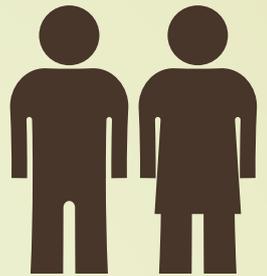


your

THE ANNUAL REPORT OF THE CHIEF MEDICAL OFFICER FOR NORTHERN IRELAND 2015

Health Matters

Pathway to a Healthier Lifestyle...



4

3

2

1



My report on the health of the population of Northern Ireland.

In this my 9th Annual Report, this year as in the past, we should acknowledge the continued trend towards improvement in the overall health of the population as reflected in increased life expectancy and the number of years we can expect to live free of major health problems. Improving health is not enjoyed equally however, particularly among those living in the most deprived areas of Northern Ireland. This is something that policy must continue to address and that must remain a priority across Government.

Continuous improvements in healthcare including vaccination and screening programmes, and diagnosis and treatment, contribute significantly to improved health outcomes for all the population. However, the quality and advances in healthcare alone are not the only determinants of good health. It is for that reason that I have chosen this year's report to lay particular emphasis on the choices we make, the lifestyles we lead and the impact of these on our general health. That is not to minimise the difficulty in changing behaviour particularly when advising people to be conscious of the dangers of smoking, consuming too much alcohol, taking insufficient exercise and having poor nutrition. But the starting point must be raising awareness of health risks with advice on what we can do to reduce risks communicated in a way that people can understand. For that reason I was pleased, along with my fellow Chief Medical Officers, to release updated guidance on alcohol consumption and, separately, guidance on the importance of exercise for good health.

In this year's report, I have also chosen to focus attention on dental health particularly given the encouraging findings of the Children's Dental Health Survey showing marked improvements between 2003 and 2013 levels of tooth decay in children. The report, however, focuses on the risks of oral cancer and the fact that a relatively large proportion of the population would appear to be unaware of its symptoms. But here again we find an example of where, through appropriate choices and behaviour, we can significantly reduce risk through regular visits to the dentist, reducing smoking and drinking and eating a healthy diet.

Advice alone can be insufficient to change habits and behaviour and when these adversely impact on the health of others and in particular children, legislation is needed. I was particularly pleased, therefore that we saw significant progress in the Northern Ireland Assembly towards the end of 2015 in legislation to ban smoking in cars with children passengers; an issue I first raised in my 2012 Annual Report. I look forward to the enactment of this legislation and the reduction in harm caused by exposing children to tobacco smoke. Similarly I commend the example of the health service in supporting staff, visitors and patients in quitting a life limiting addictive habit.

Young people are particularly vulnerable to marketing of unhealthy products and recent evidence of a disturbing pattern of use of psychoactive substances, sometimes referred to inappropriately as "legal highs", is particularly worrying.



Legislation is needed to ban the sale of these dangerous substances and I welcome the introduction of legislation in May 2016 to prohibit the manufacture, distribution and sale of these substances. There is no magic bullet, new legislation will not stop the misuse of these products. It will, however send a clear message that they are not safe and will hopefully deter some young people from experimenting. We must of course continue to educate those most at risk while providing treatment and support services for those who need help.

While we can legislate to reduce the risk and exposure of young people to harmful substances, when the stresses that they face are manifest in self harming behaviour, other solutions are needed. To help us appreciate the extent of this behaviour, we have introduced a self-harm registry for Northern Ireland to gather and analyse information and provide a linkage to self-harm intervention services. The most recent figures from the registry indicate that there were almost 8,500 self-harm presentations to emergency departments with the largest numbers of these being young people between the ages of 15 and 24. That is why

addressing self-harm in an effective manner will be a priority in the development of our "Protect Life" strategy to be published for public consultation in the summer.

Whether it is through legislation or counselling and guidance, protecting the health of children must be a priority and for that reason I was particularly pleased to see the introduction of 2 new vaccination programmes aimed at preventing different strains of meningococcal disease which can cause meningitis. The first of these programmes was introduced in August 2015, targeting 14 - 18 year olds, while in September the "Men B" vaccination was added to the routine childhood immunisation programme offered to infants under one year, when they are at most risk. As well as protecting children from these serious and potentially fatal illnesses, this advance in our immunisation programme will offer reassurance to parents and uptake in Northern Ireland is therefore likely to be very high.

In so many areas of research and development in the field of health and healthcare, Northern Ireland is at the forefront of innovation. I have highlighted areas where our clinicians, academics and businesses are achieving international recognition. This includes advances in so called "precision medicine" which allows treatment to be tailored to an individual's genetic makeup and thereby provides the most effective medication for them. Recognising the pioneering work in this area of medicine, I am pleased to report that Northern Ireland has been awarded a role as one of 5 UK regional centres of excellence for the delivery of precision medicine. This along with the establishment of the NI Genomic Centre will ensure we continue to be at the forefront of better diagnosis and treatment.

Developments in the use of anonymised data generated by our contacts with the health services, sometimes referred to as 'big data', help in the future planning of such services, while the rapid access to an individual's healthcare information through the 'electronic care record' is already saving lives in emergency settings.

Finally, one year on from Sir Liam Donaldson's recommendations on how to deliver the best possible system of quality health and social care, I welcome the appointment of Professor Rafael Bengoa to head an expert panel to lead the debate on the future of health and social care in Northern Ireland. I and the rest of the health and social care family look forward to working with Professor Bengoa in the months ahead to ensure we have a healthcare system that remains fit for purpose.

Dr Michael McBride
Chief Medical Officer

Contents

4	Making Life Better
5	Working Together
6	Active Belfast Partnership Allotments
	Active School Travel Programme
8	Alcohol Guidelines
10	Self-harm - the Need to Intervene
14	New Psychoactive Substances
16	Naloxone - Life-Saving Medicine for Heroin Users
17	Be Aware - Sign up to 'Air Aware'
18	Youth Smoking - Past & Present
21	Smoking in Cars
22	Physical Activity Delivers a Wealth of Health Benefits
24	Oral Cancer - Raising Awareness Saves Lives
25	Children's Dental Health Survey Reveals Significant Improvements
27	Folic Acid - Why Women Need it Before they are Pregnant
28	Advances in Immunisation Programmes
30	Review of the Public Health Act
31	Defending our Defences: Why Antimicrobial Resistance is Everybody's Business
32	Accidents Will Happen
34	Precision Medicine
35	Using Big Data
36	The Electronic Care Record
37	Health and Social Care - Triple Aim, Triple Challenge
38	Regional Mortality and Morbidity Review System
39	RQIA Unannounced Inspections of Acute Hospitals
40	Key Statistics

Making Life Better

Making Life Better, published in June 2014, reflects the Government's commitment to improving health and wellbeing and achieving a fairer distribution of good health across the population. It focuses on those influences on health and wellbeing that Government and wider society, including individuals, families and communities, working together can do something about. An important measure of this is life expectancy, particularly healthy life expectancy.

The good news is that health in Northern Ireland continues to improve, and, as in other countries, life expectancy is rising.

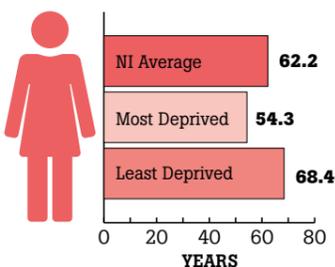
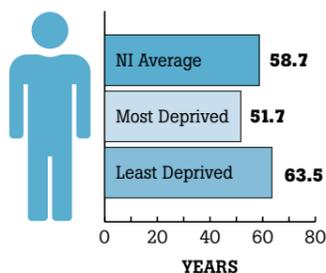
- For males, life expectancy at birth has risen by an average of three months a year, every year, since 1991-93. The average growth for females in that time was two months a year.

Life expectancy at birth in Northern Ireland, 2011-2013.

However, not everyone has an equal experience of health and this can be for many reasons. It is a feature of health in most countries that those who are economically worst off are at greater risk of poorer health, and this pattern continues to exist in Northern Ireland.

Healthy life expectancy is the average number of years a person can expect to live in good health. Latest figures show that, on average, males and females in Northern Ireland could expect to live three-

HEALTHY LIFE EXPECTANCY



Female Healthy Life Expectancy in the most deprived areas of NI was 14.1 years lower than the least deprived areas, while the gap for males was 11.8 years.

quarters of their lives in good health. There are large differences across the region in this measure.

While genetic make-up plays some part in our chances of leading long and healthy lives, there are many more factors within, but also importantly, beyond individual control, which interact to influence our health and wellbeing at various stages in our lives.



WORKING TOGETHER

A key aim of Making Life Better is to better co-ordinate and focus action on the social, economic and environmental influences on health which impact on people's choices and their control over their daily lives. Such action will create the conditions to enable and support individuals, families and communities to lead healthy lives and achieve greater wellbeing.

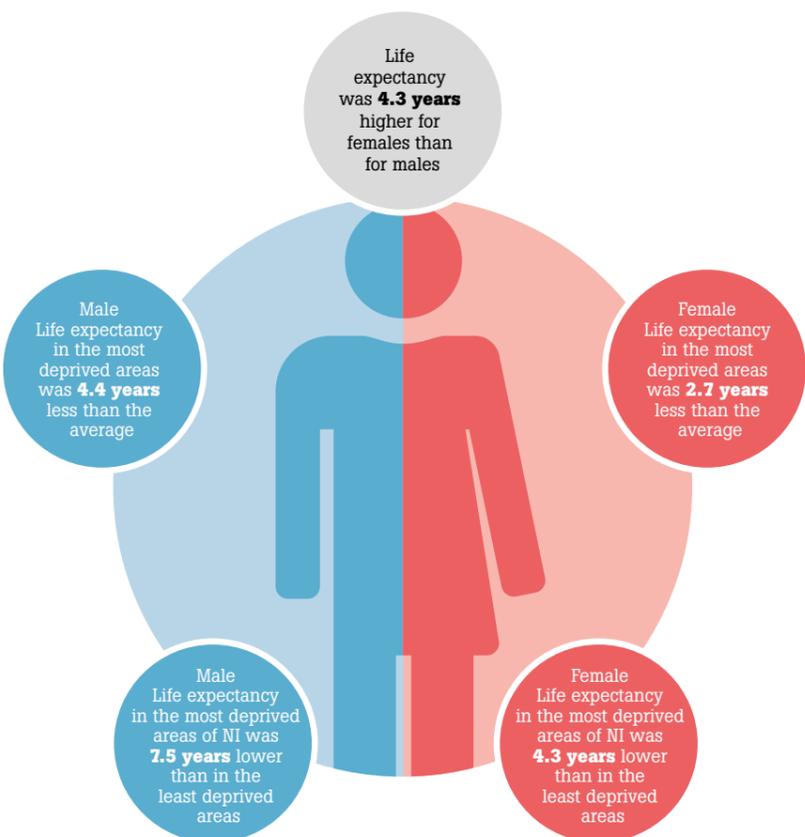
Many of the wider issues affecting health are interconnected and cannot be tackled by one organisation or sector working alone. For this reason cross-sectoral partnership working has long been a key feature of efforts to improve health and reduce health inequalities.

Since the publication of Making Life Better, work has been underway to build relationships and establish formal structures to support implementation and leadership. Both the All Departments Officials Group and the Regional Project Board are actively meeting, and seeking and delivering on opportunities for collaboration. A key issue has been

to ensure work aligns with, and will enhance, the community plans which have been evolving at this early stage in the new council areas.

Community planning offers huge potential to make a positive impact on communities through collaboration towards shared outcomes. A number of themes for joint focus are emerging in each council area. Over time consideration will be given to the capacity to grow and upscale those which are effective potentially to the regional level.

There are examples of this type of work already happening. The idea will be to share the learning and make it easier for good ideas to be taken up and put in place elsewhere where a need has been identified.



Active Belfast PARTNERSHIP

Led by the Public Health Agency and Belfast City Council, the Active Belfast Partnership focuses on getting more people more active, more of the time. Since it was set up, the Partnership has increased the opportunity for physical activity in the Belfast area. Through investment of £476,000 in one year alone (2014/15) the initiative attracted over 13,000 participants of whom nearly 9,000 were previously inactive. Of the total participants (13,356) 7,886 were females.

The Active Belfast Partnership:

- invested £187,000 in small grants which enabled 8,249 people to take part in a wide range of programmes;
- invested £48,000 in Jog Belfast which attracted 2,680 participants; and
- set up the Physical Activity Referral Scheme, which had some 2,427 participants.

ALLOTMENTS

the 'Meanwhile Use' Regeneration Programme

Community gardens and allotments are shared spaces where people from all age groups, abilities and backgrounds can come together to grow their own fruit and vegetables, learn new skills and engage in social activities.

The Public Health Agency has worked with many organisations and communities across Northern Ireland to establish and maximize the use of community gardens and

allotments, and to improve the physical and mental health and wellbeing of participants and their families. Ongoing use of these spaces also increases physical activity levels for participants, many of whom may have a sedentary or inactive lifestyle.

Through collaboration between Groundwork NI, the Department for Social Development and the Public Health Agency, derelict sites at Clondeboye Street,

Connswater Street, Mid Shankill, and Glenbryn in the Belfast area have been turned into 'meanwhile use' community allotments, gardens and growing spaces.

As well as making a positive difference to the physical and mental health of those involved, 'meanwhile' projects can help remove areas of blight, bring people together in communities and help ensure areas remain vibrant places to live.

ACTIVE

Sustrans has been delivering the three-year Active School Travel Programme on behalf of the Department for Regional Development and the Public Health Agency.

SCHOOL TRAVEL PROGRAMME

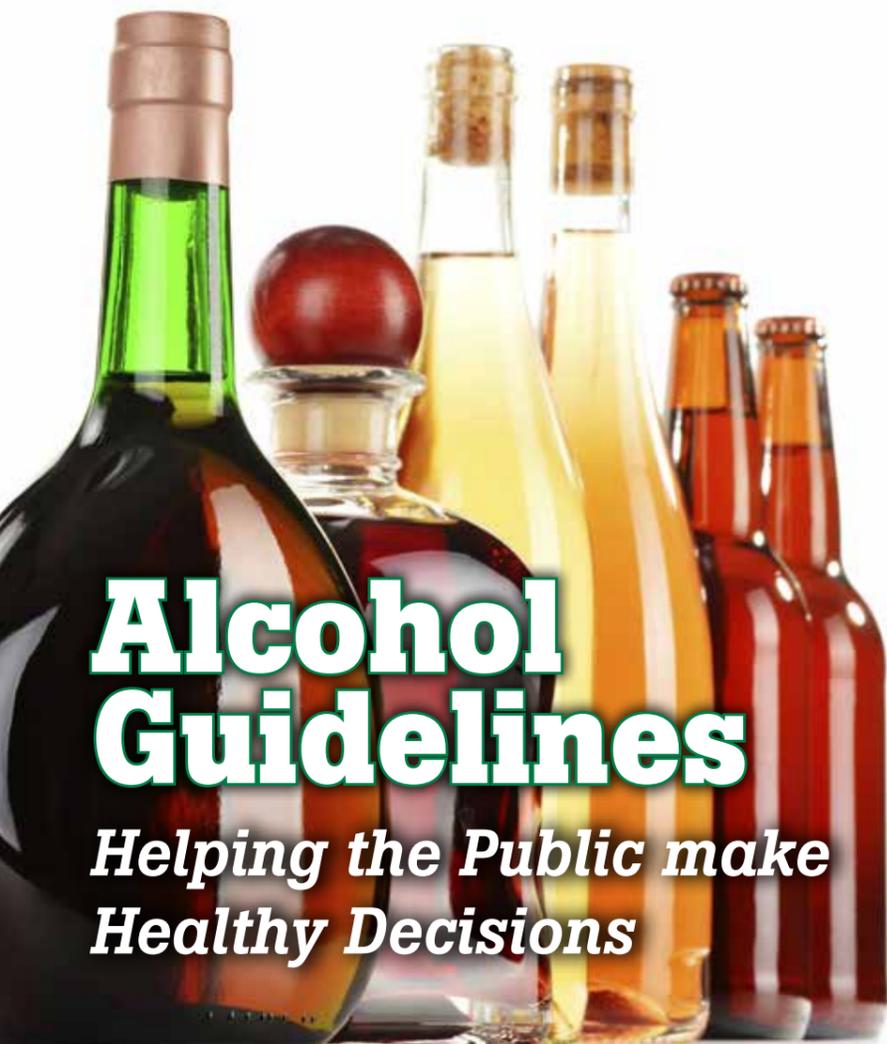
The programme is being delivered to at least 60 schools per year (180 in total) to encourage pupils to adopt walking and cycling as their main mode of transport to and from school.

Establishing an active travel habit from an early age has the potential to deliver many benefits for both children and society – for example helping to tackle obesity, create a cleaner environment and reduce traffic congestion.

Sustrans School Mark recognises and supports schools' excellence in active and sustainable travel. It enables them to be beacons of best practice. It consists of three progressive levels for schools to work through – Bronze, Silver and Gold. St Therese of Lisieux Primary School was the first school to achieve the Gold Award in Northern Ireland and is only the 19th school in the UK to do so.

The school reported that "Children who cycle, walk or scoot to school are definitely more engaged and awake during morning lessons".





Alcohol Guidelines

Helping the Public make Healthy Decisions

The Cost of Drinking

In Northern Ireland, almost 1 in 5 of the adult population consumes alcohol at levels above the previous guidelines, that is 3 to 4 units per day for men and 2 to 3 units for women.

Evidence of the harms caused by alcohol consumption is wide ranging – increased risk of cancer, mental health problems, liver disease and physical injury. Families and communities can also experience problems through domestic violence and anti-social behaviour. Business and the economy in general also face the consequences of excessive alcohol consumption – absenteeism, crime, hospital admissions. It is estimated that the total cost of alcohol misuse to the Northern Ireland economy may be as much as £900m per

year. However, this financial burden can never fully describe the impact that alcohol misuse has on individuals, on families, and on communities in Northern Ireland. We owe it to those individuals who drink heavily, and their families, to do something about this.

The New Guidelines

It is vital that people have access to the most up-to-date advice and information so that they can be empowered and supported to take healthy decisions to improve their own health and wellbeing.

That is why the UK's four Chief Medical Officers (CMOs) have been working over the past two and a half years to review the professional public health advice on alcohol

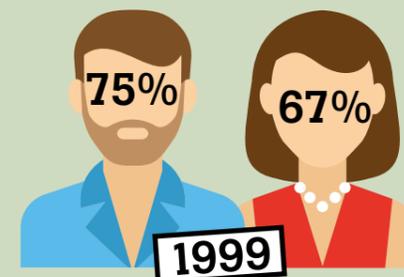
consumption. The CMOs looked at the medical and clinical evidence of the associated harms, as well as the evidence around how such guidance affects behaviour and formulated advice on three main areas:

- a weekly guideline on regular drinking;
- advice on single episodes of drinking; and
- a guideline on pregnancy and drinking.

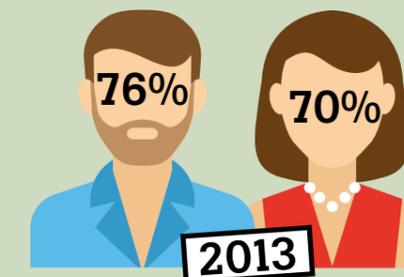
The full guidelines are available online at:

<https://www.gov.uk/government/consultations/health-risks-from-alcohol-new-guidelines>

These guidelines should help people to make informed choices. Individuals will make their own judgements as to risks they are willing to accept from alcohol, whether to drink alcohol, and how much and how often to drink. They provide information on 'low risk' drinking as opposed to 'safe' or 'sensible drinking'. Recent evidence showing alcohol consumption as a cause of certain cancers means there is no level without any risk. While it is possible for most people to drink at low risk, equally most people can lower their long-term health risks further by drinking less than the guidelines or not at all.



THE NUMBER OF PEOPLE DRINKING ALCOHOL IS INCREASING



New Weekly Guideline

- You are safest not to drink regularly more than 14 units (6 pints of 4% beer or 6 glasses (175ml) of 13% wine) per week, to keep health risks from drinking alcohol to a low level.
- If you do drink as much as 14 units per week, it is best to spread this evenly over three days or more. If you have one or two heavy drinking sessions, you increase your risks of death from long-term illnesses and from accidents and injuries.



Single Drinking Episodes

Men and women can reduce the short-term health risks from a single drinking occasion by:

- limiting the total amount of alcohol you drink on any occasion;
- drinking more slowly, drinking with food, and alternating with water;
- avoiding risky places and activities, making sure you have people you know around, and ensuring you can get home safely.

Pregnancy and Drinking

- If you are pregnant or planning a pregnancy, the safest approach is not to drink alcohol at all to keep risks to your baby to a minimum.
- Drinking in pregnancy can lead to long-term harm to the baby, and the more you drink the greater is the risk.



Self-harm

- the Need to Intervene

Most people find it difficult to understand why a person would harm themselves. Research indicates that those who self-harm tend to be struggling with intolerable distress or unbearable situations, including being the target of bullying in schools or online. In some cases the self-harm acts as a temporary release from this stress. However, we need to be aware that people who self-harm repeatedly are at much higher risk of taking their own lives by suicide. Understanding the patterns of repeat self-harm can help healthcare providers to better meet the needs of people who are experiencing extreme emotional distress.

Self-harm Registry

The Self-harm Registry was introduced in Northern Ireland by the Western Health Trust as a pilot project in 2007. Its aim was to gather and analyse information and provide a linkage with Self-harm intervention services. Building on the success of the pilot, the Registry was extended to all 12 acute hospitals from April 2012. Its purpose is to improve understanding about Self-harm and related behaviours in Northern Ireland and to allow for comparative analysis with the Republic of Ireland and specific sites in England.

The information gathered through the Registry is used to monitor trends and patterns over time and helps shape service redesign. It also provides the Department and Trusts with a more accurate understanding of the impact of Self-harm on emergency departments.

The World Health Organisation advises that the systematic recording of Self-harm incidents is one of the basic tasks needed to reduce suicide rates and has commended the Registry as a unique initiative.

In September 2015 the Public Health Agency commissioned a new service, the Self-Harm Intervention Project, to provide Self-harm related counselling to around 2,700 people per annum and support and advice for their families and/or carers. Referral to the service is via the Mental Health Teams in the Trusts.

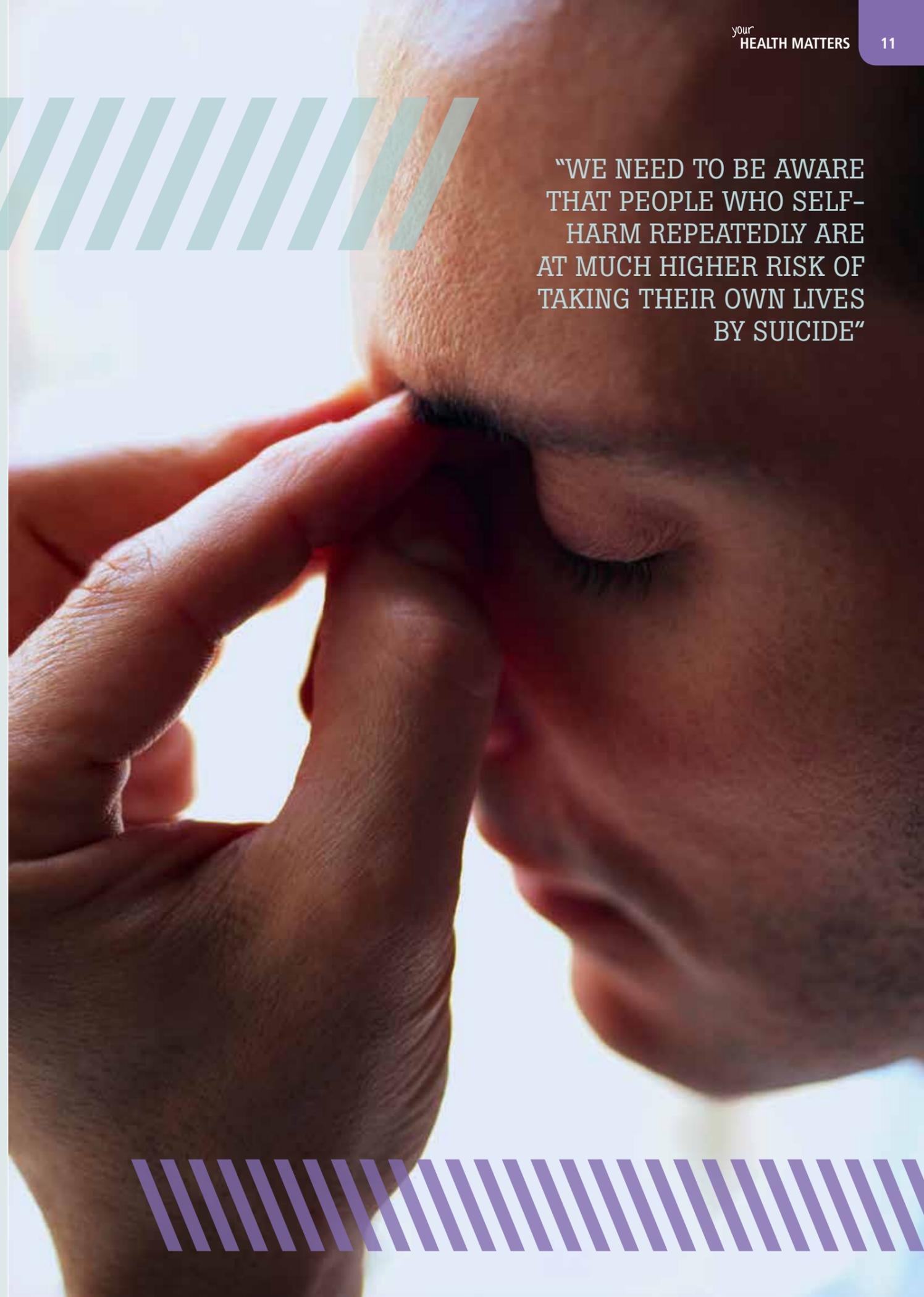
Second Annual Regional Report from the Self-harm Registry

The Second Annual Regional Report from the Self-harm Registry in Northern Ireland was published in early 2015. It shows that Northern Ireland continues to have a high rate of Self-harm. The other

main findings are that between April 2013 and March 2014:

- there were almost 8,500 Self-harm presentations to emergency departments by approximately 6000 people;
- 20% of people presented with Self-harm on more than one occasion;
- alcohol was involved in almost half (49%) of all presentations;
- drug overdose was the most common method of Self-harm accounting for almost three quarters of presentations (74%);
- presentations continued to peak in the age band 20–24 followed by the 15–19 year age group; and
- for those under 16 years old there was a 14.4% increase in presentations in 2013/14 compared to the rates of 2012/13.

“WE NEED TO BE AWARE THAT PEOPLE WHO SELF-HARM REPEATEDLY ARE AT MUCH HIGHER RISK OF TAKING THEIR OWN LIVES BY SUICIDE”





Northern Ireland Registry of Self-harm Western Area Six Year Report 2007–2012

The Public Health Agency also produced a report covering the first six years of the Registry in the Western Area. The findings show Derry City Council residents had a much higher rate of Self-harm than other local government districts. The peak rate for women to Self-harm was among 15–19 year olds; 1 in every 119 girls in this age group presented with repeat Self-harm. For men the rate was highest in the 20–24 year olds.

While the rates reported are higher than in the Republic of Ireland or England, the profile and pattern of presentations is consistent.

A copy of the full reports can be downloaded from the Public Health Agency website: <http://www.publichealth.hscni.net/>

[publications/northern-ireland-registry-self-harm-annual-report-201314](http://www.publichealth.hscni.net/sites/default/files/Western%20Trust%206-Year%20Report_0.pdf)
http://www.publichealth.hscni.net/sites/default/files/Western%20Trust%206-Year%20Report_0.pdf

Self-harm Information Leaflets

A better understanding of Self-harm and of services available to address Self-harm helps to alleviate anxiety experienced by the patient and their families. The health and social care sector, in partnership with service users, has produced two new publications to support people who Self-harm and their families. One is titled Improving the Lives of People who Self-harm and explains what Self-harm is and how friends and family can help. The second is titled What Happens in the Emergency Department and is targeted at the patient, explaining the process, their rights and where they can go for additional support.



RATE OF SELF-HARM (AMONG PEOPLE AGED 15 YEARS AND OVER) FOR CITIES IN NORTHERN IRELAND, REPUBLIC OF IRELAND AND ENGLAND

Incidence rate per 100,000	Males	Females	Total
Limerick	596	671	634
Derry	609	627	623
Belfast	584	545	563
Manchester	355	446	398
Dublin	338	378	358
Oxford	248	358	301

Emergency Department Staff Training

Responding to Self-harm in emergency departments is about more than healing the physical injuries.

Feedback from service users and their families shows that a compassionate and non-judgemental response is important when someone presents as a result of Self-harm. In response to this the Public Health Agency has commissioned specialist training for staff in emergency departments to help them understand Self-harm and provide effective support to patients and their family/carers.

Some 29 professionals from the five Trusts have now been trained as trainers and will be delivering the training to staff in all 12 acute settings over the coming year.

Self-harm Symposium

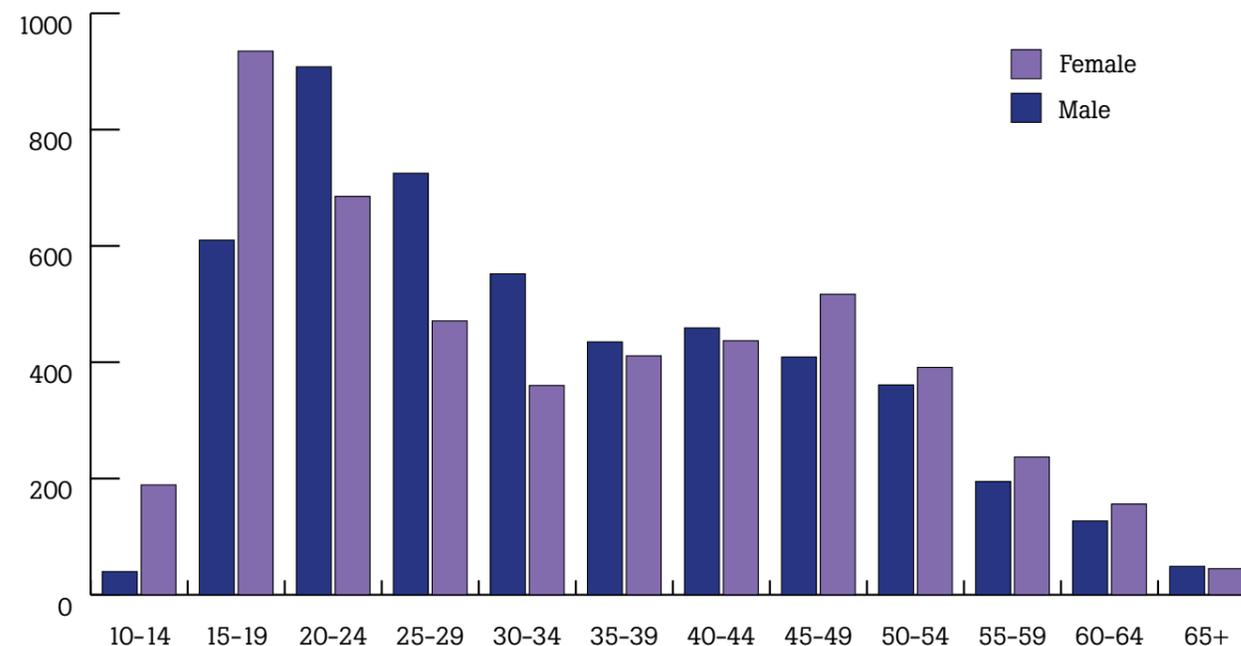
In February 2015 over 200 delegates attended a Self-harm Symposium hosted by the Public Health Agency. Alongside this was an event specifically tailored to meet the needs of families and carers. The events highlighted for families the importance of finding ways to support someone who is self-harming and play a part in their recovery. The importance of increasing awareness of Self-

harm in a primary care setting was a key theme at the symposium.

Way Forward

Addressing repeat Self-harm in an effective manner will be a priority in the next Protect Life suicide prevention strategy which will be issued in draft for public consultation in the summer of 2016. Given the association of repeat Self-harm with later suicide, a key target in the new strategy will be to reduce the level of repeat Self-harm presentations at hospital emergency departments. This will provide a good indication of how effectively we intervene to support a person following their first presentation as a result of Self-harm.

EUROPEAN AGE-STANDARDISED RATE PER 100,000 OF SELF-HARM IN NORTHERN IRELAND BY AGE AND GENDER, 2013/14



(Source: Northern Ireland Self-harm Registry Report 2013/14)

New Psychoactive Substances

THE NEW CHALLENGE

What are New Psychoactive Substances?

New Psychoactive Substances (NPS) is an umbrella term used to cover a wide range of substances with a number of things in common:

- They are psychoactive (they stimulate or depress the central nervous system).
- They are newly available in the UK or have seen a recent increase in popularity and public awareness.
- They can pose a threat to health comparable to illegal drugs (such as cannabis or ecstasy).

What Type of Drugs do NPS Include?

NPS can be categorised in a number of different ways. They are grouped into four overarching categories: stimulants, synthetic cannabinoids, hallucinogens and depressants. Some substances fall into more than one category, and a number of drugs have both stimulant and hallucinogenic properties. Further detailed guidance on the different types of NPS is available on the Public Health Agency website at: http://www.publichealth.hscni.net/sites/default/files/new_psychoactive_substances_factsheet_4.pdf



Why Not Call Them 'Legal Highs'?

NPS are often called 'legal highs', but there has been a shift away from this name because it is misleading as many of the substances found in these drugs are not actually legal. Even those substances not classified under the Misuse of Drugs Act 1971 (i.e. illegal substances) are commonly regulated by the Medicines Act 1968, which makes it illegal to sell, supply or advertise them for human consumption. Retailers try to get around this by stating 'not for human consumption' on packaging and by marketing NPS as 'plant food', 'bath salts' or 'pond cleaner'. The term 'legal highs' also increases the risk that people will take the substances, as they mistakenly believe that because the drugs are not illegal they are safe, which is not the case. It is important to remember that these substances

have not been clinically tested, nor are they safe for use. In fact, given the uncertainty about what they may actually contain and their potential impacts, they can be even more dangerous than established illicit drugs. Many NPS have already been banned, therefore sale or possession can lead to criminal prosecution.

Polydrug Use

Although specific risks depend on which psychoactive substance or substances are taken, one of the biggest risk factors is using more than one drug at a time (including alcohol). Previous reported drug-related deaths showed that in the vast majority of cases, at least two substances (including alcohol) had been taken. Using more than one substance at a time (polydrug use) is increasingly common among those who use drugs, and this behaviour is of particular concern to health professionals.

How Many NPS are There?

Over 350 NPS have already been banned in the UK and new drugs are still being identified at a rate of about one per week. However, it is often not clear what is contained within individual products. The quality and content of such products vary enormously and the name used may not bear any relation to their actual contents. In addition, the huge variety of names, including chemical

names, trade names and slang names, makes it very difficult to know exactly how many NPS exist.

The Drug and Alcohol Monitoring and Information System

In response to the emergence of NPS in Northern Ireland, the Department led the development of an early warning system, the Drug and Alcohol Monitoring and Information System (DAMIS), to identify emerging substances of concern as soon as possible, and to circulate relevant information to anyone at risk. The Public Health Agency now co-ordinates this service, which also provides harm reduction information targeted at those who, despite strong warnings not to, continue to use NPS.

If you come across a new substance or are concerned about emerging issues or trends you can report this to: damis@hscni.net

New Legislation

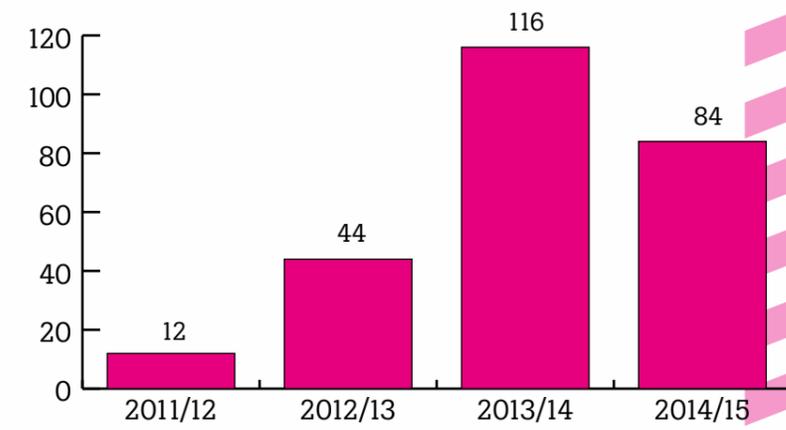
The Psychoactive Substances Bill was introduced to Parliament in May 2015. This UK-wide legislation, which comes into force on 26 May 2016, prohibits and disrupts the manufacture, distribution and sale of NPS.

The new legislation gives powers to the Police Service of Northern Ireland (PSNI) and local councils to take action against all suppliers of NPS, not solely 'headshops', with offences to manufacture, supply, offer to supply, import or export psychoactive substances and provisions for civil sanctions. The blanket ban extends law enforcement powers to all NPS supplied from UK websites, so they will be shut down. The National Crime Agency will continue working with the online industry and international partners to close websites selling controlled NPS in the UK and tackle the associated organised crime.

-  **Males (6%) were three times more likely than females (2%) to have taken New Psychoactive Substances**
-  **Those aged 15-34 (7%) were over three times more likely as those aged 35-64 (2%) to have ever taken New Psychoactive Substances**
-  **Similar proportions in the most and least deprived quintiles had ever taken New Psychoactive Substances**



NUMBER OF CLIENTS PRESENTING FOR TREATMENT WHERE AT LEAST ONE DRUG OF MISUSE WAS A NEW PSYCHOACTIVE SUBSTANCE 2011/12-2014/15



Local councils have been encouraged to undertake enforcement activity against shops selling NPS under the General Product Safety Regulations. Such activity was successfully undertaken by Belfast City Council and led to forfeiture orders and injunctions against premises selling these substances, prosecutions, and the closure of a number of shops. Until recently, the PSNI estimated there were 20 headshops in operation across Northern Ireland. Following the successful legal action in Belfast, PSNI now suggests that

most shops in Northern Ireland which had been selling drug paraphernalia (bongs, pipes, etc.) have stopped. While the new legislation will not stop the misuse of NPS, its introduction is welcome as it will send a clear message that while they are legal, they are not safe, and will hopefully deter many people from experimenting with these substances. We also need to ensure we have good prevention, education, harm reduction and treatment and support services for those who need help.

NALOXONE

Life-Saving Medicine for Heroin Users

Over the past seven years, the number of people dying in Northern Ireland after taking a heroin overdose has risen year on year, from 6 deaths in 2008 to 25 deaths in 2013.

Naloxone is a medicine which can temporarily reverse the effects of a heroin overdose. If someone overdoses, the medicine can be injected into them, and keep them alive until an ambulance arrives.

The Public Health Agency works in partnership with many others to ensure a supply of naloxone to anyone who uses heroin and is therefore at risk of overdose. This has been a complex initiative, requiring commitment from organisations, including:

- Health and Social Care Board
- Health and Social Care Trusts
- Prison Service
- Council for the Homeless
- Service Users
- PSNI
- NI Ambulance Service

Those involved have worked continuously over the past four years to enable vulnerable and hard-to-reach drug users to access this medicine. The first naloxone kits were given out to those at risk of opiate overdose and their families in July 2012.

The Outcomes of the Initiative:

- Naloxone has been supplied to 592 individuals at risk of heroin overdose.
- It has been used successfully on 48 occasions – that is 48 lives that have been potentially saved by this cost-effective initiative.

- The evaluation of the scheme showed that the training provided has been excellent, and the initiative has worked well.
- Take-home Naloxone is available to heroin users across all of Northern Ireland; to date, this is not the case in any other country in the world.

In 2014, there were 11 deaths relating to heroin overdose, a 56% reduction from 25 deaths the previous year. So far naloxone has been primarily given out by Community Addiction Teams within the Trusts. New legislation means that the medicine can now be given out much more widely, and the next step is to put into place the mechanisms to enable this to happen.



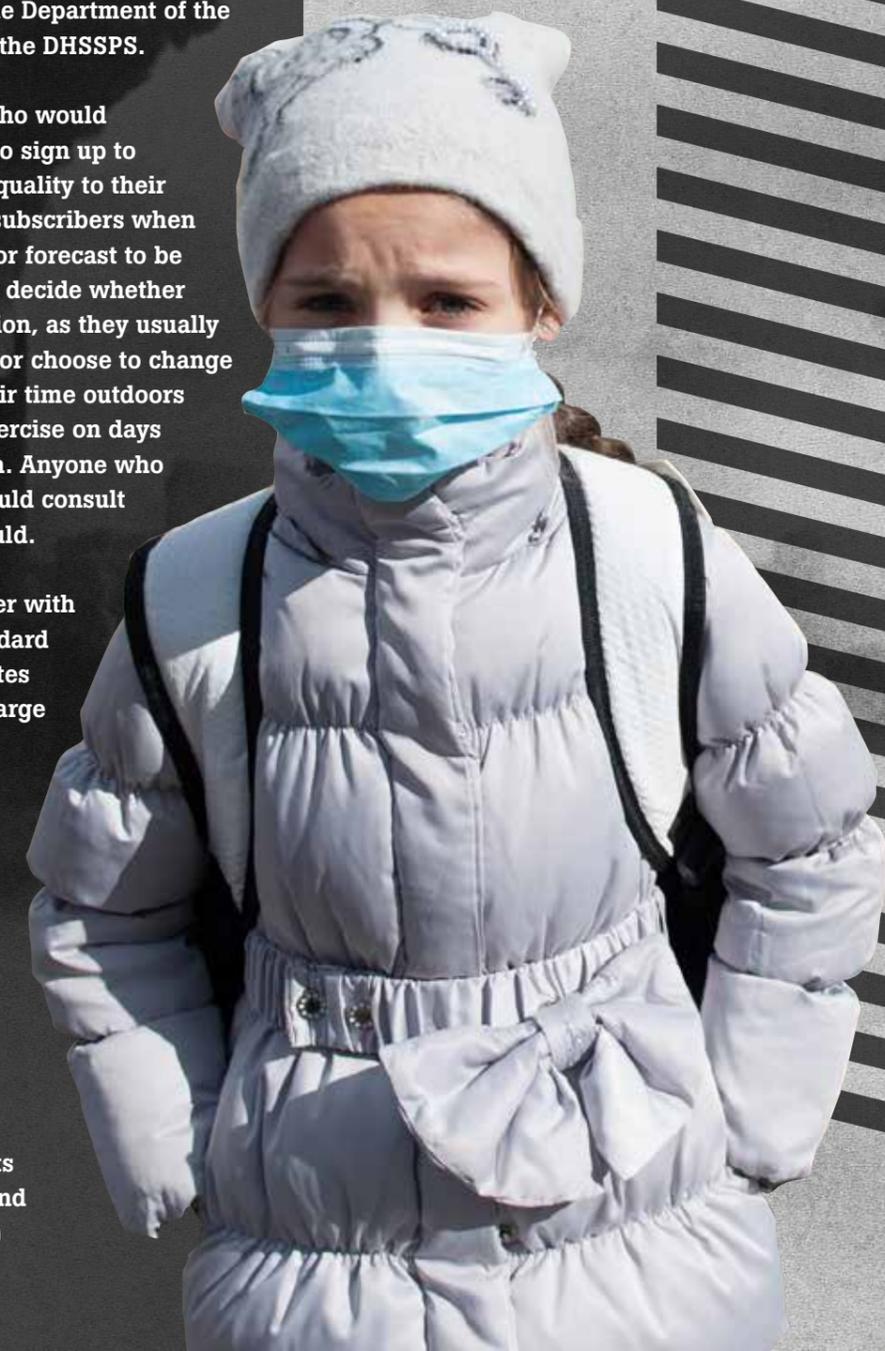
BE AWARE - SIGN UP TO 'Air Aware'

From time to time, a combination of weather conditions and emissions from transport and burning of fuel can lead to a build-up of air pollutants which could increase the symptoms of people who suffer from a chronic illness that affects their breathing, such as asthma or heart disease. To assist with predicting and managing these symptoms a SMS text messaging service called 'Air Aware' was launched in December 2013 by the Department of the Environment in conjunction with the DHSSPS.

The service allows individuals, who would benefit from air pollution alerts, to sign up to receive a text message about air quality to their mobile phone. The alert notifies subscribers when air pollution levels are currently or forecast to be HIGH (or VERY HIGH) so they can decide whether they need to adjust their medication, as they usually would when symptoms increase, or choose to change their daily routine by limiting their time outdoors or avoiding strenuous outdoor exercise on days when air pollution levels are high. Anyone who finds that this is not effective should consult their doctor as they normally would.

The initial text message to register with the service is charged at the standard network operator's messaging rates and alerts are received free of charge for UK mobiles. Since its launch, which was targeted through GP practices and respiratory clinics, 515 people have signed up to the text messaging service.

Following a change of SMS service provider, there is now a new number for subscription and people who want to sign up must now text the word Air to 67300 (to opt out text STOPAIR to 67300). The change only affects people wishing to sign up now, and all existing subscribers (to 66101) do not need to take any action.



YOUTH SMOKING

Past & Present

Youth Smoking

Smoking is responsible for more deaths each year than drugs, alcohol, road accidents, obesity and suicide combined. Reducing smoking prevalence continues to be a top priority for me. The single most important factor in reducing smoking prevalence is to prevent children and young people from starting to smoke in the first place. Smoking is a habit which is primarily formed before adulthood, with most smokers becoming addicted before they are even of a legal age to purchase cigarettes. In 2014/15, four out of five adult smokers in Northern Ireland claimed to be regular smokers by the age of 18.

With only a small percentage reporting that they took up the habit in their twenties, it is clear that every effort should be made to prevent children and young people from accessing tobacco.

Considerable progress has been made in reducing youth smoking since the turn of the century with the percentage of young people who have ever tried smoking reducing from 37% in 2000 to 13% in 2013. The number of regular young smokers has also decreased significantly. This would indicate that the range of measures which the Department has introduced in recent years has been effective.

Reasons for Youth Smoking

The reasons why young people take up smoking, despite the overwhelming evidence of the harm it causes, are complex and varied. We know that one of the main factors is the smoking behaviour of people around them – their parents, siblings and peers. External influences such as the media and tobacco promotion also play a role. While all forms of tobacco advertising have been banned for a number of years, the tobacco industry continues to attract new recruits through the portrayal of smoking behaviour in the media, including television, film, and increasingly computer games.

Other measures, such as the introduction of smokefree legislation and investment in the provision of quality smoking cessation services, also play their part by helping to make smoking an activity which is not considered normal and acceptable.

Since 2000 the following tobacco control measures, aimed particularly at preventing youth smoking initiation, have been implemented:

- a comprehensive ban on tobacco advertising and sponsorship;
- stronger health warnings on tobacco products, a ban on misleading words such as "mild" and "low-tar", and the introduction of picture warnings;
- increasing the minimum age of sale for tobacco products from 16 years to 18 years;
- banning the sale of tobacco products from vending machines; and
- banning the display of tobacco products in shops.

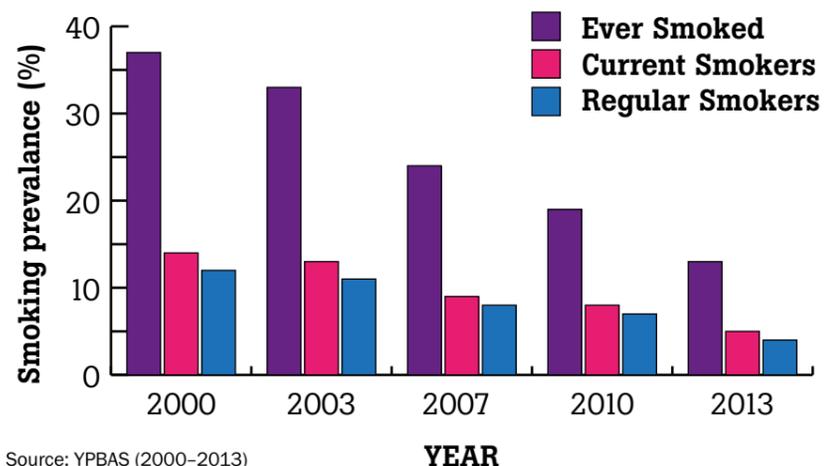
European Tobacco Products Directive

Despite recent successes, there are still around 7,500 11-16 year old children in Northern Ireland who classify themselves as regular smokers. These children are three times more likely to die of cancer due to smoking than someone who starts in their mid-twenties. The main health objective of the new European Tobacco Products Directive is to make tobacco products less attractive, particularly to young people. The Directive will be implemented from 20 May 2016 and measures include:

- banning 10 packs of cigarettes (also known as kiddie packs);
- increasing health warnings on tobacco products; and
- banning characterising flavourings, e.g. menthol (from 2020).



SMOKING PREVALENCE AMONG 11-16 YEAR OLDS IN NORTHERN IRELAND 2000-2013



Source: YPBAS (2000-2013)

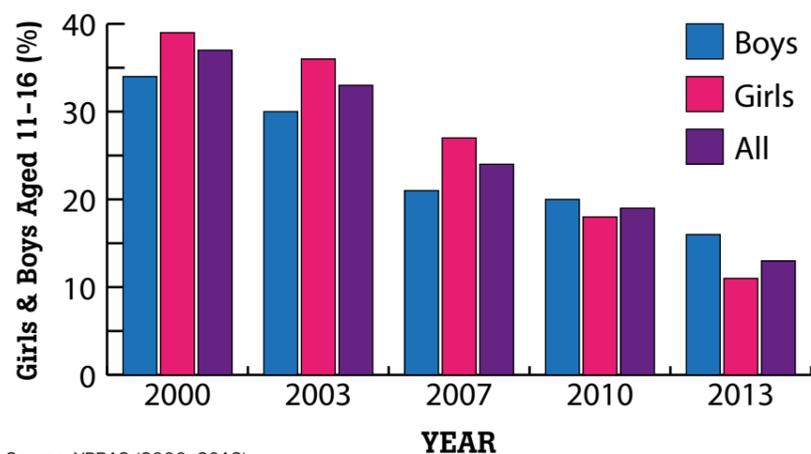


Other developments which took place in the first half of 2016 include:

- UK-wide legislation which requires the introduction of standardised packaging for tobacco products from 20 May 2016. This will remove all forms of branding and promotion, reducing their appeal to young people; and
- regulations under the Tobacco Retailers Act. These include a requirement for all tobacco retailers to register centrally from 6 April 2016, and the creation of a number of new offences, including those relating to the register and the offence of proxy purchasing, i.e. purchasing or attempting to purchase tobacco products on behalf of a minor.



PROPORTION OF NORTHERN IRELAND BOYS AND GIRLS AGED 11-16 WHO REPORTED THAT THEY EVER SMOKED (2000-2013)



Source: YPBAS (2000-2013)

IT IS ILLEGAL TO SELL TOBACCO PRODUCTS TO ANYONE UNDER THE AGE OF 18

Smoking in Cars



While much has been done over recent years to protect people from the harmful effects of secondhand smoke, one area that still needs to be addressed is smoking in private cars, particularly when children are present.

Recent surveys show that a significant proportion of smokers allow smoking in the family car, despite the health risks caused by passive smoking. The research is clear; the levels of dangerous substances from cigarette smoke in a car are up to 11 times more concentrated than they would be in a relatively small room. Opening the car window makes only a limited difference, and the dangerous particles remain in the air for more than an hour after smoking. Children exposed to this suffer more harmful effects than adults because their respiratory and immune systems are less well developed.



I have raised my concerns around this issue in previous annual reports, and am delighted that the recently enacted Health (Miscellaneous Provisions) Act (Northern Ireland) 2016 includes provisions to ban smoking in cars carrying children. It is expected that the new law will come into force early next year and will introduce two new offences: smoking in a car when a child is present; and permitting smoking in a car when a child is present. The introduction of this important health measure will bring Northern Ireland into line with the rest of the UK and Ireland.



Physical Activity Delivers a Wealth of Health Benefits



Taking part in regular physical activity is really beneficial for everyone. Just two and a half hours a week of increased physical activity can have long-term benefits.

Not only can it help maintain a healthy weight but it can also help keep our thinking, learning and judgement skills sharp as we age. Participation in physical activity can also reduce the risk of depression and may help individuals sleep better. Physical inactivity is responsible for one in six UK deaths and up to 40% of many long-term health conditions.

Despite these benefits, many of us promise ourselves that we will take part in more physical activity only for it to be quickly cast aside for a night on the sofa.

We think 'it's just one night, I'll do it tomorrow'. But then the next day it might be raining so we choose not to go out for that walk. It can sometimes be hard to motivate ourselves to take regular physical activity and it doesn't take much to settle back into familiar old patterns which could have a real and lasting negative impact on our health.



To help inspire people and to raise awareness of the recommendations for adults and older adults, an infographic was endorsed by the four UK CMOs and published by the Department of Health in November 2015. It presents guidance in a comprehensive and visual way. This infographic will be of particular use to health professionals and can be downloaded from the Department's website at: <https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/physical-activity-info.pdf>

The recommendations from the four UK CMOs for the daily amount of physical activity people should be participating in to help to maintain health can be found in the document Start Active, Stay Active: A report on physical activity for health from the four home countries' Chief Medical Officers. This can be found on the obesity prevention section of the Department of Health, Social Services and Public Safety (DHSSPS) internet site at: <https://www.health-ni.gov.uk/articles/obesity-prevention>

Physical activity benefits for adults and older adults

- BENEFITS HEALTH
- IMPROVES SLEEP
- MAINTAINS HEALTHY WEIGHT
- MANAGES STRESS
- IMPROVES QUALITY OF LIFE

REDUCES YOUR CHANCE OF

Type II Diabetes	-40%
Cardiovascular Disease	-35%
Falls, Depression and Dementia	-30%
Joint and Back Pain	-25%
Cancers (Colon and Breast)	-20%

What should you do?

For a healthy heart and mind		To keep your muscles, bones and joints strong	To reduce your chance of falls
Be Active	Sit Less	Build Strength	Improve Balance
<p>VIGOROUS</p> <ul style="list-style-type: none"> RUN SPORT STAIRS 	<p>MODERATE</p> <ul style="list-style-type: none"> WALK CYCLE SWIM 	<ul style="list-style-type: none"> TV SOFA COMPUTER 	<ul style="list-style-type: none"> GYM DANCE YOGA TAI CHI CARRY BAGS BOWLS
<p>MINUTES PER WEEK</p> <p>75 OR 150</p> <p>VIGOROUS INTENSITY (BREATHING FAST, DIFFICULTY TALKING) MODERATE INTENSITY (INCREASED BREATHING, ABLE TO TALK)</p> <p>OR A COMBINATION OF BOTH</p>		<p>BREAK UP SITTING TIME</p>	<p>2 DAYS PER WEEK</p>
<p>Something is better than nothing. Start small and build up gradually: just 10 minutes at a time provides benefit. MAKE A START TODAY: it's never too late!</p>			

ORAL CANCER

Raising Awareness Saves Lives

One of the interesting findings from the Health Survey Northern Ireland 2014/15 report was that over half of respondents (56%) did not know any of the symptoms of oral cancer. November each year is Mouth Cancer Action Month, which aims to raise public awareness of oral cancer and the risk factors associated with this disease. Money is also raised for this charity through the Blue Ribbon Appeal and the wearing of badges plays a key role in engaging with people. The 2015 campaign also featured the #BlueLipSelfie campaign to further raise awareness through the power of selfies and photos.

Without early detection, around half of people with oral cancer will die, but early diagnosis can give patients a 90% chance of survival. A central message for the public is therefore 'If in doubt, get checked out' and the key signs to watch out for are:

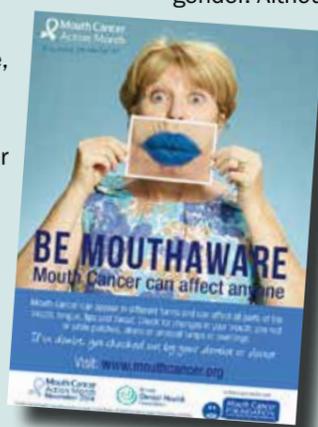
- ulcers that do not heal within three weeks;
- red and white patches in the mouth; or

- unusual lumps or swellings in the mouth or head and neck area.

Also, the symptoms that might be experienced include:

- pain when swallowing;
- a tooth, or teeth, that becomes loose for no obvious reason;
- changes in your voice, or speech problems;
- unusual changes in your sense of taste; or
- persistent pain in the mouth, neck or ear.

Regrettably incidence rates for oral cancer have been rising UK-wide in recent years and unlike some cancers are predicted to continue to do so. Recent trend data from the Northern Ireland Cancer Registry shows that the incidence of oral cancer cases at the end of 2013 had increased by 5.2% in females, the highest increase for any form of cancer. The corresponding increase in males



was also 5.2%, which was the fourth highest increase of any form of cancer. By 2035 the number of oral cancer cases in females is projected to have increased by 100%, and in males by 106%, both representing the fourth highest projected increase for any form of cancer within each gender. Although the average number of oral cancer cases per year in Northern Ireland in the period 2009–2013 for combined genders was 213, which was relatively small compared to other cancers, this would project to 434 cases in 2035.

These statistics serve to highlight the importance of being aware of risk factors, making healthier lifestyle choices to reduce the risk, knowing the warning signs and symptoms to watch out for and recognising the importance of seeking early help. Healthy lifestyle choices to reduce the risk of oral cancer include:

- visit your dentist regularly;
- watch for any changes in the mouth that don't resolve;
- reduce smoking and drinking;
- reduce the chances of contracting Human Papilloma Virus (HPV) by practising safe sex;
- use sun-block cream on lips in hot weather; and
- eat a healthy diet, rich in the protective vitamins A, C and E (found in foods such as cheeses, eggs and yoghurts, fruit and vegetables and plant oils such as soya, corn and olive oil).

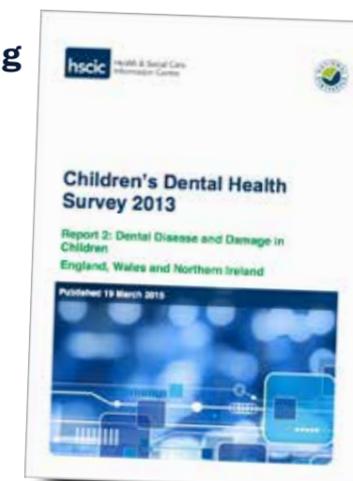
Further information is available at the Mouth Cancer Action Month website www.mouthcancer.org/ which is facilitated by the British Dental Health Foundation. By raising awareness, such as through this report, early diagnosis and treatment should improve survival rates. Remember 'If in doubt, get checked out' and visit your dentist or doctor.

CHILDREN'S DENTAL HEALTH SURVEY REVEALS SIGNIFICANT IMPROVEMENTS



The reports on the Children's Dental Health Survey 2013 of England, Wales and Northern Ireland were published in 2015 and showed encouraging signs of improvement in the oral and dental health of our children. The Northern Ireland report also allowed targets relating to children's dental health from the Department's 2007 Oral Health Strategy to be evaluated.

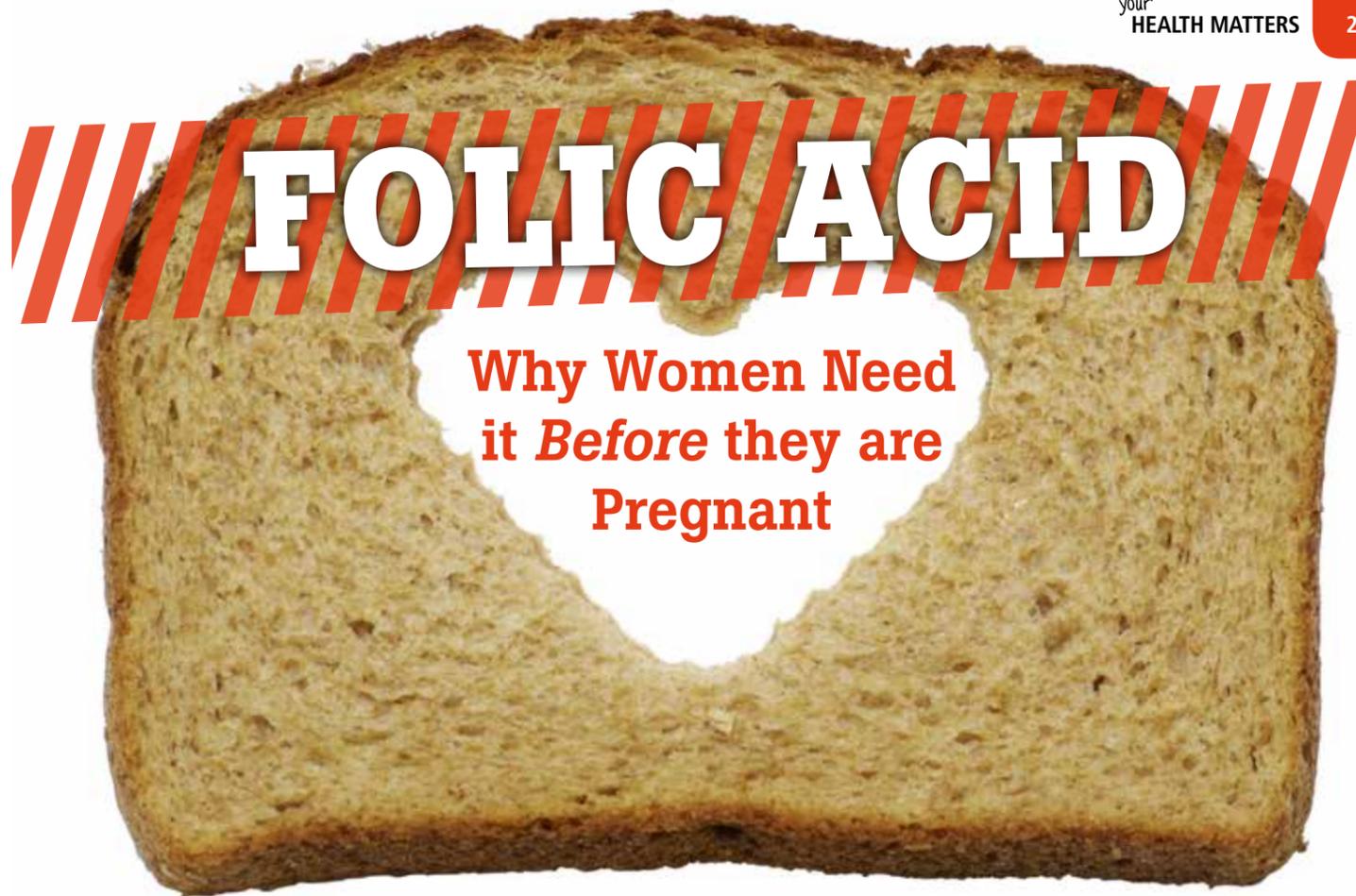
There is still room for further improvement but it is very pleasing to see this positive progress in child dental health. It is believed that the use of fluoride toothpaste, including local distribution schemes to children most at risk and co-ordinated by the Community Dental Service, has contributed significantly. Dental teams in



TARGET	BASELINE (2003)	2013 SURVEY	TARGET ACHIEVED?
[3.1]: By 2013 at least 50% of 5-year-old children should be free from obvious dental decay experience	39%	60%	✓
[3.2]: By 2013 the mean number of teeth with obvious decay experience per child among 5-year-olds should be less than 2.0	2.5	1.4	✓
[3.4]: By 2013 at least 40% of 12-year-old children should be free from obvious decay experience	27%	43%	✓
[3.5]: By 2013 the mean number of teeth with decay experience per child among 12-year-olds should be less than 2.2	2.7	1.9	✓

a variety of settings will also have contributed through teaching oral hygiene measures to individuals and groups, and school children also learn about tooth brushing and good dietary behaviours through lessons in school. Knowing the considerable impact that good oral health can have on overall health, wellbeing, and quality of life, it is hoped that this improving trend will continue.

The table above shows how there have been significant improvements from the baseline values at the time of the previous Children's Dental Health Survey in 2003 and the key targets that have been met.



Most people know it is beneficial for pregnant women to supplement their intake of folic acid, but by the time a woman knows she is pregnant it may be too late to make a real difference.

Folic acid is a synthetic form of folate, the natural B vitamin found in leafy green vegetables and oranges. Dietary supplementation with folic acid significantly reduces the risk of pregnancies and births being affected by neural tube defects (NTDs), such as spina bifida and anencephaly. NTDs result when the foetus's neural tube does not close completely. The neural tube normally closes just 27 days after conception.

Any woman who may become pregnant should be taking folic acid supplements.

One way to help women to keep their folate level high in advance of getting pregnant is by fortifying flour with folic acid. The four UK CMOs, along with the Food Standards Agency and the UK expert group on nutrition, are in favour of making this mandatory for flour makers. Although Scotland and Northern Ireland could introduce such a law, in practice a UK-wide approach is needed.

Until such times as there is mandatory fortification or generalised voluntary fortification by the industry, we need to keep raising awareness among women of childbearing age. In summer 2015, **safe food** ran an all-island campaign to raise awareness among women

of the link between folic acid and NTDs and to promote consumption of folic acid before pregnancy. The campaign has prompted a lot of online interest including social media traffic, and there is evidence that sales of folic acid supplements may have increased by 30% following the campaign. I am pleased to note that **safe food** are going to continue to promote this important message.



ADVANCES IN IMMUNISATION PROGRAMMES

Vaccination is true primary prevention: it stops a disease occurring in the first place rather than treating symptoms or after-effects. During 2015 we introduced two new vaccination programmes aimed at preventing different strains of meningococcal disease, which can cause meningitis (an infection of the protective membranes that surround the brain and spinal cord) and septicaemia (blood poisoning), which are serious and potentially fatal illnesses.

Men B

On 1 September 2015 the Men B vaccination was added to the routine childhood immunisation programme. Babies are now offered the Men B vaccine with the other routine vaccinations at 2 months, 4 months and 12 to 13 months old. Vaccinating babies at these times helps protect them when they are most at risk of developing Men B disease. Infants under 1 year old are most at risk of developing Men B, and the number of cases peaks at around 5 or 6 months old. Uptake data are not available yet but early indications are that uptake in Northern Ireland is likely to be very high.

Men ACWY

In August 2015 a new vaccination programme targeting teenagers was introduced in response to a rapidly growing increase in cases of a highly aggressive strain of meningococcal disease: group W. It was agreed that a Men ACWY vaccine should be offered to all 14–18-year-olds, and that the Men ACWY vaccine should replace the Men C vaccine which was already offered to all adolescents in school year 11.

As well as Men W, the vaccine also protects against other forms of the disease – meningococcal disease types A, C and Y – which can also be fatal or cause long-term complications for those affected.

In Northern Ireland it is planned to complete the roll out of the programme over a two-year period with the initial priority being given to those who were 18 years old in 2015, and anyone aged up to 25 years of age, who was starting university for the first time. Young people in these target groups were offered the Men ACWY vaccine by their GP during the summer of 2015. This is being followed by a school-based programme during the academic year 2015/16 and then a further GP-based programme beginning in April 2016.

Flu Vaccination of Children

Since 2014 the seasonal flu vaccine has been offered every autumn to all pre-school children aged two years or more and all primary school children. The vast majority of children receive the vaccine in the form of a nasal spray rather than an injection. Vaccinating children has two benefits: it protects them directly and stops them spreading flu to the people around them, some of whom may be at risk of becoming seriously ill if they get flu.

During the 2014/15 flu vaccination programme the school-based programme achieved very impressive uptake rates in Northern Ireland. Preliminary information suggests that this helped to ensure that levels of GP consultation rates for influenza-like illness here were lower than in countries

which did not offer flu vaccination to children.

Uptake rates achieved in the 2015/16 school-based vaccination programme have remained high and I would continue to encourage parents and guardians of all eligible children to take up the offer of flu vaccination for their child.



Whooping Cough

In 2011/12 the number of cases of pertussis – whooping cough – increased significantly and a number of very young children died. In response a pertussis vaccine was introduced for women in the last three months of their pregnancy. This greatly reduced the number of cases of infection in babies under 3 months old and also saved lives in this age group.

In 2015, though, we had more cases than in 2014 or 2013. Just over a quarter of all the cases were in babies under three months old, the time when they are most vulnerable and too young to be protected by the infant whooping cough vaccine, which they are due to receive at age two, three and four months.



The vaccine for pregnant women can make a big difference to this age group by passing on protection to their infants for their first few weeks of life. The baby's risk of being infected is reduced by over 90% if the mother gets the vaccine, so I continue to encourage all pregnant women to take up the offer of vaccination and give their babies maximum protection against whooping cough.

REVIEW

of the PUBLIC HEALTH ACT (Northern Ireland) 1967

In 2015/16 DHSSPS completed a review of the Public Health Act (Northern Ireland) 1967. The purpose of the Act is to protect the public's health from infectious diseases, and to do that it gives certain public authorities unusual powers which can interfere with a person's freedoms and rights. The review examined whether the 1967 Act is fit for purpose today.

The review began in 2013. It was conducted initially by the Northern Ireland Law Commission and was completed by DHSSPS following the closure of the Commission in 2015.

The review has identified a number of deficiencies in the 1967 Act. The most significant of these is the fact that the Act is concerned almost exclusively with infectious diseases, while other countries and international law have adopted an 'all-hazards' approach which seeks to protect populations against a much wider range of modern threats including contamination.

The review considered the key features that would need to be addressed in a new bill, including powers and duties of various public authorities, and specific interventions that can interfere with individual rights, such as compulsory quarantine, isolation, detention and medical examination and treatment.

The key recommendations are that a new public health bill should be included in the legislative programme for the next Assembly mandate, and that the legislation should address all hazards. A public health bill should also explicitly seek to balance the duty of the state to protect the public's health with the need to respect the rights and the dignity of the individual.

It will be for the next Northern Ireland Executive to consider whether the legislative programme for the new Assembly mandate should include a public health bill.

DEFENDING OUR DEFENCES:

Why Antimicrobial Resistance is Everybody's Business

Antibiotic resistance is recognised globally as one of the most serious threats to human health and to modern healthcare. Without effective antibiotics, even minor surgery and routine operations could become high risk procedures. Experts are warning that the world is on the cusp of a 'post-antibiotic era'. A major review has estimated that drug-resistant infections could kill an extra 10 million people globally every year by 2050. By then they could also cost the world around £60 trillion in lost output: more than the size of the current world economy.

Over time every antibiotic loses its ability to effectively control or kill bacterial growth: the bacteria are resistant and continue to multiply in the presence of therapeutic levels of an antibiotic. Inappropriate use of antibiotics in both animals and humans is a major factor. The Sixty-eighth World Health Assembly in May 2015 adopted a global action plan to tackle antimicrobial resistance. The action plan sets out five strategic objectives:

1. improve awareness and understanding of antimicrobial resistance;
2. strengthen knowledge through surveillance and research;
3. reduce the incidence of infection;
4. optimize the use of antimicrobial agents; and
5. develop the economic case for

sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions.

Much work is already being done both locally and globally to address antimicrobial resistance. Responding to mounting international concern about the rise of drug-resistant infections, the Prime Minister commissioned the economist Jim O'Neill to chair a major review on antimicrobial resistance. No new classes of antibiotics have been created or developed for decades. The O'Neill review identifies the reasons why commercial investment is lagging in this area and recommends a number of targeted interventions aimed at encouraging development of new drugs. Full details of the review are available online at <http://amr-review.org/home>

In Northern Ireland in March 2015 we set up the Strategic Antimicrobial Resistance and Healthcare Associated Infection (SAMRHA) Group. This brings together professionals and policy makers from a range of backgrounds including agriculture, public health, pharmacy, microbiology, and primary and secondary care. The group is responsible for maintaining a strategic overview of antimicrobial resistance; monitoring the prevalence of healthcare associated infections; implementation of the Strategy for Tackling Antimicrobial Resistance (STAR) which the Department published in 2012, and ensuring that actions are aligned with the UK Five-Year Antimicrobial Resistance Strategy.

The Public Health Agency is developing a regional surveillance system for antimicrobial resistance and antimicrobial usage in health and social care. This will provide important data which will equip us better to identify and manage emerging threats.

Stemming the global advance of antimicrobial resistance requires action at all levels, from international cooperation down to our individual efforts. Each of us can make a difference, and it's not complicated.

- **Use antibiotics strictly as directed. Above all, complete the course.**
- **Antibiotics don't kill viruses, so don't expect an antibiotic for a cold or flu or any other viral illness.**
- **To prevent infections happening in the first place, one of the most effective things we can do is practise good hand hygiene, not just when visiting someone in hospital but everywhere, all the time.**



“Accidents Will Happen”



In Northern Ireland two people die every week as a result of an accident in the home. Falls account for almost half of all injuries and deaths. This is all the more shocking because accidents in the home can easily be prevented if we are aware of the dangers and hazards and do something to reduce the risks.

Home accidents can cause pain, distress and suffering for the victim, their family and friends and even for the wider community. The repercussions of serious accidents can cause life-changing pain, disability or death.

In February 2015 the Minister launched a new 10-year Home Accident Prevention Strategy. The intention is to minimise injuries and deaths, and also to provide a

focus for the various organisations that are working to achieve this.

The strategy is intended for the whole population but has a particular focus on those who are most at risk: babies and children under 5, people over 65, and people living with greater social, economic and health disadvantage.

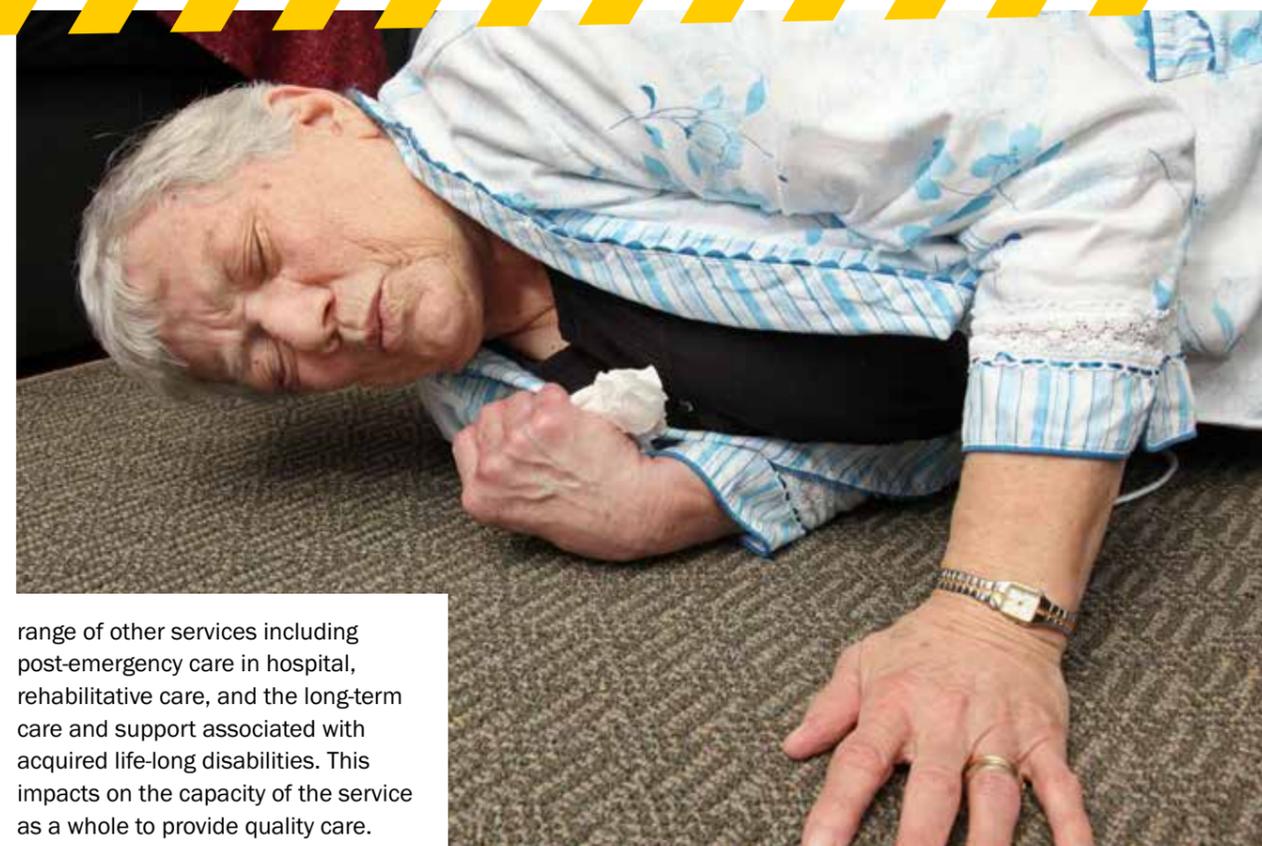
Accidents in the home can arise from many seemingly innocuous sources such as ill-fitting footwear or unsecured blind cords, or from ordinary habits such as not using appropriate lighting at night.

While falls are the most common cause of accidental injuries and deaths, serious injuries and deaths can result from a wide range of accidents such as poisoning, strangulation, and burns and scalds. The strategy focuses on the types of accidents that are most prevalent but there are always emerging dangers, such as children being poisoned through ingestion of liquid detergents and of liquid contained in e-cigarette refills. The new strategy seeks to:

- empower people to better understand the risks and make safe choices;
- promote safer home environments;
- promote and facilitate effective training, skills and knowledge, and
- improve the evidence base.

On top of the human costs, home accidents result in extra, avoidable pressures and costs in health and social care. These affect not only our emergency departments but a whole

OR MUST THEY?



range of other services including post-emergency care in hospital, rehabilitative care, and the long-term care and support associated with acquired life-long disabilities. This impacts on the capacity of the service as a whole to provide quality care.

We're not coming at this from a standing start. A great deal of valuable preventative work is already done by the Public Health Agency, local councils, the Trusts and voluntary sector bodies such as the Royal Society for the Prevention of Accidents and Home Accident Prevention NI. The strategy will

support that work and provide a framework for future collaboration. It is all the more important when money is limited that we work together to reduce deaths and unintentional injuries in the home.

The statistics below were gathered during checks carried out by District

Council Home Safety Officers between April 2014 and March 2015. The checks are targeted mainly towards those who are most at risk of suffering an accident, i.e. those under 5 and those over 65. They are also offered to some vulnerable adults and children under 18 with disabilities.

Families with children aged under 5

- 66% of accidents were falls.
- 73% of homes which required stair gates did not have them.
- 44% of homes did not store medication, alcohol and chemicals safely out of sight and reach of children in the kitchen.
- 39% of homes did not test smoke detectors regularly.
- 83% of homes did not keep blind cords out of reach in the living area.
- In 39% of homes Home Safety Officers had concerns about hair straighteners, tongs etc.

Older People

- 94% of accidents were falls.
- 35% of accidents occurred outside or in the garage.
- 68% of older people took more than four types of medication per day.
- In 11% of homes with stairs, the stairs were not free of obstruction.
- In 35% of homes the smoke detectors were not tested regularly and/or were not working.
- 21% of electric blankets used were more than 10 years old.

PRECISION MEDICINE

Tailoring Treatment to Individual Patients

We are at the beginning of a **new era in medicine**, when specific treatments will be delivered to those who will receive most benefit from them, based on knowledge of an individual's genetic make-up. Northern Ireland is striving to be at the forefront of this new world of **precision medicine**.

It has been known for many years that not all patients respond equally well to the same medication. A number of factors may influence individual response, but increasingly the importance of genetic factors has been recognised. Based on an understanding of an individual's genes, it will be possible to predict which is likely to be the most effective treatment for them.

This will allow each person to be treated as an individual, receiving

the most effective medication for them and the treatments least likely to cause side effects.

When President Obama talked about precision medicine in his State-of-the-Union speech in 2015, he referred to recent advances in the treatment of cystic fibrosis. New treatments have been developed with the potential to transform the lives of patients with cystic fibrosis which are based on the delivery of medicines specific to the underlying genetic abnormalities causing the disease. The studies which showed that these treatments are effective have been led by Professor Stuart Elborn from Belfast Trust and Queen's University, and patients in Northern Ireland have been among the first in the world to benefit from them. In recognition of the pioneering

work in precision medicine which is taking place here, **Northern Ireland has been awarded a role as one of five UK regional centres of excellence for the delivery of precision medicine.** Significant investment and close working between clinicians, university researchers and local companies will help to ensure that the exciting discoveries of local researchers can be rapidly translated into benefits for patients, with a particular focus on cancer treatments.

Alongside this, Northern Ireland will be participating in the 100,000 genomes project, which aims to create a new genomic medicine service for health and social care. In this project, individuals with rare inherited diseases and their families will be offered the opportunity to have their entire genetic structure assessed, offering the potential for a diagnosis where there wasn't one before. In time, there is the potential for new and more effective treatments to be developed for conditions which at present we struggle to understand.

USING BIG DATA

in Health and Social Care

One of the most important developments in the future delivery of health and social care will be the analysis and use of **large information sets** to ensure that services are delivered as efficiently as possible to the right people at the right time. **This information is sometimes referred to as 'Big Data'.**

Records are held for everyone who interacts with the health and social care system, and nowadays these records are mostly held in computerised forms. There are careful safeguards put in place to protect these records and ensure their confidentiality, so that only those who are involved in the direct care of an individual can access them. However, it is possible to extract parts of this information, excluding anything which could be used to identify an individual. **When anonymised information from lots of people can be combined to create a large dataset it can provide very valuable insights into the delivery of care and allow future planning of services.**

For example, by looking at records of individuals presenting with flu it is possible to predict the spread of a flu epidemic and the amount of healthcare resource which will be required to deal with it.

It is also possible to analyse the anonymous records of large numbers of individuals to establish the incidence of a side effect from a new drug, or the effectiveness of a particular type of treatment. For many years, doctors and other healthcare professionals have reported on suspected side effects of drugs by completing a 'yellow card', but the potential to analyse the anonymous records of everyone in a population who has received a particular form of treatment over a number of years offers a much more efficient and effective way of identifying risks and the best way of managing them.

It is understandable that people sometimes get concerned about the concept of Big Data, but in the context of health and social care there are many advantages both to the individual and the planning of the healthcare system through analysing information in this way so long as stringent safeguards are in place.



THE ELECTRONIC CARE RECORD

Making the Right Information Available When it is Needed

Traditionally health and social care records were stored in paper form, and paper charts are still in use in our hospitals. However, there is an increasing move to record and store all health and social care information in electronic formats, which are more easily accessible from different sites, searchable by staff, and are unlikely to deteriorate or to be lost.

The Northern Ireland Electronic Care Record (NIECR) is the main tool which health and social care professionals use to access an individual's health care information. In the past, staff would have to look up many separate databases to obtain information about an individual's healthcare; NIECR provides a single point of entry which makes many different electronic sources accessible via a single screen, allowing rapid access by professionals involved

in an individual's direct care to key information about them when this is needed to inform treatment



or care decisions. NIECR greatly speeds up access to important information, allowing good decisions to be made more promptly and risks to be avoided more easily. For example, when a patient presents for emergency care it is important to know their past medical history, what medications they are taking and if they have previously had an

allergic reaction to any treatments. In the past, obtaining this information could be difficult if the patient was unable to provide an accurate history. Now, the information is available rapidly through access to NIECR.

While individuals can opt out of NIECR, very few have chosen to do so. Patients are always asked to provide consent before their information is accessed on NIECR, and a record is kept of who accesses information and for what

purpose. NIECR continues to grow and to include further sources of information; its use is vital to the development of an efficient health and social care service. There is little doubt that NIECR has already saved lives and improved delivery of treatment in emergency settings.

"NIECR PROVIDES A SINGLE POINT OF ENTRY WHICH MAKES MANY DIFFERENT ELECTRONIC SOURCES ACCESSIBLE VIA A SINGLE SCREEN"

HEALTH AND SOCIAL CARE TRIPLE AIM, TRIPLE CHALLENGE

Our health and social care system faces a triple challenge – simultaneously improving health and wellbeing, improving care and improving value.

In one part of Northern Ireland, two teams have begun to tackle this challenge as it relates to care for frail older people. They are using an approach – developed by the Institute for Healthcare Improvement (IHI) and used worldwide – called Triple Aim. This has enabled them to test small, local changes in the way that they work so as to improve the experience of care for individuals and, in the longer term, to contribute to improving health and wellbeing for frail older people in their catchment population. In the process, they are working across traditional boundaries.

The usual approach to change is to ask a group of experts to design a new model of care. In this novel approach, the team, the individual and his or her carer are all participants in the process of improvement. Quality improvement tools and techniques are used to ensure that the improvement can be reproduced at scale across the system of care.

Dr Doran, a GP in Bangor and Chair of the North Down Integrated Care Partnership (ICP), said: "The fundamental difference in the Enhanced Care at Home approach which we have been testing is that older people can remain in their own homes with the support of the full range of services provided by the Trust under the supervision of that person's own GP. This avoids the need for presentation at the

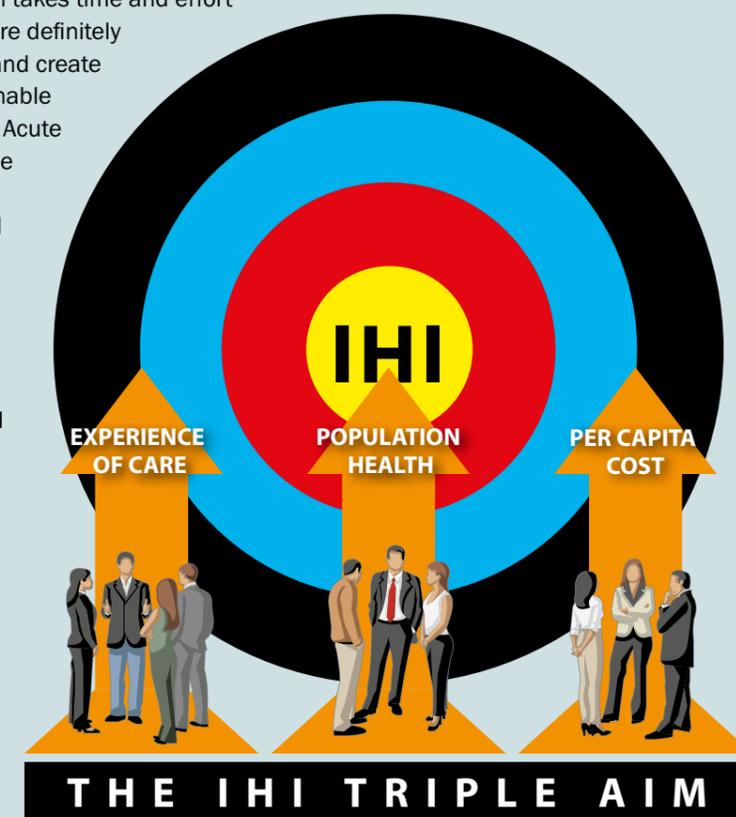
emergency department and a possible hospital admission." Dr Doran has described how the coaching calls with the IHI Faculty helped the team to identify aspects of change that could have maximum impact quickly without additional resources being needed. Dr Jan Ritchie, Consultant Geriatrician, Belfast Health and Social Care Trust, and one of the leaders for the East Belfast ICP prototype, describes how real engagement in their own homes with older people, with their families and their carers achieved outcomes few thought possible. "The wishes and aspirations of the individual older person are the central focus of treatment and care plans."

Dr Ritchie added: "While collaboration takes time and effort the results are definitely worthwhile and create more sustainable change. The Acute Care at Home team, with a modest level of coaching from IHI, is bringing about significant changes and meeting the

acute care needs of frail older people in a holistic way."

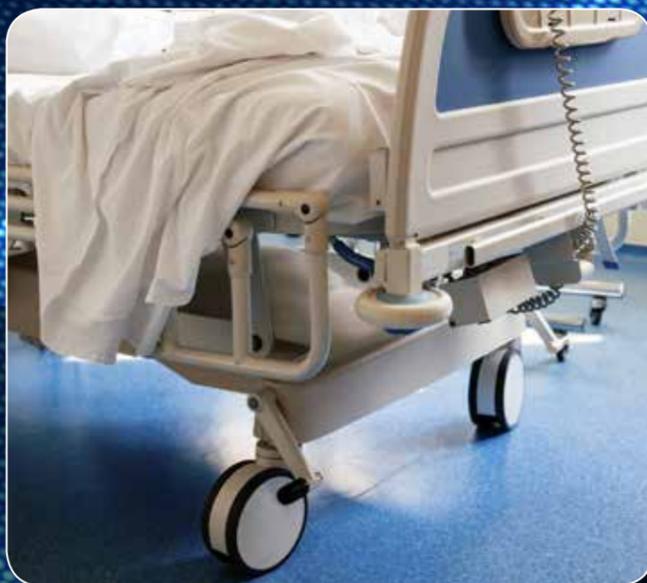
What the patients and their family members said

- "I cannot begin to explain how wonderful this team are....they are all fantastic ambassadors for care of the elderly. They showed my mum utmost respect and care.... This is the way elderly people should be treated – in their own homes with a dedicated team looking after them....I have been overwhelmed with the care my mother has received."
- "No doubt about it being in my home. Care is excellent. My health has improved."



REGIONAL MORTALITY AND MORBIDITY REVIEW SYSTEM

The Department is taking forward a series of reforms to improve overall assurance of the death certification process in Northern Ireland. As part of these reforms a Regional Mortality and Morbidity Review System (RM&MRS) is being developed and will be rolled out, initially across all HSC Trusts. The system will build on existing arrangements for Morbidity and Mortality Review meetings which operate in a number of Trusts.



On an ongoing basis, the effective use of the RM&MRS will help front line staff, working together on a multi-disciplinary basis, to identify learning which will improve the quality of care they can provide and to share this learning with others. It will also provide a means for additional scrutiny of the death certification process and should further improve the quality and accuracy of data used to inform public health information. While the RM&MRS may facilitate identification of poor care management, the main benefits for improving quality of care derive from the opportunity for health and care professionals to learn from any cases where the quality of care could have been better and to promulgate learning from cases where the quality of care has delivered the best outcomes for patients and clients.

The system will support the efforts of health and social care staff to demonstrate their commitment to openness and transparency within the health and social care system.

The RM&MRS is supported by an IT system designed to ensure that all deaths in hospital are:

- certified accurately by the attending doctor;
- reviewed by a consultant;
- appropriately reported to the Coroner when required; and

- reviewed by multi-disciplinary teams at Specialty Mortality Review and Patient Safety meetings.

It is anticipated that the RM&MRS will begin a phased roll-out in August 2016, with the system being fully functional in all Trusts by March 2017. It is planned that the system will also be extended to include deaths that occur in community settings as part of the next phase of the project.

RQIA Unannounced Inspections of Acute Hospitals

In October 2015 RQIA commenced a new programme of unannounced acute hospital inspections across Northern Ireland. This programme, developed by RQIA, is designed to support HSC Trusts in understanding how they deliver care, what works well and where further improvements are needed, with a focus on increasing the quality of care and reducing the risk of harm to patients. The programme of unannounced acute hospital inspections will also provide assurance to the public.

As part of the programme, RQIA will visit all acute hospitals at least once over a three-year period and larger hospitals (the Royal Victoria, Belfast City, Antrim Area, Ulster, Craigavon and Altnagelvin) will be inspected at least twice.

During each unannounced inspection the RQIA team will visit a number of specific clinical areas within the hospital. To help provide a clear view of the overall performance of each area inspected, they will:

- inspect the hospital environment;
- observe practice;
- speak to patients, families and staff; and
- examine evidence including patient records, policies and other relevant documentation.

At each hospital, RQIA will lead inspection teams which will include peer reviewers who are doctors, nurses, pharmacists, ambulance staff and allied health professionals, who are engaged in the daily delivery of health and social care elsewhere in Northern Ireland. Equally important is the involvement of lay assessors, that is, service users and members of the public, who bring their own experience, fresh insight and a public focus to these inspections.

The inspectors will assess:

- Is care safe?
- Is care effective?
- Is care compassionate?

They will also examine the quality of leadership and management at each area inspected. Based on inspection findings, each hospital will be given a compliance rating according to a four-point scale ranging from excellent compliance to minimal compliance. Reports, including the compliance rating, will be published on the RQIA website.

KEY STATISTICS

