Cumbria 2011
The Annual Report of the Director of Public Health

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Cumbria County Council

NHS Cumbria

Health Protection in Cumbria:

Health in Numbers

- Cumbria is England's second largest county, representing 48% of the land mass in the North West, with an estimated population of 495,000
- 51% of the total population in Cumbria live in rural communities, compared with 19% in England
- Cumbria has 24 specific communities (super output areas) that are in the 10% most deprived in England and Wales, of which seven are in the worst 3%. This means that approximately 16% of the Cumbria population lives in areas which officially rate as among the most deprived in the country.
- There were 5326 deaths and 5080 live births in 2009.
- In early 2010 the average house price in Cumbria was £171,632 compared to the national average of £214,003.
- In 2009 the average household income in Cumbria was £30,637, compared with the national average of £34,884.
- There are approximately 15,000 children under 16 years old (16% of the population), living in income deprived households. This is lower than the national average of 21%.
- 247 people were killed or seriously injured in road traffic accidents in Cumbria during 2009.
- In October 2010, the rate of unemployment in Cumbria was 2.4% (7,525 claimants) compared to the national rate of 3.9%. The claimant count fell by 70 between September and October 2010.
- Around 10% of 4/5 year olds and 19% of 10/11 year olds in Cumbria were classed as being obese in 2008/09.
- There were 1,516 deaths from all causes of cancer in 2009. This gives a rate of 306 deaths per 100,000 people.
- The mortality rate from suicide and injury of undetermined intent for 2006 to 2008 was 9.9 per 100,000 population. This is significantly higher than the rate for England at 7.8.
- In 2008/09 the alcohol-harm related hospital admissions rate was 1811.2 per 100,000 population, which was higher than the rate for England at 1582.4.
- The current conception rate of 41 per 1,000 girls under 18 years of age is above the national figure of 40 girls per 1,000.
- The life expectancy at birth for males is 78.1 years which is 0.2 years above the national average. For females the life expectancy is 81.7 years which is 0.3 years less than the national average.
- There were 21,006 patients included on the GP diabetes register in 2008/09, accounting for 4.9% of the Cumbria population. This is the same as the national average.
- In 2009 there were 18 deaths under one year old in Cumbria, an infant mortality rate of 3.5 deaths per 1,000 births compared to a national average of 4.7 deaths.
- In 2008/09 there were 3,114 people registered with a GP with a diagnosis of dementia.

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Foreword:

This is my fourth annual report on the health of people in Cumbria. Given the series of serious and tragic incidents that have affected Cumbria over the last year, I have chosen the theme of Health Protection for my report this year.

Health Protection is the area of Public Health practice that deals with external hazards and threats to health, as well as communicable diseases.

We know that more lives could be improved if there was a greater emphasis on helping people to stay healthier for longer and being equipped with the skills to make the right health choices.

There are many influences on our health, yet broadly they can be categorised as the three pillars of health, which are the biology we inherit from our parents, the environment in which we grow up and live and the behaviours which link the environment and biology. All of these areas can be influenced by effective health protection measures, education and encouragement to make behavioural change.

If we are to see a real improvement in people's health, we need to support our communities in their aspirations to lead healthier, happier and longer lives by taking more control over lifestyle choices and self-management of long-term conditions. It is also necessary to strive for comprehensive uptake of public health screening and preventive medicine programmes.

Improving the public's health, resilience to illness and strengthening the community response to hazards to health is our priority, yet we need a strong and protected public health system to tackle these priorities.

The recently launched White Paper 'Healthy Lives, Healthy People' outlines plans to put the role of public health on a sound footing in society, and sets out plans to ring-fence the public health budget so that it is used to tackle the key causes of preventable ill-health.

This White Paper spells out one of the biggest changes in the delivery of public health since the inception of the NHS over fifty years ago, with plans to hand power back to a public health department which will sit alongside local authorities rather than within primary care trusts. This follows the government's previous announcements within the Health White Paper in July that GP Consortia will take over the commissioning and budgetary control of local health services, and primary care trusts will be closed down by 2013. However, the return of public health to its role in local government will only be one part of the organised efforts of society for health and well-being.

"we need a strong and protected public health system"

Clinicians, whether based in the community or in hospital, have important opportunities to contribute to public health, as our experience in Cumbria over the past four years has demonstrated. We need to build on this through our local GP Consortia in the years ahead.

The establishment of Public Health England as a nationally accountable service with a remit for preventative programmes such as screening and vaccinations, as well as health emergency planning, will be the third arm of a robust set of arrangements which will be coordinated nationally and at a local level by the Board of Health and Wellbeing.

The wider determinants of health – economic status, education opportunities, employment, housing and environment – are integral to our efforts, therefore reforms will involve the public sector, NHS, social care, education, transport, environment and industry in ensuring that we have a unified approach to improving health.

The intention is for us all to become more focused on helping people to improve their own health and reduce the number of people dying prematurely. The gross inequality in life expectancy and ill health between different areas and groups within the county is unacceptable to a society that places great store on being fair.



With the new proposals and greater local flexibility, we will be able to move away from a centralised focus, and further focus on the needs of our local communities, tackling priority areas in Cumbria and using the best insights of social psychology and health protection to make further inroads into improving the lives of people in Cumbria.

Dr John R Ashton CBE
Director of Public Health
& County Medical Officer, Cumbria

Introduction:

Last year my annual report focused on mental health, from infancy to adulthood and into old age. I outlined what is known about mental health and wellbeing in Cumbria, what can affect a person's mental health and gave recommendations on how support services could be improved and enhanced. This included a recommendation for mental health services to be further embedded into primary care to create a closer, more integrated and holistic health service.

This recommendation now looks set to become a reality, as health services provided by NHS Cumbria will soon join forces with Cumbria Partnership NHS Foundation Trust – the provider of mental health services for the county. This change follows announcements made in the government's white paper 'Equality and Excellence: Liberating the NHS', that will see NHS Cumbria joining other primary care trusts in separating their provider and commissioning functions.

Knowledge of the link between body and mind dates from Roman and Greek Cultures ("Mens sana in corpore sano" – A healthy mind in a healthy body).

These changes mean that for mental health services, the link between mental and physical health will be strengthened. There will be greater integration with GP and other community health services – leading to better access and seamless care between community services and mental health, drug, alcohol and learning disability support in the county.

The opportunities for integration of mental health services are particularly important, given our ageing population in Cumbria and increase in cases of dementia and other types of brain failure.

There is much to be done – creating a holistic service cannot be achieved overnight, but it is the right approach if we are to see real and long term improvements in people centred services. Further information on progress regarding mental health services can be found at the end of this report.

This year, the theme of my annual report is 'Health Protection'.

Recent events including the swine flu pandemic of 2009, Cumbria Floods – November 2009, the Keswick School bus crash – May 2010, devastating shooting incident in Whitehaven – June 2010, and our coldest winter for 100 years have left a lasting mark on our communities. In addition we also saw the failure of the breast screening service in North Cumbria, which has emphasised the importance of quality control in programmes such as this.

Each of these events has wide ranging implications for public health, both physical and psychological, and all required a coordinated and multi agency response from organisation across the county, yet it is the response of our communities that has been a real testament to the strength within Cumbria. These events, and the community response, have led to the development of this report that focuses on the wide range of programmes and health protection methodologies that are used to protect, prevent and prepare for external causes of ill-health.

This report will introduce health protection and our mechanisms to deal with major incidents, infection prevention and our approach to ensuring downward trends in Meticillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile (C. difficile) and other infections, vaccination and screening programmes to protect and detect, the workplace role in health protection and our work to tackle our hard to reach and disadvantaged groups.

This section introduces Health Protection as one of the three domains of Public Health.

What is Health Protection?

Public Health is 'the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society.' (CEA Winslow, "The untilled field of public health," Modern Medicine Vol. 2 (1920), pp 183-191).

This definition, which originally comes from Charles Winslow, the Dean of Public Health at Yale in 1920s, was revived by Chief Medical Officer Sir Donald Acheson in 1988 and has influenced our thinking about public health.

Public Health services are concerned with the health of the populations they serve, recognising that prevention is better than cure.

There are three domains of public health:

- **Health protection** - which focuses on protection of the population's health from communicable diseases and environmental hazards (Environment).
- **Health improvement** - which is concerned with reducing inequalities in the health of populations by addressing the wider determinants of health such as lifestyles, housing and education (Society)
- **Service improvement** - which is concerned with planning and effectiveness of health services (Health and Social Care)

While these areas of public health have distinct features, they also overlap and integrate with each other.

The role of the Cumbria Public Health Protection team is to identify and implement appropriate interventions to protect health and reduce risk to our communities. This includes delivering programmes to protect health and wellbeing, and work to ensure adequate policies and procedures are in place to limit the risk of infectious and environmental hazard.

Health protection works to prepare, prevent and protect against the following issues:

- Infectious diseases
- Chemicals and poisons
- Radiation
- Emergency response
- Environmental health
- External threats to health, including fire and flood
- Violence and injury

The Cumbria Public Health Protection team works with a wide range of partner organisations to ensure a coordinated response from local authorities, the work done by the NHS, social care, housing, environmental health, leisure and transport services and third sector groups to protect the health of our population, using a number of methods including:

- Preparing for and managing major incidents
- Hazard identification
- Risk assessment
- Infection prevention and control
- Co-ordination of immunisation programmes
- The commissioning or coordination of a number of screening programmes

In order to protect the health of our communities, a number of methods are used to identify and protect against hazards to health, spot risks and trends, access hard to reach groups who have historically had limited contact with health services and monitor rates of infection, causes of mortality and access to services.

A large focus of health protection is the monitoring of trends to help identify risk areas and also to develop the evidence base to identify priorities for action and develop new approaches to health protection. The team also delivers programmes to raise awareness of health protection measures and encourage people to adopt healthier behaviours.

The team works closely with the Health Protection Agency to protect the public and manage and prepare for untoward incidents of any nature – from outbreaks of disease, biological, chemical and environmental threats, risks brought on by extreme weather, illness outbreak or industry hazards, all of which pose a threat in Cumbria.

It is these areas, and the public and professional response to threats to health, which provide the focus for this report.

On account of the many untoward or major incidents that Cumbria has experienced over the last 12 months, I will first introduce our approach to emergency preparedness, and the importance of a planned, coordinated and multi agency response to limit the health fallout of an emergency incident.


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Section 1:

Emergency preparedness to mitigate risk and protect from harm

In this section I will give an overview of what we mean by emergency preparedness and planning, I will outline the challenges that Cumbria has experienced first hand over the last year, and steps that the community can take to prepare for an emergency event.

Outbreaks of disease or infection, environmental hazards and other threats to the public's health are continually emerging and can arise at any time. In certain circumstances, and as we have witnessed in Cumbria, sometimes these hazards can escalate into a major incident in just a matter of hours.

A major incident is any emergency that requires the implementation of special arrangements by one or more of the emergency services, the NHS or the local authority.

Major incidents could include: severe weather conditions (e.g. flooding or heat wave), environmental pollution, industrial or technical failures, outbreaks of disease (e.g. pandemic influenza), large-scale transport accidents and terrorist attacks.

In view of the potential threat to public health that each of these incidents could cause, it is vital that we have well established and practised plans in place to help to manage and mitigate the threat to public safety and life. It is absolutely essential that all relevant agencies, including the NHS, are fully prepared and work together to deal quickly and effectively with such incidents.

Emergency Planning is the process and management structures put in place to reduce the impact of a major incident on an organisation or community. It has four broad aims:

- to preserve life and property.
- to mitigate the harmful effects of the emergency on the environment.
- to bring about a swift return to normal life for communities and the environment.
- to encourage all agencies and organisations to prepare for their role.

Planning for a major incident

Over the last few years, NHS Cumbria has – in collaboration with partner agencies – developed a set of multi-agency emergency plans. These include plans specific to particular situations, for example flooding and pandemic influenza, and also a general Major Incident Plan.

In order to ensure that we are fully prepared to respond appropriately to any incident, emergency planning also involves training and exercising to simulate an emergency situation, enabling us to test our emergency plans, systems and procedures and rehearse key staff roles.

NHS Cumbria is involved in major incident exercises throughout the year and has participated in several multi-agency major exercises during 2009-10 including Exercise Coniston, a Pandemic exercise, and Exercise OSCAR 9 - a regular test of emergency arrangements at the Sellafield nuclear site. The Swine Flu pandemic was also used to develop and test business continuity arrangements.

Act 2004

Following the floods and fuel crisis in 2000 and the foot and mouth crisis in 2001, it was recognised that there was an urgent need to review emergency planning arrangements in the United Kingdom.

Nationally, the UK Government is responsible for emergency planning, with the Civil Contingencies Act 2004 identifying the roles and responsibilities of other lead agencies. The Act recognises that through effective coordination, cooperation and communication across organisations, the overall management of and recovery from an incident will be better than that of individual agencies operating independently.

The organisations at the core of the response to most emergencies are the blue-light services (i.e. Police, Fire and Ambulance), the local authorities, NHS bodies, the Environment Agency, and the Maritime and Coastguard Agency. They are known as **Category One Responders**.

Category One Responders are required under the Act to:

- Assess the risk of emergencies occurring and use this to inform contingency planning
- Put in place emergency plans
- Put in place business continuity arrangements
- Put in place arrangements to make information available to the public about civil protection matters
- Maintain arrangements to warn, inform and advise the public in the event of an emergency
- Share information with other responders to enhance co-ordination
- Co-operate with other responders to enhance coordination and efficiency

For a Primary Care Trust, this not only includes those services it provides directly, such as district nursing and health visitors, but the full range of independent health services including GPs, Dentists, Pharmacists and Opticians. Independent contractors, especially GP surgeries, are not classed as 'Category One' responders. Thus, despite the fact that they have a crucial role to play, there are no legal requirements - or indeed related resources - for GPs to plan for an emergency.

Category Two organisations include the utility and transport companies, the Health and Safety Executive and Strategic Health Authorities. While these organisations will be less likely to be involved in core emergency planning work, they will have an essential function during incidents that affect their sector.

Cumbria Resilience Forum is the name given to our local resilience forum. It brings together Category I and 2 responders to ensure effective delivery of the organisations' duties outlined in the Act.

The Civil Contingencies Act 2004 requires Cumbria Resilience Forum to compile a Community Risk Register. Category 1 and 2 responders come together to conduct a comprehensive assessment of the risks facing our communities. These risks are ranked in relation to the likelihood of them occurring and the impact that they will have on the community if they do occur. The Community Risk Register is then used to inform emergency planning.

In Cumbria our highest area of risk has been assessed as being from pandemic influenza, followed by adverse weather and then flooding.

Declaring an incident

Any Category One responder can declare an 'Unusual' or 'Major' incident.

Unusual incident

An 'Unusual Incident' is an incident which because of its nature or effects requires a limited multi-agency response. Category 1 responders who declare an unusual incident will open a control room to deal with the incident, and invite selected agencies to attend.

Major Incident

A major incident is any emergency that requires the implementation of special arrangements by one or more of the emergency services, the NHS or the local authority.
A major incident affecting the NHS is defined as:

Any occurrence which represents

1. A serious threat to the health of the community
2. Disruption to a service or
3. Causes (or is likely to cause) such numbers or types of casualties as to require special arrangements to be implemented by hospitals, ambulance trusts or primary care trusts

Major incidents affecting Cumbria

Over the last 18 months, Cumbria has experienced a number of devastating incidents, all of which required a multi-agency response, and have left a lasting mark on our communities.
The NHS deals with unexpected and shocking events on a daily basis, though not often on the scale of these events. The response by NHS Cumbria colleagues was truly remarkable and characterised by a sense of calm and professionalism that was all the more impressive given the unprecedented circumstances. NHS Cumbria was instrumental in managing the gold command response for a number of these incidents.

Communities in Cumbria are close knit, and these events affected every individual in our county in some way.

November 2009

West Cumbrian Floods
On 19th November 2009, following a long spell of wet weather, there were major floods affecting several parts of Cumbria, wiping out local medical services for over 15,000 people in Cockermouth, as well as cutting off services for a whole community in Workington. Other towns including Keswick, Kendal, Ulverston, Egremont and Crosby-on-Eden were also affected.

Winter 2009/10

Flu pandemic
During 2009 a new strain of the H1NI influenza virus emerged which differed to that of the seasonal H1N1 virus. This new strain originated from animal influenza virus.

On 11th June (Week 24 2009) WHO declared an influenza pandemic.

Typically seasonal influenza affects people in the northern hemisphere during the colder winter months. However Pandemic H1N1 caused high levels of summer infections and then even higher levels of infections during the colder months in this part of the world.

Pandemic H1N1 also differed from seasonal flu in that most of the deaths occurred in younger people. Pregnant women, young children and people with underlying medical conditions were seen to be at higher risk of severe illness. The virus also caused many more cases of viral pneumonia.

24 May 2010

Keswick school bus crash
On Monday May 24th 2010, a bus carrying children home from Keswick School was in collision with a car on the A66 at Braithwaite. The coach overturned and two schoolchildren were killed. The driver of the car also died at the scene. 35 children were injured including 4 seriously. A total of six rescue helicopters

were used to ferry the injured to hospital. A Reception Centre was established at Braithwaite School were a number of casualties were triaged before transfer to hospital. The 'walking wounded' were also treated at the School.

2 June 2010

West Cumbria Shooting
A 52 year old Whitehaven taxi driver, Derrick Bird, shot dead 12 people and injured another 11 in West Cumbria during the morning of 2nd June 2010. Bird's twin brother, David, was the first victim and was killed sometime in the early morning of the 2nd at Lamplugh. At approx 10am Bird then went on a 45 mile journey where he shot people in Frizington, Whitehaven, Egremont, Wilton, Gosforth and Seascale. Bird's body was eventually discovered by Police at 13.40hrs in woodland near Boot.

Coping with tragic events

Following these events which occurred in quick succession, our county was left in shock and grief, with the emotional trauma leaving many in need of help and support. NHS Cumbria worked promptly with Cumbria Partnership NHS Foundation Trust to establish a number of drop-in sessions offering emotional support following the flooding and West Cumbria shootings. Literature on coping with stress was also widely distributed to schools, libraries and community centres in the area. As a number of GPs and nursing staff were first on the scene to treat shooting victims, further specialist help was also offered to these staff members, as well as other professionals who were involved in the emergency response.

Cumbria Partnership NHS Foundation Trusts 'First Step' service also provided an enhanced service following the incident and in the months after the event. First Step helps large numbers of people deal with the effects mental health problems including anxiety, depression and dealing with the impact of traumatic events. People are usually referred to this service by their GP but people in Copeland who were affected by recent events were invited to call First Step directly if they require "face to face" psychological support.

Callers were able to arrange to speak to a trained practitioner on the phone in the first instance, and if necessary arrange an appointment at a suitable time and place to provide specialist ongoing support.

The public health response to the Cumbria Floods, 2009

On 19 November 2009, following a long spell of wet weather, there were major floods affecting several parts of Cumbria, wiping out local medical services for over 15,000 people in Cockermouth, as well as cutting off services for a whole community in Workington. Other towns including Keswick, Kendal, Ulverston, Egremont and Crosby-on-Eden were also affected.

Cockermouth saw 885 homes flooded, Keswick 240 and Workington 66.

Particular pressures for NHS Cumbria, as well as public health concerns, focussed on disruption to community services in Cockermouth where two GP surgeries were flooded out. All 14 doctors who were based in the two practices relocated to Cockermouth Cottage Hospital, moving from 29 rooms into just four. As part of the emergency response and reestablishment of services, a suite of over 20 temporary buildings was quickly established at Cockermouth Hospital enabling normal outpatient clinics and other services to begin again.

GP services were also affected in Workington, with patients unable to access their usual services due to the collapse of the town's major bridges. Extra GP clinics were set up in Seaton for people who were unable to travel to their own GP Surgery. Damage to a number of bridges in flood areas continues to cause disruption to travel.

Flooding brings many public health risks, not least the threat of contaminated flood water. Other issues include disruption to services and access to medical supplies for those with existing medical conditions, contamination of property by flood water and sewage, as well as the increased risk of spread of disease and infection due to displaced communities.

NHS Cumbria worked closely with the police and local authorities to ensure a swift response to the Cumbria floods, quickly re-establishing services and identifying at risk patients. Experience gained from the Carlisle floods of 2005 also helped to ensure that lessons were learnt and systems for recovery were quickly established.

The biggest problem facing our communities was the psychological effects of displacement and worry caused by the event. Anxiety over loss of property or business that also leads to financial worry, longer days due to travel problems, or simply not being able to access local amenities can lead to a range of psychological problems –such as sleep problems, mild depression, or panic attacks. NHS Cumbria worked with Cumbria Partnership NHS Foundation Trust to boost access to mental health support services for those whose lives and businesses where affected by the floods. First Step, a service operated by Cumbria Partnership NHS Foundation Trust received 198 referrals for help following the floods.

A multi-agency recovery coordinating group oversaw the recovery and restoration work, which is ongoing a year after the event.

Business continuity to maintain essential services

Business continuity is a process that helps ensure that a service can continue to operate to the extent required in the event of a disruption. It is closely linked to emergency planning and continuity of service must be considered during the implementation of a major incident plan.

Business continuity at NHS Cumbria looks at the critical functions of the organisation and ranks them. If a disruption occurs, the critical functions will be managed so that the organisation can continue to provide a viable service. Business continuity processes are most often implemented during periods of adverse weather, when resources such as staffing are diverted to priority areas such as at-risk and vulnerable patients.

To ensure services are maintained and prioritised during periods of high demand or during a major or unusual incident, all departments within NHS Cumbria have a responsibility to conduct a Business Impact Analysis (BIA) and then to develop a functional business continuity plan. This is to provide a set of documented procedures to deliver continuity of critical functions in the event of a disruption.

Disaster preparedness and the role of the public

Emergencies happen. They can happen at any time, and to anybody. The emergency services will always prioritise those in greatest need, especially where life is in danger, yet there may be times when a whole community response to an incident is required.

Our experience in Cumbria has shown us the invaluable contribution of ordinary citizens in sustaining each other – particularly through support after the acute phase of an incident and while moving into recovery.

Recent events in Cumbria have demonstrated the enormous community spirit and resilience in Cumbria. Our communities are close knit and support each other, yet in order to save life, there are measures that towns and villages can take to further prepare for the unexpected. We need to know how to help ourselves and those around us. By becoming more resilient, our community can complement the work of local emergency services and reduce the impact of an emergency.

We need to empower our communities to utilise their assets to develop safer and stronger communities. This is known as disaster preparedness and is seen in other parts of the world that experience natural disasters such as hurricanes more frequently. It is my hope that we continue to develop this approach in Cumbria, and equip our communities with resilience skills and a basic understanding of what to do in an emergency. Please also refer to my resilience guide on the back cover of this report.

Local Area Partnerships (LAPS)

LAPS are groups of parishes that have agreed to work together on a range of common issues, particularly the local response to emergencies. They are made up of councillors at parish, district and county level,

Central Lakes Local Area Partnership consists of the parishes of Skelwith, Lakes and Windermere in South Lakeland District Council.

The Partnership recognises that the area will be better able to respond to future emergencies if local residents and businesses work alongside councils and other agencies in a co-ordinated way. They have identified the development of a Community Emergency Plan as one of their priorities. This plan will assist to review the level of threat following an incident, establish activation triggers to declare an 'incident', help establish plans to determine resources needed and methods to communicate during an emergency, as well as steps needed to identify the vulnerable and most at need of support.

The Partnership has agreed that a single plan for the whole partnership area would be impractical; therefore they have selected the village of Grasmere as a pilot area to develop their first Community Emergency Plan. Learning from the experience of developing this plan will help to guide other Partnership communities in developing their own Community Emergency Plans in the future.

Working with the Third Sector

Many important partners in our emergency response are in the voluntary sector. For example, colleagues in such as the Red Cross and Mountain Rescue Teams have provided support in a number of recent incidents.

Cumbria St John Ambulance provides a wide range of services throughout Cumbria, including first aid training, first aid cover at public events and opportunities for youth members to develop their life saving and first aid skills.

The Associate Director of Health Protection at NHS Cumbria has recently been appointed as County Commander for Cumbria St John Ambulance, and will be working with the organisation to increase the number of people in the community who are trained in first aid.

Cumbria's First Responders

Community First Responder volunteers are trained to attend emergency calls received by the ambulance service and provide care until the ambulance arrives.

Volunteers can arrive at an emergency scene in a matter of minutes, as they are sent to calls in their local area. First Responders provide vital care and reassurance, particularly in rural areas of Cumbria. Having someone in the community who has been trained in first aid and can reach the patient quickly makes all the difference.

An example of how this can work is provided by the Keswick Flood Action Group. The group has used funding from Cumbria Community Foundation to appoint a coordinator and there is a well-developed local network of responders. They are able to respond not only to floods but to other adverse events and emergencies that may affect the community.



Recommendations:

Public sector organisation in Cumbria work extremely well together in an emergency, yet in order to further strengthen emergency planning procedures in Cumbria, I recommend:

- **Still closer collaboration between partner agencies both during emergencies and in the ongoing planning process** - As agencies feel the effects of reductions in resources over the next few years we need to work together even more closely to maintain a coordinated and effective response.
- **An increased focus on developing resilience at community level** - For effective and rapid response to emergencies, especially in a rural area such as ours, it is essential to build community resilience and understand what action to take in an emergency.
- **Work with third sector organisations to provide basic first aid training to our communities** - It is unacceptable that people die needlessly because no one could give them first aid. If everyone was able to learn some basic life saving and resilience skills lives could be saved.



Section 2:

Infection prevention and control to limit the spread of illness

In the previous section I looked at our emergency response and planning procedures to prepare and protect. This section looks at Infection Prevention to help limit the spread of infection and causes of ill health.

The prevention and control of infection is a top priority across Cumbria. The Infection Protection and Control team works to reduce the risk of patients acquiring a health care associated infection and advises on measure to reduce the spread of infection in other settings.

Everyone carries large numbers of micro-organisms (germs) on their skin, hair and bodies. Most of the time these organisms don't cause any problems, but if they present in the wrong place then they can cause infections.

Infection or disease may be caused by bacteria, viruses, fungi and parasites, and can result in a wide variety of illnesses. These include: urinary tract infections, wound infections, respiratory infections, blood borne and skin infections. Not all infections can be passed on, but some such as *Clostridium difficile,* influenza and norovirus have the potential to spread from one person to another, and the spread can happen quickly.

Communications and public awareness campaigns on reducing the spread of infection are launched throughout the year. Campaigns focus on hand hygiene for health care staff, patients, visitors and the community, as well as self-care advice to reduce infections spreading and the importance of vaccination to protect to limit the spread of illnesses such as flu.

Why do health care associated infections happen?

If people develop an infection whilst receiving health care this is referred to as a 'health care associated infection'. In an environment where patients are recovering from illness, injury or an operation, there is an increased risk of infection. Patients are more susceptible in these settings due to factors such as having a weakened immune system and being in the same environment as another patient who may be suffering an infection. Sharing some facilities, as well as some procedures and treatment can also increase the risk of infection, for example:

- Insertion of a medical device e.g. urinary catheter, drip
- Surgery. As this usually involves cutting the skin, which is one of the body's most important defences against infection, thus allowing micro-organisms (e.g. bacteria) to enter the body.
- Some medications can lower a patient's resistance to infection, for example steroids and treatment for cancer.
- The use of antibiotics, which may allow an infection to develop with resistant bacteria.

Stringent hygiene procedures are applied to reduce the risk of patients acquiring a health care associated infection. The number of cases are going down year on year.

Prevention and control of health care associated infection

To help reduce the risk of infection, there are certain precautions that are taken with every patient, whether receiving care and treatment in a hospital, at home, at a health centre or clinic, or anywhere else in the community. These are called standard precautions and consist of:

Good hand hygiene

The single most effective thing anyone can do to reduce the risk of infection is to carry out good hand hygiene preferably by washing with soap and water, or by disinfecting them with alcohol gel or hand rub. Patients and the community are reminded of the importance of good hand hygiene through awareness campaigns and material displayed in health care settings. Alcohol gel is readily available for use by patients, visitors and staff in all NHS Cumbria's community hospitals, health clinics and GP surgeries.

In a health care setting, it is particularly important that all health and social care staff clean all parts of their hands. Some parts, such as thumbs, are often missed, so health care professionals need to use a particular series of actions to make sure that the soap and water or alcohol reaches every area of the hand. Advice for staff and services users is displayed in health and social care settings to demonstrate a good hand washing technique.

Appropriate use of gloves and aprons

Sometimes even the best hand washing isn't going to be enough, and there is a need to wear protective equipment such as gloves and an apron.

Environmental cleanliness

Making sure that premises and equipment are clean plays a large part in giving people confidence in the care that is provided, and is key to the reduction of the risk of health care-associated infection.

Care in the use and disposal of sharps

Some infections, including hepatitis and HIV / AIDS, are carried in the blood and can be transmitted by infected blood being introduced, or inoculated, into the bloodstream of a susceptible person. Strict procedures on the use and disposal of sharps are applied in all health care settings.

Educating staff, patients and their carers about infection

Providing suitable accurate information on infections is extremely important, helping to educate and inform.

It has been found especially effective for infection reduction if patients feel able to challenge clinicians who are about to examine them without cleaning their hands.

Environment

The environment is also a factor in the prevention of infection. Designing and constructing surfaces in such a way that they can be easily and effectively kept clean is an important contribution to infection prevention.



Containing an infection: Norovirus

Each winter, Norovirus infection, commonly known as winter vomiting bug, affects communities across the country. Norovirus is a highly infectious but short-lived illness from which most people, including the frail and elderly, will normally recover in anything from 12 to 60 hours.

Norovirus is the most common form of gastrointestinal illness in the UK, affecting between 600,000 and one million people every year. It can spread rapidly, particularly in environments where people live or work in close proximity, such as hospitals, residential care homes, cruise ships, schools and the workplace. Norovirus is probably the biggest example of how easy it can be for infections in health care settings to spread.

The number of cases appears to be rising year on year. Methodologies to help reduce the spread of norovirus include early detection and isolation of cases, reporting to the Health Protection Team/Agency and good hand hygiene.

To help limit the spread of infection, outbreaks often result in the closure of an area such as a ward, hospital; care home or school. As there is no specific treatment for norovirus infection, we strongly advise people with the infection to stay at home, rest and take plenty of drinks to replace lost fluids. Steps to limit the spread of the virus include:

- **Wash hands frequently and thoroughly**, particularly after using the lavatory and before preparing food.
- **Households should not share towels and flannels**.
- **Disinfect any surfaces or objects** that could be contaminated with the virus. It is best to use a bleach-based household cleaner, remembering to read the product instructions.
- **Wash any clothing or bedding** that could have become contaminated with the virus. Wash the items separately and on a hot wash to ensure that the virus is killed.
- **Flush away any infected faeces or vomit** in the lavatory and keep the surrounding lavatory area clean.
- **Avoid eating raw, unwashed produce** and only eat seafood from a reliable source. Oysters in particular have been known to carry the norovirus.

Reducing infection in Cumbria

Health care associated infections have been tackled successfully in recent years across Cumbria. Figures show that the numbers of patients suffering MRSA bacteraemia (blood stream infections) and Clostridium difficile associated diarrhoea (CDAD) have fallen on consecutive years. The number of reports of patients suffering MRSA bacteraemia fell from 37 cases in 2007-08 to 14 cases in 2009-10. Similarly the number of patients suffering Clostridium difficile associated diarrhoea has fallen from 787 cases reported in 2007-08 to 458 reports in 2009-10. Whilst this is good news there is still a lot of work to be done to ensure the fall in numbers is sustained. Many initiatives have already been launched across the health economy to effect this reduction including the implementation of the "clean *your* hands campaign" and the Saving Lives initiative which focuses on things that are known to make a difference, such as good catheter care.

Our main aim now is to continue the downward trend as even one case of infection is one too many.

It is clear from investigation work done on cases of MRSA Bacteraemia and Clostridium difficile associated diarrhoea that many people who are affected have been in contact with a number of health and social care services in the weeks leading up to their infection. In Cumbria, infection prevention teams therefore have an integrated approach to the prevention of health care associated infections, working closely with both NHS and the social care sector alike. Effective evidence-based interventions as described earlier (hand hygiene, appropriate clinical techniques, antibiotic stewardship) will continue to be used to further reduce risk. Audit, regular feedback and unannounced visits to health and social care settings continue to be used to provide assurance that the issue of health care associated infection is being addressed and applied correctly and consistently.

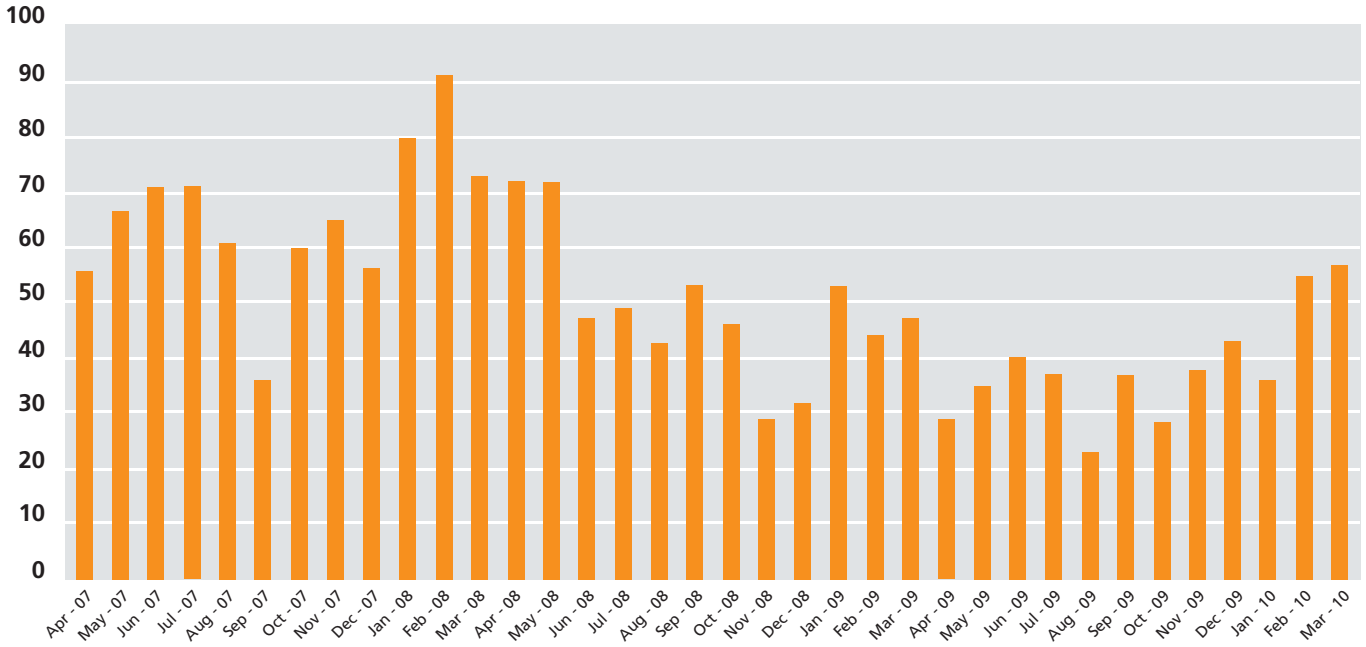
Trends in cases of Clostridium difficile associated diarrhoea in Cumbria

Clostridium difficile causes mild to moderate diarrhoea, fever and stomach cramps. There has been a marked reduction of cases of in Cumbria, due in part to improved awareness of hand hygiene measures and the introduction of hand gels in all health care settings as well as awareness around the appropriate use of antibiotics.

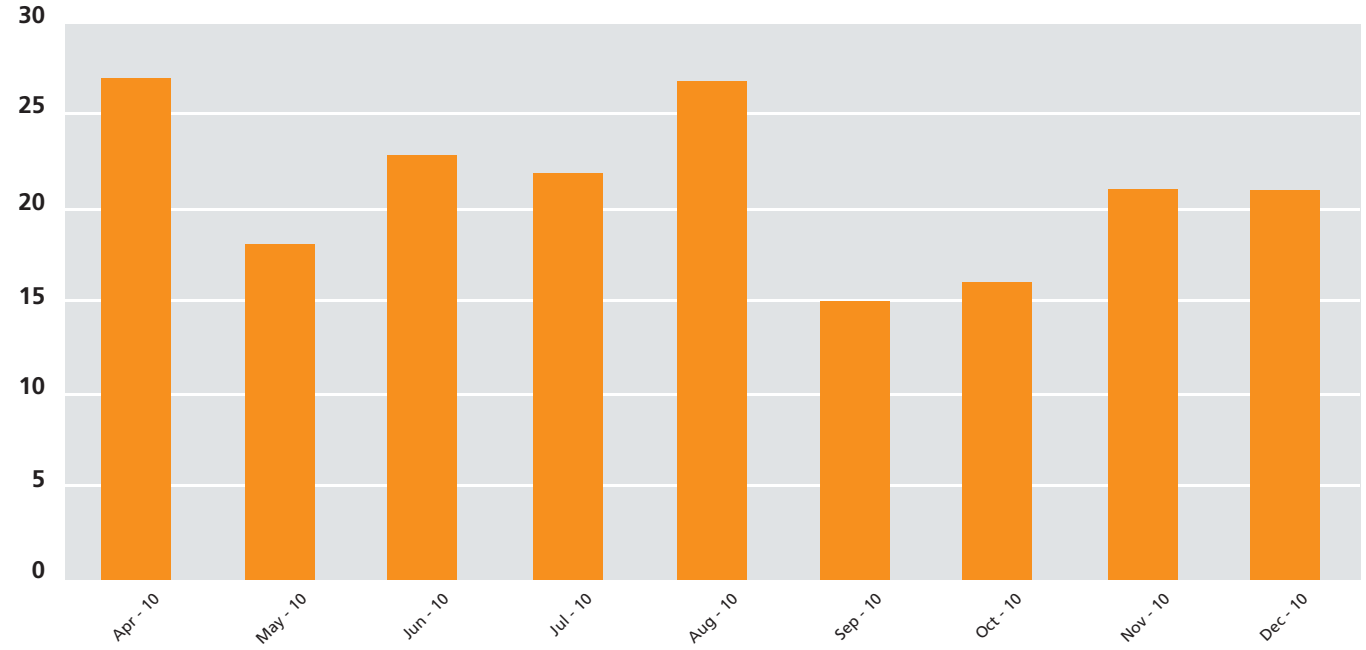
In 2008 it was not unusual to see more than 70 patients suffering Clostridium difficile associated diarrhoea each month. Whereas since April 2010 fewer than 30 cases have been reported each month. The figures are set out in the tables on the right.

Reports of Clostridium difficile associated diarrhoea cases in Cumbria 2007 – 2010

Clostridium Difficile - April 2007 to March 2010



Clostridium Difficile - April to December 2010



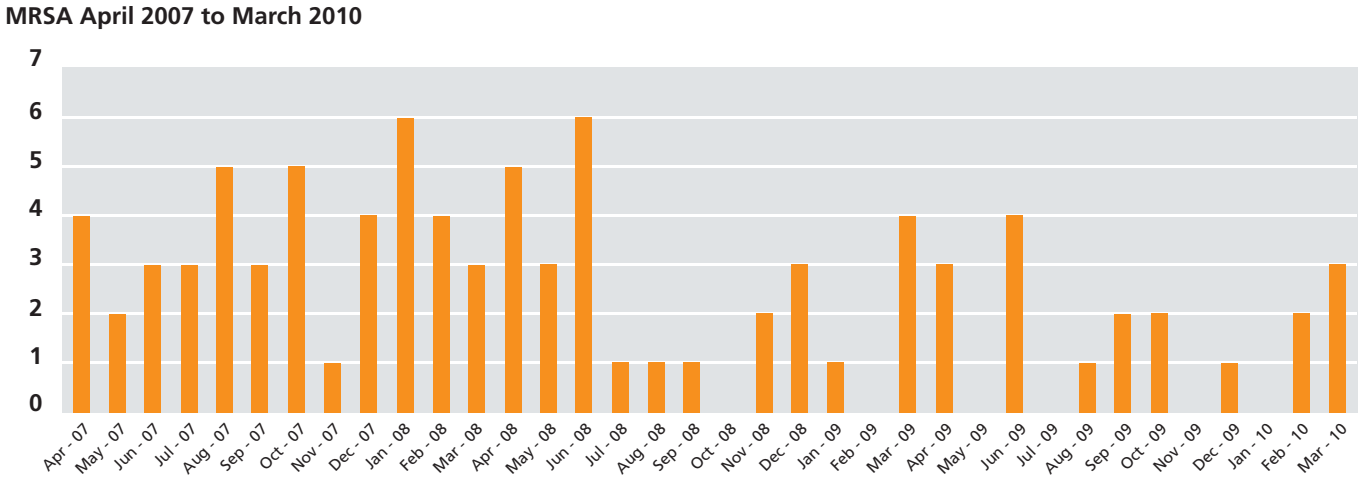
Trends in cases of MRSA bacteraemia in Cumbria

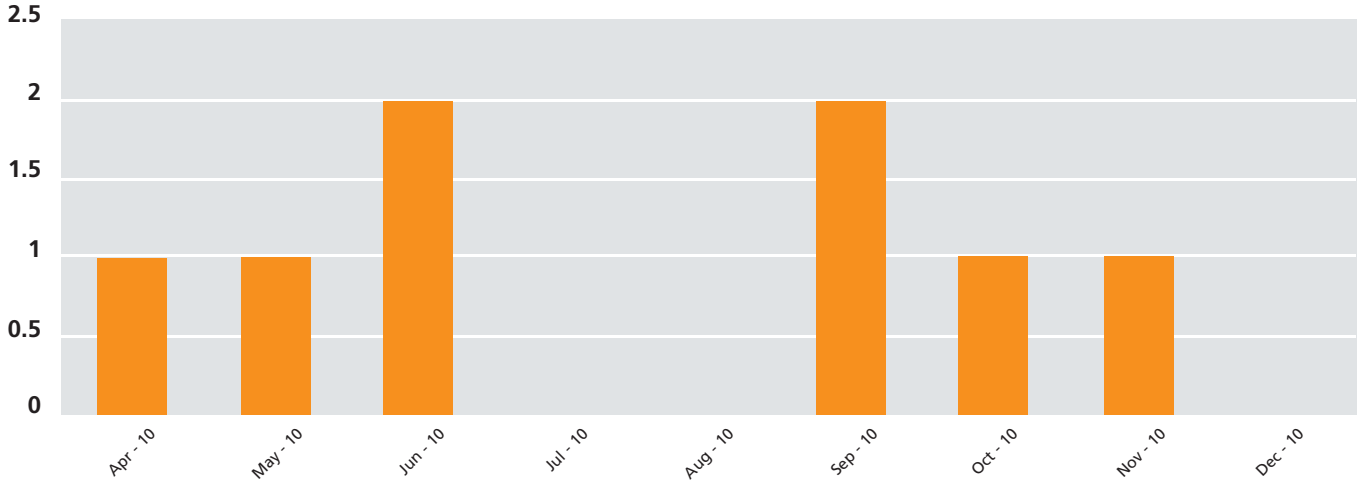
MRSA stands for meticillin-resistant Staphylococcus aureus, which is a common skin bacterium that is resistant to a range of antibiotics. It can affect any part of the body, including blood, and can be fatal.

All NHS patients going into hospital for a relevant planned procedure are screened for MRSA beforehand. This helps the NHS reduce the chance of patients acquiring an MRSA infection or passing MRSA on to another patient.

The graphs below show that from January to the end of June 2008, 27 patients were found to be suffering an MRSA bacteraemia (blood stream infection) and from the beginning of April 2010 to the end on November 2010, 8 patients have been found to be suffering the infection. Although there has been a marked reduction in the number of patients suffering the infection work continues to ensure this reduction is sustained.

Cases of MRSA bacteraemia (blood stream infections) in Cumbria 2007 – 2010





How bacteria become resistant to antibiotics

Antibiotics are important medicines designed to treat bacterial infections such as meningitis, kidney infections and pneumonia.

However in recent years, a number of factors have led to them becoming less effective at treating infection.
Shortly after antibiotics were first mass produced for the general public, the microbes that they were designed to kill began to develop resistence. Since that time, many pathogenic microbes (those that cause disease) have become resistant to drug therapy.

When bacteria are treated with an antibiotic, such as penicillin, some of the 'stronger' bacteria may survive. This happens in particular when people do not finish their full course of antibiotics. Any surviving bacteria are then able to mutate and develop a resistance to the antibiotic. These bacteria then multiply and can infect others. This is how MRSA bacteria have become resistant to many antibiotics, and is how 'superbugs' that cannot be successfully treated with antibiotics are developing.

Antibiotics are powerful drugs, but inappropriate use of broad spectrum antibiotics destroys all bugs – including good bacteria. Therefore people prescribed broad spectrum antibiotics may suffer from side effects such as thrush, or suffer the effects of a Clostridium difficile Infection.

It has also been widely debated about the use of antibiotics in agriculture, particularly cattle, and the suggestion that this is facilitating increased antibiotic resistance in humans.

Keeping hands clean: School campaign

Schools have an important role to play in teaching and encouraging hand washing from an early age. Hand washing habits learnt at school can last a lifetime.

Each year School Nurses run a programme of awareness to teach youngsters about the importance of washing hands after using the lavatory and before eating as an important measure for reducing sickness rates in all schools.

School Nurses use glitter to demonstrate how germs can be transferred from one hand to another.

The children put their hands in glitter and are then asked to touch desks, door handles and pick up items so they can see just how easily the glitter 'germs' can spread. The children are then asked to wash their hands to show how the "germs" can easily be washed away by using soap and warm water.



This message is reinforced every year to teach primary age children the importance of hand hygiene and aids the prevention of the spread of infection in schools and at home, in particular colds and flu and gastro-intestinal illnesses.

Training and support to reduce infections

Mandatory training to promote good practice and ensure continuing downward trends in rates of infection is provided to NHS staff across Cumbria. NHS Cumbria Infection Prevention Nurses have also been working with both Cumbria Care Sector Alliance and Cumbria Care, providing support to private and voluntary care provider organisations on infection prevention and control measures.

The Infection Prevention Team have been looking at ways of using resources and good practice from outside the health service to facilitate the prevention of health care associated infections. Examples from other industries may bring useful solutions for preventing infection. Probiotics are live bacteria given in food supplements or some yogurt products which have been found to help reduce infection by improving the balance of good bacteria in the gut, thus inhibiting the growth of toxic producing bacteria. Interesting studies are currently being carried out into the use and effectiveness of probiotic to reduce infection, as well as other illnesses such as Chronic Obstructive Pulmonary Disease and Helicobacter pylori. Interesting studies are currently being carried out into the use and effectiveness of probiotics.

Environmental Health and Protection

Many infections in the community are related to food. According to the Health Protection Agency (HPA), up to one million cases of food-borne illness and food poisoning are reported each year in the UK. Approximately 20,000 people are hospitalised and 500 die from these diseases.

In the UK, and here in Cumbria, the majority of cases were caused by salmonella and campylobacter and there was a noticeable increase over the summer months. Some of this increase is likely to be as a result of poor food handling practices in warm weather.

Bacteria can grow faster if food is left out of refrigeration in the warmer temperatures, while eating food at barbecues and picnics can present additional risks such as cross-contamination and serving food that has not been cooked properly. The most commonly reported food-borne infections in the North West are:

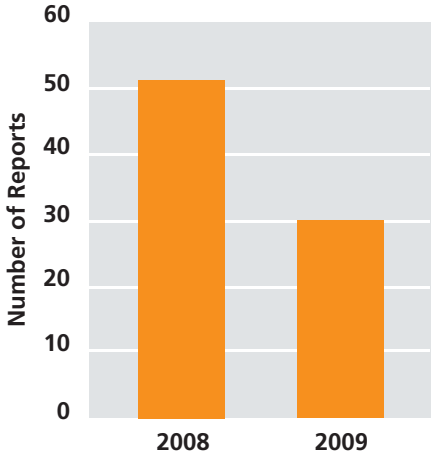
Escherichia coli (E. coli) O157

E. coli O157 can be found in the gut of cattle, sheep, goats and a wide range of other animals. People can become infected by E. coli O157 if they consume food that has become contaminated by infected animals and it is not washed or cooked properly, drinking water from untreated water supplies can also present a risk of infection.

Food poisoning caused by E. coli O157 has been associated with undercooked minced beef products such as burgers, therefore it is important to ensure all minced beef products are cooked thoroughly to ensure there are no pink areas and the juices run clear. Extra care should be taken when cooking on barbeques because of the risk of undercooking or contaminating cooked food with bacteria from uncooked meat.

Infection may also result from contact with animals that carry E. coli O157 or from exposure to an environment contaminated with animal faeces, such as farms and similar premises which are open to the public. It is therefore important to wash hands thoroughly with soap and water after contact with animals and the farm environment. E. coli O157 can cause illness, ranging from mild to severe bloody diarrhoea, it can be particularly serious for young children and for some can cause a condition known as haemolytic-uraemic syndrome (HUS) The number of E. coli O157 reports decreased by 42% in 2009 in Cumbria compared to 2008, see **Figure 1**. There was a national increase of 9% over the same period.

Figure 1. E.coli O157 reports Cumbria, 2008-2009



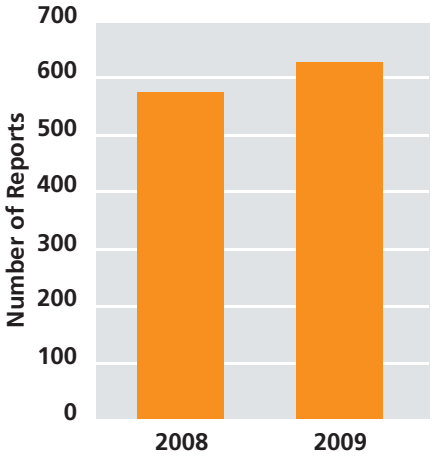
Listeria

Another type of food poisoning that has increased in the UK in recent years is caused by Listeria. This can cause illness particularly among those people who have weakened immune systems, for example the over 60s and those who due to their medical condition, such as those who have cancers or had transplants, are particularly susceptible to infection. Pregnant women are also susceptible. Listeria can be present in ready-to-eat foods such as pre-packed sandwiches, pate, smoked salmon, and soft mould-ripened cheese such as Camembert and Brie. To minimise the risk, chilled foods must be kept cold and eaten by the 'use by' dates and use open foods within two days unless the manufacturer's instructions state otherwise.

Campylobacter

Campylobacter is the commonest cause of food poisoning in the country. Campylobacter is found in most raw poultry and is common in raw meat, so it is possible to become infected by eating undercooked meat or cooked and ready to eat foods that have been cross-contaminated with the bacteria from raw meat. It is therefore important to take care to avoid cross contamination by keeping raw meat separate to cooked and ready to eat foods and ensure hands are thoroughly washed after handling raw meat. You can also catch campylobacter from infected pets and other animals. The number of campylobacter reports increased by 8% in 2009 compared to 2008, see **Figure 2**. There was a national increase of 16% over the same period.

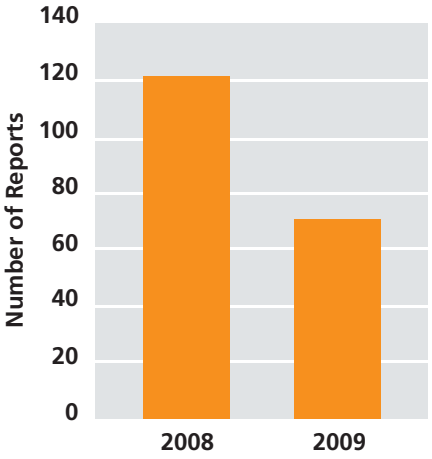
Figure 2. Campylobacter reports Cumbria 08-09



Salmonella

Salmonella bacteria cause food poisoning. Salmonella live in the gut of many farm animals and so meat, poultry and eggs can be affected. People usually aquire salmonella by eating contaminated food that has been undercooked. Salmonella can also be spread from human-to-human or from animal-to-human by poor hygiene. Pet reptiles can carry salmonella and children have been infected from them as they are particularly at risk because they like to handle and stroke them. To reduce the risk children should be supervised ensure that they do not put reptiles near their mouths and wash their hands thoroughly with soap and water immediately after touching them. The number of salmonella reports decreased by 41% in 2009 compared to 2008, see **Figure 3**. There was national decrease of 8% over the same period.

Figure 3. Salmonella reports Cumbria 08-09



Cryptosporidium

Cryptosporidium is a tiny organism which can be transmitted through animal-to-human or human-to-human contact. Cryptosporidiosis can be a water-borne infection; in previous years there were large outbreaks of cryptosporidosis which were associated with public water supplies. In 1999 there was a large outbreak of cryptosporidium in the North West which was traced to contamination of the Thirlmere Aqueduct. This aqueduct carries water from the Lake District to large conurbations in the North West of England. Cumbrians also used to be exposed to risks from contaminated water from reservoirs in the West of the County which are now protected by filtration.

People may also be infected by consuming contaminated water or food, or by swimming in contaminated water, for example in lakes or rivers. Infection is frequently associated with foreign travel. There was a large increase (94%) in cryptosporidium reports in 2009 compared to 2008, see **Figure 4**. Some of this increase can be accounted to a large outbreak of cryptosporidiosis in the Carlisle area in May 2009, this was associated with several primary schools visiting a working farm that had an open day. However there was still a large overall increase in 2009 compared to 2008.

Figure 4. Cryptosporidium reports Cumbria 2008-2009

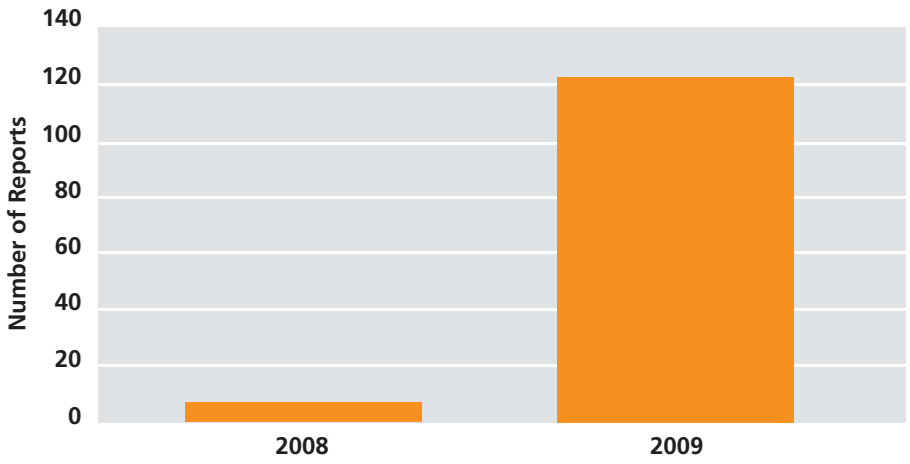


Figure 5 - Gastro-Intestinal Infection in Cumbria January to September 2010

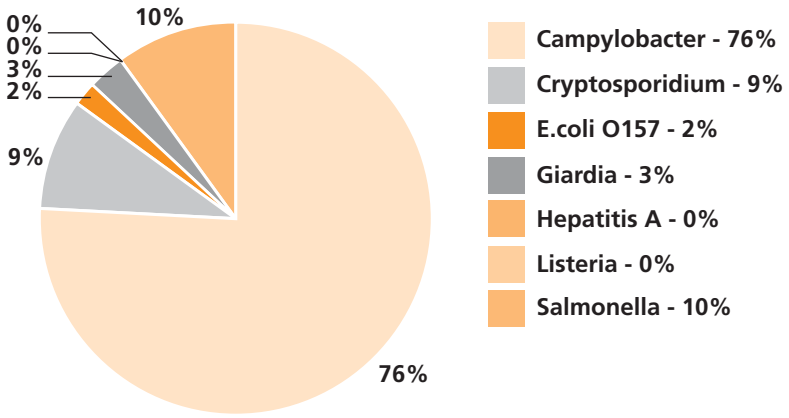


Figure 5 shows the proportion of gastro-intestinal infection in Cumbria in 2010. The high proportion of campylobacter infection reflects the national picture, that is, campylobacter is the most common bacterial cause of food poisoning, causing an estimated 300,000 cases of illness every year in England and Wales alone. A recent survey carried out by the Food Standards Agency showed that campylobacter was present in 65% of samples of chicken tested. The Food Standards Agency has identified tackling campylobacter as a key priority and is commissioning a range of research to tackle the food poisoning bug campylobacter.

It has been identified by the Health Protection Agency that there has been a dramatic change in the age specific incidence of campylobacteriosis in England and Wales with older people now being at greatest risk of infection.

Top Tips: Keeping food safe
Food-borne infections can be avoided if people follow a few simple but essential rules for the safe storage, preparation and cooking of food. The Health Protection Agency and the Food Standards Agency (FSA) issue communication throughout the year to remind people of food safety risks and the simple steps to be taken to avoid food poisoning.
Ten top tips for food safety:

1) Wash hands thoroughly with soap and hot water and dry them before handling food and after handling raw meat, going to the lavatory or touching animals (including pets).

2) Wash worktops before and after preparing food, particularly after they've been touched by raw meat, including poultry or raw eggs. Anti-bacterial sprays don't need to be used. Hot soapy water is fine.

3) Wash dishcloths and tea towels regularly and let them dry before you use them again. Dirty, damp cloths are the perfect place for bacteria to breed.

4) Use separate chopping boards for raw meat and for ready-to-eat food. Raw meat contains harmful bacteria that can spread very easily to anything it touches, including other foods, worktops, chopping boards and knives.

5) It's especially important to keep raw meat away from ready-to-eat foods such as salad, fruit and bread. As the ready-to-eat foods won't be cooked before being eaten, any bacterium that is transferred from the raw foods won't be killed.

6) Always cover raw meat and store it on the bottom shelf of the fridge where it can't touch other foods or drip on to them.

7) Cook food thoroughly and check that it's piping hot all the way through. Make sure poultry, pork, burgers, sausages and kebabs are cooked until steaming hot, with no pink meat inside.

8) Keep fridge temperatures between 0C and 5C. By keeping food cold, we can stop food poisoning bugs growing.

9) Cooked food that is not going to be eaten straight away should be cooled as quickly as possible (within 90 minutes) and store it in the fridge or freezer. Use any leftovers from the fridge within two days.

10) Don't eat food that's past its "use by" date label. These are based on scientific tests that show how quickly harmful bugs can develop in the packaged food.

Reduce infection risk: Petting farms

Visits to petting farms and open farms are highly popular with families and schools and an important and enjoyable aspect of education for children. Farm visits need not be discouraged, but people need to remember that a range of infections can be passed on through contact with animals unless care is taken to avoid them.

All animals naturally carry a range of micro-organisms, some of which can be transmitted to humans, and may cause ill health. *E. coli* O157 may be contracted on farms. This organism has little or no effect on the health of animals and they show no signs of illness or distress. *E. coli* O157 however can cause very serious illness, especially in children. Other organisms such as *Salmonella, Campylobacter* and the parasite *Cryptosporidium* also abound, and there have been outbreaks linked to farm visits, as well as isolated cases of infection, in Cumbria and the North West in recent years, including a large outbreak of Cryptosporidiosis caused by the *Cryptosporidium* parasite at a dairy farm in Carlisle in 2009 that led to 155 suspected *Cryptosporidium* cases. The outbreak highlighted the importance of open farms providing adequate hand washing facilities.

Public information for farm visits

What are the risks?
Illnesses can occur when germs from animals are transferred to the mouth. If hands are placed in or near the mouth after touching animals, fences, footwear or other surfaces that may be contaminated by animal droppings, it is possible to become unwell. Infection can also occur when food is eaten with unwashed, contaminated hands, which allows harmful bacteria or viruses to be swallowed.

How should we prepare for a farm visit?

- If the farm is open to the public, check that the public areas are as clean as possible (meaning no animal faeces), and that animals are not allowed into picnic areas. Suitable first aid arrangements should also be in place.
- Check that washing facilities are available to visitors. These should have running water, soap and disposable towels or hand driers. These should be located near to places where animals can be touched and also where food is eaten.
- If the visit is with a party of children, they will need close supervision so it is important to ensure there are enough adults in the group.
- Take wellington boots to wear during the visit and a change of footwear to travel home in.

How can risks be minimised on the day?

Most importantly, children need to be supervised.

The following advice is applicable to everyone visiting the farm, but particularly to children:

- Eat and drink in picnic areas only – never while touching animals or while walking around the farm. This includes not eating sweets, crisps or chewing gum.
- Do not eat anything that may have fallen on the ground.
- If touching or feeding animals, ensure that children do not put their faces close to the animals or put their fingers in their own or anyone else's mouths.
- Ensure hands are washed and dried thoroughly with soap and water immediately after any contact with animals and BEFORE eating and drinking. Young children, in particular, should be supervised while washing their hands.

- Alcohol hand gels SHOULD NOT be used instead of hand washing as they are not effective against all infections that can be picked up from animals.
- Eating areas should be well away from where animals are located.
- Keep away from sick animals, manure and slurry as these are particularly hazardous. If anyone does come into contact with any of these, ensure hands are washed and dried immediately.

What should be done before leaving?

Ensure that everyone in the group has washed their hands thoroughly with soap and water. Footwear and pushchair wheels should be as free as possible from mud and droppings. Where possible, hose pushchair wheels and boots down with water and change into other footwear. Wash hands after removing and cleaning boots.

NOTE: Additional advice for women who are pregnant
Pregnant women need to take particular care and specifically avoid direct contact with lambs and their droppings.

Recommendations

Reducing the number of reports of infections can only be achieved with everyone working together in our hospitals and health care settings and the wider community. To further continue downward trends in infection, I recommend:

- Priority should be given to ensuring that infection prevention services remain robust through the current round of NHS reorganisation.
- Following on from the implementation of general practice consortia, this aspect of public health should become mainstream within primary care.




SINGLE USE ONLY

Section 3:
Vaccinate for health protection

As well as ensuring good hygiene to reduce the spread of infection and illness, both at home and in health care settings, one of the best methods to limit the spread of illness is vaccination. This section focuses on the importance of vaccination for health protection.

After clean water, vaccination is the most effective public health intervention in the world for saving lives and promoting good health. Because of vaccination, we no longer see smallpox, and polio is heading towards eradication. Vaccination has saved more lives and prevented more serious diseases than any other medical advance in recent history.

The United Kingdom has an enviable record on achieving high uptake rates with some areas of Cumbria achieving some of the best uptake rates in the country, but some geographical areas and some harder-to-reach groups have seen lower uptake of some vaccines than would be ideal.

Vaccination provides one of the safest and most effective means available for reducing the spread of communicapable disease. However recent controversies around vaccine safety, together with the fact that epidemics of most serious infectious diseases are – owing largely to vaccination programmes – a distant memory, have led to general reductions in vaccine uptake in recent years.

The updated Code of Practice for the prevention and control of health care associated infections (Health and Social Care Act 2008) emphasises the need for NHS organisations to ensure that health care workers are free of and protected from communicable infections (so far as is reasonably practicable), and that all staff are appropriately educated in the prevention and control of infections. On appointment and at regular intervals, clinical and support staff at NHS Cumbria are offered vaccines against diseases to ensure high levels of protection and limit the threat to patients.

The importance of good uptake rates

Vaccines work by stimulating our immune system to produce antibodies which make us immune to a disease, without us actually becoming infected with it. Vaccination programmes aim to protect people for life and have led to a drastic reduction in illness and death from infectious diseases.

When a vaccination programme against a disease begins, the number of people catching the disease goes down. But as the threat recedes it's important to keep vaccinating, otherwise the disease can start to spread again. Recent outbreaks of measles in London and other areas are examples of this, as was the outbreak of measles over the summer in France; we also saw a rise in cases of Mumps recently in parts of Cumbria.

If enough people in a community are vaccinated, it is harder for a disease to pass between those who are not. This is called herd immunity, and provides some protection to those who are not immunised, however it is important that as many people as possible accept offers of vaccination if we are to keep diseases at bay.

It may be tempting to say 'no' to vaccination and 'leave it to nature' instead. However, deciding not to vaccinate puts us at risk of catching a range of potentially serious, even fatal, diseases. In reality, having a vaccination is much safer than not having one. They are not 100% effective in every individual, but are the best defence against epidemics that used

to kill or permanently disable millions of children and adults.

Most people cannot remember a time when these very serious infections were common, so health professionals need to remind parents just how dangerous infections such as diphtheria, polio and measles are.

Potential obstacles to good uptake rates

In our country, vaccination is optional and there are a range of reasons why a small number of people chose not to access vaccinations. It is unfortunate that misinformation and misrepresentation in the media has led to some public scepticism about the safety of vaccination programmes. The measles, mumps and rubella programme (MMR) in particular suffered from the reckless claims made by Dr Andrew Wakefield. This has led to the inevitable result that uptake rates declined. In 2009 there were 1144 cases of measles across the UK, with 79 of those in the North West. That's compared with 70 cases across the whole UK during 2001.

As a result of hard work of our health care professionals in promoting accurate and consistent information and allowing parents the time to discuss concerns fully, update rates are slowly beginning to improve in Cumbria.

Another potential obstacle to being vaccinated is worry over side effects. Most side effects from vaccination are mild. It's quite usual for people to have redness or swelling in the place where they had the injection, but this soon goes away. Other reactions, including feeling ill or more severe allergic reactions are very rare.

Seasonal flu vaccine

Flu (influenza) is a highly infectious illness that spreads rapidly through the coughs and sneezes of people who are carrying the virus.

Each year NHS Cumbria launches a campaign to encourage staff and priority groups to come forward for their seasonal influenza vaccine and get protected against the virus which can lead to serious health complications such as bronchitis and pneumonia. The vaccination provides 70-80% protection, yet as different strains of flu circulate each year, people are advised to present for annual jabs because the viruses that cause flu are always changing. Changes in the virus are monitored to help predict when outbreaks may occur, and to help prepare for a pandemic.

At-risk groups

It is recommended that people have a flu jab if they:

- are 65 or over,
- have a serious medical condition such as Chronic Obstructive Pulmanory Disease, chronic heart disease or are HIV positive,
- live in a residential or nursing home,
- are the main carer for an elderly or disabled person whose welfare may be at risk if their carer falls ill,
- are a health care or social care professional directly involved in patient care, or
- work with poultry
- Also, this winter (2010-11), the seasonal flu vaccine was offered to all pregnant women.

A pandemic is described by the World Health Organisation as "the worldwide spread of a new disease"

An influenza pandemic occurs when a new type of flu virus develops and spreads around the world. The majority of people do not have immunity to this new strain of virus.

After years of planning for an influenza pandemic, April 2009 saw the first cases of H1N1 influenza or 'swine flu' in North America. By mid May there were more than 100 confirmed cases in the UK and on 11 June the World Health Organisation declared a pandemic. By early May cases had spread to the UK and on 14 June the UK had its first swine flu death. This outbreak demonstrated how quickly the flu virus can change and spread.

Antiviral medication for those suspected of having the virus was supplied through a series of antiviral collection points. NHS Cumbria worked with the voluntary sector who provided volunteers to act as 'Flu Friends' for patients who needed someone to attend an antiviral collection point on their behalf.
Large stocks of gloves, gowns, goggles and masks were provided by the Department of Health and by the Primary Care Trust. General Practices and care homes were given guidance on the procurement of supplies and clear guidelines relating to their use.

There was a need to rapidly introduce a new swine flu vaccination programme to run alongside the usual seasonal flu programme and help keep the pandemic under control. NHS Cumbria responded to the pandemic in line with guidelines drawn up by the Department of Health. In Cumbria, GPs and community staff worked closely together to bring in the extra swine flu vaccination those at particular risk including those with existing medical conditions, children under 5 and pregnant women.
District nurses delivered swine 'flu vaccinations to all housebound "at risk" patient as well as those in residential and nursing homes.

A local public information campaign was provided through the NHS Cumbria Communications Team, particularly in relation to the use of personal protective equipment, hand hygiene, Flu Friends and the importance of vaccination.

Although not officially declared over, pandemic flu cases are now very low across the UK. The experience has been useful as a preparation for future pandemics, and has enabled us to work closely with all sectors of the health service and with partner agencies to manage the pandemic locally, rapidly implement vaccination programmes and implement emergency plans.

Incidence of vaccination preventable diseases in Cumbria

Whilst most people feel the majority of these diseases are things of the past it is important to be aware of any increasing trends in some of these traditional infectious diseases, for example, whilst there has been very few cases of rubella (German measles) and measles in Cumbria in recent years the same thing cannot be said of mumps, with 95 confirmed cases in 2009 and whooping cough with numbers of cases running into double figures in each of the past few years. The following charts show cases year on year, and emphasise the importance of ongoing vaccination programmes.

Cases of Rubella in Cumbria

Cumbria	2005	2006	2007	2008	2009
Confirmed	0	0	1	0	0
Equivocal	0	0	0	0	0
Negative	15	2	13	4	5
Unknown	10	7	2	2	2
Total Number of Notifications	**25**	**9**	**16**	**6**	**7**

Cases of Measles in Cumbria

Cumbria	2005	2006	2007	2008	2009	2010 to date
Confirmed	2	0	0	1	0	0
Equivocal	1	0	0	1	0	0
Negative	6	6	9	13	4	5
Unknown	6	4	4	5	2	2
Total Number of Notifications	**15**	**10**	**13**	**20**	**6**	**7**

Cases of Mumps

Cumbria	2005	2006	2007	2008	2009	2010 to date
Confirmed	68	17	7	29	95	8
Equivocal	0	0	0	1	0	1
Negative	25	15	19	20	38	25
Unknown	242	13	23	24	52	24
Total Number of Notifications	**335**	**45**	**43**	**74**	**185**	**58**

Cases of Whooping Cough

Cumbria	2005	2006	2007	2008	2009	2010 to date
Confirmed	3	0	28	15	14	31
Equivocal	0	0	0	0	0	0
Negative	0	0	0	0	1	0
Unknown	6	3	6	0	4	1
Total Number of Notifications	**9**	**3**	**34**	**15**	**19**	**32**

How well does Cumbria's vaccine uptake rates compare to national rates?
Latest available data From April 2010 –end of June 2010

Age of child	Vaccinations	Uptake for England	Uptake for Cumbria
1 years	Primary vaccines	93.5%	97.9%
2 years	First MMR	88.3%	94.1%
5 years	Preschool vaccine	85.7%	92.4%
	MMR 1 [1st dose]	91.4%	94.3%
	MMR 2 [2nd dose]	92.9%	90.6%

Although we have continued to achieve 95% uptake and over for Primary vaccinations throughout the year, we continue to strive to reach 95% for MMR uptake rates but progress has been maintained.

Flu vaccination programme
Every year flu vaccination is offered to people over 65 and those over 6 months who have specific underlying health needs. This programme is run very successfully by GPs and sees large numbers of people receiving protection against the three most likely strains of flu expected to circulate in the winter months.

	Over 65		
2009/2010	Eligible	Vaccinated	% Vaccinated
NHS Cumbria	**98912**	**73703**	**75%**

	Under 65 in 'At Risk Categories'		
2009/2010	Eligible	Vaccinated	% Vaccinated
NHS Cumbria	**47102**	**25928**	**55%**

	Swine Flu Priority Groups		
2009/2010	Eligible	Vaccinated	% Vaccinated
NHS Cumbria	**102939**	**45403**	**44%**

Protecting against cervical cancer

Nearly 12 thousand girls in Cumbria had the HPV vaccine last year to protect against the human papilloma virus (HPV). The human papilloma virus (HPV) is the name given to a family of viruses that affect the skin and the moist membranes (mucosa) that line the body. There are over 100 types of HPV. Infection with some high-risk types of HPV can cause abnormal tissue growth as well as other cell changes that can lead to cervical cancer (cancer of the cervix).

Since 2008, girls aged 12 to 13 (in year 8 at school) have been offered the HPV vaccine in school each year, with parental consent. There has also been a catch up campaign to give the vaccine to older girls aged from 14 to 17, this is due to finish before the next academic year. Up until the end of August special arrangements have been put in place to allow any girls born on or after 1st of September 1990 to access this vaccination via their GPs. In 2009/10 a total of 11,987 girls in Cumbria aged from 12 to 18 had the vaccine including those in the catch up programme, with over a 93 per cent uptake in the 12-13 age group.

The HPV virus is passed through intimate sexual contact. Because it is so common, most women will become infected at some point in their lives. In most women the virus does not cause cervical cancer, but having the vaccination at a young age is important to ensure that they are as protected as possible when and if they do come in contact with the virus.

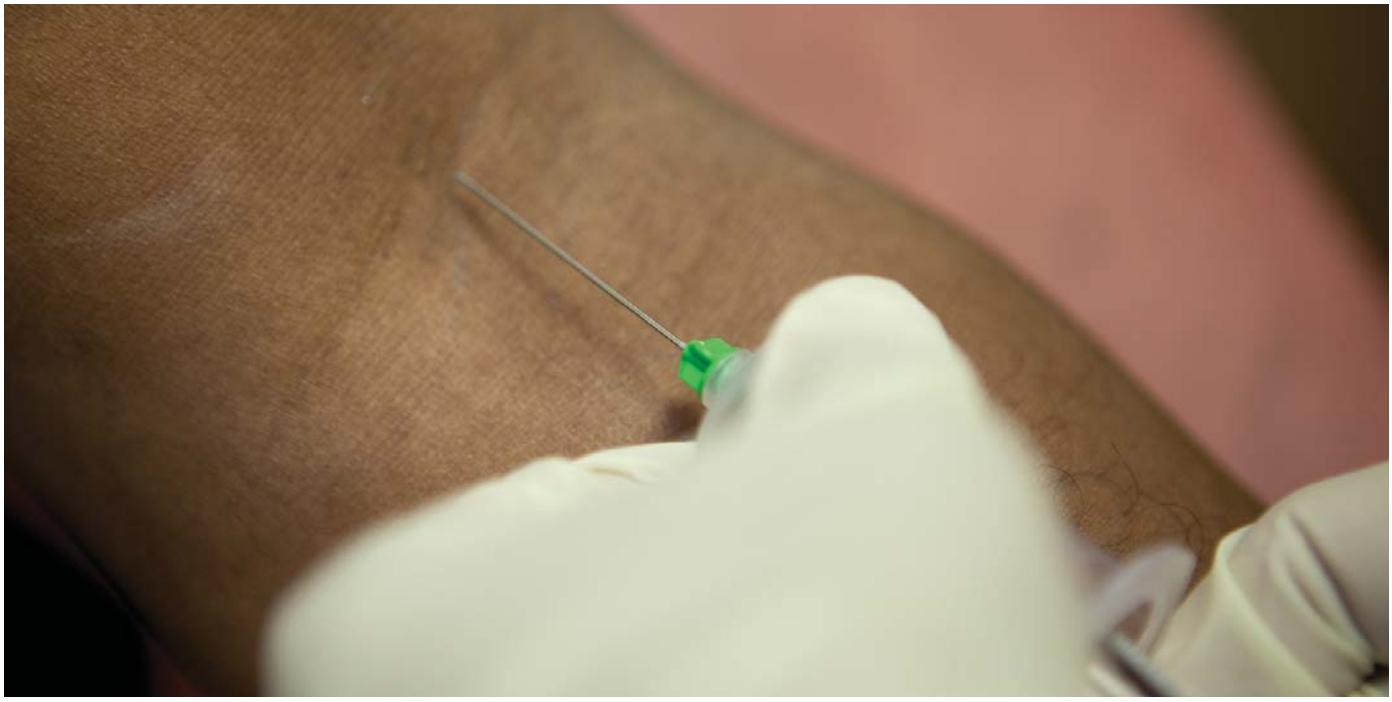
The widespread uptake of this vaccine alongside the cervical screening programme should mean that in the future the 11 or so women who die annually from cervical cancer in Cumbria can be significantly reduced.

There is a controversy about the most appropriate vaccine to use in this programme. The current vaccine is cervarix which protects against the strains of the HPV virus. However an alternative vaccine gardacil, which also protects against genital warts is being used in other European countries and there is a strong body of clinical opinion in this country suggecting switching to this vaccine.

Potential new vaccines

Currently there are no specific plans to introduce new vaccinations in the UK, but the Department of Health are constantly reviewing new vaccinations and exploring the benefits of vaccines available in other countries. There will be many more potentially life-saving vaccines in the years to come. Research is thriving, with more than 150 new vaccines currently being tested.

One of these vaccines is Chickenpox vaccine which could potential be given with Measles Mumps and Rubella, as is currently done in other countries. The Department of Health are keen to introduce a Shingles vaccine for older people over the next few years but there are currently problems with the production of this vaccine in large enough quantities. There is ongoing research into vaccines to protect against Meningococcal diseases and it is possible that there may be further vaccines available in the not too distant future.



Targeting hard to reach groups

In 2008 it was estimated that there were at least 770 local Gypsies and Travellers in Cumbria. In 2009 a report was published looking into their health needs and this highlighted, as anticipated, a low uptake rate for vaccinations. Only 42% of the Gypsy and Traveller community parents surveyed said their children were fully vaccinated. There are a range of reasons for this low uptake and NHS Cumbria's Vaccination Team chose to try and address some of the main issues.

Following a review, a number of recommendations were implemented, including a training programme that saw a local Traveller becoming qualified as a Health Trainer. She is now able to promote vaccinations amongst the other Travellers in her community and has led by example by ensuring that her own children are vaccinated.

Another issue that was highlighted was the fact that some Gypsies and Travellers have some issues around literacy and the standard immunisation leaflets are quite detailed. A new leaflet has now been designed in consultation with the Gypsies and Travellers to help to address this.

In the first week of June each year Cumbria hosts the Appleby Horse fair, one of the largest gatherings of Gypsies and Travellers from all over the county and abroad. NHS Cumbria's Vaccination Team chose to use this to promote vaccinations and were welcomed by the Family Support workers who allowed us use of their caravan for two days. We were able to meet travellers, offer information on vaccinations, hand out our new leaflet and even offer on the spot vaccinations if requested.

At the end of July the DOH announced an outbreak of measles in Gypsy and Travellers communities so our actions were timely. To date there have been no reported cases of measles within the Cumbrian Travellers community, although it is an ongoing challenge to continue to promote vaccinations to this hard-to-reach group.

Vaccination checklist

A number of vaccines are routinely offered to everyone in the UK for free on the NHS.

Recommended Age	Who is vaccinated	Injection given to protect against
From birth	Babies identified as being particularly susceptible to these diseases.	Tuberculosis (TB) Hepatitis B (HB)
8 weeks	All babies	Tetanus, diphtheria, whooping cough, polio and haemophilus influenza (one injection) Pneumococcal (one injection)
12 Weeks	All babies	Tetanus, diphtheria, whooping cough, polio and haemophilus influenza (one injection) Meningitis C (one injection)
16 Weeks	All babies	Tetanus, diphtheria, whooping cough, polio and haemophilus influenza (one injection) Pneumococcal (one injection) Meningitis C (one injection)
From 6 months annually	"at risk" babies and children All over 65 years	Influenza vaccination in the autumn
From 12 months	All babies	Booster dose of Pneumococcal (one injection) Hib/men C (one injection) Measles, Mumps and Rubella (MMR) first does (one injection)
From 2 years of age and over	Those who have other health needs that make them susceptible and all those over 65 years of age	Pneumococcal vaccinations (adult vaccine)
3½ - 4 years	All children	Tetanus, diphtheria, whooping cough and polio (one injection) Measles, Mumps and Rubella (MMR) second dose (one injection)
12 - 13 years	Girls only	HPV (human papilloma virus). Cervical cancer protection given in year 8. Three doses required.
14 - 15 years	All children	Diphtheria, tetanus and polio booster usually given in year 10.
Travel vaccines	Travellers all ages	Range of vaccines. Book a GP appointment several months before travelling to discuss.
Occupational vaccines	Variety of occupations	Range of vaccines, employees should be told by their employer if they require vaccination.

People who fall into certain risk groups may be offered extra vaccines. These include vaccinations against diseases such as hepatitis B, tuberculosis (TB), seasonal flu and chickenpox.

Recommendations

In order to continue to see a decline in preventable illness, and ensure a high uptake of available vaccines, I recommend that:

- We continue to promote the importance of vaccinations, by ensuring our staff pass on accurate information on the importance of vaccinations at all appropriate opportunities.
- We continue to ensure that all staff delivering vaccinations are trained to the highest level and regularly updated.
- We endeavour to be as flexible as possible in our delivery of vaccination programmes to ensure they are accessible to all that require them
- We continue to offer advise and support to anyone with concerns about vaccinations.
- We continue to encourage good uptake in vaccinations in as many ways as we can, to enable us to reach the required levels of vaccine uptake to protect the population, [especially those who are not able to be vaccinated].





Section 4:
Screening programmes for early detection

Previous sections have looked at the importance of prevention and protection against illness and infection. In this section I will introduce the importance of screening for early detection and to identify those members of the community who may be at heightened risk of developing certain conditions and serious illness.

Health checks can fall into two different categories: **screening**, which is a systematic process applied to populations, and **testing or case finding**, which is carried out on individual people who are in contact with health services.

Screening is a process whereby a population is assessed for an increased risk of certain diseases before they present with symptoms, and helps to catch and treat serious conditions sooner. The intention being that illness can be identified early and a programme of treatment started. Screening is an important public health service, which has the potential to save lives and reduce risk to health. There are several major national screening programmes available in England that save thousands of lives a year and improve the quality of life for those affected. The NHS Breast Screening Programme, for example, saves over 1,400 lives a year in England.

Testing or case finding happens on a GP's recommendation to identify the underlying causes once symptoms present. In diagnostic testing, asymptomatic people are invited for further investigation. Common tests include:

- Height and weight
- Blood tests
- Urine tests to check good kidney function
- Blood glucose test for diabetes
- Peak flow lung function tests
- Allergy tests
- DEXA bone scans for osteoporosis.

What is screening?

The United Kingdom National Screening Committee (UKNSC) defines screening as 'a public health service in which members of a defined population, who do not necessarily perceive they are at risk of, or are already affected by a disease or its complications, are asked a question or offered a test, to identify those individuals who are more likely to be helped than harmed by further tests or treatment to reduce the risk of a disease or its complications'.

It is important to recognise that the people who are being offered screening do not consider themselves to be ill. This makes screening services unusual compared with many other health services which are targeted towards people with known health problems.

The aim of screening is to identify those who are more likely to be helped than harmed by further tests or treatment to reduce risk. So screening does not aim to identify disease, but rather to 'sieve out' those who may be at increased risk. This statement also introduces the idea that screening and any follow up investigation or treatment has the potential to cause harm through worry or unnecessary tests, as well as benefit, and that this must be taken into consideration when developing a screening service.

The history of screening

It is over 150 years since the concept of identifying future health risks of individuals first came about. Dr Horace Dobell gave a series of lectures in 1861 suggesting that doctors should perform periodic checks on everyone regardless of if they were ill. Slowly the concept of regular and non specific health checks for adults and children began to develop in several countries. In the 20th century, employers and life insurance companies began to encourage regular health checks for their employees and policy holders, whilst in Japan in the 1950's senior business executives were admitted to hospital for five days of health checks for what was known as the 'human dry dock'. Screening programmes are now well established as an effective means of identifying at-risk individuals, and have successfully reduced deaths from a number of life limiting conditions.

Gray M, Raffle A (2007) *Screening Evidence and Practice* OUP : Oxford p1

Types of screening programmes

In Cumbria we run a full range of screening programmes offered to people at different stages in their lives (See NHS Screening Timeline). Everyone registered with a GP will automatically receive invitations for relevant screening tests throughout their life. People don't have to take up these invitations, but it is strongly advised that they do. All screening tests are scientifically proven to be effective and could mean that a serious condition is spotted early, when it may be easier to treat. Before birth and in early life, the focus of screening is on developmental, hereditary and metabolic conditions. Later in life, there is an emphasis on the early detection of cancer. They include:

Before birth and early childhood

- Antenatal screening for pregnant women, including examinations for Down's syndrome, foetal abnormalities and some infectious diseases.
- Newborn screening, which includes a top-to-toe physical examination, a hearing test and a 'heel prick' or 'blood spot' test to check for cystic fibrosis, congenital hypothyroidism, phenylketonuria, medium chain acyl CoA dehydrogenase deficiency and sickle cell anaemia.
- Childhood screening: checks for height, weight, vision and hearing, all grouped under what is known as the school entry health check.

Later childhood

- Diabetic retinopathy screening for all people with diabetes aged 12 and over.

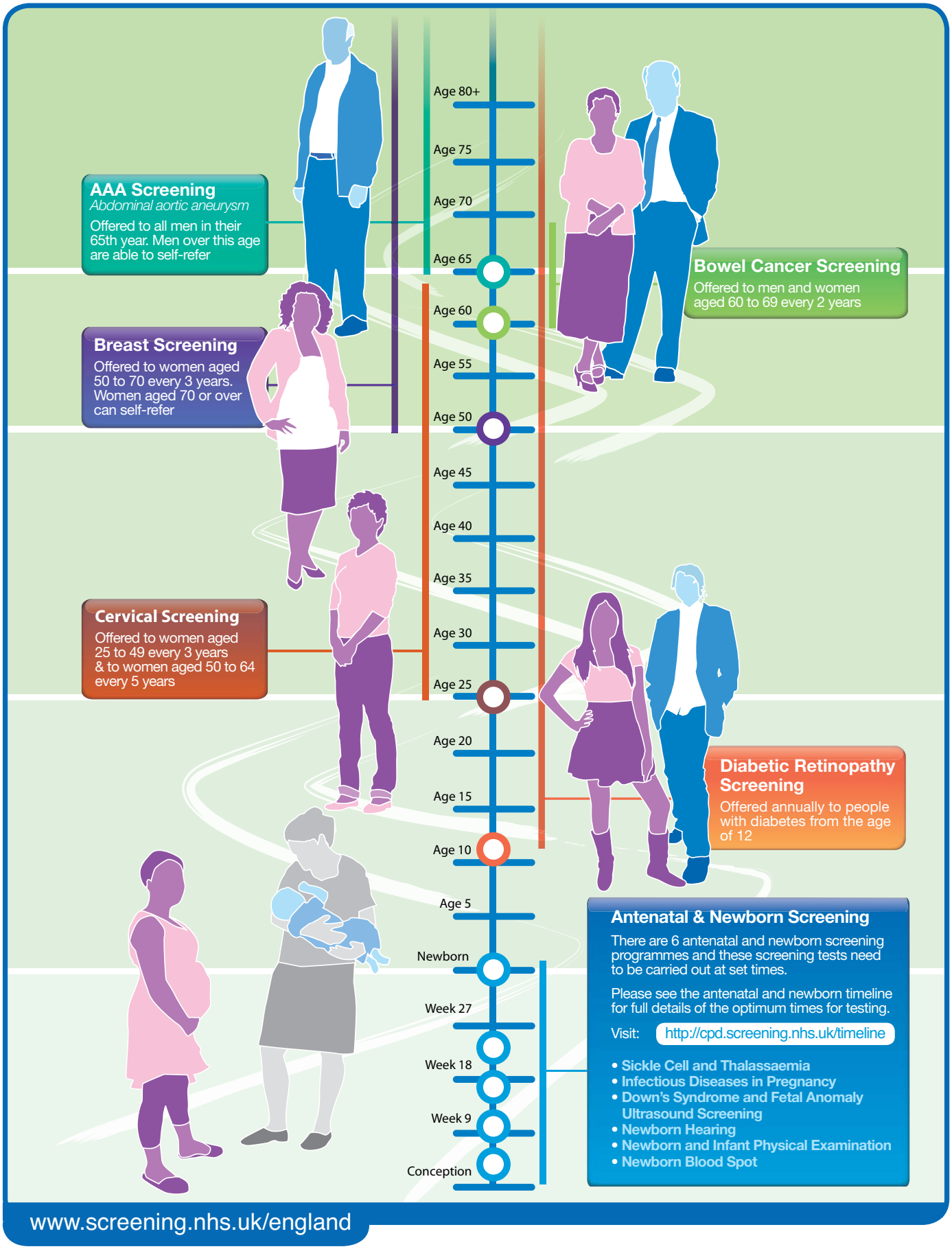
Adulthood

- Cervical cancer screening for all women aged 25 and over.
- Breast cancer screening for all women aged 50 and over (the age range of women eligible for breast screening will extend from age 47 by 2012).
- Bowel cancer screening for all men and women aged 60 and over.
- Abdominal aortic aneurysm (AAA) screening for men aged 65.

NSC UK National Screening Committee

NHS Screening Timeline

NHS Screening Programmes



www.screening.nhs.uk/england

Source: UK National Screening Committee and NHS National Screening Programmes (www.screening.nhs.uk/nhs-timeline)

Limitations of Screening Programmes

Screening has the potential to save lives or improve quality of life through early diagnosis of serious conditions, but it is not a fool-proof process. Screening can reduce the risk of developing a condition or its complications but it cannot offer a guarantee of protection.

Medical tests are not perfect. In any test, there is an irreducible minimum of false positive results (wrongly reported as having the condition) and false negative results (wrongly reported as not having the condition). The National Screening Committee is increasingly presenting screening as 'risk reduction' to emphasise this point.

Because screening is offered to people who are essentially healthy, there is a limit to how extensive screening can be while remaining acceptable. Using the example of breast screening, women aged 50 to 70 years are invited every three years for a mammogram (an X-Ray examination of the breasts). A small percentage of these women will require further investigation and this will involve attending an assessment clinic and undergoing various further tests. There is a great deal of anxiety associated with this, but most of these women will not to have any significant disease.

A balance must be struck between the cancer detection rate and having an acceptable level of investigations carried out on people who are invited for screening and ultimately are found to have no abnormality. As a result, programmes can never deliver a 100% detection rate, and during any one screening round, a proportion of very small cancers will not be detected. This is true of any screening programme.

Recent developments in Screening in Cumbria

Bowel Cancer Screening

In the UK, around one in 20 people will develop bowel cancer during their lifetime. It is the third most common cancer in the UK, and the second leading cause of cancer deaths, with over 16,000 people dying from it each year.

In Cumbria bowel cancer is the third greatest cause of cancer death in men after lung and prostate cancer, and the third commonest in women after lung and breast cancer. There were 162 deaths in Cumbria on average between 2003 and 2005; in 2007 there were 161. Nationally the five year survival rate is 52.1%. In Cumbria the position is similar at 52.9%. To help tackle the illness, bowel cancer screening was launched in Cumbria in 2008 and is delivered in partnership with NHS North Lancashire. The NHS Bowel Cancer Screening Programme offers screening every two years to all men and women aged 60 to 69. In the third quarter of 2008, 9954 invitation kits were issued to the target group, inviting individual to submit a sample for screening. A further 83 test kits were requested by people who were outside the age range where kits are automatically sent.

Polyps (like skin tags but inside the bowel) and bowel cancers sometimes bleed, and the test that individuals are invited to use is called a 'faecal occult blood' (FOB) test. This works by detecting tiny amounts of blood which cannot normally be seen in bowel motions. 'Occult' means hidden. The FOB test does not diagnose bowel cancer, but the results will indicate whether further investigation (usually a colonoscopy) is needed.

The test is processed and the results returned within two weeks. People who receive an abnormal result will be invited to an appointment with a specialist nurse. The nurse will explain what a colonoscopy involves, assess the patient's fitness for the procedure, and answer any questions.

Of the kits issued in Cumbria, 6,310 were returned which means an uptake rate of around 63%. Of the returned kits 152 gave a positive result. The number of kits sent out in 2009/10 has risen steadily and overall the programme has an uptake rate of 68%, with 1.75% of these tests showing a positive result. Overall the uptake rate

in Cumbria is higher than the national target of 60%. However there is some variation in uptake between localities and amongst different population groups. Such variation has the potential to contribute to health inequalities and presents an opportunity to improve performance overall. National data indicates that regular bowel cancer screening has been shown to reduce the risk of dying from bowel cancer by 16 per cent.

Some risk factors for bowel cancer

Age - bowel cancer can occur in younger people but 8 out of 10 people who are diagnosed with cancer of the bowel are over the age of 60

A previous bowel polyp

Personal history of **chronic bowel inflammation**

Diet – a diet that is high in red meat and fat and low in vegetables, folate and fibre may increase the risk of bowel cancer

Lack of exercise - moderate exercise may help prevent bowel cancer

Obesity - being overweight or obese may increase the risk of bowel cancer

Smoking and alcohol - although not as strong a risk factor as for other cancers, smoking and drinking heavily may also increase the risk of bowel cancer.

Chlamydia: Best to Test

Chlamydia is the most common sexually transmitted infection in the United Kingdom. The NHS National Chlamydia Screening programme has been running since 2003, and targets people under 24. Uptake has been variable, particularly for those in the target group who are not in education. Between April and September 2010 a total of 4,764 tests were carried out in Cumbria: 2,550 among those aged 15-19 years and 2,214 among those aged 20-24 years – this is below the national average for testing. 7.0% of young people tested positive for the infection in Cumbria compared with 7.1% in the North West and 5.6% across England.

The case for a Chlamydia screening programme is strong because not only is the infection symptomless, if left untreated it can significantly damage a person's future reproductive and long term physical health; yet the condition can be detected relatively easily through a simple urine test.
In early 2010, a 'Best 2 Know' campaign was launched to increase uptake of screening in Cumbria. Free, confidential test kits are available in a variety of primary care locations. Young people can also request a postal test kit by text or through the Best 2 Know website. In addition, a number of promotional events were arranged around the county and in school and colleges to raise awareness of the importance of regular screening, especially when with a new sexual partner.

In the summer of 2010, a team from NHS Cumbria manned specially hired luxury 'Best Loos' to raise awareness of the screening programme at the annual Kendal Calling music festival.

In total, 765 tests were collected – representing around 1 in 10 of all the festival goers. Freebies were offered such as glow in the dark condoms, sperm key rings and sugar free heart shaped lollipops. In addition, all screens received over the three day event were entered into a prize draw to win high street shopping vouchers. The test for chlamydia involves collecting a small urine sample which is then sent to a lab for testing. Participants are then contacted discreetly via their chosen method with their result. This is usually within a couple of weeks of taking the test. If someone's test is positive they are advised how to obtain treatment which is usually just one course of antibiotics.

Visit:
www.best2know.co.uk
for more information.

Future plans for Screening in Cumbria

Breast Cancer age expansion

The NHS Breast Screening Programme will extend the age range of women eligible for breast screening to ages 47 to 73 over time. The current age range is 50 to 70. An extra 200,000 women a year will be screened in the UK. Future developments in the breast screening programme will include the introduction of digital mammography to replace the traditional film system currently used in most places.

A large national study is underway investigating the effectiveness of mammography in women who have a strong family history of breast cancer. Ten thousand women aged 40-44 with a significant family history are being recruited and offered annual two-view mammography for five years. The incidence by size, node status and histological grade will be compared with a contemporaneous comparison group and a historical comparison group.

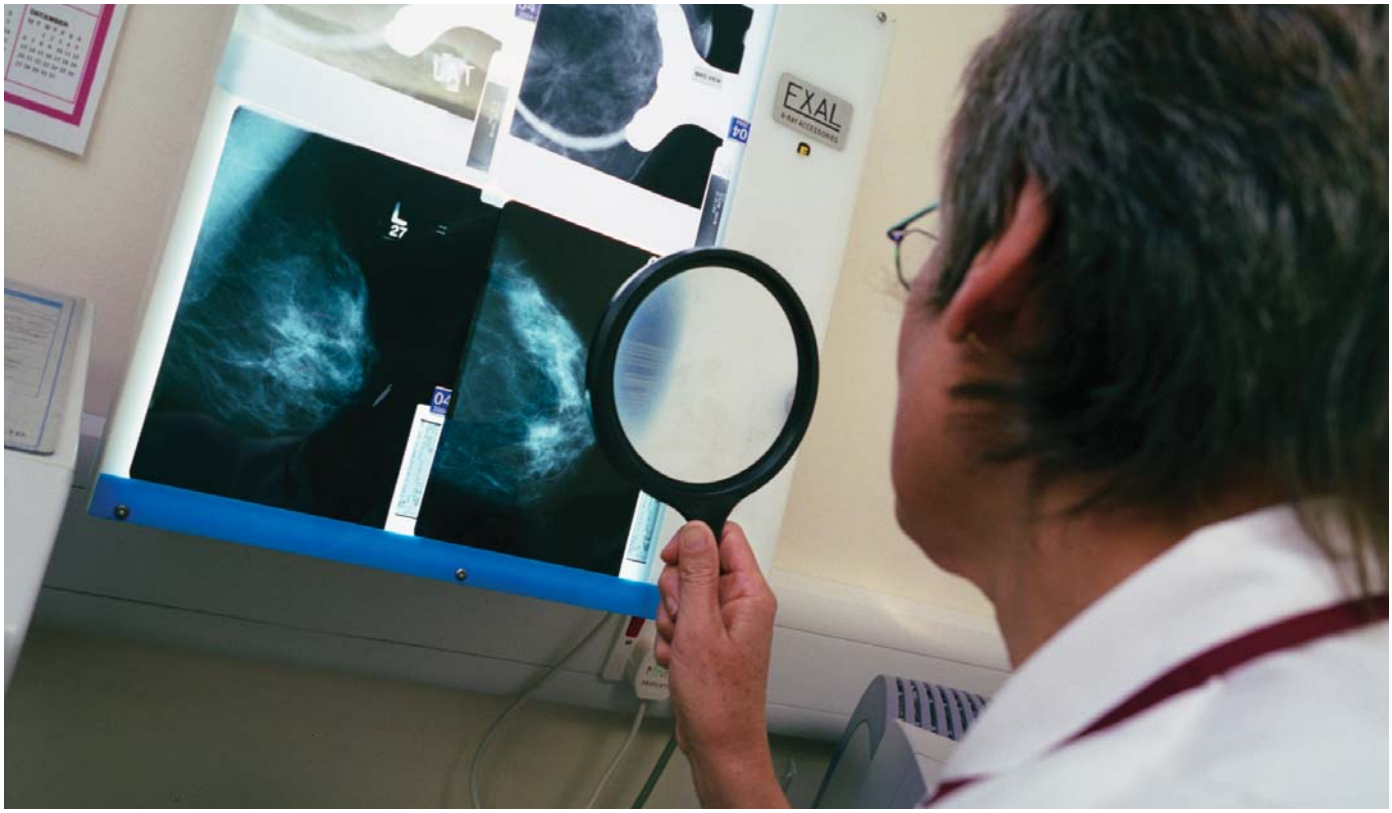
Abdominal Aortic Aneurysm Screening

The NHS Abdominal Aortic Aneurysm (AAA) Screening Programme has been gradually introduced across England from Spring 2009. The aim of the Programme is to reduce deaths from abdominal aortic aneurysms (also called 'AAAs' or 'Triple As') through early detection. An AAA is a ballooning of the abdominal aorta, which is the largest artery in the abdominal cavity.

The NHS AAA Screening Programme has been introduced following research and analysis of data from existing local screening programmes in England which show a reduction in mortality from AAAs when men are offered ultrasound screening in their 65th year. The evidence was assessed by the UK National Screening Committee (UK NSC) against a set of internationally recognised criteria which have confirmed that screening all men aged 65 can deliver benefits to men at a reasonable cost.

Once fully implemented, the programme will invite all men for screening during the year that they turn 65. Men who have an aneurysm detected through screening will be offered treatment or monitoring depending on the size of the aneurysm. Cumbria is part of the Cumbria and Lancashire AAA programme. The Cumbria and Lancashire Programme will offer AAA screening for the population of the six primary care trusts covering a total population of 1.9 million.

Other screening opportunities which might become available nationally and across Cumbria in the future include Alcohol Screening and Prostate Cancer.



Recommendations

As we become older, we are more likely to develop a range of conditions that are rare in younger people. Therefore it is vital that people in Cumbria are aware of the value of screening programmes and take up the opportunity for screening when offered. Screening tests are never 100% accurate and it is important to be aware of changes in our body, for example breast lumps, or a change in bowel habit, and seek medical advice if worried.

There are a number of potential areas for improvement and greater assurance of quality across each of the screening programmes, as evidenced in the recent service failure of breast screening in North Cumbria.

To continue to improve early detection rates and screening programme uptake in Cumbria, I recommend that:

- Communications specialists and health promotion practitioner's work together to deliver campaigns that highlight the importance of screening programmes for targeted groups in the region.
- People in Cumbria take up the opportunity for screening when invited, and encourage friends and relatives to do the same
- People must always be alert to changes in their bodies that could potentially be signs of illness, so women should still be on the lookout for changes in their breasts even if they have recently had a screening test, and people should still report a change in bowel habit or bleeding even if they have recently had a bowel screen

Further information on screening in Cumbria is available in my report, "Health Screening in Cumbria: a Public Health Service – January 2011".


NHS
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Section 5:
Injury and violence

Each year in Cumbria there are a number of deaths and serious injuries resulting from traffic accidents, drowning, poisoning, falls or burns - and violence - from assault or self-inflicted violence. These types of accidents are often categorised as 'external causes of injury'. This section features some examples of external causes of injury that we see most often in Cumbria. I explore measures to reduce mortality from road traffic accidents and discuss violence prevention, and introduce the recently launched suicide prevention strategy. I also look at farming as a hazardous occupation in Cumbria.

Violence prevention in Cumbria

In recent years, there has been major growth in the understanding of how violence burdens communities and contributes to a wide spectrum of health consequences and health risk behaviours in children and adults. The World Health Organisation describe violence as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation".

Violence is among the leading causes of death for people aged 15-44 years worldwide, accounting for 14% of deaths among males and 7% of deaths among females. Violence covers many areas, from intimate partner violence, male on male violence, violence towards children and elder violence.

Domestic violence is a particular distressing issue, accounting for nearly 25% of all recorded violent crime in Cumbria despite being the most under reported crime nationally. The abuse can be physical, mental or even financial. One in four women (and one in six men) in the UK will be the victims of domestic violence during their lifetime, according to research estimates. Two women a week are killed by a current or former male partner.

For every person who dies as a result of violence, many more are injured and suffer from a range of physical, sexual, reproductive and mental health problems. There is also a wide body of research into the lasting effects on children who witness violent incidents and then go on to display similar behaviours or difficulties in maintaining effective relationships in adult life.

Where can victims get help?

Don't wait for an emergency situation to seek help. Victims of any type of domestic violence can:

- talk to a doctor, or other health care professional
- call **0808 2000 247**, the 24-hour National Domestic Violence Helpline run in partnership between Women's Aid and Refuge (calls from a landline are free)
- Visit **www.notinmyhome.co.uk** to report domestic violence
- call Cumbria Constabulary **0845 33 00 247**
- in an emergency, call **999**

NHS Cumbria works in partnership with a number of agencies to provide a coordinated approach to research, guidance and support, staff training and education programmes on all elements of violence and aggression. This is coordinated through Crime and Disorder Reduction Partnerships and the Trauma and Injury Intelligence Group which works to improve data sharing and collection of injury statistics from emergency departments. Working groups are also established to tackle safeguarding and domestic violence.

Cumbria Local Safeguarding Children Board has the lead responsibility to coordinate and ensure the effectiveness of local work to safeguard and promote the welfare of children. Cumbria Local Safeguarding Children Board has produced multi-agency Safeguarding Procedures in accordance with government guidance in 'What to do if you are worried a child is being abused' and the updated 'Working Together to Safeguard Children' which was published in March 2010. For further information go to **www.cumbrialscb.com**.

The Cumbria Domestic Violence Partnership was established in 2003. Its main aim is to ensure high quality domestic violence services are consistent throughout the county. The partnership brings together expertise, resources and commitment, with partners from statutory, voluntary and private sectors to tackle domestic violence in Cumbria.

Alcohol and Violence

There is a wide body of evidence that demonstrates the link between drinking too much alcohol and increases of violence and reckless or dangerous behaviour.

According to research carried out in Cumbria, the majority of assaults occurring in the county happen in the early hours of the morning at the weekends – a prime time for the consumption of alcohol.

- Over 40 per cent of people who go to A&E or a primary care assessment service because they've been assaulted, do so between midnight and 4am on Friday, Saturday, Sundays.
- Over 60 per cent of ambulance call outs due to assaults also occur between midnight and 4am on Friday, Saturday and Sundays.

Research also demonstrates increases of violence incidents during public holidays such as Christmas, or large social events. For example, assault attendances in Emergency Departments across Cumbria, Lancashire and Merseyside during the 2006 World Cup increased by an average of 33% on England match days. The NHS increasingly has to deal with assault victims who've been attacked where alcohol is a contributing factor. These are also increasingly by someone using a glass as a weapon. These types of injuries are not just complex to treat with many people requiring facial reconstruction, but there is also significant psychological impact on the victims.

Often these types of incidents are not premeditated, but a result of tensions boiling over and are fuelled by alcohol. In these situations people often reach out for the nearest weapon, which on our streets and in pubs and clubs at the weekend is glass.

Polycarbonate glasses are already used by some bars and clubs for people drinking outside. They are made from reinforced plastic which is very difficult to break and are available in different styles, which look like existing glass tumblers. If we take away the ability to use such a vessel as a weapon, by replacing glasses with their polycarbonate counterparts, then we have essentially removed weapons from the street.

Safer Roads for Cumbria

The two groups of people that are most likely to become casualties on our roads are young people aged between 16 and 25 and motorcyclists.

During 2009 young people were involved in 25% of road fatalities and 32% of serious injuries. Motorcyclists accounted for 13% of the fatalities and 29% of the serious injuries.

For these reasons many of our initiatives to improve road safety are targeted at these two groups of people.

Figure 6. shows the KSI (killed and seriously injured) road users in Cumbria, on a year-by-year basis since 2005.

Accidents In:	2005	2006	2007	2008	2009	2010
January	26	16	34	23	16	12
February	48	13	22	15	17	10
March	25	30	37	19	17	11
April	36	26	56	32	19	29
May	31	24	16	25	22	44
June	42	37	24	24	28	14
July	39	36	20	32	18	17
August	37	43	26	28	29	28
September	33	36	23	16	31	17
October	39	22	23	16	25	15
November	37	36	23	21	14	8
December	34	25	15	30	11	20



Cumbria Road Safety Partnership (CRSP) was established in 2004. It has just one objective: to reduce the number of people who are killed or injured on Cumbria's roads. The CRSP is made up of members from all the organisations that are concerned with road safety and includes representatives from NHS Cumbria, Cumbria Constabulary, Cumbria Fire and Rescue Service, Cumbria Safety Cameras and Cumbria Highways Agency.

Outlined below are just some of the programmes that have been implemented in Cumbria during the year.

Road Awareness Training

This educational programme is delivered by Cumbria Fire and Rescue Service to children in their final year at school before they are able to learn to drive. The programme is designed to raise young peoples' awareness of dangers on the roads and the outcomes to both themselves and others if they cause or are involved in a road traffic collision.

National Cycle Standard

This cycle training course has replaced the previous cycling proficiency course. The new course teaches children to become more aware of hazards on the road. This year the Department for Transport awarded Cumbria Road Safety Partnership a record local authority cycle training grant of £160,000 to support National Cycle Standard training across Cumbria



Cumbrian Pass+ Scheme

The Cumbrian Pass Plus Scheme targets young drivers aged 17 – 20 who have recently passed their driving test. The scheme provides them with additional subsidised driving instruction and all people enrolled on the course must also attend a Road Awareness Training programme. Pass+ teaches young people how to drive safely in a variety of different road conditions including rural roads, motorways and night driving.

Upon successful completion of Pass+ participants are eligible to receive a reduction in their insurance premiums. During 2009/10, 799 young Cumbrians successfully completed Pass+ training. This represents 19.2% of Cumbrians aged 17 – 20 who passed their driving test during the same time period.

Ride Safe Back Safe

This initiative works with motorcycle, moped and scooter riders to highlight the benefits of voluntary rider training, to promote the wearing of good quality protective clothing and to encourage all drivers to 'THINK Bike and THINK Biker'.

Local Campaigns

The Partnership runs a number of campaigns each year using a range of media such as local TV and radio, buses and the local press to deliver messages across to our target groups. We try to make these relevant to Cumbrian people by giving the messages a distinctly local flavour.

While we are seeing a year on year reduction in the number of serious accidents on Cumbria's roads we want to see this trend continue.

Each year Cumbria strives to reduce the number of road accidents. We have targets to reduce the number of people killed or seriously injured on the roads.

The government target for 2010 is for the total number of people killed or seriously injured on Cumbria's roads to reach a maximum of 305.

We have seen a steady reduction in the number of people harmed on our roads and continue to strive to improve road safety in Cumbria.



A Suicide Prevention Strategy for Cumbria

It is particularly poignant that in the most beautiful county in the country where the social cohesion of its communities is so prized, the suicide rates should are so much higher than when compared to the country as a whole.

Around 50 people die through suicide each year in Cumbria. Our suicide death rate is significantly higher than the average for England, with about 10-15 more suicides a year in Cumbria than expected. Suicide rates are also falling more slowly in Cumbria than in the rest of England.

Although deaths through suicide represent only 1% of all deaths in Cumbria, they account for about 6% of years of life lost to premature death. This is because suicide rates are highest in younger people. In addition, because suicide rates affect disproportionately people living in more deprived areas, suicide accounts for about 16% of inequality in premature mortality, making suicide the second most important contributor to inequality in premature mortality in Cumbria after circulatory disease. As in the rest of England, three times as many men die through suicide than women. Rurality and the farming profession are known risks for suicide in Cumbria.

Many deaths through suicide are preventable. Individuals social and economic factors, as well as access to health and other services can increase people's vulnerability, or conversely, increase their resilience to adverse life events.

Because the reasons for suicide are complex, its prevention requires concerted action at many levels. This is why a wide range of agencies, as well as service users and carers, were brought together in January 2009 by Cumbria's Mental Health Care Stream Board to form the Cumbria Suicide Prevention Reference Group whose aim is to prevent avoidable loss of life through suicide in Cumbria.

At the moment Cumbria will fail to reach the Government set target for reducing the numbers of these sad and tragic events. Until now we have had no adequate framework and strategy to ensure that our collective efforts achieve results in this area. However the recently launched Suicide Prevention Strategy for Cumbria aims to change this. It builds on the Suicide Prevention Local Implementation Framework published by the Care Services Improvement Partnership in 2006 and draws heavily on the recent epidemiological review of suicide in Cumbria. We now have the basis for making a real difference and saving the lives of people whose deaths are a waste in themselves and so often blight the remainder of the lives of those surrounding them.

Farming in Cumbria: A hazardous occupation

Farming is a hazardous occupation. The industry represents approximately 1.8 per cent of the workforce in Great Britain but accounts for about 19 per cent of the reported fatal injuries each year.

Farmers and farm workers work with potentially dangerous machinery, vehicles, chemicals, livestock, at heights or near pits and silos. They are exposed to the effects of bad weather, noise and dust.

Together, these factors can make farms dangerous and often isolating places to work, and there's no doubt that many farming operations involve significant hazards that can result in injury or worse. The risks also include family members working at the farm and children living at the farm.

Over the last ten years, 455 people have died in accidents on British farms and 1,700 were seriously injured. Some 38 of those deaths came last year. Sadly, provisional figures indicate that there have been a further 26 agriculture related deaths since those statistics were compiled, all with a tragic story which will have a real and lasting impact on the families and businesses involved.

The most common causes of death are:

- transport – being struck by moving vehicles;
- falls from a height;
- being struck by a moving or falling object, for example bales, trees etc;
- being trapped by something collapsing or overturning;
- contact with machinery;
- injury by an animal;
- asphyxiation or drowning;
- contact with electricity, nearly two-thirds of which involve overhead power lines.

Agriculture is now the most dangerous industry in the country, based on accidents per worker.

Recommendations

The subject of injury and violence covers a wide number of public health issues, and requires a coordinated, multi-agency effort to tackle some of the prevailing issues.

I recommend that:

- Work should continue to improve our understanding of injury and violence in Cumbria, and especially of threats to health in agricultural communities in order to produce a more effective approach to prevention.





Section 6:
Healthy workplace

We spend a large amount of time in the workplace, therefore it is vital that employers take an active role in encouraging health and well being and providing a safe environment. That is the focus for this section, which explores healthy workplace initiatives and steps employees can take to promote wellbeing.

For most of us, work is good for our long-term health and for a family's well-being and is an essential part of a happy and fulfilling life. Yet the benefits to both employers and employees of promoting health and wellbeing at work have only recently been recognised.

The economic cost of sickness absence and worklessness associated with working-age ill health is over £100 billion a year – greater than the entire budget for the NHS and equivalent to the GDP of Portugal.

With the publication of Dame Carol Black's review, *Working for a healthier tomorrow*, in March 2008, the issue of health, work and well-being and the links between them are now firmly on the Government's agenda.

The sheer scale of the numbers of people on incapacity benefits represents an historical failure of health care and employment support to address the needs of the working age population in Britain. The problem is not just with the existing caseload. Each year, 600,000 people move onto incapacity benefits. The system is failing those with common health condition, who, with the right support, could instead have maintained their job and progressed in the workplace.

Lack of appropriate information and advice is the most common barrier to employers investing in the health and well-being of their employees. This is particularly true for smaller organisations, yet there are many initiatives to support a healthy workplace, and many small actions and signposting that can help.

The economic benefits to promoting a healthy workplace and workforce are unquestionable. Yet due to the time many people spend in work, the benefits of promoting good mental health, exercise and healthy living in the workplace is also vital for the long-term health of the working population. National initiatives are helping to promote a healthier workplace. Many pieces of legislation that cover things such as working hours, rest breaks and working conditions are in place to ensure that employees are supported in the workplace. On July 1st 2007, England introduced a new law to make virtually all enclosed public places and workplaces in England smokefree.

A smokefree England ensures a healthier environment, so everyone can socialise, relax, travel, shop and work free from secondhand smoke.

Sick note to fit note – helping people stay in work

On the 6 April 2010 the sick note was replaced by the fit note.

Evidence shows that work is generally good for your health and that often going back to work can actually aid a person's recovery. On the other hand, staying off work can lead to long-term absence and job loss with the risk of isolation, loss of confidence, mental health issues, de-skilling and social exclusion.

The new fit note can help. Doctors are able to advise people who are on sick leave for over 7 days whether, with extra support from their employer, they could return to work earlier.

Understanding the fit note

When a doctor provides a fit note they will advise on one of two options. Either the employee is 'not fit for work' or 'may be fit for work'.
'Not fit for work'
The doctor will choose this option when they believe that the health condition will prevent a return to work for a stated period of time.
'May be fit for work'
the doctor will choose this option when they believe that a return to work may be possible with some help from the employer.

The doctor may include some comments which will help the employer understand how the employee is affected by the condition. If appropriate, they can also suggest one or more common ways to help facilitate a return to work. This could include:

- a phased return to work - where the employee may benefit from a gradual increase in work duties or working hours, for example after an operation or after injury
- altered hours - allowing the flexibility to start or leave later, for example if the employee struggles travelling in the 'rush hour'
- amended duties - to take into account the condition, for example removing heavy lifting if the employee has had a back injury
- changes to the workplace - to take into account medical condition, for example allowing the employee to work on the ground floor if they have problems going up and down stairs

Find more details online at**www.dwp.gov.uk/fitnote**

Many larger workplaces have occupational health support, or employee support through a HR department. A number of initiatives can support a healthier workforce including programmes to address:

Stress – highlighting the issues and producing targeted advice for employees and managers on their role in managing it.

Bullying – highlighting the issues and producing targeted advice for managers and staff, as well as promoting improvements in working relationships, communications and dignity at work.
Violence and aggression – taking a no tolerance approach to violence and aggression in the workplace, and increasing the number of prosecutions against perpetrators.

Manual handling – working to reduce the number of back injuries and to provide training in effective manual handling.

Stop smoking support services – complying with smoke free legislation and signposting to stop smoking services.

Healthy canteen – larger employers are encouraged to provide healthy meals and snacks in staff restaurant areas.

NHS Cumbria's Stop Smoking Service

NHS Cumbria's Stop Smoking Service offers a range of support services from one-to-one appointments with a stop smoking advisor, to telephone consultations and group support where clients can quit together with family and friends. The service also provides specialist support for expectant mothers and their families. provides healthy workplace stop smoking advise, and has a dedicated resource to help organisations reduce smoking within their workforce.

In 2009/10 the service helped 3,732 smokers across Cumbria to quit, with a further 5,958 setting a quit date.

Workplace Specialist Stop Smoking Advisors role involves approaching workplaces and providing on site support to workers to stop smoking.

This approach offers benefits to both employers and employees.

For the employee they are given a priority referral to the Stop Smoking Service. They are seen on site during work time which saves both personal time and travel. Nicotine Replacement Therapy is made available via prescription.

On average, non smokers take fewer sick days than smokers. Therefore ultimately employers will see reduced absenteeism. There is likely to be an increase in productivity as time is not taken for unscheduled smoking breaks and overall the health of the workforce is improved.

The Specialist Advisor is currently working with Cumbria Trades Union Congress to develop a joint approach to wellbeing in the workplace.

Recommendations

Individuals have a fundamental personal responsibility to maintain their own health.

Occupational health has traditionally never been part of the NHS, other than for its own employees, yet with many employers to date having failed to provide access to adequate occupational health, and the associated costs to the taxpayer and the economy being so substantial, there is a strong case for a county wide service in Cumbria.

Ultimately, no efforts from employers or health care professionals will be effective unless individuals actively seek to remain in or return to work and do not assume that being signed off work with a health condition is always necessary or beneficial, yet in order to ensure a coordinated effort to improve workplace health, I recommend that:

- NHS Cumbria should continue to develop its involvement in the provision of work-related health interventions and occupational health services, to ensure a holistic approach to occupational health that supports both those in work, and those seeking work.



Section 7:
Health protection and hard to reach groups

Reducing inequalities in health and health provision is a key priority for the Cumbria Public Health Team and NHS Cumbria. This section explores health inequalities in Cumbria, and in particular looks at methods that have been used to engage with hard to reach groups, particularly the Gypsy and Traveller community in Cumbria.

Cumbria is regarded as one of the most scenic parts of England, yet this beauty masks pockets of deprivation and inequality around the county. The Index of Multiple Deprivation ranks Cumbria as the 84th most deprived out of the 149 county councils in England.

Of the 354 local authorities, when ranked in order of deprivation, four of Cumbria's six localities (Allerdale, Barrow, Carlisle, Copeland, Eden, and South Lakeland) fall below the national average: Barrow in Furness is ranked as the 29th most deprived district council in the country, Copeland the 84th, Allerdale 105 and Carlisle 108. Eden's position at 200 and South Lakeland's at 258, places them above average.

Average life expectancy in Moss Bay, Allerdale, is 72 whilst in Greystoke, Eden, it is 91. The death rate for cancer in Barrow is 11% higher than the England and Wales average, and in Carlisle it is 7% higher. This compares markedly with the death rate for cancer in South Lakeland which is 13% lower than England and Wales. It is clear to see the link between deprived areas and associated influences on health such as access to high-quality housing, employment, crime levels and education all have an effect on health.

Carlisle and Barrow have been designated by the Department of Health as Spearhead areas, as they are in the most deprived 20% of the English population.

For the worst districts in Cumbria to 'level up' with the best, 270 premature deaths need to be prevented annually. This includes:

Accidents	8 deaths
Coronary Heart Disease	50 deaths
Stroke	16 deaths
Lung cancer	34 deaths
Suicide	8 deaths
Breast cancer	6 deaths
All cancers	67 deaths

Smoking, excessive use of alcohol, a bad diet and lack of exercise all contribute to ill-health. Concerns in Cumbria that have an implication on health protection include:

- Relatively large numbers of people living in housing that is in poor condition
- High levels of fuel poverty
- A low proportion of the workforce educated to degree level or higher
- Low employment levels amongst people with disabilities
- On average men in Cumbria lose 10 months of life, and women 4.5 months, directly attributable to alcohol
- 50-60 suicides each year

NHS Cumbria is committed to reducing inequalities in the health of our population. We are also committed to ensuring that all members of our population have equal access to our services. This is a commitment in the Strategic Plan, and will feature heavily in developing plans for GP consortia.

Under the government's changes, GP consortia (very similar to our current GP-led localities) will take over responsibly for all local health care commissioning from the primary care trust from April 2012. Working closely with public health and other partners, GP consortia in Cumbria will ensure that local health services are shaped by the needs of their communities, with streamlined care pathways, better integration of services, local health programmes to address health inequalities and greater clinical leadership. Resources and health teams will be shaped around individual communities, leading to improved local health outcomes.

It is also hoped that the increased autonomy and flexibility afforded to GP consortia will lead to the development of closer relationships with the voluntary sector, which are fundamental to developing links and improving access for hard-to-reach groups and communities.

Engaging with hard-to-reach groups

Hard-to-reach patients are often not in contact with any health and care services, as they are either unaware of them or do not wish to access them, and are the most at-risk of ill-health as a result. Services often struggle to identify and make contact with such individuals.

Improved access, improved prevention and early intervention in primary care are central to reducing inequalities in health.

Hard to reach groups are often those who suffer from social exclusion. They include homeless people, Gypsies and Travellers, asylum seekers, refugees, people with disabilities, those living in deprivation and prisoners. Members of these groups tend to suffer high levels of morbidity and premature death. Activities led by Public Health Cumbria to reach these groups have included:

- vaccination programmes for the Gypsy and Traveller community
- health needs assessment at Haverigg Prison
- special vaccination clinics for children living in disadvantaged areas

Gypsies and Travellers

Cumbria has a relatively large Gypsy and Traveller community and is host to the annual Appleby Horse Fair in the first week of June each year, one of the largest gatherings of Gypsies and Travellers from all over the country and abroad.

The Cumbria Gypsy and Traveller Accommodation Assessment 2008 estimated that there were at least 771 local Gypsies and Travellers at the time of the study period, yet it was acknowledged that this was likely to be an under-estimate. In Cumbria there are four authorised Traveller encampments, however those living on unauthorised sites and those living in bricks and mortar are largely unaccounted for. This presents a large body of hard-to-reach individuals and family groups.

Evidence indicates that Gypsies and Travellers have significantly poorer health than other UK residents. National data about their health and health care status is limited; however it is widely acknowledged that the Traveller community have limited contact with health and care services. While there are no national morbidity statistics, it is acknowledged that the life expectancy of Gypsies is 10 -12 years below that of the settled population.

One in five Gypsy and Traveller women has experienced the death of their child compared to less than 1% of the settled population and the rate of miscarriage is almost twice that of the settled population.

To find out more about the health needs, beliefs and experiences of using health services, as well as barriers to accessing health services, NHS Cumbria conducted a health needs assessment of the Cumbrian Gypsy Traveller population.

The findings support the evidence that Gypsy Travellers have poorer health than the settled population. A number of issues were raised, giving a further understanding of the needs of this group. Research established that:

- The prevalence of mental health and wellbeing problems within the Travelling community in Cumbria appears to be considerably higher than in both the overall population of the North West Region and in England as a whole.
- Immunisation uptake in Travelling population is low. There is a particular resistance to the MMR vaccination amongst Travellers.
- Barriers to health care access were experienced, including: reluctance of some GP surgeries to register Travellers with no permanent address or postcode; practical problems of access whilst travelling; complex and variable appointment systems; mismatch of expectations between Travellers and health care staff; interruption of treatment as a consequence of travelling or being moved on/evicted.
- Although the percentage of Travellers registered with a GP in Cumbria is relatively high (86 per cent) and relationships with health care staff seem generally positive, over half (54 per cent) of the Traveller sample was unwilling to identify themselves as Travellers to their GP because of fear of discrimination and negative stereotyping.
- Furthermore, poor literacy may be an important factor in limiting Travellers access to health services.

The research highlighted areas where improvements must be made if we are realistically to reduce the inequalities in the health of Cumbrian Travellers, and provided a useful case study for addressing hard to reach groups.

The following recommendations are currently being implemented in Cumbria:

1. **Identify appropriate health workers with dedicated time to work with local Travellers** - dedicated/specialist health workers would play an important role in raising awareness amongst Travellers of existing health provision and facilitating equitable access to a range of health services, including mental health services.

2. **Health Trainers on each authorised site in Cumbria - t**he introduction of a NVQ qualified Health Trainer on each of the authorised Traveller sites in Cumbria would provide an opportunity to deliver health promotion and improve health literacy for Travellers.

3. **The introduction of care pathways for Travellers -** it is proposed that the development of multi-agency care pathways for Travellers will improve health outcomes for mobile families.

4. **Immunisation programmes -** the introduction of dedicated immunisation programmes for Travellers.

5. **Implement mandatory cultural awareness training for all staff that may interact or have contact with Travellers or other vulnerable groups** - this will enable the provision of more culturally sensitive services for Travellers.

6. **Ethnic monitoring -** staff should record ethnicity on patient records to ensure that more accurate data on minority groups can be collected in order to develop targeted health programmes.

7. **Develop patient-held records for adult Travellers -** there is strong support for this initiative from local health professionals and Travellers as a way of improving continuity of care.

8. **Support the development of a county/regional network of good practice in primary care**- develop a regional network in order that mobile Travellers may be signposted to 'culturally safe' GP surgeries in other areas.

Recommendations

In addition to the specific recommendations for Gypsies and Travellers, the challenge for the NHS in Cumbria is to eradicate the health divide and level out inequalities. Increasingly Public Health Cumbria is working with partner agencies to tackle many of the problems that impact on health, yet in order to further engage with hard-to-reach groups, I recommend that

- Public Health Cumbria continues to devise campaigns to reach hard to reach groups and increase uptake of screening and vaccinations.

- We work with HMP Haverigg to implement the findings of the health needs assessment and so improve the health of prisoners. Some of the areas that require attention are screening programmes, smoking and diet.





Section 8:
Our changing climate

In this section I look at how climate can affect our health. We have experienced two of our coldest winters in over 40 years, and studies suggest that this is set to continue. If we are to see more extreme weather, we will continue to see the public health effects of this, so need to ensure that public health programmes further focus on addressing issues linked to our changing climate.

Weather has a profound effect on health and well-being. Studies have been able to demonstrate that weather is associated with changes in birth rates and sperm counts, and also leads to increased outbreaks of pneumonia, influenza and bronchitis.

Extreme weather brings many problems, particularly for the very young or old, and the vulnerable. Heat waves cause a number of public health concerns, such as heatstroke, heat exhaustion and sun burn, as does extreme cold weather and its associated problems such as slips trips and falls and the aggravation of existing medical conditions.

Direct health effects of climate change can include injuries and illnesses from severe weather, floods, and heat exposure; increases in disease caused by allergies, respiratory problems, and illnesses carried by insects or in water, particularly flood water; and threats to the safety and availability of our food and water supplies. Weather conditions also have a measured impact an individual's overall mood and extreme weather can cause less direct health problems such as worry and depression.

Extreme weather conditions have led to floods, famine and drought throughout the world. This has been seen recently in the failure of crops, leading to food shortages and famine.

Changes in weather and difficulties in growing crops will inevitably lead to a rise in the price of bread, milk and meat, a trend that we are already beginning to see with problems with the 2010 wheat crop seeing prices increase from £100 per tonne in 2009 to £160 in September 2010.

Our changing climate and extreme weather conditions are unquestionably leading to a further threat to public health and Cumbria has not escaped its share of extreme weather – with sub-zero winter temperatures and devastating floods affecting several parts of Cumbria in November 2009 and in Carlisle in January 2005.

Weather also causes problems around travel and infrastructure, and puts enormous pressure on NHS services.

How our changing climate is affecting our health

Recent data from the World Health Organisation (WHO) suggest that annually approximately 5 million people suffer from a climate related illness and there are 150,000 deaths globally from the effects of climate change. By the year 2030 it is anticipated that this may double.

Increases in heart disease, obesity and other chronic diseases, as well as an increasingly ageing population, will mean that a greater number of people will be susceptible to weather related deaths in the future.

Research published by NHS Cumbria earlier this year, shows that around 250 avoidable deaths occur each winter in the county.

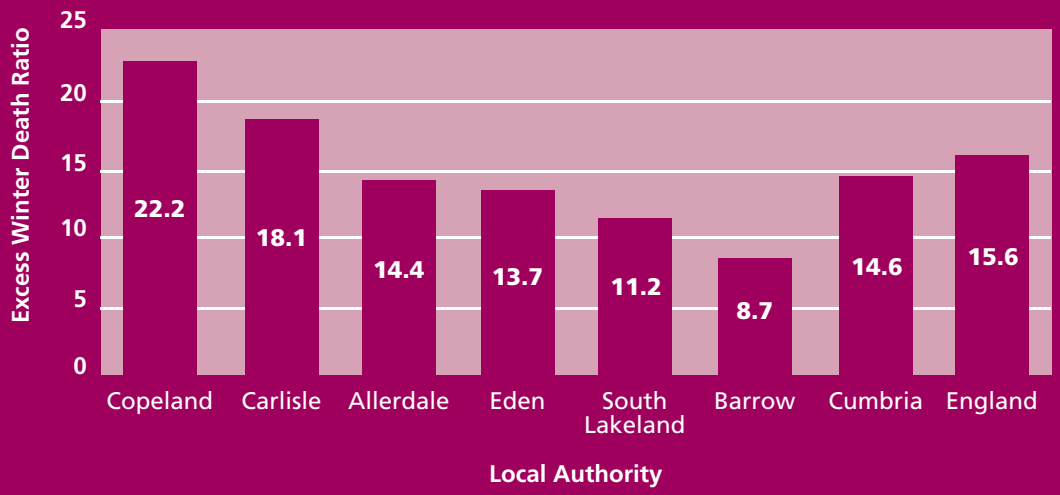
Excess Winter Deaths

Excess Winter Deaths are defined as the difference between the number of deaths during the four winter months (December – March) and the average number of deaths during the preceding Autumn (August – November) and the following Summer (April – July). The number of extra deaths occurring in winter varies depending upon the temperature and level of disease (particularly 'flu) in the population as well as other factors. The elderly experience the greatest increase in deaths each winter.

Figure 7. shows the excess winter death ratio for each of the local authorities in Cumbria and compares them with the overall average for Cumbria and for England during the period 2005 - 2008.

The chart shows that Copeland and Carlisle have the highest ratio of excess winter deaths. However these findings were not significantly higher than the average for England.

Figure 7. Excess Winter Death Ratio



The elderly and vulnerable suffer more in the winter months, with cold weather aggravating a number of health conditions. Colder weather can lead to some people suffering serious health problems such as heart attacks, strokes or pneumonia.

This table illustrates the effects of living in temperatures below the recommended 16–21°C (or recommended 18°C and over in living areas):

INDOOR TEMPERATURE	EFFECT ON HEALTH
21°C	Recommended living room temperature
18°C	Minimum temperature with no health risk, though may feel cold
Under 16°C	Resistance to respiratory diseases may be diminished
9–12°C	Increases blood pressure and risk of cardiovascular disease
5°C	High risk of hypothermia

There are currently more than 33,000 pensioners who live alone in Cumbria. The number of older people in the county is expected to grow by 69,000 over the next twenty years, so we need to ensure we give support to our older population during cold weather.

Problems we may experience due to extreme weather

Heat wave

Heat exhaustion can happen to anyone in hot weather and if it isn't treated it can lead to heatstroke, which can be dangerous and even fatal. The average temperature in Cumbria and the North West is predicted to increase, leading to an increase in episodes of heat waves. It is anticipated in the UK there will be an additional 2,000 heat related deaths a year by 2050. The chronically ill, elderly, young, and deprived are most susceptible to health problems caused by heat, and an aging population in Cumbria could result in more fatalities during heat waves.

Water shortages

In summer of 2010 many areas in Cumbria were subject to water rationing measurers as a result of local reservoirs being unsustainably low. Extremes of weather patterns in the future will produce periods of little or no rain. Drought may increase the risk of dehydration especially in the elderly. An increase of infectious diseases' due to reduced hygiene and increased risk of water contamination then follow. Water shortages mean that water is prioritised for human consumption with crops and industry having reduced supplies.

Food shortages

The price of food is likely to increase due to increasing production and reduced raw material costs. Fewer people will be able to afford manufactured food; this will result in a greater need to grow crops. The deprived will be the most vulnerable. In 2010, the cost of wheat increased from £100 a tonne in 2009 to £160 a tonne in September 2010.

Coastal, River and Flash Floods

The risk of serious flooding is increasing in the UK, with metrological records being broken every year. The flooding in Cockermouth (November 2009) was the greatest downpour in the UK in a single 24 hour period since records began. Increased flooding could cause contamination of drinking water and waterborne infections. This was clearly shown in the devastating floods in Pakistan August / September 2010, when there were several outbreaks of Cholera due to the worst flooding in recent years, with 21 million people being displaced. Increased water temperatures in standing water such as reservoirs could increase water blooming and bacterial infections.

Infectious diseases

There is a clear link between rises of cases of food poisoning and periods of warm weather. The number of food poisoning cases are predicted to increase up to 10,000 cases per year in the UK. changes in weather conditions also lead to the spread of communicable diseases such as coughs, could, flu and norovirus.

Cancer and cataracts

By 2050 in the UK, with warmer, sunnier conditions, cases of skin cancer are anticipated to increase by up to 5,000 cases per year.

Ironically, in part this will come about as a result of our infatuation with sun tan, leading to the use of artificial tanning methods.

Ultra Violet Light, Sunbeds and Skin Cancer

Each year in the United Kingdom there are 10,400 new cases of melanoma and 81,500 new cases of non-melanoma skin cancers. There are around 2000 deaths from melanoma per year. Commercial outlets offering sunbed sessions have been increasing rapidly in recent years. Sunbeds, sunlamps and tanning booths give out the same type of harmful radiation as sunlight:

- UVA rays make up about 95% of sunlight. They can cause skin to age early, making it look coarse, leathery and wrinkled.
- UVB rays make up about 5% and cause skin to burn.

A tan is our body's attempt to protect itself from the damaging effect of UV rays. The effects of sunbed sessions are largely cosmetic and psychological. There is a perception that sunbeds provide a source of vitamin D – which is needed for healthy teeth and bones. We get most of your vitamin D from sunlight on our skin, yet the effects on vitamin D synthesis from sunbeds are limited and better supplied pharmacologically if there is a demonstrable need.

Excessive exposure to sunbeds can cause skin aging, immunosuppression and cataracts in unprotected eyes.

Emerging evidence also shows a substantially increased risk of malignant melanoma (75%) in those who have used sunbeds in their first three decades of life.

The risks of sunbed use are greatest for the young, fair skinned and those who use it excessively or produce skin burning. UV light has a very limited therapeutic use in a small number of medical conditions, although this is carefully controlled under medical guidance. The World Health Organisation recommends that UV radiation appliances only be used for medical purposes not for tanning or cosmetic reasons.

Only 20% of tanning salons are members of a voluntary body, and salons and use are largely uncontrolled. Members are required to work to a code of practice which reduces the risk from UV radiation.

Surveys carried out across the UK reveal that 19% of tanning salon users are less than 20 years old and girls tend to use them more than boys.

The Sunbeds (Regulation) Act 2010 comes into force in April 2011 and prohibits persons under 18 years of age from using commercial sunbeds. This legislation allows further controls on protective eye wear to be brought into force at a later date. Local authority environmental health staff will be assessing compliance with this legislation during health and safety inspections.

Why is our climate changing?

Although a well-debated issue, some believe that changes to our weather patterns are caused by global warming. This argument is sparking frank and earnest debate in the scientific world, with two camps, one passionately believing in global warming and one that passionately denies its existence.

Human activities, and particularly the generation of power using fossil fuels, have been attributed to global warning. Driving cars, using electricity from coal-fired power plants, or heating our homes with oil or natural gas, we release carbon dioxide and other heat-trapping gases into the atmosphere.

It is claimed by pro global warning scientists that global warming is attributable to the

melting of Glaciers and Arctic Ice caps. As a result of this melting it is claimed that sea levels are rising. In the United Kingdom, it would take an increase of sea level by 10 metres to start to have significant impact with the Fens and Norfolk being the worst hit areas. Globally a rise of 1 metre would swamp most of the US Eastern seaboard cities, while 50% of the Maldives would become submerged.

It cannot be denied that we are experienced a changing climate, with more and more examples of extreme weather. We must accept and plan for the fact that we will continue to suffer from hard winters, increased flood risk and heat waves in Cumbria. The move to integrate public health with local authority will help us to further ensure that resources are targeted to help deal with climate pressures, such as flood defences and ensuring that our transport network can cope in extreme temperatures.

Are unfair heating bills a risk to public health?

Last winter saw 25,400 more deaths in England and Wales, compared with the average for the non-winter period. December 2010 was the coldest in 100 years and one of the coldest months ever recorded in the UK, according to the Met Office.

In Cumbria, latest figures from the county's NHS public health team show that the second week of December (6-12 Dec) saw 46 excess winter deaths in the county.

Colder weather can lead to people suffering serious health problems such as heart attacks, strokes or pneumonia with poorly heated homes a significant factor.

The number of households living in fuel poverty has been rising steadily since 2003 and now stands at almost 5 million according to government figures. The same figures show that this has largely been caused by rising energy prices, which have gone up by an average of 80 per cent between 2004 and 2008.

Energy companies currently structure energy bills around primary and secondary units. Households are billed more for primary units, and move on to cheaper secondary units when these are used up. The energy market that has developed in the UK is too regressive and penalises those on low incomes who use the least energy while rewarding households who can afford greater energy consumption.

To tackle this, Public Health Cumbria advises that Ofgem must look at ways of introducing a progressive energy pricing policy which makes sure the first energy units used are not the most expensive.

As well as the benefits to public health by making it cheaper for older people and those on low incomes to heat their homes properly, a progressive pricing structure would also be more environmentally sustainable.

Switching the practice of rewarding greater consumption with reduced per-unit costs would make it easier for low income households to heat their homes during freezing winter temperatures and help to reduce winter deaths.

Using Sustainable Energy

The human contribution to global warming can be mitigated by reducing the greenhouse gasses, and sustainable energy is one of the methods being adopted by society to mitigate global warming and climate change.

To have a real different though, we would need to see the dependence on energy to be reduced and the way energy is generated to be free from expelling any carbon dioxide and other heat trapping gasses. This can be achieved in part by the generation of energy through sustainable energy production.

Cumbria is very well placed to maximise on sustainable energy particually forms that rely on wind or water.

Nuclear

Nuclear power produces around 11% of the world's energy needs, and produces huge amounts of energy from small amounts of fuel.
About a mile north of Seascale in Cumbria is the Sellafield Nuclear Site, which was the site of the world's first commercial nuclear power station, Calder Hall, and the Windscale Nuclear Reactor (Piles) - Britain's first attempt at a nuclear reactor to produce plutonium for the war effort, which suffered a major incident in 1957. This site is now home to Sellafield Reprocessing Plant - a site that converts the spent fuel from nuclear reactors worldwide into re-useable uranium, plutonium, and highly radioactive fission products that will have to be safely stored for thousands of years and is a major employer in the area.
a new generation of nuclear installation is under active consideration, yet the issues to do with the benefits and risks of nuclear need to be more widely debated.

As the discussion of the nuclear power option moves forward, it is critically important to consider what is now known about the public health and environmental risks of the nuclear fuel cycle. There is now a large body of knowledge about the impact of uranium mining and milling, transportation of radioactive materials, power reactor operations, and waste disposal and decommissioning of commercial reactors, yet literature on public health aspects is comparatively thin considering the size of the industry and the concerns which are raised. There is a body of research on the human health effects of low-level radiation exposure on workers exposed in the nuclear industry, and research has been undertaken on effects of surrounding communities, yet the nuclear industry pros and cons needs to be discussed further.

Wind Power

Cumbria is home to 17 wind farms with around 100 operational turbines with a capacity of 78MW. A further 13 with a 27MW capacity are awaiting construction and 12 with 28.5MW capacity under consideration. They are mostly sited around the coastline and in a strip east of the M6 between Carlisle and Penrith.

The ecological advantage of wind power is well recognised. Electricity is produced without the emission of thousands of harmful gasses. The electricity generated is piped into the National Grid. A major drawback is that it only generates electricity when the wind is blowing and its effectiveness has been questioned.

Hydro Power

Cumbria and the Lake District has used hydro power for hundreds of years to generate power from its many mills that provided the energy to turn the machines that kept its industry productive.

To produce electricity, significant volumes of moving water are required. Water will need to be diverted from a stream or river through a turbine, which turns the energy into electricity by means of a generator. Although many thousands of mills or mill sites still exist, most operate on large, slow-moving bodies of water, whereas it is easier to generate electricity where

there is a fast flow of water that can be channelled to hit a turbine at high pressure.

Solar power

Solar power is the conversion of sunlight into electricity. Solar installations in recent years have also largely begun to expand into residential areas, with governments offering incentive programs to make "green" energy a more economically viable option.

Energy efficient homes

To protect against extreme weather, as well as save energy, homes should be properly insulated: lofts should have at least 10 inches of insulation, and wall cavities should be insulated too. There are grants available to help make homes more energy efficient.



Recommendations

The interdependence of human health and wellbeing on the environment is becoming clearer as we grapple with the issues of sustainability and global warming. How we use energy, and shape our human habitats in the form of our towns and villages and how we live, work, play and move around within and between them is likely to become an increasing matter of concern as we progress through this decade.

To further prepare for changes to our climate, I recommend that:

- Public Health Cumbria should seek to support increasing understanding of these issues so that it can play a full part in shaping the policy options in the years to come.
- We work with communications experts to promote awareness raising campaigns such as ensuring homes are prepared for winter, at-risk groups receive a seasonal flu vaccine, being a good-neighbour to ensure that our more vulnerable members of society are cared for.


Irena

Section 9:

Review of last year's recommendations

Cumbria has had a difficult and traumatic year, yet the challenges we have faced as a county have demonstrated Cumbria's enormous community spirit and resilience in times of adversity. Recent events have reinforced the value of community and the importance of communities coming together to help and support each other. Looking after neighbours, offering support and talking to each other has helped the recovery process, and cemented community relationships. Health and support services have also learnt from the resilience of our communities and have been instrumental in providing support to improve the outcomes for mental health and wellbeing for the communities of Cumbria.

Below I provide a brief update on the progress made to achieve the recommendations that were made in 2010.

1. The Children's Trust Board continues to provide the strategic leadership of commissioning services and interventions to improve the wellbeing and mental health of Children and Young People from birth to adulthood. **Although the statutory basis of Children's Trust Boards have now ended, partner agencies in Cumbria remain committed to a joint strategic approach to developing holistic services for children. This will be coordinated through the new Health and Wellbeing Board, which is part of government health reforms.**

2. Strategic linkages should be made within the Cumbria Community Strategy between the improvement of the psychological wellbeing and mental health of Children and Young People, and issues relating to health inequalities, in particular, the reduction of child poverty, reducing social isolation, improving educational attainment and tackling unemployment. **Progress on Cumbria's Community Strategy awaits clarity on new local government structures. Cumbria's forthcoming Mental Health and Wellbeing Strategic Framework, which will be accountable through the Health and Wellbeing Board, calls for joint action to tackle the root causes of population mental ill-health and inequalities.**

3. The commissioning process for health services in Cumbria ensures that all opportunities are taken to maximise the wellbeing and mental health of children, especially across the range of universal, targeted and specialist services provided by the new Children's Health Service Provider in Cumbria. **Emotional health and wellbeing of children and young people is an integral part of Cumbria's Ways of Working which underpin the new commissioning arrangements for Children's Services in Cumbria**

4. Child and Adolescent Mental Health Services should be redesigned as a priority within each locality, applying the learning from the Furness Transformation Project. **Mental health services are now set to become further integrated with community services, following changes that will see NHS Cumbria's provider arm joining the county's mental health provider, Cumbria Partnership NHS Foundation Trust.**

5. Children and young people should have the best start in life by developing an appropriate curriculum to ensure that all children develop mental health coping skills. This is a priority. Parents should also be supported in their parenting role and have access to services that meet their wellbeing and mental health needs.
Public Health Cumbria continues to work closely with schools, Targeted Adolescent Mental Health Services, children's services and children's centres, health visitors and school nursing teams to make sure children and young people get the best possible start in life.

6. Work to be undertaken so that the public becomes more aware of wellbeing issues and is engaged in activities that increase individual and collective wellbeing, such as the five ways to wellbeing outlined in last year's report.
A wellbeing discussion kit has been co-designed and piloted in Cumbria for use across the North West. Health and other statutory and voluntary sector organisations, workplaces such as the NHS and Sellafield, service users and carers and the public are taking up the call for wellbeing across the county. For example, Eden Mental Health Group has produced a wellbeing pamphlet and Carlisle and Eden MIND has created a walk in wellbeing space in the centre of Penrith.

7. The existing skills and capabilities in our communities are developed to increase levels of resilience in Cumbria (our "resilience Capital") for example through development of peer support networks, electronic resources and support through 'new media'. Community asset mapping should routinely be used alongside needs assessments to inform health and mental health commissioning.
A number of successful briefing events were held during the year to engage as many partners as possible in asset based working and celebrating the work already undertaken within both voluntary and statutory sectors.

As part of the work on the Cockermouth Centre for the Third Age, work has been undertaken to create an asset register for the community which will be available online.

8. Health impact assessments of new developments in Cumbria should include a mental health impact assessment and the evaluation of mental health services should include equity impacts.
Public Health Cumbria is working to ensure that any future new developments involve patients and stakeholders in the initial design and scoping stage, and that health impact assessments and equality impact assessments on the building take into consideration the impact on mental health and access to mental health services.

9. Further partnerships should be developed between health and other sectors to address the socio-economic problems that are the catalyst for mental ill-health.
Cumbria's Health and Wellbeing Strategy, underpinned by the Joint Strategic Needs Assessment and accountable to the Health and Wellbeing Board, will play a central role in co-ordinating action to address the social determinants of health.

10. A database of initiatives and resources for mental health and wellbeing in Cumbria should be created, for use by the general public and professionals.
Cumbria County Council has published six directories of services, one for each of the six district council areas of Cumbria. NHS Cumbria, Cumbria County Council and the voluntary sector are working together to produce an electronic resource to showcase the full range of services and activities that support wellbeing and health.

11. Social marketing initiatives about alcohol should include messages about its potential negative effects on mental health.
NHS Cumbria has a strong communications and marketing team, who devise and deliver social marketing and public relations campaigns to raise awareness and lead to behaviour change in a number of public health areas, from smoking to screening. Alcohol messages have been developed on the potential negative effectives on mental health, weight and aggression.

12. Existing mental health services should be further developed, based on a model centred around the person, fully integrated into primary care and focused on mental health promotion, public mental health and recovery.
In Cumbria, community services will soon be jointed with mental health services as part of government reforms to the NHS. This will see NHS Cumbria's provider arm joining Cumbria Partnership NHS Foundation Trust. The new partnership brings excellent opportunities to develop a seamless mental and community health service, with more mental health support delivered through GP surgeries, which is where most people first access mental health support.

Section 10:
Conclusions and recommendations

This year's report has concentrated on Health Protection and the external threats to health and wellbeing in Cumbria, a major domain of public health that has been especially important for us over the past two years. I hope that in bringing together an overview of our current understanding of the relevant issues and of the arrangements that we have to respond to them will put us in a stronger position to avoid the toll of avoidable ill health in the coming years.

Summary of recommendations
To improve health outcomes in Cumbria I recommend:

1. Still closer collaboration between partner agencies both during emergencies and in the ongoing planning process. As agencies feel the effects of reductions in resources over the next few years we need to work together even more closely to maintain a coordinated and effective response.

2. An increased focus on developing resilience at community level. For effective and rapid response to emergencies, especially in a rural area such as ours, it is essential to build community resilience and understanding of the action to take in an emergency.

3. Work with third sector organisations to provide basic first aid training to our communities. It is unacceptable that people die needlessly because no one could give them first aid. If everyone was able to learn some basic life saving and resilience skills lives could be saved.

4. Priority should be given to ensuring that infection prevention services remain robust through the current round of NHS reorganisation.

5. Following on from the implementation of general practice consortia, this aspect of public health should become mainstream within primary care.

6. Communications specialists and health promotion practitioner's work together to deliver campaigns that highlight the importance of screening programmes for targeted groups in the region.

7. People in Cumbria take up the opportunity for screening when invited, and encourage friends and relatives to do the same.

8. People must always be alert to changes in their bodies that could potentially be signs of illness, so women should still be on the lookout for changes in their breasts even if they have recently had a screening test, and people should still report a change in bowel habit or bleeding even if they have recently had a bowel screen.

9. Work should continue to improve our understanding of injury and violence in Cumbria, and especially of threats to health in agricultural communities in order to produce a more effective approach to prevention.

10. NHS Cumbria should continue to develop its involvement in n the provision of work-related health interventions and occupational health services, to ensure a holistic approach to occupational health that supports both those in work, and those seeking work.

11. Public Health Cumbria continues to devise campaigns to reach hard to reach groups and increase uptake of screening and vaccinations.

12. We work with HMP Haverigg to implement the findings of the health needs assessment and so improve the health of prisoners. Some of the areas that require attention are screening programmes, smoking and diet.

13. Public Health Cumbria should seek to support increasing understanding of climate change issues so that it can play a full part in shaping the policy options in the years to come.

14. We work with communications experts to promote awareness raising campaigns such as ensuring homes are prepared for winter, at-risk groups receive a seasonal flu vaccine and being a good-neighbour to ensure that our more vulnerable members of society are cared for.

Acknowledgements & Contact Details

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Vaccination Checklist

Cumbria County Council

NHS Cumbria

A number of vaccines are routinely offered to everyone in the UK for free on the NHS.

Recommended Age	Who is vaccinated	Injection given to protect against
From birth	Babies identified as being particularly susceptible to these diseases.	Tuberculosis (TB) Hepatitis B (HB)
8 weeks	All babies	Tetanus, diphtheria, whooping cough, polio and haemophilus influenza (one injection) Pneumococcal (one injection)
12 Weeks	All babies	Tetanus, diphtheria, whooping cough, polio and haemophilus influenza (one injection) Meningitis C (one injection)
16 Weeks	All babies	Tetanus, diphtheria, whooping cough, polio and haemophilus influenza (one injection) Pneumococcal (one injection) Meningitis C (one injection)
From 6 months annually	"at risk" babies and children All over 65 years	Influenza vaccination in the autumn
From 12 months	All babies	Booster dose of Pneumococcal (one injection) Hib/men C (one injection) Measles, Mumps and Rubella (MMR) first does (one injection)
From 2 years of age and over	Those who have other health needs that make them susceptible and all those over 65 years of age	Pneumococcal vaccinations (adult vaccine)
3½ - 4 years	All children	Tetanus, diphtheria, whooping cough and polio (one injection) Measles, Mumps and Rubella (MMR) second dose (one injection)
12 - 13 years	Girls only	HPV (human papilloma virus). Cervical cancer protection given in year 8. Three doses required.
14 - 15 years	All children	Diphtheria, tetanus and polio booster usually given in year 10.
Travel vaccines	Travellers all ages	Range of vaccines. Book a GP appointment several months before travelling to discuss.
Occupational vaccines	Variety of occupations	Range of vaccines, employees should be told by their employer if they require vaccination.

People who fall into certain risk groups may be offered extra vaccines. These include vaccinations against diseases such as hepatitis B, tuberculosis (TB), seasonal flu and chickenpox.

Personal Resilience Guide

Prepare for an Emergency

To prepare for an emergency, you should take time to find out:

- Where and how to turn off water, gas and electricity supplies in your home
- The emergency procedures for your children at school and at your workplace
- How your family will stay in contact in the event of an emergency
- If any elderly or vulnerable neighbours might need your help
- How to tune in to your local radio station.
- Fit and maintain smoke alarms in your home and plan an escpare route should a fire break out
- Be aware of important supplies you may need in an emergency such as prescribed medication, candles and spare clothes

What to do in an Emergency

If you find yourself in the middle of an emergency, your common sense and instincts will usually tell you what to do. However, it is important to:

- Make sure **999** has been called if people are injured or if there is a threat to life
- Not put yourself or others in danger
- Follow the advice of the emergency services
- Try to remain calm and think before acting, and try to reassure others
- Check for injuries - remember to help yourself before attempting to help others.

If you are not involved in the incident, but are close by or believe you may be in danger, in most cases the advice is:

- Go inside a safe building
- Stay inside until you are advised to do otherwise
- Tune in to local radio or TV for more information.

Of course, there are always going to be particular occasions when you should not "go in" to a building, for example if there is a fire. Otherwise:

GO IN, STAY IN, TUNE IN.

Basic First Aid

Knowing some basic first aid skills could help you deal with an emergency – your relatives or friends could be the ones to benefit from your skills.

When there is more than one injured person, go to the quietest one first.

They may be unconscious and need immediate attention.

Learning first aid is easy so why not take a few minutes now to familiarise yourself with the first aid scenarios below, or enrol on a basic first aid course.

Unconscious

If the casualty is not responding but is able to breathe normally, turn them onto their side to protect their airway. If there are no signs of life, call 999 and ask for an ambulance. Follow the call handlers advice on how to give chest compressions and mouth-to-mouth resuscitations while you wait for the ambulance to arrive.

Severe bleeding

Control severe bleeding by applying firm pressure to the wound using a clean, dry dressing and raise it above the level of the heart. Lay the person down, reassure them, keep them warm and loosen tight clothing.

Burns

For all burns, cool with water for at least 10 minutes. Wrap the affected part in clingfilm, do not apply dry dressings, keep the patient warm and call an ambulance.

Broken Bones

Try to cause as little movement as possible.

Choking

Encourage the casualty to cough if they are able to do so. If not, lean them forward and give up to five sharp blows between the shoulder blades. If this fails, give up to five thrusts in the stomach if you or a bystander have the skills to do this.

Emergency Contact Details

Compile a list of useful emergency contact numbers and keep them somewhere easily accessible to you – on your fridge door for example.

Emergency services:	**999**
NHS Direct:	**0845 46 47**
Anti terrorist hotline:	**0800 789 321**
Cumbria Constabulary:	**Non Emergency Number - 0845 33 00 247** (available 24 hours a day, 7 days a week).
Cumbria County Council:	**01228 606060**

Local District Council:

Doctor:

Work:

Schools:

Family contact 1:

Family contact 2:

Local Radio Station & Frequency: