

Bolton Council Health Protection Annual Report 2016

1.0 The purpose of this document

The purpose of this document is to provide a clear overview of the current health protection situation within Bolton highlighting any on-going challenges or issues. The document enables the Director of Public Health (DPH) to provide assurance to the Health and Wellbeing Board (HWBB) and the Executive Member, Deputy Leader's Committee that the health of the residents of Bolton is being protected in a proactive and effective way.

1.1 Key points

- The Director of Public Health is able to provide assurance that the health of Bolton's residents is being protected;
- All of the groups that support and deliver health protection across the borough are engaged in a process of continuous improvement;
- There are robust civil contingency mechanisms in place to protect Bolton's residents and ensure business continuity;
- The majority of Bolton's immunisation rates remain very high and childhood immunisations in particular are above the national average.

1.2 Recommendations

Local System Governance:

 To review the current systems and structures in order to maximise the health protection response in protecting Bolton's population



To ensure the inclusion of environmental health within the health protection
 system to ensure a more complete offer to the population

Emergency planning and Major Incident Response:

- To maintain current good performance to ensure enhanced preparedness
- To continue to participate in exercises to build capacity within the local emergency response

Communicable diseases:

- To maintain the excellent vaccination schedule performance to ensure herd immunity within Bolton's population
- To develop improved links with primary care to enhance uptake of flu vaccination, TB diagnosis and early diagnosis of HIV to improve outcomes for the most vulnerable citizens

Screening Programmes:

 Work collaboratively with PHE, primary care and key partners to identify opportunities to improve screening rates in communities of low uptake in Bolton in order to reduce inequalities in uptake across the borough

2.0 Introduction

- 2.1 Health protection is an essential part of achieving and maintaining good public health. It involves strategic planning, emergency planning, surveillance and response to incidents and outbreaks. Health protection prevents and reduces the harm caused by communicable diseases and minimises the health impact from environmental hazards such as chemicals and radiation. It also includes the delivery of major programmes such as national immunisation and screening programmes and the provision of health services to diagnose and treat infectious diseases.
- 2.2 The Health and Social Care Act 2012 defines the health protection duty of Local Authorities (LAs). The Act states that Public Health teams, on behalf of Directors of



Public Health are responsible for LA's contribution to health protection matters including responses to incidents and emergencies. Public Health England (PHE) is required to provide specialist support and have a complementary role to play. Both PHE and LA Public Health should work as single unit when addressing health protection issues. NHS organisations including NHS England and Bolton's Clinical Commissioning Group (CCG) have a legal responsibility under the NHS Act 2006 to mobilise resources to manage incidents and emergencies. They also have legal duty to co-operate with LA Public Health teams in delivering health protection national and local priorities. A summary of roles and responsibilities can be found in Appendix 1 at the end of this document.

- 2.3 The key roles necessary to provide effective health protection include:
 - Planning and responding to incidents and emergencies;
 - Carrying out surveillance of communicable and notifiable diseases;
 - Reducing the negative impacts of communicable and non-communicable diseases including preventing infection and infectious diseases;
 - Minimising the health impact of environmental hazards;
 - Reducing premature mortality and morbidity by improving environmental sustainability.

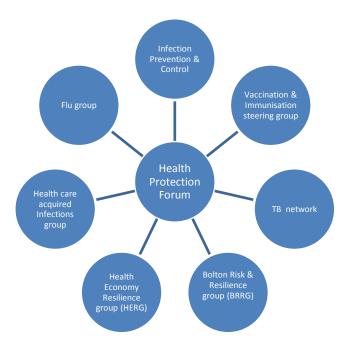
Health protection arrangements in Bolton

- 2.4 There are a number of multi-agency groups in Bolton that support and address aspects of health protection across the borough. The specialist nature of these groups allows a more in depth examination of current practice and performance and offers the opportunity to raise any changes to procedures or protocol, concerns or to highlight good practice.
- 2.5 The Health Protection Forum (HPF) retains an overview of the work of these groups via membership of the groups and reporting arrangements.



- 2.6 Membership of the HPF comprises representation from the subgroups. Attendance at meetings of the health protection forum has been inconsistent and frequently low suggesting that the group's function and remit should be reviewed.
- 2.7 Public Health also receives national data in respect of the Public Health Outcomes Framework and performance reports from Public Health England.

2.8 Diagram of local Health Protection arrangements in Bolton



Data Sources

2.9 The data included within this report are the most current available and cover the period July 2015 to December 2016. The data are taken from the Public Health Outcomes Framework Tool published by Public Health England.

(http://www.phoutcomes.info/).

3.0 Emergency planning and major incident response

Background

3.1 Emergency planning and major incident response comprises actions that are taken to reduce the chances of emergencies occurring. If incidents do occur the response includes ensuring that the impact on residents and the environment is kept to a



minimum. Emergency planning is guided by the Civil Contingencies Act 2004. The Act ensures that the organisations best placed to manage emergency response and recovery are at the heart of civil protection.

- 3.2 Bolton has two multi agency groups, a Health Economy Resilience Group (HERG) and a Bolton Risk and Resilience Group (BRRG). Both meet quarterly, with the HERG focusing solely on health related issues e.g. flu, communicable disease outbreaks, heat waves etc. and the BRRG group focusing on resilience in the wider sense e.g. business continuity. Both groups have a role in planning for potential emergencies and ensuring clear protocols and standard operating procedures are in place. The groups include representation from all the agencies including LA, CCG, Bolton Foundation Trust, NHS England (NHSE), Public Health England (PHE) and Out Of Hours (OOH).
- 3.3 The groups utilise national and regional strategies to develop local action plans to ensure Bolton is prepared for a range of emergencies. As part of the Public Health Outcomes Framework LAs are measured against whether they have a 'comprehensive and agreed inter-agency plan for responding to health protection incidents and emergencies'. Bolton does have this and is rated green against this measure.

Current situation

- 3.4 In Bolton there have been two major incidents in the last year which required cross organisational working and which could potentially have affected business continuity.
- 3.5 In July 2015 there was a water outage originating from a fault in the disinfection of water supplies at Sweetloves Works in Bolton. The incident affected 79,000 residents for three days; a boil water notice was issued and alternative water supplies were provided. The incident is still under investigation by the Drinking Water Inspectorate. Locally the incident highlighted a number of communication issues between United Utilities, the Council, Public Health England and Bolton's



residents in respect of advice issued and timeliness of advice which has resulted in a number of revised protocols for information cascade in the future.

- 3.6 The unusually excessive rainfall over the 2015 Christmas period hit Greater Manchester and Lancashire on 26th December with rainfall totaling 100mm (average GM rainfall for the month 80mm). The weather was unexpected with the forecast pointing towards potential issues for Cumbria and Lancashire only (hence little warning). As a result Bolton had 3 major incidents and 15 sites affected by flooding incidents; 74 domestic properties and 9 businesses in Bolton were also affected. The local response was excellent, prompt and appropriate. The debrief report in respect of the incident has led to a number of changes being made to local Civil Contingency arrangements such as updating and enhancing the list of vulnerable residents, an increase in the number of people on a civil contingencies volunteer register and the setting up of resident support groups. Nationally changes are currently being made to the Environment Agency's reporting arrangements in order to produce more "live forecasting" information which should, in turn, enable services to respond to incidents more effectively.
- 3.7 Following the floods, the HERG and BRRG both participated in a major GM emergency planning exercise, Exercise Triton 2, which simulated the effects of a major dam breach in Oldham and its potential regional repercussions. The exercise was the largest of its type ever undertaken in GM. The debrief and evaluation of the exercise is currently in progress.

4.0 Communicable Diseases

Background

4.1 Communicable diseases are diseases that you can "catch" from someone or something else. They are spread from person to person or from an animal to person. The spread often happens via airborne viruses or bacteria, but also



through blood or other bodily fluids. Some people may use the words contagious or infectious when talking about communicable diseases.

Vaccine preventable diseases

- 4.2 Vaccines are preventative, that is, they only protect the individual before they get an infectious disease. When an individual is vaccinated, the processes in the immune system are stimulated to mimic the body's natural immunity. These processes occur without causing the damage that an infection usually causes.
- 4.3 Vaccines provide immunity by stimulating the immune system to produce antibodies to fight a particular infection or prevent the effects of a toxin. These antibodies stay in the body and provide long term protection. Antibodies fight a particular infection or toxin by identifying a matching antigen. Antigens are a pattern or structure found on the microorganism or toxin, and the antigen is a complimentary match for the antibody that will be produced.
- 4.4 If an individual has not been vaccinated against a disease and they have contact with it, they will usually acquire some **natural active immunity** through exposure to antigens of the microorganism or toxin. However, there are risks associated with contracting an infection as some infections can leave individuals with long term complications, or worse, cause death. **Artificial active immunity** occurs through vaccination or inoculation.
- 4.5 If enough of a population is vaccinated, herd immunity is attained. Herd immunity in a population prevents outbreaks of an infection. This is due to the inability of the disease to infect vaccinated individuals and through the inability for unvaccinated individuals to come into contact with the disease due to its decreased prevalence. It is important to maintain herd immunity as some people are unable to have vaccinations. Individuals who may not be able to have a vaccine include those who are immune-compromised, individuals with allergies to the components of vaccines and very young children.



The Immunisation Schedule

4.6 The Immunisation Schedule of childhood vaccinations has been designed to provide early protection against infections that are most dangerous for the very young. Older people are also urged to protect themselves from a number of infections that pose risks for this population.

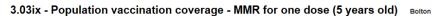
Measles, mumps and rubella (MMR)

4.7 This is a safe and effective combined vaccine that protects against three separate illnesses in a single injection. The full course of MMR vaccination requires two doses. Measles, mumps and rubella are common, highly infectious, conditions that can have serious, potentially fatal, complications, including meningitis, swelling of the brain (encephalitis), and deafness. They can also lead to complications in pregnancy that affect the unborn baby and can lead to miscarriage. Since the MMR vaccine was introduced in 1988, it has become rare for children in the UK to develop these serious conditions. However, outbreaks happen and cases of measles in particular have been rising in recent years.

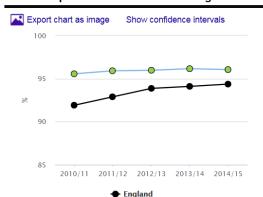
Current Situation

4.8 Bolton's vaccination coverage for MMR (one dose) has remained stable from 2010/11 to 2014/15 with uptake rates of between 95.6% and 96.2% being achieved. For this first dose, the vaccination coverage in Bolton has consistently remained higher than both the North West and England uptake. Bolton's coverage for two doses of MMR has reduced slightly in the 2014/15 data release (see below) but still remains higher than both the North West and England.





Proportion - %



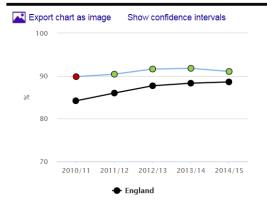
Benchmarking ag	gainst goa	<90% ≥9	0%				
Period		Count	Value	Lower CI	Upper CI	North West	England
2010/11	0	3,644	95.6	94.9	96.2	94.3	91.9
2011/12	0	3,667	95.9	95.2	96.5	95.0	92.9
2012/13	0	3,818	96.0	95.3	96.5	95.9	93.9
2013/14	0	3,962	96.2	95.5	96.7	96.0	94.1
2014/15	0	4,095	96.1*	95.4	96.6	96.2	94.4
Source: Cover of	Vaccinati	on Evaluated I	Rapidly (CO)	/FR) data col	lected by Pub	lic Health End	nland (PHF

Source: Cover of Vaccination Evaluated Rapidly (COVER) data collected by Public Health England (PH. Available from The Health and Social Care Information Centre (HSCIC).

3.03x - Population vaccination coverage - MMR for two doses (5 years old)

Bolton

Proportion - %



Benchmarking against goal: <90% ≥90%									
Period		Count	Value	Lower CI	Upper CI	North West	England		
2010/11	•	3,426	89.9	88.9	90.8	86.4	84.2		
2011/12	0	3,457	90.4	89.5	91.3	87.8	86.0		
2012/13	0	3,645	91.6	90.7	92.4	90.7	87.7		
2013/14	0	3,782	91.8	90.9	92.6	91.5	88.3		
2014/15	0	3,882	91.1*	90.2	91.9	90.7	88.6		
Source: Cover of	Vaccinati	on Evaluated I	Panidly (CO)	/ER) data col	lected by Pub	lic Health End	rland (PHF)		

Available from The Health and Social Care Information Centre (HSCIC).

Human Papilloma Virus (HPV)

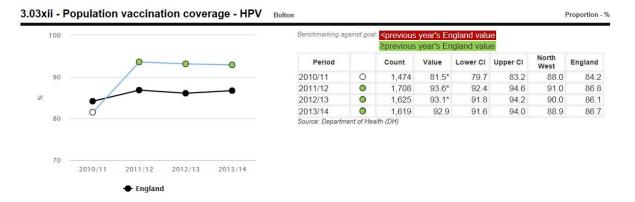
- 4.9 All girls aged 12 to 13 are offered HPV (human papilloma virus) vaccination as part of the NHS childhood vaccination programme. The Human Papilloma virus is the cause of the majority of cases of cervical cancer. The vaccine provides effective protection against cervical cancer and is usually given to girls in year eight at schools in England (12-13 years old).
- 4.10 The vaccination schedule for HPV changed at the start of the last school year requiring two doses of the vaccine to offer protection rather than three. It is expected that this will support an increase in future uptake

Current Situation

4.11 Bolton's coverage for HPV in females aged 12-13 years has remained stable between 2011/12 and 2013/14 with coverage ranging from 92.9% to 93.6%. This is



significantly higher than both England and the North West coverage which in 2014/15 was 86.7% and 88.9% respectively.



Meningococcal Disease

- 4.12 Meningococcal disease can affect all age groups, but the rates of disease are highest in children under five years of age, with the peak in babies under one year of age. There is also a second peak in cases in young people aged between 15 and 19. Babies are routinely offered the Men C vaccine as part of the childhood vaccination programme at 3 months of age. A second dose of Men C is offered at 12 months in a combined vaccine with Haemophilus influenzae type b (Hib). Teenagers and first-time university students are offered Men C vaccination in a combined Men ACWY vaccine.
- 4.13 A new vaccine to prevent meningitis has been offered to all babies as part of the routine NHS childhood vaccination programme since 1st September 2015. The Men B vaccine will be offered to babies aged 2 months, followed by a second dose at 4 months, and a booster at 12 months. There was a temporary catch-up programme for babies who are due their 3- and 4-month vaccinations in September 2015, to protect them when they are most at risk from infection. The Men B vaccine will protect babies against infection by meningococcal group B bacteria, which can cause meningitis and septicaemia (blood poisoning), which are serious and potentially fatal illnesses.



Current situation

4.14 Bolton has an excellent coverage of the Men C vaccination with 95.8% of 1 year olds receiving the vaccination in 2012/13. The uptake has remained relatively stable in Bolton between 2010/11 and 2012/13. Additionally, Bolton's Men C coverage is significantly better than England and higher than the North West and has been over several years.



Pneumococcal Infections

- 4.15 The pneumococcal vaccine protects against pneumococcal infections. Pneumococcal infections are caused by the bacterium Streptococcus pneumoniae and can lead to pneumonia, septicaemia (a kind of blood poisoning) and meningitis. A pneumococcal infection can affect anyone. However, some people need the pneumococcal vaccination because they are at higher risk of complications. These include:
 - All children under the age of two;
 - Adults aged 65 or over;
 - Children and adults with certain long-term health conditions, such as a serious heart or kidney condition.
- 4.16 Babies receive the pneumococcal vaccine as three separate injections, at 2 months,4 months and 12-13 months. People over-65 only need a single pneumococcal vaccination, which will protect for life. It is not given annually like the flu jab.

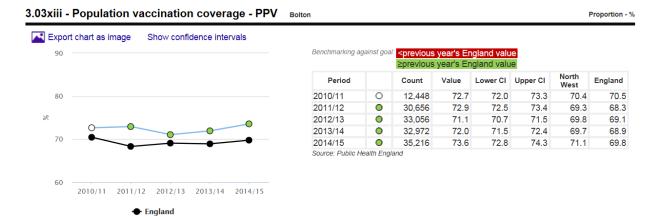


People with a long-term health condition may need just a single one-off pneumococcal vaccination or five-yearly vaccination depending on their underlying health problem.

- 4.17 There are two different types of pneumococcal vaccine:
 - Pneumococcal conjugate vaccine (PCV) this is given to all children under two years old as part of the NHS childhood vaccination programme;
 - Pneumococcal polysaccharide vaccine (PPV) this is given to people aged 65 and over, and to people at high risk due to long-term health conditions.

Current situation

- 4.18 The PCV coverage in Bolton is 95.6% (2015/16) and this is significantly higher than both the North West and England. Following an increase in coverage in 2011/12 Bolton's coverage has remained high and stable for the subsequent four years. Coverage in both England and the North West has also remained stable in recent years.
- 4.19 The PPV vaccination coverage in Bolton in 2014/15 was 73.6%, is also significantly higher than the North West and England. Bolton saw another increase in coverage in 2014/15, further increasing the positive gap when compared to England as a whole.





Shingles

4.20 Shingles is also known as herpes zoster and is a painful skin rash caused by the reactivation of the chickenpox virus (varicella-zoster virus) in people who have previously had chickenpox. It begins with a burning sensation in the skin, followed by a rash of very painful fluid-filled blisters that can then burst and turn into sores before healing. The shingles vaccine is given as a single injection for people aged 70 and 78 or 79 (as a catch up). Unlike the flu jab, individuals only need to have the vaccination once and it can be administered at any time of the year. The shingles vaccine is expected to reduce individuals' risk of getting shingles in the future but some people may still contract the disease. In these cases the symptoms are likely to be milder and the illness shorter. Shingles can be very painful and uncomfortable. Some people are left with pain lasting for years after the initial rash has healed and shingles is fatal for around 1 in 1,000 people aged 70 years and over who develop it.

Current situation

4.21 Bolton's routine shingles vaccine uptake for 70 year olds was 55.4% for the six months September 2015 – May 2016. This was higher than England's which was 51.0%. In addition the catch up vaccination coverage was also higher than England's at 78 years. For both Bolton and England the vaccination coverage at 70 years has reduced in 2015/16 when compared to 2013/2014, while the catch up for those 78 years has now stabilized after initially increasing significantly.

Shingles vaccination coverage							
	Sept 201	3-Aug 2014	Sept 201	4-Nov 2014	Sept 201	4-Feb 2015	
	Bolton	England	Bolton	England	Bolton	England	
Routine 70 years	63.4	61.8	45.2	39.4	52.5	48.7	
Catch up 78 years	1.5	1.0	43.6	38.5	50.7	48.1	
	Sept 2014-May 2015		Sept 201	.5-Feb 2016	Sept 201	5-May 2016	
	Bolton	England	Bolton	England	Bolton	England	



Routine 70 years	55.3	52.8	51.8	46.0	55.4	51.0
Catch up 78 years	53.9	52.5	53.0	46.0	55.6	51.1

5.0 Other Vaccine Preventable diseases

Seasonal flu and flu vaccination

- 5.1 Influenza (flu) is a viral infection affecting the lungs and airways. The symptoms can appear very quickly and include a headache, fever, cough, sore throat and/or aching muscles and joints. In small numbers of cases flu can lead to complications including bacterial pneumonia, which can be life threatening especially in older people and those with certain underlying health conditions. Flu occurs most often in winter in the UK and peaks between January and March.
- 5.2 The seasonal influenza virus does not necessarily cause high mortality, but for people who are over 65 years of age and who are already sick, it may speed up their death. For some people with long-term conditions, under the age of 65 years, the risk of mortality from seasonal influenza can be far higher than the average population.
- 5.3 To protect those vulnerable individuals from seasonal flu each year there is a national flu vaccination programme. All the individuals that fall within at risk groups are identified and offered the flu vaccination through their GPs although increasingly these individuals are also able to access vaccination via workplaces and pharmacies.
- 5.4 In the 2015/16 flu season, the flu vaccine was offered to all two, three and four year old children, to all children of school years 1 and 2 age and to all primary school aged children in former primary school pilot areas.
- 5.5 Bolton Council does not have direct responsibility for delivering the seasonal flu immunisation programme to school aged children; responsibility now lies with NHS England Greater Manchester and Lancashire Team. In 2015/16 the school's programme was delivered by the provider *Intrahealth*. The Public Health team in



the LA supports the agency responsible for delivery of the seasonal influenza immunisation programme. It helps commissioners localise national plans and support providers in addressing the gaps, identifying areas of variable or poor performance, sharing good practice and including recommendations in the local plans.

Current situation

- 5.6 Within Bolton the eligible group which has the highest uptake of flu vaccine is the over 65s. Uptake in this group has increased year on year for the last three years, peaking at 74.1% in 2014/15, currently 73.3% (2015/16). The group with the lowest uptake is pregnant women with 2015/16 showing a reduction to 46.1%. The percentage of under 65s who are at risk who received the vaccine in 2015/15 was 49.6%, again lowerthan the previous three years.
- 5.7 Two and three year old uptake of the flu vaccination has reduced by 4.6% and 6.2% respectively in2015/16. The year 2014/15 was the first year the vaccination was offered to four year olds and just under a third (32.1%) were immunised and this also has reduced to 27.2% in 2015/16
- 5.8 How Bolton CCG ranked against other CCGs:

Bolton uptake ra	ank for 2 year olds	flu vaccination							
	2013/14	2014/15	2015/16						
National rank: out of 149 LAs	N/A	84	90						
GM rank: out of 10 LAs	3	7	8						
Bolton uptake rank for 3 year olds flu vaccination									
	2013/14	2014/15	2015/16						
National rank: out of 149 LAs	N/A	81	100						
GM rank: out of 10 LAs	2	6	8						
Bolton uptake ra	ank for 4 year olds	flu vaccination							
	2013/14	2014/15	2015/16						
National rank: out of 149 LAs	N/A	79	91						
GM rank: out of 10 LAs	N/A	7	9						



*CCGs are ranked by rate of uptake with the CCG ranked 1st having the highest uptake.

- 5.9 Bolton has remained in the lower half of the Greater Manchester Authorities for two, three and four year olds flu vaccination coverage over the last two years; when compared nationally Bolton was just below average.
- 5.10 Flu vaccine uptake is variable between GP practices. This variation is independent of practice level deprivation, and indicates inequality in the protection of groups of vulnerable patients against seasonal influenza. This variation in influenza vaccine uptake also represents variation in the protection of the health of different GP practice populations. What is not clear is how much of this variation is due to resistance to the influenza vaccination in different GP practice populations and how much is due to variation in service provision affecting patient engagement and access. These inequalities are causes for concern and warrant further analysis.
- 5.11 Seasonal flu presents a varied picture due to the occurrence of a variety of other viral infections that can cause flu like symptoms. This can mask the threat that influenza presents to vulnerable people with a much greater risk of complications. It also undermines individuals' sense of urgency in accessing seasonal flu vaccination which is a safe and effective method to protect people at high risk from flu.

Tuberculosis

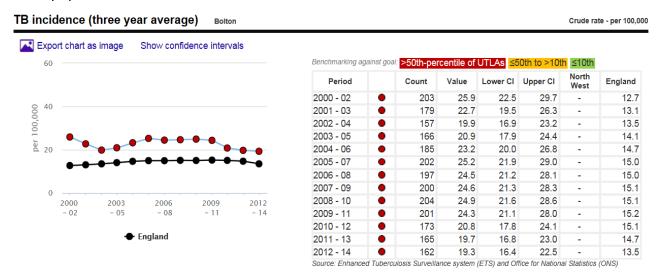
5.12 Tuberculosis (TB) is a vaccine preventable infectious disease, caused by bacteria belonging to the Mycobacterium tuberculosis complex. TB usually causes disease in the lungs (pulmonary), but can also affect other parts of the body (extrapulmonary). In 2013, there were 7,290 TB cases reported in England, an incidence of 13.5 cases per 100,000 of the population. Those most at risk are migrant populations and vulnerable groups, particularly the homeless. The UK currently has the second highest rate of TB among Western European countries.



5.13 The most effective way to prevent TB is through vaccination. The BCG vaccination is recommended on the NHS for babies, children and adults under the age of 35 considered at risk of catching TB. It is not given to anyone over the age of 35 as there is no evidence it has any effect in this age-group. The BCG vaccination is recommended for all older children and adults at risk of TB including: older children with an increased risk of TB who were not vaccinated against TB when they were babies, anyone under 16 who has come from an area where TB is widespread or anyone under 16 who has been in close contact with someone who has pulmonary TB (TB infection of the lung). In addition the BCG vaccination is recommended for people between the ages of 16 and 35 who are at occupational risk of exposure to TB.

Current situation: Number of new cases of Tuberculosis in Bolton

5.14 Based on three year averages between 2012 and 2014, the number of new cases per year in Bolton residents was 162. This gives a rate of 19.3 cases per 100,000 population.



5.15 Since 2008 the rate of new cases has reduced from 24.9 per 100,000 to 19.3 per 100,000, a reduction of approximately 14 cases per year. In contrast the England average has stayed relatively stable, suggesting the incidence in Bolton is



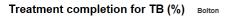
decreasing at a faster rate than the national incidence. However the last two data releases have also seen reductions nationally.

- 5.16 It must be acknowledged that the rate of new cases is still significantly higher in Bolton than in England (an extra 5.8 cases per 100,000). This is due to Bolton having a higher than average number of residents who were born abroad in countries with high TB burden with nearly three quarters of all TB cases occurring in those born abroad. In addition there is a strong association between TB and social deprivation; and Bolton has a higher than average proportion of deprived residents when comparing areas nationally.
- 5.17 There have been several cases of TB in Bolton within the last 12 months where public health measures have been required. In each incident a multi-agency response was coordinated and appropriate public health measures were put in place to reduce the risk of transmission in a timely and effective manner.

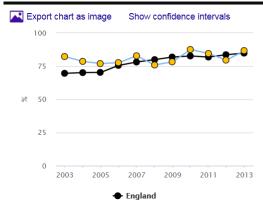
Current situation: Treatment completion

5.18 Treatment completion is a vital aspect of tackling TB as a health protection issue. It is essential to ensure that those with TB become free of the disease and they are no longer carriers and therefore cannot pass on the disease. In addition it reduces the risk of Multi Drug Resistant TB (MDR TB) which if developed can be extremely problematic as there are no effective treatments. MDR TB results in individuals being unable to clear the bacteria, which in turn leads to on-going health issues and makes them a wider risk to the public as they will be a constant carrier.





Proportion - %



Period		Count	Value	Lower CI	Upper CI	North West	England
2003	0	37	82.2	68.7	90.7	73.1	69.6
2004	0	33	78.6	64.1	88.3	61.2	70.1
2005	0	50	76.9	65.4	85.5	68.6	70.3
2006	0	52	77.6	66.3	85.9	75.9	75.5
2007	0	48	82.8	71.1	90.4	74.7	78.1
2008	0	44	75.9	63.5	85.0	76.8	79.9
2009	0	54	78.3	67.2	86.4	80.8	81.8
2010	0	56	87.5	77.2	93.5	84.6	82.6
2011	0	49	84.5	73.1	91.6	80.4	81.8
2012	0	35	79.5	65.5	88.8	83.6	83.6
2013	0	39	86.7	73.8	93.7	82.7	84.8
Source: Public H	ealth Engla	and					

- 5.19 The percentage of treatment completion in Bolton had a significant rise and peaked in 2010 but then it has reduced year on year. It is important to emphasise that the recent reduction is not a statistically significant reduction. Therefore the reduction could possibly be due to natural variance or chance. In contrast the completion rate in England has increased year on year (apart from 2011), but again this is not a statistically significant rise.
- 5.20 Overall, TB treatment completion in Bolton is on a par with England; however it is clear that the rate is not currently improving and more needs to be done both locally and nationally to address this.

6.0 Sexually Transmitted Infections

- 6.1 Sexual health is an issue that concerns the majority of the population. The World Health Organization (WHO) defines sexual health along these main parameters:
 - Enjoyment of sexual relations without exploitation, oppression or abuse;
 - Safe pregnancy and childbirth, and avoidance of unintended pregnancies;
 - Absence and avoidance of sexually transmitted infections, including HIV.

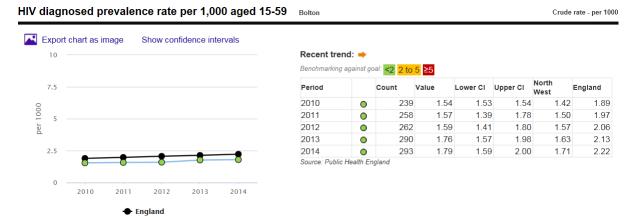


6.2 To ensure these parameters can be achieved a comprehensive and high-quality sexual healthcare services as well as health promotion campaigns, educational opportunities especially for young people is required. In addition good surveillance of trends in key measures of sexual health such as rates of sexually transmitted infections should be used to measure this. Under the Public Health Outcomes Framework the main areas of focus for sexual health are HIV and chlamydia.

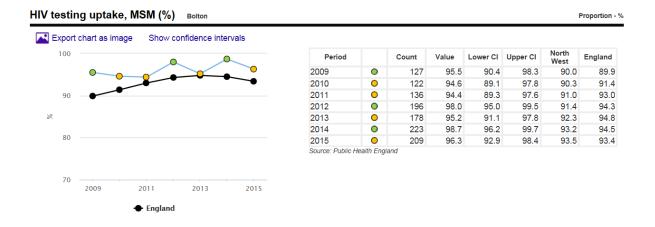
HIV

- 6.3 HIV is a virus which attacks the immune system, and weakens the ability to fight infections and disease. It is most commonly caught through unprotected sex. It can also be passed on by sharing infected needles and other injecting equipment, and from an HIV-positive mother to her child during pregnancy, birth and breastfeeding. Around one in every 360 people in the UK has HIV, but the two groups with highest rates of HIV are gay and bisexual men and Black African heterosexuals, where the rates are approximately one in 17 and one in 18 respectively.
- 6.4 In Bolton the prevalence of diagnosed HIV cases (aged 15-59) has been increasing every year since 2010, this is in line with both the North West and national trends. The prevalence rate in Bolton in 2014 was 1.79 per 1000, slightly higher than the North West (1.71) but significantly lower than England (2.22). The upward trend in prevalence can largely be attributed to the increased life expectancy of individuals with HIV.

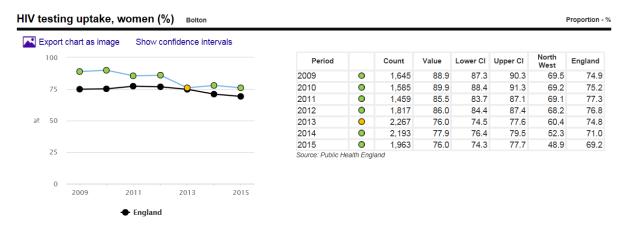




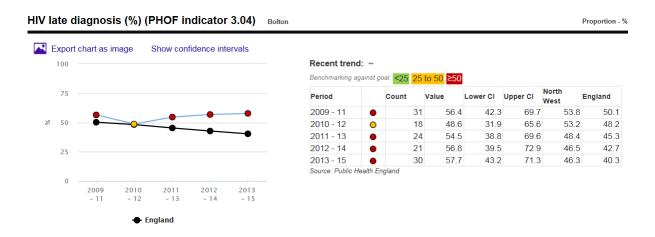
- 6.5 In Bolton the uptake of eligible new episodes in MSM (men who have sex with men) where HIV testing was accepted as a proportion of those where a HIV test was offered was 96.3% in 2015, down slightly from 2014, but relatively typical over the course of the trend. Bolton is slightly higher than the North West and England for this indicator and has been for several years.
- 6.6 In 2015 Bolton's uptake of HIV screening in women was 76%, higher than both the North West and England.







6.7 Late diagnosis for HIV is associated with increased morbidity and mortality (i.e. poorer health outcomes) and therefore early diagnosis is a priority. As such, HIV late diagnosis has been made an indicator on the Public Health Outcome Framework. The measurement used is the percentage of adults (aged 15 and older) diagnosed with a CD4 cell count less than 350 per mm³ within 91 days of diagnosis. Using 3-year rolling averages the percentage of HIV late diagnosis has increased slightly since 2010-12. However, due to the low numbers this change is not statistically significant and could be due to natural variance or chance. With the introduction of home and point of care testing it is hoped that this indicator will improve locally.



Chlamydia



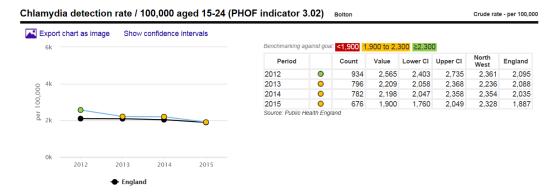
6.8 Chlamydia is one of the most common sexually transmitted infections (STIs) in the UK. The infection is passed on from one person to another through unprotected sex (i.e. sex without a condom). In 2012, 206,912 people tested positive for chlamydia in England; 64% of people diagnosed with chlamydia were under 25 years old.

Current situation

- 6.9 Historically, Bolton's detection rate has remained higher than both the North West and England, suggesting the correct cohort is being targeted.
- 6.10 Recently (2014, 2015) there has been a reduction in the chlamydia detection rate in Bolton. The chlamydia detection rate amongst under 25 year olds is a measure of local chlamydia control activity, aimed at reducing the incidence of reproductive sequelae of chlamydia infection and interrupting transmission onto others. In 2012 Bolton was significantly better than England at controlling chlamydia as measured by this indicator, but currently performance is average. There are however reasons for this dip in performance: mostly related to coding errors and double counting of some screens, these issues have now been resolved. Additionally since 2012 many screening sites no longer exist and there has been noted disruption to the RU Clear service following the implementation of the Health and Social Care Act 2012. Going forward, a new Integrated Sexual Health Service commenced July 1st 2016, across Bolton and Salford, and includes chlamydia screening with national targets set as key performance indicators. The service specification also includes:
 - Screening Initiation sites GPs, 5-19 service, maternity, TOP;
 - Self-sampling sites pharmacies;
 - Postal kits via telephone/website ordering;
 - Click & Collect from identified pharmacies (in close proximity to university and colleges);
 - Refresher training to all sites.



6.11 In addition, chlamydia screening forms part of the Bolton Quality Contract for Primary Care and has resulted in a significant increase in screens offered in this setting. The electronic form for primary care chlamydia screening tests has also been modified and re-launched which has enabled more accurate data submission.



Other STIs

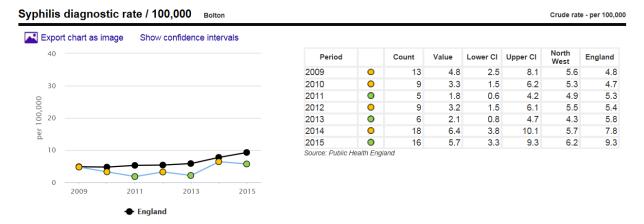
Syphilis, Gonorrhea, Genital Herpes and Genital Warts

6.12 These diseases comprise a series of other bacterial and viral infections which are predominantly passed through sexual contact. They have a range of signs, symptoms and complications and are more common in young adults. For all communicably acquired conditions it is important to both identify and treat the infections in a timely manner to prevent further onward transmission.

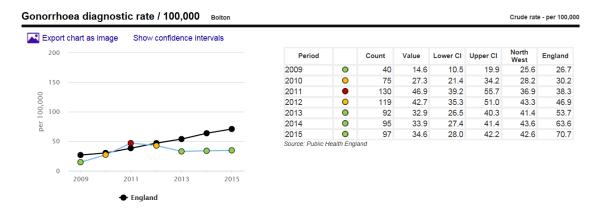
Current situation

6.13 Bolton's syphilis diagnosis rate has remained relatively stable since 2009 with no significant rise or fall until 2014 when numbers went into the teens and have remained there also for 2015. The diagnosis rate does, however, remain lower than the national rate.



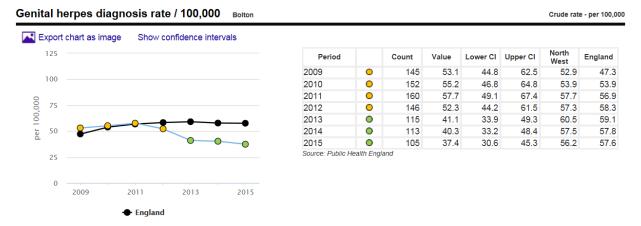


6.14 Between 2011 and 2013 the rate of gonorrhea diagnosis reduced significantly in Bolton. This lower rate is currently being maintained; in contrast the England rate which continues to rise.

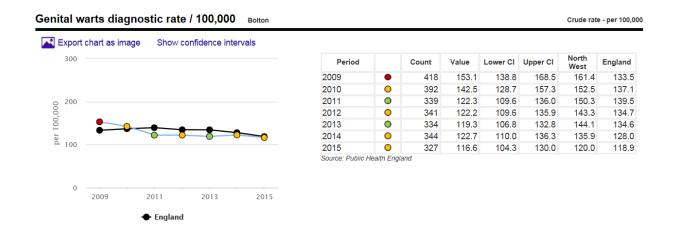


6.15 Genital herpes shows a similar pattern to gonorrhea, with a reduction beginning locally in 2012 and then this lower rate being maintained. In contrast, little change is evident nationally.





6.16 The diagnosis of rate of genital warts has remained consistent in Bolton over recent years. During this time it has generally been lower than both the North West and England. It is expected that there will be a further reduction in genital warts in future years as the impact of the HPV vaccine is effected.



7.0 Health Care Associated Infections (HCAIs)

7.1 Healthcare-associated infections (HCAIs) can develop either as a direct result of healthcare interventions such as medical or surgical treatment, or from being in contact with a healthcare setting. The term HCAI covers a wide range of infections.



The most well-known include those caused by methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile (C. difficile).

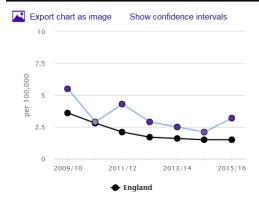
- 7.2 HCAIs pose a serious risk to patients, staff and visitors. They can incur significant costs for the NHS and cause significant morbidity to those infected. As a result, infection prevention and control is a key priority for the NHS. Infection prevention and control is fundamental in improving the safety and quality of care provided to patients.
- 7.3 This year NHS England has agreed a locally enhanced service with Bolton's GPs to improve the infection control response to outbreaks in care homes. An unintended consequence of this has identified the need for additional training for primary care around outbreak management.

Current situation

7.4 The number of cases of MRSA in Bolton has stayed relatively stable since 2012/13 with between 6 and 9 cases per year. The peaks in 2015/16 cases in Bolton occurred in August and September.

All MRSA bacteraemia rates by CCG and financial year NHS Bolton CCG

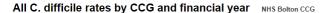
Crude rate - per 100,000



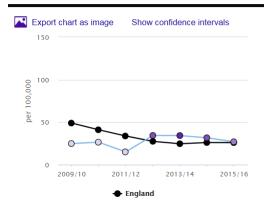
Period		Count	Value	Lower CI	Upper CI	Greater Mancheste	England
2009/10	•	15	5.5	-	-	4.6	3.6
2010/11		8	2.9	-	-	3.5	2.8
2011/12	•	12	4.3	-	-	2.4	2.1
2012/13	•	8	2.9	-	-	2.3	1.7
2013/14	•	7	2.5	-	-	1.9	1.6
2014/15	•	6	2.1	-	-	1.5	1.5
2015/16	•	9	3.2	-	-	1.9	1.5
Source: HCAI Ma	andatory	Surveillance					

7.5 The number of C.difficile cases in Bolton reduced slightly in 2015/16 to 76, down from 89 in 2014/15. Bolton has improved compared to both Greater Manchester and the national average but remains higher than England.





Crude rate - per 100,000

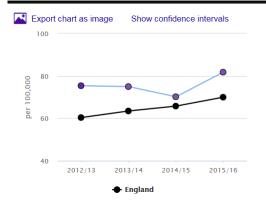


Period		Count	Value	Lower CI	Upper CI	Greater Manchester	England
2009/10		68	24.9	-	-	67.0	49.0
2010/11		73	26.5	-	-	58.3	41.1
2011/12	0	42	15.1	-	-	42.9	33.8
2012/13	•	96	34.4	-	-	35.5	27.5
2013/14	•	96	34.3	-	-	29.4	24.7
2014/15	•	89	31.7	-	-	30.9	26.1
2015/16		76	27.0	-	-	29.8	26.0

7.6 The number of E.coli cases in Bolton has increased to the highest it's been since 2012/13, notably higher than both Greater Manchester and England.

All E. coli bacteraemia rates by CCG and financial year NHS Bolton CCG

Crude rate - per 100,000



Period		Count	Value	Lower CI	Upper CI	Greater Mancheste	England
2012/13	•	210	75.4	-	-	66.0	60.
2013/14	•	210	75.0	-	-	66.4	63.
2014/15	•	197	70.2	-	-	63.4	65.
2015/16	•	230	81.8	-	-	69.2	70.

8.0 Screening Programmes

8.1 Screening is a process of identifying apparently healthy people who may be at increased risk of a disease or condition. They can then be offered information, further tests and appropriate treatment to reduce their risk and/or any complications arising from the disease or condition. In England there are a range of screening programmes including antenatal and newborn screening, breast, cervical



- and bowel cancer, abdominal aortic aneurysm (AAA) and diabetic retinopathy. Screening can lead to a reduction in late diagnosis and preventable deaths.
- 8.2 To maximise the benefits of a screening programme it is important that as many of the eligible population take up the screening as possible (ideally 100%). Screening rates can be affected by a number of factors including socioeconomic group, ethnicity, knowledge and service provision.
- 8.3 Screening programmes are commissioned nationally by NHS England (NHSE).

Current situation: Antenatal and newborn screening

- 8.4 Antenatal and newborn screening comprises: screening for infectious diseases in pregnancy (HIV, syphilis and hepatitis B), screening for sickle cell and thalassaemia, and screening of newborn infants for a number of rare but serious diseases via blood spot testing as well as hearing and physical examinations.
- 8.5 The data for the screening of infectious diseases in pregnancy and sickle cell and thalassaemia is only available at a regional level. For 2015/16 the North West rate is slightly below the England average but is still over 97% coverage for all three diseases.
- 8.6 The newborn blood spot and hearing screening rates for Bolton exceed both the North West and England average.

Breast cancer screening

8.7 The data shows the percentage of residents in the population eligible for breast screening who were screened adequately within the last 3 years. In Bolton and in the North West this has reduced slightly from 2013. This is in line with the pattern observed nationally.



NHS Breast Screening Programme coverage: Less than 3 years since last test

	As at 31 Ma	As at 31 March 2013		As at 31 March 2014		As at 31 March 2015		As at 31 March 2016	
	Number screened	Coverage (%)	Number screened	Coverage (%)	Number screened	Coverage (%)	Number screened	Coverage (%)	
Women age	ed 53-70								
Bolton	21,448	74.3	21,266	73.0	21,625	73.3	21,826	73.1	
North West	513,760	73.9	512,801	72.7	515,342	71.9	571,608	72.2	

Cervical cancer screening

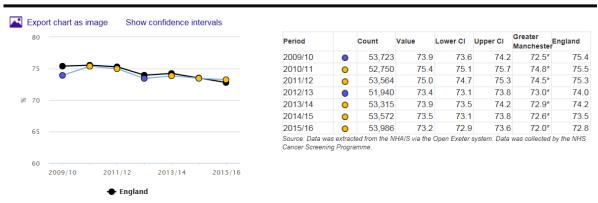
- 8.8 The data shows the percentage of women in the population eligible for cervical screening who were screened adequately in the last 3.5 years (women aged 25-49) and 5.5 years (50-64) on 31st March. The trend in Bolton of a significant reduction in screening uptake in 2013 followed by relative stability is in line with the pattern at both the North West and England levels. In Bolton in 2015/16 screening rates were similar to those of the North West and the England average.
- 8.9 Changes to the test for cervical screening will increase the specificity of the test and should ensure increased uptake.
- 8.10 The newly commissioned sexual health service specification contains the requirement to continue to offer opportunistic screening to women however NHSE very clearly places the responsibility for uptake in the eligible population with primary care.

NHS Cervical Screening Programme coverage: Split by age group								
	2012/13	2013/14	2014/15					
Women aged 25-49 (less than 3.5 years since last adequate test)								
Bolton	70.0	70.5	70.5					
North West	70.8	70.8	70.8					
England	71.4	71.9	71.2					



Women aged 50-64 (lestest)	s than 5 years	since last ac	dequate					
Bolton	77.3	76.7	78.3					
North West	75.9	75.2	77.0					
England	77.4	77.0	78.4					
Women aged 25-64 (less than 5 years since last adequate test)								
Bolton	77.5	76.9	72.8					
North West	77.7	76.9	72.8					
England	78.2	77.8	73.5					

Females, 25-64, attending cervical screening within target period (3.5 or 5.5 year coverage, %) NHS Bolton CCG Proportion - %



Bowel cancer screening

8.11 The bowel screening uptake between October 2013 and September 2014 was lower in Bolton than in the both the North West and England. However, the positivity rate was higher in Bolton than both those in the North West and England. Evidence suggests areas with low uptake tend to have higher positivity. Possible explanations suggested for this include that lower uptake is more common in more deprived areas, and positive screens are more likely in deprived groups.



Uptake rates (m	inimum sta	ndard 52%,	aspirationa	al target 55	%)	
	Oct-Dec 13	Jan-Mar 14	Apr-Jun 14	Jul-Sept 14	Oct 13-Sept 14 (cumulative rate)	
Bolton	49.3%	52.5%	54.4%	58.2%	54.0%	
Bury	50.3%	53.1%	61.0%	54.8%	55.1%	
Central Manchester	39.8%	35.0%	38.5%	38.5%	38.1%	
Heywood, Midd & Roch	47.3%	52.0%	57.1%	52.4%	52.8%	
North Manchester	35.9%	39.9%	45.1%	43.3%	41.4%	
Oldham	46.5%	50.4%	57.3%	53.3%	52.2%	
Salford	46.4%	51.1%	51.0%	54.7%	51.3%	
South Manchester	42.1%	42.3%	42.9%	44.7%	43.4%	
Stockport	54.0%	54.0%	53.5%	56.2%	54.5%	
Tameside & Glossop	50.2%	49.4%	51.4%	52.7%	51.1%	
Trafford	55.0%	51.9%	52.7%	55.9%	54.1%	
Wigan Borough	48.6%	53.7%	55.7%	60.2%	54.9%	
North West	49.5%	54.7%	56.4%	56.2%	54.5%	
England	52.3%	57.9%	57.2%	58.0%	56.6%	
Positivity rates (expected standard 2%)						
	Oct-Dec 13	Jan-Mar 14	Apr-Jun 14	Jul-Sept 14	Oct 13-Sep 14 (cumulative rate)	
Bolton	1.7%	1.4%	1.7%	2.2%	1.8%	
Bury	1.4%	1.5%	1.1%	1.5%	1.4%	
Central Manchester	2.6%	2.4%	1.7%	1.6%	2.0%	
Heywood, Midd & Roch	1.4%	1.2%	1.5%	2.0%	1.5%	
North Manchester	2.4%	2.7%	2.4%	3.1%	2.7%	
Oldham	1.1%	1.4%	1.1%	1.8%	1.4%	
Salford	1.7%	2.0%	2.0%	2.3%	2.0%	
South Manchester	2.9%	1.6%	1.9%	2.4%	2.2%	
Stockport	1.3%	1.2%	1.2%	1.8%	1.4%	
Tameside & Glossop	1.7%	1.3%	1.5%	1.5%	1.5%	
Trafford	1.1%	1.3%	1.4%	1.3%	1.3%	
Wigan Borough	1.2%	1.4%	1.4%	1.9%	1.5%	
North West	1.5%	1.4%	1.5%	1.9%	1.6%	
England	1.8%	1.7%	1.7%	1.9%	1.8%	

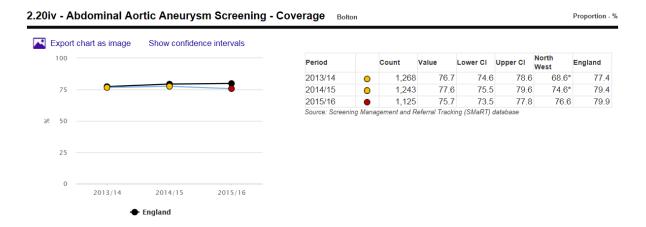
8.12 Going forward there is an expectation that screening rates will increase. Early indications show that the new bowel cancer screening test (to be rolled out



nationally from September 2016) is more acceptable to the eligible population than its predecessor increasing uptake by around 10%. Of particular note is that this increase appears to be in the traditionally 'hard to reach' population.

Abdominal aortic aneurysm screening

8.13 Coverage is a key measure for the screening programme as it provides an indication of the accessibility of the service and that men are aware of the importance of screening. Programmes should aim to increase the coverage of screening so that those not accepting have done so because of informed choice not lack of access to the service or from lack of information in an appropriate formatThe AAA screening coverage rate in Bolton for 2015/16 was 75.7%, which has slipped below the Greater Manchester and national averages.

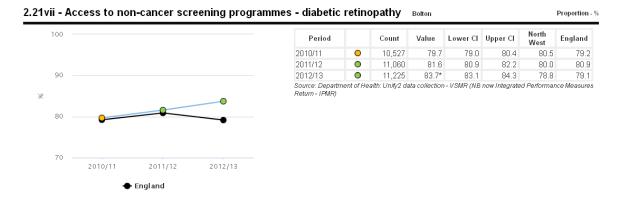


Diabetic retinopathy screening

8.14 The data shows the number of patients offered screening who attended a digital screening encounter during the reporting period. There has been a steady increase in diabetic retinopathy screening rates in Bolton over the last two years. In 2013/14 the screening rates in Bolton were 83.7%, significantly higher than both the North West and England which were 78.8% and 79.1% respectively. The rates



in England and the North West both decreased in 2012/13 in contrast to Bolton which continued to improve as high as 83.7%.



9.0 Assurance Summary

- There is appropriate and robust scrutiny of the health protection issues covered by the sub-groups of the health protection forum; however the forum itself needs to be reviewed in order that any concerns, escalation or plaudits can be raised appropriately;
- Emergency planning and incident response offer robust support and protection for Bolton's residents;
- Vaccination schedule rates are pleasingly high and offer herd immunity to Bolton's population;
- There is some cause for concern in respect of flu vaccination rates and equitable provision across the population;
- TB remains an issue as, although patients are appropriately managed, a more cohesive and concerted preventative approach to diagnosis and treatment would improve outcomes for the at risk population;
- Sexually transmitted infections are identified and managed appropriately and the newly commissioned services are committed to improving performance in these areas;



- The exception remains early diagnosis of HIV infection, however improved and move available testing should begin to impact in the coming year;
- Healthcare acquired infections in hospital settings are reducing and are aggressively managed;
- Management of outbreaks in care homes has improved but remains a challenge and requires constant vigilance;
- Whilst some screening rates are high there are opportunities to improve all rates via interventions in primary care;
- There are training and delivery needs for some staff and communities;
- Financial savings and efficiencies may pose a threat to performance in the future.
- 9.1 Many of the recommendations within this report remain the same or similar to previous years as they relate to the high performance levels of many aspects of health protection in Bolton.
- 9.2 There are a large number of services and partners that contribute to ensuring the protection of Bolton's population and they should be congratulated on their work and ongoing cycle of improvement.
- 9.3 There are opportunities to improve still further all areas of performance, but the largest can be achieved via the primary care workforce.
- 9.4 In conclusion, this document offers assurance that Bolton's population is being protected in a proactive and effective way which contributes to the best health for the whole of Bolton's population.



Organisation	Responsibilities	Preparation and Response	
NHS England	Has responsibility for managing the NHS response to an incident, ensuring that relevant NHS resources are mobilised and directed as necessary. Ensuring that their contracted providers will deliver an appropriate clinical response to any incident that threatens the public's health	 Preparation Planning and securing the health services needed to protect the public's health; With regards to planning and preparedness, obtaining appropriate advice including from persons with a broad range of professional expertise in the protection or improvement of public health. Participating in arrangements for exercising and testing plans to respond to outbreaks / incidents. Response Mobilising NHS resources in response to incidents and outbreaks; Participating (as required) in Outbreak/Incident Management Teams to help inform decisions about the appropriate level of NHS response from providers and working alongside the CCG to agree the resources needed to be released; Co-ordinating the primary care response to the incident with the Area Team Pharmacy Advisor (as required); Supporting CCGs to coordinate any response required by Community Trusts and/or Acute Trusts. 	
Public Health England	Provide the specialist health protection response to public health outbreaks / incidents. Lead the epidemiological investigation Have the responsibility to declare a health protection incident, major or otherwise	 Providing advice to local NHS providers and commissioners regarding any preparation that they might need to undertake to ensure an effective and timely response when a public health outbreak / incident occurs; Supporting local authorities to understand and respond to potential threats; Collection, analysis, interpretation of surveillance data; Providing expert advice on hazards that pose a risk to the public's 	

- health and effective interventions to prevent and respond accordingly;
- Coordinating an out of hours rota for the delivery of specialist health protection advice by qualified personnel;
- Participating in arrangements for exercising and testing plans to respond to outbreaks / incidents;
- Providing access to regional and national PHE expertise as required;
- Advising on the requirement for prophylactic treatment and immunisation for all health protection incidents;
- Keeping the DPH informed about significant health protection issues and actions being taken to overcome them;
- Providing the local authority with information to support the Joint Strategic Needs Assessment and Joint Health and Wellbeing Board strategies as required;
- Supporting local authorities to develop a trained and knowledgeable workforce in the area of health protection.

Response

- Leading the Public Health response to declared Major Incidents; receiving and investigating notifications (with partners);
- Initiating immediate control measures when required; providing expert epidemiological advice through field epidemiology teams to support incident / outbreak investigation (both in the response and recovery phases);
- Sharing information concerning incidents / outbreaks with the local authority through the Director of Public Health;
- Chairing the 'Outbreak/Incident Management Team' and keeping health protection risks under review throughout the incident; communicating to partners when an Outbreak/Incident Management Team is established;
- Providing updates until the outbreak/incident is declared over;

 Coordinating public communications / media response in collaboration with the local authority, CCG and NHS England

Local Authority

Via DPH the LA has overall responsibility for the strategic oversight of an incident impacting on population's health. Ensures that an appropriate response is put in place by NHSE and PHE supported by the CCG. Must be assured that the local health protection system is robust enough to respond appropriately to protect the local population's health and that risks are identified, mitigated against and adequately controlled.

Preparation

- Preparing for and leading the local authority's response to incidents that present a threat to the public's health; providing information, advice, challenge and advocacy;
- Chairing the Bolton Health Protection Forum to ensure that the health protection system is meeting the needs of its local authority population and that risks identified are adequately mitigated against and control arrangements are in place;
- Coordinating the Joint Strategic Needs Assessment to support the understanding of local health protection risks;
- Reporting local health protection arrangements and escalating health protection risks to the Health and Wellbeing Board;
- Ensuring that relevant commissioned services (including providers of sexual health services, drug and alcohol services and school health services) can provide an appropriate response to any incident that threatens the public's health and that business continuity plans are in place;
- Participating in arrangements for exercising and testing plans to respond to outbreaks / incidents.

Response

- Collaborating with PHE to lead the PH response to a major incident;
- Participating (as required) in Outbreak/Incident Management Teams, to help inform decision about the appropriate level of NHS response from providers AND working alongside PHE and the CCG to agree and source through agreed plans the resources needed to be released;
- Briefing Local Authority colleagues and elected members regarding

		health protection incidents/outbreaks;		
		 Mobilising local authority resources required to support an incident 		
		(e.g. Services Trading Standards).		
		, o		
Bolton CCG	To ensure through contractual	Preparation		
	arrangements with providers that	 Ensuring provider organisations commissioned by the CCG are able to 		
	healthcare resources are made	respond adequately to health protection incidents / outbreaks where		
	available to respond to health	screening, diagnosis, treatment or vaccination might be required;		
	protection incidents or outbreaks	 Disseminating information as required by PHE or the local authority 		
		regarding the prevention of / response to, health protection incidents/		
		outbreaks across the local system of health care;		
		With regards to planning and preparedness, obtain appropriate advice		
		from persons with the professional expertise in the protection or		
		improvement of public health;		
		 Participating in arrangements for exercising and testing plans to 		
		respond to outbreaks / incidents.		
		Response		
·				
		Participating (as required) in Outbreak/Incident Management Teams to bold inform decisions about the appropriate level of NUS response from		
		help inform decisions about the appropriate level of NHS response from		
		providers and any CCG resources needed to be released;		
		 Providing (if requested by NHS England), clinical support for the 		
		prescribing and administration of medication		