

JSNA: Health Protection - Communicable Disease

Summary

- Nationally in 2014 the five most reported notifiable diseases were food poisoning, scarlet fever, mumps, tuberculosis and whooping cough. The top three notifiable diseases in 2014 in Wirral were scarlet fever, mumps and whooping cough. Data shows food poisoning accounts for the greatest number of infectious disease in Wirral.
- There were 37 reported outbreaks of communicable diseases in Wirral's care homes between April 2015 and March 2016. In the same time period there were four reported outbreaks in non-care home settings such as schools and nurseries.
- Immunisation is one of the most effective ways of reducing the incidence and burden of preventable infectious diseases. England and Wales has a [vaccination schedule](#) which targets vulnerable populations and groups.
- The uptake of vaccinations in 2014/15 in Wirral for children is in line or higher than the national uptake and most vaccines achieved the target of 95% or greater coverage.
- Childhood vaccines which in Wirral in 2014/15 did not meet 95% uptake were: the booster vaccine for diphtheria, tetanus, polio and pertussis, the rotavirus vaccine and two doses of the mumps, measles and rubella vaccine. However the latest figures to December 2015 show an improvement for all these vaccines.
- For pre-leavers (teenagers) Wirral's take up of the Human Papilloma Virus vaccine is higher than the 90% national target and national average coverage.
- Adults aged 65 years and over are offered the pneumococcal polysaccharide vaccine. Wirral uptake for 2014/15 was 71.40%. Adults at the age of 70 are offered the shingles vaccine. Wirral uptake was 61.6% in 2014/15. Both vaccines had an uptake slightly above the national average.
- Pregnant women are offered a vaccine to protect their baby from whooping cough. Take up in Wirral in 2014/15 was 58.5%. This is higher than the national average but improvement is still needed.
- National data indicates uptake of the whooping cough vaccine in pregnancy varies by ethnic group. White British having the highest uptake with the lowest uptake amongst black other and back Caribbean groups.
- There is a general stagnation or decline in the take up of the seasonal flu vaccine nationally and locally. The latest figure (2015/16) for the over 65 year old group reports uptake was 73%, below the 75% national target.
- Uptake of the children's flu vaccine is significantly lower for the younger age groups (2 to 4 years) who receive the vaccine in general practice, compared to the older children (5 and 6 year olds) who receive the vaccine in primary school.
- Uptake of the flu vaccine varies widely across different practices in Wirral but take up does not significantly vary with deprivation.
- All frontline health care workers should have the flu vaccine to protect themselves and patients, with a coverage target of 75%. Wirral University Teaching hospital exceeded this target (79.1%); however other providers have not achieved this level of uptake.
- There are several groups which have been identified from research as facing barriers to accessing vaccinations and subsequently are at risk of low take up. This includes people living in areas of socio-economic disadvantage, children in care, children who are hospitalised, children in larger families and minority ethnic groups.
- Currently, with the exception of flu data which is available by practice, the vaccination data is for Wirral as a whole. This limits the ability to improve uptake of groups and or areas who are experiencing low take up.

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What do we know?

Overview

Communicable diseases are diseases that you can "catch" from someone or something else for example an animal. They are often described as contagious or infectious diseases. Their spread can happen via airborne viruses or bacteria or via blood or other bodily fluids.

The surveillance of communicable disease includes the monitoring of disease incidence and the uptake of immunisation to prevent and reduce cases of communicable disease.

In this section we consider recorded incidence of cases and outbreaks of communicable disease as well as immunisation of communicable diseases.

Why is this important

Control of infectious diseases is important as they can affect large numbers of people and have the potential to cause illness and death particularly in high risk groups such as children, older people and people with chronic illnesses or conditions. In England infectious diseases account for £1.00 of every £10.00 spent on the NHS and are a major cause of days lost to the workforce.

Facts, figures and trends

Notifiable diseases

Registered medical practitioners in England and Wales have a statutory duty to notify their local Public Health England Health Protection Team of suspected cases of certain infectious diseases classed as [notifiable diseases](#). All laboratories in England performing a primary diagnostic role must notify Public Health England (PHE) when they confirm a notifiable disease.

These notifications are collected, analysed and published in [reports](#) by Public Health England (PHE), which include monthly and quarterly national data. Local data is currently only available up to 2014.

The notification, investigation and control of infectious diseases are necessary to identify potential sources and vehicles of transmission, thereby preventing spread. Notifications are also used to monitor the development of outbreaks and the success of immunisation programmes.

Nationally in 2014 the five most common reported notifiable diseases were food poisoning, scarlet fever, mumps, tuberculosis and whooping cough. In Wirral the most common notified diseases in 2014 were scarlet fever, mumps and whooping cough, see Table 1. This reflects the national increased incidence of these diseases in 2014.

[National](#) monitoring of [Scarlet fever](#) to December 2015 indicates the trend of raised numbers compared to previous years has continued. This may reflect heightened awareness and improved diagnosis and/or notification practices. There is no vaccine for scarlet fever. The illness mainly affects children under the age of 10 years. National guidance recommends that GPs, schools and nurseries are made aware of the current high levels of scarlet fever and inform local Public Health England health protection teams if they

become aware of cases, particularly if more than one child is affected. It is important to be aware of the signs and symptoms of scarlet fever so that early treatment with antibiotics can be given.

[National](#) monitoring of [mumps](#) indicates the number of infections from January to September 2015 was lower than in the same period during 2014. Most cases were in young adults between 15 and 35 years of age. In 2015 the North West had a lower number of cases compared to other regions. Approximately 30% to 40% of all cases in 2015 reported receiving at least one dose of MMR vaccination in childhood. This may indicate that there is some waning immunity which may be contributing to transmission.

There was a national outbreak of reported [whooping cough](#) in 2012 and since then [surveillance](#) up to September 2015 shows cases have reduced but remain high and are following usual seasonal patterns where incidence tends to peak in the Autumn. Very young children have the greatest health risk of serious complications from whooping cough. In response to the outbreak in October 2012, an initial programme of pertussis vaccination of pregnant women was introduced to protect new born infants and their mothers. In 2014 the programme was extended at the advice of the [Joint Committee on Vaccination and Immunisation](#) until 2019. Monitoring of the programme shows national uptake is around 56% and work is required to increase this.

Table 1: Notifiable disease suspected and confirmed incidence in Wirral from 2011 to 2014

Year	Acute encephalitis	Acute infectious hepatitis	Acute Meningitis	Cholera	Food poisoning	Infectious bloody diarrhoea	Invasive group A streptococci	Malaria	Measles	Meningococcal septicaemia	Mumps	Other	Rubella	Scarlet fever	Tuberculosis	Whooping cough	Grand Total
2011			3		35				16	1	21		3	18	16	3	116
2012			2	1	12		1		81	1	41		4	20	16	20	199
2013		3	4		15	2	3		18	1	54	1		10	11	26	148
2014	1		7		6	3	6	1	8	3	43	1	2	74	9	16	180

Source: gov.uk

[Tuberculosis](#) (TB) was the fourth most common notified disease nationally in 2014. Notified cases of TB in Wirral have reduced from 16 in 2011 to 9 in 2014. However, local service data indicates that the number of cases of TB may have increased. This data needs to be validated and the increase may be due to additional case finding. Local rates are significantly lower than the national average (in 2012/2014 there were 2.9 cases per 100,000 population in Wirral, compared to 13.5 cases per 100,000 population in England).

[Food poisoning](#) was the most common notified disease nationally in 2014. However, Table 1 shows a comparatively low number of cases compared to other diseases in Wirral. Examining data from Public Health England Cheshire and Merseyside suggests food poisoning accounts for the highest annual number of suspected and confirmed cases overall of infectious disease in Wirral from 2012 to 2015, see table 2. This data includes include reports from GPs, laboratory data and other information sources.

Table 2 shows the number of food poisoning cases have significantly reduced from 2012. This reduction is mainly due to [campylobacter](#) no longer being entered on the local data

system from 2013. Disease due to food poisoning will be considered in the JSNA Environmental Public Health Section due later in 2016.

(Please note the data sets for Tables 1 and 2 are different and therefore numbers should not be directly compared).

Table 2: Reported suspected and confirmed incidence of infectious disease in Wirral from 2012 to 2015

Disease Name / Year	Cholera	Dysentery	Encephalitis	Legionella	Malaria	Measles	Meningococcal Meningitis	Meningococcal septicaemia	Mumps	Rubella	Whooping Cough	Food Poisoning	Cryptosporidium	Salmonella	Campylobacter	Escherichia coli O157	Giardia lamblia	Listeria	Other	Viral Hepatitis	Hepatitis A	Hepatitis B	Hepatitis C	Other	Grand Total
2012	1	4	1	1	0	150	5	6	59	6	58	408	36	35	316	2	4	2	13	3	2	1	0	0	702
2013	0	6	0	0	0	42	4	5	82	1	67	166	13	41	91	2	7	1	11	5	0	2	0	3	378
2014	0	8	2	2	1	9	8	8	50	3	29	71	21	32	2	4	3	1	8	1	0	0	0	1	192
2015	1	3	0	2	0	11	8	3	38	4	53	78	32	30	1	5	3	1	6	3	1	1	0	1	204

Source: Public Health England; Cheshire and Merseyside

The high number of cases of measles in 2012 shown in Tables 1 and 2 reflect the measles outbreak across Merseyside during that time.

Outbreaks

The World Health Organisation defines a [disease outbreak](#) as the occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season. An outbreak may occur in a restricted geographical area, or may extend over several countries. It may last for a few days or weeks, or for several years.

It can also be a single case of a communicable disease which is recorded as absent from a population, or caused by an agent (e.g. bacterium or virus) not previously recognised in that community or area. The emergence of a previously unknown disease may also constitute an outbreak and should be reported and investigated.

Early detection and reporting of such events is crucial in minimising their negative health, social and economic impact. Outbreaks cause disruption and do not respect geographic boundaries.

Outbreak management

There is a need to provide assurance that arrangements for the command, control and co-ordination for outbreaks are fit for purpose, rehearsed and understood by all partners.

The [Public Health England Outbreak Control Plan](#) published in 2014 describes the overall approach and responsibilities of different parties in responding to infectious disease outbreaks. This includes standards for investigating and managing outbreaks through an Outbreak Control Team (OCT). Members of an OCT will vary depending on the nature of the outbreak. It will usually include members from Public Health England, Microbiology, Local Authority Public Health and Environmental Health and the Community Infection Prevention and Control team.

Care homes

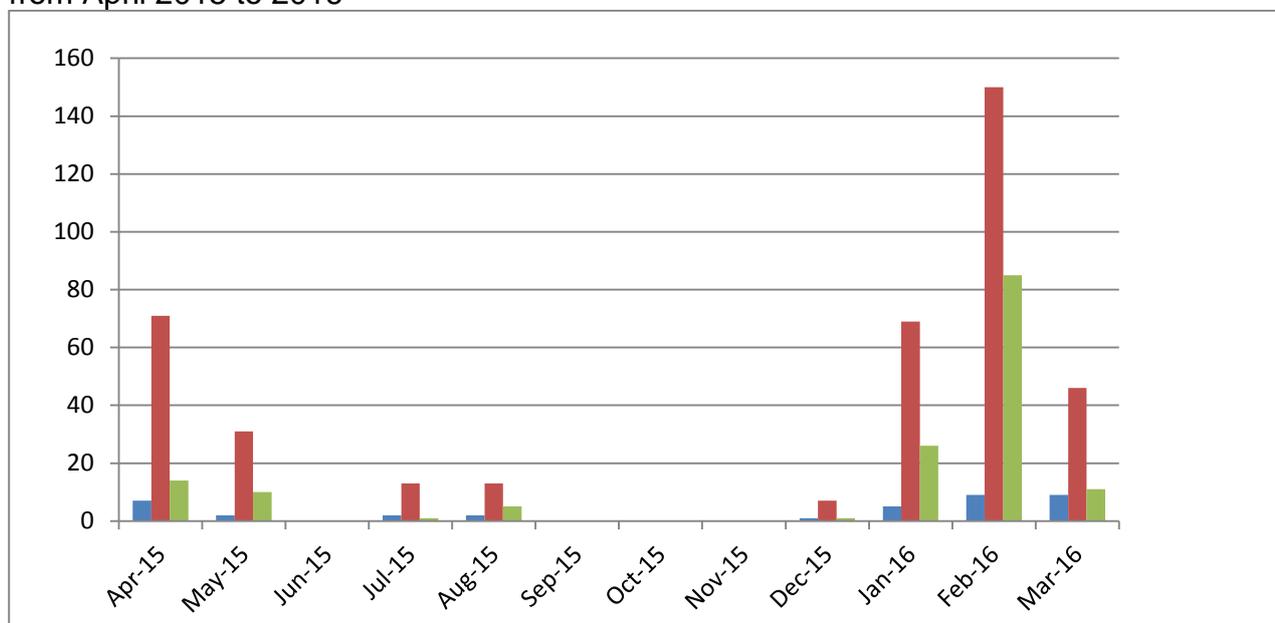
Care homes residents can be vulnerable to infectious diseases due to older age and or presence of health conditions which increase susceptibility to infections.

The Cheshire and Merseyside Public Health England Outbreak Report identified for their area in 2015 there were 206 suspected and confirmed outbreaks of [gastroenteritis](#) in care homes. The organisms of [norovirus](#) and [clostridium difficile](#) were isolated. Norovirus is the most common viral organism for gastrointestinal infection in the UK, accounting for 15 to 20% of all sporadic cases and on average 60% of outbreaks. C. difficile is a bacterial infection which most commonly affects people who have recently been treated with [antibiotics](#). Both norovirus and c. difficile are easily spread.

The impact of the 206 suspected and confirmed outbreaks of gastroenteritis in 2015 included closure of the home for on average 7 days, 21 residents were hospitalised and 2 residents died. Wirral care homes accounted for 21 of the 206 outbreaks. This was an outbreak rate of 15.79 per 100 homes. This was lower than other Cheshire and Merseyside area rates except for Knowsley. It should be noted figures do not capture any outbreaks which were not reported.

Records from the Wirral Community Infection Prevention and Control Team show the number of outbreaks in Wirral Care Homes from April 2015 to March 2016 was 37. This includes outbreaks of all different types, for example it included [Invasive Group A Streptococcus](#) (IGAS), [flu](#) as well as gastrointestinal infection. The peak months for outbreaks were January, February and April, see Figure 1 below. Of the 76 care homes in Wirral, 25 had an outbreak, with 1 home having 4 outbreaks, 2 homes having 3 outbreaks and 5 homes 5 outbreaks.

Figure 1: Number of communicable disease outbreaks in care homes and people affected from April 2015 to 2016



Source: Wirral Infection and Prevention Control Team

Key	No. of outbreaks	No. of residents affected	No. of staff affected

Other settings (e.g. nurseries, schools)

The data from the Wirral Infection Prevention and Control Team shows there were 4 reported outbreaks from April 2015 to March 2016 in other non-care home settings. This includes schools and nurseries. One occurred in February 2016 and three during March 2016.

Hospital outbreaks

Data is not available at this time. The report will be updated when the content is received.

Immunisation

Immunisation is one of the most successful and cost effective health protection interventions. Vaccinated individuals have greater protection against serious infection. They are also less likely to be the source of an infection which reduces the spread of infectious disease and the risk to unvaccinated individuals. Where uptake of a vaccination is sufficiently high then the risk to others is reduced. This is known as providing 'herd immunity'. The World Health Organisation has set 95% coverage as the minimum uptake threshold to achieve herd immunity.

England and Wales have a [vaccination schedule](#) for children, adults and at risk groups.

National, regional and local vaccination take up figures are measured as part of the [Public Health Outcomes Framework](#) sub indicators *3.3 population vaccination coverage*.

Data is also available via the Cover of Vaccinations Evaluated Rapidly (COVER) and Immform.

Guidelines and targets

Immunisation Targets

The European Region of the World Health Organisation (WHO) recommends that on a national basis at least 95% of children are immunised against diseases preventable by immunisation and targeted for elimination or control (specifically these are; diphtheria, tetanus, pertussis, polio, Hib, measles, mumps and rubella). An uptake of 95% is the benchmark to achieve herd immunity.

Immunisation best practice guidance

The National Institute for Health and Clinical Excellence (NICE) has provided guidance on [Reducing differences in the uptake of immunisations among children and young people aged under 19 years](#). This provides a number of recommendations to improve immunisation uptake in communities where uptake is low. This includes actions to:

- Improve access to immunisation services, for example, by extending clinic times and making sure clinics are child friendly
- Ensure providers e.g. Primary Care; take a comprehensive approach to vaccination coverage including nominated leads and the use of recall and reminders. Robust IT systems which include timely recording of status on patient records and active follow up and tailored reminders.
- Provide tailored information and support to parents and young people and include opportunities to explore and discuss concerns.

- Check children and young people’s immunisation status during school entrance assessments and when they join nurseries, schools and further education colleges and sign post them to appropriate services to offer them vaccinations.
- Ensure access to the [‘Green book’](#) for all staff involved in immunisation services and to updates to the childhood immunisation programme and schedule are monitored and services adapted appropriately.

Children

Children’s vaccines are administered by health professionals in general practice and schools.

5 in 1 vaccine - Dtap / IPV / Hib

The 5-in-1 vaccine, (also known as the DTaP/IPV/Hib vaccine) protects against five different childhood diseases, [diphtheria](#), [tetanus](#), [whooping cough \(pertussis\)](#), [polio](#), and [Haemophilus influenzae type b](#) (Hib). It is given in three separate doses when babies are 8, 12 and 16 weeks old.

Wirral take up of the 3 doses of the 5 in 1 vaccine by the first birthday of eligible children has remained consistently above 95% since 2011/12 and in 2014/15 it was significantly higher in Wirral than the North West and national average, (see Table 3 below).

Table 3: Percentage of eligible children who have received 3 doses of 5 in 1 vaccine - Dtap / IPV / Hib 1 by first birthday

Area / Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	94.88	95.18	95.95	96.77	95.99	96.60
NW	95.06	95.81	95.95	95.70	94.98	-
England	96.85	97.10	97.42	97.32	94.03	-

Source: [Public Health Outcomes Framework indicator 3.03iii](#), 2015/16 Cover

Coverage is reported again at 24 months to monitor any improvement in the proportion of children completing their primary course after their first birthday, seen in table 4 below. This shows an improvement to 98% in 2014/15 in Wirral.

Table 4: Percentage of eligible children who have received 3 doses of 5 in 1 vaccine - Dtap / IPV / Hib 1 by second birthday (3.03iii)

Area / Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	97.17	97.61	97.68	97.81	98.20	97.43
NW	96.85	97.10	97.42	97.32	94.03	-
England	95.98	96.14	96.30	96.14	93.24	-

Source: [Public Health Outcomes Framework indicator 3.03iii](#), 2015/16 Cover

DTap / IPV booster

A booster vaccine to protect against diphtheria, tetanus, polio and pertussis is provided at 3 years and 4 months (also known as the pre-school booster). Table 5 shows that the take up of this booster vaccine in Wirral has improved and the latest data from quarter 3 2015/16 (October 2015 to December 2015) is above 95%.

Table 5: Percentage of eligible children who have received their booster of DTap/IPV by their 5th birthday

Area / Year	2014/15		2015/16		
	Q3	Q4	Q1	Q2	Q3
Wirral	93.3	91.7	93.6	92.8	95.1

Source: PHE Health Protection report Feb 16, 2015/16 Cover

Pneumococcal conjugate vaccine (PCV)

The pneumococcal conjugate vaccine (sometimes known as the pneumonia vaccine) protects against [pneumococcal infections](#) which are caused by the bacterium streptococcus pneumoniae which can lead to [pneumonia](#), [blood poisoning](#) (septicaemia) and [meningitis](#).

Babies receive the pneumococcal vaccine as three separate injections. The first course at 8 and 16 weeks followed by a booster vaccine at 12 months. Wirral's uptake for the first two vaccines has remained above 95% since 2012/13 and is higher than the North West and England level, (see Table 6 below).

Table 6: Percentage of eligible children who have received the complete the course of PCV by 1st birthday

Area/ Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	93.36	94.56	95.52	96.01	95.80	96.30
NW	94.71	95.57	95.84	95.32	94.35	-
England	93.58	94.22	94.43	94.07	93.88	-

Source: [Public Health Outcomes Framework indicator 3.03iv](#), 2015/16 Cover

Table 7 shows the proportion of children in Wirral who had the booster vaccine has increased since 2010/11 and in 2014/15 reached 95%, see table 7 below.

Table 7: Percentage of eligible children who have received one booster of the PCV vaccine by their 2nd birthday

Area/ Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	90.30	92.77	93.87	93.51	95.81	94.40
NW	91.21	93.66	94.75	94.21	93.28	-
England	89.34	91.49	92.47	92.44	92.20	-

Source: [Public Health Outcomes Framework indicator 3.03vii](#), 2015/16 Cover

Rotavirus

[Rotavirus](#) is the most common cause of [gastroenteritis](#) among children and results in a significant number of young children being admitted to hospital each year. A rotavirus vaccine for babies aged 8 and 12 weeks was introduced in July 2013.

[The vaccine uptake report](#) recorded that the national uptake from February 2014 to March 2015 was 93.3% for one dose and 88.3% for two doses. Take up for two doses in Wirral for the same time period was 91.69% (see Table 8).

Since the introduction of the vaccine the number of rotavirus laboratory reports in England was 67% lower for the 2013/14 season than the ten-season average covering the period 2003/2004 to 2012/13. This decline in cases has continued and been sustained during the 2014/15 rotavirus season (winter / early spring) suggesting that the introduction of the rotavirus vaccine has been successful in significantly reducing the burden of rotavirus disease.

Table 8: Percentage of eligible children in Wirral who have received two doses of Rotavirus

Area/ Year	Feb 2014 to March 2015	2015/16		
		Q1	Q2	Q3
Wirral	91.96	93.20	92.20	93.40

Source: [PHE](#), 2015/16 Cover

Meningococcal

Meningococcal disease is caused by an invasive infection with the bacterium neisseria meningitis, also known as meningococcus. There are 12 identified groups or strains of meningitis of which groups B, C, W and Y are the most common in the UK. Meningococcal infections can be very serious, causing [meningitis](#) and [septicaemia \(blood poisoning\)](#), which can lead to severe brain damage, amputations and in some cases death.

Meningococcal disease can affect all age groups, but the highest rates of disease are in children under five years of age, with the peak incidence in those under one year of age. There is a second peak in incidence in young adolescents aged 15 to 19 years.

Men B (Meningococcal group B bacteria)

Immunisation was introduced in September 2015 against Meningococcal group B bacteria for babies aged 8 weeks, followed by a second dose at 16 weeks and a booster at one year. Initial data shows take up to March 2016 for the first dose was 97.7% and the second dose was 90%. Complete data for Wirral on uptake is expected Autumn 2016.

Men C (Meningococcal group C bacteria)

The Men C vaccine protects against infection by Meningococcal group C bacteria. From May 2013 the vaccine changed from two doses to a single dose. Data is not available for 2014/15 due to national system changes. The 2015/16 Wirral data for April 2015 to December 2015 (quarter 1 to 3) shows take up was 98.17%.

Hib / Men C booster

Between 12 and 13 months a booster is given to protect against [Haemophilus influenzae type b \(Hib\)](#) and [meningitis](#) caused by Meningococcal group C bacteria. Take up in Wirral has shown a year on year increase measured for children aged two and five years old. Vaccination by two years old, as seen in table 9, is the routine cohort and coverage was greater than 95% in 2014/15 indicating the timely administration of the vaccine is improving.

Coverage at 5 years old has also improved, see table 10. This is a different calculation than the 2 year old coverage and so the data in tables 9 and 10 are not directly comparable.

Table 9: Percentage of eligible children who have received one booster dose of Hib / Men C by their second birthday

Area/ Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	94.00	94.21	95.13	94.81	96.34	94.80
NW	93.29	94.31	94.94	94.29	93.24	-
England	91.59	92.34	92.66	92.51	92.13	-

Source: [Public Health Outcomes Framework indicator 30.3vii](#), 2015/16 Cover

Table 10: Percentage of eligible children who have received one booster dose of Hib / Men C by their fifth birthday

Area / Year	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	83.15	92.13	93.05	93.13	94.66
NW	89.18	91.55	92.84	93.20	-
England	88.63	91.49	91.93	92.39	-

Source: [Public Health Outcomes Framework indicator 3.03vij](#), 2015/16 Cover

Measles Mumps and Rubella (MMR)

MMR protects against [measles](#), [mumps](#) and [rubella](#) which are common highly infectious diseases that can have serious and potentially fatal complications. The full course of the MMR vaccination requires two doses.

Tables 11 shows Wirral coverage for one dose for children up to their second birthday has increased since 2010/11 and last year (2014/15) it was greater than 95%. This year's data to quarter 3 indicates coverage will be in the 95% range. Table 12 indicates that children who may have missed the vaccine before their second birthday are being vaccinated before their 5th birthday.

Wirral coverage for two doses for children up the age of 5 years was higher than the national and regional average and was above the national target of 90%, shown in Table 13. However, Wirral's local target is 95% and whilst uptake of the two doses has increased steadily, there is a need to continue working to meet and exceed this coverage. Communication is essential to ensure all people receive two documented MMR immunisation doses in their lifetime.

Table 11: Percentage of eligible children who have received one dose of MMR on or after their 1st birthday and anytime up to their second birthday (3.03viii)

Area / Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	90.07	92.54	94.23	94.39	96.60	94.77
NW	91.18	93.38	94.92	94.86	94.00	-
England	89.13	91.25	92.32	92.66	92.29	-

Source: [Public Health Outcomes Framework indicator 3.03viii](#), 2015/16 Cover

Table 12: Percentage of eligible children who have received one dose of MMR on or after their 1st birthday and anytime up to their fifth birthday

Area / Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	94.71	95.31	97.40	97.21	97.27	97.57
NW	94.30	95.01	95.93	95.98	96.24	-
England	91.92	92.90	93.87	94.11	94.37	-

Source: [Public Health Outcomes Framework indicator 3.03vix](#), 2015/16 Cover

Table 13: Percentage of eligible children who have received two doses of MMR on or after their 1st birthday and anytime up to their fifth birthday

Area / Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 Q1-3
Wirral	88.15	90.59	91.58	92.17	92.35	93.2
NW	86.44	87.85	90.68	91.46	90.46	-
England	84.21	86.02	87.72	88.32	88.62	-

Source: [Public Health Outcomes Framework indicator 3.03vix](#), 2015/16 Cover

Pre School leavers

The following vaccines are offered to teenagers before they leave school; human papilloma virus vaccine (this is for females only), Meningococcal group C and W vaccine and the 3 in 1 diphtheria, tetanus and polio booster vaccine.

Vaccines for pre leavers and adolescents are arranged through schools delivered by [Wirral Community Trust](#) (WCT). Uptake by school is monitored by WCT and additional targeted support provided where rates are low. For consent, parents / guardians are sent an opt-in form. Uptake is dependent on the return of completed consent forms. (Where forms are not returned students over the age of thirteen years can consent subject to Gillick competence guidelines). Secondary schools in Wirral are very supportive enabling the immunisation programme to be run in their environment.

Human Papilloma Virus (HPV)

All females in school year 8 are offered the [Human Papilloma Virus](#) (HPV) vaccination to protect against [cervical cancer](#). This was given as three doses to girls in year 8 in the school setting. From September 2014 the schedule was reduced to two doses, unless the girl has missed her routine schedule and is 15 years or older and so remains on a three dose schedule. This is to ensure appropriate immunity following vaccination. The vaccine coverage for 2014/15 is therefore not directly comparable to previous years. In Wirral in 2014/15 both doses were given in year 8. From 2015/16 the first dose will be given in year 8 and the second in year 9. For more information please see the [Public Health England HPV report](#).

Wirral's coverage of the HPV vaccine has consistently remained higher than the 90% national target and has been higher than the regional and national average; please see tables 14 and 15.

Table 14: Percentage of girls aged 12 to 13 who have received all 3 doses of HPV vaccine

Area / Year	2010/11	2011/12	2012/13	2013/14
Wirral	93.57	92.25	92.52	90.41
NW	87.96	91.02	90.01	88.86
England	84.16	86.83	86.08	86.70

Source: [Public Health Outcomes Framework indicator 3.03vix](#)

Table 15: Percentage of girls aged 12 to 13 who have received HPV vaccine from September 14 to August 15

Area/ Dose	First dose	Second dose
Wirral	94.9	91.7
England	89.4	-

Source: [PHE data](#)

Meningococcal group C and Meningococcal group W (MenACWY)

From 1 January 2016 the routine Men C vaccine (meningococcal capsular group C) was replaced with the MenACWY conjugate vaccine to offer direct protection against meningococcal capsular group W to those in academic school years 9 or 10 (13 to 15 year olds). The MenACWY vaccine was introduced in response to a [national increase](#) in cases of invasive meningococcal disease capsular group W (MenW) disease.

From May 2016 the vaccine will be given annually to year 9 students. The coverage data for the academic year 2015/16 will be available later in 2016. Offering protection to 13 to 15 year olds prevents carriage of the meningococcus bacteria in the nose and throat before the age at which the highest rates of carriage have been observed.

3 in 1 Diphtheria, tetanus and polio (Td/IPV) pre-leaver's booster

In total five doses of tetanus, diphtheria and polio are required to provide UK long term protection, this is the final dose.

Coverage of the pre-leavers Td/IPV booster is not routinely measured. Public Health England estimated in 2013 national coverage was around 70%. Coverage is reported to be higher when delivered in a school setting such as the model in Wirral. This is probably due to easier access for the young person and the availability and ease of implementing call and recall systems in the school setting.

In accordance with national recommendations Wirral delivers this vaccine at the same time as the Men ACWY. Wirral data of coverage for 2015/16 is expected later in 2016.

Adults

PPV (Pneumococcal Polysaccharide Vaccine)

The pneumococcal polysaccharide vaccine (PPV) is a one off vaccine given to people aged 65 years and over and to people at high risk due to long-term health conditions. This protects against infection from streptococcus bacterium, which can lead to meningitis, pneumonia and septicaemia.

Table 16: Percentage of eligible adults aged 65 years plus who have received the PPV vaccine

Area / Year	2010/11	2011/12	2012/13	2013/14	2014/15
Wirral	67.00	68.89	70.70	69.55	71.40
NW	70.38	69.27	69.82	69.69	71.10
England	70.46	68.34	69.09	68.94	69.80

Source: [Public Health Outcomes Framework indicator 3.03xiii](#), 2014/15 Cover

Wirral coverage has increased steadily in the past 5 years and in 2014/15 was slightly greater than the national and regional average, (see Table 16).

[A PPV coverage report](#) by Public Health England indicates many of those eligible for PPV vaccination do not receive the vaccine in the first year they become eligible (at age 65). There is increasing vaccine coverage in the older age groups demonstrating success in continuing to offer the vaccine opportunistically in primary care to those aged over 65 years.

The PPV vaccine can be given at the same time as the seasonal influenza vaccine. Wirral coverage of the seasonal influenza programme in this age group has been between 73% to 75% for the past three seasons. This opportunity may suggest a similar coverage could be achieved for PPV.

There is a further opportunity to offer the PPV vaccine to eligible adults when they attend for their shingles vaccine.

Shingles

[Shingles](#) is caused by the reactivation of a latent varicella zoster virus (VZV) infection and is typically characterised by a unilateral rash in a localised area. The incidence and severity of shingles increase with age.

The shingles vaccine does not eliminate the risk of developing shingles, but for those vaccinated the disease will be milder and last for shorter period compared with someone who is unvaccinated.

The shingles vaccine is routinely offered to anyone aged 70 years. There has also been a catch-up programme for specific ages from September 2014. Currently the catch up cohort includes adults that are aged 71, 72 and 79 years. Once the patient is 80 years they are no longer eligible for the immunisation under the UK immunisation schedule.

Table 17 shows nationally the uptake of the Shingles immunisation has decreased. Wirral take up was above the national average and increased from 2013/14 to 2014/15, see Table 17.

Table 17: Shingles Vaccine coverage in England and Wirral local authority annually from September to August 2013 to 2015

Area / Year	2013/14		2014/15		
	70 years	79 years	70 years	78 years	79 years
Wirral	59.7	59	61.6	59.3	61.8
England	61.8	59.6	59	57.8	58.5

Source: [shingles vaccine coverage](#)

Pregnant women

Since October 2012, pregnant women are offered the pertussis vaccination when they are 20 weeks pregnant to protect their baby from developing [whooping cough](#) in its first few weeks of life. This was introduced in response to increased levels of whooping cough across the UK in 2011/12. At that time, the greatest numbers of cases were in adolescents and young adults but the highest rates of illness and death occurred in infants too young to be protected through routine vaccination. Pregnant women have the opportunity to access the vaccine via their general practice or their midwife in their antenatal clinic.

The take up of the vaccine in 2014/15 in Wirral was 58.5%, slightly higher than the national average, please see table 18 below.

Table 18: Percentage take-up of maternity pertussis vaccine for women who delivered at more than 28 weeks gestation

Area/ Year	2014/15
Wirral	58.5
England	56.4

Source: Open Exeter

As table 19, below shows national and local uptake figures vary by month with coverage highest in the winter months. Uptake appears to rise during the flu immunisation season.

Table 19: The percentage of pregnant women receiving pertussis vaccination in the 14 weeks prior to delivery

Area / Year	2014					2015		
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March
Wirral CCG	55.2	63.0	61.9	72.3	72.0	68.2	66.2	59.3
England	55.6	55.6	58.0	60.6	62.3	59.7	58.8	56.2

Source: PHE Health Protection Report Feb 16

Analysis of uptake at the [national](#) level has found that coverage varied considerably by ethnic group with an uptake difference of about 25% between the ethnic group with the highest and the group with the lowest uptake. Women of white-British ethnicity had the highest coverage at 62.4%, closely followed by women of Chinese (62.0%), Indian (59.8%) and Bangladeshi (57.1%) ethnicity. All other ethnic groups had coverage lower than the

56.4% average. Women from Black 'other' and Black Caribbean ethnicities had the lowest vaccine coverage at 37.2% and 39.1%, respectively.

Summary performance against targets

Table 20 provides a summary of Wirral's vaccination uptake performance against target coverage. For childhood vaccines the 2014/15 data shows for the majority of vaccines uptake was at or greater than the 95% target. The exceptions were: the booster vaccine to protect against diphtheria, tetanus, polio and pertussis (Dtap/IPV) by 5 years; the rotavirus vaccine and two doses of Mumps Measles and Rubella (MMR) vaccine by 5th birthday. However 2015/16 figures to December 2015 show an improvement for all these vaccines. There are several vaccines which are slightly below the 95% threshold for 2015/16 to the end of December 2015. The complete years data is required to establish if vaccines achieve the 95% target for 2015/16.

For teenagers the 2014/15 data shows Wirral performs better for Human Papilloma Vaccine (HPV) uptake than the 90% national target and coverage. Men AWCY and the 3 in 1 vaccine for teenagers are being delivered during May 2016; the uptake of these vaccines will be available later in 2016.

For adults Wirral's PPV uptake in 2014/15 was 70.7%, greater than the national uptake (69.8%) but below the 95% target for herd immunity. It is best practice to give the PPV vaccine at the same time as the seasonal flu vaccine, some practices are doing this but it is dependent on staff capacity.

The 2014/15 data shows the uptake of the Pertussis vaccine in pregnancy was 58.5%. This was greater than the national average (56.4%), however it should be noted that uptake varies significantly by month ranging between 55% to 72%.

Table 20: Immunisation coverage achieved against targets for 2014/15 and 2015/16

Immunisation Vaccine for:	Target	2014/15	2015/16 Q1-3
Children			
5 in 1 by 1 st birthday	95%	95.99	96.60
5 in 1 by 2 nd birthday	95%	98.20	97.43
DtaP/ IPV booster by 5 th birthday	95%	92.5 (Q3,4)	93.83
PCV by 1 st birthday	95%	95.80	96.30
PCV by 2 nd birthday	95%	95.81	94.40
Rotavirus	95%	91.69	92.93
Men B (introduced Sep 2015)	95%	NA	NA
Men C	95%	NA	98.17
Hib / Men C booster by 2nd birthday	95%	96.34	94.80
Hib / Men C booster by 5 th birthday	95%	93.18	94.66
MMR 1 dose by 12mths	95%	96.60	94.77
MMR 1 dose by 5 th birthday	95%	97.27	97.57
MMR 2 doses by 5 th birthday	90% (95%)*	92.35	93.20
Pre-leavers			
HPV 2 nd dose	90%	91.7	NA
Men AWCY	No target	NA	NA
3 in 1	No target	NA	NA
Adults			
PPV	No target	70.7	NA
Shingles 70 year olds	No target	61.6	NA
Pregnancy			
Pertussis	No target	58.5	NA

Source: Wirral Public Health

Key	
Red	≤ 2% from target
Amber	≤1.9% from target
Green	≥ target
NA	Data currently not available

Notes: * The national target is 90%, 95% is the Wirral local target

Seasonal flu

Influenza '[flu](#)' is a viral infection which most commonly occurs in winter peaking between December and March. It is not a notifiable disease. Flu is usually mild but it can affect some groups more than others and can be a significant cause of ill health and in some cases can be fatal.

National Winter Flu Plan 2016/17

To protect vulnerable populations from seasonal flu there is a national annual flu vaccination programme for the following groups:

- those aged 65 years and over;
- those aged six months to 64 years in [clinical risk groups](#);
- pregnant women;
- all two, three and four year olds;
- all children in years one and two at school (i.e. age 5 and 6 years);
- those in long-stay residential care homes;
- carers;
- all front line health and social care staff.

Updated annually the National Winter Flu Plan sets out objectives to minimise the health impact of seasonal flu through effective monitoring, prevention and treatment. The plan has a number of objectives including:

- actively offering flu vaccination to 100% of all those in eligible groups
- vaccination of at least 75% of those aged 65 years and over, in line with the World Health Organization (WHO) target.
- vaccination of at least 75% of healthcare workers with direct patient contact.
- Improving uptake for those in clinical risk groups, particularly for those who are at the highest risk of mortality from flu but have the lowest rates of vaccine uptake. The ambition for 2016/17 is to achieve vaccine uptake of at least 55% in all of the clinical risk groups, and maintain higher rates where those have already been achieved
- For children, a minimum uptake of 40% has been shown to be achievable in both primary care and school based programmes and some have achieved much higher rates. As a minimum we would expect uptake levels between 40-65% to be attained by every provider. Uptake levels should be consistent across all localities and sectors of the population

Please see the [National Winter Flu Plan 2016/17](#) for all the objectives and details.

The Cheshire and Merseyside Public Health England team have set a local target to increase flu vaccine uptake by 10% from the previous year for clinical risk groups and pregnant women.

The local implementation of the flu plan requires partnership work across primary care, health and social care community services, Hospital Trusts, Public Health, the voluntary sector and NHS commissioners. Gaining the trust of the public is essential in encouraging uptake and a comprehensive communications plan accompanies the local implementation of the vaccination programme. Supporting practices where uptake is low and sharing best practice are also mechanisms used during the programme.

Performance

The latest flu vaccine data indicate Wirral is below the 75% target for 65 years and over and has not increased by 10% on the previous year's performance for clinical risk groups or pregnant women. Uptake for children was greatest in the older age groups (year s1 and 2 / ages 5 and 6) where the vaccine is given in school.

Table 21: Wirral flu Immunisation take-up against national targets and local targets

Flu Vaccine	Target	Sep 2013 - March 14	Sep 2014 - March 15	Sep 2015 - Feb 2016**
65 years plus	75%	75.1	74.7	73
Clinical risk groups	10%↑ on previous year*	55.3	50.1	50.4
Pregnant women	10%↑ on previous year*	37	47.9	45.5
2 year olds	Min 40%	46.1	38.6	39.3
3 year olds	Min 40%	43.5	44.9	41.7
4 year olds	Min 40%		33.4	31.2
Year 1	Min 40%			53.6
Year 2	Min 40%			53.7

Source: Immform

Notes * Local target not nationally set

**this is not the full season as awaiting March 2016 figures and data is from 55 practices not 56.

Key	
Red	≥ 2.1% from target
Amber	≤2% from target
Green	≥ target

National data for 2015/16 are not available but it is reported anecdotally from NHS England that there has been a national fall in uptake, as seen locally. Wirral's performance for flu uptake for the previous two flu seasons (2013/14, 2014/15) has been similar to the national average figures, see table 22 below.

Table 22: National uptake of flu vaccine by group

Flu Vaccine	Target	Sep 2013 - March 14	Sep 2014 - March 15
65 years plus	75%	73.2	72.7
Clinical risk groups	10%↑ on previous year	52.3	50.3
Pregnant women	10%↑ on previous year	39.8	44.1
2 year olds	Min 40%	42.6	38.5
3 year olds	Min 40%	39.5	41.3
4 year olds	Min 40%		32.9
Year 1	Min 40%		
Year 2	Min 40%		

Source: ImmForm

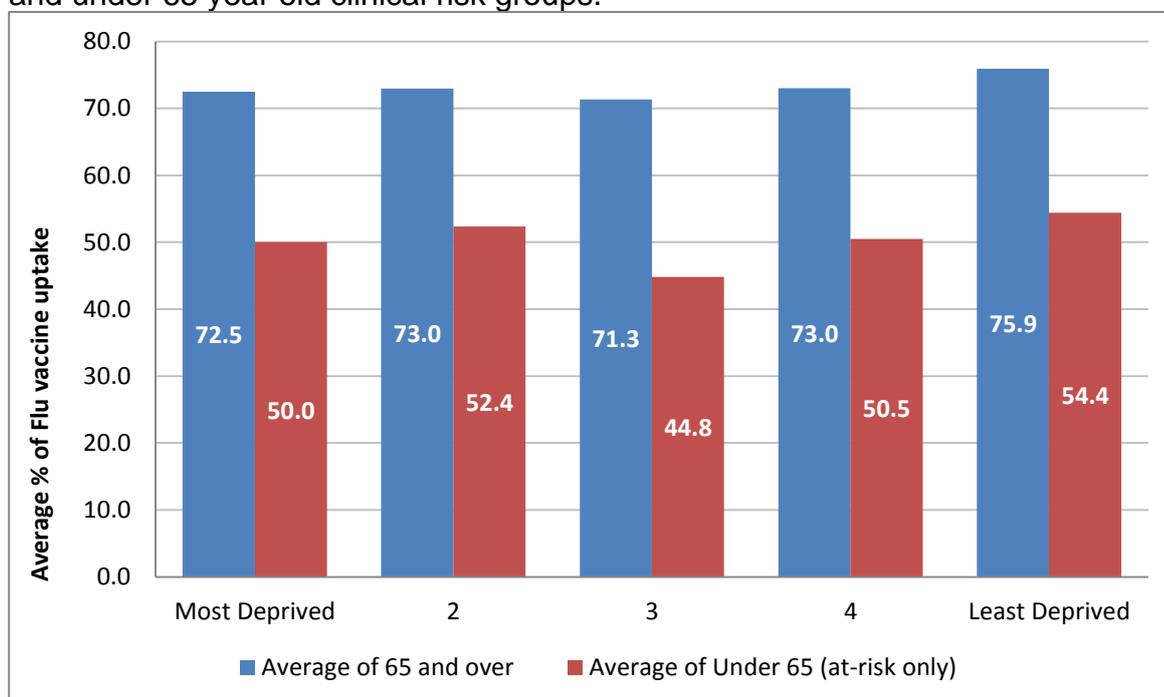
The 2015 September to February 2016 data for Wirral shows there was wide variation in uptake between practices. For the over 65 year olds 35% (19 out of 55) of practices achieved the 75% or greater uptake. The range in up take was between 54% to 84.4%. For the under 65 year olds clinical at risk group uptake varied from 35.6% to 70.5% and for

pregnant women the range in uptake between practices was from 20% to 86.7%. The difference in uptake between practices indicates there may be opportunities to share best practice between practices to improve uptake.

The flu vaccine is given in general practice for children aged 2, 3 and 4. The Wirral practice data shows there was wide variation in uptake, for example for two year olds from 8.7% to 69.2% and from 3.4% to 69.9% for 4 year olds. Vaccination is given in the school setting for 5 and 6 year olds, the convenience of this setting may be why uptake is greater for the older children.

Analysis by deprivation showed there was little variation between deprivation quintiles for any of the groups who the flu vaccine is given to. This is illustrated in Figure 2 below which shows uptake by deprivation category for the over 65 year old group and clinical risk groups.

Figure 2: 2015/16 Wirral uptake of flu vaccine by deprivation quintile for over 65 year olds and under 65 year old clinical risk groups.



Source: Immform

Health care workers

Frontline health care workers (HCWs) involved in direct patient care are encouraged to receive seasonal influenza vaccination annually from their employers to protect themselves and their patients from influenza. The coverage target is 75%.

Table 23 shows Wirral University Teaching Hospital (WUTH) had attained an excellent 79.1% uptake exceeding the national 75% uptake target for the percentage of seasonal flu dosage given since September 2015. However, comparing 2015 figures with 2016 figures Wirral Community Trust had fallen by 12% from 71% to 59% and other providers have had a fall in uptake.

Table 23: Flu vaccine uptake by frontline workers

Org Name	Year	Summary of Flu Vaccine Uptake %		
		No. of HCWs with DIRECT Patient Care	No. Seasonal flu doses given since 1st September 2015	% Seasonal flu doses given since 1st September 2015
CHESHIRE, WARRINGTON AND WIRRAL AREA TEAM HEALTH CARE WORKERS	2016	3920	2600	66.3
	2015	4098	2863	69.9
WIRRAL UNIVERSITY TEACHING HOSPITAL NHS FOUNDATION TRUST	2016	4543	3592	79.1
	2015	4670	3567	76.4
THE CLATTERBRIDGE CANCER CENTRE NHS FOUNDATION TRUST	2016	702	388	55.3
	2015	690	390	56.5
CHESHIRE AND WIRRAL PARTNERSHIP NHS FOUNDATION TRUST	2016	2519	944	37.5
	2015	3516	1219	34.7
WIRRAL COMMUNITY NHS TRUST	2016	1185	705	59.5
	2015	1032	739	71.6

Source: ImmForm, (comparing providers with the same period in 2015).

Data limitations for communicable disease

The inferences that can be drawn from local and national data are limited by the completeness, accuracy, timeliness and level of the information.

The notified records and reports of disease include cases that are confirmed and not confirmed and are therefore subject to inaccuracies. These records also do not include the many cases that are not presented at health care.

The completeness of data for children and adult vaccine coverage is dependent on timely practice returns. Data on uptake has been provided for most vaccines between April and December 2015 (2015/16 Quarter 1 to 3). This provides an indication of uptake for 2015/16, the final quarter of data (January to March 2016) will be needed to assess if targets have been met for this year.

Changes to the vaccination schedule means that uptake over different years are not necessarily comparable. Where this is the case, this has been noted.

The completeness of the data for pertussis (whooping cough) vaccination in pregnancy is reliant on the recording of delivery dates in the mothers' medical records. Coverage may be overestimated if women who have received the vaccine are more likely to have their delivery date recorded. Furthermore, women not registered with a GP (and therefore less likely to be having regular contact with the health service prior to delivery) will not be captured by this reporting system.

The accuracy of the vaccination data from GP systems is reliant on correct and complete clinical records with correct read coding for general practice.

The depth of analysis is limited by the availability of the data, for example the majority of data is at a borough level (not by practice or school) and therefore does not indicate local variations or specific groups who are at risk within the borough. This inhibits action to increase uptake and reduce inequalities.

Key inequalities and groups most at risk

Groups at high risk of infection include pregnant women, young children, and people over the age of 65 years, those with pre-existing medical conditions, homeless, substance

misusers, immigrants and black and minority ethnic groups. Children in nurseries and people living in residential and nursing homes are also at increased risk.

The factors which place certain groups at greater risk include:

- Being less able to avoid infections due to environmental / living conditions (e.g. homeless, people living in crowded accommodation and or accommodation which has no or poor provision of safe water, sanitation and drainage).
- Being more susceptible to infection through lower immunity (e.g. infants, older people and people who are immune compromised)
- Being less able to cope with the illness, due to being less likely or able to seek help with the illness and or adhere to treatment (e.g. homeless, substance misusers).

High coverage (95%) of vaccination is fundamental necessity to protecting people from vaccine preventable diseases. The Department of Health published '[Vaccination services - reducing inequality in uptake](#)' in March 2005. This identified that there are groups who face barriers to access and are subsequently at risk of low take up of immunisation. Groups include:

- children in care;
- young people who missed previous immunisations;
- children with physical or learning difficulties;
- children of lone parents;
- children not registered with a general practitioner;
- children in larger families;
- children who are hospitalised;
- minority ethnic groups;
- vulnerable adults such as asylum seekers and the homeless.

The review also found association between lower take up and living in areas of greater deprivation. A [study](#) in the North East found incidence of infectious disease increased with greater deprivation.

Analysis of the uptake at the [national](#) level of the pertussis vaccine in pregnancy found coverage varied considerably by ethnic group with an uptake difference of about 25% between the ethnic group with the highest (White British) and the groups with the lowest uptake (Black 'other' and Black Caribbean).

A review of research relevant to vaccination hesitancy conducted in Europe has been published by the [European Centre for Disease Prevention and Control](#) (ECDC) in 2015. Vaccine hesitancy has been defined as a behaviour, influenced by a number of factors including issues of confidence (level of trust in vaccine or provider); complacency (do not perceive a need for a vaccine, do not value the vaccine), and convenience (access). Vaccine-hesitant individuals are a heterogeneous group that are indecisive in varying degrees about specific vaccines or vaccination in general. Vaccine-hesitant individuals may accept all vaccines but remain concerned about vaccines, some may refuse or delay some vaccines, but accept others, and some individuals may refuse all vaccines.

The research identified the following groups where individuals had refused or were hesitant to vaccines; parents, mothers, religious communities, healthcare workers, immigrants, social media users, pregnant women, patients with chronic diseases and older people.

The review identified factors which influence the take up of vaccines clustered under three key themes; contextual influences, individual and group influences and vaccine specific issues. Contextual influences included conspiracy theories, religious beliefs and negative media influence. Individual and group influences include personal perceptions or beliefs of the vaccines and influences from the social environment.

The most common determinant of non-vaccination was the belief that vaccines are unsafe, and more specifically that they can cause severe diseases. Social norm influences include discussions and informal talks with friends, family members, peers, co-workers or community members. Vaccine and vaccination specific issues included results which showed some individuals did not perceive a medical need for the vaccine studies which found barriers due to problem of access, timing or availability of vaccines.

What are we doing and why?

Current activity and services

Wirral Health Protection Group

Wirral's Health Protection Group meets bi-monthly and has a strategic focus on system leadership, assurance and risk management for health protection across Wirral. Members include the Director of Public Health and other local authority leaders for health protection, NHS England, PHE and Wirral CCG. The forum is in the process of identifying priorities for 2016 which this JSNA chapter will inform.

Wirral Community Infection Prevention and Control Service

This service provides infection prevention and control advice and support in the community, which includes primary care and social care providers such as GPs, dental practices and nursing homes. This includes audits of practice and service improvement plans as well as education and training. The service works across the health and social care system to respond to cases, clusters and outbreaks of communicable disease in the community to manage, control and reduce the risk of infection.

Wirral Immunisation Steering Group

The uptake of immunisation in Wirral is monitored by Public Health England (PHE) Cheshire and Merseyside Screening and Immunisation Coordinator. On quarterly basis stakeholders from across the delivery systems for immunisation meet to identify and address any issues. Group members include PHE, Public Health, 0 to 19 service, child health, TB service, neonatal service, and Wirral Community Infection Prevention and Control Service.

Primary Care Training

Immunisation training is provided to primary care staff as part of their Continuing Professional Development. This is coordinated and led by NHS England / Public Health England Cheshire and Merseyside Screening and Immunisation Coordinator.

Wirral seasonal flu group

This group was established in 2016 and meets bi-monthly to develop and drive an operational seasonal flu plan to reduce the risk and consequences of flu. This includes encouraging uptake of the flu vaccine and ensuring measures are in place to control and manage outbreaks. Members include Wirral Council, Public Health, Public Health England, Wirral Clinical Commissioning Group and health care providers.

Pertussis uptake in pregnancy

There is a national working group to increase uptake. Locally this is being addressed as part of the Wirral Immunisation Steering Group and is also part of the Ante-Natal Programme Board to ensure both the influenza and pertussis vaccines are offered to all pregnant women at the appropriate time.

What are the challenges?

Currently data is not available at a level of detail to understand differences in uptake of vaccines between population groups and geographical areas. This may reveal hidden variation and help to prioritise action needed to improve the situation for those most in need of immunisation.

The flu data shows there is wide variation by practice; however there is no association by deprivation. It is important to be able to access uptake of other vaccines by practice and by demographic factors to be able to identify which groups and areas are most at risk of low uptake.

Local Public Health teams in the local authorities no longer have access to NHS data systems such as COVER. This places a reliance on Public Health England for access to timely and accurate data.

What is coming on the horizon

Infection Prevention and Control Quality Improvement Programme

The Wirral Infection Prevention and Control Team will be targeting support at care homes and practices identified using data to assess level of risk. A range of support will be provided such as additional training and development of improvements plans.

PHE Screening and Immunisation Quarterly Reports

PHE have recently produced a Screening & Immunisation report for Cheshire. This will be updated quarterly and shared at the Wirral Health Protection Forum following NHS England Governance sign off. This will provide data by CCG/ Local Authority and by Provider, including trend data by GP practice population. For each section, there will be an explanatory narrative. This will make the data generally up to six months behind actual activity. Behind the report there is detailed practice specific performance data that can be shared with Local Authority or Clinical Commissioning Group analyst colleagues on request.

Childhood Immunisation data by practice

Work is being undertaken to enable data to be provided by individual practice data.

Parent / Carers Survey

Public Health England are planning to survey a nationally representative group of parents / carers later in 2016 to inform work on how best to increase children's vaccine take up. This will be used to inform local practice once the information is available.

Insight Development

More data is required to understand variation by different groups and by practices to understand the reasons why vaccines are not always taken up and how we can help encourage take up. As part of the Population Public Health Delivery Plan for 2016/17 activity is planned to collect insight from stakeholders to better understand the different

models practices use to encourage vaccine take up and the factors which encourage or deter take up from a patient and parent / carer perspective.

Links

Joint Committee on vaccination and Immunisation: <https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation>

NHS vaccination schedule

<http://www.nhs.uk/conditions/vaccinations/pages/vaccination-schedule-age-checklist.aspx>

NHS choices for information on infectious diseases: <http://www.nhs.uk/Conditions/Pages/hub.aspx>

Public Health Outcomes Framework: <http://www.phoutcomes.info/>

Public Health England list of notifiable diseases: <https://www.gov.uk/guidance/notifiable-diseases-and-causative-organisms-how-to-report#list-of-notifiable-diseases>

Public Health England list of notifiable diseases reports:

<https://www.gov.uk/government/collections/notifications-of-infectious-diseases-noids>

The Green Book 'Immunisation against infectious disease: the green book front cover and contents page': <https://www.gov.uk/government/publications/immunisation-against-infectious-disease-the-green-book-front-cover-and-contents-page>

References

Campbell, H., Saliba, V., Borrow, R., Ramsay, M. & Ladhani, S. (2015) 'Targeted vaccination of teenagers following continued rapid endemic expansion of a single meningococcal group W clone' United Kingdom 2015. Euro Surveillance 2015; 20(28). Available online: <http://www.eurosurveillance.org/>

Department of Health (2005) Vaccination services reducing inequalities in uptake. London: crown copyright.

European Centre for Disease Prevention and Control (ECDC), (2015) ECDC TECHNICAL REPORT Rapid literature review on motivating hesitant population groups in Europe to vaccinate. Stockholm: ECDC.

Hughes, G. & Gorton, R. (2015) 'Inequalities in the incidence of infectious disease in the North East of England: a population-based study'. Epidemiology of Infection. 2015 Jan;143 (1).

Hawker, J., Begg, N., Blair, I., Reintjes, R., Weinberg, J. & Ekdahl, K. (2012) *Communicable Disease Control and Health Protection Handbook*, 3rd Edition. Chichester: Wiley-Blackwell.

NICE - National Institute for Health and Care Excellence. (2009) Immunisations: reducing differences in uptake in under 19s London: National Institute for Health and Care Excellence.

O'Brien, S. (2013) Communicable Disease Epidemics. IN: Guest, C., Ricciardi, W., Kawachi, I. & Lang, I. Oxford (ed.). *Handbook of Public Health Practice, 3rd edition*. Oxford: Oxford University Press, pp. 166 - 177.

Public Health England - PHE (2014) Communicable Disease Outbreak Management: Operational guidance. London: crown copyright.

Public Health England (2015) The Cheshire and Merseyside Public Health England outbreak report 2015 – Internal document

Public Health England - PHE (2015) Human Papillomavirus (HPV) vaccination coverage in adolescent females in England: 2014/15. London: crown copyright

Public Health England - PHE (2015) Pneumococcal Polysaccharide Vaccine (PPV) coverage report, England, April 2014 to March 2015 *Health Protection Report* Vol. 9 No. 26 – 24 July 2015.

Public Health England - PHE (2015) Prenatal pertussis immunisation programme 2014/15: Annual vaccine coverage report for England. London: crown copyright

Public Health England - PHE (2015) Rotavirus infant immunisation programme 2014/15: Vaccine uptake report on the temporary sentinel data collection for England. London: Crown Copyright

Public Health England - PHE (2015) Flu Plan Winter 2015/16. London: Crown Copyright

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