

## JSNA: Health Protection – Screening

### Summary

- Cancer screening uptake for Wirral in 2015 for breast, cervical and bowel was 77%, 73.5% and 56.2% respectively. Wirral performs better than the national and regional data for breast screening, is similar for cervical screening and slightly worse for bowel screening.
- Wirral meets the national target for coverage for breast screening (70%) but not for cervical (80%). The national bowel screening target reduced to 52% from 60% in 2016. Historical performance indicates Wirral should meet this.
- Take up of breast screening and cervical screening is higher in older age groups indicating the importance of encouraging people to take up the initial offer of screening when they become eligible.
- Uptake of the cancer screening programmes varied widely by practice. Analysis by deprivation quintile shows uptake is generally lower in the areas of greatest deprivation.
- The non-cancer screening programmes have two levels of performance targets. A lower 'acceptable' level which is the minimum standard programmes should work to and a higher 'achievable' level which programmes should aspire to.
- For men aged 65s year old the abdominal aortic aneurysm screening offer was above the acceptable threshold for 2014/15.
- Diabetic retinopathy uptake was above the achievable level of 2014/15.
- For ante-natal screening in 2014/15 Wirral performed at the higher achievable threshold for the HIV screening test coverage, sickle cell and thalassemia coverage and completion of the family origin questionnaire. Areas for improvement were completion of fetal anomaly lab request forms and the timeliness of the sickle cell and thalassemia test, both of which were below the acceptable threshold.
- For new-born screening the blood spot screening coverage was above the acceptable level, however levels of avoidable repeat tests for this screen were outside the acceptable threshold. The new-born hearing screening met the acceptable target for completion with the 4 to 5 week timeframe but timely referral to assessment for new-born hearing was below the acceptable level.
- There are several factors which increase the likelihood of not attending for screening. This includes greater deprivation, being from an ethnic minority group and having a learning disability. Barriers to screening include fear, embarrassment, and discomfort, lack of knowledge and difficulty of attending the appointment.
- Currently, with the exception of the cancer screening and diabetic retinopathy data which is available by practice, the data is for Wirral as a whole. The most recent data is not available for all the non-cancer screening programmes. This limits the ability to assess performance and identify and understand particular groups who are experiencing difficulty attending screening.

## Contents

|  |    |
|--|----|
| Summary .....                                  | 1  |
| Contents .....                                 | 1  |
| What do we know? .....                         | 3  |
| Overview.....                                  | 3  |
| Why is this important .....                    | 3  |
| Facts, figures and trends .....                | 3  |
| Cancer screening .....                         | 3  |
| Guidelines and targets .....                   | 3  |
| Breast screening .....                         | 4  |
| Cervical screening.....                        | 5  |
| Bowel screening.....                           | 6  |
| Summary performance against targets .....      | 7  |
| Non Cancer Screening .....                     | 8  |
| Guidelines and targets .....                   | 8  |
| Adult and Young People screening .....         | 8  |
| Ante-natal and newborn screening.....          | 10 |
| Summary performance against targets .....      | 13 |
| Data limitations.....                          | 14 |
| Key inequalities and groups most at risk ..... | 15 |
| What are we doing and why? .....               | 16 |
| Current activity and services .....            | 16 |
| What are the challenges? .....                 | 16 |
| What is coming on the horizon? .....           | 17 |
| References .....                               | 17 |
| Links .....                                    | 18 |

## What do we know?

### Overview

Screening is a process of identifying apparently healthy people who may be at increased risk of a disease or condition. They can then be offered information, further tests and if appropriate treatment to reduce their risk and/or any complications arising from the disease or condition.

It is important to note that screening is not a diagnostic tool. There are risks as well as benefits to screening, for example false positive tests can result in some people having treatment which was not necessary. Screening programmes are implemented on the advice of the [UK National Screening Committee](#) (UK NSC) who judge screening programmes following strict guidelines.

In England we have a range of screening programmes including breast, cervical and bowel cancer, abdominal aortic aneurysm (AAA), diabetic retinopathy and ante-natal and new-born screening.

In this section we consider:

- Cancer Screening
  - breast, cervical and bowel
- Non cancer screening:
  - adult and young people screening
  - ante-natal and new-born screening.

### Why is this important

Screening is important because it can lead to early identification and intervention of diseases. This helps to reduce late diagnosis and preventable illness and deaths. All screening programmes provide individuals with information on both the risks and benefits of screening to support informed choice.

### Facts, figures and trends

#### Cancer screening

There are currently three national cancer screening programmes: breast, cervical and bowel (colorectal). For details of local cancer rates please see Wirral JSNA: [Cancer](#)

National, regional and local cancer screening programme coverage is measured and shared as part of the [Public Health Outcomes Framework](#) sub indicators 2.20.

Data is also available via the Open Exeter dataset which can be accessed by the Screening and Immunisation Team based in Public Health England (PHE). This data is not publically available.

#### Guidelines and targets

Cancer screening standards are set out in the NHS Public Health Functions Agreement 2016/17 specifications. The **breast cancer screening specification** provides a performance indicator of screening coverage of 70% or greater and a stretch achievable target of 80% or greater. The **cervical cancer screening specification** sets a minimum target for uptake of 80% or greater to screen eligible women aged 25 to 49 every three years and women aged 50 to 64 every 5 years. The **Bowel Cancer Screening**

**Specification** 2016 sets a minimum uptake target of 52% of people adequately screened out of those invited for bowel screening. This is reduced from the previous service specification performance target of 60% which is now a stretch target for areas to aim for.

### Breast screening

Breast screening is offered to women when they turn 50 years old and then every three years thereafter. In 2010 an age extension was rolled out from 47 years to 73 years old with full national implementation expected 2016/17. The extension programme has been rolled out in Wirral with GP surgeries currently extended to earlier calling at 47 years or continuing screening to 73 years.

The minimum standard target coverage for breast screening is 70% with a stretch target of 80%. Table 1 shows breast screening coverage for the last 5 years reported nationally, regionally and locally. Each area exceeds the 70% target; however uptake has been declining since 2011. Wirral consistently has a higher coverage than the North West and England average. The screening programme is a round length of 3 years so figures can be very variable depending on where the surgery is in the round.

**Table 1:** Percentage of eligible women aged 53 to 70 years who were breast screened adequately within the last 36 months by the 31<sup>st</sup> March by year and area

| Area / Year | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
|-------------|-------|-------|-------|-------|-------|-------|
| Wirral      | 78.28 | 78.31 | 77.55 | 77.21 | 77.28 | 76.90 |
| North West  | 75.61 | 74.89 | 74.87 | 74.52 | 73.42 | 72.60 |
| England     | 76.91 | 77.13 | 76.92 | 76.32 | 75.90 | 75.40 |

Source: [Public Health Outcomes Framework indicator 2.20i](#)

Table 2 below provides a summary of the screening uptake by Wirral practice eligible population for the 36 month period to June 2015. This shows for the 50 to 70 years old cohort despite high overall coverage there is a wide variation at practice level and 20 practices did not meet the 70% uptake threshold. There were 4 practices which achieved coverage equal or greater than the 80% stretch target.

Performance figures are lower when the cohort is extended to take into account the wider age range of 47 to 72 years, with only 20 practices exceeding the 70% and none of these reaching 80%. However, this reflects that the age extension has only recently been rolled out and surgeries are currently either extending an earlier call up (47 years) or a later call up (up to 73 years) not both.

Please note the data sets for tables 1 and 2 are different (age range and time period) and therefore numbers are not directly comparable.

**Table 2:** Wirral practice data of the percentage of eligible women from who were breast screened in the previous 36 months to June 2015 by age cohort

| Age Cohort              | Target | Average | Range | Lowest | Highest | Practices <70 | Practices ≥70 |
|-------------------------|--------|---------|-------|--------|---------|---------------|---------------|
| Coverage 50 to 70 years | 70%    | 70.8    | 31.9  | 51.2   | 83.1    | 20            | 36            |
| Coverage 47 to 72 years | 70%    | 62.9    | 32.3  | 45.3   | 77.6    | 50            | 6             |

Source: uptake data Open Exeter

Notes: Open Exeter data is not available for public access

Examining breast screening take up by practice population categorised by deprivation rank shows take up is statistically significantly lower in the most deprived areas of Wirral compared to all other areas. However, there is not a linear relationship with deprivation rank and take up level.

**Table 3:** The percentage of eligible women aged 50 to 70 years who were breast screened in the 36 month previous period to June 2015 by practice deprivation rank

| Ward rank         | Average take up of breast screening |
|-------------------|-------------------------------------|
| 1. Most Deprived  | 63.89                               |
| 2                 | 71.28                               |
| 3                 | 76.07                               |
| 4                 | 71.15                               |
| 5. Least Deprived | 76.41                               |

Source: uptake data Open Exeter

Notes: Open Exeter data is not available for public access

[National data](#) from 2014/15 shows uptake steadily increases with age and then reduces in the 70 to 74 age group. Uptake was highest amongst women in the 60 to 70 year old age groups (above 72%) and lowest (below 69%) among women aged 45 to 49 years and 71 to 74 years. This covers the programme's age extension trial to women aged 47-49 and 71-73 years. Full roll out of the age extension trial is not expected to be complete until after 2016.

### **Cervical screening**

Women aged 25 to 49 years are invited for a cervical smear every 3 years and women aged 50 to 64 years are invited every 5 years. The target coverage for cervical screening is 80%.

Nationally, regionally and locally cervical screening coverage from 2010 to 2015 has remained below the 80% target, see table 4.

**Table 4:** Percentage of eligible women screened for cervical cancer adequately within the previous 3.5 or 5.5 years (according to age) on 31<sup>st</sup> March by year and area

| Area / Year | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
|-------------|-------|-------|-------|-------|-------|-------|
| Wirral      | 71.29 | 74.62 | 74.55 | 72.57 | 72.93 | 73.53 |
| North West  | 72.49 | 74.87 | 74.76 | 73.07 | 73.03 | 72.81 |
| England     | 75.53 | 75.67 | 75.36 | 73.93 | 74.16 | 73.45 |

Source: [Public Health Outcomes Framework indicator 2.20ii](#)

[National data](#) from 2014 and 2015 shows uptake is lowest in the 25 to 29 age group. It steadily increases with age to a peak in the 50 to 54 age group and then declines again.

Analysis by Wirral's 56 practices, summarised in Table 5, shows 2 GP practices are achieving the national target of  $\geq 80\%$  across the eligible age cohort. Average uptake across the borough is statistically significantly higher in the older cohort (50 to 64 years) compared to the younger cohort (25 to 49 years) with a greater number of practices achieving 80% or more uptake for the older cohort than the younger cohort.

**Table 5:** Wirral practice data to June 2015 of the percentage of eligible women who were cervical screened in the previous period by age cohort

| Age cohort screened                     | Target | Average | Range | Lowest | Highest | Practices <80% | Practices ≥80% |
|---|--------|---------|-------|--------|---------|----------------|----------------|
| 25 to 64 years, (42 or 66 month period) | 80%    | 73.3    | 20.4  | 61.5   | 81.9    | 54             | 2              |
| 50-64 years, (in the 66 month period)   | 80%    | 75.1    | 22.4  | 62.2   | 84.6    | 47             | 9              |
| 25-49 years, (in the 42 month period)   | 80%    | 72.3    | 23.2  | 60.7   | 83.9    | 53             | 3              |

Source: Open Exeter

Notes: Open Exeter data is not available for public access

Examining screening by practice deprivation rank of 1 to 5, where 5 is the least deprived and 1 the most deprived, shows that practices in the most deprived two areas (ranks 1 and 2) have statistically significantly lower up take of screening compared to practices in the least three deprived areas, (see Table 6).

**Table 6:** Average Percentage (%) take-up of cervical screening by practice deprivation rank

| Age cohort / Deprivation Rank | 25-49 years | 50-64 years | All ages 25-64 years |
|-------------------------------|-------------|-------------|----------------------|
| 1 Most Deprived               | 69.19       | 70.69       | 69.61                |
| 2                             | 66.54       | 68.72       | 67.36                |
| 3                             | 74.07       | 76.41       | 74.92                |
| 4                             | 73.27       | 77.03       | 74.64                |
| 5 Least Deprived              | 74.57       | 79.69       | 76.76                |

Source: Practice Data Open Exeter / Analysis Wirral Public Health

Notes: Open Exeter data is not available for public access

### **Bowel screening**

The bowel screening programme sends a bowel cancer testing kit (Faecal Occult Blood test, FOB) every 2 years to men and women aged between 60 and 74 years old registered with a GP. The national target for uptake for bowel screening is now 52% with a national stretch target of 60%.

In the past 12 months, as part of a national implementation programme, Wirral residents at the age of 55 years are now invited for a one off bowel scope test to look at the inside of the lower bowel and rectum. This is being delivered by Wirral University Teaching Hospital (WUTH); uptake figures will be available later in 2016.

Table 7 shows in 2015 Wirral take up of bowel screening FOB test was slightly lower than the national average and below the previous target of 60% but higher than the new target of 52%.

**Table 7:** The percentage of Wirral people screened for bowel cancer adequately within the previous 2½ years on 31 March 2015 by area.

| Area / Year | 2015  |
|-------------|-------|
| Wirral      | 56.15 |
| North West  | 55.93 |
| England     | 57.09 |

Source: [Public Health Outcomes Framework indicator 2.20iii](#)

Bowel screening uptake data to June 2015 by practice population shows uptake varied across the borough. There were 22 practices which had an average uptake below the new 52% target, see table 8, below.

**Table 8:** The percentage of people in Wirral general practices eligible for bowel screening who were screened adequately within the previous 2½ years (30 months) by June 2015.

| Age Cohort   | Target | Average | Range | Lowest | Highest | Practices ≥52% | Practices < 52% |
|--------------|--------|---------|-------|--------|---------|----------------|-----------------|
| All 60 to 74 | 52%    | 53.8    | 36.6  | 36.1   | 72.7    | 34             | 22              |

Source: Practice Data Open Exeter

Notes: Open Exeter data is not available for public access

Examining take up by deprivation quintile in table 9 below shows there was statistically significant lower take up in the most deprived areas compared to less deprived areas and uptake steadily increased as deprivation declines.

**Table 9:** Average percentage of Wirral practice population screened for bowel cancer in the past 30 months in the eligible cohort (aged 60 to 74 years) by deprivation quintile.

| Deprivation rank   | Average % screened |
|--------------------|--------------------|
| 1 - Most Deprived  | 44.61              |
| 2                  | 53.43              |
| 3                  | 56.80              |
| 4                  | 57.20              |
| 5 - Least Deprived | 62.47              |

Source: Practice Data Open Exeter / Analysis Wirral Public Health

Notes: Open Exeter data is not available for public access

### **Summary performance against targets**

Table 10 shows Wirral's performance against Cancer screening coverage targets. In 2014 and 2015 Wirral met the minimum standard for breast screening coverage but was below the achievable 80% target. Cervical screening coverage was below the minimum standard. Bowel screening was below the 60% uptake target for 2015. However, the target from 2016 has been reduced to 52% and previous coverage performance indicates it is likely that Wirral should meet this. It is important to note that for all the cancer screening programmes uptake varied widely by practice.

**Table 10:** Wirral cancer screening coverage performance RAG rated against national targets

| Screening / Target & Performance | Minimum Standard | Achievable | 2014  | 2015  | Practice Range June 15 |
|----------------------------------|------------------|------------|-------|-------|------------------------|
| Breast (53 to 70yrs)             | ≥70              | 80         | 77.28 | 76.90 | 45.3 – 77.6            |
| Cervical                         | ≥80              | N/A        | 72.93 | 73.53 | 62.5 – 81.9            |
| Bowel                            | 60               | N/A        |       | 56.15 | 37.5 - 72.7            |

| Key |                |       |                     |       |            |
|-----|----------------|-------|---------------------|-------|------------|
| Red | Target not met | Amber | within 5% of target | Green | Target met |

## Non Cancer Screening

There are several non-cancer screening programmes for eligible groups. These include abdominal aortic aneurysm screening for men over the age of 65, ante-natal screening of certain infectious diseases such as HIV and screening for new-born babies such as a hearing screen.

National, regional and local non cancer screening programme coverage are measured and shared as part of the [Public Health Outcomes Framework](#) sub indicators 2.21.

Local data is available via the Open Exeter dataset which can be accessed by the Screening and Immunisation Team based in Public Health England (PHE). This data is not publically available.

### **Guidelines and targets**

Public Health England sets out standards for all [population screening programmes](#).

There are specific [national key performance indicators](#) for antenatal, new-born, young person and adult screening for 2015/16. This provides a lower 'acceptable' target and a higher 'achievable' target.

All programmes should have development plans to attain and maintain the achievable level of performance. The acceptable threshold is the lowest level of performance which programmes are expected to attain. Where programmes are not meeting this level they should have recovery plans for rapid and sustained improvement.

[NICE Guidelines CG62 \(2008\) Antenatal Care](#) provides advice and information to be given to women during pregnancy, including antenatal and newborn screening programmes.

### **Adult and Young People screening**

For men aged 65 years and over there is an abdominal aortic aneurysm screening programme and for eligible people aged 12 years and over there is a diabetic retinopathy screening programme.

#### *Abdominal aortic aneurysm (AAA) screening*

The [abdominal aortic aneurysm](#) (AAA) screening programme is run by Public Health England (PHE). It is provided for men aged 65 years old to detect a dangerous swelling (aneurysm) of the aorta, the main blood vessel that runs from the heart, down through the abdomen to the rest of the body. Men are 6 times more likely to have a swelling than women. Risk also increases with age, being a smoker, high blood pressure and having an immediate relative with an AAA.

An AAA usually causes no symptoms, but if it bursts, it is extremely dangerous and usually fatal. Around 8 out of 10 people with a ruptured AAA either die before they reach hospital or do not survive surgery.

Screening involves an ultrasound scan of the stomach (abdomen), which takes about 10-15 minutes. If the abdominal aorta is not enlarged, no further testing is required. If there is a small to medium aneurysm regular monitoring is put in place to check it does not get dangerously larger. Anyone found to have a large aneurysm is referred to a vascular surgeon (a specialist in blood vessels) within two weeks to advise on possible treatment to reduce the risk of it bursting.

The acceptable target is for 90% of the eligible cohort to have an offer of screening with 99% or greater being the achievable target. Table 11 shows the proportion of men offered

screening has significantly increased in Wirral from 2013/14 to 2014/15 and the latest figure meets the acceptable target and exceeds the regional average. Further improvement is needed to meet the national average and the achievable target of 99% or more of all eligible men being offered AAA.

There is currently no data on uptake which hinders the ability to measure the impact of the programme.

**Table 11:** Percentage of men aged 65 years and over offered Abdominal Aortic Aneurysm (AAA) screening by year and area

| Area / Year | 2013/14 | 2014/15 |
|-------------|---------|---------|
| Wirral      | 66.28   | 93.57   |
| North West  | 87.49   | 88.78   |
| England     | 95.94   | 97.35   |

Source: [Public Health Outcome Framework indicator 2.21viii](#), [Abdominal aortic aneurysm screening: 2014 to 2015 data](#)

### *Diabetic retinopathy screening*

[Diabetic retinopathy](#) is a complication of [diabetes](#), caused by high blood sugar levels damaging the small blood vessels in the back of the eye (retina). It may not cause symptoms until it is quite advanced. It can cause blindness if left undiagnosed and untreated.

All people with diabetes (type 1 and 2) aged 12 or over are eligible for annual screening to detect changes in the eyes.

Wirral consistently exceeds the 80% achievable level of uptake of those offered screening, see table 12.

Analysis of the 2014/15 figures by practice show uptake varies from 59% to 92% and there is a negative association with lower uptake associating with greater deprivation. This supports the findings in the 2013 Wirral diabetic retinopathy screening programme [health equity audit](#).

Table 12: Percentage of eligible Wirral residents offered diabetic screening who attended

| Area/ Year | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 |
|------------|---------|---------|---------|---------|---------|
| Wirral     | 82.24   | 83.92   | 81.11   | 83.00   | 84.40%  |
| North West | 80.48   | 80.00   | 78.00   | 88.00   | -       |
| England    | 79.22   | 80.88   | 79.15   | -       | -       |

Source: [Public Health Outcomes Framework indicator 2.21vii](#), PHE / NHS England quarterly report 2013/14.

The performance of diabetic eye screening is also benchmarked against an achievable target of 95% or more results being issued within 3 weeks and 80% or more of patients attending consultation within 4 weeks of a positive screen. Wirral achieved both these targets in 2013/14 as seen in table 19. The latest figures are not available.

Local rates of sight loss due to diabetic eye disease from 2010/11 to 2012/13 were similar to the national and regional average. However, Table 13 shows for Wirral in 2013/14 there was a two-fold increase compared to the previous year. The 2014/15 rate is not currently available to establish if this increase is a sustained change. It should also be noted that these are crude rates, unadjusted for age and numbers are relatively small. For further information please see [Wirral JSNA: eye health](#).

**Table 13:** Rate of sight loss due to diabetic eye disease aged ≥12 yrs. per 100,000 population

| Area/ Year        | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|-------------------|---------|---------|---------|---------|
| <b>Wirral</b>     | 3.63    | 3.26    | 2.54    | 6.16    |
| <b>North West</b> | 3.49    | 3.90    | 3.41    | 3.41    |
| <b>England</b>    | 3.56    | 3.85    | 3.47    | 3.39    |

Source: [Public Health Outcomes Framework indicator 4.12iii](#)

### Ante-natal and newborn screening

[Screening tests](#) are offered to pregnant women and to their newborn. This aims to identify problems at an early stage which could affect the health of the mother or baby. This will enable early action and support for families to help them make decisions about the pregnancy and care of their child.

#### *Infectious diseases in pregnancy*

NHS [infectious diseases in pregnancy screening](#) offers blood tests for Hepatitis B, HIV and Syphilis. This is designed to help protect the health of the pregnant woman and the baby including minimising the risk of the transfer of the condition.

The two key performance indicators which measure the screening for infectious diseases in pregnancy are HIV coverage and timely referral of hepatitis B positive women for specialist assessment.

#### *HIV Screening*

The national acceptable target is to achieve a 90% uptake of antenatal screening for HIV with an achievable target of 95% or more. Table 14 shows that nearly all pregnant women in Wirral were screened for HIV, and the borough had a slightly higher uptake than the national and regional average.

**Table 14:** HIV screening for pregnant women by area and year

| Area / Year                                | 2013/14 | 2014/15 |
|--|---------|---------|
| <b>Wirral University Teaching Hospital</b> | 99.90   | 99.60   |
| <b>North West</b>                          | 98.09   | 97.98   |
| <b>England</b>                             | 98.93   | 98.86   |

Source: [Public Health Outcomes Framework indicator 2.21i](#), Wirral - PHE Health Protection Report February 2016

#### *Hepatitis B*

The timely identification and referral of mothers who are [hepatitis B positive](#) to specialist services is performance measured as an important part of the maternal pathway. It is where screening and clinical services meet and responsibility of care becomes a multidisciplinary. The timeframe is 6 weeks from the screen positive result being reported to maternity services to attendance at specialist assessment. The acceptable target is 90% or more with an achievable target of 95% or greater. 2014/15 quarter 2 and 3 data from Wirral University Teaching Hospital shows Wirral have achieved an 100% record for this indicator (Data source: PHE Health Protection Report February 2016).

#### *Fetal Anomaly Screening*

The fetal anomaly screening programme offers tests to all pregnant women of which there are two main components; screening tests for [Down's syndrome](#) and an ultrasound scan.

A number of essential data fields must be completed on the request form to prevent delays and ensure an accurate test for Down's syndrome. The acceptable standard for the accurate and full completion of request forms is 97% or greater with 100% set as the achievable standard.

Wirral were below the acceptable threshold in 2014/15 with 94.5% of submitted forms with completed data. However the latest 2015/16 quarter 3 data (October 2015 to December 2015) showed the acceptable target was met with 97.7% of forms having completed data.

### *Sickle cell disease (SCD) and Thalassaemia Screening*

[Sickle cell disease \(SCD\) and thalassaemia](#) are inherited blood disorders which can be passed onto a baby. All pregnant women in England are offered a blood test to find out if they carry a gene for thalassaemia, and those at high risk of being a sickle cell carrier are offered a test for sickle cell disease.

Table 15 shows over 2013/14 and 2014/15 Wirral had screened almost 100% of eligible women meeting the achievable target of 99% or more screened.

**Table 15:** Ante-natal sickle cell and thalassaemia screening

| Area/ Year                                 | 2013/14 | 2014/15 |
|--|---------|---------|
| <b>Wirral University Teaching hospital</b> | 99.90   | 99.80   |
| <b>North West</b>                          | 98.30   | 98.14   |
| <b>England</b>                             | 98.87   | 98.86   |

Source: [Public Health Outcomes Framework indicator 2.21iii](#), Wirral - PHE Health Protection Report February 2016

The performance of this screening is performance monitored against: the timeliness of the test, (a conclusive screening result should be available by 10 weeks' gestation); and the proportion of samples submitted to the laboratory with a completed family origin questionnaire (FOQ).

During 2013/14 and 2014/15 Wirral met the achievable target of submitted samples with a completed FOQ. However performance was poor for the timeliness of the test, 27.4% in 2013/14 and 31.9% in 2014/15. These figures are significantly below the acceptable target of 50% or more. Reasons for this may be that women are booking for their maternity care after 10 weeks gestation; there is a delay in screening or delay in results. Poor performance here raises potential issues as testing may be too late for parents to make informed and timely reproductive choices.

### *Newborn Screening*

New-born babies are offered screening tests for abnormalities of the heart, eyes, hips and testes via physical examination. They also are tested for hearing loss and metabolic conditions through the new-born blood spot test.

### *Newborn bloodspot screen (NBS)*

The [newborn bloodspot screen](#) is a blood sample taken from a heel prick of new-born babies. The programme currently screens for nine conditions; Sickle Cell Disease (SCD); Cystic Fibrosis (CF); Congenital Hypothyroidism (CHT) and six Inherited Metabolic Diseases (IMDs).

Wirral achieved the acceptable target of 95% or more coverage with 99.6% coverage in 2014/15. This was higher than the regional and national average, see Table 16. The achievable target is set at 99.9%.

**Table 16:** Newborn bloodspot screening coverage by 17 days of age

| Area/ Year        | 2013/14 | 2014/15 |
|-------------------|---------|---------|
| <b>Wirral CCG</b> | -       | 99.55   |
| <b>North West</b> | 93.22   | 96.94   |
| <b>England</b>    | 93.50   | 95.83   |

Source: [Public Health Outcomes Framework indicator 2.21iv](#), Wirral CCG - Public Health England / NHS England Report Feb 16

The newborn bloodspot is also performance monitored against avoidance of repeat tests. Wirral 2014/15 data for April to December (Quarter 1 to 3) shows 2.3% of babies had to have a repeat bloodspot test due to an avoidable failure in the sampling process. This was higher than the achievable level of 0.5% or less and acceptable level of 2% or less. Avoidable repeat tests cause delay in identification and treatment of screen positive babies, anxiety to parents, distress to babies and the waste of healthcare resources.

#### *Newborn Hearing*

This aims to identify all children born with a moderate to profound permanent bilateral deafness within 4 to 5 weeks of birth. The acceptable target is for 95% or greater of children to be tested within the timeframe and the achievable target is 99.5%. Wirral has been consistently above the acceptable target with a similar performance to the national and regional average, see table 17 below.

**Table 17:** New-born hearing screening coverage within 4 weeks (hospital) 5 weeks (community)

| Area / Year       | 2013/14 | 2014/15 | 2015/16 Q1 |
|-------------------|---------|---------|------------|
| <b>Wirral</b>     | 99.0    | 97.4    | 97.9       |
| <b>North West</b> | 97.6    | 97.6    | 98.0       |
| <b>England</b>    | 97.8    | 97.9    | 98.3       |

Source: Public Health England / NHS England Report Feb 16

Where screening indicates that a referral to a specialist audiology service is required, babies should enter into the assessment process within four weeks to ensure the benefits of new-born hearing screening can be maximised and reduce anxiety for parents. The acceptable target for timely referral is greater than 90% and the achievable target is 100%. Wirral did not meet the acceptable target for 2013/14 or 2014/15, however performance did improve. The quarter 1 figure for 2015/16 show further improvement which met the acceptable target, see Table 19. Please also see [Wirral JSNA Hearing Impairment \(Children and Young People\)](#).

**Table 18:** New-born hearing screening referral to assessment within 4 weeks

| Area / Year       | 2013/14 | 2014/15 | 2015/16 Q1 |
|-------------------|---------|---------|------------|
| <b>Wirral</b>     | 78.6    | 87.2    | 93.3       |
| <b>North West</b> | 83.6    | 86.5    | 88.6       |
| <b>England</b>    | 85.9    | 86.4    | 85.8       |

Source: Public Health England / NHS England Report Feb 16

#### *Newborn and Infant Physical Examination (NIPE)*

This programme is a physical examination of the baby to check for problems or abnormalities. It is carried out within 72 hours of birth and then again at 6 to 8 weeks of age. The available data for examination within 72 hours shows Wirral did not meet the 95% or more acceptable target in quarter 1 in 2014/15 with 92.2% but did meet it in quarter 3 with 95.6%.

The available Wirral data for timely assessment of dysplasia of the hip is only available in quarter 1 2014/15 which shows 85.7% was achieved, short of the acceptable 95% target. (Data source: PHE Health Protection Report February 2016).

The NIPE is not a mandatory reporting requirement. There is limited data while this indicator is under development which means performance cannot be accurately assessed.

### **Summary performance against targets**

Table 19 shows local performance on the indicators where there is mandatory reporting against national targets. Performance has been RAG\* rated. Where performance meets the achievable target these have been RAG rated green, as this is the level areas should be aspiring to. Performance which meets the acceptable threshold but not the achievable target is RAG rated amber. The acceptable target is the minimum threshold areas should be working to and where performance is below this it is RAG rated red.

The data for 2014/15 shows Wirral is not performing at the achievable target for AAA screening, however this has improved significantly from the previous year. The diabetic eye screening programme in Wirral has met the achievable target for all related indicators for 2013/14. This good performance has been maintained in 2014/15 for screening uptake, however there is an absence of 2014/15 data to assess the two other indicators.

For ante-natal screening the full completion of fetal-anomaly laboratory request forms has been below the acceptable level; however the 2015/16 October to December 2015 figure (quarter 3) shows this has improved to the acceptable threshold. The timeliness test for sickle cell and thalassemia is considerably below the acceptable target. There is work currently taking place nationally and locally to look at electronic family origin questionnaires to ensure timeliness of appropriate screening is undertaken.

Performance relating to the blood spot screen show coverage is greater than the acceptable level and close to the higher achievable target. However, the percentage of avoidable repeat tests are outside the acceptable threshold.

The timely completion of hearing tests is within the acceptable threshold, but performance has slipped since a peak of 99% in 2013/14. The timely referral to assessment has improved from 2013/14 and the quarter one 2015/16 data was above the acceptable level.

**Table 19:** Wirral’s screening performance against national key performance indicators

| Screening / Target & Performance  | Target     |            | Year      |            |           |
|---|------------|------------|-----------|------------|-----------|
|   | Acceptable | Achievable | 2013/14   | 2014/15    | 2015/16   |
| <b>Adult and young person screening</b>   |            |            |           |            |           |
| Abdominal Aortic Aneurysm (AAA) offer   | ≥90        | ≥99        | 66.3      | 93.6       |           |
| Diabetic eye screening uptake   | ≥70        | ≥80        | 83        | 84         |           |
| Diabetic eye screening results issued within 3 weeks  | ≥70        | ≥95        | 98        |            |           |
| Diabetic eye screening proportion of patients attending consultation within 4wks of positive screen | ≥80        | -          | 100       | 100 (Q1)   |           |
| <b>Ante-natal screening</b>   |            |            |           |            |           |
| HIV Test Coverage   | ≥90        | ≥95        | 99.9      | 99.6       |           |
| Timely Referral of Hepatitis B Positive Women for Assessment  | ≥90        | ≥95        |           | 100 (Q2,3) |           |
| Fetal anomaly – full completion of lab request forms  | ≥97        | 100        | 93.9      | 94.5       | 97.7 (Q3) |
| Sickle Cell and Thalassaemia Coverage   | ≥95        | ≥99        | 99.9      | 99.8       |           |
| Sickle Cell and Thalassaemia Timeliness of test   | ≥50        | ≥75        | 27.4      | 31.9       |           |
| Sickle Cell and Thalassaemia completion of FOQ  | ≥90        | ≥95        | 96.9      | 98.7       |           |
| <b>Newborn Screening</b>  |            |            |           |            |           |
| Blood spot coverage   | ≥95        | ≥99.9      | 99.5 (Q3) | 99.7       |           |
| Bloodspot Screening Avoidable Repeat Tests  | ≤2.0       | ≤0.5       | 2.94      | 2.3        |           |
| Newborn Hearing Screening complete by 4 Wks. (Hosp)/ 5 Wks. (Community) after birth                 | ≥95        | ≥99.5      | 99        | 97.4       | 97.9 (Q1) |
| Newborn Hearing Screening - Referral to Assessment within 4 Wks.                                    | ≥90        | 100        | 78.6      | 87.2       | 93.3 (Q1) |

| RAG* Key |   |
|----------|---|
| Red      | Acceptable target not met                       |
| Amber    | Acceptable target met but not achievable target |
| Green    | Achievable target met                           |

### Data limitations

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

Cancer screening data is based on uptake within the round length or time frame of screening frequency, for example eligible women are screened every 3 years for breast cancer. Low coverage therefore may be due to issues with maintenance of round length rather than low take up.

There are several gaps in the data for the non-cancer screening programmes. This makes it difficult to assess performance trends and identify areas where performance is lower than the acceptable threshold. Where data is for specific quarters and not a full year this has been noted.

The non-cancer screening data except for diabetic retinopathy is not available by practice which means variations across the borough or in specific groups could not be identified.

## Key inequalities and groups most at risk

For all three cancer screening programmes the local data shows there is a wide variation of uptake by Wirral practices with the lowest uptake in the most deprived wards. For cervical and bowel screening uptake steadily increases as deprivation reduces, for breast screening there is not such a linear relationship. Analysis by age for cervical and breast cancer screening shows it the youngest people in the eligible cohort which have the lowest uptake. This indicates the importance of encouraging people to attend their first screening opportunity.

A negative relationship between greater deprivation and uptake has been found in several studies examined by [Cancer Research UK](#) and was also identified in the 2014 NHS England [cancer screening fact sheet](#). Research has found women are more likely to attend for breast screening if they have access to a car which suggests delivering breast screening locally is important in addressing poor uptake in less affluent areas.

The [Cancer Research UK](#) report also found a younger age associated with lower uptake specifically with breast screening. The other factors identified in the report which influenced lower take up were; being from a black or minority ethnic group, having a learning disability, having a mental health issue and women who sleep with women.

[National research](#) suggests for cervical screening ethnicity is the most important predictor of participation. Therefore offering and delivering cervical screening in a culturally appropriate manner is likely to be important here. For bowel cancer men are less likely to accept an invitation to participate than women, even though men are at higher risk. There is also some evidence that people from some minority ethnic groups and smokers are less likely to participate in the bowel screening programme.

[Research](#) summarised by NHS England has found people who have other health problems are less likely to participate in cancer screening. In particular there is concern that people with learning disabilities are not accessing screening. This applies to all three cancer screening programmes. However, differences in screening rates between those with and without learning disabilities were less pronounced in more socially deprived areas where general participation rates are low.

For pre-natal screening a systematic review of published UK studies by [Rowe et al, \(2004\)](#) found some evidence to suggest there may be inequalities in access to pre-natal testing. Some studies suggested that women of South Asian origin might be up to 70% less likely to receive prenatal testing for haemoglobin disorders and Down's syndrome than White women. A small number of studies suggested that South Asian women might be less likely to be offered testing.

Understanding the different barriers groups face in accessing screening can help in the development of ways to encourage uptake. Barriers include fear, embarrassment, discomfort, lack of knowledge, inconvenience and or difficulty in attending the appointment. The specific details of the barriers groups who are protected by the [Equality Duty](#) face in attending screening have been identified as part of the review of the literature by [Wallace \(2013\)](#).

## 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, Public Health England and Wirral Clinical Commissioning Group. The group is in the process of identifying priorities for 2016 which this JSNA chapter will help inform.

#### *Bowel cancer non-responder project*

This project involves focussing on non-responders to bowel screening requests. Surgeries are being asked to identify 100 of the last non responders for recall. The project is part of the Strategic Cancer Networks.

#### *Cancer screening service Commissioning for Quality and Innovation (CQUIN) 2014/15*

The CQUIN payment framework enables commissioners to reward excellence by linking a proportion of the providers' income to the achievement of local quality improvement goals. A health inequalities CQUIN was in all provider screening and immunisation contracts for 2014/15.

For example this involved the breast screening service identifying hard to reach patients such as transsexuals, people with learning difficulties or have a physical impairment. Programmes of work were implemented by the service with support from area's Screening and Immunisation Coordinators to improve the uptake of the groups identified, such as implementing a pathway for transsexual patients to address their need for screening. GP's were encouraged to identify patients with learning difficulties to allow for more appropriate screening times to be offered. Bowel screening was also included in the CQUIN and targets were set and achieved for the service.

#### *Screening Programme Boards*

There are programme boards for all of the screening programmes. The boards are currently being reviewed as Cheshire and Merseyside have recently joined into one Public Health England team. Previously the localities worked very differently so standardisation is being looked at to agree a shared model of good practice.

#### *Ante-natal and new-born screening quality group*

Public Health England Cheshire and Merseyside Screening and Immunisation Team have set up a quality group for all providers of ante-natal and new-born screening programmes to meet on a quarterly basis. The group aims to address issues, review standards against key performance indicators and ensure work going forward provides a consistent high quality of care for women and their babies.

## What are the challenges?

Currently data is not available at a level of detail to understand differences in uptake between population groups and geographical areas. This may reveal hidden variation and help to prioritise action to target groups and or areas with low screening uptake.

Public Health England at their 2016 [inequalities screening workshop](#) have identified that the lack of national and local information on uptake by different groups is an issue. The web based report for this workshop highlighted there is more data than people are aware of or can access and steps are needed to utilise and improve the data that exists.

The cancer screening data and diabetic retinopathy screening is available by practice which helps to show areas where take up is lowest. This level of detail is required for other screening programmes.

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

## What is coming on the horizon?

### *Public Health England (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 Group 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.

### *National Developments*

At this time we are not aware of any actual or potential changes to the delivery of local screening programmes.

## References

**Cancer Research UK (2006)** Cancer and health inequalities: An introduction to current evidence

**Guest, C., Ricciardi, W., Kawachi, I. & Lang, I. Oxford (2013).** *Handbook of Public Health Practice, 3rd edition.* Oxford: Oxford University Press.

**Health and Social Care Information Centre (2016)** Breast Screening Programme, England Statistics for 2014-15

**Health and Social Care Information Centre (2015)** Cervical Screening Programme, England Statistics for 2014-15.

**NHS England (2014)** Factsheet: Uptake of cancer screening amongst under-represented groups

**NHS England (2016)** NHS public health functions agreement 2016-17 Service specification no.24 Breast Screening Programme. Leeds: NHS England.

**NHS England (2016)** Service specification No. 25 NHS Cervical Screening Programme Leeds: NHS England.

**NHS England (2016)** Service specification No. 26 NHS bowel cancer screening programme Leeds: NHS England.

**NHS England (2014)** Cheshire, Warrington and Wirral Cancer Screening Annual Report. September 2014,

**NHS Screening programmes Data Analysts and QA Group (DAQA) (2015)** Key Performance Indicators for NHS screening programmes, 2015-16

**NICE - National Institute for Health and Care Excellence. (2009)** Antenatal care for uncomplicated pregnancies CG 62. London: National Institute for Health and Care Excellence.

**Public Health England (2016)** Cheshire and Merseyside Health Protection Report February 2016

**Public Health England (2016)** Screening tests for you and your baby

**Rowe, R., Garcia, J. & Davidson, L. (2004)** Social and ethnic inequalities in the offer and uptake of prenatal screening and diagnosis in the UK: a systematic review. *Public Health*, Volume 118, Issue 3, pp. 177 – 189.

**Wallace, D. (2013)** *Accessing Screening Services: A Review of the Literature and Local Practice in the context of the Equality Delivery System.* NHS Screening Programmes.

## Links

- Health and Social Care Information Centre: <http://www.hscic.gov.uk/>
- NHS choices for information on diseases: <http://www.nhs.uk/Conditions/Pages/hub.aspx>
- Public Health Outcomes Framework: <http://www.phoutcomes.info/>
- Population screening programmes: <https://www.gov.uk/topic/population-screening-programmes>
- UK National Screening Committee <https://www.gov.uk/government/groups/uk-national-screening-committee-uk-nsc>

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