

ANNEX 1

Scrutiny Health Protection Report

What is health protection?

Health Protection is a term used to encompass a set of activities within public health. It is defined as protecting individuals, groups and populations from single cases of infectious disease, incidents and outbreaks, and non-infectious environmental hazards such as chemicals and radiation.

Health protection is one of the responsibilities of Public Health England (PHE). It has been given an increasing profile in recent years following threats from viruses including Ebola, Zika and Influenza. Protecting the population from infectious diseases is amplified due to the extensive movement of people and climate change. These increase the chances that we will witness a global pandemic in the coming years, including pandemic flu and novel viruses.

The Health Protection System.

PHE is an executive agency of the Department of Health and Social Care which delivers public health services including surveillance, intelligence gathering, risk assessment, scientific and technical advice, specialist health protection and public health epidemiology and microbiology services. At a local level, local authority Directors of Public Health provide leadership for the public health system working closely with NHS and PHE. Local Health Resilience Partnerships (LHRP), often chaired by Directors of Public Health, provide a strategic forum for organisations to plan for emergencies and facilitate health sector preparedness in the event of an emergency.

Health protection aims to prevent, assess and mitigate risks and threats to people's health, this requires close working between Directors of Public Health, NHS, national government and agencies, industry and the public.

The aim of this paper is to give an over view of the national Health protection priorities, how these are managed at a regional level and how these are translated into local actions and priorities.

National Picture.

In September 2019 Public Health England (PHE) released *its PHE Infectious Diseases Strategy 2010-2025: Addressing urgent threats in the 21st Century*. The strategy outlines 10 strategic priorities for the UK over the next 5 years.

Strategic Priority 1: Optimise vaccination provision and reduce vaccine preventable diseases in England. After clean water, vaccination is the most effective public health intervention in the world for saving lives and promoting good health.

Strategic priority 2: Be a world leader in tackling Antimicrobial Resistance (AMR). Without effective antibiotics even minor surgery and routine operations become high risk procedures, leading to prolonged illnesses and higher number of deaths. The number of antibiotic resistant infections is predicted to increase over the next 20 years.

Strategic priority 3: Capitalise on emerging technologies to enhance our data and infectious disease surveillance capability. Advances in technology provide opportunities to improve how we collect, process and use data. This supports rapid detection and control and a greater understanding of disease burden and changes in disease patterns.

Strategic priority 4: Eliminate Hepatitis B and C, Tuberculosis (TB) and HIV and halt the rise in sexually transmitted infections (STIs) in our population. There have been an increase in the number of infectious Syphilis diagnoses and STIs over the last decade. The UK has also committed to the WHO elimination targets for Hep B and C and TB and the eradication of HIV by 2030.

Strategic priority 5: Strengthen our response to major incidents and emergencies including pandemic Influenza. Pandemic Influenza is the highest scoring risk on the National Risk Register of Civil Emergencies. It remains essential to continue to prepare, adjust our plans with the emergence of new threats and continue to test and assure our response arrangements.

Strategic Priority 6: Build evidence to address infectious diseases linked with health inequalities. In England, some pathogens disproportionately affect groups already experiencing health inequalities, including the homeless.

Strategic priority 7: Embed WGS in PHE labs and optimise the use of WGS-based information. Whole Genome Sequencing (WGS) is transformative technology that can determine transmission of microbes in

a population, detect and support the control of outbreaks and provide improved information for the diagnosis and treatment of infectious diseases.

Strategic priority 8: Integrate and strengthen England's Health Protection System. The priorities set out in the PHE strategy require effective delivery of health protection services – this requires close partnership working between those in the health protection system.

Strategic Priority 9: Strengthen our Global Health activities to protect health in the UK and globally. The extensive movement of people and climate change increases the risk of the spread of infections, including new and emerging infection threats.

Strategic priority 10: Define the value generated by delivering our Infectious Diseases Strategy. Evidencing the impacts that PHE has with partners will allow us to learn more about the spread of infectious diseases, improve and target work and resources for the greatest impact.

These priorities include some of the major challenges of our times. Vaccine preventable diseases are re-emerging worldwide and optimising vaccine provision is key to prevention. Today there are notable health inequalities, many of which are associated with increased risk from a range of infectious diseases.

Regional Priorities.

Local Resilience Forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. These agencies are known as Category 1 Responders, as defined by the Civil Contingencies Act.

The LRFs aim to plan and prepare for localised incidents and catastrophic emergencies. They work to identify potential risks and produce emergency plans to either prevent or mitigate the impact of any incident on their local communities.

City of York is part of the North Yorkshire Local Resilience Forum. This forum produces a Community Risk Register (CRR) which provides information on the emergencies that could happen in the North Yorkshire

and York, together with an assessment of how likely they are to happen and the impacts they will have if they do. This includes the impacts to people, their homes, the environment and local businesses. These risks are regularly reviewed.

It identifies:

1. Emergency Management Steps.
2. North Yorkshire and York's Top Risks.
 - Pandemic Influenza.
 - Flooding.
 - Severe Weather
 - Industrial Incident
 - Marine Pollution. Disruption or Failure Electrical Network.
 - Industrial Action.
 - Animal Health.
 - Hazardous Transport
 - Cyber Security
 - Run, Hide, Tell
3. What you can do to be prepared in your home.
4. How your local community can be prepared.
5. How your business can be prepared.

For more information about the North Yorkshire Community Risk Register go to:

<https://www.emergencynorthyorks.gov.uk/node/10>

Emergency Preparedness, Prevention and Response (EPPR). Led by the NHS the EPPR includes the acute Hospital trust, the ambulance service, Primary care providers, the Vale of York Clinical Commissioning Group and any providers of NHS-funded care, to show that they can deal with a wide range of incidents and emergencies that could affect health or patient care, while maintaining services. These could be anything from extreme weather conditions to an outbreak of an infectious disease or a major transport accident.

NHS England has a strategic national framework that contains the principles for health preparedness, protection and response. The Regional Commissioning Operation Team operate this at a local level and incident response plans are modelled on the national plan. The key

objectives of these plans is to provide confidence through effective oversight, direction and coordination of the NHS to provide a resilient response. These local plans link to the Community Risk Register detailed above. NHS Vale of York CCG have specific local plans around: fuel shortage, flooding, evacuation and shelter and Pandemic Flu.

Screening and Immunisation Oversight Group (SIOG). The National Health Service Commissioning Board was established on 1 October 2012 as an executive non-departmental public body. Since 1 April 2013, the National Health Service Commissioning Board has used the name NHS England (NHSE) for operational purposes.

SIOG is the accountable body, led by NHSE, to oversee and advise on the commissioning and delivery of NHS National screening and Immunisation Programmes under section 7a of the National Health Service Act 2006, as amended by the Health and Social Care Act 2012.

Section 7a contains all the national screening and immunization programmes including:

Vaccinations:

- NHS Seasonal Influenza Vaccination programme
- The childhood vaccination programme
- Men ACWY
- MMR
- Shingles
- Maternal Pertussis (Whooping Cough)
- HPV

Screening Programmes:

- Bowel Cancer Screening
- Diabetic Retinopathy (EYE) Screening
- Breast Cancer Screening
- Abdominal Aortic Aneurysm, and
- Foetal Anomaly Screening.

It is recognised that these vital programmes require continuous development, support and monitoring to ensure their quality and sustain and improve performance and access. SIOG receives the risk and incident registers, ensures that actions are in place to mitigate any potential consequences and seeks advice and escalates concerns as

appropriate. The Group provides timely assurance to Public Health England (Yorkshire and Humber) and the local Directors of Public Health through the meeting papers to enable them to fulfil their statutory functions in relation to the protection of population health.

Local Priorities

Our local priorities are based on local need, data and in response to known inequalities, however they also follow some of the national priorities outlined above.

1. **Vaccine provision.** Public Health within CYC, work as part of the Health protection system to prevent deaths and disease in our population by working with partners to extend access and improve uptake of existing vaccines. Our Director of Public Health has a seat at SIOG and we are represented on both the LRF and the EPPR partnerships.

For example: we have been working with our adult social care partners, those who provide home care (domiciliary care), residential and nursing home provision to increase the uptake of the Influenza vaccine within both staff and residents/clients. To support this the Public Health Team have attended meetings of these groups, given presentations, provided resources and information for both staff and residents so that they can make more informed decisions.

The Public Health Team have also worked with our Occupational Health and human Resources colleagues to extend the offer of a free flu vaccination to all staff who work for CYC, not just those who may be at increased risk of catching or spreading the virus. Internally we have also held awareness information sessions for Health trainers so that they can practice the Making Every Contact Count (MECC) methodology in encouraging all their clients to have the flu vaccine.

In 2018 Public Health England's regional Screening and Immunisation Team produced a Screening and Immunisation – Local Implementation Plan (SILIP) to support the delivery of screening and immunisation programmes in England. This plan highlighted the main areas of concern where uptake was low, didn't

reach national targets or was variable across GP practices. This enabled us to identify areas of good practice and where support is required. The following are the key areas, relating to vaccines that have been identified:

- Improve uptake of shingles vaccination in eligible cohort
- Improve uptake of seasonal flu in 6 months to two years, 2&3 year olds and at risk individuals age 16-65.
- Improve uptake in Catch up cohorts of Men ACWY immunisation

2. Elimination and detection of TB, HIV and sexually transmitted infections within our population. We work with partners to reverse the trend in the transmission of STIs and work to eradicate HIV transmission. We do this by commissioning sexual health services which have prevention as their core business, identifying those most at risk to HIV and other STI's and targeting these at risk groups. Our sexual health service was one of the pilot site for the provision of PrEP and PEPSE.

PrEP or Pre-exposure prophylaxis is when people at very high risk for HIV take daily medicine to prevent HIV. PrEP can stop HIV from taking hold and spreading throughout the body. When taken daily, PrEP is highly effective for preventing HIV from sex or injection drug use.

PEPSE or Post-Exposure Prophylaxis following Sexual Exposure, is a short course of HIV treatment, given to people who may have been exposed to HIV, in order to reduce the risk of them becoming HIV positive.

We work with our commissioned sexual health service to reduce all STI's within the population, by implementing NICE and other sexual health guidance and best practice.

Tuberculosis (TB) is a bacterial infection spread through inhaling tiny droplets from the coughs or sneezes of an infected person. It is a serious condition, but can be cured with proper treatment. In York we have a specialist TB nursing team that works with TB cases in the community.

3. Our response to major incidents and emergencies including Pandemic Flu. Following a recommendation by the Health and Wellbeing Board, in 2016 the Director of Public Health established a CYC Health Protection Committee (HPC). The aim of the HPC is to provide assurance to CYC and the Health and Wellbeing Board that we have adequate prevention, surveillance, planning and responses in regards to health protection issues. The Committee is a multi-disciplinary and multi-agency committee with representatives from Public Health England, Vale of York Clinical Commissioning Group (CCG), Infection Prevention and Control Team and different teams within CYC including environmental health, emergency planning and major incident team.

With contributions from this committee, and working with North Yorkshire Health protection Board we have:

- Developed an Assurance Framework
- Developed and exercised a Mass Treatment and Vaccination Plan.
- Produced a draft Pandemic Flu Plan for CYC
- Produced an Outbreak Plan for CYC, and
- Developed a Health Protection Framework which identifies key risks and mitigating actions for local threats to health.

4. Address infectious diseases linked with Health Inequalities. Building on our ward data profiles and other sources of data we work with our commissioned services to provide services for those residents with 'at risk' behaviours and those in areas of inequality. For example our Commissioned sexual health service works extensively to provide the National Chlamydia Screening Programme to under 25 year olds.

York is a city with 2 universities a further education college and other post school establishments including Askham Bryan College. Evidence tells us that 15 to 25 year olds are at the highest risk of Chlamydia infection and therefore work is concentrated within these educational establishments and schools across York. Young people can access Chlamydia screening by either attending the sexual health service, in GP practices or can order a testing kit on-line. In areas of known inequality the sexual health service has outreach

clinics from its central hub within the city centre. The service also works with those groups who are more at risk of HIV infection by operating an outreach service which targets those populations, for example Men who have sex with Men and Sex Workers.

5. Integrate and strengthen the Health Protection System. One of the core roles of the DPH (Director of Public Health) is as independent advocate for the health of the population and system leadership for its improvement and protection. The DPH role is a statutory role appointed by the Local Authority and Secretary of State for Health.

The DPH is responsible for the local authority's contribution to health protection matters, including the local authority's roles in planning for, and responding to incidents that present a threat to the public's health including infectious disease, environmental hazards and extreme weather events.

In York the DPH has established a Health Protection Committee, supported the development of key policies including the production a Pandemic Flu Plan, contributed to incidents including flooding gold command and represents CYC on the Emergency Preparedness, Resilience and Response (EPRR) regional group which feeds into the Local Health Resilience Partnership (LHRP). The DPH and NHS England take responsibility for chairing the LHRPs whose responsibilities include:

- Facilitating the production of local sector-wide health plans to respond to emergencies and contribute to multi agency emergency planning.
- Providing support to the NHS, Public Health England (PHE) and DPH representatives in their role to represent health sector EPRR matters.
- Provide support in assessing and assuring the ability of the health sector to respond in partnership to emergencies at a local level.
- Remain responsible and accountable for their effective response to emergencies in line with their statutory duties and obligations.

6. Protecting the health of the population, UK and globally. As described above, one of the roles of the DPH is acting as an advocate for the health of the local population. The extensive movement of people and climate changes increases the risk of the spread of infections and so by having robust processes in place to respond to outbreaks and emergencies locally we support and contribute to strengthening infectious disease control locally, across the UK and globally.

For example there was a recent case of Measles in York. The index case – a mother of 4 children - had her eldest 2 children partially vaccinated with one dose of MMR (Measles, Mumps and Rubella vaccination) but the younger children were not vaccinated at all. When the Index case was confirmed as positive for Measles the 2 older children were visiting grandparents in another part of the UK. PHE locally made contact with the local PHE region, and they were offered the MMR2 vaccine. The family had close links with a church group and the younger children attended the church crèche. Both children were later confirmed as positive measles cases. This was further complicated by the fact that the church and the crèche had hosted a visiting group of Americans who had subsequently flown home.

The case study indicates how quickly infectious diseases, especially measles and Influenza, can spread rapidly around the UK and worldwide.

This was contained to only a few cases by the quick response of the Health Protection system, the development of an Outbreak Control Team (OCT) and the proactive actions of local NHS services.

7. Delivering our Screening and Immunisation Local implementation Plan. Performance against health protection outcomes is reported through the Public Health Outcomes Framework (PHOF). Our Screening and Immunisation Local Implementation Plan (SILIP) identifies key target areas for screening:

- Halt the decline in uptake in women at first appointment for cervical screening
- Improve bowel screening in practices below the national target

- Improve uptake of maternal vaccines
- Improve the coverage of MMR2 across all age groups.

We have worked with our CCG and PHE colleagues to promote the national Cervical Screening Campaign, promoting the uptake using advertising on Bus stops, with our early year's providers and schools to get the message to mothers of children. Early years providers have been given materials to hand out to mothers and staff to further promote this.

Bowel cancer screening within the Vale of York CCG are has been increasing over the last 30 months in person age 60 to 69 (as reported to PHE), the most recent data states this is 63.9% which is higher than the England average – 57.3%.

Uptake of maternal vaccines. The incidence rate of Pertussis (Whooping Cough) in York is 19.2 /100,000 which is much higher than the England average of 7.8/100,000. This means that we have more work to do to encourage pregnant women to have the Pertussis vaccination in Pregnancy. Likewise with the flu vaccination the coverage for 'at risk' individuals under 65 is only 46.1/100,000. There is no identified target for uptake of maternal vaccinations but the more coverage means the more protection within the local population.

Conclusion

Current risks to health.

Measles

In January 2019 the UK lost its Measles free status. However, that status has not been maintained and in 2018 there was a marked increase in the number of measles from 284 in 2017 to 991 in 2018. Based on this, WHO determined that the UK could no longer be considered as measles free and that transmission of measles had been re-established.

In the childhood immunisation schedule children are required to have two doses of MMR vaccine, the first at age 12 to 13 months and the second at 3 years 4 months. The UK and York have achieved the recommended level of 95% vaccination rate for MMR1, but MMR2 uptake is currently sub-optimal and therefore presents a threat to health as protection against measles, mumps

and rubella is not at its most effective unless two doses of the vaccine have been administered.

There are lots of positive work streams nationally, regionally and locally to support the uptake of the measles vaccine. The NHS long Term Plan includes a range of measures to maintain and increase the uptake of two doses of MMR vaccine. These include a fundamental review of the GP contract and a check of MMR status for 10 and 11-year olds has recently been added to the GP contract.

The recent Government Green Paper on prevention proposed a vaccine strategy in addition to the implementation of the existing Measles and Rubella Elimination Strategy. The Department of Health and Social Care, working with PHE and NHS England, will deliver this comprehensive strategy in the autumn. Locally the PHE is working on a regional approach to this strategy which is due to be launched in November 2019.

Influenza

As the winter and flu season approaches it remains imperative that we are all mindful of the impact of flu on our communities, family and friends. For the majority of people Flu is a self-limiting illness that lasts for 6-8 days but for some groups flu is a serious and life threatening illness and it is important that we protect these people as soon as possible into the 'flu season'. There are many people who are eligible for a free NHS flu vaccination including older people over the age of 65, pregnant women and all primary school children. However there are also those people who are under 65 that are considered to be more 'at risk' due to underlying health conditions, that can also access free NHS flu vaccines.

Flu spreads easily and quickly, so York as a popular tourist destination and host of mass participation events need to be mindful of these threats to public health due to the increased risk of spreading flu within the city and beyond. In an attempt to limit the spread of Flu and Influenza Like Illnesses (ILI) CYC contribute to an annual Flu Plan which brings together a number of agencies that work together to ensure the uptake of the flu vaccination is at optimal levels.

Within the Flu Plan CYC has responsibility for ensuring that its key staff are vaccinated and that we encourage our commissioned services encourage their staff to have the flu vaccination particularly in Health and Social care settings including Care Homes. CYC operated a staff flu vaccination offer through its Occupational Health Service. This is targeted at those staff who have direct patient/client contact. However over the last couple of years Public Health has increased this offer to all CYC staff (excluding Schools) but including, for example, Be Independent.

Flooding

York's location, on low ground at the junction of the rivers Ouse and Foss, means that certain parts of the city and surroundings can be prone to flooding. There are a number of agencies that prepare and protect York from floods including the Environment Agency, CYC, the NHS and the Major incident Response Team. CYC work with North Yorkshire Local Resilience Forum and our Emergency Planning teams to prepare for emergencies and there are a range of resources on the website for residents to support them with planning for an emergency; R U Prepared booklet, flood safety and Public Health advice and information.

Abbreviations

AMR- Antimicrobial Resistance

CCG- Clinical Commissioning Group

CYC- City of York Council

CRR- Community Risk Register

DPH -Director of Public Health

EPPR- Emergency Preparedness, Prevention and Response

GP- General Practitioner

ILI - Influenza Like Illnesses

HIV – Human Immunodeficiency Virus

HPC - Health Protection Committee

HPV- Human papillomavirus

LRF- Local Resilience Forums

LHRP- Local Health Resilience Partnership
MECC Every Contact Count Methodology
MENACWY- meningitis and blood poisoning (septicaemia)
MMR- measles, mumps, and rubella
NHS- National Health Service
NHSE- National Health Service England
NICE- The National Institute for Health and Care Excellence
PHOF - Public Health Outcomes Framework
PrEP - Pre-exposure prophylaxis
PEPSE - Post exposure prophylaxis after sexual exposure
PHE- Public Health England
SIOG - Screening and immunisation Oversight Group
SILIP - Screening and Immunisation Local Implementation Plan
SILIP - Local Implementation Plan
STI- Sexually Transmitted diseases
TB- Tuberculosis
WGS- Whole Genome Sequencing
WHO- World Health Organisation