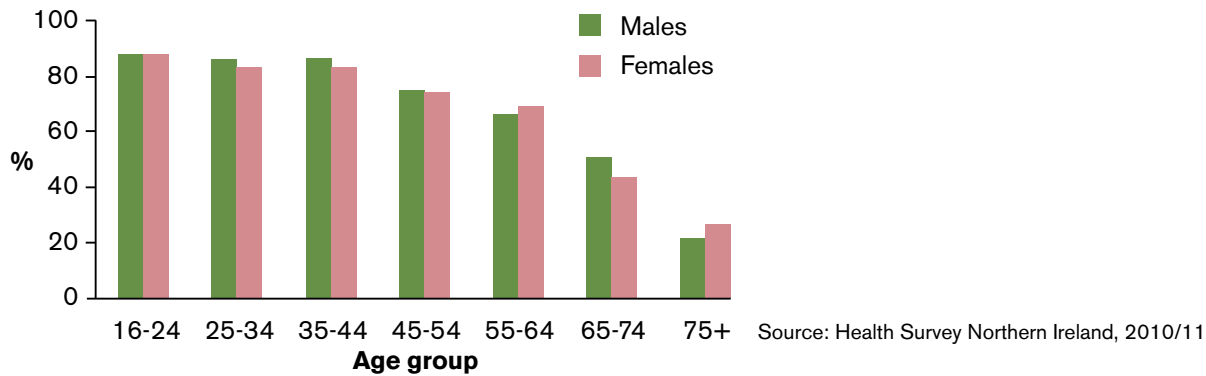
Obesity is a growing problem throughout society, with almost two thirds of adults in Northern Ireland either overweight or obese.¹³ There is a natural tendency for people to put on weight as they get older because they are often less active.¹⁴ Almost three quarters of people in Northern Ireland aged 65–74 years are overweight or obese, and it is the same for those aged over 75 years.⁷ In addition, as the growing number of overweight and obese people approach old age, obesity is likely to become an increasing problem, especially in elderly women. At the same time, however, obesity reduces life expectancy by 10–15 years, similar to the effects of smoking 10–20 cigarettes per day. People who smoke and are overweight or obese are particularly at risk of premature death.

As people age, fat tissue is more likely to settle around the waist, muscle mass decreases and physical activity is reduced.¹⁵ In Northern Ireland, only about a third of people aged over 65 years meet the recommended physical activity levels. All of these effects are more marked in women than in men. Obesity continues to contribute to mortality in older age, particularly through:

- type 2 diabetes;
- cardiovascular disease;
- stroke;
- dementia;
- osteoarthritis.¹⁵



Despite the evidence that lifestyle changes can impact positively on an individual's health at any age, elderly people are less likely than the general population to feel they can make healthy changes to their life. Only about one quarter of people aged over 75 years feel they can do something to make their life healthier, compared to 80–90% of people aged under 45 years (see Figure 9).⁷

Figure 9: Proportion of people who feel they can make their life healthier, by age and gender

Wider social determinants of health

The social determinants of health are the living, working and economic conditions that affect people's risk of disease and the actions they take to prevent or cope with illness. Such conditions are often out of an individual's control, and they contribute to the health inequalities seen in society.

Living at home and carers

Around one third of people aged over 65 years in Northern Ireland are living on their own.¹⁶ Elderly people living alone are often:

- more isolated;
- less able to cope;
- more likely to live in poverty.

Given the nature of ageing, around 5% of people are eventually unable to look after themselves and need nursing or residential home care. More than 13,000 people in Northern Ireland live in some form of nursing or residential home.¹⁶ As the number of older people increases, the number of people who require social care will also increase.

Elderly people who continue to live in their own homes are also more likely to require some form of caring support. In the 2011 census, 12% of the general population identified themselves as providing unpaid care for a family member or friend. In a survey of carers in Northern Ireland, three quarters of people being cared for were aged 75 years or over. Fifteen percent of carers themselves were aged over 75 years and in poor health.¹⁷

Pensioner poverty

The level of income that older people have to live on in retirement is strongly influenced by their earnings over the course of their working life. People with high lifetime earnings are likely to retire with state and private pensions, savings, investments and home ownership. People with low lifetime earnings are likely to retire with only a state pension, modest or no savings, and be tenants rather than homeowners.⁹



One in five older people in Northern Ireland are in pensioner poverty. Pensioners in Northern Ireland are more likely than those in Great Britain to be entirely reliant on state support for their income, with 40% of single pensioners and 25% of couples having no income other than the state pension and pension credits.¹⁸ People in all age groups in Northern Ireland are less likely than people in Great Britain to contribute to another pension. As a result, older people here are likely to continue to rely on state support.

Older people are also more likely to claim disability living allowance (DLA) in Northern Ireland than in Great Britain.¹⁸ One in five people aged over 65 years in Northern Ireland are now claiming DLA, compared to half this number 12 years ago (see Table 3).¹⁹

Table 3: Percentage of people in Northern Ireland claiming DLA in 2000 and 2012

	Total population	65 + years population
2000	8%	11%
2012	10%	22%

Source: NISRA

Social disadvantage and exclusion is also linked to pensioner poverty, for example:

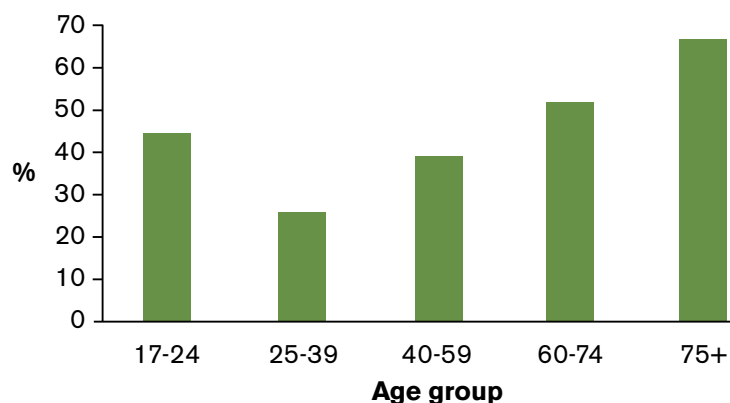
- reduced spending on basic provisions;
- fears about personal safety;
- declining health;
- loss of independence.⁹

Findings from a recent survey of pensioners in Northern Ireland show that the biggest concern for elderly people is keeping warm in the winter. The second biggest concern is fear of crime, with two thirds of elderly people highlighting this as a problem. Other issues highlighted were: not having enough money, transport, accessing healthcare, and obtaining information on benefits and entitlements.²⁰

Fuel poverty

Fuel poverty is defined as a household that spends more than a tenth of its income on fuel to maintain an adequate level of warmth. In Northern Ireland, 4 in 10 households with residents aged over 17 years live in fuel poverty. Of the households living in fuel poverty, about a third have residents aged 60–74 years and a fifth have residents aged over 75 years.²¹

Figure 10: Percentage of Northern Ireland population in fuel poverty, by age group, 2011



Source: Northern Ireland household condition survey

Household incomes, the price of fuel, and the level of energy efficiency in homes all contribute to fuel poverty. Older people are more at risk of fuel poverty because they are largely reliant on pensions and so tend to have lower incomes and are more likely to spend longer periods of time at home. They are also more likely to be affected by the ill effects of cold temperatures. Older people are more likely to be in fuel poverty in Northern Ireland than in the rest of the United Kingdom because there are more people solely reliant on state pensions here.

The aim of public health programmes

Public health programmes aim to:

- prevent ill health;
- detect and treat diseases early;
- improve the health and wellbeing of the growing number of elderly people in the region.

One of the main challenges is to not only extend life expectancy, but to increase the number of healthy years that people live – positive, active ageing. Public health programmes in Northern Ireland are based on scientific and economic evidence where it exists, or on innovative practice if evidence is limited.



Public health programmes:

- tackle pensioner poverty;
- increase community activities;
- improve lifestyles;
- develop HSC according to the needs of elderly people;
- encourage cost-effective prevention measures.

This report will highlight examples from the range of public health programmes in Northern Ireland, particularly those that have led to significant improvements in the health and wellbeing of elderly people here.

Further information

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Improving health and reducing inequalities

Overview

Give every child and young person the best start in life

Pregnant women vaccinated for whooping cough

Ensure a decent standard of living for all

MARA helps rural people access grants and benefits

Removing the limits to carers' personal development

Targeting those most vulnerable to fuel poverty

Build sustainable communities

Putting into words the reality of social isolation

Helping older people feel safe and well at home

Make healthier choices easier

Active ageing encouraged for elderly population

Health partners use evidence base to prevent accidents

Home safety checks removing the risk factors for injury

Individual health and wellbeing plans for the elderly

Overview

Overview

The challenge of improving health and reducing inequalities remains clear as we look to the new public health framework for Northern Ireland. Although there have been improvements in overall health, reflected in increased life expectancy, changes in health behaviours and changes to environments that promote and support health, the improvements have not been experienced at the same rate by all groups. The impact of the economic downturn is a further risk to health improvements, with a disproportionate impact likely in those already disadvantaged groups.

One such group is older people. For the first time, there are now more people in the population aged over 50 years than under 19 years. Although this means services need to be planned accordingly, there is also an important opportunity to promote health and wellbeing.

The new *Service framework for older people* emphasises health and wellbeing improvement standards, which highlight the importance of active ageing. Indeed, a new active ageing strategy is expected shortly from the Office of the First Minister and Deputy First Minister (OFMDFM), signalling the importance of the issue.

Improving outcomes for older people means addressing the wider determinants of health, such as housing, safety and security, poverty and income, as well as social isolation and loneliness, which can have a detrimental impact on mental wellbeing.

The PHA has been working with partners to address the factors that can improve physical and mental wellbeing. We have taken action to:

- reduce the impact of fuel poverty;
- maximise access to benefits and welfare rights;
- improve access to services;
- develop opportunities to promote social engagement, volunteering and self-reliance.

These are some of the building blocks for better health. Central to such action is the engagement of older people themselves. The so-called 'grey power' is an essential energy to drive change and a real resource for planning the future.

Further information

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Give every child and young person the best start in life

Pregnant women vaccinated for whooping cough

Public health challenge

Along with the rest of the UK, Northern Ireland saw a significant increase in the number of pertussis (whooping cough) cases detected during 2012. Pertussis can be unpleasant at any age, causing severe bouts of coughing that last up to three months. It is most serious in babies under six months of age, when it may result in hospital admission and even death.

Immunity from pertussis vaccination starts to decrease after four or five years. As a result, teenagers and adults who were vaccinated in childhood may become susceptible to the infection as they get older. Pertussis is often undiagnosed in these age groups as it may not cause severe symptoms. However, individuals can still be infectious to others, particularly young babies who have not yet been vaccinated.

The challenge is to protect babies who are too young to be fully vaccinated against infection.

Actions

GPs were informed in writing of the outbreak to ensure they considered the diagnosis in individuals presenting with pertussis-like symptoms. They were also asked to report suspected cases to the PHA so that appropriate public health action could be taken.

Press releases were issued, giving advice to the public and re-emphasising the importance of being vaccinated.

In September 2012, the Joint Committee on Vaccination and Immunisation recommended vaccinating pregnant women at between 28 and 32 weeks gestation to protect young babies. As a result of this vaccination, the woman produces antibodies that are passed on to the baby before birth, helping protect the baby in the first months of life.

Impacts

With heightened awareness among GPs, there was a significant increase in the number of reports of pertussis in older people, and appropriate public health actions were taken.

The programme to vaccinate pregnant women was successfully implemented from early October 2012. It is still too early to assess the effect of the programme. However, initial indications are that around 60% of eligible pregnant women received the vaccine in the first two months.



Next steps

The PHA will continue to monitor vaccine uptake and pertussis cases. The vaccination programme for pregnant women will continue for at least as long as the outbreak. Professionals and the public will be reminded of the importance of vaccination on a regular basis.

The biggest challenge is to prevent similar outbreaks in the future, which is difficult when immunity to pertussis is not long-term. It would be extremely difficult to vaccinate the entire population every five years. Similar outbreaks have occurred in many developed countries with high immunisation uptake levels and experts throughout the world are looking for a long-term solution.

It is important to remember that the childhood vaccination programme has greatly reduced the number of pertussis cases. Even in an outbreak year, such as 2012, cases are still 10 times lower than they would be without vaccination.

Key facts

- There were 309 confirmed pertussis cases in Northern Ireland in 2012, compared to 15 cases in 2011.
- The number of cases in 2012 was the highest in more than 20 years.
- There were more than 3,000 pertussis cases per year in the pre-vaccination era.
- Pertussis vaccine uptake in Northern Ireland is over 97% by 12 months of age.

Further information

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Ensure a decent standard of living for all

MARA helps rural people access grants and benefits

Public health challenge

Evidence indicates that people suffering the greatest inequalities and disadvantages have the most difficulty accessing services.²² As such, they require a more innovative, extensive and personal approach to that which is traditionally used.

Addressing issues such as poverty and exclusion requires a supportive and empathetic approach that builds trust and commitment. A Deloitte report suggests that visiting people in their homes encourages them to avail of services and grants they would not otherwise have known about.²²

Actions

'Maximising access to service grants and benefits in rural areas' (MARA) is a cross-departmental regional project funded by the Department of Agriculture and Rural Development (DARD) and managed by the PHA. The aim of the project is to improve the health and wellbeing of people who are living in, or at risk of, poverty and social exclusion in rural areas of Northern Ireland. The project helps them access local services, grants or benefits.

Delivery zones, spread over the 224 rural super output areas in Northern Ireland, were identified for the project. Nine rural community organisations were then commissioned to recruit and train up to 95 people to carry out home visits. Vulnerable households in the following categories were targeted:

- older people;
- carers;
- disabled people;
- lone parents;
- ethnic minorities;
- lone adults;
- farming families;
- low income families.

Households were referred to services, grants and benefits, including:

- rural community transport;
- smart passes for free or half fare travel;
- the 'Warm Homes' scheme;
- grants for disabled facilities;
- home safety checks;
- benefit entitlement checks;
- other local or social services available in their area.

As of November 2012, 1,300 households had an initial visit and a further 244 had a follow-up review.

Impacts


The impacts and outcomes of the MARA project will be identified as the visits are completed. The anticipated outcomes include:

- increased access to home improvement schemes, particularly energy efficiency grants, for at least 20% of targeted households;
- increased access to full benefit entitlement checks for at least 35% of targeted households;
- increased access to a range of local services for at least 20% of targeted households;
- increased access to a range of regional/universal services for at least 15% of targeted households;
- increased access to community transport for at least 25% of targeted households.

Next steps

The programme is to be rolled out in 13 designated rural deprivation areas, which will train a further 120 people and reach 12,000 homes. Other Government departments are looking at the outcomes with a view to rolling out the programme in urban disadvantaged communities.



 The MARA Project was officially launched by both the Minister for Agriculture and Rural Development, Michelle O’Neill (second left) and the Minister for Health, Edwin Poots (centre).

Key facts

From the 1,300 visits, 3,671 referrals were made, of which:

- 78% required a benefits entitlement check to address poverty issues and 35% received additional benefits;
- 51% required a home safety check to address accident prevention;
- 43% were referred to local services to address social exclusion;
- 37% were referred to the ‘Warm Homes’ scheme to address fuel poverty;
- 27% were referred to the rural transport scheme to improve access to services;
- 24% were referred to occupational health for support around accessibility equipment and rehabilitation to their home.

Further information

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Removing the limits to carers' personal development

Public health challenge

Carers provide unpaid support to family and friends who would not be able to manage on their own. According to a 2006 Equality Commission report, 30% of households in Northern Ireland are occupied by a person with a limiting long-term illness and an unpaid carer.²³ Thirteen percent of people aged over 65 years provide some type of informal care.²⁴

In 2011, a report from the Princess Royal Trust for Carers indicated that:

- 70% of older carers suffer poor health because of their caring role;
- 65% have a long-term health problem or disability;
- 69% reported that caring has an adverse impact on their mental health.²⁵

The public health challenge is to support older people who are carers and ensure they have a good quality of life.

Actions

A social economy initiative, 'Me Unlimited', has been commissioned by the PHA as a priority under its Western Investing for Health (WifH) programme. The initiative provides a range of tailored personal development programmes to support older carers.

Examples of such programmes include 'It's All About Me', which targets older carers of people with Alzheimer's/dementia, and 'Reach Me', for isolated older male carers who, due to health, mobility or confidence issues, can't access mainstream programmes.

All programmes are tailored to meet the personal and social development needs of unpaid carers. They aim to build coping, resilience and self-management skills, while promoting positive health, wellbeing and self-care, thereby empowering carers to plan for a positive future.

Impacts

Between April and December 2012, 35 carers participated in the 'It's All About Me' programmes and six in the 'Reach Me' programme. Sixty percent went on to participate in advanced personal development programmes, achieving Institute of Leadership and Management Development awards. An evaluation of the programme indicated that:

- 100% of participants said they were more relaxed and experienced a reduction in stress levels;



Older male carers involved in the Riverside 'Me Time' group and who have participated in 'Me Unlimited' programmes

- 100% experienced an improvement in their mental state;
- 69% said they developed a more positive attitude;
- 100% met new friends/social networks;
- 78% experienced increased energy levels;
- 69% became more self-confident;
- 62% said the programme had improved relationships with family and friends.

Positive comments included:

“I feel mentally and socially improved and relaxed.”

“The programme has encouraged me to join more groups and look for voluntary work. It has also made me aware of the dedication and hard work I put into my role as a carer.”

Next steps

The next step will be carers creating their own local ‘Me Time’ groups, where they meet on a regular basis, have a source of support and provide social engagement opportunities. This approach is instrumental in ensuring carers have continued focus on their mental, physical, emotional and holistic wellbeing.

All the carers now have the option of joining one of six ‘Me Time’ groups, which are supported and funded by the PHA.



Carole Atkinson and Florence Moore, who participated in the ‘It’s All About Me’ programme in Strabane and are now involved in the local ‘Me Time’ group. Both care for husbands with Alzheimer’s disease and now enjoy a variety of activities that provide them with respite from their caring roles.

Key facts



To date, 41 carers (30 females and 11 males) have taken part in programmes for older carers and/or those caring for an older person. Of those involved:

- 67% developed a new skill (including stress management and relaxation skills);
- 62% learned how to get help when needed;
- 100% improved their communication skills;
- 100% said they would recommend the programme to another carer.

Further information



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Targeting those most vulnerable to fuel poverty

Public health challenge

Living in cold conditions is a serious risk to public health and older people are one of the most vulnerable groups. Not only are they more likely to experience fuel poverty, they are also more vulnerable to the impacts. In Northern Ireland, older people living alone are known to be most at risk of living in fuel poverty. Many older people go without other essentials, including food, to keep warm.

Actions

To reduce cold-related illnesses among those most vulnerable to fuel poverty and the effects of cold weather, the health and social wellbeing improvement teams across the PHA take forward a range of actions that directly target those living in, or at risk of, fuel poverty. These measures include the following:

Keep Warm Packs

In collaboration with local community and voluntary organisations, Health and Social Care Trusts (HSCTs) and local councils, the PHA has funded Keep Warm Packs to help protect those vulnerable to fuel poverty and reduce the incidence of cold-related illnesses.

Benefits maximisation

A range of benefit maximisation services are supported by the PHA. The services aim to reduce poverty and inequalities by providing one to one assessments for vulnerable older people, including assistance with completing claim forms and signposting to other services.

Fuel stamps

The PHA works in partnership with local councils and St Vincent de Paul to help householders with oil central heating budget and save more effectively. Oil stamp savings cards can be purchased from local retailers and used as payment, or part-payment, for oil with participating suppliers.

Northern Exposure project

This is a project delivered by National Energy Action (NEA) Northern Ireland on behalf of the PHA. It aims to tackle home heating and insulation problems in Belfast by engaging with local community groups to raise awareness of fuel poverty and energy efficiency.

Neighbourhood renewal partnerships

In the Western and South Eastern areas, the PHA works with partnerships to develop locally responsive plans for severe weather events.

Impacts

During 2011/12, the following support was given to older people through PHA initiatives:

- More than 3,100 Keep Warm Packs were distributed.
- Additional benefit uptake due to PHA-supported assessments/referrals exceeded £1,574,477.
- More than 2,100 additional referrals were made to fuel poverty schemes.
- Sales of fuel stamps totalled £4,629,110.

Next steps

Health and social wellbeing improvement teams will continue to tackle inequalities among older people by taking forward programmes to reduce the impact of poverty on health and wellbeing. A key objective is to expand the capacity and reach of existing programmes so that everyone receives the support they need.



Norman Kerr, Energy Action Scotland (EAS) Director; Dr Lesley Wilkie, EAS Board; Sir Robert Smith MP, EAS Vice President; Hilary Johnston, Health and Social Wellbeing Improvement Manager, PHA; and Dr Peter Cawston, GPs at the Deep End/Royal College of General Practitioners (RCGP) Scotland, pictured after the session focusing on how the effects of poverty, fuel poverty and cold homes impact on people.

Key facts



- The rate of fuel poverty for people aged 60–74 years in Northern Ireland is 53%, and the rate for people aged 75 years and over is 76%.²⁶
- 83% of older people who live alone need to spend more than 10% of their income on energy costs and therefore are living in fuel poverty.²⁶
- Households in Northern Ireland spend more than twice as much of their disposable income on energy than households in London, and about 60% more than the UK average.²⁷
- In the winter of 2010/11, 66% of excess winter deaths involved people aged 75 years and over. The highest rates of excess winter deaths relate to people aged 85 years and over.²⁸

Further information



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Build sustainable communities

Putting into words the reality of social isolation

Public health challenge

Loneliness and social isolation among older people is a growing public health issue in Northern Ireland.²⁹ The terms 'loneliness' and 'social isolation' mean different things; however, the experience of both is negative.³⁰ Older people are more likely to suffer from loneliness and social isolation due to loss of friends, family, mobility and income.²⁹ This has a negative impact on their health and social wellbeing:

- Individuals who are lonely have higher blood pressure.³⁰
- Loneliness is associated with depression and higher rates of mortality.^{29,30}
- Individuals who are lonely and socially isolated are more likely to have early admission to residential or nursing care.^{29,30}

Actions

To reduce the prevalence of loneliness and social isolation, the PHA Health and Social Wellbeing Improvement Team (Belfast) provided funding through 'Engage with Age' (EWA) for a 'creativity programme' in south and east Belfast. The programme targeted older people living in social isolation who were interested in keeping active in the community.

EWA identified socially isolated people (aged 60 years and over) through local community networks and conducted face-to-face interviews. They recognised that some people were keen readers, while others enjoyed storytelling and recalling old memories. A creative writing group was suggested as a means of encouraging these people to leave their homes, arrange meetings and discuss their shared interests. EWA sourced a tutor and provided transport to and from weekly meetings in the local library.



Members and friends of 'Words Alive' at their Christmas Lunch in Donegall Pass Community Centre, December 2012. The 'Words Alive' creative writing group started out with 10 members and has now expanded to 18. The members have already published their first anthology *Pen to paper* in 2012.

Impacts

The 'Words Alive' group was initially closed to encourage participation and reduce the anxiety of interacting with unknown people (10 members). The group has grown in confidence and is now open to new members (currently 18).

An evaluation demonstrated the following positive impacts on individuals in the group:

"It has opened doors, opened many things for me, things I thought I never could do before."

"Companionship is uplifting – the whole fact of being out of the house and having somewhere to go, and being with people who have the same interests."

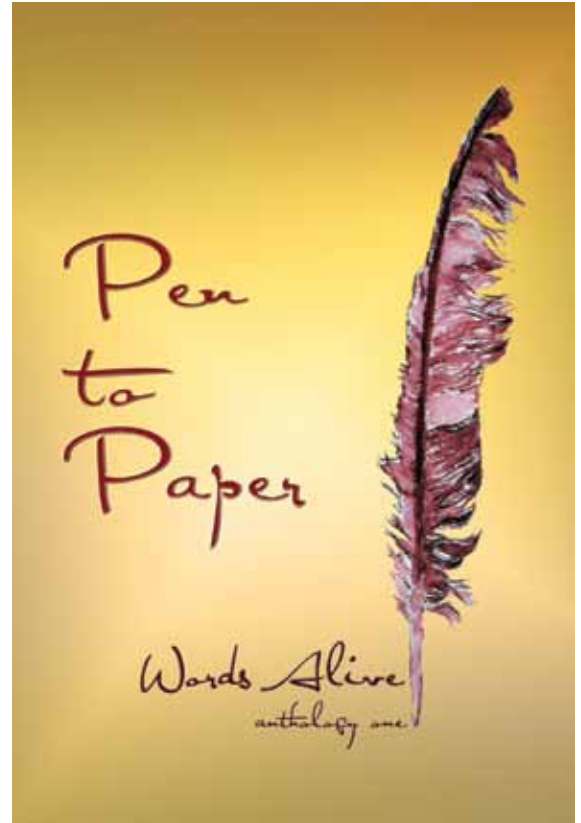
“Physically and mentally, I feel stronger.”

“Commitment each week – I have to get up and go, otherwise I wouldn’t get out of bed. The chance to write and learn the nuances of the art of writing.”³¹

The group is now self-sufficient and has published its first anthology *Pen to paper*. The members took part in Culture Night Belfast, where they gave readings from their works.

Next steps

- The PHA Health and Social Wellbeing Improvement Team (Belfast) continues to provide funding to EWA to target socially isolated people.
- The ‘Words Alive’ group is now planning to reach out to other isolated older people by doing readings of their works in nursing and residential homes.
- The group also plans to secure funding to enable it to engage with the local Polish community.



Key facts

- Loneliness is the biggest problem facing older people in Northern Ireland after the fear of crime.³²
- 31% of all pensioners in Northern Ireland live alone.³²
- The proportion of older people aged 65 years and over in Northern Ireland will increase from 14% at present to 22% by 2032. The proportion of older people living to 85 years and over will double from 2% to 4% in the same time.³³

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Helping older people feel safe and well at home

Public health challenge

Cold homes have a significant impact on people's health. One of the best ways to stay healthy during winter is to stay warm. Staying warm over the winter months can help prevent colds, flu, or more serious health conditions such as heart attacks, strokes, pneumonia and depression.

Every winter in the UK, 25,000–30,000 deaths are linked to the cold weather.³⁴ Approximately four million households in the UK are currently in fuel poverty, which is when a household spends more than 10% of its income on fuel to stay warm.³⁵

Actions

The PHA works in partnership with the Western Home Environmental Assessment Project (WHEAP) to meet the needs of older people in rural Limavady by providing equipment in the event of harsh winter and emergency situations. Given the higher than average proportion of older people in the Limavady area, WHEAP struggles to meet the needs of all the elderly who require assistance.

In December 2011, WlFH provided £4,450 to the 'Be Safe Be Well' programme, which went towards the 'Safe Home' project. This is a Big Lottery funded project being rolled out across Limavady over five years. In addition to Big Lottery funding, the project has been financed by the Limavady Policing and Community Safety Partnership (PCSP) and the Police Service of Northern Ireland (PSNI), demonstrating excellent partnership working.

The WlFH funding was used to complete 50 home visits for the 'Safe Home' project, which represented 50% of the cost of the visits. Since then, numbers have risen to 315 visits. Up to 10 pieces of home safety and security equipment were provided for each household, and fitting where required, including a safe home security pack, secure ring door chain, solar outdoor welcome light and emergency lanterns.

Impacts

Monitoring of the project demonstrated the following:

- Providing guide lighting for emergencies such as power cuts was effective in preventing falls.
- Fear of crime was reduced.
- There was an improvement in participants' moods and emotional health and wellbeing.



David McNamara from the 'Be Safe Be Well' programme provides home security information under their 'Safe Home' project.

Next steps

The 'Be Safe Be Well' pilot highlighted the need for a standardised installation process, using quality assured equipment and employing quality assured fitters to install it. It also underlined the role of equipment in:

- reducing home accidents;
- preparing older people for the winter;
- emergency planning.

In 2012/13, the WifH later years sub-group has commissioned WHEAP to pilot the fitting of home equipment through the DARD and Western HSCT 'Flexicare' scheme.



David McNamara from the 'Be Safe Be Well' programme demonstrates how to use an emergency lantern as part of their 'Safe Home' project.

Key facts



- In 2009/10, 37.7% of all admissions to hospital for home accidents in the Limavady district were people aged over 65 years.

Further information

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Make healthier choices easier

Active ageing encouraged for elderly population

Public health challenge

Older people are now living longer and are healthier and more active than ever before. Currently, there are 263,920 people in Northern Ireland aged over 65 years – 15% of the population. By 2041, 24% of the population will be aged over 65, with one in four of these aged over 85.³⁶

As people get older, they are more likely to need help from HSC services and therefore older people are the main users of HSC. However, there is good evidence that much can be done to promote active ageing and improve and maintain health and wellbeing as people age.^{37,38,39,40}

Actions

The PHA has identified older people as a key group for action and is working to:

- advance health and wellbeing in older age;
- reduce the inequalities experienced by older people;
- promote the inclusion and full involvement of older people within society and local communities;
- improve the provision, quality and safety of services and care to address the needs of older people as they age.



Artist Cheryl McChesney with a participant in the 'Here and Now' project at Musgrave Park Hospital.

Impacts

In 2011/12, the PHA led and supported new areas of work aimed at improving the health and wellbeing of older people. These included the following:

- Developing the *Service framework for older people* in collaboration with the Department of Health, Social Services and Public Safety (DHSSPS), Health and Social Care Board (HSCB) and HSCTs. The framework aims to set standards for HSC services for older people.⁴¹
- Piloting new approaches, such as the 'Colin health checks' scheme, to encourage older people to improve and maintain health and wellbeing. Since the launch of the scheme in May 2012, more than 1,200 older people have had a health assessment and been signposted to other services that improve wellbeing.



Sister Carla Skillen offers help and advice to a Colin area resident as part of the older people's 'Colin health checks' scheme.

- Improving the provision of ‘falls prevention’ services across the region. Falls are increasing at 2% per year and represent the most common cause of admissions to hospital in those aged over 65 years.⁴² The PHA is working in partnership with the HSCB, HSCTs and others to develop new services in line with national best practice.⁴³ Investments are currently being made in all HSCTs to reduce the risk of falls. For example, during 2012 in the South Eastern area, 800 older people received a falls assessment, 900 received a home safety check, 325 completed the six week ‘Strength and balance’ programme, and more than 5,000 were involved in general awareness programmes.
- Reducing the risk of social isolation and loneliness among vulnerable older people as a result of losing friends, family, mobility or income is a key public health issue.⁴⁴ Between 5% and 16% of people aged over 65 years report feelings of loneliness and 12% feel socially isolated.^{45,46} The PHA is working with a range of local groups and organisations, such as Arts Care Northern Ireland, to develop new and innovative approaches aimed at reducing the risk of isolation among older people.

Next steps

The focus for the future is to ensure older people of all ages have access to health and wellbeing improvement services that reduce the risk of ill health and ensure quality of life and wellbeing is maintained at the highest possible level, regardless of age and changing circumstances.



↑ At the launch of the PHA/Arts Care ‘Here and Now’ project are (left to right): Hannah Dearie, Health and Social Wellbeing Improvement Team, Northern area; Sarah Reid, Health and Social Wellbeing Improvement Team, Belfast area; Maria McManus, Project Coordinator, Arts Care; Frances Murphy, Chair of Arts Care; Chris Totten, Health and Social Wellbeing Improvement Team, South Eastern area; Jenny Elliot, Director, Arts Care; Brendan Bonner, Health and Social Wellbeing Improvement Team, Western area.

Further information ⓘ

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Health partners use evidence base to prevent accidents

Public health challenge

Falls are a common problem affecting older people. They inflict high levels of personal and financial cost and are the main cause of disability and death in people aged over 75 years in the UK.⁴⁷

Studies have shown that one third of people aged over 65 years in the general population have one fall per year, with 40–60% of these falls causing injury.⁴⁸ After a hip fracture, 50% of people can no longer live independently. Fear of falling again reduces quality of life and wellbeing, even if a fall does not result in serious injury. Based on costs from 2009/10, the South Eastern HSCT *Falls and osteoporosis strategy* estimated that for every hip fracture avoided, approximately £10,170 could be saved.⁴⁸

Actions

The PHA, in partnership with the Western HSCT, has developed an evidence-based, joint-working approach to accident prevention. The PHA is working with stakeholders, including the Western HSCT, HSCB, and community and voluntary organisations, to deliver a range of programmes targeted at vulnerable families and older people at risk of falling.

Impacts

Between April 2011 and December 2012, a number of services were put in place:

- An information officer has been employed in the emergency department of Altnagelvin Hospital to record details on older people and falls. This information is used in collaboration with the health improvement department to produce annual trends of accidents. These data are then used to plan services, identify actions and distribute public health messages.
- WHEAP has employed five health and safety officers. Each year, they carry out home safety assessments and provide safety equipment and information to approximately 1,500 homes in the Western area.
- The physiotherapy department provides strength and balance training to staff who work with older people in the community and voluntary sectors. To date, they have coordinated delivery of the programmes to 35 older people at risk of fractures.



Next steps

National guidelines recommend integrated services for falls and fracture prevention and treatment. The PHA will continue to work closely with relevant stakeholders to coordinate services already in place and further develop care pathways for falls prevention.

Key facts

- Fractured neck of femur is the third leading cause of non-elective admission to hospital in Northern Ireland.
- In 2010/11, 2,379 people were admitted to hospital in Northern Ireland with a fractured neck of femur.
- Of these, 413 were admitted to a hospital in the Western HSCT, at a total cost of approximately £4,200,210.
- A further 219 fractures were treated in a Western HSCT hospital in 2010/11, at a total cost of approximately £410,625.
- For every fracture of the upper arm, back or wrist avoided, approximately £1,300, £3,246 or £1,080 respectively could be saved.⁴⁹

Further information

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Home safety checks removing the risk factors for injury

Public health challenge

The World Health Organization (WHO) has estimated that by 2020, unintentional injuries will account for the single largest loss of healthy human years.⁵⁰

Unintentional injury places a huge burden on individuals, families and health services. Among the older population, falls are the most prevalent cause of accidental injury. These incidents are due to:

- age;
- disease-related conditions;
- interactions with the social and physical environment.

Accident statistics usually focus on the number of deaths and hospital admissions, but many more injuries are treated by GPs and emergency departments. The risk of death from an accidental fall increases with age. For many people, particularly the elderly, injuries can lead to long-term disability, distress and loss of independence.

Actions

The PHA works in partnership with local councils, environmental health groups and the Royal Society for the Prevention of Accidents (RoSPA) to reduce environmental risk factors in elderly people's homes. The Home Safety Check Scheme is carried out by home safety officers who have completed City and Guilds home safety training delivered by RoSPA.

The home safety officers provide free home safety checks that include room-by-room inspections, individual needs assessments of relevant safety equipment, and tailored advice on accident prevention. The scheme takes self-referrals and referrals from HSC professionals and community groups. The officers also make onward referrals to HSC, the Northern Ireland Fire and Rescue Service (NIFRS), the Northern Ireland Housing Executive (NIHE) and voluntary and community organisations.

Other areas of work include raising awareness with community groups and schools, and testing electric blankets.



Electric blanket testing – Newtownabbey Borough Council invited members of the community to bring in their electric blankets for safety testing and advice on use.

Impacts


During 2011/12, more than 1,300 checks were carried out in households with people aged over 65 years. The impacts of the scheme include:

- referral of more than 650 older people to further services, including 219 to the NIFRS and 200 to occupational therapy services;
- provision of 4,278 items of home safety equipment known to reduce the risk of accidents, such as helping hands, touch lamps, slip mats and shoe horns;
- distribution of more than 3,100 advice sheets about preventing falls, accidental fires and poisoning.

Next steps

A new home accident prevention strategy is in development and due to be released by the DHSSPS in the coming months for consultation. The PHA is a key contributor in the development and implementation of the strategy. Keeping people safe at home is also core to the delivery of the new Public Health Strategy, due to be released in 2013.



 **Slipper exchange** – An event hosted by Ballymena Borough Council where older people within the community were invited to exchange their slippers for ones that were correctly fitted and had slip-resistant soles.

Key facts



- In recent years, the number of people dying from falls in the home has exceeded the number dying in transport accidents.⁵¹
- Falls account for 73% of fatal accidents in the home involving people aged over 65 years.⁵²

Further information



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Individual health and wellbeing plans for the elderly

Public health challenge

Among the consequences of an ageing population are more people aged over 60 years who:

- experience long-standing illness and mobility difficulties;
- require carers and home help services;
- live in poverty, including fuel poverty.⁵³

Between 2001 and 2010, the number of people aged 65 years and over in the Western HSCT area increased by 23.54%.⁵⁴

Actions

WfH later years sub-group has developed 'individualised health and wellbeing plans for older people' following recommendations in a research study by the Rural College.⁵⁵ The programme was piloted in three healthy living centres (HLCs) targeting older people, especially those who are harder to reach.

The plans cover low level health and social needs, including physical health, mental health and emotional wellbeing, by assessing:

- positive aspects of individuals' lives;
- housing and environment;
- social support networks;
- goal-setting.

The plans involve follow-up for six weeks and signposting to local services.

Impacts

Evaluation findings from the pilot indicate the following:


- A total of 260 older people completed a plan.
- The plans were highly effective as a tool for assessing and planning individual need, and preparing local programme delivery for older people. HLCs are now able to tailor services for older people around them.
- Standardised, quality assured training is required for those involved in delivering the plans.



Manus McCallion and Rose O'Driscoll enjoy a bit of dancing as part of their individual health and wellbeing plans.

- Standardised forms should be developed to enhance brand recognition of the plans among older people, service planners and delivery agents.
- The community and voluntary sectors should remain the delivery agents, with statutory professionals making referrals.
- Reablement community connect workers would be ideally placed to deliver the plans.
- A six week follow-up programme is required to encourage support for people implementing changes, based on a self-management model. This should include problem solving and goal-setting.
- Peer mentoring and/or a buddy system should be included as additional support.
- Collecting information digitally would speed up the data collection process and improve momentum.
- Other agencies, including local HSCTs, should be given access to the information when required to ensure correct care pathways are followed.



 Maureen McGuigan is put through her paces on the treadmill by fitness instructor Alec Given.

Next steps

The plans have now been implemented through all five HLCs in the Western area, targeting both urban and rural communities. As a result, 240 older people will benefit from the initiative. In partnership with the North West Ageing Well Together (NWAWT) network, a further 350 older people will be engaged in areas not covered by the HLCs. In total, almost 600 older people this year were supported through the initiative.

Key facts

- 35% of participants began walking regularly, which increased their physical activity.
- 22% were referred to the MARA project.
- 12% went on to participate in the 'Cook it' programme to improve their diet and nutrition.
- 19% engaged in IT programmes as a commitment to their lifelong learning.

Further information

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Improving health through early detection

Overview

AAA screening programme begins in Northern Ireland
Greater awareness of bowel screening is needed

Overview

Overview

Early detection of disease often produces better outcomes for patients. At an early stage of illness, treatment may be more effective and it may be possible to avoid significant ill health and, in some cases, premature death.

Population screening programmes have a key role to play in the early detection of disease. A range of programmes are available in Northern Ireland and the PHA has responsibility for commissioning, coordinating and quality assuring these programmes.

However, screening is not suitable for every condition. Organised screening programmes are only established on the recommendation of the UK National Screening Committee (NSC) and in accordance with the best available evidence. Any potential screening programme must meet a number of stringent criteria before it is recommended by the NSC.

Bowel cancer screening is now available to all residents of Northern Ireland aged 60–71 years. The next phase will see the programme rolled out to residents aged up to 74 years. Its effectiveness as a programme is already evident, with early cancers being detected.

The most recent screening programme introduced in Northern Ireland is for the detection of abdominal aortic aneurysms (AAA). This commenced in June 2012.

This section explains the above developments in more detail.

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AAA screening programme begins in Northern Ireland


Public health challenge

An abdominal aortic aneurysm (AAA) is a widening of the main artery in the body as it passes through the abdomen. The walls of the artery weaken, causing it to balloon out. It is more common in:

- older men;
- smokers;
- people with high blood pressure;
- people with high cholesterol;
- people with other cardiovascular diseases.

Close relatives of someone who has, or had, an AAA are also more likely to get one. By the age of 65, approximately 1 in 40 men will have an AAA. The aneurysm usually causes no symptoms so most people with an AAA will not feel anything different. However, about a third of these AAAs will rupture if not treated. This is usually fatal and each year 80–100 people in Northern Ireland die from a ruptured AAA. The challenge is to lower the mortality from AAAs by diagnosing and treating them before a rupture occurs.



 AAA screening involves a simple ultrasound scan of the abdomen.

A quick, free scan for all men aged 65

Did you know?
Around 1 in 40 men aged 65 have an abdominal aortic aneurysm (AAA)

All men in Northern Ireland in their 65th year will receive an invitation for an ultrasound scan that looks for swelling in the aorta.

This can be life-threatening if left untreated. Look out for your invite in the post. Men over 65 can request a scan through the central screening office on 028 9063 1828. For further information, contact your GP or visit www.publichealth.hscni.net

HSC Public Health Agency | DHSSPS | AAA Screening

Public Health Agency, Division of Public Health, 10 Division Avenue, Belfast, BT2 9JG. Tel: 028 9063 1828. Text Relay: 0800 028 9063 1828. www.publichealth.hscni.net

Actions

Research shows that screening men aged 65 will reduce the death rate from ruptured AAAs by around 50%.⁵⁶ Screening women for AAAs is not recommended as they are less likely to develop the condition.⁵⁷ The AAA screening programme began in Northern Ireland on 18 June 2012. All men in Northern Ireland are invited for screening in the year they turn 65. Men over the age of 65, who have not previously been screened, can self-refer by contacting the central screening office (Tel: 028 9063 1828).

Screening involves a simple ultrasound scan of the abdomen. It is quick and painless. It should also be accessible to everyone as it is provided in 17 locations throughout Northern Ireland, including health and wellbeing centres, community hospitals and primary care facilities. More venues should become available during the course of the year, while plans are in place to screen in a number of prison locations.

Impacts

There are four possible results from screening:

- a normal result (no AAA);
- a small AAA,
- a medium AAA;
- a large AAA.

Men with a normal result are discharged from the programme and do not need to be screened again. Men with a small or medium sized AAA are kept under surveillance and re-screened every year or three months respectively. Men diagnosed with a large AAA are referred to a vascular surgeon for further investigation and treatment. All GPs are informed in writing when an AAA is identified in one of their patients.

Next steps

A quality assurance process is being developed to monitor the performance of the programme and ensure it meets national quality standards.⁵⁸



Key facts

- The total screening cohort from 1 July 2012 to 26 March 2013 was 7,088 men, which included 239 self-referrals.
- 100% of men within this cohort were offered at least one screening appointment by 31 March 2013.
- In all, 75 AAAs were detected in this period.
- Uptake for screening among the target population was 81%.

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Greater awareness of bowel screening is needed

Public health challenge

Bowel cancer is the second biggest cause of death from cancer in Northern Ireland. A bowel cancer screening programme was introduced in 2010 for men and women aged 60–69 years, aimed at increasing the rate of early detection and improving outcomes through successful treatment.

Actions

From January 2012, the bowel cancer screening programme was successfully rolled out across all HSCTs in Northern Ireland. The age range was then extended in April 2012 to include individuals aged up to 71 years. The programme has been able to ensure everyone who turned 72 in 2012 was invited for screening at least once before their 72nd birthday, no matter where they live. Colonoscopy capacity for screening patients has been increased in all HSCTs so those with a positive screening test are offered timely follow-up investigations.

The PHA has also been working to increase awareness of bowel cancer screening among the target population. A public information campaign ran in February and March 2012, which included television and radio advertising, panel posters and print media. A re-run of the campaign commenced in November 2012.


Bowel cancer screening was also the chosen topic for the PHA stand at the Balmoral Show in Belfast, where staff had the opportunity to talk to the visiting public and farming community about the programme.

Impacts

Between the launch of the programme in April 2010 and the end of December 2012, more than 175 people were diagnosed with bowel cancer. Of these, approximately 75% would be considered early stage cancers with a good long-term prognosis.

Many more have been identified as having polyps in their bowel, which increase the risk of developing bowel cancer in the future. Polyps are removed during the screening process and the patient is placed on a polyp surveillance programme. This means they are offered a repeat colonoscopy in one or three years' time to check if the polyps have returned.




 Bowel cancer patient Margaret Fenton, from Omagh, shows off a model of the life-saving bowel cancer test along with Dr Janet Little, Assistant Director of Service Development and Screening with the PHA, and Larne bowel cancer patient Alaster Smyth at the launch of the PHA's bowel cancer screening programme awareness campaign.

Despite the benefits to patients, by the end of December 2012, less than half of those invited to participate in screening had completed a test kit. Uptake was higher among women (50%) compared to men (44%), but it's a concern that many people are not taking their opportunity for early diagnosis and treatment.

Next steps

The challenge going forward is to raise awareness of the benefits of the screening programme among the target population and help everyone make an informed decision on whether or not to participate. A re-run of the public information campaign into early 2013 will support this and we expect to see an increase in uptake during this time.



 Pictured at the PHA's bowel cancer screening stand at the Balmoral show are (left to right): Dr Eddie Rooney, Chief Executive, PHA; Edwin Poots, Health Minister; and Harry Sinclair, President of the Ulster Farmers' Union.

However, it is important that these messages are reinforced, and the impact sustained in the longer term, if a significant shift towards earlier detection of bowel cancer is to be achieved.

The Health Minister has stated his intention in the Programme for Government to extend the bowel cancer screening programme further by offering it to everyone aged 60–74 years from April 2014 onwards. Work has already begun to plan for this development.



Key facts

- More than 1,000 people are diagnosed with bowel cancer in Northern Ireland each year and 400 die from it.
- Screening is now offered in Northern Ireland to men and women aged 60–71 years.
- 190,000 individuals had been invited to participate in the bowel cancer screening programme by the end of December 2012.
- More than 175 screen-detected cancers had been diagnosed by the end of December 2012.
- Less than 50% of those invited to participate in the bowel cancer screening programme complete a screening test kit.

Further information

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Improving health through high quality services

Overview

Empowering people with respiratory disease

Dementia care at forefront of Public Health Strategy

Assessments to lead change in prison healthcare

Overview

Overview

There are many factors that contribute to improving health, including the impact of HSC. The PHA works with the commissioning and performance management processes of the HSCB to promote the provision of high quality services that improve the health and wellbeing of the population and reduce inequalities.

The healthcare needs of older people are often complex and will often require interventions across different areas of HSC.

This section of the report details some of the high quality services that have helped people with respiratory illness and outlines the importance of the identification and management of dementia.

Further information

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Empowering people with respiratory disease

Public health challenge

Chronic obstructive pulmonary disease (COPD), also known as chronic bronchitis or emphysema, is the largest single cause of death and severe disability from respiratory disease. In nearly all cases, it is caused by long-term cigarette smoking. Smoking damages airways in the lung, which causes coughing and phlegm, and makes airways narrower, which leads to difficulty breathing.

Approximately 50% of people living with COPD also suffer from anxiety and depression caused by:

- the effects on everyday life;
- an inability to get out and about;
- a feeling of isolation.

As part of the consultation for the *Service framework for respiratory health and wellbeing*, Northern Ireland Chest Heart and Stroke (NICHHS) helped people living with COPD and their carers say what is important to them and what would help improve their quality of life.⁵⁹

Actions and impacts

Pulmonary rehabilitation

Pulmonary rehabilitation can improve quality of life and reduce hospital admissions. It is a six week programme of supervised physical activity and discussions with professionals and other patients to better understand the condition.

As a result of the consultation, pulmonary rehabilitation is now more widely available in Northern Ireland – in leisure centres, HLCs and hospitals.

Pulmonary rehabilitation was so helpful in making people feel better that patients asked for physical activity and social programmes to continue after the formal programme finished. All people who attend pulmonary rehabilitation are now supported to join physical activity programmes in their local communities and attend local support groups.

Taking control (self-management)

Taking control (self-management) programmes are valued by those with COPD. These are six week programmes that help people manage the effects of their illness by:

- dealing with pain and tiredness;
- dealing with frustration, depression and isolation;
- learning relaxation techniques and taking part in more physical activity;
- healthy eating;
- learning how to talk to doctors;
- planning how to get more out of life.

NICHS runs programmes across Northern Ireland. UK-wide evaluation has shown that people feel more confident and in control of their lives, with fewer attendances at GPs, outpatient departments and emergency departments.

Long-term oxygen therapy (LTOT)

Some people with COPD need oxygen more than 15 hours a day. This improves quality of life and reduces deaths and hospital admissions. Patients said they would like oxygen equipment made available that would allow them to get out of the house more easily and for a longer time. More up-to-date and specialised equipment will be available in Northern Ireland from January 2013 and will greatly improve the quality of life of these individuals.

Next steps

The PHA plans to further develop these services, working closely with NICHS and the British Lung Foundation (BLF) who provide many services for people with COPD in Northern Ireland.



↑ Taking control: living well with COPD. Joy Collins uses an inhaler to provide relief from her respiratory illness.

Key facts



- More than 32,000 people in Northern Ireland are known to have COPD.
- There are on average 670 deaths in Northern Ireland every year from COPD.
- More than 2,000 people in Northern Ireland were referred to pulmonary rehabilitation last year.
- More than 2,500 people in Northern Ireland are on long-term oxygen therapy.

Further information



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Dementia care at forefront of Public Health Strategy

Public health challenge

Our society must find the means to care for the increasing number of people suffering from dementia. Currently, one in four people aged over 85 years have some form of dementia, with a greater proportion of females than males affected.⁶⁰

There are approximately 18,000 people in Northern Ireland with dementia and this is projected to increase to 60,000 by 2051.⁶¹ The challenge is to devise a plan that will:

- raise public awareness of dementia;
- promote the benefits of seeking help early;
- address the stigma associated with the condition.⁶¹

There are significant opportunities for preventing certain types of dementia.⁶⁰

Actions

Coping with the increasing demand for long-term care needs a society-wide approach. Essential to that response will be the coordinated action of a range of Government departments, agencies and the voluntary/independent sector.⁶²

The successful implementation of the new Public Health Strategy will be critical to meeting this future demand.⁶³

Impacts

Dementia is primarily a condition related to ageing but it also affects a small number of young people with:

- inherited genetic disorders;
- serious head injuries;
- learning difficulties;
- other long-term conditions.

In some cases, the condition progresses relatively slowly.⁶¹ With older onset dementia, life expectancy is, on average, seven years from the time of diagnosis.⁶⁰ In such cases, there is often:

- a progressive decline in memory;
- a failure to cope with everyday tasks;
- a personality change;
- an eventual state of total dependency on others.⁶⁰

Caring for someone with dementia is often done by a spouse who may themselves be frail and can sometimes struggle to support a loved one at home.⁶² Over the coming decades, options for extended care within people's own homes will have to be further developed, with increased use of technologies, eg simple monitors that detect if a person has not moved out of bed in the morning.

Additional support for carers is vital and we need a reliable supply of professional care givers to meet demand. Although there is increasing investment in research, the share of funding allocated to this is small compared to cancer and heart disease, and needs to increase.⁶⁴

Next steps

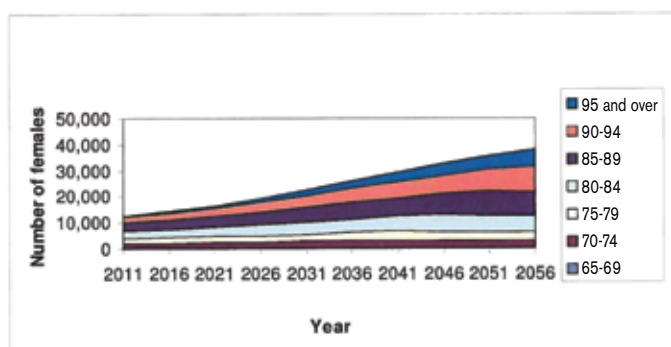
Implementation of the DHSSPS Dementia and new Public Health Strategies will provide a framework for sustained action. Promising research, both locally and nationally, into prevention and treatment must be supported. Enhancing the skills of professional care givers and providing increased support for family carers must be prioritised to assist those caring for loved ones.⁶²

There is also an urgent need to develop a regional memory service.⁶¹

Key facts

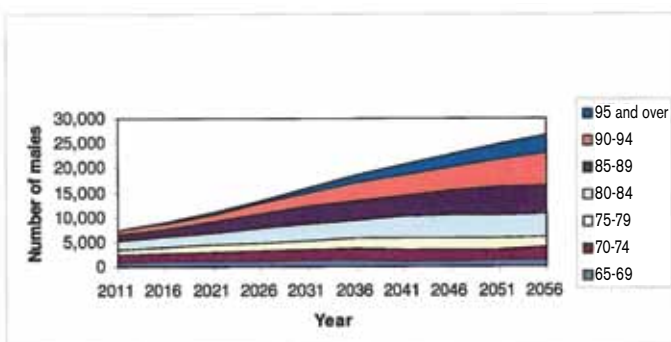
- Each GP practice has, on average, 16 identified dementia patients.⁶⁰
- One in three people aged over 65 years will suffer from some form of dementia.⁶⁴
- Dementia costs the Northern Ireland economy £400m each year.⁶¹
- Research funds devoted to dementia (£50m a year) are much less than for cancer (£590m a year) and cardiovascular disease (£190m a year).⁶⁴
- The economic impact of caring for each person with dementia is £27,647 a year, compared to cancer (£5,999 a year) and heart disease (£3,455 a year).⁶⁴

Figure 11: Projected number of women with dementia in Northern Ireland, by age



Source: EURODEM prevalence rates applied to Northern Ireland population projections

Figure 12: Projected number of men with dementia in Northern Ireland, by age



Source: EURODEM prevalence rates applied to Northern Ireland population projections

Further information

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Assessments to lead change in prison healthcare

Public health challenge

The responsibility for providing prison healthcare moved from the Northern Ireland Prison Service (NIPS) to the HSC system in 2008. This mirrored a similar move throughout the rest of the UK.⁶⁵

Prison healthcare services in Northern Ireland are provided by the South Eastern HSCT. The guiding principle in prison healthcare is “to give prisoners access to the same quality and range of healthcare services as the general public”.⁶⁶

This can be challenging as prison is an environment with unique priorities and pressures. In addition, prisoners’ needs are different to those of the general public. In particular, they tend to have more mental, physical and social health problems.⁶⁷

Actions

To better understand the health needs of prisoners, a health needs assessment (HNA) for all prison sites across Northern Ireland was initiated in 2011 and carried out by a working group that included PHA, South Eastern HSCT and NIPS staff. The initiative followed the Birmingham HNA toolkit for prisons, which is used nationally.⁶⁸

Impacts

Once the analysis is complete, each of the three prison sites will have its own report outlining the key findings and recommendations, and providing information to plan and change services for the better.

Commissioners, providers and prison management are represented on the working group, so the HNA process has helped develop closer working relationships between organisations. In turn, these will help ensure the recommendations arising out of the HNA are implemented.

HNA is a process used across many areas of health service development and typically takes place at regular intervals. The present work has highlighted the importance of HNA in prison healthcare and elevated the issue on provider, commissioner and NIPS agendas. The HNA process underlines the importance of involving a wide range of stakeholders within prison health, to ascertain their views on the barriers and opportunities to improve care for prisoners.

Any HNA is only as good as the data it’s based upon. In this case, a significant amount of work was done to validate and improve the quality of the information systems in prisons, and this will enable further HNAs to monitor progress.



Next steps

The next steps are to:

- complete and finalise the reports for all prison sites;
- present the findings to the commissioning team and others, including key prison groups;
- implement the recommendations through a process of setting priorities and planning;
- review the current HNA process so that improvements can be made;
- agree a timetable with the South Eastern HSCT and NIPS in relation to future HNAs.

Key facts



- In 2009, there were 5,892 admissions into prisons in Northern Ireland.⁶⁹
- The Northern Ireland prison population at any one time is approximately 1,700 prisoners, which equates to 99/100,000 of the population. This rate is substantially lower than that in the rest of the UK – England, Wales and Scotland imprisonment rates are 154/100,000.⁷⁰
- Approximately 90% of prisoners are reported to have at least one mental health or substance misuse disorder.⁷¹
- As of September 2011, 67% of all prisoners in Northern Ireland were on some form of prescribed medication.⁷²

Further information



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Improving health through research

Overview

Case management for people with chronic conditions
IVAN study trials treatments for macular degeneration
Pain management practices for elderly patients
Examining the prescription of psychoactive medicines

Overview

Transforming your care, the 2011 review of HSC in Northern Ireland, gives a strong message that future HSC services must be patient-centred, high quality and evidence-based. With the growing number of older people in our population, there is an overwhelming need for new models of care that will enable the HSC system to manage the increasing demand across all programmes, using outcomes and quality evidence to shape services.

The emphasis must be on reducing reliance on hospitals and providing care in home and community settings wherever possible. HSC research must focus on innovative approaches to encouraging healthy and active lifestyles that prevent or reduce the development of disease in older people. Where sickness has already developed, the research must identify how people can be empowered to manage their condition and maintain their independence in their own environment for longer.

The HSC Research and Development (R&D) Division is committed to supporting research that will help deliver on these needs and develop interventions and services that will bring health benefits to older people in all care settings and across all socioeconomic groups. These services must be person-centred, effective and financially viable. Improvements in the health of the older population will also bring associated benefits for the economy.

Through some important developments and initiatives, the HSC R&D Division will help researchers deliver on the following aims:

- The Northern Ireland Public Health Research Network has continued to grow during this year. It includes a special interest group focused on chronic conditions and a research development group focused on physical activity in older adults.
- Researchers from Northern Ireland are now eligible to lead funding applications to National Institute for Health Research (NIHR) funding streams, which total over £80m. This funding will support public health research in settings both within and outside HSC.
- The HSC R&D Division is working with other stakeholders across Government and academic institutions to improve Northern Ireland participation in European Union (EU) funding programmes. The EU work programmes have a similar focus on research in active and healthy ageing.
- As part of the drive for increased participation in EU research, Northern Ireland has committed to a number of actions and made a bid to become a reference site under the European Innovation Partnership in Active and Healthy Ageing, which aims to increase the average healthy lifespan of Europeans by two years by 2020. Participation in this initiative will benefit Northern Ireland as a partner in EU research funding bids.
- As well as funding research in line with PHA priorities, the HSC R&D Division continues to seek and welcome opportunities to work in partnership with other funders across all sectors.

Further information

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Case management for people with chronic conditions

Public health challenge

During the 20th century, medical knowledge has dramatically extended life. As a result, the number of people aged over 65 years is increasing rapidly. People of this age tend to have poorer health, often associated with multiple chronic conditions, and overall, 40% of healthcare expenditure is for this age group.^{73,74}

Actions

In an attempt to meet the needs of this population, Dr Marina Lupari, a researcher in the Northern HSCT, led the implementation of the chronic illness case management model (CICM).

The aim was to increase access to health services and prevent unnecessary reliance on hospitals and care homes. This involved significant service redesign to enable primary and community sectors to provide a more integrated, responsive and effective service.

The service centred on patients most at risk of hospitalisation due to clinical decline of a chronic condition, eg chronic obstructive respiratory disease, heart failure, asthma or diabetes. The model included clinical disease management, promotion of self-management, and care-giver support for older people and their families in their own home.

Impacts

A non-randomised comparison trial was undertaken to determine if this nurse-led CICM approach was efficient and/or cost-effective compared to normal care. Overall, the findings of the trial showed a reduction in the number of hospitalisations and in the average number of bed days for patients who were managed by the CICM model, which was not seen for patients who received normal care.

Additionally, health-related quality of life and functioning also improved over time. The findings concluded that the CICM model for older people could reduce rates of hospitalisations, although this was highly dependent on the system of healthcare provided. The assumption was made that CICM in its current design is effective as an intervention.



Dr Lupari pictured with one of the first patients to benefit from the CICM in Northern Ireland.

Next steps

This trial presents a new understanding of providing healthcare to older people with multiple chronic conditions. The knowledge from CICM has been accepted by the European Innovation Partnership. They have stated that by 2015, multi-morbidity case management (involving new models of care for a range of chronic conditions, including protocols and individualised care plans) should be piloted and established in 10 internationally recognised sites. Partnership working is currently ongoing with Greece, Lithuania, Malta, Sweden and Ireland to explore opportunities to further apply this model.

Key facts



Findings from the trial included:

- an overall reduction in length of hospital stays of 33% for the control group in comparison to 59% for the intervention group;
- significant differences in lengths of stay between the groups at six and nine months after the intervention started;
- significant differences in health-related quality of life measures for the intervention group;
- significant improvement in participants' level of functioning for the intervention group;
- significant differences in costs between the two groups and a cost utility analysis confirmed that the CICM service was highly cost-effective.⁷⁵

Further information



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IVAN study trials treatments for macular degeneration

Public health challenge

Wet or neovascular age-related macular degeneration (wet AMD) is a common condition that causes severe sight loss in older people. In 2006, a new treatment with a drug called Lucentis (Ranibizumab) was found to prevent sight loss in more than 90% of people with wet AMD when given as injections into the affected eye for up to two years.

Lucentis costs about £750 per injection for the drug alone, with patients requiring treatment almost every month. Another drug called Avastin (Bevacizumab) is similar to Lucentis and has also been used to treat patients with wet AMD. This drug costs about £50–£100 per dose.

Actions

IVAN is a multi-centre UK-wide study, being led by investigators in Queen's University Belfast, comparing the success of treatment with either Lucentis or Avastin. The study is also comparing injections given monthly over a two year period.

The success of treatment is being assessed by:

- quality of eyesight (using a letter chart);
- other tests of near reading ability;
- safety;
- quality of participants.

To be eligible for the study, a participant had to have wet AMD newly diagnosed in an eye and be aged over 50 years. The IVAN study enrolled and treated 610 participants, with an average age of 78 years, between March 2007 and October 2010.

Impacts

The IVAN study's one year interim results show the effects of treatment on participants' eyesight were very similar, irrespective of the drug used or treatment regimen. Sight in the affected eye improved by between one and two lines on a standard eye test.

The IVAN study collected information on angina, heart attacks, strokes and other illnesses caused by a blockage of a blood vessel because we suspected these illnesses might be associated with the drugs. The frequency of these events (collectively known as arteriothrombotic events) and other serious adverse events was examined alongside the results of another similar American study (the CATT study) comparing the two drugs.

Together, the information from the two studies showed there was no difference between the drugs with respect to arteriothrombotic events and mortality. However, both trials found that other serious systemic adverse events were slightly more frequent among participants who received Avastin.

In summary, after one year of follow-up, the IVAN study showed that Lucentis and Avastin are equally effective in the treatment of wet AMD.⁷⁶

Next steps

The outcome data after two years of follow-up in the IVAN trial will become available early next year. This information will allow a more detailed analysis of the effectiveness of the two treatments and their safety profiles.



State of the art retinal imaging at the macular service of the Belfast HSCT.

Key facts



- AMD is the leading cause of sight loss in people aged over 60 years, with almost a third of people aged over 75 affected.⁷⁷
- Wet AMD affects up to 750 people in Northern Ireland each year.⁷⁷
- Northern Ireland is currently implementing National Institute for Health and Care Excellence (NICE) guidance TA155. This recommends Ranibizumab (Lucentis) as an option for the treatment of wet AMD within specified clinical criteria, delivered through a patient access scheme that makes the drug available to HSC at a reduced cost.⁷⁸
- The outcome of this research and its inclusion in revised NICE guidance has the potential to significantly reduce HSC costs.
- The number of people in the UK with AMD is estimated at 608,213. This is expected to rise to 755,867 by 2020. The number of people in the UK with sight loss due to wet AMD is expected to increase from 145,697 in 2010 to 189,890 by 2020.⁷⁹

Further information



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Pain management practices for elderly patients

Public health challenge

Despite older people having complex chronic health conditions that can cause pain and reduce their quality of life, pain in older people is frequently overlooked and inadequately assessed and managed.⁸⁰ Because accurate assessment is fundamental to managing and treating pain, a programme of practice development research was carried out to explore what effect working with practitioners would have on improving pain management practices with older people.

Actions

Researchers worked closely with nurses, doctors and others, using processes to help them talk about their pain management practices. The following issues that stopped professionals from being effective were identified in the study, as well as ways of improving practice:

- The complexity of the setting got in the way of good practice.
- The routines and rituals of the setting not only impacted on pain management practices with older people, but also influenced all aspects of ward life and patient care.
- The culture of the setting was not conducive to effectively translating evidence into practice; for example, leadership practices needed to improve, team members needed to learn how to give and receive challenges (with support), and collaborative practices to change actual pain management protocols needed to be developed.

Impacts

Many studies have examined how the culture of a practice setting affects the quality of clinical practice, but few studies have tried to positively affect the practice culture. This study:

- identified the importance of staff feeling 'safe' in their workplace, so they can make best use of evidence and work in a patient-centred way;
- made explicit a variety of issues that make care settings unsafe and prevent best practice;
- highlighted the importance of effective leadership and the need to support ward sisters/charge nurses to develop their leadership and practice development skills;
- created a toolbox of practice development strategies that ward staff can use to work through issues affecting practice;
- prompted changes that have impacted positively on pain management practices with older people.



Core lead members of the research team:
Ms Donna Brown, Sr Olga O'Neill, charge nurse
Damien O'Neill and Sr Jill Murphy.

Next steps

Using the principles of practice development and building on the outcomes of this research, the HSCTs are developing pain management practices for people experiencing dementia in the acute care setting.

Key facts



- Approximately five million people aged 65 years and over in the UK are in some degree of pain or discomfort.⁸¹
- Older people have the highest rate of surgery of all age groups frequently experiencing problematic pain post-discharge.⁸²

Further information



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Examining the prescription of psychoactive medicines

Public health challenge

Older people living in nursing homes are usually prescribed several medicines to manage a range of conditions. There have been concerns that some medicines are not appropriate for nursing home residents, particularly psychoactive agents such as hypnotics (sleeping tablets), anti-anxiety drugs and anti-psychotics.

In the United States, laws have been passed to reduce the inappropriate prescribing of drugs.⁸³

Research in Northern Ireland has also indicated increased prescribing of psychoactive medicines in nursing homes.⁸⁴



Actions

Professor Carmel Hughes from the School of Pharmacy, Queen's University Belfast, and Dr Susan Patterson from the HSCB, in collaboration with colleagues from the United States, developed a service to reduce the inappropriate prescribing of psychoactive medicines. This service, known as the Fleetwood model, was developed with input from doctors, pharmacists, nurses and advocates for older people.

The service was tested in a randomised controlled trial in which 22 nursing homes took part.⁸⁴ Care continued as normal in 11 randomly selected homes (control homes), while in the other 11 homes (intervention homes), specially trained pharmacists reviewed residents' medication and spoke with nursing home staff and the residents' GPs. The pharmacists made recommendations on which medications were appropriate, based on the application of a structured approach to judge if a psychoactive medicine was needed.⁸⁵ The study ran for one year.

Impacts

At the start of the study, approximately 65% of residents in intervention and control homes were receiving psychoactive medicines. For more than 75% of these residents, psychoactive medicines were considered inappropriate. At the end of the study, intervention home residents (19.5%) were much less likely to receive an inappropriate psychoactive medication than those in control homes (50%).

This new service was also shown to be cost-effective. Nursing home staff and GPs were very satisfied with the new service, and pharmacists enjoyed delivering it. The results have been published in the leading American geriatrics journal and there has been media coverage of the findings in the Daily Telegraph and on the BBC.^{84,86,87} The service has also been referenced in *Improving dementia services in Northern Ireland: A regional strategy* and in a publication from the Royal Pharmaceutical Society (Scotland).^{88,89}

Next steps

The new service was commissioned in 2011/12 in a South Eastern local commissioning group (LCG) area and provided to nursing home residents. The service resulted in £42,896 of annual prescribing savings related to 317 residents. Stopping or reducing the dose of psychoactive medicines was a common intervention by the pharmacists. The service has now been commissioned across Northern Ireland as part of ongoing work on innovations in medicines management.



Key facts

- Nursing home residents each receive an average of 11 medicines on a daily basis.
- At the start of the Fleetwood study that was run in 22 homes across Northern Ireland, 65% of residents were taking psychoactive medicines, and for more than 75% of these people, the medicines were judged to be inappropriate.
- At the end of the study, residents who had received the new service from pharmacists were more than 70% less likely to receive an inappropriate medication than residents who had not received the service.

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Protecting health

Overview

E. coli outbreak reinforces need for infection control

Major events showcase public health collaboration

Flu vaccination figures still the highest in the UK

PHA coordinates response to *Pseudomonas* outbreak

Overview

During 2012, the PHA's health protection service responded to several major crises to protect the Northern Ireland population from infectious diseases. Early in 2012, we saw outbreaks of *Pseudomonas aeruginosa* (PA) in neonatal units in Northern Ireland hospitals. The response to these outbreaks was led by the PHA, who worked in partnership with a range of stakeholders across HSC, including the DHSSPS, Health Estates, HSCB and all HSCTs. Lessons learned from the outbreaks have led to new developments in health protection, including new guidance for the service.

Of course, 2012 was the year the Olympic and Paralympic Games came to the UK. Although most of the events took place in London, other regions played host to national teams and Northern Ireland was no exception. A number of teams for both the Olympics and Paralympics had their training camps here and, as with any large event, this required active preparedness planning on behalf of the health service. This was particularly relevant for those in health protection, whose responsibility it is to manage outbreaks of infectious diseases and environmental hazards.

The theme of this report is the health and wellbeing of older people. A major factor in protecting the health of older people in winter is flu vaccination. Flu can be a serious infection for elderly people, especially those with underlying medical conditions. Northern Ireland has maintained a consistently high vaccine uptake rate in people aged over 65 years, therefore giving our elderly population optimum protection against flu.

Further information

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***E. coli* outbreak reinforces need for infection control**

Public health challenge

Many different strains of *E. coli* bacteria are associated with gastrointestinal illness. They can cause a range of symptoms from mild diarrhoea to severe bloody diarrhoea, but there may be no symptoms at all.

The most serious gastrointestinal illness is caused by verocytotoxic *E. coli* (VTEC). In a small number of cases, VTEC infection can cause haemolytic uraemic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP), which can affect the blood, kidneys and nervous system. Within Northern Ireland, the most common strain of VTEC is *E. coli* O157.

People can become infected with *E. coli* O157 through:

- eating contaminated food;
- contact with animals;
- contact with known cases;
- inadequately treated water supplies.

Often it is very difficult to identify where a case came into contact with the infection.

In the autumn of 2012, there was a large outbreak of *E. coli* O157 linked to a restaurant in Belfast. There were more than 130 confirmed cases and more than 160 probable cases associated with this outbreak.

Actions

The PHA must be notified of any suspected food poisoning and a system is in place whereby health protection staff in the PHA are alerted by laboratories and clinicians of any cases of *E. coli* O157.

Following notification, a questionnaire is completed on each case, asking about risk factors or linked cases. If any links are identified, the PHA, Environmental Health colleagues and any other agencies who may be involved will usually form an outbreak control team (OCT) to investigate and advise on the control measures required.

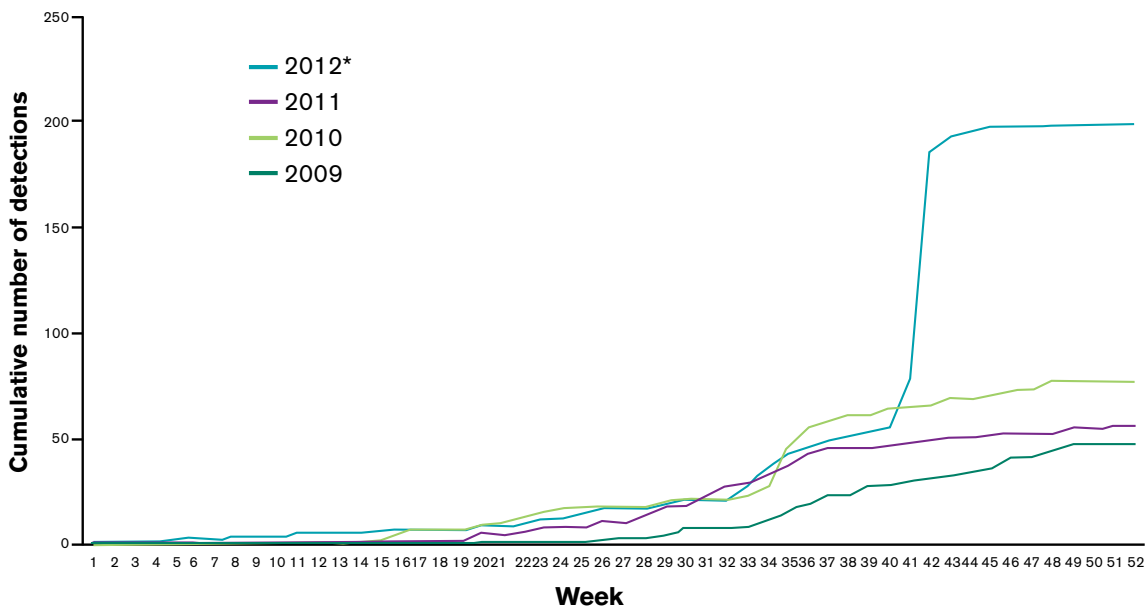
During the 2012 outbreak, the restaurant closed voluntarily following advice from the OCT, and each case and their contacts were followed up by the PHA and Environmental Health.

Impacts

The advice for a case and their close contacts associated with an outbreak is the same as that for any sporadic *E. coli* O157 case and includes infection control measures to reduce the spread of infection within the household. The advice highlights the importance of washing your hands with soap and warm water after going to the toilet or changing a nappy, and before preparing or serving food.

If the case or their close contact is under five years old, or if they have an occupation with a significant risk of spreading the infection – for example a food handler or a worker within HSC – they are advised not to return to work, school or any childcare setting until screened clear (two consecutive negative faecal samples a minimum of 24 hours apart). These measures are designed to prevent the spread of infection to others.

Figure 13: Cumulative laboratory reports of *E. coli* O157, 2009–2012*



* 2012 data provisional

Key facts



- Northern Ireland usually has between 50–60 cases of *E. coli* O157 a year.
- Infection with *E. coli* O157 is more common in the summer and early autumn.
- Fewer than 100 bacteria are required to cause illness.
- Up to 10% of cases infected with VTEC develop HUS after an initial period (a prodrome) of gastroenteritis or haemorrhagic colitis. It most commonly develops in young children or the elderly.

Further information



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Major events showcase public health collaboration

Public health challenge

In the last few years Northern Ireland has hosted several large sporting and entertainment events, such as the:

- 2009 Tall Ships Atlantic Challenge;
- 2011 MTV European Music Awards;
- World Irish Dance Championships;
- Belfast Marathon;
- Lap the Lough;
- Belfast to Dublin Maracycle.

Large-scale events present significant challenges to public health. Fluctuating populations and increased population density contribute to what is believed to be a higher incidence of illness and injury than would occur naturally in a population of comparable size.⁹⁰

These high profile events require specific public health planning in the areas of:

- disease surveillance and outbreak response;
- environmental health and food safety;
- healthcare capacity and mass casualty preparedness;
- chemical and radiation incident response;
- public information and health promotion.

Actions

As part of 'Northern Ireland 2012: Our Time, Our Place' a number of Olympic and Paralympic teams established pre-Games training camps (PGTCs) here. The gold medal winning Chinese Olympic gymnasts, the Cuban boxers, and the Russian and Hungarian wheelchair fencing teams all established camps in Northern Ireland for several weeks before the 2012 Games in London.

Health protection staff worked with local Environmental Health colleagues, Sport NI, the Department of Culture, Arts and Leisure (DCAL), and local hotels and sports venues to ensure all athletes and visitors to the events were protected against infectious diseases and other dangers to health. Joint information sharing and training events were also run by public health and environmental health bodies before the teams arrived at their PGTCs.



Chen Yibing and his fellow Chinese Olympic gymnasts used Belfast as the base for their pre-Games training camp before going on to win gold at London 2012.

Impacts

During the PGTCs for the Olympics and Paralympics, health protection staff communicated daily with the Health Protection Agency (HPA) in London as part of the UK-wide disease surveillance programme put in place for the Games.

It is important to acknowledge the significant work carried out across the local partner agencies and HSCTs in planning for the team visits. The PGTCs in Northern Ireland have been recognised as a success and, from a public health perspective, the preparations proved invaluable.

Next steps

The learning outcomes from 2012 are now being built upon as health protection staff look forward to a very busy 2013. Staff have already started to plan for three large-scale events in 2013:

- the G8 summit (17–18 June);
- the World Police and Fire Games (1–10 August);
- the All-Ireland Fleadh Cheoil (12–18 August).

With effective multi-agency preparations in place, 2013 should prove to be as successful as 2012 for the PHA's Emergency Preparedness and Response Team.



Further information

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Flu vaccination figures still the highest in the UK

Public health challenge

Influenza (flu) viruses are globally important human respiratory pathogens that cause epidemics, mostly during the winter. Occasionally there are cases and outbreaks at other times of the year. Flu viruses can also cause worldwide pandemics.

The flu viruses constantly change to evade recognition by the immune system, so people may catch flu many times during their lifetime. For this reason, the flu vaccine is constantly updated to protect against the latest forms of the virus. Protection from the flu vaccine only lasts for one flu season and is given every year.

Flu and its complications can affect anyone, but certain groups are more at risk. These include pregnant women, the elderly and people of any age with certain underlying health conditions. The flu vaccine helps protect these groups against flu and its complications.

Actions

It is impossible to predict when flu viruses will start circulating, so people should be vaccinated early, before the viruses appear. The vaccine programme runs every year from late September to mid-November.



In advance of the vaccine programme, health professionals are provided with written information on new developments and reminded of the key messages. Training sessions for professionals are run throughout Northern Ireland each year.

Information leaflets and posters are also produced for the public, with messages targeted at the most vulnerable groups.

Impacts

The number of cases and severity of flu varies each year, so it is difficult to calculate how many cases the vaccine prevents, or the number of hospital admissions avoided. We know from research that the vaccine prevents flu and the associated complications that may result in hospital admission, so we can be confident that high uptake rates mean a considerable amount of illness is prevented.

In Northern Ireland, vaccine uptake has been consistently high for the last 10 years at around 75% in people aged over 65 years. For those aged under 65 years in at-risk groups, uptake has risen from 55% 10 years ago to about 80% in each of the last three years. These figures are the highest in the UK, particularly for those aged under 65 years in at-risk groups (see Table 4).

Next steps

Every year, considerable efforts are made to achieve our high flu vaccine uptake. The PHA will ensure all the factors required to maintain this level remain a priority.

In line with the rest of the UK, a major change to the flu vaccination programme is to be introduced over the next few years. The vaccine will be offered every year to all children aged 2–16 years, rather than just children in at-risk groups. This will be given by nasal spray rather than injection, as this is more effective in children. This change will result in nearly twice the number of flu vaccines each year, but should protect those children vaccinated and reduce the amount of flu virus circulating every winter.

Table 4: Flu vaccine uptake in the UK since 2006/07 for those aged 65 years and over, and those aged under 65 years in an at-risk group

	England		Scotland		Wales		Northern Ireland	
	65+ years	<65 years 'at risk'	65+ years	<65 years 'at risk'	65+ years	<65 years 'at risk'	65+ years	<65 years 'at risk'
2006/07	73.9	42.1	75.2	37.8	N/A	N/A	75.1	71.2
2007/08	73.5	45.3	74.3	44.4	64	N/A	75.7	68.3
2008/09	74.1	47.1	76.3	47.8	60	41	76.8	74
2009/10	72.4	51.6	75	53.4	64	49	77	80
2010/11	72.8	50.4	75.3	56.1	65.8	48.6	74.9	78.7
2011/12	74	51.6	76.2	56.4	67.7	50	77	81.7

Key facts

- Flu vaccine protects against three strains of the virus each winter.
- More than 400,000 doses of flu vaccine are given each year in Northern Ireland.
- Flu vaccine has been used for more than 40 years and hundreds of millions of doses have been given. We know from monitoring it over this time that it is a very safe vaccine.
- Flu vaccine cannot give you the flu.

Further information

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PHA coordinates response to *Pseudomonas* outbreak

Public health challenge

Pseudomonas aeruginosa (PA) is a common organism that thrives in damp areas. It is generally harmless, but in people with lowered immunity it can cause serious, even fatal, infection. Infants in neonatal units (NNUs), especially if they are very premature, are at particular risk.

Outbreaks of PA in hospital units, including NNUs, have occurred from sources including staff fingernails, hands, water baths, hand lotions, feeding bottles and clinical handwash stations.

Before 2011 in Northern Ireland, only one or two PA bloodstream infections per year were reported in infants aged under one year.

Timeline of the outbreaks

On 12 December 2011, the Western HSCT declared an outbreak of PA at the NNU of Altnagelvin Hospital after three babies were confirmed to be infected. One baby sadly died.

On 17 January 2012, the Belfast HSCT declared an outbreak of PA infection in the NNU of the Royal Jubilee Maternity Service. At that time, two babies had sadly died and another was known to have been infected in December. A third baby died after the outbreak was declared.

Actions

The HSCTs worked to control PA in their own units. The PHA's role included:

- coordinating actions across HSCTs, including service provision;
- advising on risk assessment, investigation and control measures;
- coordinating advice from national experts in the HPA.

Control measures included stopping any use of tap water for care of babies in all NNUs. No further cases or colonisations were identified after the control measures were put in place.

All babies in Northern Ireland NNUs were screened. Water and environmental samples were tested for a potential source. At the same time, a safe neonatal service was maintained.

PA was isolated from tap/water samples in some handwash stations in all NNUs, with matches between baby subtypes and tap/water subtypes in two units.

Table 5: Cases and colonisations of PA identified in the 2011/12 outbreak

Hospital	Infected	Colonised
Altnagelvin	3	2
Royal Jubilee	5	10
Craigavon	1	3
Antrim	0	1
Ulster	0	0
Daisy Hill	0	0
Erne	0	0
Northern Ireland total	9	16

The HPA, HSCTs, DHSSPS, Health Estates and PHA worked to improve understanding of the role of water supply systems in PA infections. The HPA produced a report on this work.⁹¹

These investigations indicated that the most likely source of PA causing colonisation and infection was directly from the water supply.

Impacts

The Regulation and Quality Improvement Authority (RQIA) carried out an independent review and produced interim and final reports with a number of important recommendations.^{92,93} The DHSSPS produced timetables for meeting these.⁹⁴

HSCTs have taken forward the recommendations concerning:

- communication with parents;
- direct care of babies;
- improvements in awareness of PA in NNUs;
- infection control practices;
- management of estate facilities.

The PHA has been involved in:

- establishing a local typing service;
- improving joint outbreak planning;
- producing a weekly health protection alert bulletin.

Guidance on water management was developed for Northern Ireland and for England and Wales. National guidance on NNU outbreaks is expected shortly.

Next steps

These outbreaks lead to severe infections and, very sadly, the deaths of vulnerable babies. A range of new practices have been put in place in light of the learning from these outbreaks, aimed at minimising the risk of it happening again.

Further information

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Further information

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Abbreviations and acronyms

Abbreviations and acronyms

A		I	
A&E	Accident and emergency	IfH	Investing for Health
AAA	Abdominal aortic aneurysm	IVAN	Inhibit VEGF in age-related choroidal neovascularisation
AMD	Age-related macular degeneration		
B		L	
BLF	British Lung Foundation	LCG	Local commissioning group
		LTOT	Long-term oxygen therapy
C		M	
CICM	Chronic illness case management model	MARA	Maximising access to services, grants and benefits in rural areas
CMO	Chief Medical Officer		
COPD	Chronic obstructive pulmonary disease		
D		N	
DARD	Department of Agriculture and Rural Development	NEA	National Energy Action
DCAL	Department of Culture, Arts and Leisure	NHS	National Health Service
DHSSPS	Department of Health, Social Services and Public Safety	NICE	National Institute for Health and Care Excellence
DLA	Disability Living Allowance	NICHs	Northern Ireland Chest Heart and Stroke
DPH	Director of Public Health	NICRN	Northern Ireland Clinical Research Network
E		NIFRS	Northern Ireland Fire and Rescue Service
EAS	Energy Action Scotland	NIHE	Northern Ireland Housing Executive
EU	European Union	NIHR	National Institute for Health Research
EWA	Engage with Age	NIPS	Northern Ireland Prison Service
G		NISRA	Northern Ireland Statistics and Research Agency
GB	Great Britain	NNU	Neonatal units
H		NSC	National Screening Committee
HCAI	Healthcare-associated infection	NWAWT	North West Ageing Well Together
HLC	Healthy living centre	O	
HNA	Health needs assessment	OCT	Outbreak control team
HPA	Health Protection Agency	OFMDFM	Office of the First Minister and Deputy First Minister
HSC	Health and Social Care	ONS	Office for National Statistics
HSCB	Health and Social Care Board		
HSCT	Health and Social Care Trust		
HUS	Haemolytic uraemic syndrome		

P

PA	<i>Pseudomonas aeruginosa</i>
PCSP	Policing and Community Safety Partnership
PDF	Portable document format
PGTC	Pre-Games training camp
PHA	Public Health Agency
PSNI	Police Service of Northern Ireland
PYLL	Potential years of life lost

Q

QUB	Queen's University Belfast
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R

R&D	Research and Development
RoSPA	Royal Society for the Prevention of Accidents
RQIA	Regulation and Quality Improvement Authority

T

TTP	Thrombotic thrombocytopenic purpura
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U

UK	United Kingdom
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V

VTEC	Verocytotoxic <i>E. coli</i>
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W

WHEAP	Western Home Environmental Assessment Project
WifH	Western Investing for Health
WHO	World Health Organization

Accident prevention

MANAGED
PAIN
FLEETWOOD



MODEL

Pseudomonas

HOME

SAFE

Prison

Chronic

Bowel screening

healthcare

Fuel

Grants and
benefits

poverty



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