# Annual report
## 2009

HSC Public Health Agency

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# Foreword

4,000 – that's the number of people in Northern Ireland each year who die prematurely. 61,000 years of life lost unnecessarily, with some groups affected much more than others.

Does it matter that some people die early? To their families and friends – absolutely; to 'Northern Ireland plc' – it should. A healthy population is the basis for a cohesive, vibrant and economically strong society. So if it matters, then better health and wellbeing should be everyone's business.

As Director of Public Health for Northern Ireland, I am committed to improving health and wellbeing, but neither I, the Public Health Agency (PHA), nor any other organisation can achieve that alone. It will require coordinated, sustained action by every government department, every statutory delivery organisation, every community and voluntary group and every member of the public.

Much has been achieved so far, with reductions in mortality rates from the main causes of death – heart and respiratory disease, strokes and cancer. But we need to do more. We need to build a more resilient population so that people don't get ill in the first place.

We need more people to take care of their health and, in particular, quit smoking and maintain a normal weight. We need to protect health through immunisation programmes and by preventing and controlling infection. We need to detect illness earlier and at a stage when treatment is easier and more effective.

We need to enable people to live independently by meeting their long-term needs appropriately. We need every health and social care (HSC) professional to provide high quality care to those who need it, when they need it, intervening early to prevent or shorten a 'crisis'. And we need to look after people at the end of life, maintaining their dignity and comfort.

It's a broad, complex agenda and there are many areas where investment in 'preventive upstream' interventions would bring significant public health gain. But from what we know of what works, there are three areas where concerted action would have a major impact on health and wellbeing.

Firstly, Northern Ireland needs to invest more in effective proven early child development programmes, particularly age 0–5 years. Much of a child's future is set by the time they start school. Intense support during early childhood enables children to maximise their potential, bringing better health and social outcomes for them and greater economic strength for Northern Ireland through a more skilled workforce. It's also a lot less expensive than acting later when behaviours are already fixed.[1]

Secondly, we must reduce the proportion of the population who smoke. Smokers lose on average 10–15 years of life. In California, 15% of people smoke compared to 24% here – that's a lot of avoidable loss of life given that there are 2,400 smoking-related deaths per year in Northern Ireland.

Thirdly, we need to continue to support neighbourhoods and communities in taking the power they have to build local capacity and increase the opportunities for people in those communities. Some have made substantial improvements already and we need to help in sharing those ideas with other areas and building vibrant communities across Northern Ireland.

Looking back on public health in 2009, it was of course dominated by the swine flu pandemic – the first pandemic for 40 years. While flu levels have decreased, we need to remain vigilant as the virus is still circulating and may well reappear this autumn. So, if you're in a risk group and haven't

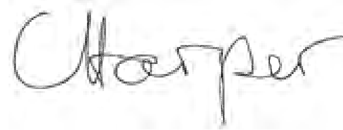
yet had the swine flu vaccine, contact your GP and make sure you get vaccinated now to protect yourself and your family.

The first few months of the new PHA have been exciting and challenging.

I want to take this opportunity to thank publicly every member of staff in the PHA who contributed to the pandemic response directly or indirectly. I also want to thank the very many staff in HSC Trusts, primary care, the independent sector, the HSC Board, Business Support Organisation and Department of Health, Social Services and Public Safety which we worked with during the various stages of the pandemic to ensure an effective response.

In this, my first *Annual report* as Director of Public Health, I've outlined some of the main challenges facing public health here and highlighted a few of the on-the-ground projects to address those challenges.

I hope it gives you some ideas for your own organisation, or community, or yourself, so that you might join in the action we need to take together to deliver a vision of HSC outcomes for the people of Northern Ireland that are amongst the best in the world.



**Dr Carolyn Harper**
**Director of Public Health**
**Public Health Agency**

# Introduction

This *Annual report* of the Director of Public Health for Northern Ireland describes the main public health challenges in Northern Ireland and offers a few examples from the broad range of activities undertaken by the Public Health Agency (PHA) and its partners to improve the health and wellbeing of the population.

## Report structure

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

- improving health inequalities;
- improving health through prevention;
- improving health through early detection;
- improving health through high quality services;
- protecting health.

The sections are colour coded for ease of reference.

An accompanying section of core tables includes key statistical data on, among others, population, birth and death rates, mortality by cause, life expectancy, immunisation and screening. A full list of core tables is available on page 93.

The tables themselves are available as a Portable Document Format (PDF) file on the PHA website at www.publichealth.hscni.net

## Background

The PHA was established to improve health and wellbeing and reduce inequalities. The PHA provides a renewed and enhanced focus on public health, bringing together a wide range of public health functions under one organisation: health protection; health improvement; service development; and screening.

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.

This report highlights only a few of the wide range of activities during April to December 2009, focusing primarily on action at community level for 'real' people.

For further information on any of the projects please contact Dr Carolyn Harper, Director of Public Health, at Director.PH@hscni.net

# 1 Improving health inequalities

## Improving outcomes for children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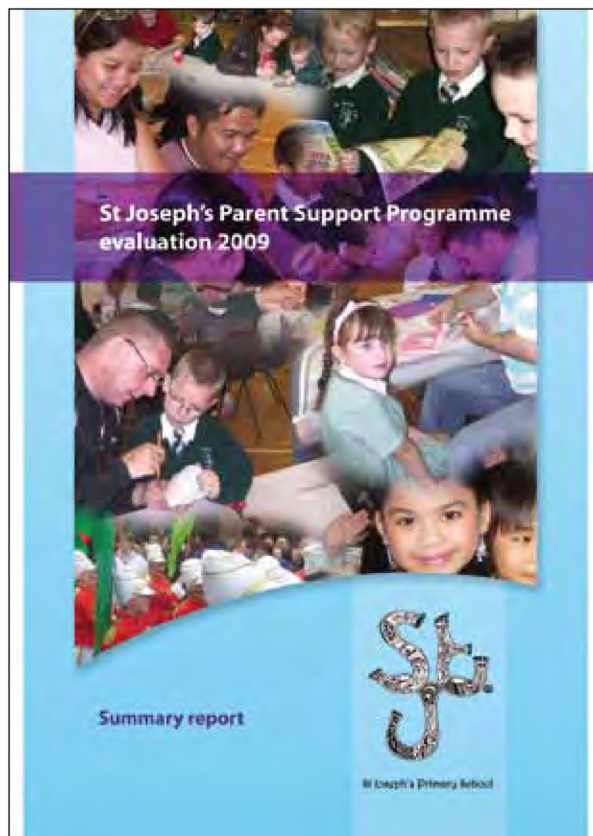
## Promoting education and learning

### Public health challenge

The potential health outcomes and other benefits of supporting parents and children in the primary school setting cannot be underestimated. This has been clearly demonstrated by the long-term development of a good practice model – the Parent Support Programme (PSP) at St Joseph's Primary School in Belfast.

St Joseph's is located in Slate Street, at the bottom of the Grosvenor Road in the Falls area – the second most deprived ward in terms of multiple deprivation in Northern Ireland.




The profile of the pupil population is such that 46% of the children attending St Joseph's are entitled to free school meals. Additionally, one in five pupils speak English as a second language and more than one in three (37%) are registered as having special needs.

### Action

In 2003 the Belfast Education and Library Board, through the Dissemination of Good Practice initiative, funded a parents' support officer and support worker.

The initial aim of the PSP was: "To develop a sustainable strategy that is geared towards involving and supporting our parents with the goal of improving the overall standards and achievements of all our pupils."

Belfast Health Action Zone also supported the programme as part of its objective to integrate the work of partner organisations on the ground.

Between 2003 and 2009, over 40 projects were delivered within the programme – including reading development, arts and craft, cross-community activity and various models of good practice.

### Outcomes

A recent evaluation of the PSP showed parents were actively involved in school life as volunteers and educators. That resulted in improved behaviour among the children; better attendance and achievement in class; greater parental support; stronger relationships between parents and staff, and greater self-esteem and confidence for the parents involved.[2]

Notably:

- 69% of children improved their maths scores;
- 80% improved their English scores;
- suspensions decreased by 45%;
- reading age increased significantly.

School Principal Margaret McQuillan said: "The evaluation report clearly shows that involving and supporting parents in the school setting both improves the children's behaviour and achievement and gives parents the opportunity for personal development and, in some cases, opens the door to employment."

Commenting on the programme, Public Health Agency (PHA) Chair Mary McMahon said: "The Parent Support Programme has shown how partnership between all involved in a child's early learning can come together to bring added value and long-term benefits for parents and children

*St Joseph's pupils, from left, Colleen Villamor, Ciarán Hartley and Chloe McGuigan studying the evaluation report.*

## Key facts

- **In primary schools with high proportions of free school meals 68% of pupils will have achieved the expected levels in English key stage 2 by years 5–7. In Northern Ireland the overall level is 79%.**
- **Fifty percent of children from the most deprived areas in Northern Ireland achieved at least five GCSEs grades A*–C (or equivalent) compared with 82% of those from the least deprived areas.**
- **Among children in the care of social services, 16% achieved at least five GCSEs grades A*–C (or equivalent) compared to 68% in Northern Ireland overall.**
- **Post-primary schools where 40% or more of pupils are eligible for free schools meals have twice the level of absenteeism of schools where less than 10% of pupils are eligible.**
- **Three percent of primary school children in Northern Ireland now have English as an additional language. In Dungannon district, this figure is nearly 10%.**

alike. This work represents a model of good practice that should be widely replicated."

### Next steps

There is significant learning from the success of this programme. It is a valuable model that could be used by others to meet the challenge of increasing educational aspiration and attainment among primary school children.

*At the launch of the summary report of the St Joseph's PSP evaluation are, from left, Donal Flanagan, CCMS Belfast; Lord Mayor Naomi Long; Bishop Noel Treanor; St Joseph's Principal Margaret McQuillan; David Cargo, Belfast Education and Library Board; Mary McMahon, Chair, Public Health Agency; Sean Maguire, Chairman, Board of Governors, St Joseph's; and Eamonn Keenan, PlayBoard.*

## Supporting children and families

### Public health challenge

"Inequalities in health arise because of the circumstances in which people grow, live, work and age, and the systems put in place to deal with illness." [3]

Within Northern Ireland, Belfast continues to rank low on indicators such as life expectancy, long-term limiting illness and child health. A high proportion of young people do not complete compulsory education.

A boy born in Belfast West parliamentary constituency can expect to live six years less than a boy born in Belfast South.[4] Likewise, in 2007, 95% of school leavers living in Stranmillis achieved five or more GCSEs at grade C compared to 8% living in the Blackstaff Ward in West Belfast.[5] Similar patterns are seen across the country.

### Action

The £5m Integrated Services for Children and Young People (ISCYP) programme is based on international evidence of the benefits of early intervention. Better integration of services and better working together also leads to better results and brighter futures for children, young people and their families.

It has been estimated that investment in supporting parents and children gives a 17-fold return by mid-adulthood through reduced need for intensive support services and better productivity.[6]

The ISCYP programme is led by the Belfast Education and Library Board on behalf of the Public Health Agency's Belfast Health Action Zone (HAZ), and is delivered through the West Belfast and Greater Shankill Partnership boards. Delivery teams work across Greater Shankill and West Belfast, employing over 80 staff in communities and schools to support individuals and families with complex needs.

### Outcomes

The impact of the initiative on individuals and their families is already visible on the ground. Mairead McCafferty, ISCYP Programme Manager in West Belfast, explained how a 22 year old unemployed lone parent with low levels of confidence, who had been living in temporary accommodation, received support.

"The ISCYP programme was able to provide 'Mary' with counselling and ongoing family support. This improved her self-esteem and confidence to a point where she was able to participate in group work and is also now in part-time employment."

***Bursary recipients with their awards from the Integrated Services for Children and Young People (ISCYP) programme in Greater Shankill.***

Tara Brown, ISCYP Programme Manager in Greater Shankill, said the initiative had also benefited those who were directly employed by the programme. "The youth and community work apprenticeship scheme provides young people with local employment and the skills to engage and work with young people in the area.

"The ISCYP programme celebrates the contribution of young people to their community and encourages young people to achieve in an academic or vocational field by providing a financial bursary scheme."

At its launch, Deputy First Minister Martin McGuinness said the programme "provides a unique opportunity to break a long-running cycle of social and educational disadvantage in West Belfast and Greater Shankill".

## Key facts

- **The strategic argument for early intervention has been accepted.**
- **The benefits of reducing health inequalities are economic as well as social.**
- **Health inequalities need to be tackled through integrated local action.**
- **Community, voluntary, private and statutory partners are working together to improve the life chances of children and young people in Greater Shankill and West Belfast and promote the integration of service design and delivery.**
- **The independent evaluation of the ISCYP programme will contribute to the evidence base upon which effective policies are built.**

### Next steps

Success will be measured through increased educational achievement, a commitment to lifelong learning, an increase in employability, and improved health.

Jim Clarke, Chair of Belfast HAZ, stressed the importance of evaluating programmes. "In order to design effective policies we need an evidence base to know what works and what doesn't, and we need to share the learning. Changing the way mainstream services are delivered through integration is one of the best ways to tackle inequalities and achieve better results for young people and their families."

The ISCYP programme is funded to March 2011. A first stage independent evaluation has been produced and an interim evaluation report will be available in 2010.

For further information, visit the Belfast HAZ website at www.haz-belfast.org

## Improving services for children and adults with autism

### Public health challenge

Autism is a lifelong developmental disability that affects the way a person communicates and relates to other people. The three main areas of difficulty that people with autism generally share are often referred to as the "triad of impairments".

These are:

(i) difficulty with social communication;

(ii) difficulty with social interaction;

(iii) problems with social imagination and thinking.

These patterns become apparent in the first few years of life and are generally experienced throughout a lifespan.

The number of people with autism disorders known to services in Northern Ireland has increased significantly over the past decade. It is estimated that around 1 in 100 people has autism, with males affected around four times more often than females.

Early and effective treatment during childhood is essential in terms of the opportunity for significant improvement and relative independence over the longer term.

### Action

The Public Health Agency is working with the Health and Social Care Board (HSCB) to improve the care of people with autism. The new regional Autistic Spectrum Disorder (ASD) network is tasked with implementing the *Autism spectrum disorder strategic action plan 2008/09–2010/11* which was drawn up following the *Independent review of autism services* initiated by the Health Minister in 2007.[7,8]

The independent review identified that while there had been some, albeit limited, progress towards the development of ASD services for children, there was an inadequate amount of care and support for older adolescents and adults.

***Many of the parents, carers, statutory and voluntary representatives who attended the regional ASD network meeting in Armagh chaired by Lord Ken Maginnis, front row, centre, of the regional ASD reference group.***

## Key facts

- **Number of children in Northern Ireland with autism: around 3,500–4,000 (1 to 1.5% of the childhood population).**
- **Typical age at diagnosis: 3–11 years.**
- **Number of new cases diagnosed per year: around 300 (the number diagnosed has increased over recent years).**
- **Males are affected four times more than females (the reason for this is unclear).**
- **The underlying aetiology of autism is unclear. There is likely to be some genetic element but there may also be environmental triggers.**
- **Early intervention is very important. The sooner interventions, help and support are provided, the better the longer-term outcomes for the child and family later in life.**

Lord Ken Maginnis of Drumglass chairs a regional ASD reference group made up of parents, carers, service users and voluntary sector representatives. The reference group provides a platform through which these voices can be heard at an official level within the network – and therefore within the HSCB and Trust ASD planning teams.

A number of public meetings were held across Northern Ireland in December 2009 and January 2010 to help publicise the ASD network.
At a meeting hosted by Lord Maginnis in Armagh for the Southern Trust area in January, over 50 people who are either parents or carers attended. There was considerable debate, and personal issues, concerns, views and opinions were raised during the course of the meeting.

### Outcomes

A parent from the Newry area who asked to become involved in the reference group commented: “This has been a very worthwhile meeting. It is encouraging that the opportunity for parents or carers to raise issues, both operational and strategic, has been made available. This is a very meaningful way to improve the quality of services in a person-centred approach.”

Another parent from Armagh added: “I felt the meeting was very beneficial as I now have obtained contact details for people who can signpost me in the right direction with the concerns and issues I have. It was great that all parents and carers who attended had an opportunity to have their views and opinions heard regarding a wide range of issues and also have the opportunity to get involved in the regional process to improve services.”

## Grandparents support Healthy Steps for Life

### Public health challenge

Grandparents from the Craigavon and Banbridge area have taken part in Healthy Steps for Life workshops highlighting the importance of promoting healthy behaviours in the early years of life.

Recognising the influential role of grandparents and their regular childminding duties within families, grandparents were seen as a key target group for this initiative and an effective means of channelling information to families, particularly since too many children and young people do not get enough exercise, are not eating healthy choices and are above a normal weight for their age.

### Action

The workshops included talks on healthy snacks and treats for children; having fun and playing games; encouraging breastfeeding within families; and looking after grandchildren's teeth.

Grandparents were given a range of useful resources to take away, including play resources, booklets on healthy weaning and games for under fives, information leaflets on healthy snacks, and advice on how to avoid tooth decay.

***Participants from Craigavon and Banbridge at the Healthy Steps for Life grandparents' workshop.***

## Key facts

- **43% of 0–5 year olds in the Southern area are registered with a dentist.[9]**
- **16.5% of children in the Southern area aged 4½ to 5½ (Primary 1) were overweight and 4.9% were obese in 2007/2008 (See note below).[10]**
- **20.2% of children in school Year 8 were overweight and 5.7% obese for 2007/08. (See note below).[10]**
- **24% of children (aged 2 to 15 years) who were surveyed in 2005/06, were overweight and 18% obese.[11]**

**% children who eat 5/day**

**In a survey carried out in post-primary schools in 2007 across the Southern area, only 13% of pupils usually eat 5 or more portions of fruit/vegetables each day. The average for Northern Ireland is 15%.[12]**

***Note:***

**All the children in the area were screened (screening happens in school). Overweight/ obesity is rated using the International Obesity Task Force standard of obesity classification. Area is determined by the postcode of the school rather than the postcode of the child.**

### Outcomes

Portadown grandparent Marie McCann who attended one of the workshops said: “I really enjoyed the workshop and found it very informative. It was good to learn the importance of healthy eating and physical activity for our grandchildren as well as for ourselves. I got as much out of the workshop for myself as I did for my grandchildren.”

Another grandparent who attended a workshop held in Banbridge said: “I found the workshop really interesting and informative. The amount of sugar and salt in the foods we give to children really shocked me. My grandchildren have had fun playing the various games that were shown at the workshop and that makes it easier for them to be active.”

### Next steps

Other workshops and similar events are also being planned for grandparents across the Southern area over the coming months.

## Keeping older people Safe and Well where they live

### Public health challenge

A growing number of older people are living longer and remaining within their own homes – but many are experiencing significant difficulties such as social isolation, loneliness, poorer mental health and decreasing levels of physical health.

This is evidenced through the key facts detailed below.

### Action

The Safe and Well Where You Live older people's project was established in 2006 as a three year pilot by the Eastern area Investing for Health (IfH) Partnership together with the Down Lisburn Trust (South Eastern Health and Social Care Trust).

The project focused on two key areas:

- increasing access to health improvement and preventive health services;
- providing a range of innovative community-based social support services to enable older people to live independently within their own homes.

Three local network structures were established in the pilot sites of Dunmurry, rural Lisburn and Newcastle. The range of partners in the project reflects the complex needs of older people and the need to address issues such as community involvement, transport, housing, health and social care, volunteering, befriending, community safety, income and environment.

### Outcomes

Around 750 of the most vulnerable older people have received services such as assisted shopping, home support, befriending, fracture falls prevention programmes, home accident checks and nutrition programmes.

An evaluation has indicated very high levels of satisfaction among this group, and improvements in quality of life indicators such as sense of fear, loneliness and isolation.[13]

Some of the comments received through the evaluation have included:

- I feel more secure with peace of mind – not worried about gas escaping or locks not working;
- It makes all the difference getting help with shopping as I can't do it myself;
- Made a huge difference to my life – when the weather is bad it is terrific. With my medical condition I couldn't manage a journey to the shops;
- It's someone to look forward to;
- It's just great to have someone coming in;
- Good service – I feel more relaxed having a better knowledge of my medication.

An additional 1,200 older people have been involved in other health improvement programmes as a result of the pilots.

### Key facts

- **20% of the population are now over 60 years of age and 4% over 80.[14]**
- **By 2019, over 65s will incease by 34%, over 85s by 40%.[14]**
- **14% of older people live alone, have difficulty accessing services and feel isolated.[15]**
- **Between 50% and 66% of those aged 65+ across the area experience a life-limiting long-term illness.[15]**

### Next steps

The pilot has informed a successful application to the Big Lottery Safe and Well programme for an additional £1m that will support the retention of services within each of the pilot localities and allow for the expansion of the project into other areas across the Down Lisburn area.

Additional Public Health Agency resource has also been made available to support the roll-out of the project. The results of the pilot will also help to inform the development of the service framework for older people that has recently begun.

**Figure 1: Summary of the range of services provided through the older people's Safe and Well project.**

## Addressing fuel poverty in the Southern area

### Public health challenge

With rising fuel costs and colder weather, vulnerable groups such as older people, low income families and persons with a disability find it increasingly difficult to afford to heat their home adequately.

### Action

The Southern Investing for Health (IfH) Partnership's Emergency Fuel Assistance programme assists vulnerable groups to alleviate fuel poverty and its effects.

### Key facts

- **In 2006, 34% of households in Northern Ireland were fuel poor compared to 24% in 2004 and 27% in 2001.[16]**
- **It is suggested that the increase seen in 2006 was due to rising fuel costs.**
- **Rural areas have been shown to have particular problems. The Northern Ireland *House condition survey* carried out by the Northern Ireland Housing Executive in 2004, found that:**
  - **almost 24% of rural households in Northern Ireland did not have any form of cavity wall insulation;**
  - **19% did not have double-glazing;**
  - **almost 8% had no roof insulation.**
- **In addition to the health and quality of life benefits to individuals, reducing fuel poverty has wider implications to society. Fuel poor households often use more polluting fuels, causing increased emissions of carbon dioxide and other noxious gases. Tackling fuel poverty will also impact on the environment.[16,17]**

### Outcomes

Between December 2008 and March 2009, a total of 876 homes received home heating assistance, benefiting 2,357 people.

In addition, 300 vulnerable older people received Keep Warm energy saving packs.

Delighted with the scheme, a local community organisation said: "This funding was particularly significant for low income families and lone parents during the current financial climate."

A local beneficiary of the project added: "With a young family and on benefits it's very hard to budget for oil when you need other essentials like food."

### Next steps

Year two of the Emergency Fuel Assistance programme began in December 2009 and is currently being delivered. An evaluation and report will be produced in June 2010. The IfH Partnership plans to continue supporting fuel poverty initiatives under its health improvement plan.

## Advice 4 Health is advice for life

"My clients tell me that without Advice 4 Health they would never have known where to get help or how to rebuild their lives. Advice 4 Health really is advice for life." Advice 4 Health worker, Causeway.

### Public health challenge

Both poverty and economic inequality are bad for health. Poverty is an important risk factor for illness and premature death. It affects health directly and indirectly in many ways, eg financial strain, poor housing, poorer living environments and poorer diet, and limited access to employment, other resources, services and opportunities. Poor health can also cause poverty.[18]

In Northern Ireland, research on poverty carried out in 2006 found that 20% of the population were living in relative income poverty (where the household income is less than 60% of the median United Kingdom household income for the year in question) over the period 2002/2003 to 2004/2005, accounting for 350,000 people. Twenty five per cent of children were living in income poverty, accounting for 100,000 children.[19]

### Action

Established through the Public Health Agency's Northern Investing for Health Partnership and managed locally through the Citizens Advice Bureau (CAB), the Advice 4 Health project supports vulnerable groups in accessing the services available to them.

They have a particular focus on reducing poverty among the elderly, people with disabilities, people with mental health difficulties, families with young children, and those living in fuel poverty.

Four specialist Advice 4 Health workers offer support to vulnerable clients who may not traditionally access services. They work across a range of HSC settings, such as community rehabilitation centres, GP surgeries and the local inpatient mental health units.

"Advice 4 Health provides accessible, confidential and flexible advice and information to those who would otherwise be unable to access this support.

*Advice 4 Health steering group and local Advice 4 Health workers.*

# Improving health inequalities

"The difference to clients is not only in monetary terms but, in working in conjunction with health professionals throughout the area, it contributes to the overall wellbeing of the patients." Valerie Adams, CAB Manager, Antrim.

In each of the settings, the relationships that have been built up between the advice worker and the HSC professionals have been invaluable in making the project a success.

"From our experience, based on feedback from referrals we have made to Advice 4 Health, our clients are extremely appreciative of the help and assistance they receive. Health workers do not have the required expertise, or time, to provide benefit advice. In the present economic situation, we recognise the demands required in relation to those matters and to have an Advice 4 Health outlet at Newtownabbey CAB that provides such a service is fantastic." Lisa Gault, Mental Health Social Worker, Glenview House, Whiteabbey.

## Key facts

**Persistent poverty in Northern Ireland (21% before housing costs) is double that in Great Britain (GB) (9%).**

**There are four main reasons for higher persistent poverty in Northern Ireland:[20]**

- **High levels of unemployment – 31% of the Northern Ireland working age population is not in paid work, higher than any region within GB and 6% higher than the GB average.**
- **High rates of disability and limiting long-term illness, especially mental ill health.**
- **Low wages – the median wage for men working full time in Northern Ireland is 85% of that for British men.**
- **Poor quality part-time jobs and obstacles to mothers working.**

### Outcomes

During the first pilot year of the project in 2005, the four Advice 4 Health workers dealt with 8,500 enquires and accessed over £720,000 in additional benefit entitlement for clients.

Given the success of the pilot, subsequent annual targets were set to provide benefit maximisation for a minimum of 8,000 vulnerable people across the Northern area.

From 2006 to 31 March 2009, advice was provided to over 25,000 people across the Northern area – resulting in a minimum of £2.6m income maximisation being recovered for patients and clients.

"With the joint help I received from the doctors and nurses, together with the Advice 4 Health worker, I believe I am starting to put my life together. They were a good team and the extra benefits received from my disability living allowance award, which the Advice 4 Health worker processed, has been such a major help." Gerard, Advice 4 Health client.

### Next steps

It is projected that Advice 4 Health will easily exceed its 2009/2010 annual targets of handling 8,250 enquires and recovering a minimum of £500,000 through benefit maximisation for those living in poverty within the Northern area.

"The Advice 4 Health project has been most beneficial, not only in helping clients who are vulnerable and excluded, but it has also strengthened links between the health professionals and CAB staff. This has helped to provide a more holistic approach to the people who need it most." Sharon Dillon, CAB Manager, Cookstown.

## Building communities – a VOICE for all

### Public health challenge

A key public health challenge is to respond to the needs of black and minority ethnic groups, including migrant workers. This issue was highlighted in the *Investing in equality* report published by the Southern Investing for Health (IfH) Partnership in May 2007.[21]

The report highlighted the barrier that language was for migrant workers in their need to access services from key service providers in the Southern area.

### Action

The Southern IfH Partnership in collaboration with the Southern Regional College (SRC) has developed the VOICE programme.

VOICE is a training course for volunteers who give language support to non-English speakers. The programme trains volunteers to engage, empower and involve those within local communities who do not speak English as their first language.

### Outcomes

Over a three year period, VOICE will enable 105 volunteers to undertake an OCN Level Two certificate in English learning support for speakers of other languages, and receive learning materials, including interactive resources, to help them support non-English speakers in their local community.

Speaking on behalf of the SRC, John Quinn, Director of Workforce Development and External Affairs, said: “This is a very worthwhile project that will ultimately improve the quality of life for many within our community, giving them the skills and knowledge they require to participate fully in society.”

***Participants at the launch of the VOICE programme.***

## Key facts

- **Based on new health card registrations, the majority of people coming to live in the Southern area over the past few years were born in the following countries: Lithuania, Poland, Portugal, Latvia and East Timor.**
- **4% of school-age children in the Southern area do not speak English as their first language (ie have difficulty with the English language and require additional support). Equivalent for Northern Ireland = 2%.[18,22]**

Volunteers who have received the training describe their personal experience:

- "I think this project is fantastic as it offers so many opportunities for ethnic minorities in the area." Ilieva Lleve, one of the first volunteers.

- "Everyone who deals with non-native speakers should experience this." Business woman and former classics teacher Maureen Brown from Portadown.

- "Thanks for your great course! It has been absolutely the best so far. I have attended quite a few courses since I arrived in Northern Ireland but yours was worth spending every single minute. I will recommend it to everyone I know." Artur Kmiecik, a Polish teacher and journalist from Newry.

### Next steps

In 2010/2011, resources to support the programme will be available in four key areas – the workplace, health, housing and education.

If you live in the district council areas of Armagh, Dungannon and South Tyrone, Craigavon, Banbridge or Newry and Mourne, and would like more information about the VOICE programme, contact the Public Health Agency (Southern Office) on 028 3741 4606.

2

# *Improving health through prevention*

## Tackling smoking and drinking among young people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## Smoking cessation and prevention for young people

### Public health challenges

Trends in smoking among young people show that while prevalence has decreased in recent years, most smokers start smoking and become addicted in their teens.

A recent study of 1,176 pupils aged 15 to 16 years from 19 schools in the Western Education and Library Board area showed that 16% of pupils smoked, with 63% stating they would like to quit. Of the pupils wishing to quit, 55% stated that their preferred type of support would be in a group format compared to 39% who would prefer one-to-one support from a smoking cessation specialist.

### Action

The most effective interventions are comprehensive, multi-component, well-funded, sustained, tailored prevention approaches that address all levels of influence on young people's smoking.[23]

### Smoking Cessation Programme – Teenage Kicks

Commissioned by the Public Health Agency (PHA), the Western Health and Social Care Trust (WHSCT), in partnership with a local GP, has run a smoking cessation programme entitled Teenage Kicks.

This project provides smoking cessation support for young people in neutral environments such as the Nerve Centre close to the centre of Derry city. The support is provided after school and also addresses other lifestyle issues, such as alcohol consumption, diet and exercise.

The programme is based on cognitive behavioural modification with input on social learning theory. It is jointly facilitated by the GP and a WHSCT specialist. Pupils are recruited from post-primary schools by the WHSCT smoking cessation specialists via smoking cessation prevention initiatives and talks within the schools.

Incentives such as fruit smoothies, gym membership and phone top-ups are used to encourage the young people to remain non-smoking during the seven week programme. Carbon monoxide monitors are used to validate non-smoking status.

### Outcomes

The project has proven to be extremely successful. In 2008/2009 a total of 92 pupils from eight schools attended Teenage Kicks in the Nerve Centre. Of these, 53 had quit at four weeks, giving a quit rate of 56%.

One 16 year old male student commented: "I really enjoyed it, especially using the gym. I don't think I could have stopped smoking otherwise."

### Next steps

The successful Teenage Kicks programme provides the template for other youth smoking cessation programmes in the west.

Mary Campbell, WHSCT smoking cessation specialist who delivers the programme, commented: "Feedback from the young people has been very positive. One group commented that they liked the way it was delivered and felt it did not need to be changed. Building on its success, we have now started another programme in Derry city and one in Limavady and intend to roll it out further."

## Key facts

- **One in two smokers die because of their habit.**
- **Smoking claims 2,400 lives each year in Northern Ireland at a cost to the health service of over £23m.**
- **Male smokers are 22 times more likely to die of lung cancer than non smokers.**
- **In Northern Ireland the average age at which current pupils first smoked cigarettes is 11.8 years.**
- **Most 11–15 year old regular smokers feel dependent.**

## Youth Stop Smoking and Prevention Programme

This project was developed by the Ulster Cancer Foundation (UCF) and is funded by the PHA (Eastern Office).

The project has been delivered in a number of youth settings across the wider Belfast area including schools, youth clubs and community venues

### Outcomes

1. **Cessation:** Three separate clinics have been set up and delivered in youth settings.

   At four weeks, 57% of attendees had quit which compares very favourably to the 45–50% target set as the quality standard for specialist smoking cessation support, and also to the 32% four-week quit rate for under 18 year olds attending cessation services across Northern Ireland in 2008/2009.

2. **Prevention:** Around 340 young people have been reached through youth health events where a number of resources were used to encourage young people to remain smoke-free, including presentations, group work, visual displays and brief intervention.

3. **Capacity building:** Two youth workers and 11 peer educators have been trained in Brief Intervention relating to smoking cessation.

### Next steps

Additional clinics will be set up and delivered by the end of the project.

To date, this project has been very successful and has built momentum since its inception last year. To continue this work and increase the momentum, we hope that it becomes a part of the core UCF central service funding.

This longer-term funding would ensure the sustainability of the Stop Smoking services, taking them on to a much wider audience.

## Reducing alcohol-related harm among young people

### Public health challenge

The impact of alcohol misuse among young people is of major importance to the Public Health Agency. Providing young people with the correct information and supporting them to make informed decisions around alcohol misuse is a key task for everyone working with young people.

Given the high levels of alcohol misuse among young people, funding was awarded to Lisburn YMCA in 2004 to deliver a version of the School Health and Alcohol Harm Reduction Project (SHAHRP), originally developed in schools in Australia.

### Action

SHAHRP is a two-phase alcohol intervention aimed at pupils in years 10 and 11 of post-primary schools in the Belfast and South Eastern trust areas. The intervention is delivered to all pupils within these year groups, and 74 schools currently participate in the project.

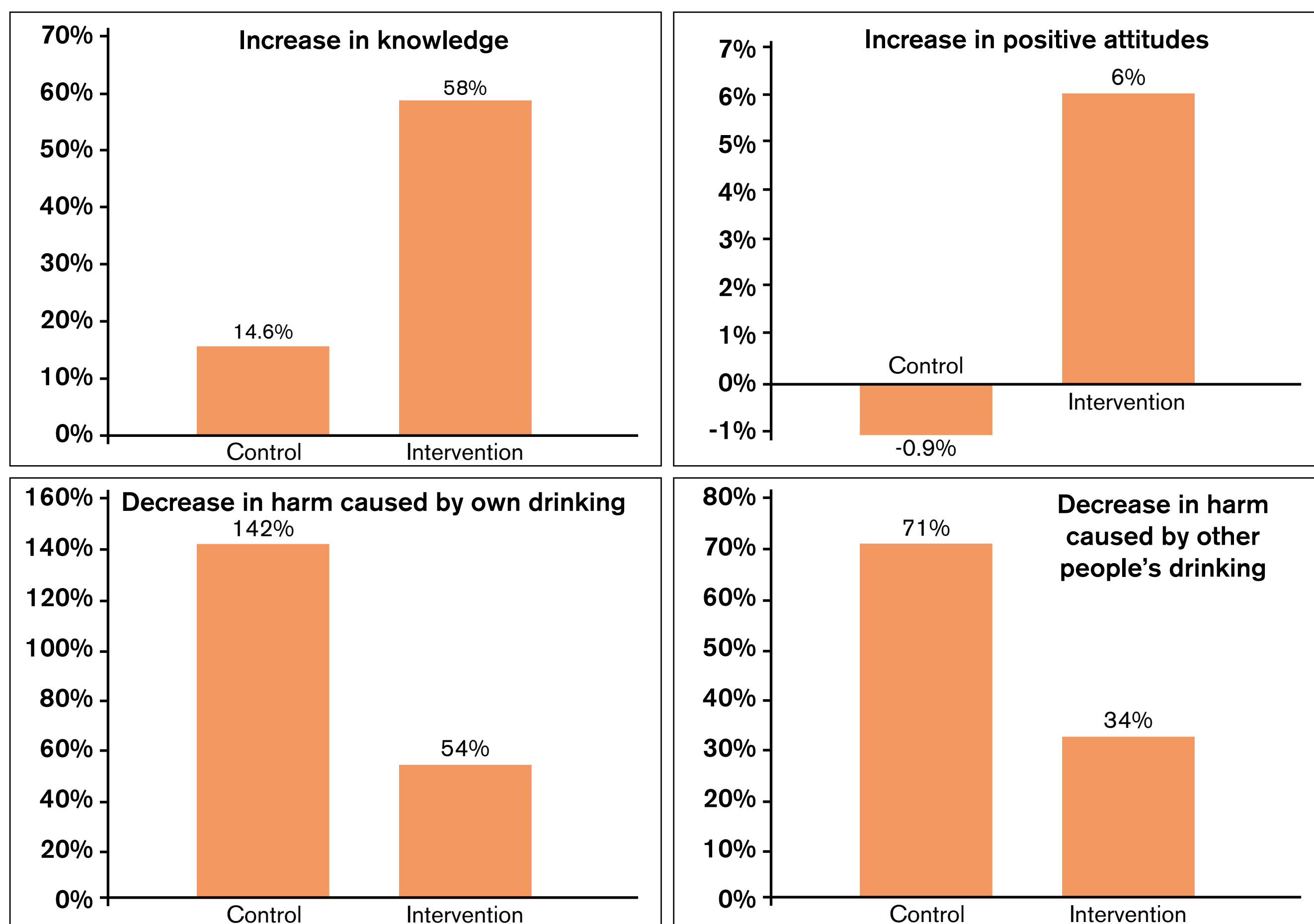
The project staff initially delivered the intervention; however, training is now provided to teachers to allow them to deliver the lessons.

Paul Maxwell, Vice-Principal, Strangford College, said: "We have been using SHAHRP for the past number of years and have found the resources and presentation of the intervention to be suitable and appropriate for our pupils. The CD resource allows for active learning experiences and since alcohol use among young people continues to be a problem, programmes such as this greatly help schools in their attempts to educate pupils on the dangers of alcohol through Learning for Life and Work."

### Outcomes

Figure 2 below shows the impact that this project is having. Young people who received the SHAHRP intervention reported an increase in their knowledge about alcohol and its effects, an increase in

**Figure 2: Impact of the SHAHRP project 2005–2007**[24]



positive, more healthy, attitudes towards alcohol, and a decrease in alcohol-related harms.

These harms include 'own' harm (harm caused by their own drinking) and 'else' harm (harm caused as a result of other people's drinking).

Approximately 3,000 people were involved in the evaluation.

### Next steps

Lisburn YMCA has developed additional interventions in other year groups to consolidate the work achieved through the SHAHRP intervention.

The eventual aim is that pupils will receive an intervention in every year that is age-appropriate and builds on the knowledge gained in previous years.

For more information on SHAHRP, please contact michael.mckay@liverpool.ac.uk

## Key facts[25]

- **81% of 16 year olds and older have drunk alcohol.**
- **Approximately one tenth (11%) of pupils who have ever drunk alcohol said that they drink on a daily or weekly basis, with 69% drinking less than weekly. One fifth (20%) of pupils who have ever drunk alcohol said they no longer do so.**
- **45% of young people aged between 11 and 16 have not drunk alcohol.**
- **72% of 12 year olds and under have never drunk alcohol.**
- **Among pupils who reported getting into trouble as a result of drinking alcohol, 32% got into trouble with their parents or another family member, 13% with friends, 11% with the police, 10% with local people and 2% with school.**

## Supporting breastfeeding in the local community

### Public health challenge

The foundations for a healthy life are heavily influenced by what happens in the first few years. Tackling growing obesity rates and increasing our breastfeeding rates remains an ongoing challenge for all organisations promoting health and wellbeing.

Healthy Steps for Life is a three year programme developed by the Southern Investing for Health Partnership to promote healthy lifestyles in early years (0–5 years) and reduce the growing rates of childhood obesity. A key target of this programme is the promotion of breastfeeding within the community.

### Action

Twelve women from the Craigavon and Banbridge area have completed a new Breastfeeding Peer Support training programme developed by the Healthy Steps for Life initiative.

These community-based peer supporters will provide help and advice, either over the phone or during home visits, to breastfeeding mums in their local area. The support workers will also be able to put mothers in touch with health professionals where they can receive additional assistance.

Throughout the programme, the peer supporters will receive regular mentoring and support from community midwives with the Southern Health and Social Care Trust.

### Outcomes

Orlaith Moley, Public Health Agency Project Manager for Healthy Steps for Life, explains: "Breastfeeding research has highlighted the importance of new mums having access to good support and information in the early stages after birth to help build their confidence and overcome any problems they may have. This comprehensive

*Newly trained Breastfeeding Peer Support workers from the Craigavon and Banbridge area. Included are Lyn Donnelly and Orlaith Moley from Southern Investing for Health (back row far right).*

**Figure 3:** % breastfeeding at discharge from hospital by area 2004–2008[10]

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Northern area | 39.7 | 40.2 | 38.9 | 41.7 | 42.0 |
| Southern area | 37.9 | 39.4 | 40.5 | 43.6 | 46.0 |
| Eastern area | 40.3 | 42.4 | 42.5 | 43.0 | 43.8 |
| Western area | 37.4 | 36.7 | 38.6 | 40.7 | 42.0 |

package of training will provide the peer supporters with the knowledge and skills necessary to help mothers breastfeed successfully as well as giving them the confidence to promote breastfeeding in their own community."

Lorraine Carson from Banbridge who has successfully completed her training says: "If there had been someone in the role that I have just trained for to offer me help, advice and support when my baby was born, my breastfeeding experience would have been a lot less stressful, especially in the first few weeks."

### Next steps

Over the coming months this training will be extended to other localities within the Southern area including Armagh, Dungannon, South Tyrone, Newry and Mourne.

For more information on the Breastfeeding Peer Support training, contact Orlaith Moley on 028 3741 4590 or email orlaith.moley@hscni.net

## From farm gate to patient's plate

### Public health challenge

Research published by the Department of Health, Social Services and Public Safety indicates that 40% of older patients admitted to hospitals in Northern Ireland are malnourished at time of admission, fewer than 18% are satisfied with the quality of food served in hospital, and between 30–50% of hospital food is wasted.[26]

Procuring food locally can increase the proportion of fresh, local and sustainable food in the health system. Compared to bringing food from outside the area, it can also help local rural economies retain a larger share of the retail price (Local Multiplier Effect), thereby delivering economic benefits to the area.

The increase in economic activity and employment can reduce the levels of emotional ill-health among rural communities. Recent research published in *Occupational medicine* suggested that farmers and farm workers account for the highest number of suicides in an occupational group in the United Kingdom.[27] Research illustrates that unemployed people are more likely to have a potential psychological illness (30%) than those who are employed (16%).

### Action

The EU Renaissance of Atlantic Food Authenticity and Economic Links (RAFAEL) programme aims to increase the proportion of fresh, local and sustainable food onto patient and client menus and ultimately, within the public sector in general. The programme is also designed to improve the nutritional intake of patients and staff in health facilities, and contribute to the economic and emotional wellbeing of communities throughout rural Northern Ireland.

***Left to right, Seamus Mullen, Assistant Investing for Health Manager, PHA; Michael Moorehead, Department of Agriculture; Florence McAllister, Business Services Organisation; Tony O'Hara, Catering Manager, Belfast City Hospital; and Mary Black, Assistant Director, PHA.***

By empowering local producers and processors to respond to invitations to tender from the health service, RAFAEL has increased the amount of local, fresh and sustainable food on patient and staff menus in Western Health and Social Care Trust facilities. It also increases the value of contracts to this sector at a time of increasing economic and social uncertainty.

RAFAEL has found that 60% of local businesses do not contract with the health service due to lack of information on the process, and perceptions of complicated tendering procedures. This presents a significant lost opportunity to business in the rural economy given that the health service in Northern Ireland contracts £23m of food per year.

Hosting Meet the Buyer events has empowered businesses within the supply chain by highlighting:

- the extent of contracts (provided by each relevant Trust);
- what is involved in completing tenders and how to access support to complete the tender (through the Business Services Organisation's Procurement and Logistics Service);
- how to access any financial support necessary to bring their business up to the required level for the tender criteria (Department of Agriculture and Rural Development – DARD).

### Outcomes

Outputs to date include:

- recent announcement of £13m of contracts through the RAFAEL programme;
- recent awards of fruit and vegetable contracts to four local suppliers worth £3.6m;
- a move by one local supplier from no contracts with the public sector to a share of £270,000 contracts in the pilot phase, and to almost a £1m contract over three years to provide fruit and vegetables. This resulted in at least nine new jobs to the economy in a socially and economically deprived area;
- Ministerial engagement in the project from the DARD Minister who hosted meetings with Ministers for Health, Education and Finance on the project;
- development of a multi-disciplinary and cross-departmental approach to increasing the proportion of local, sustainable and fresh food that is procured to our hospitals.

## Field to Fork promotes healthy food choices

### Public health challenge

Whatever our age, the food we eat affects our health. Encouraging healthy eating habits among children and young people contributes to healthy growth and development in the short term and is an investment in their health for the future.[28]

The World Health Organization recommends that the school can provide a setting to support food choices for children to enable them to decrease the risk of weight gain and obesity.[29]

The recent Marmot review outlined that the foundations for every aspect of human development are laid in early childhood, and to have an impact on health inequalities we need to address the social gradient in children's access to positive experiences.[30]

### Action

Field to Fork is a project that enables teachers to integrate public health messages – prevention of obesity and better nutrition – as core components of the primary school curriculum.

It uses Classroom 2000 interactive whiteboard technology as an innovative platform to stitch together and contextualise healthy eating and nutrition initiatives for schools. It also encourages children to learn about the role that food plays in our health and wellbeing.

The central component of the resource is the Eatwell Plate, around which are included lesson plans on seasonality of food, origin, environmental impact of food, and the links between agriculture and food. The teaching resource was developed in conjunction with the Western Investing for Health (IfH) partnership, Education and Library Board curriculum advisors and the Community Food and Nutrition Team.

### Outcomes

The resource was delivered to all 164 primary schools in the Western region. Feedback suggests that:

- 85% of teachers used the resource to address obesity prevention and healthy eating messages;
- it enables hands-on learning to capture the interest of children in healthy eating, while enabling the achievement of "connected learning" across the new school curriculum;
- the Department of Education has recommended the resource to teachers for the Extended Schools World Around Us cluster groups;
- it creates a win-win for both health and education.

The Public Health Agency (Western IfH) is now working on an all-island basis with Safefood to integrate Field to Fork and TasteBuds as a teaching resource that will be delivered to every primary school in Ireland, both north and south. This resource will be ready for pilot delivery in summer 2010.

"We have some interesting work displayed from this resource as it tied in with a Growing Together organic gardening project that we have been involved in for a number of years. It is very user friendly in the big book format, with the large, colourful, detailed illustrations." Head teacher, St Martin's Primary School, Garrison.

***Minister for Agriculture and Rural Development, Michelle Gildernew, with Michael Brown, Project Designer, Development Media Workshop; Seamus Mullen, Project Coordinator, PHA; along with pupils from Omagh at the launch of the Field to Fork project.***

## Promoting healthy food choices in the school setting

### Public health challenge

"Encouraging and enabling young people to develop healthy eating patterns offers great potential to invest in public health for generations to come. Research has indicated that eating patterns developed in childhood tend to be continued into adulthood, and that poor dietary patterns can store up problems, resulting in obesity and heart disease in later life."[31]

### Action

The Healthy Breaks initiative aims to encourage children to adopt and sustain healthy eating patterns from an early age by introducing a Healthy Breaks policy in participating primary schools. Children and staff are encouraged to take only a healthy snack at break time, ie fruit, vegetables, bread, milk or water.

The original Big Lottery funded programme, which was delivered across 28 primary schools in the Northern area (phase I), expanded to include 140 primary schools during phase II. Schools continue to be supported through the North Eastern Education and Library Board's (NEELB) schools' dietitian (funded through Investing for Health) and through the dental and dietetics departments in the Northern Health and Social Care Trust.

Independent external evaluations have been completed for phase I and phase II of the initiative.

### Outcomes

"Whilst the impact that the Healthy Breaks initiative has had on improving the health and life chances of participating children will only become measurable over the longer term, it is clear that the Healthy Breaks initiative has had a clear impact on the eating patterns of participating children.

"Feedback from participants suggests that not only are pupils more aware of what healthy eating consists of, they are actively eating healthier foods."[32]

*Pupils from participating schools showing a parent the **Food for Thought** booklet developed through the Healthy Break initiative.*

# Improving health through prevention

***Pupils from Millburn Primary School, Coleraine, enjoying a healthy break.***

The evaluation shows that before a Healthy Breaks policy was implemented, 86% of schools indicated that the majority of pupils' break time snacks included a chocolate bar and/or crisps. Following implementation of the policy, 98% of schools indicated that the majority of pupils' break time snacks included a piece of fruit/vegetable and/or a bread-based product.[32]

## Next steps

During the upcoming year, the Healthy Breaks' *Parents and carers food for thought* booklet, which has been adapted by the NEELB for use with nursery children, will be launched and distributed to nursery schools across the NEELB area.

Primary and nursery schools participating in the Healthy Breaks initiative will continue to receive direct support through the schools dietitian, based with the NEELB.

***Pupils from Harryville Primary School, Ballymena, show off the Food for Thought guide for parents and carers.***

## Building social capital through community partnerships

### Public health challenge

"Many studies in large numbers of first world countries have shown that the more disadvantaged people's social and economic circumstances are, the worse their health status is likely to be. At all ages, the probability of premature death is enormously increased by adverse social conditions. Similarly, the worst off are more likely to have a disability or suffer illness."[33]

### Action

Ballysally Healthy Eating Café is a not-for-profit social enterprise, located in the centre of the Health Action Zone (HAZ) neighbourhood of Ballysally in Coleraine. The super output area of Ballysally 1 is ranked within the top 10% of the most deprived super output areas in Northern Ireland.[34]

The café is managed by the local community group, Building Ballysally Together, with support from the Public Health Agency's (PHA) HAZ (Northern Area) and the voluntary sector organisation Supporting Communities Northern Ireland (SCNI).

The café, which provides local, healthy, affordable meals, was established to reduce social isolation and increase community participation by providing opportunities for volunteering, training and local employment. It also aims to increase awareness and use of healthier eating and cooking methods among the local community.

### Outcomes

During the past year, the cafe has exceeded many of the targets set by the Department for Social Development through its *People and place: a strategy for neighbourhood renewal*.[35]

The café has:

- provided in excess of 5,000 healthy meals;
- provided local employment (two part-time catering posts);
- attracted 10 local volunteers who support the running of the café on a regular basis;
- expanded its business to include an external catering company;
- set up a cafe allotment to grow vegetables for the café;
- forged strong links with the Northern Health and Social Care Trust (NHSCT) to provide client placements through the Day Opportunities programme.

### Next steps

In the current economic climate, the café management committee realises the challenges it is facing to maintain a local social enterprise within the heart of a socially and economically

***Building Ballysally Together, the local community group that developed and realised the concept for a Healthy Eating Café in their neighbourhood.***

disadvantaged community. Planned actions for the coming year include:

- working with the PHA, SCNI, Coleraine Borough Council and DSD/Neighbourhood Renewel to secure continued funding for the café staff, whilst moving towards self sustainability;
- working with the NHSCT to increase client placements to support the running of the café and allotment;
- working with the PHA to design and deliver a survey to determine the impact the café is having on the health and wellbeing of local residents and other café users;
- providing an evidence-based skills development programme (Cook it!) to local residents to increase their ability to improve the health and wellbeing of participants and their family.

## Social capital

- **Describes the pattern and intensity of networks among people and shared values which arise from those networks.[36]**
- **The main aspects include citizenship, neighbourliness, social networks and civic participation.[36]**
- **Higher levels of social capital are associated with better health, higher educational achievement.[37]**

*Ballysally Healthy Eating Café staff and volunteers pictured with Ann Smyth, Chairperson, Building Ballysally Together.*

*The Healthy Eating Café allotment – developed by Building Ballysally Together in partnership with the PHA (Northern Neighbourhoods HAZ) and SCNI. Pictured, from left, Colette Rogers, HAZ Manager, PHA; Ann Smyth, Chairperson, Building Ballysally Together; Martin Quinn, Liaison Officer, Supporting Communities NI; Andrew Carson, HAZ Support Officer, PHA.*

## Adventure trails the focus for fitness challenge

### Public health challenge

Promoting the need for physical activity to improve health and wellbeing.

### Action

The Trim Trails Park was installed by the former Armagh and Dungannon Health Action Zone (HAZ) and Armagh City and District Council (ACDC) with funding from the Big Lottery Fund at Loughgall Country Park.

The adventure and trim trails are a free physical course designed to suit all ages and fitness levels and provide, primarily, a prevention-based scheme to encourage children to undertake health promoting behaviour within a natural environment.

The Trim Trails Park is made up of a range of timber fitness apparatus from the fun chain walk and swinging steps to the more challenging pole climb and ladder walk. There are also two fitness trails to suit all ages and fitness levels. Participating teams completed laps of the trails against the clock.

### Outcomes

This year, nine local primary schools took part in the Adventure Trails Fitness Challenge, the fourth year of the competition organised by the former Armagh and Dungannon (HAZ) in partnership with ACDC Sports Development, the Southern Investing for Health Partnership and the Promoting Wellbeing Team from the Southern Health and Social Care Trust.

Pupils from Armagh, Aughnacloy, Dungannon, Loughgall, Moy and Richhill schools competed for the perpetual shield that aims to promote physical activity among primary school children.

Hardy Memorial Primary School, Richhill, picked up first prize in this year's competition with St Patrick's Primary School, Armagh, coming second. Third place was awarded to The Cope Primary School, Loughgall.

***Adventure Trails Fitness Challenge winners from Hardy Memorial Primary School, Richhill, from left, Mark Johnson, Kirsten Downes, James Hewitt and Judith Hooks. The pupils received the perpetual cup from Mayor Thomas O'Hanlon, ACDC and Una Cushnahan, former Armagh and Dungannon HAZ.***

## Key fact

**Government statistics have shown that increased levels of physical activity reduce the risk of heart disease, blood pressure, stroke, cancer, increase mobility and keep a healthy mind.**

Organiser of the challenge, Una Cushnahan, from Armagh and Dungannon HAZ, said: “Regular physical activity gives you more energy, reduces stress, helps weight management and can help prevent disease. Through events like this we are trying to encourage young people to develop good exercise habits at an early age.

We were delighted with this year’s interest in the competition and hope that its success will continue next year. The trails are a fun and cheap way for everyone to increase their physical activity so we hope that the children who participated in the challenge return again with their friends and families.”

### Next steps

This event will run again in 2010 for the fifth year, coordinated by the ACDC sports development officer, and inviting primary schools across the area to take part and raise awareness of these community-based trails as a fun and free way for the whole family to increase their physical activity.

For more information on the Trim Trails, contact Loughgall Country Park on 028 3889 2900.

## CLEAR thinking needed on suicide prevention

### Public health challenge

The development of the suicide prevention strategy *Protect life: a shared vision* came about as a result of the growing recognition of suicide as a major social issue.[38] The strategy seeks to tackle the issue of suicide and self-harm with actions targeting both the general population, and individuals and communities most at risk. It highlights the need to address suicide awareness, emotional wellbeing and the reduction of self harm.

### Action

In the consultation on *Protect life: a shared vision*, a key issue to emerge was the need to ensure better integration between the community and voluntary sector organisations that provide mental health promotion and suicide prevention services.[38]

To address this challenge, the CLEAR initiative was developed in the Western area to offer developmental opportunities to community and voluntary sector organisations in the locality.

As part of the process, CLEAR sought to enable quicker access to support for individuals following self-harm or suicide, networking and cooperation between the various service providers, joint referral mechanisms, equity in terms of quality standards and best practice.

### Outcomes

To date, CLEAR has engaged with 373 individuals from 101 groups/projects, through various training activities including safeTALK, Mental Health First Aid, referral procedures, data protection, sexual orientation awareness, strategic planning and tendering training.

## Key facts

- **The suicide rate per 100,000 in Northern Ireland has risen to 15.0 in 2006/2009 compared to 9.3 in 2002/2004.**
- **Self-harming rates and suicides are higher in communities that suffer the greatest disadvantage and social isolation.**
- **The *Health and Social Wellbeing Survey* (2006) reported that in Northern Ireland, for adults aged 16 and over:[11]**
  - **19% of people have a potential psychiatric disorder as measured by the GHQ12 (general health questionnaire);**
  - **19% of people stated they recently had felt unhappy or depressed rather/ much more than usual;**
  - **33% of people stated they are experiencing quite a lot/great deal of worry.**

The process has helped stimulate a more collective response to addressing self-harm and suicide incidents, with improved engagement with local authorities and other statutory service providers such as education.

CLEAR has also been responsible for coordinating two large-scale networking events to help raise awareness of the range of services available in the west as a means of improving referral pathways. Over 160 individuals attended the networking events that comprised a range of community, voluntary and statutory sector representatives.

CLEAR has completed common organisational standards for the community and voluntary sector. These are being validated and it is anticipated that in the coming year, CLEAR will continue its capacity building approach for the sector.

This will be very much focused on helping groups reach the standards outlined, and using these as a basis for an improved referral process both within the community and voluntary sector, and between the community, voluntary and statutory sectors.

### Next steps

Processes are being developed to mainstream the CLEAR organisational standards across all community and voluntary sector organisations in Northern Ireland that operate in the mental health promotion and suicide prevention sector.

## Delivering the Bamford vision

### Public health challenge

In October 2002 the Department of Health, Social Services and Public Safety (DHSSPS) initiated a major, wide-ranging and independent review of service provision and policy affecting people with mental health needs or learning disability in Northern Ireland. The *Bamford Review* was subsequently published to provide independent advice and guidance to the DHSSPS.[39]

### Action

The Public Health Agency (PHA) and the Health and Social Care Board (HSCB) have established the regional Mental Health and Learning Disability Taskforce to take forward and implement the findings and recommendations of the Bamford review of mental health and learning disability.[39]

The taskforce includes senior representatives from the PHA, HSCB, Trusts, service users, carers and voluntary sectors. It will be the key mechanism through which the PHA and HSCB will be advised of priorities and potential models of care required to improve mental health and learning disability services in Northern Ireland.

For the PHA, the success of the taskforce will be measured by the extent to which it will promote positive mental health and wellbeing, support independence and recovery, and work to reduce the stigmatisation and consequent inequalities associated with mental health/disability

### Next steps

The taskforce will progress the commissioning of mental health and learning disability services regionally and adopt a “whole life” approach encompassing the improvement of services and care to children and young people, adults and older people.

The taskforce will establish a range of project teams to address all key specific areas within the *Bamford Review*. These will include input from a range of key stakeholders and reflect partnership working with service users, parents, carers, the voluntary sector and other agencies.

The taskforce will not only develop services, but also ensure development of resilience within communities, the promotion of mental health/wellbeing, independence and recovery, and will also address the inequalities and stigmatisation associated with mental health and learning disability.

Given this wide brief, the taskforce will need to develop effective partnership working across a number of departmental and agency boundaries, including with those from education, employment, housing, leisure, social security and other key sectors.

## Preventing road traffic accidents

### Public health challenge

More than 7,000 lives have been lost on Northern Ireland's roads over the past 30 years. Research has shown that 95% of the deaths were caused by unsafe driving practices.

In 2008, 107 people were killed and 1,000 seriously injured in Road Traffic Collisions (RTCs), 92% of whom were under 75 years of age, accounting for 4,068 Potential Years of Life Lost.[40,41]

Department of Transport guidance suggests the value of preventing those casualties is £369.6m.[42] Research undertaken by the Department of the Environment's Road Safety Division highlights that 77% of RTCs occur in rural areas of Northern Ireland (particularly the south and west).[43] Every collision impacts not only on the social fabric of rural communities, but also on the capacity of the emergency services to treat seriously injured casualties within the "golden hour", the hour immediately following a serious injury.

### Action

The Western Investing for Health Partnership worked with the Institute of Advanced Motorists and the emergency services to deliver the Roadwise programme to more than 200 17–24 year-olds throughout the Western area, and particularly in rural areas.

The Roadwise programme provides a day-long advanced driving programme, focusing on the impact of RTCs, increasing hazard awareness and increasing driving skills.

By improving driving and reducing collisions, the programme also contributes to Priorities for Action targets on reductions in presentations to Accident

***Western Investing for Health staff members Seamus Mullen and Brendan Bonner at the Institute of Advanced Motorists and emergency staff involved in delivering the roadwise programme.***

## Key facts

- **Drivers are responsible for the highest percentage of road fatalities and serious injuries – by far.**
- **Male drivers aged 17–24 are 4.2 times more likely to cause death or serious injury on our roads, followed by female drivers aged 17–24, and male drivers aged 25–34.[44]**
- **While male drivers aged 17–24 are the number one killers for speed, other drivers account for half of all killed and seriously injured due to speed – so speed is everybody's problem.**
- **Male drivers aged 17–24 are 6.4 times more likely to cause death or serious injury on our roads due to speed, followed by male drivers aged 25–34 and female drivers aged 17–24.**
- **Male drivers aged 17–24 are 5.1 times more likely to cause death or serious injury on our roads due to driving under the influence of alcohol or drugs, followed by males aged 25–34 and males aged 35–49.[45]**

and Emergency (A&E) departments, ambulance response times and reductions in waiting times for fractures. There is therefore a robust financial, as well as moral, case for investment in prevention of RTCs.

### Outcomes

An evaluation of participants showed that at the start of the programme, 17% had been previously involved in an RTC, 12% had previously received penalty points and 5% had been presented to A&E with injuries sustained during the collision.[46]

At six and 12 month intervals following the training, none of the participants had received further penalty points or been involved in an RTC and, as a result, there were no further presentations to A&E.

### Next steps

The programme is being delivered in conjunction with the Western Education and Library Board through secondary schools in the Western region.

# 3 Improving health through early detection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## Overview of screening

### Public health challenge

Population screening programmes are designed to detect disease early, at a stage when treatment is more effective and often simpler. It involves the health service inviting members of the public who have no symptoms of a particular disease, to be tested to see if they have the disease, or are at risk of developing it.

There is a wide, and increasing, range of screening programmes available within Northern Ireland, covering all age groups of the population (Figure 4).

Screening programmes are complex and require multidisciplinary and multi-organisational input.

Local screening functions are provided by a wide range of health and social care organisations. Each screening programme must operate within recognised guidelines and meet minimum standards and targets. Public health staff have a specific role in quality assuring and continuing to develop screening programmes.

In addition, as part of routine clinical practice, a number of conditions are tested and examined for in pregnancy, infancy and childhood, eg high blood pressure in pregnant women, and abnormalities of the heart, eyes, hips and testes in the newborn.

This chapter highlights the developments that have taken place in a number of screening programmes over the past year.

**Figure 4: Current and planned screening programmes**[47]

| | |
|---|---|
| **Cancer programmes** | **Breast**<br>**Cervical**<br>**Bowel (from April 2010)** |
| **Vascular programmes** | **Diabetic retinopathy**<br>**Abdominal aortic aneurysm*** |
| **Newborn programmes** | **Bloodspot**<br>**Hearing** |
| **Antenatal programmes** | **Infections** |

*new programme being planned

## Bowel cancer screening

### Public health challenge

Bowel cancer is the second most common cause of cancer death in men and the third most common in women. Each year, about 1,000 people are diagnosed with this disease in Northern Ireland and 400 people die from it. Four in every five cases are in people aged over 60 years.

The disease usually progresses slowly, with many people experiencing mild symptoms for weeks or months before seeking medical advice. The most common signs and symptoms of bowel cancer are rectal bleeding, a change in bowel habit and anaemia. Nausea, weight loss, abdominal pain and loss of appetite can also occur. In over half of cases, the cancer has already spread to lymph nodes or elsewhere by the time the diagnosis is made.

Survival rates for bowel cancer have improved significantly over recent years, probably due to improved treatments. However, early diagnosis remains vitally important. Bowel cancer screening programmes have been shown to identify disease early and are likely to prevent approximately one in every six deaths from bowel cancer.

### Action

Within the UK, bowel cancer screening programmes have been introduced in England, Scotland and Wales. During 2009, extensive work was undertaken to prepare to launch a similar screening programme in Northern Ireland.

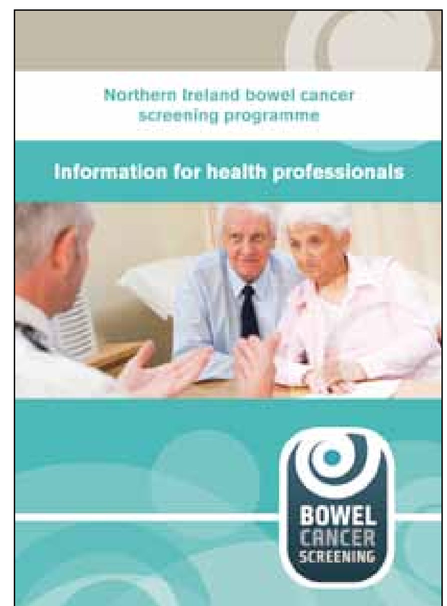
A regional project board was established involving the Public Health Agency, the Health and Social Care Board, and the Business Services Organisation, with project support from the Northern Ireland Cancer Network. In addition, a wide range of individuals and professionals have contributed to the project to date, including primary care representatives, trust representatives, and voluntary organisations.

As screening programmes are highly complex systems, five working subgroups were set up to take forward specific aspects of the project:

- public and professional information;
- call/recall, helpline and information and communications technology;
- laboratory services;
- colonoscopy and secondary care;
- quality assurance.

The Northern Ireland Bowel Cancer Screening Programme will initially be aimed at all men and women aged 60–69 years, who will be invited to participate in screening every two years.

Screening is carried out using the guaiac Faecal Occult Blood test.[48] This test looks for the



### Key facts[49]

- **1,000 new cases of bowel cancer in Northern Ireland each year.**
- **Over 400 deaths each year.**
- **Most deprived population has an incidence rate 21% higher than the least deprived population.**
- **Screening is likely to prevent one in every six deaths from bowel cancer.**

presence of hidden blood in the faeces, which is an indicator that bowel cancer may be present. A home testing kit will be sent out in the post to all eligible individuals.

The participant uses this to collect the faeces sample at home and then post the completed kit back to the screening laboratory for analysis. Only two in every 100 people who complete the test are expected to have a positive screening result. They will be offered further investigations to confirm or exclude bowel cancer.

### Next steps

- to launch and roll out the Northern Ireland Bowel Cancer Screening Programme (from April 2010);
- to establish arrangements for monitoring the quality of the screening programme against agreed standards;
- to monitor uptake of bowel cancer screening to identify populations of poor uptake and inform targeted interventions as appropriate.

It is through the commitment and enthusiasm of a large number of people that the implementation project continues to progress to plan. The project team has also benefited greatly from liaising with, and learning from, the bowel cancer screening programmes in the rest of the UK.

## Screening for diabetic retinopathy

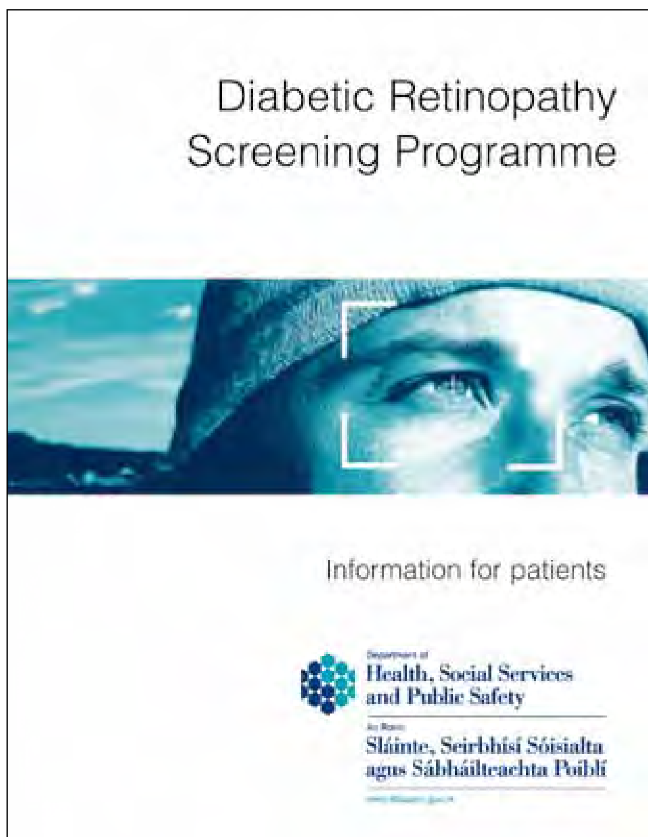
### Public health challenge

Diabetic retinopathy is the leading cause of blindness in people of working age in the United Kingdom. Retinopathy is a complication of diabetes that damages the tiny blood vessels that nourish the retina – the tissues in the back of the eye that deal with light. This can seriously affect vision.

### Action

Screening mainly takes place in primary care practices. Each GP practice is requested by the programme to provide a list of eligible patients with diabetes due for screening. Practices are responsible for identifying all their eligible patients to be screened, including those receiving hospital based care, from the GP clinical data system.

An invitation to attend screening is then sent to the individual by the GP practice. The GP is required to enclose a patient information leaflet with the invitation for screening. This leaflet explains the purpose of screening and what it entails and forms the basis of "informed consent" for screening.




Screening reports are sent to the GP's practice with advice for further action, eg referral to hospital eye services, if indicated.

Arrangements have been established to allow all newly-diagnosed patients with diabetes to be referred directly to the Diabetic Retinopathy Screening Programme (DRSP) at the time of diagnosis so that screening can be carried out within three months of referral being received by DRSP.

The aim is to offer newly diagnosed patients an appointment either at the practice, or at an alternative static community clinic in their area.

### Outcomes

Over 75% of patients invited, attended for screening within the DRSP in 2008–2009. This was the first complete year following the roll out of the regional programme.

The screening programme is in line with UK National Screening Committee recommendations that screening for diabetic retinopathy should be offered to all people with diabetes, aged 12 years and over, and that the screening test should consist of digital retinal photography within an organised programme.

Research shows that if retinopathy is identified early – for example through retinal screening – and treated appropriately, blindness can be prevented in the majority of those at risk.

### Next steps

The DRSP has developed and implemented a software programme in the 364 GP practices across Northern Ireland to provide electronic transfer of data between GP practices and the DRSP regional centre.

## Key facts[50]

- **Number of patients with diabetes – 59,534.**
- **Number of patients eligible to be screened – 55,820.**
- **Total number of patients invited for screening 2008/09 – 43,063.**
- **Total number of patients attended for screening 2008/09 – 32,265.**
- **Uptake rate – 75%.**
- **Referral rate from the screening programme for assessment/treatment is 6% (1,896).**

This project allows:

- automated practice level data extraction;
- electronic transfer of patient data collection forms;
- population of the central DRSP system;
- single collated list of eligible patients with diabetes, with careful and systematic management of those excluded from diabetic retinopathy screening;
- single collated list of patients coded as ineligible (DRSP will not receive any patient identifiable details or clinical data of patients who are not to be screened; only the total figure and the reason for ineligibility at practice level will be shown).

With further development it will also allow:

- direct referral to ophthalmology from DRSP to reduce delays and omissions in the process, while ensuring the GP and diabetologist are kept informed;
- quality assurance output reports from the DRSP server (these are currently manual and time consuming).

## Newborn blood spot screening programme

### Public health challenge

The Northern Ireland newborn blood spot screening programme has been in place since the late 1960s. On 3 August 2009, a screening test for MCADD was added to the programme in Northern Ireland, in line with the advice of the National Screening Committee.

### Key facts[51]

- **About 1 in 6,000 babies born in Northern Ireland has PKU. Babies with this inherited condition are unable to process a substance in their food called phenylalanine. If untreated, they will develop serious, irreversible mental disability.**
- **About 1 in 3,000 babies born in Northern Ireland has CHT. Babies with CHT do not have enough of the hormone thyroxine. Without this hormone, they do not grow properly and can develop serious, permanent physical and mental disability.**
- **About 1 in 2,500 babies born in Northern Ireland has CF. This inherited condition can affect the digestion and lungs. Babies with CF may not gain weight well, and have frequent chest infections.**
- **About 1 in 10,000 babies born in Northern Ireland has MCADD. Babies with this inherited condition have difficulty breaking down fats to make energy for the body. This can lead to serious illness, disability or even death.**

Early diagnosis and treatment of these rare but serious conditions has the potential to save lives and improve quality of life. However, screening is not a guarantee of diagnosis or cure.

### Action

In the first week after birth, all babies in Northern Ireland are offered blood spot screening tests for phenylketonuria (PKU), congenital hypothyroidism (CHT), cystic fibrosis (CF) and medium chain acyl coA dehydrogenase deficiency (MCADD). This is often referred to as the "heel prick" test.

Most babies screened will not have any of the conditions but, for the small number who do, the benefits of screening are enormous. Early treatment can improve their health and prevent severe disability or even death.

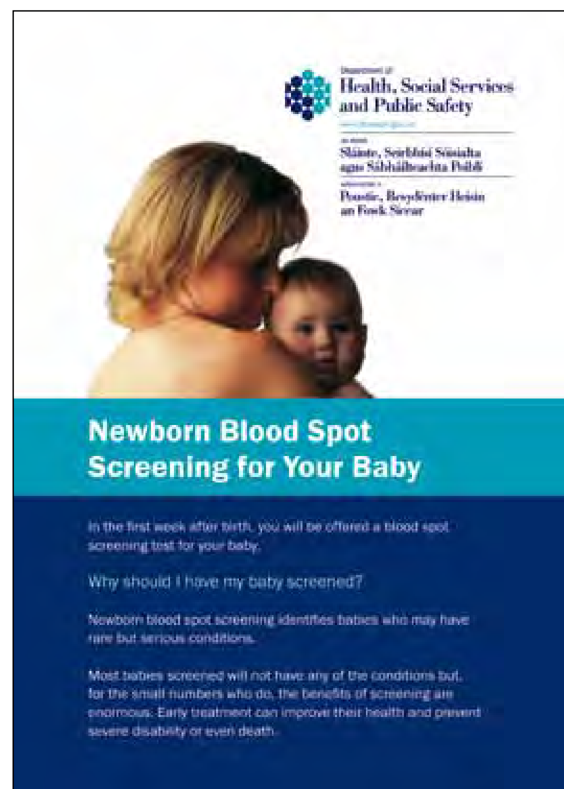
Depending on the condition, treatment may involve a special diet, thyroxine tablets, other medicines and physiotherapy. Treatment for babies with MCADD is largely dietary, by ensuring regular food intake, particularly during periods of illness or stress.

### Outcomes

Screening programmes are developed on the recommendation of the UK National Screening Committee and are monitored against national or regional quality standards.

### Next steps

It is planned to add sickle cell screening to the newborn bloodspot screening programme in the future.



## Quality assurance, fundamental to the breast screening programme

### Public health challenge

Breast cancer is a significant public health problem. It is the most common cancer in women (excluding skin cancer) and is becoming more common.[52]

Unlike most cancers, breast cancer is more common in affluent women.[53] However, in keeping with most other cancers, women from deprived backgrounds tend to have poorer survival rates.

Breast cancer is the second most common cause of cancer death in women (after lung cancer). Each year over 1,000 new cases of breast cancer are diagnosed in Northern Ireland and over 300 women die from the disease.

### Key facts[54]

- **Screening reduces the risk of dying from breast cancer by about 30% in the population screened.**
- **60,000 women are invited to attend for breast screening every year.**
- **Around 75% attend for screening (ie one in four don't).**
- **More than 300 cancers are detected.**
- **97% of women with screen-detected cancer are still alive after five years.**

### Action

The breast screening programme was introduced to Northern Ireland in 1989 for women aged 50–64. In 2009, the programme was extended to ensure that women aged 50–70 are invited by their GP practice to attend for breast screening every three years.

Quality assurance (QA) is a fundamental part of the breast screening programme. The aim of QA is to maintain standards and improve the performance of all aspects of breast screening to ensure that women have access to a high quality breast screening service wherever they live.

The QA function is provided by the Quality Assurance Reference Centre (QARC) which is located in Linenhall Street, Belfast, and is part of the Public Health Agency (PHA). QARC continuously monitors the performance of the breast screening programme against the same standards that are used by the National Health Service Breast Screening Programme.

### Outcomes

Breast screening is a significant public health programme. In 2008/2009:

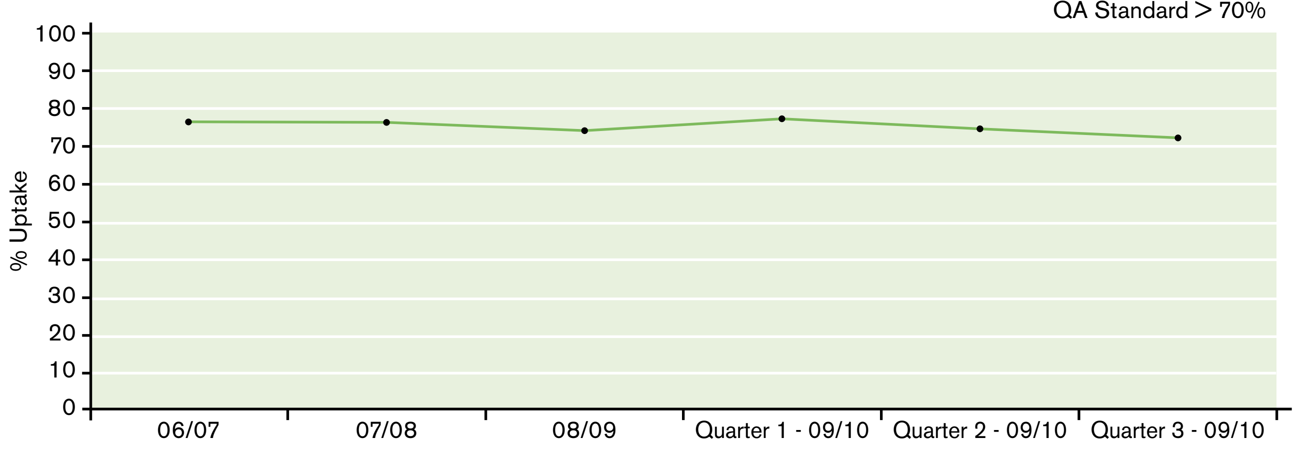
- 60,508 women were invited for mammography;
- 44,688 women accepted the invitation (74%);
- 1,915 women were called back to an assessment clinic because an abnormality was seen on their mammogram (around 1 in 23 who attend for screening);
- 261 women were diagnosed with invasive cancer (around 1 in 7 of those women called back for assessment);
- 66 women were diagnosed with non-invasive cancer;
- 39 were diagnosed with benign breast disease.

In October 2009, QARC conducted in-depth visits to each of the four breast screening units in Northern Ireland. These visits aim to foster and promote an environment of continuous improvement within the programme.[55] They were led by a multidisciplinary team who reviewed the whole screening process, as well as assessing issues such as team working, management arrangements and communication.

These visits showed that the breast screening programme in Northern Ireland is performing well and is continuing to improve its performance. It provides a good quality service and women should have confidence using it.

One of the key indicators of a good quality services is uptake of the service. This is a measure of the percentage of women who accept an invitation to attend for breast screening. The minimum standard is that at least 70% of women offered an appointment should attend for mammography, with a target of 80%.

**Figure 5: Northern Ireland breast screening uptake rate**



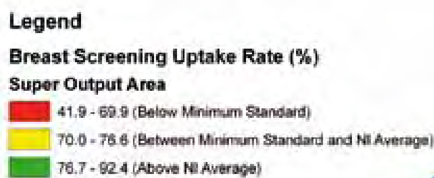

The overall uptake in Northern Ireland is high. Figure 5 shows that the uptake here consistently exceeds the minimum standard.

The performance of the Northern Ireland programme (75% uptake in women aged 50–64 over the three year period 2006/2007 to 2008/2009) compares favourably with the programme in England, which recorded an average uptake of 74% for women in the same age range over the same time period.[56]

However, there are areas and sub-populations of women with a much lower uptake. The PHA, in collaboration with the Health and Social Care Board (HSCB), has mapped the uptake in different areas.

The map below shows recent uptake rates across Northern Ireland. The red areas are those where the uptake is below 70%. The most striking feature is the concentration of low uptake areas in Belfast.

**Figure 6: Breast screening uptake rate by area**



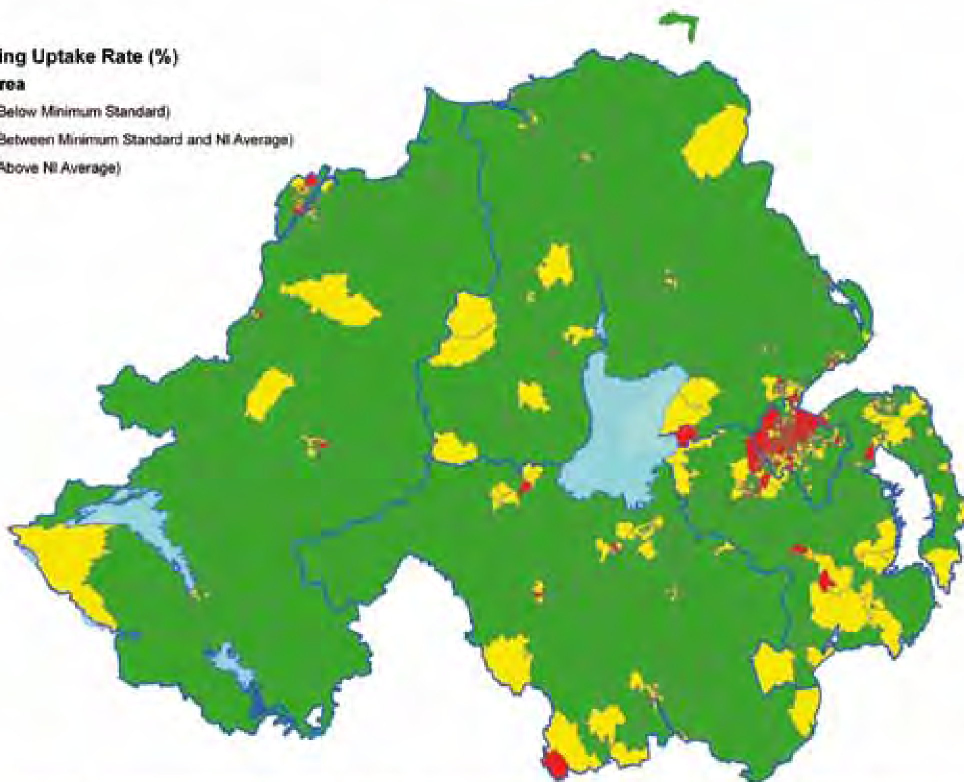



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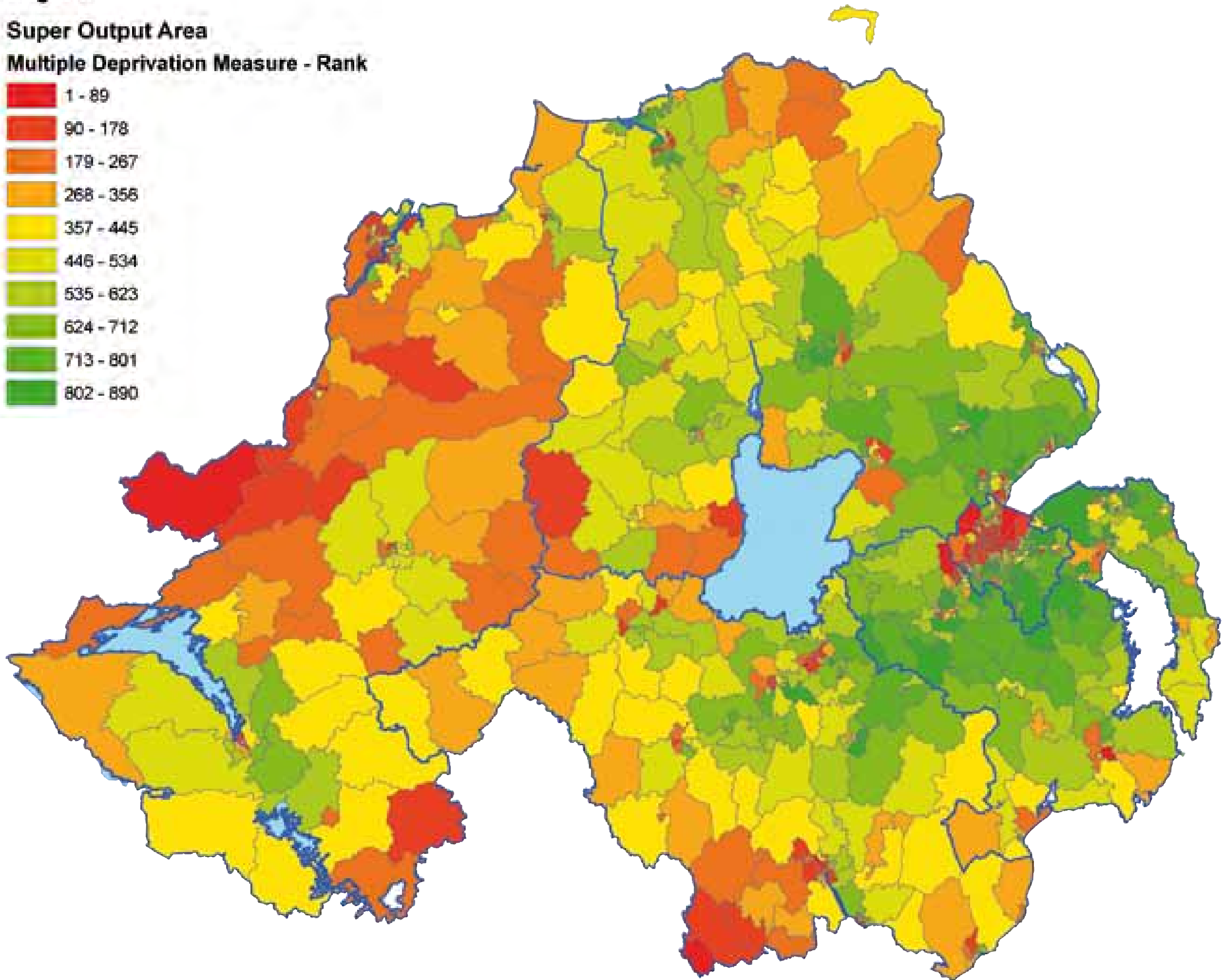
**Figure 7: Map of deprivation**

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A map of deprivation shows that, while there is some correlation between uptake and deprivation, there are many deprived areas outside Belfast that have a very good uptake.

Over the next year, QARC will be working with researchers in Queen's University, Belfast, and with the Eastern Breast Screening Unit to try to identify the reasons for the poor uptake in Belfast.

One possibility is that some women may not be registered with a GP and may not be receiving their invitation to attend, or their first language may not be English.

As well as having a good quality screening service, it is important that the treatment service to which women are referred, is also of high quality.

An audit carried out on data covering the period 1 April 2008 to 31 March 2009 confirms this. It showed that:

- the quality of the data was good;
- waiting times for surgery were low (80% of women had surgery within 31 days of attending the assessment clinic, and 23% within 2 weeks);
- 100% of women with invasive cancer had their diagnosis established before surgery;
- 96% of these women required only a single visit for a definitive result.

These are excellent results, particularly so in light of the high (97%) five year survival rate.

***QARC will be working with researchers in Queen's University, Belfast, and with the Eastern Breast Screening Unit to try to identify the reasons for the poor uptake in Belfast.***

Better public awareness of the symptoms, earlier diagnosis, screening, advances in treatment and the better organisation of services have resulted in continuing improvements in survival.

### Next steps

The PHA, in collaboration with Trusts and other stakeholders, will develop an agreed, evidence-based strategy to address health inequalities in relation to breast screening. This should be completed by March 2011.

# 4 Improving health through high quality services


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## Cancer services

### Public health challenge

Thanks to the Northern Ireland Cancer Registry (NICR), we have a clear picture of cancers and their impacts. Over 7,300 people in Northern Ireland are diagnosed with cancer each year, excluding
non-melanoma skin cancers that are treatable and rarely cause death.

Many more receive tests in primary care, or are referred for specialist assessments to rule out the disease.

Cancer incidence is higher in males than females. Half of new cancer cases are in people over 68 years of age and the number of new cases has been rising annually.

With an increasing number of elderly people in the population, the number of cancer cases is expected to rise further. Three cancers that have seen rapid increases in incidence are melanoma, cancer of the uterus (womb) and prostate cancer.

The rise in melanoma rates is likely to be due to increased exposure to the sun (ultraviolet light), while the rise in uterine cancer may be due to increasing obesity levels. For prostate cancer, the rise is more likely to be due to increasing use of prostate specific antigen (PSA) testing. The latter is controversial as it is believed that it may result in a cancer diagnosis for some men who might otherwise never have developed symptoms. The most recent analysis by NICR (2003–2007) showed significantly lower incidence rates in the areas then covered by the Northern and Western Health and Social Services Boards.[57]

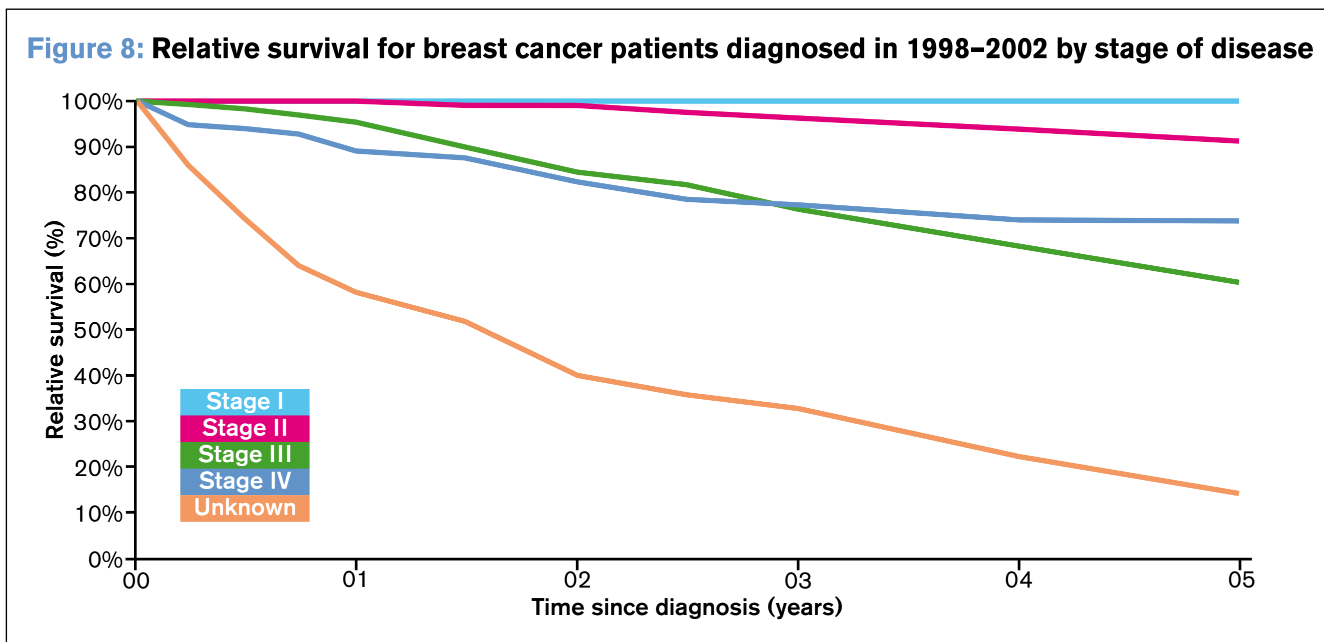
Comparison at the level of district councils demonstrated higher than expected numbers of cancer cases in Belfast and Craigavon districts for males. The higher rate among males in Craigavon was largely due to prostate cancer.

For females, there were higher rates in Belfast and Newry and Mourne. The higher rate in females in Newry and Mourne was largely due to breast and stomach cancers.

For both males and females, deprivation and smoking, both associated with urban areas, may be factors.

Stage of disease at presentation is a significant factor in cancer survival. For example, relative survival for breast cancer patients decreases significantly with increasing stage. Specifically, five-year relative survival for breast cancer patients diagnosed in 1998–2002 at stage I was 99.8% compared to 62.1% at stage III and 13.8% at stage IV (Figure 8).

**Figure 8: Relative survival for breast cancer patients diagnosed in 1998–2002 by stage of disease**



## Key facts

- **7,300 people in Northern Ireland are diagnosed with cancer each year.**
- **26,600 are referred for urgent outpatient assessment.**
- **Cancer numbers are rising as a result of the aging population.**
- **More cancer patients are being cared for by multi-disciplinary teams (MDTs).**
- **More patients have sophisticated investigations for staging and planning treatment and receive radiotherapy.**
- **The costs of cancer drug treatments are rising year on year; many of these extend survival for relatively short periods.**

Investment in cancer services in 2008/2009 and 2009/2010 included:

- the introduction of prostate brachytherapy as an additional option in the treatment of prostate cancer;
- an automated system to increase positron emission tomography (PET) scanner capacity;
- more consultant oncologists to meet rising demand and to improve cross-cover for cancer sub-specialties at clinics outside Belfast;
- enhanced staffing and specialised laboratory testing in the cancer genetics service;
- staff to increase the operating hours of the radiotherapy service at Belfast City Hospital, pending installation of a ninth linear accelerator in 2010;
- introduction of new cancer drug regimes, costing an additional £1.86m annually.

### Outcomes

The NICR has published audits that compare changes in investigation methods, staging and treatments in Northern Ireland hospitals from 1996, through 2001 and 2006 for the common cancer types.

These show that significant progress has been made. Patients are more likely to be cared for by a multi-disciplinary team. They are more likely to have had sophisticated staging investigations, including bone scans, magnetic resonance imaging (MRI) or PET scanning.

In most cancers, there has been a move towards sub-specialisation with smaller numbers of surgeons, each doing a larger number of major operative cases. More patients see oncologists and have radiotherapy or chemotherapy.

### Next steps

Despite this progress, further improvements are needed. A Northern Ireland Cancer Framework is expected to be issued by the Department of Health, Social Services and Public Safety.

This will contain challenging standards for implementation over the next three to five years. Many of the standards will require additional resources, while others may require changes in the way services are organised and delivered.

In addition, the Public Health Agency plans to work with Trusts and the Health and Social Care Board during 2010 to implement further measures designed to encourage detection of cancers at earlier stages.

## Deaths from coronary heart disease decline

### Public health challenge

In 2009, 2,305 people died from coronary heart disease in Northern Ireland. This is about half the number of deaths from heart disease from three decades ago (4,923 such deaths in 1979).[58] However, coronary heart disease still causes over 16% of all deaths in Northern Ireland.

Coronary heart disease, also known as ischaemic heart disease, is the result of narrowing, or blockage, of the small blood vessels (coronary arteries) that supply blood and oxygen to the heart. It is usually caused by deposits of fat and calcium (plaque) building up inside the coronary arteries. This can slow down or stop blood flow to the heart leading to chest pain (angina), shortness of breath or a heart attack.

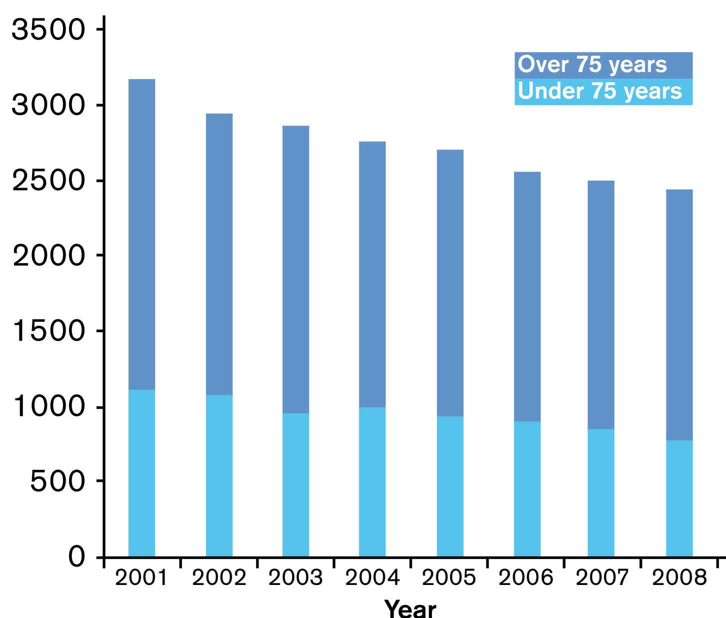
There are a number of risk factors that can increase the chances of coronary heart disease. Some of these cannot be modified such as being male, being older or having a family history of heart disease. However, there are many risk factors that can be changed.

### Key facts

- **Around 2,400 people die each year from coronary heart disease.**
- **Coronary heart disease causes over 16% of all deaths in Northern Ireland.**
- **People living in the most deprived areas are twice as likely to die from coronary heart disease than people from the most affluent areas.**

These include smoking, high blood cholesterol, high blood pressure, diabetes, physical inactivity, an unhealthy diet, chronic kidney disease and being overweight.[59] Changes in these risk factors, along with advances in medical care, have contributed to a significant, and steady, decline in deaths from coronary heart disease. This fall is illustrated in Figure 9 below.

**Figure 9: Ischaemic heart disease deaths in Northern Ireland**




| Year | under 75 | over 75 | Total |
|---|---|---|---|
| 2001 | 1159 | 1989 | 3148 |
| 2002 | 1109 | 1839 | 2948 |
| 2003 | 986 | 1857 | 2843 |
| 2004 | 1002 | 1779 | 2781 |
| 2005 | 926 | 1782 | 2708 |
| 2006 | 901 | 1655 | 2556 |
| 2007 | 863 | 1631 | 2494 |
| 2008 | 788 | 1622 | 2410 |

Although there has been an overall fall in mortality rates from coronary heart disease, people living in more deprived circumstances have a higher rate than people who are more affluent.

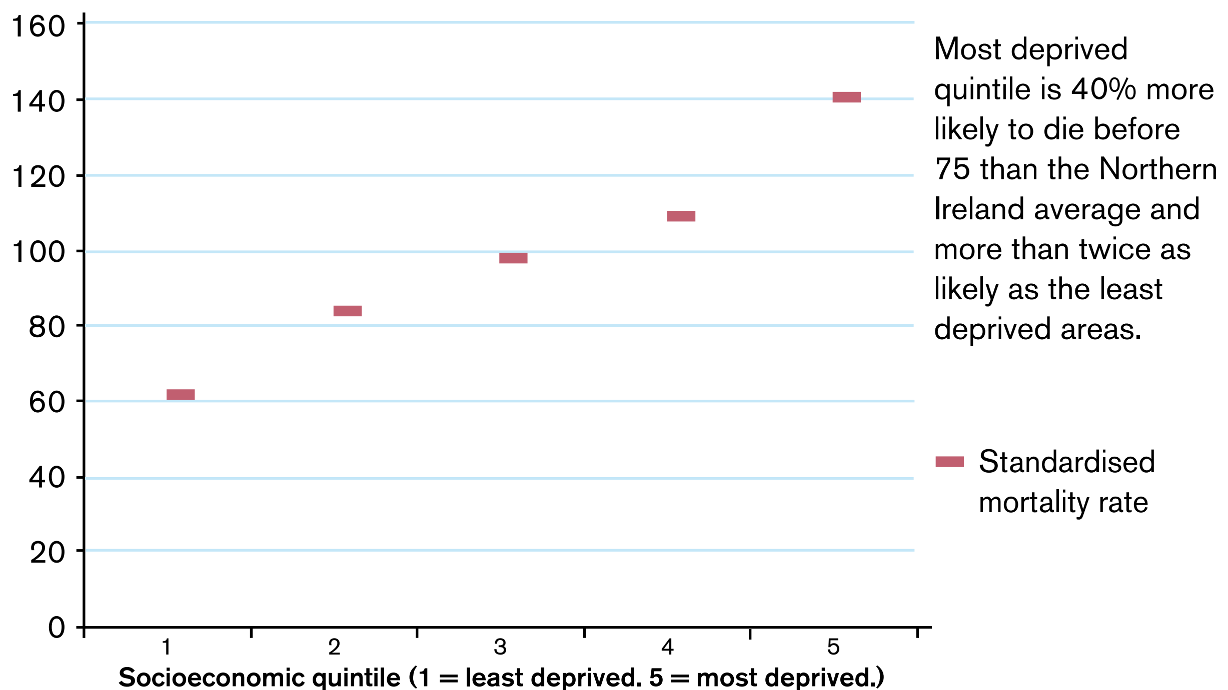
This social gradient is shown in the graph below which reveals that mortality from coronary heart disease is twice as high in deprived areas compared to the most affluent areas.

### Action

The *Service framework for cardiovascular health and wellbeing* was published in June 2009 and contains 45 standards for heart disease, stroke, peripheral vascular disease, diabetes and kidney disease.[60]

It follows a lifecycle from childhood to adulthood and end-of-life care. The standards were developed in partnership with a wide range of stakeholders with representation from all aspects of Health and Social Care (HSC), as well as service users and carers.

**Figure 10: Mortality from ischaemic heart disease – under 75 years Northern Ireland 2001–2008 by socioeconomic quintile**



Each standard is supported by between one and four Key Performance Indicators, each with anticipated levels of performance to be achieved over three years, up to March 2012.

The framework is designed to be used by the public, HSC commissioners, HSC and other providers and those organisations that are required to report on the performance and quality of services and care.

Framework implementation is being led by a cardiovascular health and wellbeing commissioning group. This joint Public Health Agency (PHA)/HSC Board group was established in August 2009. Its roles in implementing the framework are to:

- act as a champion for the framework;
- be a catalyst for action;
- collaborate with other relevant groups;
- establish necessary data flows;
- commission relevant services.

### Outcomes

Over the past number of months the group has been working with stakeholders to establish the data flows needed for monitoring and quality improvement, facilitating progress towards the anticipated performance levels and undertaking commissioning work.

This work will provide a sound basis for taking forward implementation of the Framework. Over the next year the group will be seeking to enhance the quality improvement aspect of the work to maximise progress towards meeting the standards.

### Next steps

A Health Impact Assessment (HIA) is a way of identifying the likely impacts on health and wellbeing of a policy, programme or project.[61]

A HIA on the *Service framework for cardiovascular heath and wellbeing* will help to determine its potential to reduce health inequalities. The results will help inform its implementation and subsequent review. A HIA will be completed by the PHA by December 2010.

## Respiratory disease

### Public health challenge

Respiratory disease refers to a wide range of illnesses that affect the lung, including:

- pneumonia;
- chronic obstructive pulmonary disease (COPD);
- asthma;
- obstructive sleep apnoea/hypopnoea syndrome;
- bronchiectasis;
- cystic fibrosis;
- interstitial lung disease (of which there are over 200 forms, the most common of which are sarcoidosis and idiopathic pulmonary fibrosis);
- tuberculosis.

Respiratory disease is one of the main causes of death and disability in Northern Ireland (Figure 11). It accounts for 9% of all deaths in people aged 15–74 (Figure 12), as well as being a main cause of death in children aged under 15 (Figure 13).[62]

**Figure 11: Deaths 15–74 years by main causes in Northern Ireland 2001–2008**

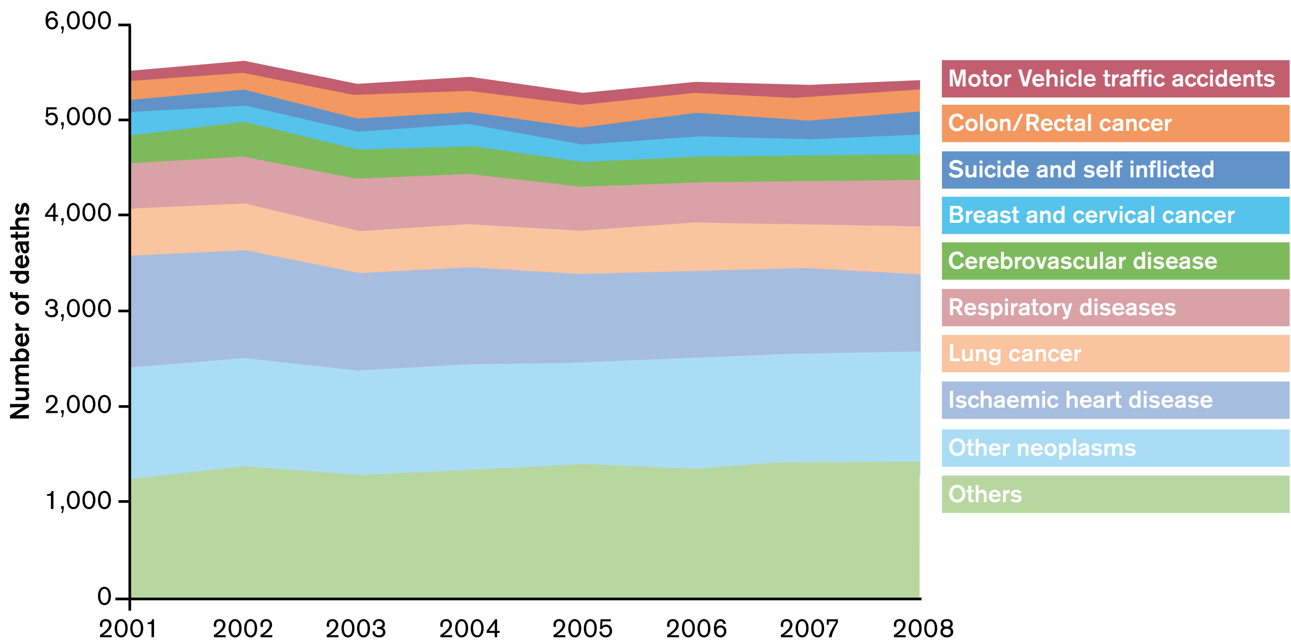



**Figure 12: Deaths 15–74 years by main causes in Northern Ireland 2008**

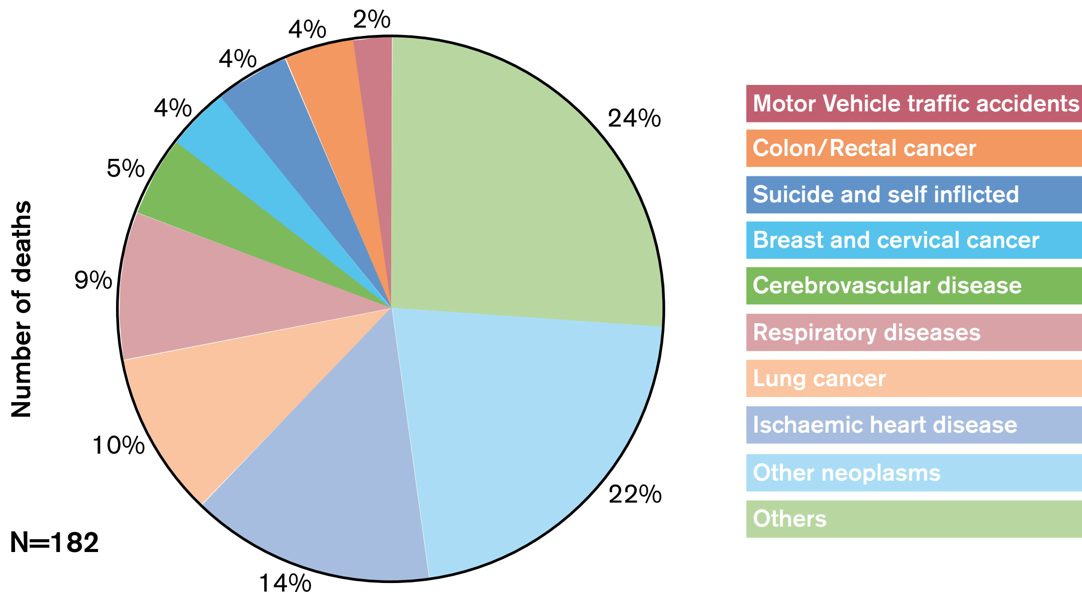
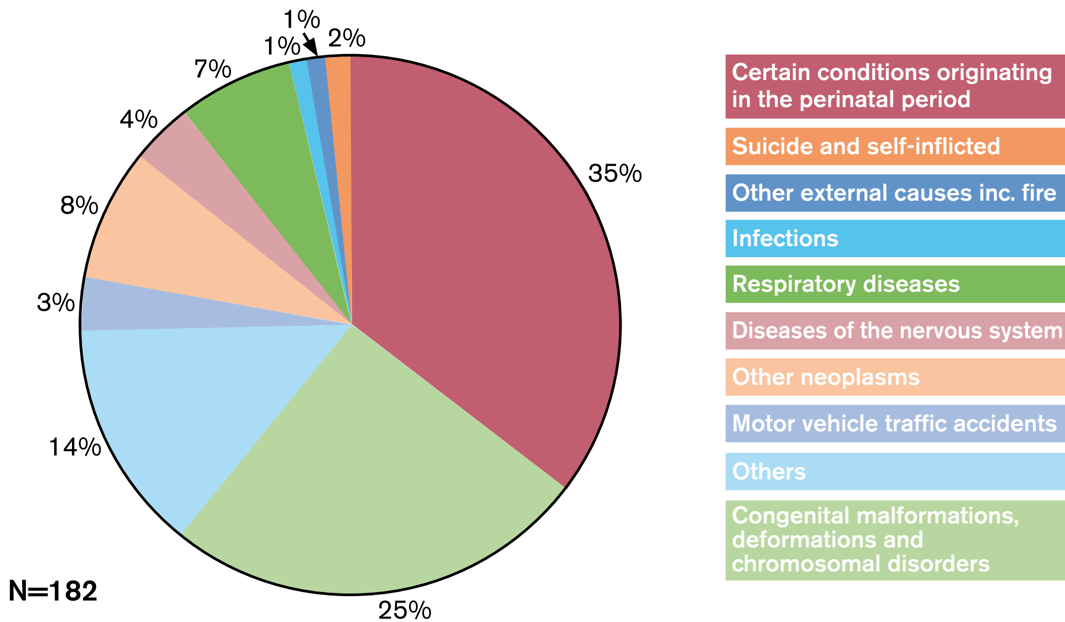


**Figure 13: Deaths under 15 years by main causes in Northern Ireland 2008**




We can compare death rates in deprived areas with death rates for the whole of Northern Ireland. Standardised death rates (SDRs) are not the real death rate, but allow us to take the age and sex structure of a population into account so that we can compare across different populations and across time periods.

Figure 14 shows that the SDR (in those aged under 75) is much higher in deprived populations than in the Northern Ireland population. The death rate has fallen in both deprived areas and in Northern Ireland as a whole since 1997, but the gap remains at over 60% for both men and women.

**Figure 14: Standardised Death Rate (SDR) (under 75) – respiratory disease**[63]

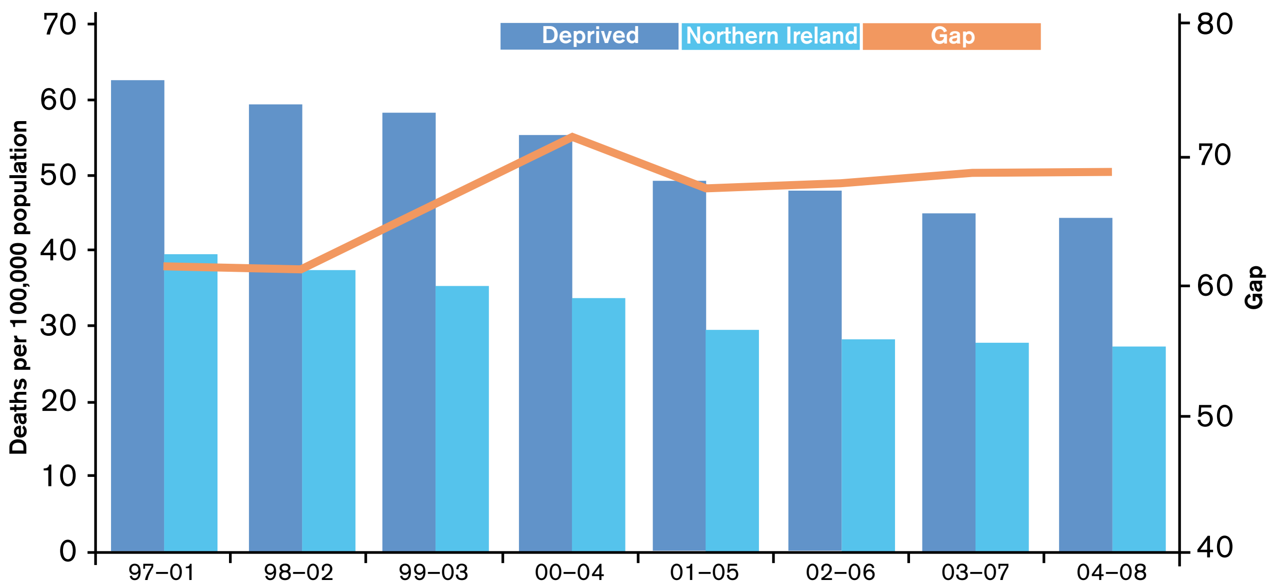
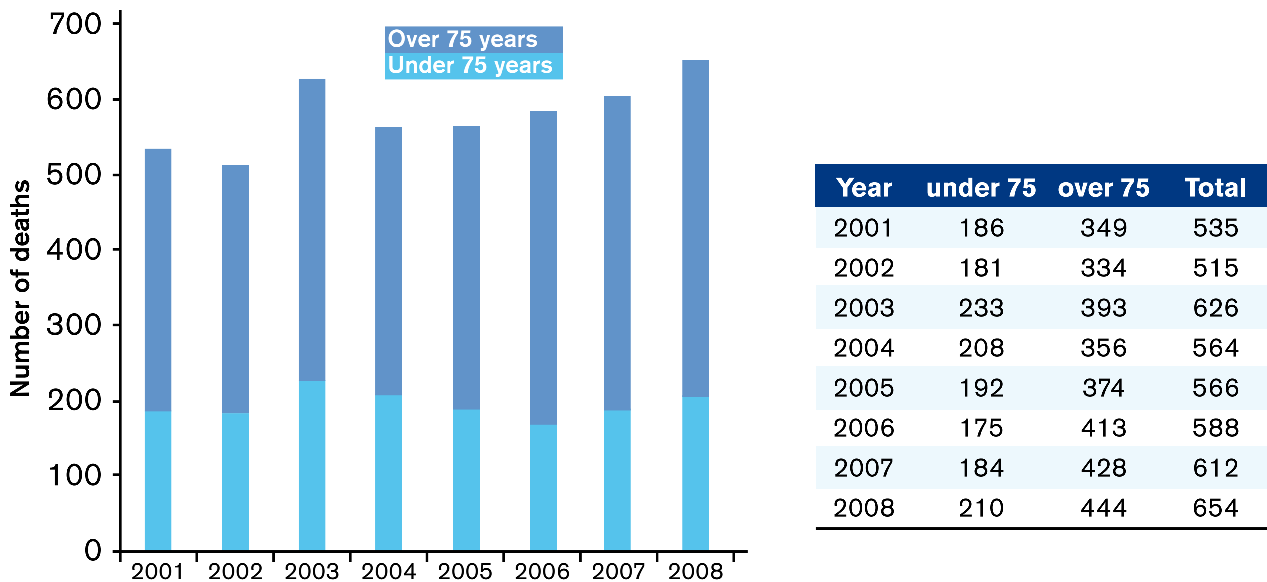


**Figure 15: Deaths from COPD in Northern Ireland 2001–2008**




| Year | under 75 | over 75 | Total |
|---|---|---|---|
| 2001 | 186 | 349 | 535 |
| 2002 | 181 | 334 | 515 |
| 2003 | 233 | 393 | 626 |
| 2004 | 208 | 356 | 564 |
| 2005 | 192 | 374 | 566 |
| 2006 | 175 | 413 | 588 |
| 2007 | 184 | 428 | 612 |
| 2008 | 210 | 444 | 654 |

### COPD – Actions

COPD is the single most common cause of death from respiratory disease, accounting for 654 deaths in 2009 (Figure 15).

There are 28,000 people recorded on GP registers in Northern Ireland as having COPD. This is caused in most cases by cigarette smoking that can lead to damaged airways in the lung, making it more difficult to breathe.

- The best way of preventing the progression of COPD is to stop smoking. All health and social care professionals should be trained to ask people if they smoke, make them aware of the dangers of smoking, advise them to stop and signpost them to specialist smoking cessation services. Work is ongoing to make sure that support and services are in areas where the need is greatest.

- We are working with GPs and other healthcare professionals, including pharmacists, to make sure that people with COPD get information and support to allow them to manage their own condition as much as possible. This includes having short courses of antibiotics and cortico-steroids at home for when the condition gets worse at times.

- Pulmonary rehabilitation can also improve the symptoms of COPD. This is a programme of supervised exercise as well as discussions with health care professionals and other patients to help understand COPD and its treatment. Many more courses of pulmonary rehabilitation are now available throughout Northern Ireland, close to people's homes.

- They may take place in various locations such as leisure centres, not just hospitals. Following a course of pulmonary rehabilitation, people will be helped to carry on with exercise and join social support groups which are now also set up in most areas by Trusts or Northern Ireland Chest Heart and Stroke.

- Some patients will need assessment to see if they will benefit from continuous oxygen treatment, known as long term oxygen therapy; or the use of oxygen during exercise. We are working with a number of different organisations to improve the way people are assessed for this, and the type of oxygen services people get, particularly regarding the type of small oxygen cylinders that allow people to get out and about and carry on their usual lives.

- Many people with more severe COPD are supported at home by a specialist respiratory team. This team provides expert management in all aspects of the disease, to allow the person to lead as normal a life as possible; to avoid going into hospital and to get out of hospital as early as possible. Most people wish to be able to stay at home, and having the early expert input from the respiratory team can allow this to happen. We are working to make sure teams are in all parts of Northern Ireland.

- When COPD becomes more severe and does not respond well to treatment, the specialist respiratory team will work with GPs and hospital staff to help people to be comfortable and to decide where they want to be cared for. Palliative care services have not been available for people with diseases other than cancer and we are working to change this.

### Asthma – actions

Asthma, is the most common respiratory disease, with over 100,000 people on GP registers here. It has less severe effects in most people than COPD and death from asthma should be nearly always avoidable. However, 2% of deaths from respiratory disease is directly contributable to asthma and people often die at a younger age.

- There is evidence that smoking when pregnant increases the risk of asthma developing in children. Women attending antenatal clinics will be asked about smoking and given advice and support to stop smoking if they so wish.

- Passive smoking can make asthma worse. Again, health visitors will ask parents about smoking and advise and support accordingly.

- When asthma is well controlled, quality of life improves and this allows people to do the things they want to do. We know that self-management action plans, developed for each individual, improve asthma control. Again, we are working with GPs and other healthcare professionals, including pharmacists, and Asthma UK to make sure that people with asthma get information and support to allow them to manage their own condition as much as possible.

- Allergic rhinitis, inflammation in the nose caused by an allergy, affects 10% to 25% of the population. Good control of rhinitis makes asthma control better. We want to make sure that everyone with asthma is asked about allergies when they have an asthma review and gets advice and support on the management of these.

- Sometimes people will have to attend their GP (out of usual working hours) or the Accident and Emergency department at hospital. We are carrying out an audit of these attendances. The results will be reported and changes to services made if required.

- Some people have ‘difficult’ asthma (more severe asthma that doesn’t respond to usual treatments). Services are being developed to assess whether people would benefit from new monoclonal antibody therapy.

### Next steps

Many of the issues detailed above can be seen in greater detail in the *Service framework for respiratory health and wellbeing*. This framework has been developed by those with respiratory diseases, carers, Asthma UK, Chest Heart and Stroke, and Health and Social Care professionals.

It sets standards from prevention through to palliative care. These standards have to be met over the next three years. An easy access version will shortly be available.

## Focus on improving stroke services

### Public health challenge

In Northern Ireland, 3,000 people suffer an acute stroke every year and 31,000 stroke survivors are looked after in primary care.[64]

In common with other developed countries, deaths from stroke in Northern Ireland have fallen in recent years among men and women.[65,66] This can be explained by a reduction in the number of strokes through the increased use of preventive treatments and a resulting decrease in risk factor levels in the population.

Stroke accounted for 1,329 deaths in Northern Ireland in 2008, which represents 9% of all deaths. While death rates from circulatory diseases reduced by 36% between 2001 and 2008, the reduction in death rates in deprived communities was only 31%, which has resulted in an increase in the inequality gap for circulatory diseases.[67] (Figure 16 below).

A stroke results from an interruption of the blood supply to part of the brain. There are two main types of stroke – ischaemic and haemorrhagic. An ischaemic stroke occurs when a clot blocks an artery, and accounts for 85% of strokes. A haemorrhagic stroke happens when an artery bursts, and accounts for 15% of strokes.

If the symptoms of stroke resolve within 24 hours they are known as a Transient Ischaemic Attack (TIA). The significance of TIAs are that they may be the only warning of an imminent stroke and provide an opportunity to intervene and prevent a stroke happening.

Stroke is a vascular disease and shares common risk factors with other vascular diseases. These risk factors include high blood pressure, high blood cholesterol, irregular heart beat (atrial fibrillation), diabetes, smoking, unhealthy diet or high alcohol intake and previous stroke or TIA or family history of stroke. Stroke is more common in men but more severe in women.[64]

Death rates from stroke show a similar pattern where death rates from stroke in disadvantaged communities have fallen at a slower rate, so that the inequality gap has increased between 1997 and 2008.[67]

**Figure 16: Standardised Death Rate (SDR) (under 75) – circulatory disease**[63]

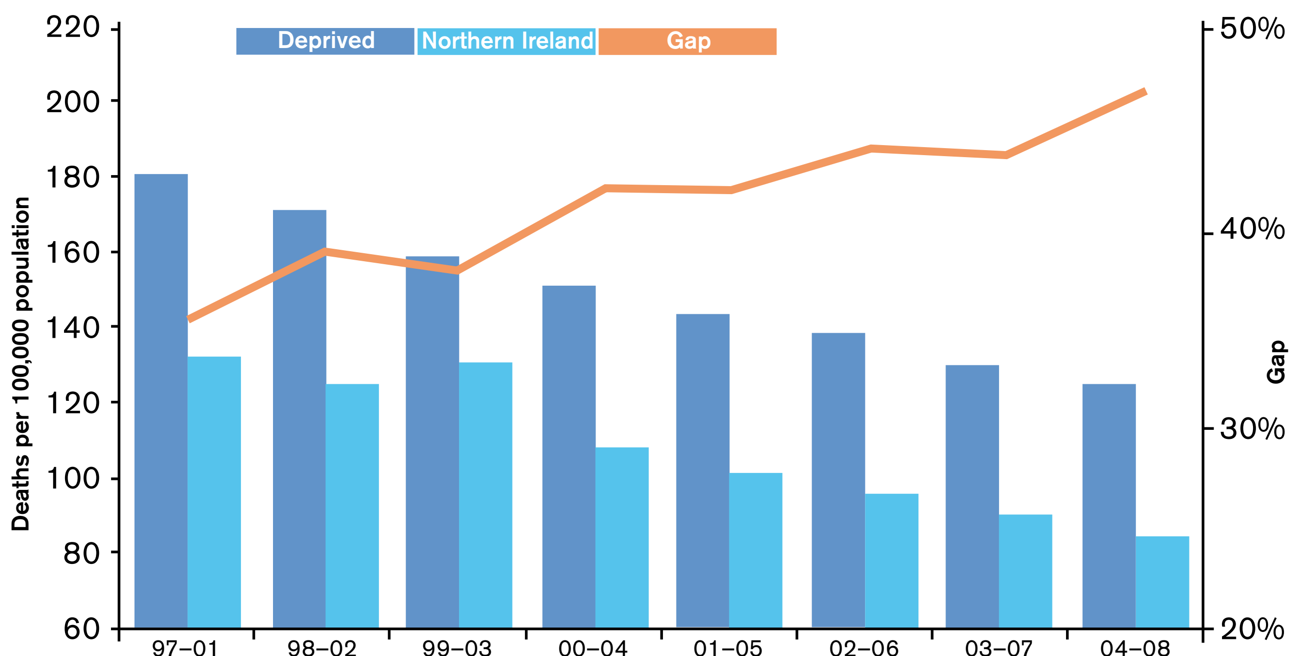
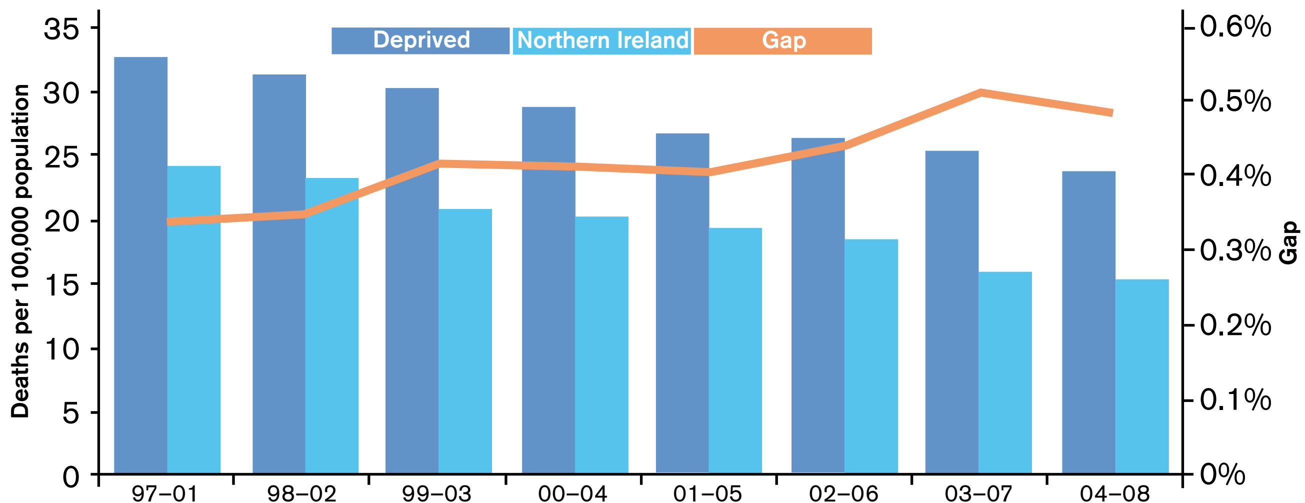


**Figure 17: Standardised Death Rate (SDR) (under 75) – stroke[68]**




## Key facts

- **In Northern Ireland 3,000 people suffer an acute stroke every year and 31,000 stroke survivors are looked after in primary care.**
- **Around one in four people who have a stroke die as a result, and around half of stroke survivors are left dependent on others for everyday activities.**
- **Almost a quarter of all strokes occur in people under the age of 65.**
- **Death rates from stroke are falling, but death rates in deprived areas are falling at a slower rate resulting in increasing health inequalities.**

### Action

The Northern Ireland *Improving stroke services* strategy was published in July 2008.[69] It contained 14 recommendations relating to:

- awareness raising among the public of the signs of stroke and the action to take;
- the introduction of thrombolysis for suitable patients with stroke;
- assessment of high risk TIAs within 24 hours;
- the availability of early supported discharge teams in the community;
- high quality rehabilitation services in hospital and the community;
- psychological and emotional support for stroke survivors and their carers;
- workforce development;
- stroke information systems to monitor the quality of care provided in hospital and the community.

### Next steps

As a result of the planned additional investment in stroke services between 2008 and 2011, the majority of these recommendations should be implemented.

This will require the significant reorganisation of services including the introduction of stroke thrombolysis in selected hospitals, expansion of TIA services, stroke units becoming the ward of first admission and systematic follow-up care in the community will be offered to all patients.

## Diabetes

### Public health challenge

In Northern Ireland there were 65,066 adults (aged 17+) with diabetes in 2009.[70,71]

The majority of diabetes care for adults is provided in primary care and information on numbers of people with diabetes and the care they receive is updated annually through the Quality and Outcomes Framework that was introduced in 2004.

The number of adults with diabetes has increased by 26% since 2004.[70] This increase in numbers of people with diabetes may be due to the increasing number of older people and rising levels of obesity in the community.

There are 1,038 children aged 17 and under who have Type 1 diabetes in Northern Ireland. The majority of care for children is provided by secondary care.

Diabetes is a lifelong condition. Type 1 diabetes occurs when the pancreas produces too little or no insulin and occurs in children and young adults. Treatment is with insulin, a healthy diet and regular exercise. Type 1 diabetes cannot be prevented.

Type 2 diabetes results from defects in both insulin secretion and insulin action. It usually occurs after the age of 40 but can occur at a younger age. Treatment involves a healthy diet, regular exercise and medication – insulin may be required.

The risk of Type 2 diabetes increases with age, lack of exercise, obesity, high blood pressure and high levels of fat in the blood. It also occurs more frequently in women with previous diabetes associated with pregnancy, and if there is a family history. Type 2 diabetes can be prevented in many people.

Diabetes is associated with serious complications including heart disease, stroke, kidney failure, blindness and lower limb amputation. Complications of diabetes can be reduced by effective control of blood sugar in both Type 1 and Type 2 diabetes, treatment of high blood pressure and reduction in blood fat levels.

Social disadvantage is associated with an increased prevalence of Type 2 diabetes and an increase in obesity. People with diabetes are not immune to the adverse impacts of deprivation. Socioeconomic differences in adverse health behaviours such as smoking and obesity are likely to be present in people with diabetes.

### Key facts

- **The number of adults with diabetes has increased by 26% since 2004.**
- **In both Type 1 and Type 2 diabetes, complications can be reduced by effective control of blood sugar, treatment of hypertension and hyperlipidemia if present.**
- **The number of people with diabetes will increase as obesity levels increase and the population ages.**
- **People with diabetes (Type 1 or Type 2) living in disadvantaged areas have poorer blood sugar control, higher levels of obesity and smoking and are more likely to develop complications from diabetes compared to people with diabetes living in more affluent areas.**

A 2008 audit of adults attending hospital clinics in Northern Ireland, carried out by Cooperation and Working Together (CAWT), clearly demonstrated the adverse impact of diabetes (Type 1 and Type 2) on people living in disadvantaged areas.[72] People living in more deprived areas are more likely to have poor control of their diabetes and are less likely to receive recommended treatments.

Hospital diabetic clinics are now seeing people with morbid obesity (BMI> 40) and diabetes in their 20s and 30s. Urgent action is required to halt and reverse the trends in obesity and increase in levels of Type 2 diabetes.

### Action

Partnership with parents, children and young people is central to managing childhood diabetes. Parents of children with diabetes should be supported to manage their child's condition and help their child self-manage whenever possible.

A three-year Northern Ireland-wide project for children and adolescents with diabetes, coordinated through the CAWT partnership, and funded by Inter Reg IV, is piloting the introduction of Structured Patient Education for all children with diabetes and their families in Northern Ireland.[73]

This will support families and children with diabetes to optimise diabetes control in childhood and prevent or delay the development of complications of diabetes in adulthood.

### Next steps

Evidence is increasing of the importance of pre-pregnancy care for women of childbearing age with diabetes. A three-year Northern Ireland-wide project, funded through Inter Reg IV, will pilot pre-pregnancy care for diabetic women of child bearing age in Northern Ireland.[73]

This aims to reduce the increased perinatal mortality and congenital malformation rates observed in diabetic pregnancies through the provision of pre-pregnancy care.

# 5 Protecting health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## HSC rises to the challenge of pandemic flu

### Public health challenge

On 11 June 2009 the World Health Organization (WHO) formally confirmed the first pandemic of influenza for 40 years.[74] The novel pandemic A(H1N1) 2009 virus (as named by WHO, commonly referred to as swine flu) is a new strain of the influenza A virus that emerged in Mexico in March 2009.

Over the following weeks it spread to the USA and then by June to many countries worldwide. As of 31 January 2010, more than 209 countries worldwide had reported laboratory-confirmed cases of pandemic influenza A(H1N1) 2009, including at least 15,174 deaths.[75]

The pandemic influenza A(H1N1) 2009 virus continues to be the predominant influenza A virus circulating worldwide. In most regions, current pandemic influenza activity continues to decline or remain low.

In the United Kingdom (UK), most reported cases have been relatively mild. Groups more at risk of severe illness include those with pre-existing conditions such as chronic respiratory, cardiac and neurological disease, pregnant and post-natal women and very young children.

### Key facts

**In Northern Ireland to 19 May 2010:**

- **1,369 confirmed cases of pandemic A(H1N1) 2009 flu.**
- **580 hospitalised cases.**
- **50 intensive care admissions.**
- **GP consultation rate during the peak week was 280.6 people per 100,000 population, greatly exceeding the Northern Ireland threshold for seasonal flu activity.**
- **Total cases of pandemic flu in Northern Ireland were much higher than confirmed cases; estimated that approximately 9% of the population have had pandemic flu to date.**

There have been 411 deaths reported in the UK to early February 2010 – 298 in England, 67 in Scotland, 28 in Wales and 18 in Northern Ireland.[76]

Very few confirmed cases of pandemic flu were identified in Northern Ireland before the start of July 2009, with a slow increase over the months of July

**Figure 18: Consultation rates and virology for flu and flu-like illness**

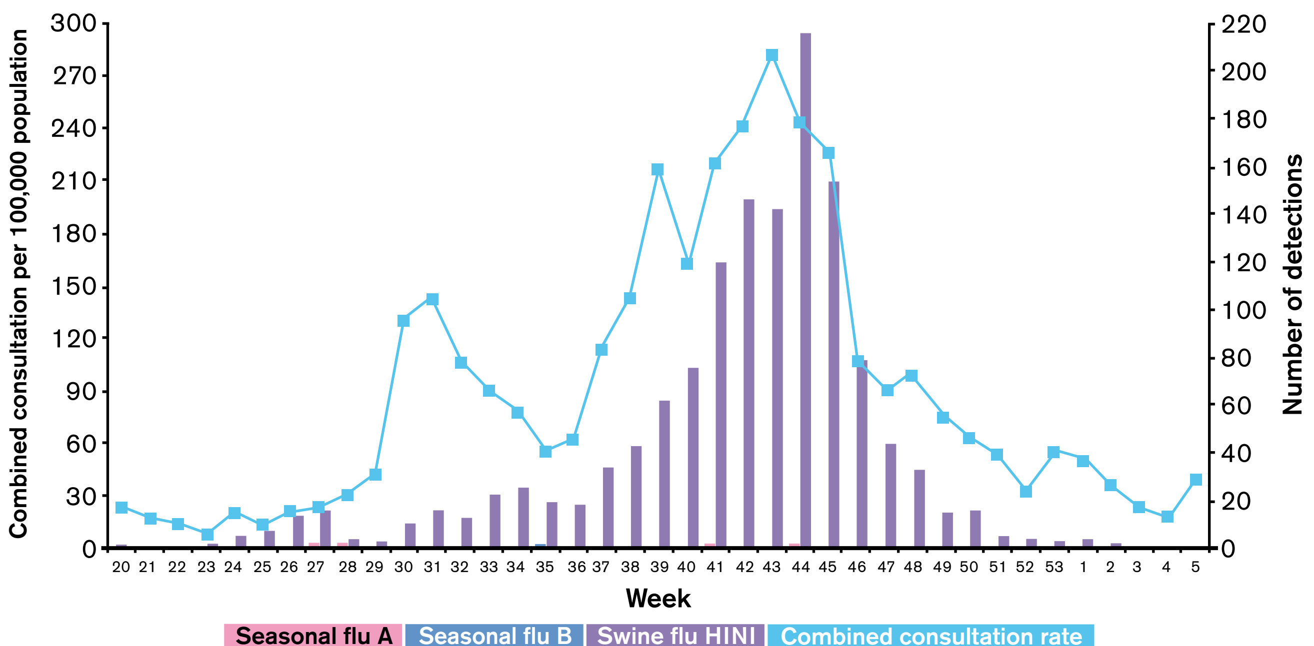
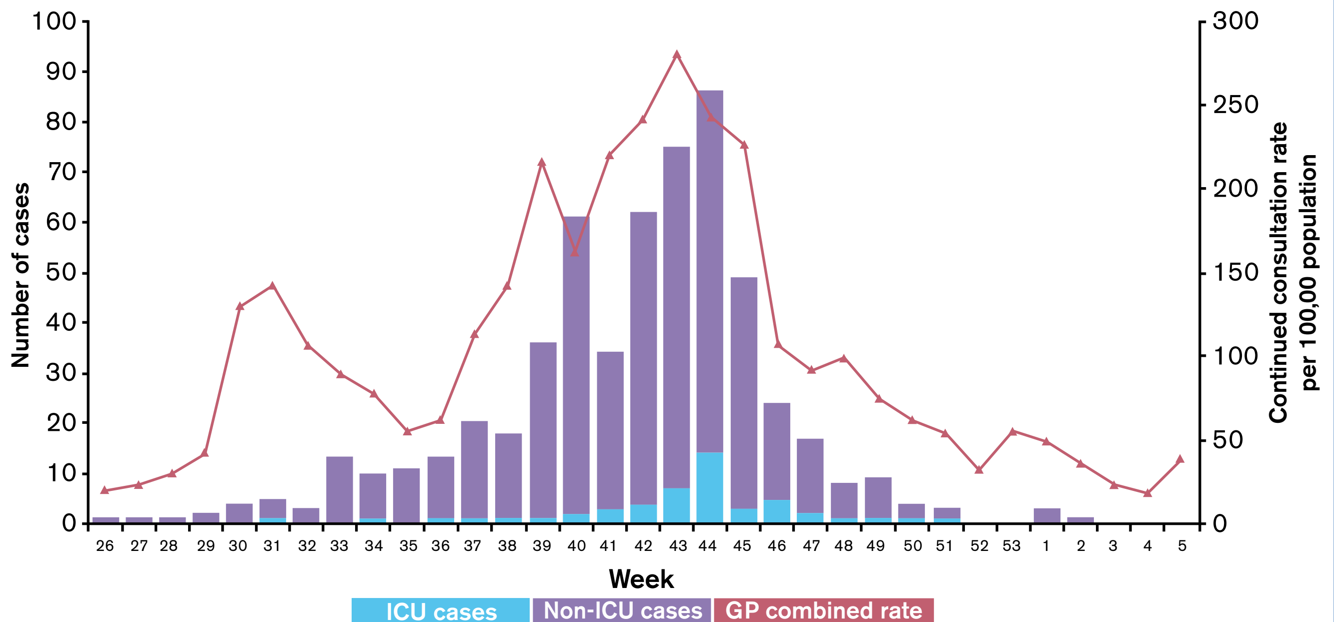


**Figure 19: Consultation rates and virology for flu and flu-like illness**




and August (see Figure 18). In contrast to parts of England and Scotland, there were few school or community outbreaks in Northern Ireland before September.

From mid-September, numbers of cases, GP consultation rates, school outbreaks, hospitalisations (see Figure 19) and antiviral prescriptions all rose to a peak in early to mid-November and then fell rapidly.

### Action

Initially, UK policy was to contain the virus and slow the rate of spread. Health professionals were asked to report all flu-like illness in people who had been in affected areas. Public health authorities (in Northern Ireland the Public Health Agency) organised laboratory testing to determine if the patient did have pandemic flu. Patients were treated with antivirals, they were asked to self-isolate, and prophylaxis was given to their close contacts.

By early July 2009, the number of cases meant this was no longer possible, and the UK policy was changed to mitigation. Mitigation involved informing the public of the need to continue with hygiene measures, self-isolate if ill with flu, and obtain antiviral treatment if in a higher-risk group.

The PHA and a range of other bodies worked extremely hard to reduce the impact of pandemic flu on the public. Preparation included:

- planning to manage the predicted need for GP and hospital care, from caring for large numbers of people with uncomplicated flu to expanding intensive care and paediatric capacity;
- planning for protection of HSC staff with infection control measures, including provision of personal protective equipment;
- provision of information, support and advice to many bodies within the HSC and beyond, such as the education sector, councils and prisons;
- planning and implementation of the pandemic flu immunisation programme;
- communicating with staff and the public;
- liaising with national groups.

Monitoring the course of the pandemic locally was vital so that appropriate action and planning could take place. Elements of this surveillance included monitoring of laboratory-confirmed cases, GP consultations for flu-like illness both in-hours and out-of-hours, antiviral prescriptions, school absence rates, Accident and Emergency attendances, hospital admissions and deaths from pandemic flu.

If you think you have
swine flu
you should stay at home

Do not visit your GP, hospital or pharmacy

If you have a serious medical condition, are pregnant, have a sick child under five or are concerned you should **telephone** your GP or out of hours service.

If you are normally healthy you should be able to recover at home with the usual flu remedies.

For further information and advice:
**www.nidirect.gov.uk**
Northern Ireland Swine Flu Helpline: 0800 0 514 142
(Mon-Fri, 9am-5pm)
Textphone: 18001 0800 0 514 142

HSC Public Health Agency
DHSSPS
SWINE FLU INFORMATION
0800 1 513 513

### Outcomes

To date, the first new pandemic virus of the 21st century has proved to have a lower impact in terms of attack rate, severity and death rate than in previous pandemics, and has been lower than was initially predicted given the early indications from Mexico.

The work done during this pandemic has greatly increased our preparedness should a new pandemic virus arise. The commitment by many people throughout HSC through the pandemic period resulted in an excellent response and greatly enhanced preparedness for the future. The PHA and other HSC organisations continue to review the response and consider further planning needed.

### Next steps

It is uncertain what will happen next, with resurgence in a new wave of epidemics remaining a possibility, although this has not happened so far in the southern hemisphere. Painstaking surveillance of flu remains essential.

Although the virus has remained stable to date, it may change in the future, to become more virulent, more infectious or develop widespread resistance to some antivirals, making treatment more difficult.

Previous pandemic viruses have tended to displace the pre-existing strains of flu A to become the dominant seasonal flu, and if, as expected, this happens, some previously lower-risk groups, such as pregnant women, may remain at more risk from flu than previously. Anyone offered the swine flu vaccine should therefore take it to protect themselves and their families through the coming months.

## Northern Ireland achieves highest vaccine uptake rates within UK

### Public health challenge

For the first time in history, a vaccine became available against a flu pandemic during the actual pandemic. The vaccine for the pandemic A(H1N1) 2009 virus became available at the end of October and most of it was given to patients in November and early December.

This was a major undertaking – with over 325,000 people in Northern Ireland vaccinated. Northern Ireland consistently led the way with the pandemic vaccine programme. We achieved by far the highest uptake rates within the United Kingdom (UK) and we achieved them at an early stage in the programme – as fast as the vaccine came into Northern Ireland, it was delivered out to patients.

This was achieved at a time of other considerable pressures – the pandemic itself was peaking in November, the seasonal flu vaccine was being delivered (the uptake rates for it were well above average), and the human papillomavirus (HPV) vaccine catch-up programme was also being delivered.

### Action

For many people, swine flu was a mild illness; however, for some it had serious complications causing them to be admitted to hospital and, in the worst cases, to be admitted to intensive care. For a few people it even resulted in death. Most of the people who suffered these complications had underlying risk factors.

The aim of phase one of the vaccine programme was to target those most at risk of serious disease and death and protect them by preventing them from becoming infected. This group comprised people in the seasonal flu clinical at-risk groups: chronic respiratory disease (including asthma); chronic heart disease; chronic renal disease; chronic liver disease; chronic neurological disease; diabetes and immunosuppression.

Pregnant women were also identified as a top priority group, as were immunocompromised patients and their closest contacts, and frontline health and social care workers. Phase two of the campaign targeted children aged 6 months to 5 years.

Delivering the vaccine programme was a major logistical exercise as it had to be undertaken at a time when health services were especially busy with other priorities.

Whilst the lead was taken by the Public Health Agency and the majority of the vaccine was delivered through primary care and the local trusts, it also involved working very closely with the Department of Health, Social Services and Public Safety, the Health and Social Care Board, the Business Services Organisation, universities, schools, independent nursing homes, prisons and pharmacies.

The response also required:

- additional staff to be seconded to occupational health to support the service in delivering the programme;
- special clinics to be organised for pregnant women and special training for midwives;
- training sessions for staff prior to delivery of the vaccine.

### Outcomes

One example illustrating how well and how quickly all those involved in the pandemic flu vaccine campaign responded to events, was the vaccination of children attending special schools for severe learning disability.

Just prior to release of the vaccine, a number of these special schools were affected by swine flu. A decision was therefore taken to offer the vaccine to all children at these schools as a first priority. The decision to do this was taken on a Tuesday morning and by the Friday of that week children in over 20 schools had all been offered the vaccine – with an uptake of over 70%.

The uptake figures below in Figure 20 are for up to the end of February 2010, apart from the figure for pregnant women which details those women who were pregnant at the time the vaccine became available (end October 2009) and who were vaccinated by the end of November 2009. All figures are provisional and are subject to final validation.

**Figure 20: Swine flu vaccine uptake for Northern Ireland**

| Vaccinated group | Numbers vaccinated | % uptake |
|---|---|---|
| Under 65 years 'at risk' group | 163,343 | 86.5% |
| 65 years and over 'at risk' group | 102,220 | 74.9% |
| Pregnant women | 9,476 | 57.1% |
| Healthy children $\geq$ 6 months $\leq$ 5 years | 39,275 | 38.3% |
| Trust frontline staff | 19,794 | 47.7% |

## HCAIs a priority for PHA's health protection service

### Public health challenge

Partnership working to reduce the morbidity and mortality associated with healthcare associated infections (HCAIs) in Northern Ireland is a priority for the Public Health Agency's (PHA) health protection service.

Just as everyone is entitled to healthcare that is free at the point of delivery, every patient is entitled to be confident that their healthcare will be safe from HCAIs such as MRSA and Clostridium difficile (C difficile).

Achieving that requires working collaboratively across the health and social care (HSC) system to tackle the challenges of HCAIs, and to improve practice.

**Figure 21: Number of new cases of clostridium difficile and MRSA 2006/07–2009/10**

| | 2006/07 | 2007/08 | 2008/09 | 2009/10 | % reduction since 2006/07 |
|---|---|---|---|---|---|
| C. difficile | 1026 | 1019 | 896 | **471** | **54%** |
| MRSA | **248** | **221** | **203** | **138** | **44%** |

*Speakers at the annual HCAI symposium, from left, Professor Brian Duerden, Martin Kiernan, Stella Cunningham, Professor Mark Wilcox, Dr Carolyn Harper and Dr Stephanie Dancer.*

### Action

During 2009, Trusts continued their work to reduce HCAIs through a range of actions to ensure good hand hygiene, clean wards, appropriate use of antibiotics, analysing and learning from cases, and monitoring progress robustly. They were supported by the Cleaner Hospitals Team from the Department of Health (London). The PHA and the Health and Social Care Board (HSCB) will continue to support Trusts during 2010/2011 and will also work with primary and community care.

On 4 March 2010 the PHA hosted its first annual HCAI symposium in Greenmount College, Antrim, with Learning in Partnership for HCAI Prevention as the theme. Five international experts discussed aspects of HCAI prevention, including MRSA, MSSA, C difficile, surgical site infections and environmental cleaning. All HSC trusts gave oral presentations outlining HCAI prevention work progressed over the previous 12–24 months.

### Outcomes

- MRSA cases have decreased 42.3% between 2003 and 2009, from 284 cases in 2003 to 164 cases in 2009 (Figure 22).
- Clostridium difficile cases among hospital in-patients aged 65 years and over have decreased 47.7% between 2006 and 2009, from 1,073 cases in 2006 to 561 cases in 2009 (Figure 23).
- Surgical Site Infection (SSI) rates following orthopaedic surgery have decreased 54.4% between 2004 and 2008, resulting in an estimated cost saving of £1.9m (Figure 24).

### Next steps

In January 2010 the Department of Health, Social Services and Public Safety issued its updated strategic action plan for HCAI prevention, *Changing the culture 2010*.[77]

During 2010/2011 the PHA will lead implementation of *Changing the culture II* and will continue to support HCAI improvement work across health and social care – including hand hygiene, antimicrobial stewardship, environmental cleaning, risk assessment/incident management, root cause analysis and development of assurance frameworks.

**Figure 22: Northern Ireland MRSA episodes, 2003–2009**

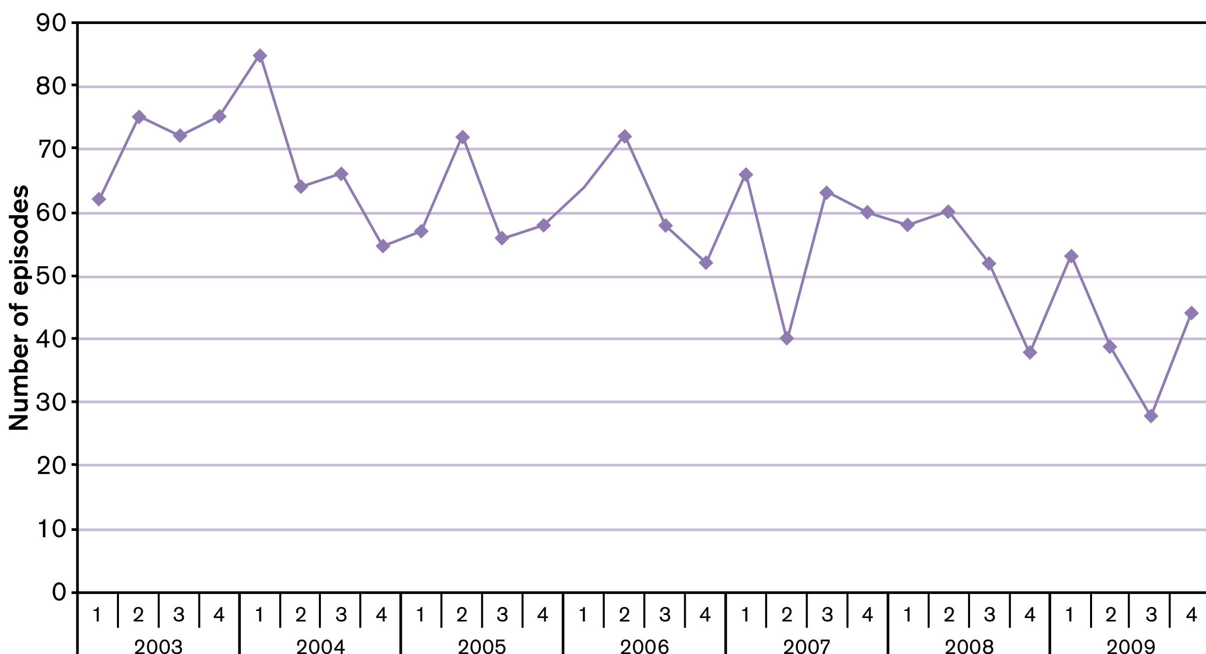


**Figure 23:** **Northern Ireland C. difficile episodes per quarter among in-patients 65 and over**

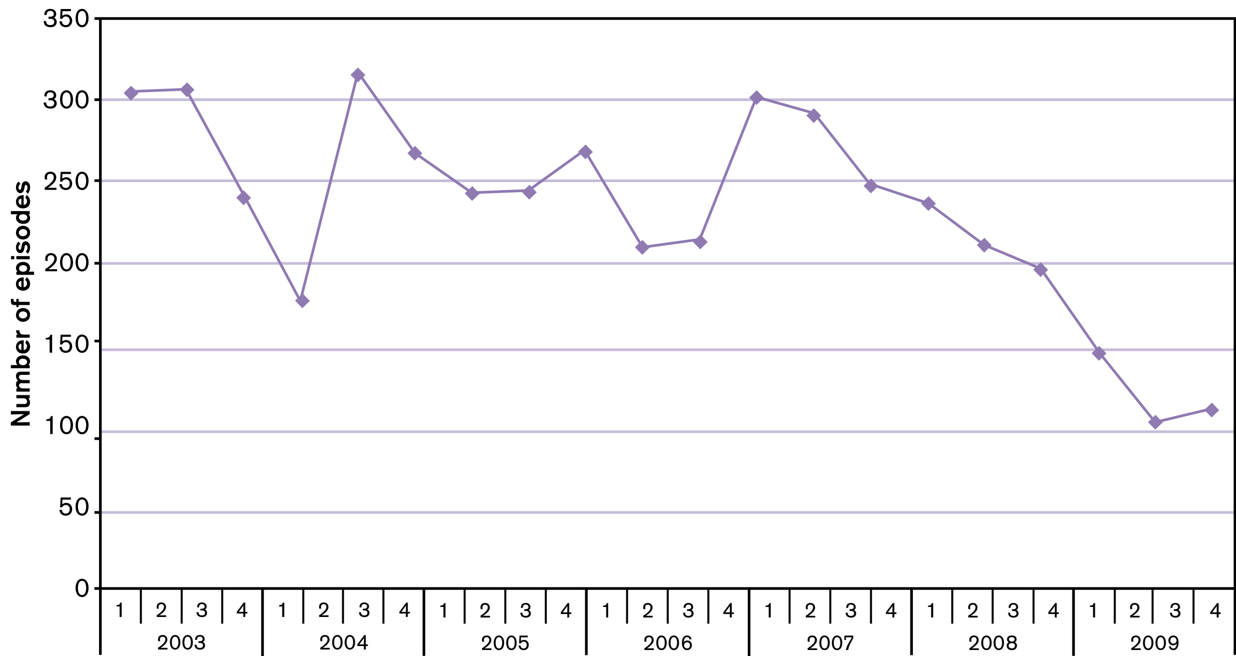
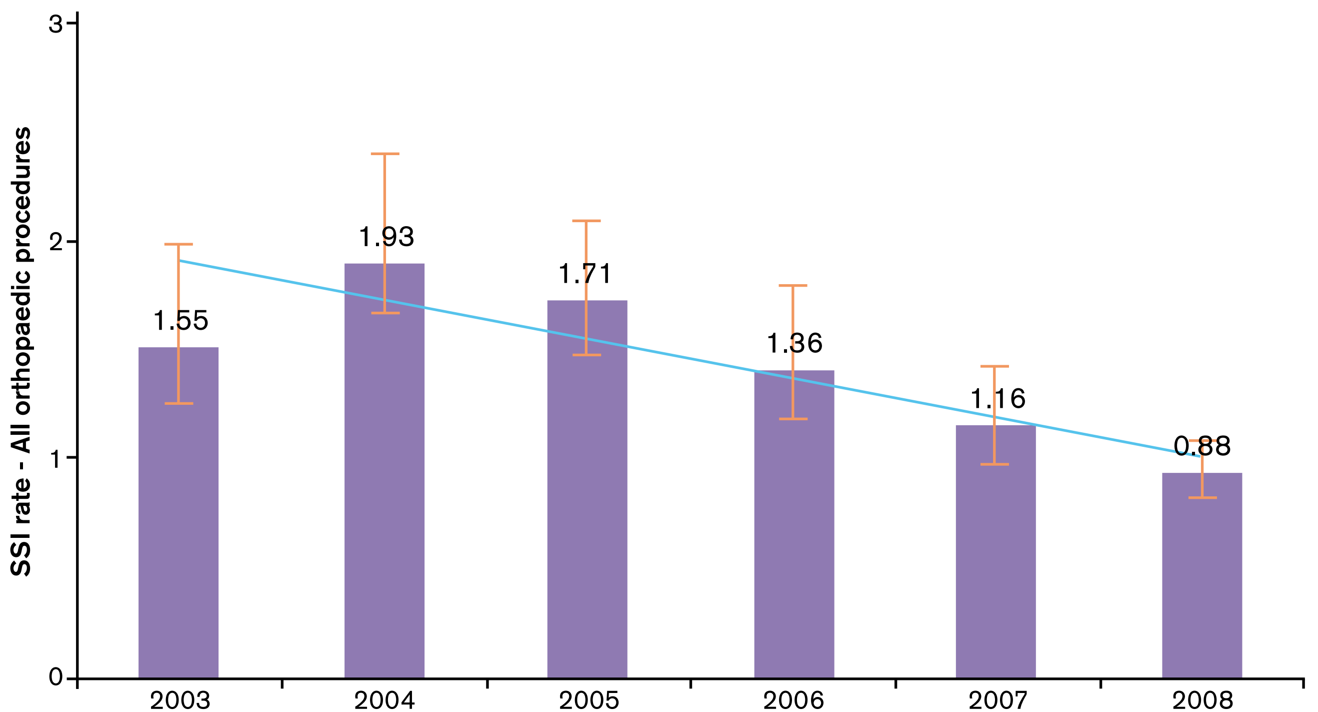



**Figure 24:** **Surgical site infection rates 2003–2008**



## Increase in HIV and STIs in Northern Ireland

### Public health challenge

The human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs) are increasingly presenting an important public health problem in Northern Ireland, as is the case elsewhere in the United Kingdom (UK) and Europe.

> **Key facts**
>
> **Between 2000 and 2008:**
>
> - **Chlamydia diagnoses doubled.**
> - **HIV diagnoses increased almost fourfold.**
> - **Syphilis has become re-established.**

While HIV has a much better prognosis than before due to the impact of new anti-viral drug regimes, it is still not curable. Other STIs, if untreated, can cause cancers, infertility and infections in newborn babies.

Between 2000 and 2008, the annual number of new diagnoses of HIV and other STIs made in Northern Ireland's genito urinary medicine (GUM) clinics increased by 24%.

Much of this increase is due to the rise in chlamydia infections, with chlamydia accounting for 27% of all new diagnoses at GUM clinics during 2008.

Numbers of chlamydia diagnoses have increased by 102% between 2000 and 2008, with 1,946 diagnoses made in 2008. Young people aged 20–24 are the group most at risk, with the vast majority of infections occurring in the heterosexual community.[78]

The annual number of new diagnoses of HIV infection has increased from 19 in 2000 to 92 in 2008, a rise of 384% (Figure 25).[78] While prevalence in Northern Ireland remains lower than the other UK countries, numbers of new diagnoses almost doubled between 2003 and 2004, and increased further by 51% between 2007 and 2008.

**Figure 25: Annual new HIV diagnoses and probable route of infection, Northern Ireland, 2000–2008**

Since the late 1990s the vast majority of patients with HIV have acquired their infection through sexual contact, with only very small numbers infected through injecting drug use or other causes.

The majority of cases among men who have sex with men (MSM) were acquired within Northern Ireland and the rest of the UK, whereas cases acquired through heterosexual contact have mostly acquired their infections outside the UK.

Also consistent with the picture in the UK and Europe, surveillance in Northern Ireland has shown significant changes in the epidemiology of some STIs, mainly affecting MSM cases.

After many years with very low numbers of cases, syphilis has once again become established with 63 cases reported in 2008, 45 of which were in MSM.[78] A small number of cases of a once very infrequent disease, lymphogranuloma venereum, have also been reported.

Young people carry a disproportionate burden of sexual ill-health, with those aged 16–24 representing 12% of the population, but accounting for nearly half of all STIs. Evidence shows that young people who report an earlier age of first sexual intercourse are more likely not to have used contraception or protection against STIs.

### Action

Limiting the spread of STIs requires a focus on three main factors:

- reducing the number of sexual partners;
- using barrier methods of contraception;
- ensuring accessibility to testing and treatment services.

The Public Health Agency is committed to promoting good sexual health by ensuring that professionals and the public have access to information relating to this area. An example of work in this area was the sexual health awareness campaign, “Sex – don’t just do it, think it through”, that ran throughout March 2010 and targeted 16–25 year olds.

### Outcomes

The campaign evaluation was positive, showing that 74% of 16–25 year olds were exposed to the campaign, with over 50% recalling at least one of each of the radio or poster ads.

### Next steps

The priority actions to reduce STIs are to provide comprehensive, accessible and acceptable sexual health information and services tailored to the target audience, and to increase access to genitourinary medicine services.

## HPV vaccine to reduce incidence of cervical cancer

### Public health challenge

Northern Ireland's cervical cancer rate has been increasing steadily on a yearly basis and in 2004 was at 71.2%. Cervical cancer is now a relatively uncommon disease – in Northern Ireland an average of 80 women are diagnosed with cervical cancer each year.[79]

The Human Papillomavirus (HPV) vaccine programme is a vaccine offered to year-nine girls, aged 12–13, that will significantly reduce the incidence of cervical cancer.

### Key facts

- **Announced May 2008, started September 2008.**
- **Will prevent up to 70% of cervical cancers.**
- **Routinely given to 12–13 year old girls.**
- **Catch-up for 13–18 year old girls.**
- **Almost 50,000 extra girls being offered vaccine in 2010/2011.**
- **Good uptake – 83.9%.**

### Action

The HPV vaccine programme was announced in May 2008 with the first phase of the programme starting in September 2008 and running through until March/April 2009. The aim of the programme is the prevention of cervical cancer by protecting against two strains of HPV in particular, HPV 16 and 18, that are responsible for about 70% of all cases of cervical cancer.

The vaccine is extremely effective at preventing infection with these two virus types (about 99% effective after three doses). However, once someone is already infected, the vaccine will not get rid of the infection. For this reason it is important that everyone is vaccinated well before they are likely to have been exposed to the virus.

The routine programme was therefore introduced for year-nine girls. A catch-up programme for girls aged 17–18 years at the time of the announcement was also offered in 2008. An accelerated catch-up programme was introduced in 2009–2010 for girls born between 2 July 1991 and 1 July 1995. Depending on the age, the vaccinations are offered either through school health or primary care.

The vaccine schedule consists of three doses that have to be given over a six month period. This in itself presents some logistical difficulties in terms of fitting it into the school year, taking account of exams, holidays etc.

### Outcomes

Some fears were expressed in advance of the programme as to how well it would be received and whether it would be accepted by parents and by teenage girls.

**Figure 26: Annual United Kingdom HPV vaccine coverage for females aged 12–13 years by country, 2008/2009**

| | HPV vaccine uptake % | | |
|---|---|---|---|
| **Country** | **Dose 1** | **Doses 1 and 2** | **All three doses** |
| Northern Ireland | 89.6 | 85.9 | 83.9 |
| Scotland | 93.7 | 92.7 | 89.4 |
| Wales | 87.9 | 87.0 | 78.8 |
| England | 88.1 | 86.0 | 80.1 |
| **UK** | **88.6** | **86.6** | **80.9** |

The human papillomavirus vaccine

The virus, the diseases and the new HPV vaccine

Beating cervical cancer – the facts

In fact, the early indications are that it has been well received and accepted and there are good uptake levels for the first year. The uptake for Northern Ireland compared to the rest of the United Kingdom (UK) is shown in Figure 26 opposite.[80]

It can be seen that for completed courses (ie all three doses), Northern Ireland has achieved above the UK average with higher levels than England and Wales but not quite as good as Scotland.

The third dose is not offered until March/April and there is little opportunity after this in the school year to offer further clinics to girls who miss appointments.

However, when the school health teams are visiting schools the next year, these girls are offered a further appointment (however these will not be shown up in the statistics yet). In addition, those girls who did not start the vaccine course at all are also invited again. Therefore, the final uptake figure in this cohort of girls is expected to be higher.

## An outbreak of measles in the Craigavon area

### Public health challenge

The MMR (measles, mumps and rubella) vaccine was first introduced in Northern Ireland in 1988 as a single dose at 15 months of age. In 1996, a second dose of MMR was added for children at four years of age.

Confirmed cases of measles are extremely rare in Northern Ireland. There have been only five confirmed cases in the past 10 years and many of these were acquired either outside Northern Ireland, or through direct contact with a case from outside Northern Ireland.

### Key facts

- **Latest uptake of MMR at 24 months: 90.6% in Northern Ireland, 87.2% in UK.[81]**
- **Latest uptake of two doses of MMR at five years: 88.9% in Northern Ireland, 82% in UK.[81]**
- **Five confirmed measles cases in Northern Ireland in 10 years prior to this outbreak.**
- **18 cases to date in this outbreak.**
- **Complications of measles include ear infections, pneumonia, convulsions, encephalitis and brain damage.**
- **In very serious cases, measles kills.**
- **MMR vaccine – first dose recommended at 15 months and second dose at around four years of age.**

As MMR uptake rates here are generally high, measles transmission within Northern Ireland had stopped, and people here were not affected by the outbreaks of measles seen in Great Britain and the Republic of Ireland (RoI).[82,83]

It was therefore a very unusual event when a cluster of measles cases occurred in the Craigavon area starting in December 2009. By early February 2010, there had been a total of 18 confirmed or probable cases of measles in the Craigavon area (see Figure 27).

The first case occurred in someone who had been in contact with measles cases in the RoI. It then spread to that person's contacts in Northern Ireland who had not received the full course of the childhood measles vaccine.

A wide range of people were affected – the youngest being three months old and the oldest 22 years old. Over half were under five years of age and four were under 1 year of age – too young to be vaccinated.

One of the cases had had the recommended two doses of MMR. Two had had one dose – illustrating the importance of having both doses of the MMR vaccine.

### Action

An incident team meeting was set up involving local health visitors. Uptake of MMR in local schools was examined and was found to be high.

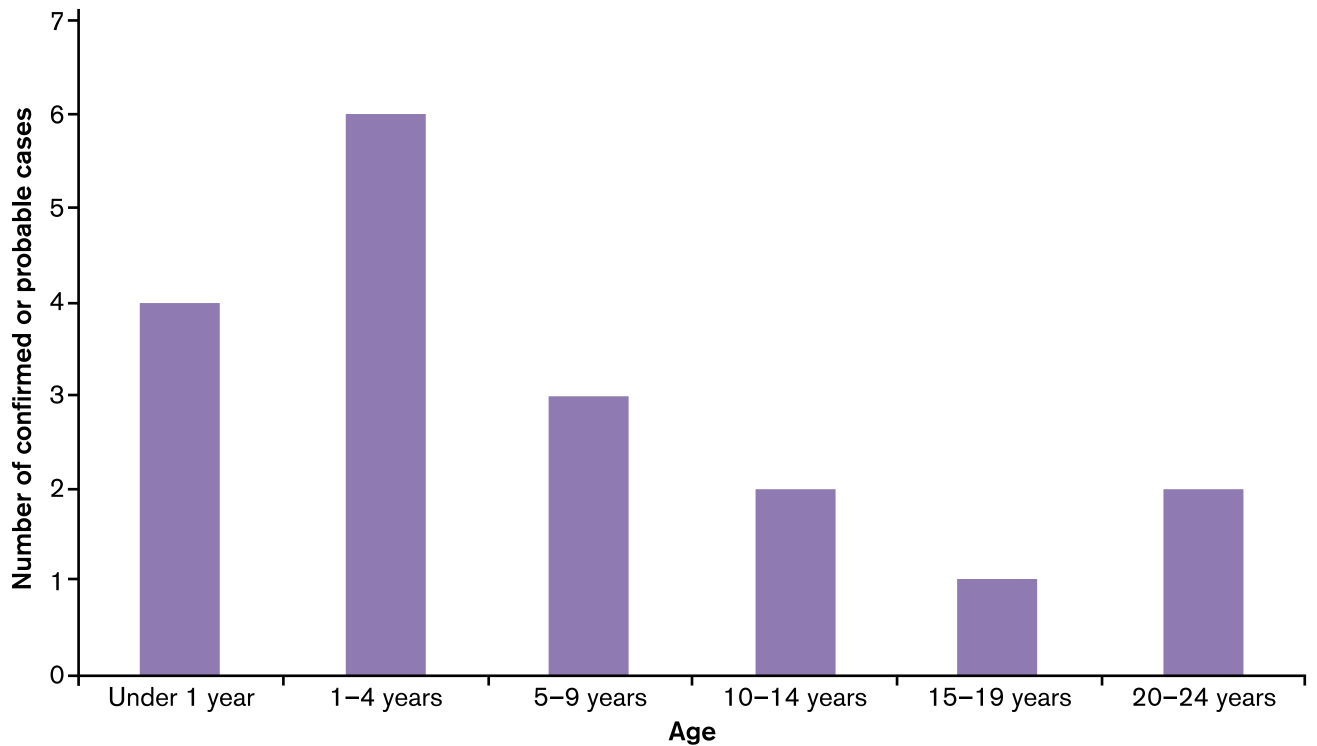
Therefore, whilst some spread in schools couldn't be ruled out, significant spread was felt to be unlikely and having a school-based MMR campaign wasn't considered to be worthwhile. To date, there has been no evidence of spread within schools.

It was decided therefore to offer the MMR vaccine to those most in contact with the cases. As some young adults had been affected, it was decided that everyone born after 1978 should be offered two doses of MMR if they hadn't already received them.

The vaccine was provided through a special clinic in a local GP surgery and home visits by local health visitors.

This was, in effect, part of a larger outbreak affecting RoI and the Public Health Agency (PHA) therefore worked closely with colleagues in RoI to develop and implement control measures.

**Figure 27:** **Age of measles cases in the Craigavon outbreak**




## Next steps

"This outbreak is a timely reminder to parents that they can protect their children from measles by ensuring their children get both doses of the MMR vaccine when it is offered." Dr Richard Smithson, Consultant in Public Health, PHA.

## Tyre fire poses public health challenge

### Public health challenge

In the early hours of 5 October 2009, a large fire among used tyres in the Campsie Industrial Estate, Londonderry, was reported to the Public Health Agency (PHA) doctor on-call by the Northern Ireland Fire and Rescue Service (NIFRS).

Sixteen fire tenders from across Northern Ireland and Donegal and 70 personnel were called to fight the blaze. Although there were no initial reports of casualties, the incident raised concerns about the public health impact of the acrid black plume of smoke seen emanating from the burning tyres. Local residents complained of an unpleasant smell, throat irritation and runny eyes.

### Action

Responsibility for individuals in close proximity to a fire lies with the emergency services. The role of public health when responding to a fire is to protect the health of the local population. This involves:

- determining the public health risk of the fire;
- ensuring action is taken to remove or reduce this risk;
- identifying and monitoring any adverse health effects;
- ensuring (with others) a coordinated response including communication between the responders and health services.[84]

### Key facts

- **Fires involving large quantities of rubber, such as tyre fires, pose a potential risk to the health of the public as a result of toxic chemicals in the plume and the toxic water run-off.**
- **Tyre fires are notoriously difficult to put out and can burn for weeks.**
- **The role of public health when responding to a fire is to protect the health of the local population through assessing and managing the public health risks.**
- **Prompt notification of this incident to health protection staff allowed the PHA to work collaboratively with multi-agency partners to ensure the fire was brought under control as soon as possible and the potential public health risks to the local community to be minimised.**

*The black smoke from the burning tyres raised public health issues.*

*Dr Anne Wilson, PHA, discussing the incident with a Northern Ireland Fire and Rescue Service representative.*

Potential health hazards associated with such fires include atmospheric pollutants such as carbon monoxide, benzene, polyaromatic hydrocarbons, dioxins, and potential water and land pollutants such as heavy metals, oils and carbon black.

Utilising weather forecasting tools generated by the Met Office, health protection staff carried out dynamic public health risk assessments and fed the results of these into the multi-agency incident meetings.

A decision was taken to close a nearby primary school for one day when a change in wind direction resulted in the grounding of the smoke plume over the playground and the ensuing increased public health risk to this vulnerable population.

PHA staff worked over the next few days in the multi-agency response and recovery with partner organisations from the emergency services and statutory agencies including NIFRS, the Police Service of Northern Ireland, Derry City Council, the Environment Agency, the Loughs Agency, the Food Standards Agency and the Department of Agriculture and Rural Development.

### Outcomes

Tyre fires are notoriously difficult to completely extinguish and this fire, although successfully brought under control by the NIFRS within 24 hours, had the potential to burn for a significant period.

Health protection staff played a key role in this incident, working in a coordinated way with multi-agency partners and the site owner to expedite the extinguishing of the fire within 96 hours and thereby limiting the public health impact of the fire on the local population.

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# References


1. Karoly L et al. Early childhood interventions: proven results, future promise. Santa Monica: Rand, 2005.
2. Public Health Agency. St Joseph's parent support programme evaluation. Belfast: PHA, 2009.
3. World Health Organization. Commission on social determinants of health: closing the gap in a generation. Geneva: WHO, 2008.
4. Belfast Healthy Cities. Divided by health: a city profile. Belfast: Belfast Healthy Cities, 2008.
5. Northern Ireland Neighbourhood Information Service. School leavers survey data by ward of pupil residence 2006/2007. Available at www.ninis.nisra.gov.uk/mapxtreme/DataCatalogue.asp Last accessed 20 March 2010.
6. Sinclair A. 0–5: How small children make a big difference. Provocation Series. Volume 3 Number 1. London: The Work Foundation, 2007.
7. Department of Health, Social Services and Public Safety. Autism spectrum disorder (ASD) strategic action plan 2008/09–2010/11. Available at www.dhsspsni.gov.uk/showconsultations?txtid=31724 Last accessed 20 March 2010.
8. Department of Health, Social Services and Public Safety. Independent review of autism services. Available at www.dhsspsni.gov.uk/independent_review_of_autism_services_final_report.pdf Last accessed 20 March 2010.
9. Business Services Organisation. Northern Ireland family practitioner services statistical report, 2008. Available at www.hscbusiness.hscni.net/publishing/FPS/FPS%20Statistical%20Report%200708.pdf Last accessed 20 March 2010.
10. Department of Health, Social Services and Public Safety. Child Health System.
11. Northern Ireland Statistics and Research Agency. Northern Ireland health and social wellbeing survey 2005/06. Belfast: NISRA, 2006.
12. Young Persons' Behaviour and Attitudes Survey, 2007.
13. South Eastern Health and Social Care Trust. Safe and well project evaluation. Belfast: SE Trust, 2008.
14. Northern Ireland Statistics and Research Agency. Census 2001. Belfast: NISRA, 2001.
15. Eastern Health and Social Services Board. Older people's health and wellbeing strategy. Belfast: EHSSB, 2006.
16. Northern Ireland Housing Executive. House condition surveys. Available at www.nihe.gov.uk/query.htm?col=site+news+contact&qt=housing+condition+survey Last accessed 20 March 2010.
17. Southern Investing for Health Partnership. Dare to Dream A review 2003–2009. SIHP, 2009.
18. Farrell C, McAvoy H, Wilde J. Tackling health inequalities: an all-Ireland approach to social determinants. Belfast: Institute of Public Health in Ireland/Combat Poverty Agency, 2008.
19. Kenway P, MacInnes T, Kelly A, Palmer G. Monitoring poverty and social exclusion in Northern Ireland. York: Joseph Rowntree Foundation, 2006
20. Horgan G, Monteith M. What can we do to tackle child poverty in Northern Ireland? University of Ulster/Save the Children (Northern Ireland). York: Joseph Rowntree Foundation, 2009.
21. Southern Investing for Health Partnership. Investing in equality, 2007. Available at www.southernifh.com/Uploads/Investing%20in%20Equality%20Final%20Report.pdf Last accessed 20 March 2010.
22. Northern Ireland Statistical and Research Agency. Migration estimates Northern Ireland, 2008. Available at www.nisra.gov.uk/demography/default.asp18.htm Last accessed 20 March 2010.
23. Public Health Research Consortium. A review of young people and smoking in England. Executive summary 8. York: PHRC, 2009.
24. McKay M. Preliminary findings from an evaluation of SHAHRP (in progress). Liverpool: University of Liverpool, 2008.
25. Department of Health, Social Services and Public Safety. Secondary analysis of the 2007 young persons' behaviour and attitudes survey (drugs, solvents, alcohol and smoking). Belfast: DHSSPS, 2009.

26. Department of Health, Social Services and Public Safety. Nursing care standards for patient food in hospital. Belfast: DHSSPS, 2008.
27. Gregoire A. The mental health of farmers. Occupational Medicine. Oxford University Press, 2002; 90 (8): 471–476.
28. Department of Education. Catering for healthier lifestyles: compulsory nutritional standards for school meals. Belfast: DENI, 2001.
29. World Health Organization. Diet, nutrition and the prevention of chronic diseases: report of a WHO/FAO expert consultation. Technical report series, 916. Geneva: WHO, 2001.
30. Fair society, healthy lives. The Marmot Review. Available at www.ucl.ac.uk/gheg/marmotreview/FairSocietyHealthyLives Last accessed 20 March 2010.
31. Mikkila et al. Major dietary patterns and cardiovascular risk factors from childhood to adulthood: the cardiovascular risk in young Finns study. British Journal of Nutrition, 2007; 98: 218–225.
32. Clarke J et al. External evaluation of phase II of the healthy breaks initiative: Northern Neighbourhoods Health Action Zone, March 2009. BDO Stoy Hayward: Pg 33 & Appendix Q5.
33. Department of Health, Social Services and Public Safety. Investing for health. Belfast: DHSSPS, 2002.
34. Northern Ireland Statistics and Research Agency. Northern Ireland neighbourhood information service: deprivation 2005. Available at: www.ninis.nisra.gov.uk Last accessed 20 March 2010.
35. Department for Social Development. People and place: a strategy for neighbourhood renewal. Available at www.dsdni.gov.uk/index/urcdg-urban_regeneration/neighbourhood_renewal/nru_publications/neighbourhood_renewal_-_people_and_place.htm Last accessed 20 March 2010.
36. Office for National Statistics. Social capital: measuring networks and shared values. Available at www.statistics.gov.uk/CCI Last accessed 20 March 2010.
37. Woolcock M. The place of social capital in understanding social and economic outcomes. ISUMA Canadian Journal of Policy Research, 2001; 2 (10): 11–17.
38. Department of Health, Social Services and Public Safety. Protect life: a shared vision. The Northern Ireland suicide prevention strategy and action plan 2006–2011. Belfast: DHSSPS, 2006.
39. Department of Health, Social Safety and Public Safety. Bamford review of mental health and learning disability. Available at www.rmhldni.gov.uk Last accessed 20 March 2010.
40. Police Service of Northern Ireland. Central statistics unit. Belfast: PSNI, 2010. (Unpublished.)
41. Public Health Agency, Western IFH Partnership. Belfast: PHA, 2010.
42. Department for Transport. Highways economics note no. 1: 2008 valuation of the benefits of prevention of road accidents and casualties. London: DfT, 2009.
43. Department of Environment (NI). Northern Ireland road safety strategy problem profile. Belfast: DOE, 2009.
44. Department of Environment (NI). Northern Ireland road safety strategy problem profile. Available at http://www.roadsafetyni.gov.uk/index/publicity/publicityrisk.htm Last accessed 2 April 2010.
45. Department of the Environment for Northern Ireland. DOE road safety strategy: Who's at risk? Who's to blame? Causes. Available at www.roadsafetyni.gov.uk/index/publicity Last accessed 2 April 2010.
46. Western IFH Partnership. Evaluation of the Roadwise programme. Londonderry: IfH, 2009.
47. Public Health Agency. Population Screening Programmes in Northern Ireland. Belfast: PHA, 2009.
48. Hewitson P, Glasziou PP, Irwig L, Towler B, Watson E. Screening for colorectal cancer using the faecal occult blood test, Hemoccult. Oxford: Cochrane database of systematic reviews 2007 (1).
49. Donnelly DW, Gavin AT, Comber H. Cancer in Ireland, 1994–2004: a comprehensive report. Belfast: Northern Ireland Cancer Registry/National Cancer Registry Ireland, 2009.
50. Department of Health, Social Services and Public Safety. Quality and outcomes (QoF) data 2008/2009. Available at www.dhsspsni.gov.uk/practice_level_qof_data_2008_09 Last accessed 20 March 2010.

51. Department of Health, Social Services and Public Safety. Newborn blood spot screening for your baby. Available at www.dhsspsni.gov.uk/bloodspot-2.pdf Last accessed 01 April 2010
52. Fitzpatrick D, Gavin A, Donnelly D. Cancer trends in Northern Ireland: 1993–2003. Belfast: Northern Ireland Cancer Registry, 2006.
53. Shack L, Jordan C, Thomson CS, Mak V, Møller H. UK variation in incidence of breast, lung and cervical cancer and malignant melanoma of skin by socioeconomic group in England. BMC Cancer 2008; 8: 271–281.
54. Thomson CS, Hole DJ, Twelves CJ, Brewster DH, Black RJ. Prognostic factors in women with breast cancer: distribution by socioeconomic status and effect on differences on survival. J Epidemiology Community Health 2001; 55: 308-315.
55. NHS Cancer Screening Programmes. Guidelines on quality assurance visits. NHSBSP publication no. 40 (second edition). Sheffield: NHS Cancer Screening Programmes, 2000.
56. Information Centre for Health and Social Care. Breast screening programme, England 2008–2009. London: NHS Information Centre, 2010.
57. Northern Ireland Cancer Registry. Available at www.qub.ac.uk/research-centres/nicr/Data/OnlineStatistics/ Last accessed 01 April 2010.
58. Northern Ireland Statistics and Research Agency. Deaths in Northern Ireland (2009). Statistics press notice. Belfast: NISRA, 2010. Available at www.nisra.gov.uk/archive/demography/publications/births_deaths/deaths_2009.pdf last accessed 2 April 2010.
59. Scottish Intercollegiate Guideline Network. Risk estimation and the prevention of cardiovascular disease. A national clinical guideline. Sign 97. Edinburgh: SIGN, 2007. Available at www.sign.ac.uk/pdf/sign97.pdf last accessed 2 April 2010.
60. Department of Health, Social Services and Public Safety. Service framework for cardiovascular health and wellbeing. Available at www.dhsspsni.gov.uk/cvsf_-_eav_final.pdf Last accessed 20 March 2010.
61. Metcalfe O, Higgins C, Lavin T. Health Impact Assessment Guidance. Institute of Public Health in Ireland, 2009. Available at www.publichealth.ie/files/file/IPH HIA.pdf Last accessed 2 April 2010.
62. Department of Health, Social Services and Public Safety. Available at www.dhsspsni.gov.uk/sqsd-service_frameworks_respiratory Last accessed 20 March 2010.
63. Department of Health, Social Services and Public Safety. Northern Ireland Health and Social Care Inequalities Monitoring System. Third Update Bulletin 2009. Project Support Analysis Branch, Information Analysis Directorate. Belfast: DHSSPS, 2009. Available at www.dhsspsni.gov.uk/inequalities_monitoring_update3.pdf Last accessed 26 April 2010.
64. Department of Health, Social Services and Public Safety. Raw prevalence for Northern Ireland as of 31 March 2009. Available at www.dhsspsni.gov.uk/nat_prev_day_report_april09.pdf Last accessed 20 March 2010.
65. Appelros P, Stegmayr B, Terent A. Go red for women: sex differences in stroke epidemiology. A systematic review. Stroke 2009 (40):1082.
66. Rothwell P et al. Oxford vascular study: changes in stroke incidence, mortality, case fatality, severity of risk factors in Oxfordshire UK from 1981–2004 (Oxford vascular study). Lancet 2004 (12); 363: 1925-33.
67. Personal communication. Linda Keys, Project support analysis branch, information and analysis directorate. Belfast: DHSSPS, March 2010.
68. Department of Health, Social Services and Public Safety. Project support analysis branch. Information and Analysis Directorate, DHSSPS.
69. Department of Health, Social Services and Public Safety. Improving stroke services in Northern Ireland, 2008. Available at www.dhsspsni.gov.uk/recommendations-stroke-services-in-ni.pdf Last accessed 20 March 2010.
70. Department of Health, Social Services and Public Safety. Diabetes indicators by board. Available at www.dhsspsni.gov.uk/diabetes_indicators_by_board3.pdf Last accessed 20 March 2010.
71. Personal communication. Dr Chris Patterson, Queens University Belfast.
72. Cooperation And Working Together (CAWT). Sharing information cross-border to improve diabetes care in hospital. Londonderry: CAWT, 2008.
73. Cooperation and Working Together (CAWT). Available at www.cawt.com/diabetes Last accessed 20 March 2010.

74. Chan M. World now at start of 2009 influenza pandemic. Available at www.who.int/mediacentre/influenzaAH1N1_presstranscript_20090611.pdf Last accessed 20 March 2010.
75. World Health Organisation. Available at www.who.int/csr/don/2010_02_5/en/index.html Last accessed 20 March 2010.
76. Department of Health. Available at www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_112079.pdf Last accessed 20 March 2010.
77. Department of Health, Social Services and Public Safety. Changing the culture. Available at www.dhsspsni.gov.uk/changing_the_culture.pdf Last accessed 20 March 2010.
78. Public Health Agency. HIV and STI surveillance in Northern Ireland: 2009. Available at www.cdscni.org.uk/publications/AnnualReports/pdf/HIVSTIinNorthernIreland2009.pdf Last accessed 01 April 2010.
79. Cervical screening statistics. Available at www.cancerscreening.n-i.nhs.uk/statistics/wstats05.html#TopOfPage Last accessed 20 March 2010.
80. Department of Health. Annual HPV vaccine uptake in England 2008/09. London: DH, 2010.
81. Quarterly vaccination coverage statistics for children aged up to five years in the United Kingdom. Available at www.hpa.org.uk/hpr/archives/2009/hpr3809.pdf Last accessed 20 March 2010.
82. Confirmed measles cases in England and Wales. Available at www.hpa.org.uk/hpr/archives/2009/news4809.htm Last accessed 20 March 2010.
83. Disease Surveillance Report of HPSC. Available at http://ndsc.newsweaver.ie/newepiinsight/r14b9luo8swr5omkb86n6r Last accessed 20 March 2010.
84. Irwin DJ, Cromie DT, Murray V. Chemical incident management of public health physicians. London: The Stationary Office, 1999.

# Acronyms

| | |
|---|---|
| A&E | Accident and Emergency |
| ACDC | Armagh City and District Council |
| ASD | Autistic Spectrum Disorder |
| BMI | Body Mass Index |
| C. difficile | Clostridium difficile |
| CAB | Citizens Advice Bureau |
| CAWT | Cooperation and Working Together |
| CD | Compact Disc |
| CF | Cystic Fibrosis |
| CHT | Congenital hypothyroidism |
| COPD | Chronic Obstructive Pulmonary Disease |
| DARD | Department of Agriculture and Rural Development |
| DHSSPS | Department of Health, Social Services and Public Safety |
| DRSP | Diabetic Retinopathy Screening Programme |
| DSD | Department for Social Development |
| GB | Great Britain |
| GCSE | General Certificate of Secondary Education |
| GHQ | General Health Questionnaire |
| GP | General Practitioner |
| GUM | Genito Urinary Medicine |
| HAZ | Health Action Zone |
| HCAI | Healthcare Associated Infection |
| HIA | Health Impact Assessment |
| HIV | Human Immunodeficiency Virus |
| HPV | Human Papillomavirus |
| HSC | Health and Social Care |
| HSCB | Health and Social Care Board |
| IfH | Investing for Health |
| ISCYP | Integrated Services for Children and Young People |
| KPI | Key Performance Indicators |
| MCADD | Medium chain acylcoA dehydrogenase deficiency |
| MDT | Multi-disciplinary team |
| MMR | Measles, Mumps, Rubella |
| MRI | Magnetic Resonance Imaging |
| MRSA | Methicillin-resistant Staphylococcus aureus |
| MSM | Men who have sex with men |
| MSSA | Methicillin-sensitive Staphylcoccus aureus |
| NEELB | North Eastern Education and Library Board |
| NHSCT | Northern Health and Social Care Trust |
| NICR | Northern Ireland Cancer Registry |
| NIFRS | Northern Ireland Fire and Rescue Service |
| OCN | Open College Network |
| PDF | Portable Document Format |
| PET | Positron Emission Tomography |
| PHA | Public Health Agency |
| PKU | Phenylketonuria |
| PSA | Prostate Specific Antigen |
| PSP | Parent Support Programme |

| | |
|---|---|
| QA | Quality Assurance |
| QARC | Quality Assured Reference Centre |
| RAFAEL | Renaissance of Atlantic Food Authenticity and Economic Links |
| RoI | Republic of Ireland |
| RTC | Road Traffic Collision |
| SCNI | Supporting Communities Northern Ireland |
| SDR | Standardised Death Rate |
| SHAHRP | School Health and Alcohol Harm Reduction Project |
| SRC | Southern Regional College |
| SSI | Surgical Site Infection |
| STI | Sexually Tansmitted Infection |
| TIA | Transient Ischaemic Attack |
| UCF | Ulster Cancer Foundation |
| UK | United Kingdom |
| USA | United States of America |
| WHO | World Health Organisation |
| WHSCT | Western Health and Social Care Trust |
| YMCA | Young Men's Christian Association |

# List of core tables 2008

The core tables listed below include key statistical data on, among others, population, birth and death rates, mortality by cause, life expectancy, immunisation and screening. The tables are available to download as a Portable Document Format file (PDF) on the Public Health Agency website at www.publichealth.hscni.net


Table 1a: Estimated home population of Northern Ireland 2008 by age and gender.

Table 1b: Estimated home population of Local Commissioning Groups 2008 by age band.

Table 1c: Estimated home population of Local Commissioning Groups by Local Government Districts by age band, 2008.

Table 2a: Population projections for Northern Ireland for years 2015 and 2020 (thousands).

Table 2b: Population projections by Local Commissioning Group / Local Government District for years 2015 and 2020 (thousands).

Table 3a: Live births and stillbirths to maternal residents of Northern Ireland, 1999–2008.

Table 3b: Live births and stillbirths to maternal residents by Local Commissioning Group and Local Government District, 2008.

Table 4: Total births to maternal residents in each Local Commissioning Group/Local Government District (1999–2008).

Table 5a: Age specific fertility rates and total period fertility rates for Northern Ireland, 1999–2008.

Table 5b: Age specific fertility rates and total period fertility rates by Local Commissioning Group, 1999–2008.

Table 6a: Notified live births by maternal resident area by birth weight, 1999–2008.

Table 6b: Notified still births by maternal resident area by birth weight, 1999–2008.

Table 7a: Infant and perinatal death rates in Northern Ireland, 1999–2008.

Table 7b: Infant and perinatal death rates by Local Commissioning Group, 1999–2008.

Table 8: Standardised mortality ratios for children aged 1–14 years by Local Commissioning Group, 2004–2008.

Table 9a: Directly standardised death rates 1999–2008 for selected major causes of death, age 15–74 years, Northern Ireland.

Table 9b: Age standardised death rates 1999-2008 (Standardised to European Populations) for selected major causes of death, age 15–74 years, Northern Ireland.

Table 9c: Directly standardised death rates 1999–2008 for selected major causes of death, age 15–74 years, Local Commissioning Group.

Table 10a: Mortality by cause in Northern Ireland, 2008.

Table 10b: Mortality by cause by Local Commissioning Group, 2008.

Table 10c: Potential years of life lost (PYLL) in those aged 1–74 years for selected causes of death, Northern Ireland, 2008.

Table 10d: Potential years of life lost (PYLL) in those aged 1–74 years for selected causes of death, Local Commissioning Groups, 2008.

Table 11a: Life Expectancy in Northern Ireland at birth, age 1 and age 65 years old, 1900–2008.

Table 11b: Life Expectancy at birth by Local Government District, 1992–1994 – 2006–2008.

Table 12: Infectious Disease Notifications for Northern Ireland, 1999–2008.

Table 13a: Immunisation Rates for Northern Ireland, percentage uptake rates, 1999–2008.

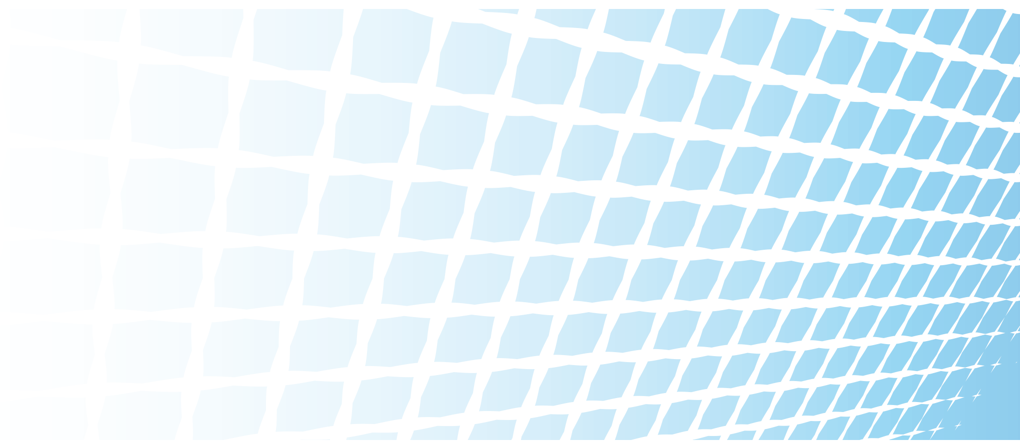
Table 13b: Immunisation Rates by Local Commissioning Group and Northern Ireland, percentage uptake rates, 2008.

Table 14a: Number and birth prevalence per 1,000 total registered births for selected Congenital Abnormalities in Northern Ireland, 1999–2008

Table 14b: Number and rate of Down's Syndrome births by maternal age and Local Commissioning Group, 2004–2008

Table 15a: Cervical screening coverage by Health and Social Care Trust, 2008/2009.

Table 15b: Breast screening uptakes by Local Commissioning Group of residence 3 year screening cycle (2006–2009).



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