

Health Protection: Infectious Diseases

Executive Summary

Prevention and control of infectious diseases is important because large numbers of people may be affected with considerable ill health or risk of death. In England, infectious diseases account for £1 in every £10 spent in the NHS.

Between 2010-2012, there were 59 deaths from infectious or parasitic diseases in North Somerset. The North Somerset mortality rate is lower than the England average but not significantly different. The number of deaths peaked in 2006 but has since fallen. 26% of these deaths occurred in under 75 year olds.

With the exception of food poisoning the number of notifiable diseases is low although in recent years there have been small increases in whooping cough, measles and scarlet fever. Groups at high risk of infection include pregnant women, young children, over 65's, those with pre-existing medical conditions, homeless, and substance misusers. Those in nurseries, residential and nursing homes are also at increased risk.

Food Poisoning

The most commonly recorded notifiable disease in North Somerset is food poisoning, however many cases of food poisoning go unreported. Investigations into individual cases do not always identify conclusively the source of the illness whether acquired in the home, via eating out or whilst abroad.

Tuberculosis (TB)

Although the rate of new cases of tuberculosis (TB) in North Somerset is low compared to England, it has been increasing broadly in line with the South West rates over recent years. On average there were 8 new cases diagnosed each year between 2010-2012.

Health Care Associated Infections

Health Care Associated Infections are infections resulting from medical care or treatment in hospital, nursing homes, or the patient's own home. Increased focus and vigilance have resulted in rates of Methicillin-Resistant Staphylococcus Aureus (MRSA) decreasing nationally and locally. Local acute Trusts have seen a steady decline of cases. In 2013/14, there were 4 cases of MRSA and 83 of Clostridium Difficile in North Somerset patients attending any hospital. Local rates for NHS North Somerset patients attending any hospital were similar to national rates.

Blood Borne Viruses

The most common serious viruses carried in the blood are Hepatitis B, Hepatitis C and HIV. The number of cases in North Somerset is low. The North Somerset Locally Enhanced Service for drug misusers specifies testing for blood borne viruses including HIV, Hepatitis A, B and C. Pregnant women are screened for Hepatitis B.

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Immunisation

Immunisation is highly effective in preventing illness and hospital admissions from seasonal influenza. Vaccination is available to the over 65's and other high risk groups. In 2013/14 flu vaccination uptake in the over 65's was 77% and 54% in the under 65's at risk. Uptake in pregnant women was 48.2% and for children aged two and three uptake was 44.3%. All rates were slightly higher than those nationally.

Immunisations prevent a number of diseases that can be fatal to children and adults, including measles, tetanus and meningitis C. In North Somerset, over 90% of children receive the immunisations due by ages 1, 2 and 5 (with the exception of the new rotavirus immunisation which was introduced during 2013). However, for an immunisation programme to be successful immunisation rates need to be in excess of 95% and locally this is only achieved for five of the twelve child immunisations. Childhood immunisations are delivered in GP practices, and there are variations in uptake.

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1. Background

Health protection covers a wide range of 'threats' to our health. These include many diverse areas such as infectious diseases, flooding, radiation, poisons and food safety. It is important that the health, safety and protection of the population from all external threats to health is rigorously maintained.

Control of infectious diseases is particularly important, as they not only have the possibility of affecting large numbers of people, but often make people who contract them very ill. In England, for example, infectious diseases account for £1 of every £10 spent on the NHS and are a major cause of days lost to the workforce. Despite improvement in the general standards of living, broadened scope of vaccination programmes and refined use of antibiotics and other therapeutics, infectious diseases remain a major health threat.

There are particularly vulnerable groups who are more prone to be affected by both infections and hazards. These groups include:

- Pregnant women;
- Infants and young children;
- People over 65;
- People with pre-existing medical conditions;
- Homeless people;
- Drug and alcohol misusers.

Nationally, Public Health England provides a specialist service to diagnose, monitor and evaluate the impact of infections. Health protection is managed nationally, sub-regionally and locally. This chapter looks specifically at local level health protection issues for North Somerset. It includes the following sections:

- Food Safety and Food Poisoning;
- Tuberculosis;
- Healthcare associated infections;
- Blood borne viruses;
- Immunisations.

Sexually transmitted infectious diseases and HIV are not covered by this chapter but can be found in the JSNA chapter¹ on sexual health and teenage pregnancy.

1.1 Health needs of the population

Notifiable diseases

Table 1 shows a selection of the 32 notifiable diseases reported in North Somerset in the years 2004-2013. Doctors in England and Wales have a statutory duty to notify a 'Proper Officer' of the Local Authority of suspected cases of certain infectious diseases.

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Table 1: Notifications of Infectious Diseases (NOIDS) (2004-2013)

Disease	Disease Type	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Whooping cough		3	0	2	0	4	0	2	1	18	6
Viral hepatitis	Hep A	2	0	0	0	0	0				
	Hep B	1	0	0	0	0	2	0	0	1	1
	Hep C	9	0	0	0	0	1				
	Hep E	0	1	0	0	0	1				
Measles		2	1	4	7	0	10	7	1	2	8
Mumps		57	79	7	5	3	9	10	9	19	8
Rubella		1	8	2	3	5	1	2	0	0	0
Tuberculosis	All	5	13	7	6	0	1				19
	Pulmonary	4	9	4	4	0	1				
	Other forms	1	4	3	2	0	1				
Acute Meningitis	All	5	1	0	0	0	0	0	1	1	1
	Meningococcal	1	1	0	0	0	0	0	0	0	0
	Pneumococcal	2	0	0	0	0	0	0	0	0	0
	Other specified	0	0	0	0	0	0	0	1	0	0
	Unspecified	0	0	0	0	0	0	0	0	0	1
	Viral	2	0	0	0	0	0	0	0	1	0
Shigella		6	5	7	10						
Food Poisoning	Formally notified	169	123	127	83	111	69	101	47	60	33
	Otherwise ascertained*	253	260	355	356	292	353	249			
Malaria		0	0	1	1	0	0	0	0	1	0
Scarlet Fever		4	9	2	5	1	4	5	7	10	7

Source : NOIDS

* Please note this is only up until week 35 in 2010.

Greyed cells indicate that the data is no longer available.

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Public Health England publish weekly reports of all notifiable diseases. Most have very low incidence both locally and nationally, although there are some noted variations, for example measles and mumps. Nationally in 2013 the four most common notifiable diseases were food poisoning, mumps, Tuberculosis and scarlet fever. In North Somerset in recent years there have been small increases in cases of whooping cough, measles and scarlet fever. The most common notifiable disease is food poisoning.

1.2 Mortality from infectious and parasitic disease

Infectious diseases account for significant numbers of deaths. Table 2 shows mortality rates due to infections in North Somerset are not differ significantly from the rates in the surrounding area, regionally or nationally. There were 59 deaths due to infections or parasitic disease in North Somerset between 2010-12. It is possible that some of these could have been prevented with appropriate control of infection measures.

Table 2: Mortality from infectious disease and parasitic disease in all ages: 2010-2012 (Pooled)

Area	No.	Directly Standardised Rate per 100,000	95% Lower	95% Upper
North Somerset	59	8.43	6.41	10.89
Bristol	91	9.08	7.29	11.18
South Gloucestershire	45	6.47	4.71	8.67
BANES	42	8.25	5.93	11.17
South West Region	1,562	9.21	8.75	9.68
England	14,544	10.27	10.11	10.44

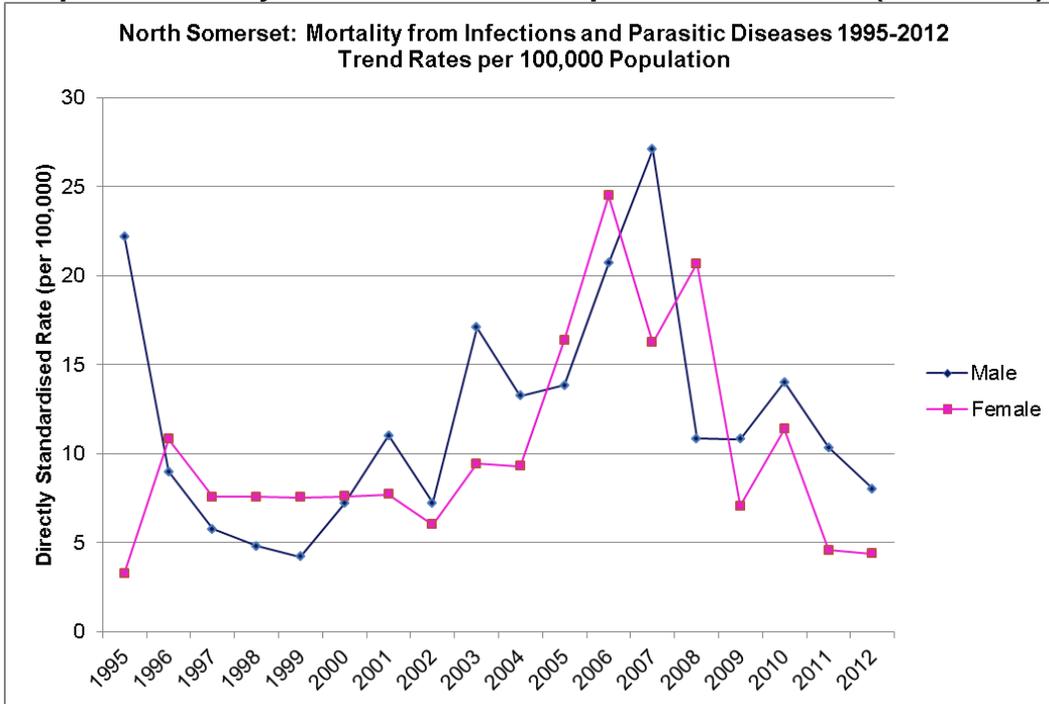
Source: Health & Social Care Information Centre

Graph 1 shows the rates of death from infections over the last 18 years. Rates are generally slightly higher in men than women. Graph 2 shows the total number of deaths from infections, with a peak in 2006 and lower numbers in recent years.

Deaths from infectious disease affect those in younger age groups as well as the elderly. Nationally about 35% of deaths from infectious disease occur in the under 75's (see Table 3 below). In North Somerset only 26% of deaths are in the under 75's which reflects the older age profile of the population.

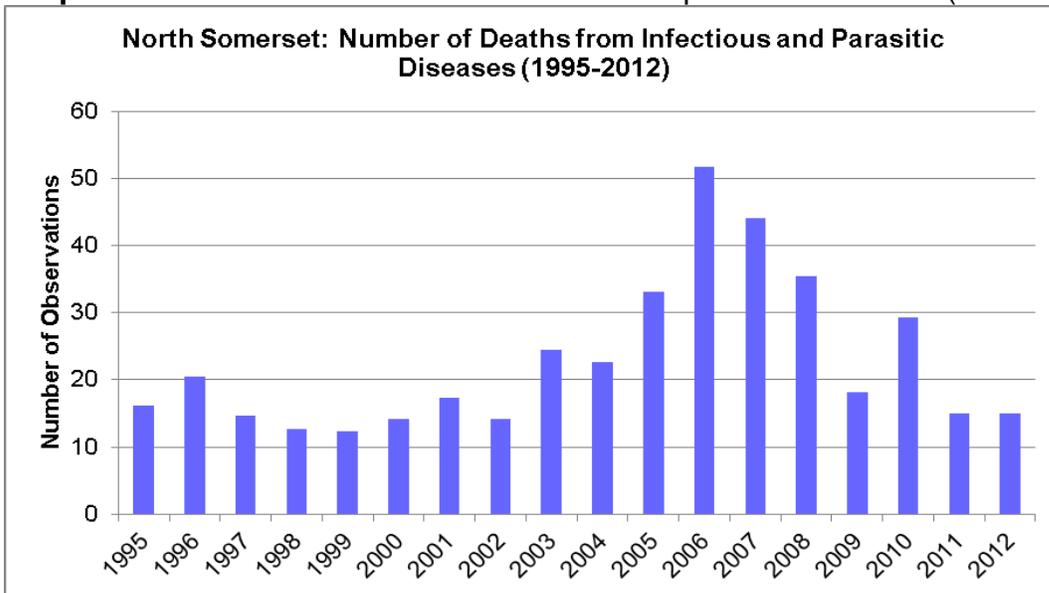
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Graph 1: Mortality from infections and parasitic diseases (1995-2012)



Source: Health & Social Care Information Centre

Graph 2: Number of deaths from infectious and parasitic diseases (1995-2012)



Source: Health & Social Care Information Centre

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Table 3: Numbers of deaths from infectious diseases: Under 75s (2010-12)

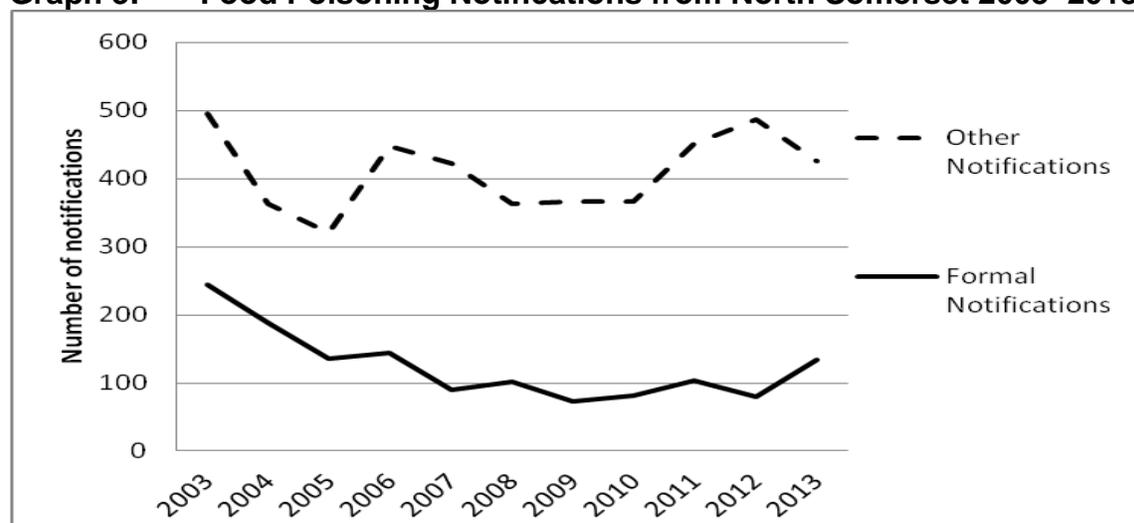
Area	Total No. of Deaths	Deaths in Under 75s	% of Deaths in Under 75s
North Somerset	59	15	25.73
Bristol	91	27	30.03
South Gloucestershire	45	17	38.48
BANES	42	18	43.20
South West Region	1,562	440	28.17
England	14,544	5,016	34.49

Source: Health & Social Care Information Centre

1.3 Food Safety and Food Poisoning

There were 426 notifications of food poisoning in North Somerset in 2013/14 (see Graph 3). It is considered that not all those suffering from food poisoning will contact their GP and therefore the number of official notifications is likely to be an underestimate of the total number of food poisoning cases within the district. There is a difference in the nationally reported notifications of food poisoning (see Table 1) and those notified to North Somerset Council, with higher figures collected locally. This has been discussed with Public Health England and a new system of sharing information started in 2014. One case of proven food borne outbreak in North Somerset was reported to the Health Protection Agency in 2013.

Graph 3: Food Poisoning Notifications from North Somerset 2003–2013



Source: North Somerset Council Environmental Health

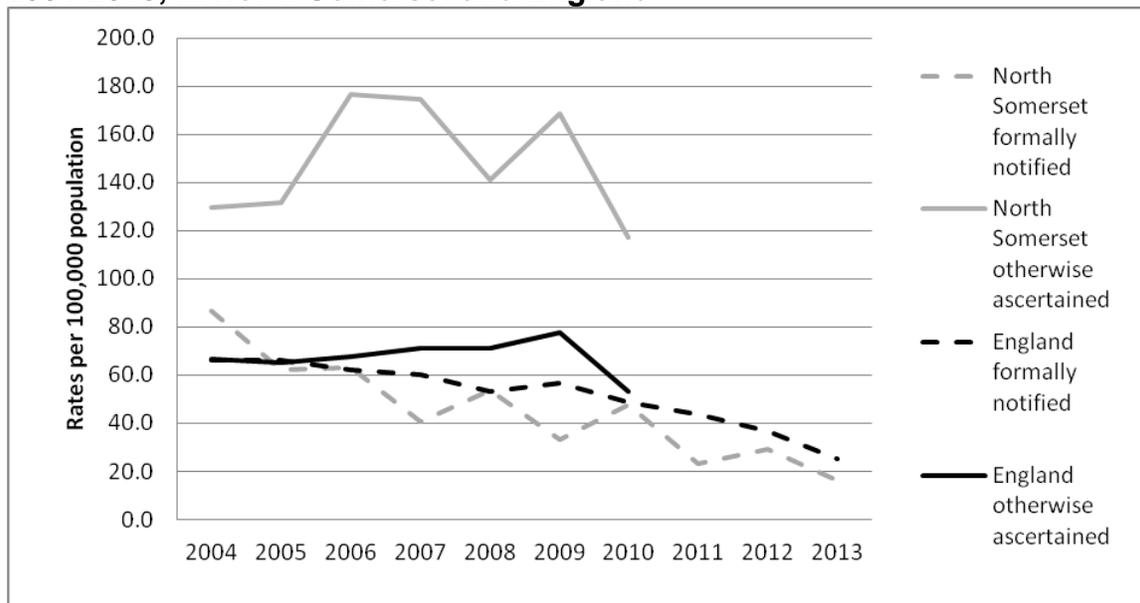
The total number of food poisoning cases in North Somerset has historically been significantly higher than the average for England. This does not necessarily mean that food safety standards are any poorer in North Somerset than elsewhere as it may just reflect a higher level of reporting and the make up of the population. Certain people are more likely to present to their GP with food

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poisoning than others such as mothers with small children and older people. In addition, those with confirmed food poisoning may have acquired the illness in another part of the country or abroad and not necessarily from businesses in North Somerset.

Graph 4 shows that the historic difference with England has been entirely contributed to 'otherwise ascertained' cases of food poisoning which are those cases which are not formally notified. Since 2011 otherwise ascertained cases are no longer reported nationally.

Graph 4: Rates per 100,000 population of notifications of food poisoning, 2004-2013, in North Somerset and England

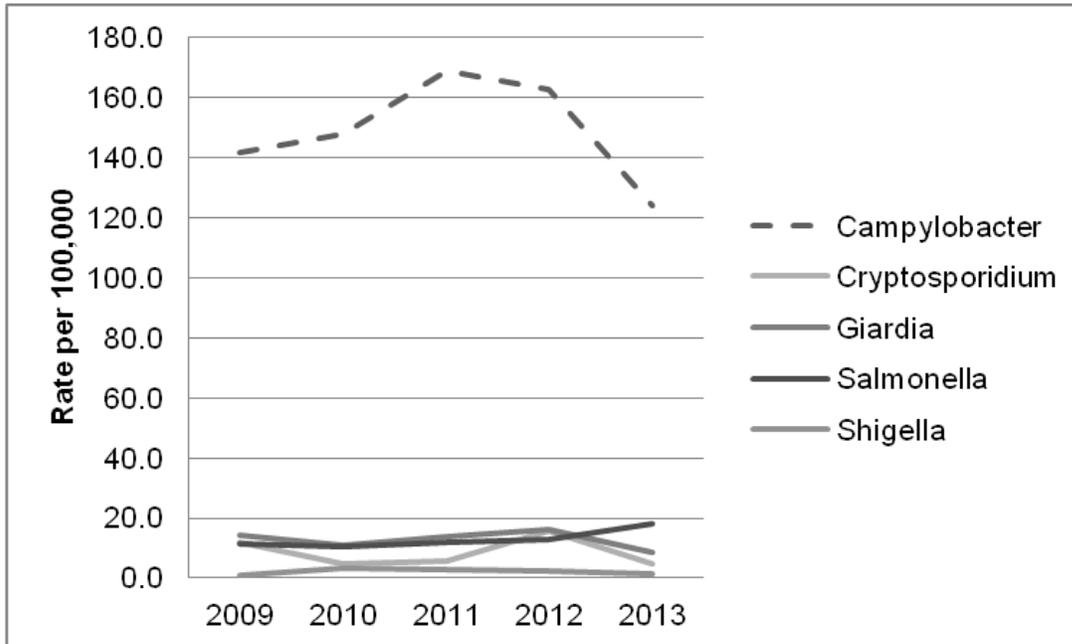


Source: NOIDS

Graph 5 shows the rates of gastrointestinal infections, however the cause of the illness was not necessarily food poisoning. Campylobacter is the commonest reported bacterial cause of infectious intestinal disease in England and Wales and this is also the case in North Somerset (347 cases in 2013). For the last four years North Somerset had higher rates of food poisoning from Campylobacter than other local areas (Bristol, South Gloucestershire and Bath and North East Somerset) (see Graph 6). The North Somerset rate (124.2 per 100,000) is also substantially higher than the average for England and Wales (102.4 cases per 100,000 in 2013). The consumption of undercooked meat (especially poultry) is most commonly associated with this illness. The majority of infections, however, remain unexplained by recognised risk factors for disease.

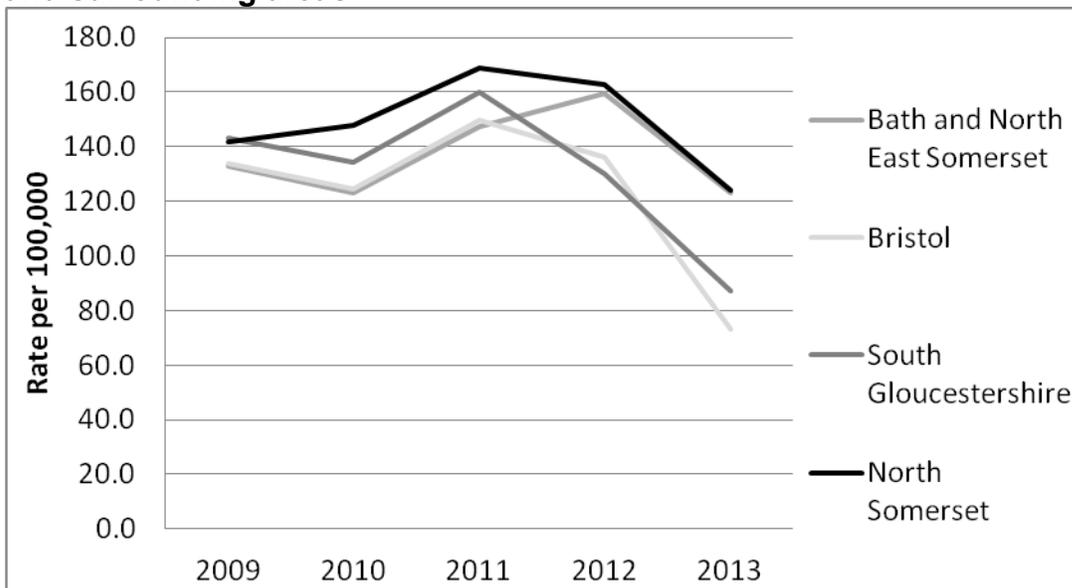
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Graph 5: Laboratory confirmed cases and rates per 100,000 population of gastro-intestinal infectious diseases in North Somerset, 2009-2013



Source: PHE LabBase

Graph 6: Rates per 100,000 population of Campylobacter in North Somerset and surrounding areas



Source: PHE LabBase

Direct correlation between consumption of undercooked duck liver pate and Campylobacter food poisoning was evidenced in 2012 when food safety officers carried out an investigation into a food poisoning outbreak affecting 56 attendees

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at a local wedding reception. The outbreak investigation led to the discovery that the production of this food item had not been subject to any documented food hygiene controls, which if provided and followed would undoubtedly have prevented the outbreak.

1.4 Norovirus

Annual counts of reported community norovirus outbreaks (both suspected and confirmed) in North Somerset in 2010-2013 by principal context of outbreak are shown in Table 4.

Table 4: Annual counts of reported community norovirus outbreaks (both suspected and confirmed) in North Somerset reported to Public Health England

Principal Context of Outbreak	2010*	2011	2012	2013
Care Home	9	14	21	12
Education	4	7	13	9
Other	2	2	2	0
Total reported outbreaks	15	23	36	21

Source: HP Zone. *Only from February 2010

Norovirus outbreaks tend to be more prevalent in semi-closed environments such as residential and nursing homes and amongst children who attend nurseries. This is because these establishments, where people are in close proximity to one another, provide ideal conditions for person-to-person spread. Noro-like viruses are highly contagious and as few as 10 viral particles may be sufficient to contaminate an individual. Outbreaks in Weston Area Health Trust are shown in Table 5.

Table 5: Annual counts of reported hospital norovirus outbreaks in Weston Area Hospital Trust

Laboratory confirmed	2009	2010	2011	2012	2013
Yes	9	3	21	14	6
No	0	1	3	2	1
Total reported outbreaks	9	4	24	16	7

Source: HNORS

1.5 Tuberculosis (TB)

Tuberculosis is caused by the bacterium Mycobacterium Tuberculosis. It can cause disease in the lungs as well as other sites such as the lymph nodes and bones. TB affects disadvantaged communities including certain ethnic minority

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groups and those with social risk factors such as homelessness and drug/alcohol misuse.

Although the rate of new cases of tuberculosis (TB) in North Somerset is low (4.4 per 100,000 compared to 15.1 nationally), it is similar to local areas except Bristol which has a much higher rate (see Table 6). On average there were 8 new cases diagnosed each year between 2010-2013. A low value does not mean that action is not required, as TB is preventable and any case of TB needs to be treated.

Table 6: Average incidence rate of Tuberculosis per 100,000 population per year, 2010-2012

Area	Rate per 100,000
North Somerset	4.4
BANES	5.1
Bristol	19.6
South Gloucestershire	5.3
ENGLAND	15.1

Source: Public Health Outcomes Framework (PHOF)

1.6 Health Care Associated Infections (HCAI)

Health Care Associated Infections are infections resulting from medical care or treatment in hospital, nursing homes, or the patient's own home. HCAI can affect any part of the body, including the urinary system (urinary tract infection), the lungs (pneumonia or respiratory tract infection), the skin, surgical wounds (surgical site infection), the digestive (gastrointestinal) system and the bloodstream (bacteraemia). An infection is not classed as hospital acquired unless it is evident after 48 hours in hospital. Information on two conditions is presented here: MRSA and C.difficile which have presented particular challenges in recent years.

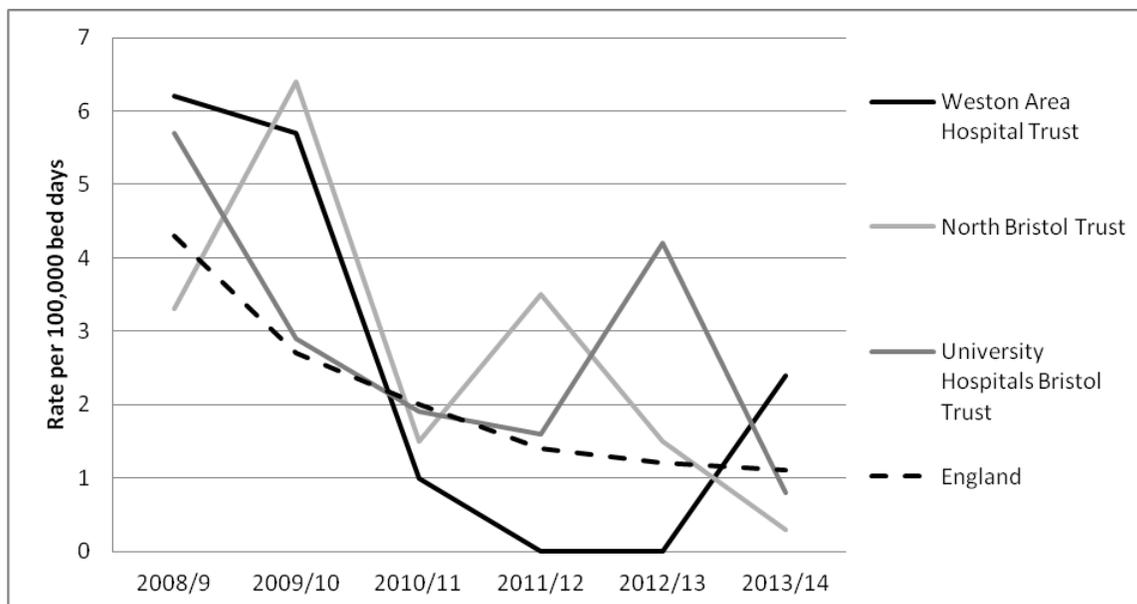
Staphylococcus Aureus is a bacterium that commonly colonises human skin and mucosa (e.g. inside the nose) without causing any problems. If the bacteria enter the body, illnesses which range from mild to life-threatening may then develop. Some Staphylococcus Aureus bacteria are more resistant. Those resistant to the antibiotic meticillin are termed Meticillin-Resistant Staphylococcus Aureus (MRSA) and often require different types of antibiotic to treat them.

Both locally and nationally rates of MRSA have been decreasing, mainly due to increased vigilance within hospitals around infection control. This follows a period when rates of infection were very high. The renewed vigilance against these infections meant that infection control became a top priority for Trust Boards, and Trusts had to mandatorily report rates. Nationally and locally there has been a downward trend in the rates and there is a zero tolerance approach to MRSA Bacteraemia (see Graph 7), however small number of cases are

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occurring at the local Trusts. The rates are not adjusted to give a standardised rate which considers factors such as demographics or case mix.

Graph 7: Rates of Methicillin Resistant Staphylococcus Aureus (MRSA) Bacteraemia acquired in local hospitals



Source: Annual results from the mandatory MRSA reporting scheme

The rates of MRSA Bacteraemia for North Somerset CCG are shown in Table 7. These figures include MRSA Bacteraemia which was apportioned to be acquired in a healthcare setting and those which were not.

Table 7: Number and Rates of Meticillin Resistant Staphylococcus Aureus (MRSA) Bacteraemia specimens attributed to patients in North Somerset CCG area

Year	2009/10	2010/11	2011/12	2012/13	2013/14
Number	9	3	4	5	4
Rate per 100,000	4.5	1.5	2	2.4	2

Source: Annual results from the mandatory MRSA reporting scheme

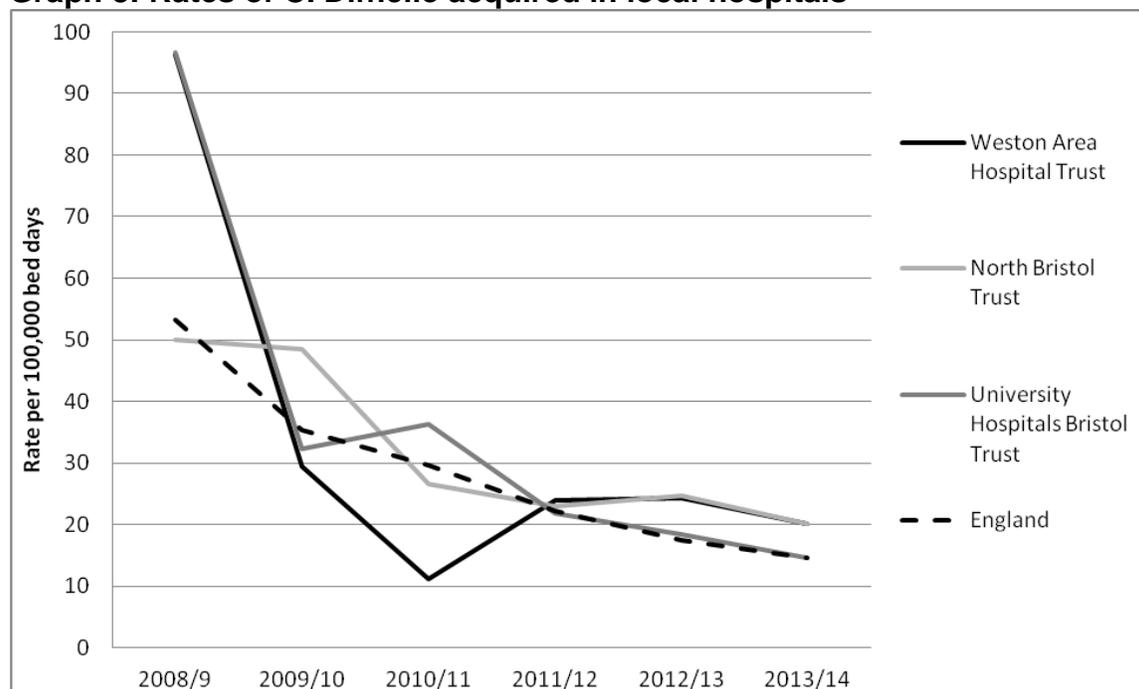
Like MRSA, rates of C.difficile have declined both locally and nationally. This is mainly due to increased vigilance within hospitals around infection control. Rates for patients in North Somerset are shown in Table 8 and these figures include C.difficile infections which were apportioned to be acquired in a healthcare setting and those which were not. In the years preceding 2009/10 there was much progress in reducing rates but since 2009/10 the rates have declined more gradually (see Graph 8).

Table 8: C. Difficile specimens attributed to patients in North Somerset CCG area

	2009/10	2010/11	2011/12	2012/13	2013/14
Number	95	80	76	73	83
Rate per 100,000	47.1	39.4	37.4	35.7	40.6

Source: Annual results from the mandatory Clostridium difficile reporting scheme

Graph 8: Rates of C. Difficile acquired in local hospitals



Source: Annual results from the mandatory Clostridium difficile reporting scheme

1.7 Blood Borne Viruses

The most common serious blood borne viruses are Hepatitis B, Hepatitis C and HIV. HIV is not covered here, see the JSNA Chapter on sexual health¹ for further information.

Hepatitis B is not very common in the UK: approximately one in 1,000 people are thought to have the virus. Early symptoms of the Hepatitis B virus are flu-like, and infection can lead to liver disease and liver cancer. The vast majority of people who are infected with Hepatitis B are able to fight off the virus and fully recover from the infection within a couple of months. However, most babies infected with Hepatitis B have a poorer outlook, as their infection usually becomes chronic. It is important therefore that pregnant women are screened for Hepatitis B, and those with positive results are followed up, so that their babies can be vaccinated at birth and complete a full course of vaccinations over the

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first year. 90% of infected babies will develop resistant Hepatitis B infections and be at risk of serious liver disease in later life.

People infected with Hepatitis C virus often show no symptoms initially, but long term effects can include liver damage and cancer. The virus is transmitted by infected body fluids and needle sharers are at particular risk. No vaccine exists to prevent Hepatitis C infection, but treatments are available that are effective in over 50% of cases.

The prevalence of Hepatitis C in North Somerset is estimated using the 2014 Public Health England commissioning template for estimated HCV prevalence and numbers eligible for treatment. It is estimated that there are 686 people in North Somerset with Hepatitis C, of which 53% are estimated to be current injecting drug users (see Table 9).

Table 9: Estimated population infected with Hepatitis C Virus in North Somerset

HCV Population Estimates for North Somerset	Estimated Size
Total infected current injecting drug users	363
Total infected ex- injecting drug users	230
Total infected non-injecting drug users	46
Total estimated population infected with HCV	686

Source: http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140844602

1.8 Immunisation

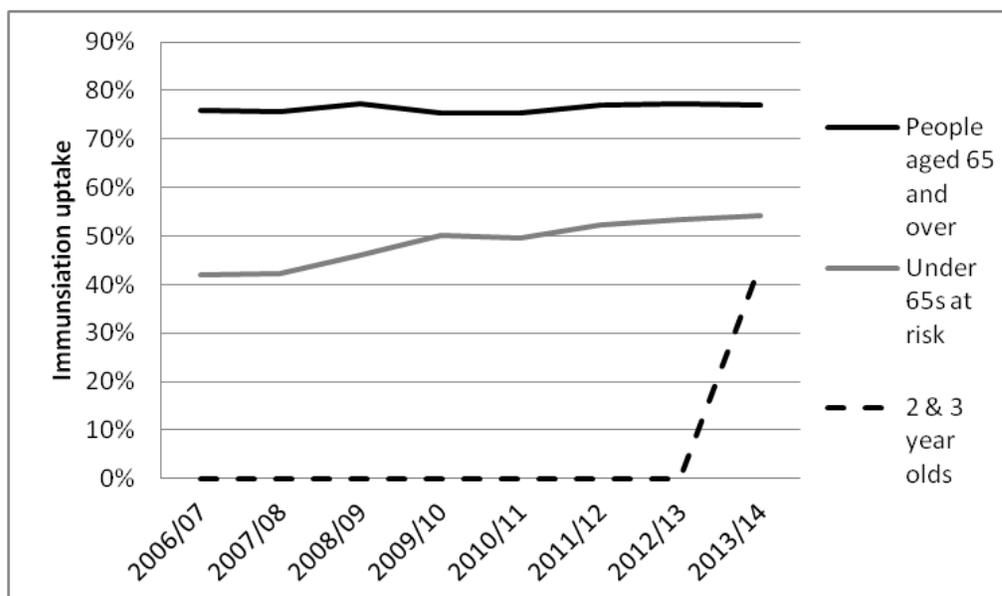
Seasonal Influenza Vaccination Programme

Seasonal influenza occurs every year, usually in the winter. It is a highly infectious disease caused by a virus. Illnesses resembling influenza that occur in the summer are usually due to other viruses. The rate of primary care consultations for influenza-like illness in North Somerset was 8.7 per 100,000 practice population in 2013/14 which was similar to the average for England (7.5 per 100,000). Seasonal flu immunisation is the best protection against flu for people with underlying health problems that put them at risk of complications from influenza (flu), and for all those aged 65 and over.

North Somerset seasonal flu immunisation uptake rates are higher than the national average and uptake rates for those under 65 at risk have steadily improved in recent years. For the first time in 2013/14 a nasal spray influenza vaccine was offered to all children aged 2 and 3. In 2014/15 this will be extended to include 4 year olds. Uptake rates by age group are shown in Graph 9.

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Graph 9: Uptake rates for the seasonal flu vaccine in North Somerset: (2006/07 to 2013/14)



Source : ImmForm web based reporting : DH/HPA/NHS England

Pregnant women and their unborn babies are at risk from influenza. In 2013/14, the average uptake rate among pregnant women of 48.2% which was higher than the national rate for pregnant women of 39.8%. In North Somerset there is a wide range in uptake rates by GP practice and vaccination is not available from midwives.

Adult Immunisations

Two immunisations are offered to some adults (see Table 10). The shingles vaccine is given to people aged 70, 78 or 79. Uptake of pneumococcal immunisation is lower than expected and it could be that data reporting is incomplete; this will be investigated further.

Table 10 Uptake of adult immunisations (Pneumococcal and shingles)

Immunisation	2013/14 uptake rate
Pneumococcal	69.3%
Shingles (70 year olds)	48.6%
Shingles (79 year olds)	45.5%

Source: NHS England Quarterly Performance Reports using Immform and COVER

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Child and Teenager Immunisations

The World Health Organisation and UK government recommend that at least 95% of children are immunised against the key diseases included in the routine schedule. Trends in immunisation uptake show that immunisation rates in North Somerset have been consistently higher than the England and South West averages. In North Somerset, at least 90% of children aged between 1 and 5 receive all the vaccinations due, with the exception of the rotavirus vaccine which was introduced in 2013. However the national target of 95% was not achieved for five of the twelve vaccinations in 2013/14 (see Table 11). The uptake of Meningitis C vaccine at 1 year is lower than in previous years because it was removed from the immunisation programme part way through 2013/14 and moved to an older age group.

Previous analysis has found that those with the lowest uptake rates in North Somerset include children of mothers under 25 years old, and over 35 years old, and children living in Central Weston. These differences are particularly marked for immunisation rates for children by age 1 and the differences decline with older immunisations of older children.

There is not a similar difference in immunisation uptake by deprivation in North Somerset. However, there is a trend of lower vaccine uptake from the least to the most deprived groups. The trend, is very small for immunisations due by age 1 and increases for immunisations due by age 2 and 5. Based on evidence, other groups in North Somerset that may be of high risk of not receiving immunisations:

- children from gypsy, traveller and Roma families;
- children that have been hospitalised and/or have chronic health problems;
- children from large families;
- children from black and minority ethnic groups.

Three immunisations are offered to teenagers (see Table 12). The immunisation uptake for three doses of Human Papilloma Virus is 91.7%, compared to 79.7% in England. The tetanus, diphtheria, and polio booster immunisation is given to 13-18 year olds; in North Somerset it is given to 14-15 year olds in schools by school nurses and is also available from GPs. In 2013/14 it was also given to Year 9 (13-14 year olds) along with the Meningitis C vaccine and in future it will be given to Year 9 students.

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Table 11: NHS North Somerset Immunisation Rates 2013/14

Age 1	Diphtheria, Tetanus, Polio, Pertussis, Haemophilus influenza type b	Pneumococcal	Meningitis C	Rotavirus 2 nd Dose
	96.7%	97.2%	90.5%	80.2%
Age 2	Diphtheria, Tetanus, Polio, Pertussis, Haemophilus influenza type b	Pneumococcal	Haemophilus influenza type b, meningitis C	Measles, mumps and rubella
	97.6%	94.9%	94.7%	95.5%
Age 5	Diphtheria, Tetanus, Polio, Pertussis, Haemophilus influenza type b	Diphtheria, Tetanus, Polio, Pertussis	Haemophilus influenza type b, meningitis C	Measles, mumps and rubella (MMR) – 2 nd Dose
	96.9%	93.5%	94.5%	92.2%

Data source: Child Health Information System

Table 12 Teenager Immunisation Rates

Immunisation	2013/14 uptake rate
Human Papilloma Virus (3 doses)	91.7%
Tetanus, diphtheria, and polio (with Inactivated Polio Vaccine) (Td/IPV) booster vaccination coverage in Year 10 from immunisation in school (14-15 year olds)	58%
Tetanus, diphtheria, and polio (with Inactivated Polio Vaccine) (Td/IPV) booster vaccination coverage in Year 9 from immunisation in school (13-14 year olds)	74%
Meningitis C booster (13-15 year olds)	Starting during the year

Source: NHS England Quarterly Performance Reports using Immform and COVER and from North Somerset Community Partnership school nurses.

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2. What we are doing in North Somerset

2.1 Food Safety and Food Poisoning

North Somerset Council's Food Safety and Trading Standards team investigate reports of food and water borne infectious diseases in North Somerset. This particularly applies to any infectious disease where the illness is caused by eating contaminated food or drink. They act on information passed to them by GPs, members of the public, businesses, hospitals and other local authorities.

Health practitioners are required to notify the Proper Officer for North Somerset Council via the Food and Safety Team of any suspected or confirmed cases of food poisoning, which are then reported to the Health Protection Agency. Dependant on risk and provision of positive laboratory results individual cases and outbreaks are then subject to investigation.

The Food Standards Agency has recognised that there is a need within the food industry to reduce the prevalence of *Campylobacter* in raw poultry and also to increase the information available to the public to improve hygienic practices in the home. The campaign commenced in April 2011 and since that date there has been reduction in the local incidence of this infection. Further information is available: <http://www.food.gov.uk/news-updates/campaigns/campylobacter/fsw-2014>

There is an increased risk of acquiring a food borne illness from food businesses that exhibit poorer compliance with food safety legislation. In order to reduce the risk of food poisoning, North Somerset Council Food Safety Officers take measures to ensure that food business operators who manufacture, prepare, cook and serve food to the public do so safely. These Officers carry out interventions to ensure that food is prepared in a safe and hygienic environment, and that those involved are suitably trained and have documented hygiene management systems in place to support food safety.

The Food, Safety and Trading Standards Team are able to provide advice and guidance on documented food safety systems, cross-contamination, temperature control, cleaning and disinfection, pest control, food poisoning, allergens, labeling and quality standards.

Each food business inspection generates a rating for the standards of food hygiene observed, which is recorded on the Food Standards Agency (FSA) website (<http://ratings.food.gov.uk/>) (see Table 13). This information is available to the public who are able to make informed choices about where they eat.

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Table 13: Establishments broadly compliant with food hygiene standards

	2009	2010	2011	2012	2013
North Somerset	87.3%	93%	95.5%	97.6%	95.8%
Bristol	97%	97%	92.3%	92.4%	92.8%
South Gloucestershire	99.3%	99.5%	98.7%	99%	99.2%
BANES	97%	96.7%	92%	93.7%	94.7%
England	92.1%	92.1%	N/A	90%	91.2%

Source : HPA Health Protection Profiles

Current initiatives primarily focus on those businesses that have never been subject to intervention and those that are deemed to be non-compliant with food hygiene standards. Our data is that non-compliance is not sector specific and a range of enforcement interventions will be used to drive up their compliance.

Alternative enforcement initiatives include a comprehensive programme of food hygiene training for food handlers as well as provision of newsletters advising on compliance with new legislation.

Information about food safety, North Somerset Council training courses, food poisoning and business compliance with food hygiene standards is available to the community via the North Somerset website: <http://www.n-somerset.gov.uk/>

2.2 Tuberculosis

North Somerset Clinical Commissioning Group, Weston Area Health Trust and the Public Health England work together to ensure that nationally approved systems for monitoring, control and treatment of TB are in place across North Somerset. There is a GP Referral pathway developed for suspected TB which is available at

http://www.northsomersetpathways.co.uk/documents/other/clinical_policies_and_guidelines/infection_control/tuberculosispolicy.pdf The BCG immunisation is offered to infants at risk of infection.

2.3 Health Care Associated Infection

The Health Protection Agency assists infection control and the control of antibiotic resistance in the healthcare setting by monitoring infections with mandatory and voluntary surveillance schemes covering:

- Methicillin-Resistant Staphylococcus Aureus (MRSA),
- Clostridium Difficile Infection (C.difficile/CDI),
- Glycopeptide-Resistant Enterococci (GRE),
- Bacteraemia (blood stream infection),

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- Surgical site infections (of which some orthopaedic categories are mandatory) via the Surgical Site Infection Surveillance Scheme (SSISS).

The North Somerset HCAI Group meets to ensure robust and measurable infection prevention and control systems are in place within North Somerset Clinical Commissioning Group commissioned services.

2.4 Blood borne viruses

The North Somerset Locally Enhanced Service for drug misusers ensures that those being treated under this service are tested and vaccinated for blood borne viruses, including HIV, Hepatitis A, B and C.

2.5 Immunisation

Immunisation is one of the most effective healthcare interventions available. Influenza vaccines are highly effective in preventing illness and hospital admissions. Government policy is to recommend immunisation for people aged 65 years and over. The vaccination is also recommended for those who live in residential or nursing homes, carers of an older or disabled person, or for women who are pregnant. Even if healthy, a free seasonal flu vaccination is available from GP practices for patients aged under 65 and:

- a heart problem;
- a chest complaint or breathing difficulties, including bronchitis or emphysema;
- a kidney disease;
- lowered immunity due to disease or treatment (such as steroid medication or cancer treatment);
- a liver disease;
- had a stroke or a transient ischaemic attack (TIA);
- diabetes;
- a neurological condition, for example multiple sclerosis (MS) or cerebral palsy;
- a problem with the spleen, for example sickle cell disease, or removal of the spleen.

The seasonal flu vaccination programme for the population of North Somerset is delivered through GP practices, commissioned by NHS England and managed by Public Health England. North Somerset Community Services provide the flu immunisation to frontline health care workers and housebound patients.

A review of delivery methods by Public Health England has recommended a range of interventions are implemented to ensure that midwives support and

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recommend the flu vaccine to all pregnant women and that GP practices and midwives work together to maximise uptake.

Childhood immunisations are delivered by GPs, practice nurses or school nurses, depending on the immunisation. There are variations in performance for immunisations at practice level.

Proposals are being developed by NHS England to improve data validation between Child Health Information Systems (CHIS) and GP Practices. This will contribute to improving reported uptake of immunisations. A screening and immunisation coordinator will be reviewing child immunisation rates in North Somerset and working with practices to improve uptake.

2.6 Emergency planning

Avon and Somerset Local Resilience Forum makes preparations to help the emergency services to cope with a major disaster in North Somerset and to support the community. There are robust plans in place to address emergencies arising from infectious diseases (for example, pandemic influenza, small pox, Ebola) working in partnership with emergency services, the NHS, Council and Public Health England.

3. Key Points

1. **Food Safety:** Focus on businesses that are non-compliant with food hygiene; continue provision of level 2 food handling training; and provide targeted events in response to new legislation.
2. **Tuberculosis (TB):** Ensure the local service specification for treatment and management of TB is implemented.
3. **Health Care Associated Infections (HCAI):** Maintain vigilance in infection control in health care establishments; increase control awareness and training in the community.
4. **Blood Borne Viruses:** Improve surveillance of Hepatitis B and C, particularly screening of pregnant women and monitoring of vaccination programmes for infants; Community Safety and Drug Action Team (CSDAT) to look at surveillance of hepatitis with the drug and alcohol service.
5. **Surveillance:** Improve the timeliness and accuracy of infectious disease surveillance information.
6. **Immunisation:** Improve uptake of immunisations as a priority for GPs, school nurses, pharmacies and Public Health England. The importance of immunisations should be promoted in a broad range of settings and through communication with the public.

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North Somerset Council. (2013). Joint strategic needs assessment: Sexual Health and Teenage Pregnancy [http://www.n-somerset.gov.uk/community/partnerships/Documents/JSNA/Health%20and%20wellbeing/sexual%20health%20and%20teenage%20pregnancy%20chapter%20\(pdf\).pdf](http://www.n-somerset.gov.uk/community/partnerships/Documents/JSNA/Health%20and%20wellbeing/sexual%20health%20and%20teenage%20pregnancy%20chapter%20(pdf).pdf)

Version Control

Date	Author	Version	Amended Sections	Summary of Change	Changes to recommendations
Oct 2014	Ruth Kipping	V 1.0			
Nov 2014	Ruth Kipping	V 2.0	Hepatitis C prevalence Food poisoning data Restructured to use new 2014 format for JSNA	New estimates added Environmental Health data added Edited to use new three section format	None
Dec 2014	Ruth Kipping	V 3.0	2.2	Updated names of organisations	None

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