SCREENING IN THE UK: MAKING EFFECTIVE RECOMMENDATIONS

2013/14

Public Health England hosts the UK National Screening Committee
www.gov.uk/phe
Gateway number 2015235
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I am proud to introduce this report that summarises the work of the UK National Screening Committee (UK NSC) to review screening policy and make recommendations during 2013/14.

I was appointed to chair the committee on 1 April 2013 and would firstly like to pay tribute to the work of my predecessor, Sir Harry Burns, for chairing the UK NSC so expertly before me.

Our system for reviewing screening policy and making recommendations in the UK is recognised and respected as world leading. The UK NSC’s experts and user representatives make recommendations for more than 100 conditions but only do so after applying rigorous criteria to ensure their decisions are robust and underpinned by the best evidence.

During 2013/14, we began one of our regular 3-yearly structure and process reviews of the UK NSC to ensure that we continue to meet these high standards and retain our international reputation for excellence.

The reason that we recommend screening for some conditions and not for others is that we make our recommendations based on solid evidence. That is why it is particularly gratifying when we have the opportunity to recommend the introduction of a new test or the expansion of an existing programme based on clear evidence that shows it will save lives or improve health.

I would like to end by thanking the thousands of people around the UK who are engaged in the delivery of our world class screening programmes on a day to day basis. Their professionalism and dedication ensure that screening in the UK will continue to save lives and prevent disease for people of all ages and backgrounds.

Professor David Walker
Deputy Chief Medical Officer for England
Chair of the UK National Screening Committee
A warm welcome to our report on the work of the UK National Screening Committee (UK NSC) during 2013/14.

For those of you who are new to the fascinating world of screening, we started screening for breast cancer and cervical cancer in the 1980s and this led to increasing interest in what else the NHS could or should screen for. The UK NSC was therefore set up in 1996 to provide a consistent way of determining which conditions we should systematically screen for in the UK.

Since then there have been 4 chairs of the UK NSC – Sir Kenneth Calman, Dr Henrietta Campbell, Dr Harry Burns and now I’m delighted to welcome Professor David Walker to the role. He brings with him huge insight and enthusiasm and has already started work on the next 3-yearly review, which will involve more stakeholders and, I’m sure, generate more interest than ever before.

One of the first tasks of the UK NSC was to develop a framework for screening. From the outset this included consideration of the ethical and social issues involved. The Handbook of Population Screening Programmes was published, which set the ground rules for the work of the committee and the expectations placed upon future screening programmes.

Since that pioneering early work, the UK NSC has made recommendations on dozens of conditions – we have more than 100 on our books at the moment. It is immensely exciting and rewarding to see the culmination of what can be decades of patient work by researchers, scientists, patient groups and others when the evidence tips the scales in favour of the benefit of screening and when we can recommend a new screening programme and see it implemented across the NHS.

Clearly, though, the UK NSC often has to recommend against the introduction of new programmes due to a lack of evidence or evidence that, at the population level, screening could do more harm than good. Such was the case during this year, when the UK NSC recommended against screening for a number of conditions including anal cancer, chronic obstructive pulmonary disease (COPD) and placenta praevia. It is obviously important that we, as guardians of the public purse, do not recommend screening where there is no benefit and money would be wasted. Equally importantly, if new evidence emerges in the coming years that suggests screening would have a population benefit then our cycle of 3-yearly reviews means that it will not be long before we look at these conditions afresh and can arrive, if appropriate, at a different conclusion.

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

It can be helpful to think of screening like a sieve. In the diagram above a large group of people is invited for the test. The screening test is represented by the sieve. Most people pass through the sieve. This indicates they do not have the condition for which the test is looking.

The people left in the sieve have been identified as needing further investigation. This may mean they have the condition being screened for. They will usually have a further test to clarify the risk.

Trained health professionals will explain the result and take people through the various choices. These may include further tests, treatment, advice and support. At each stage, people are free to make their own choices.

**UK NSC central expenditure 2013/14**

<table>
<thead>
<tr>
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<th>Expenditure (£)</th>
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<tr>
<td>Director’s office</td>
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</tr>
<tr>
<td>Pay costs</td>
<td>651,888</td>
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<tr>
<td>Non-pay costs</td>
<td>19,950</td>
</tr>
<tr>
<td>Ad hoc screening projects</td>
<td>205,147</td>
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<tr>
<td>Evidence review team</td>
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<tr>
<td>Pay costs</td>
<td>259,451</td>
</tr>
<tr>
<td>Non-pay costs</td>
<td>29,263</td>
</tr>
<tr>
<td>UK NSC reviews</td>
<td>353,513</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>1,519,210</td>
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Remit and objectives

The UK NSC is chaired by one of the four Chief Medical Officers, or their representative, on behalf of the other three. This role is currently being carried out by the Deputy Chief Medical Officer for England. The UK NSC advises ministers and the NHS in the four UK countries about screening policy and supports implementation of screening programmes. Using research evidence, pilot programmes and economic evaluation, it assesses the evidence for programmes against a set of internationally recognised criteria. The UK NSC also sets up practical mechanisms to oversee the introduction of new programmes in the English NHS and monitors effectiveness and quality of these programmes.

The UK NSC advises on:

• the case for implementing new population screening programmes not presently provided by the NHS within each of the countries in the UK
• screening technologies of proven effectiveness but which require controlled and well-managed introduction
• the case for continuing, modifying or withdrawing existing population screening programmes – in particular programmes inadequately evaluated or of doubtful effectiveness, quality or value
• generic issues relating to screening programmes and policy

The UK NSC Director of Programmes and team:

• lead and shape the work of the UK NSC to enable it to provide sound advice to ministers and CMOs in the four UK countries on screening policy and programmes, and strategic aspects of their implementation, including support to the NHS
• provide expert public health advice and leadership to support and inform an evidence-based approach to screening policy and programme implementation in the four UK countries
• define research needs and lead commissioning of evaluation, audits, pilot screening projects, and evidence reviews
• lead the development and use of information and intelligence systems to underpin and monitor screening programmes and quality assurance, ensuring the collation and interpretation of relevant data
• develop the capacity and capability of the NHS workforce to commission and deliver effective screening programmes

In addition, for England, the UK NSC Director of Programmes and team:

• work closely with the Department of Health (DH) to advise on the most effective use of centrally-held programme funds and devolved funds for tasks best undertaken once nationally. This support for local screening programmes saves the NHS time and money
• lead on ensuring controlled and well managed implementation of screening programmes of proven effectiveness, and provide ongoing leadership of the national teams for each programme
• lead on a range of developments and issues across all national screening programmes (NSPs) to ensure consistency, including an integrated approach to data, information, equality and quality assurance mechanisms

• agree priorities and work plans with the Department of Health (DH) and are accountable to DH for the delivery of high quality, effective screening programmes which ensure best value for money

The English NHS Cancer Screening Programmes have a separate structure and are accountable to the National Clinical Director for Cancer Services. More information can be found on the cancer screening website at www.cancerscreening.nhs.uk.

Membership

Chair
Professor David Walker, Deputy Chief Medical Officer, Department of Health

Members
Mrs Jane Allberry, Deputy Director, Sexual Health, Screening and Early Diagnosis, Department of Health
Dr Eric Baijal, Joint Director of Public Health, NHS Borders
Dr Margaret Boyle, Department of Health, Social Services and Public Safety Northern Ireland
Dr Sunil Bhanot, GP
Professor Roger Brownsword, School of Law, King’s College
Professor Martin Buxton, Director of the Health Economics Research Group, Brunel University
Ms Alison Brown, consumer representative
Dr Catherine Calderwood, Scottish Government
Professor Alan Cameron, Consultant Obstetrician at Southern General Hospital, Glasgow
Dr Jennie Carpenter, Public Health Advisor, Department of Health
Dr David Elliman, Consultant in Community Child Health, Great Ormond Street Hospital for Children
Professor Gareth Evans, Consultant in Genetics Medicine, St Mary’s Hospital, Manchester
Ms Jane Fisher, user representative
Dr Rosemary Fox, Director, Screening Division, Public Health Wales
Mrs Madeleine Johnson, Chair of the Fetal, Maternal Child Health Co-ordinating Group (FMCH)
Mr Nick Johnstone-Waddell, Head of Communications, UK National Screening Committee
Dr Surendra Kumar, GP
Dr Janet Little, Public Health Consultant, Northern Ireland
Dr Anne Mackie, UK National Screening Committee Screening Programmes Director
Mrs Moira Morris, user representative
Dr Heather Payne, Senior Medical Officer for Maternal and Child Health, Welsh Government

Observers
Ms Majella Byrne, Director, National Cancer Screening Service, Republic of Ireland
Dr Nick Hicks, National Institute for Health Research Health Technology Assessment

Secretariat
Miss Kimberley Reed, Secretariat Expert Committee & DH Policy Liaison Manager, England
The UK NSC uses the best worldwide available evidence to assess whether a screening programme should be set up for a new condition. Evidence is used both to recommend the introduction of a new screening programme and to monitor the effectiveness of existing programmes. This evidence usually needs to have been published in peer-reviewed journals, which means it has been subject to critical analysis by other experts.

Evidence is also important for explaining why screening is not recommended for some conditions which people might instinctively feel it should be. In addition, some conditions are tested for as part of the routine care a person may receive. In these cases, testing is the responsibility of the National Institute for Health and Care Excellence (NICE) rather than the UK NSC.

The UK NSC updated the following recommendations during 2013/14:

### Anal cancer in adults

<table>
<thead>
<tr>
<th>The condition</th>
<th>A systematic population screening programme is not recommended.</th>
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<thead>
<tr>
<th>UK NSC recommendation</th>
<th>Reasons</th>
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<tbody>
<tr>
<td></td>
<td>• while the number of anal cancer cases has increased, it is still a rare form of cancer with only 916 new cases in England in 2010</td>
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<td></td>
<td>• there is not a clear understanding of who is more likely to get anal cancer and how it develops</td>
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<td></td>
<td>• the test for detecting the cancer is not always reliable</td>
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<td></td>
<td>• it is not clear whether people would find the test for anal cancer acceptable – some people may be unwilling to have an examination of their rectum by a doctor</td>
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<td>• it is difficult to assess how a screening programme would be cost effective and beneficial while so many questions remain unanswered</td>
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<tr>
<th>Next review due</th>
<th>2016/17</th>
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<tr>
<td>More information</td>
<td><a href="http://www.screening.nhs.uk/analcancer">www.screening.nhs.uk/analcancer</a></td>
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</table>
Biotinidase deficiency screening in newborns

The condition

Biotinidase deficiency is a rare disorder where the body cannot reproduce enough biotin. Biotin is a substance that helps break down the body's main nutrients (carbohydrate, fat and protein) and a lack of biotin can result in sufferers becoming sick. The condition can cause a wider range of problems and has two different types. Profound biotinidase deficiency is more severe and partial biotinidase deficiency is less severe.

UK NSC recommendation

A systematic population screening programme is not recommended.

Reasons

- we do not know how common the condition is in the UK or how many babies are likely to be born with this condition in the future
- some people with the condition are badly affected, while some remain well into adulthood and others never show obvious signs of being poorly. A better understanding of why the condition affects people in different ways is needed if treatment is to be directed to those who need it
- the current test is not suitable for screening large numbers of babies. Research into different tests is at an early stage and more information is needed
- some countries offer screening for biotinidase deficiency but others do not. The lack of people with the condition has led to some countries withdrawing their screening programmes

Next review due 2016/17

More information www.screening.nhs.uk/biotidinasedeficiency

Chronic obstructive pulmonary disease screening in adults

The condition

Chronic obstructive pulmonary disease (COPD) is the name for a collection of lung problems including chronic bronchitis, emphysema and chronic obstructive airways disease. People with COPD have difficulties breathing, primarily due to the narrowing of their airways. This is called airflow obstruction. Typical symptoms of COPD include increasing breathlessness when active, a persistent cough with phlegm and frequent chest infections.

UK NSC recommendation

A systematic population screening programme is not recommended.

Reasons

- there is not an accurate test to detect COPD at an early stage
- the best treatment for early COPD is to stop smoking
- evidence does exist that identifying COPD in people with symptoms is cost effective and there are national guidelines for doctors to follow

Next review due 2016/17

More information www.screening.nhs.uk/copd
Iron deficiency anaemia screening in children

**The condition**
Anaemia occurs when there is a low level of red blood cells within the body. There are several different types of anaemia and each one has a different cause. The most common form of the condition is iron deficiency anaemia. This is where the body lacks enough of the vitamin iron to keep the red blood cells functioning properly. In children, it is usually due to eating a diet that has too little iron in it.

**UK NSC recommendation**
A systematic population screening programme is not recommended. In the absence of screening, efforts should continue to prevent children from developing iron deficiency anaemia by providing good dietary advice.

**Reasons**
- There is a lack of evidence that low levels of iron in the blood cause children under the age of 5 to develop at a slower rate than expected.
- The only reliable test involves taking a blood sample which can be distressing for the child.
- Some children can have iron deficiency anaemia without being ill. The benefit of treating these children is unclear.

**Next review due**
2016/17

**More information**
[www.screening.nhs.uk/irondeficiency](http://www.screening.nhs.uk/irondeficiency)

Lead poisoning screening in children

**The condition**
Lead poisoning is a medical condition caused by increased levels of the metal lead in the blood.

**UK NSC recommendation**
A systematic population screening programme is not recommended.

**Reasons**
- The number of people affected by lead poisoning has been declining for many years. Very few children are now affected by it in the UK.
- The current test is not reliable enough.
- There is a lack of proven treatments for lead poisoning, especially for children only slightly affected. Available treatments may even be harmful in these children.

**Next review due**
2016/17

**More information**
[www.screening.nhs.uk/leadpoisoning](http://www.screening.nhs.uk/leadpoisoning)
### Old age screening to prevent hospitalisation and death in adults

| The condition | Between 2000/01 and 2010/11 there was a 65% increase in the number of hospital admissions for people over 75, compared to a 43% increase in the general population. Only around 8% of the population of the UK are over 75 while around 25% of all hospital admissions seen by a consultant in 2010/11 were people over 75. The average hospital admission was twice the length for people over 75 when compared to the general population (10.5 days compared to 5.5). The screening policy review aims to assess the ability to screen this population to prevent hospitalisation and death. |
| UK NSC recommendation | A systematic population screening programme is not recommended. In line with its usual practice, the UK NSC has agreed that screening proposals for older people will be reviewed for individual health problems in future |
| Reasons | • the screening tests used to identify people who are at risk of being ill enough to go to hospital are not accurate enough  
• many older people would be followed up and made unnecessarily anxious and others who are at risk would be sent away without the support that they might need  
• there are many factors that might cause an elderly person to be admitted to hospital and it is difficult to assess all of these in a screening test |
| Next review due | 2016/17 |
| More information | [www.screening.nhs.uk/oldage](http://www.screening.nhs.uk/oldage) |

### Placenta praevia screening in pregnancy

| The condition | Placenta praevia is a complication where the placenta lies too low in the womb (uterus) after 20 weeks of pregnancy. |
| UK NSC recommendation | A systematic population screening programme is not recommended. |
| Reasons | • assessment of the position of the placenta is an established part of the routine 18 – 20+6 week ultrasound scan. If the position is low, the woman will be recalled later in pregnancy for monitoring. The Royal College of Obstetricians and Gynaecologists (RCOG) and NICE provide guidance for health professionals. In light of this, the UK NSC does not feel a formal screening programme for placenta praevia is warranted |
| Next review due | 2016/17 |
| More information | [www.screening.nhs.uk/placentapraevia](http://www.screening.nhs.uk/placentapraevia) |
### Carrier screening for spinal muscular atrophy

| **The condition** | Spinal muscular atrophy (SMA) is a genetic disease that causes muscle weakness and a progressive loss of movement. There are four types of SMA that vary in terms of the age at which sufferers develop symptoms and also the severity of the symptoms they can have. There is no cure but therapy and support are available to help manage the condition. SMA can lead to progressive muscle wasting and loss of ability to move parts of the body. SMA is rare, with an estimated 5,500 to 6,000 people having SMA at any one time in the UK. |
| **UK NSC recommendation** | A systematic population screening programme is not recommended. |
| **Reasons** | • there is not enough information about the total number of people affected and how many people are affected by each type of SMA  
• the test aims to identify people at higher risk of having children with SMA (who have a problem in a particular gene that affects movement). The evidence did not show a clear agreement about how the laboratories should use the test to identify people at risk from the general population  
• the test for spinal muscular atrophy cannot identify whether children at risk of SMA are likely to be severely or very mildly affected by the condition  
• as the test is not reliable it may not help people make decisions about whether to have children and it will be difficult for health professionals to offer advice  
• it is not clear whether people would want to have the test |
| **Next review due** | 2016/17 |
| **More information** | [www.screening.nhs.uk/sma](http://www.screening.nhs.uk/sma) |

### Syphilis screening in pregnancy

| **The condition** | Syphilis is an infection that is typically passed through sexual contact. However, it can be passed on by intravenous drug use (injecting drugs directly into the vein), blood transfusions and from an infected mother to her unborn child (congenital syphilis). |
| **UK NSC recommendation** | A systematic population screening programme is recommended. |
| **Reasons** | The UK NSC found that syphilis still occurs in young women and there is a continuing risk of it being passed on to their baby if it is not treated with antibiotics. |
| **Next review due** | 2016/17 |
| **More information** | [www.screening.nhs.uk/syphilis](http://www.screening.nhs.uk/syphilis) |
Thyroid disease screening in adults

The condition
Thyroid disease is a medical condition where the body makes too much or too little of the thyroid hormone (a substance found naturally in the body that carries a signal to parts of our body). Hyperthyroidism, also known as thyrotoxicosis or overactive thyroid, is a condition that occurs when there is too much thyroid hormone in the body. The condition is more common in women than men. Hypothyroidism describes the general effects of a severely underactive thyroid gland, where not enough hormones are produced to keep the body functioning properly.

UK NSC recommendation
A systematic population screening programme is not recommended.

Reasons
- there is a lack of agreement as to what a normal thyroid hormone level is. In people who are not ill this means that it is difficult to use test results to decide who should receive treatment
- some people’s thyroid hormone level will return to normal without treatment. These people may not benefit from treatment. It is not known how many people’s hormone level would return to normal by itself
- there is some evidence that there may be harmful effects from treating people with no symptoms of thyroid disease. These harmful effects have not been properly studied yet

Next review due
2016/17

More information
www.screening.nhs.uk/thyroid
Vasa praevia screening in pregnancy

| The condition | Vasa praevia is a rare but important health problem that occurs when the blood vessels from the placenta or umbilical cord (two organs connecting an unborn baby to its mother) block the birth canal and tear during delivery. The condition is associated with a number of risk factors, including:
| | • the umbilical cord inserts into the surface of the placenta rather than directly into the placenta (velamentous cord insertion)
| | • an unusual shaped placenta, for example in two pieces with blood vessels running between
| | • low-lying placenta or placenta praevia pregnancies resulting from assisted technology used to conceive (in-vitro fertilisation)
| | • multiple pregnancies

| UK NSC recommendation | A systematic population screening programme is not recommended. The review team recommended that work be done with the Royal College of Obstetrics and Gynaecology (RCOG) and interested groups to see if there is enough evidence to guide clinicians and women when they have a pregnancy that fits into one of the high risk groups.

| Reasons | • there is not enough information about the number of babies affected by the condition in the UK
| | • Vasa praevia can be found by a technology known as ultrasound testing but there is not enough knowledge about how accurate the test is. This may result in women being worried and being advised to have an unnecessary and early caesarean section delivery or in other women being reassured but who then develop a problem during delivery anyway
| | • a caesarean section to deliver the baby early would usually be recommended to prevent the effects of vasa praevia. However, this can bring its own complications. In many women this is likely to be unnecessary as the baby would have been born without problems

| Next review due | 2016/17

| More information | [www.screening.nhs.uk/vasapraevia](http://www.screening.nhs.uk/vasapraevia)
# Vision defects screening in children

**The condition**

Vision defects in children include amblyopia, refractive error and strabismus. Amblyopia (when the eye does not work properly) is one of the main problems affecting children aged 4-5 years. Other problems affecting the eye include refractive error (short or long sight) and strabismus (squint). Amblyopia can be a very mild problem but can become more serious if left untreated or if sight in the other eye is lost or damaged. Children's sight is tested using charts with letters in rows of different sizes. They start off large at the top and get smaller as they get closer to the bottom of the chart. Children are asked to read the letters out from a particular distance, until they can read no more.

**UK NSC recommendation**

Screening of children's eyes should continue to be offered to all children aged 4-5 years. This and the service should be organised and led by specialists (orthoptists). The UK NSC would welcome research to understand more about the long term effects of amblyopia and the long term effects of treatment.

**Reasons**

- amblyopia, when the eye does not work properly even though it appears normal, is the main problem found by screening in this age group
- treatment by covering the good eye with a patch has been shown to help correct sight in the affected eye. However, it is possible that the problem with the child’s eye can come back again after treatment has stopped

**Next review due**

2016/17

**More information**

[www.screening.nhs.uk/vision-child](http://www.screening.nhs.uk/vision-child)
The big picture

- 98% uptake of infectious diseases in pregnancy screening
- more than 670,000 babies received newborn blood spot screening for one of five rare conditions
- more than 730,000 pregnant women screened for sickle cell disease and thalassaemia
- more than 235,000 men were screened for abdominal aortic aneurysm

**Key data by screening programme 2013/14**

**Infectious diseases in pregnancy**

Uptake of infectious diseases in pregnancy screening for hepatitis B, HIV, syphilis and rubella susceptibility was between 97.7% and 98.8%. A total of 3,982 women tested positive for hepatitis B, 1,749 tested positive for HIV, 944 tested positive for syphilis and a total of 44,650 were susceptible to rubella.

**Fetal anomaly**

The fetal anomaly screening programme carried out more than 550,000 Down’s syndrome screening tests. More than 15,000 women were informed that the risk of their child being affected by Down’s syndrome was a little more than 6 in 1,000 and were offered a follow-on test.

**Sickle cell and thalassaemia**

Approximately 731,000 pregnant women were screened to see if they carry the sickle cell or thalassaemia gene. Around 15,200 women (2%) tested positive, indicating that they did. There were 353 prenatal diagnostic tests performed, representing approximately 40% of the number of ‘high risk’ couples identified in antenatal screening. Approximately 668,000 babies were screened through newborn blood spot screening for sickle cell disease. Of these, 319 were identified as affected by significant conditions (approximately 1 in 2,000 babies screened) and 8,850 were identified with carrier results (approximately 1 in 76 babies screened).
Newborn blood spot

More than **670,000 babies** were screened for one of five rare conditions - sickle cell disease, cystic fibrosis, congenital hypothyroidism (CHD), medium-chain acyl-CoA dehydrogenase deficiency (MCADD) and phenylketonuria (PKU). There were nearly 600 positive screening results for either cystic fibrosis, CHD, MCADD or PKU.

Newborn hearing

Coverage of the NHS Newborn Hearing Screening Programme (percentage of newborn babies with a completed screen) continued to improve in 2013/14 and exceeded targets. Coverage at 4/5 weeks was 97.8% and coverage at 3 months was 99.1%. The proportion of babies referred to hearing services was 2.8%. The number of babies attending their first follow-up within the target time of 4 weeks of age was 85.9%, which was an improvement on 2012/13 but still below the 90% target. The number of babies with confirmed hearing impairment in both ears was 591, or 0.9 per 1,000 screened.

Newborn and infant physical examination

The implementation of consistent new national standards for the newborn and infant physical examination, supported by the NIPE SMaRT IT system, began in 2013/14. By the end of 2013/14, 17 out of 145 trusts were using NIPE SMaRT and had implemented the new standards, while a further 9 were in the process of implementation. Full rollout of the new NIPE standards is due to be completed by May 2016.

Diabetic eye

The implementation of a new national common diabetic eye screening pathway began in 2013/14. The new pathway aims to improve the quality and consistency of retinal screening and the collection and reporting of screening data in England. By the end of 2013/14, 47 (57%) of local programmes had started to use the pathway for screening. The rollout of the new pathway means that we are unable to report reliable screening data for 2013/14.

Abdominal aortic aneurysm

2013/14 was the first full year when AAA screening was available throughout England. More than 300,000 men in their 65th year were offered screening and more than 235,000 took up the offer, an uptake rate of 78%. In addition, nearly 28,000 men aged over 65 self-referred for screening and were tested. Nearly **3,700 aneurysms** were detected, 614 men with large aneurysms were referred to vascular surgeons and 491 of these men had planned operations to repair their aneurysms.
The big picture

- uptake of AAA screening increased to 82%
- more than 25,000 babies tested by newborn blood spot and newborn hearing screening programmes
- uptake of infectious diseases in pregnancy screening over 99%
- action plan implemented to help promote informed choice in cancer screening

Key data by screening programme 2013/14

Bowel cancer screening
During 2013/2014, 124,573 men and women were invited to participate in the bowel cancer screening programme, with an uptake rate of 54.6% across Northern Ireland. Uptake has continued to improve, supported by an ongoing public information campaign. Preparations were put in place to build capacity to extend the programme up to the age of 74 from April 2014.

Abdominal aortic aneurysm screening
The AAA screening programme for men aged 65 was introduced throughout Northern Ireland in June 2012. Men over the age of 65 can attend on request. Uptake during 2013/2014 increased slightly to 82% with the AAA prevalence rate being 1.6%.

Cervical screening
The cervical cancer screening programme continues to invite eligible women aged 25-64 every 3 or 5 years. During 2013/14, the laboratories processed and reported on 134,703 cervical cytology samples. At the end of March 2014, 77.3% of eligible women had had an adequate screening test reported in the previous 5 years.
Breast screening
Active identification of women at high risk of breast cancer has been completed with more than 400 women having been included in the programme. A business case for the purchase of digital mammography equipment for both the screening and symptomatic services has been approved.

Infectious diseases in pregnancy screening
During 2013/14 the Northern Ireland IDPS Programme offered screening to more than 25,000 pregnant women. Uptake was greater than 99% for each of the four infections screened for. All women who were identified with a positive result were referred to specialist services for care during their pregnancy.

Newborn blood spot screening
Newborn babies in Northern Ireland are offered screening for phenylketonuria (PKU), congenital hypothyroidism (CHT), cystic fibrosis (CF), medium chain acyl coA dehydrogenase deficiency (MCADD) and sickle cell disorders (SCD). In 2013/14, more than 25,000 babies in Northern Ireland were tested for these life-threatening conditions and 46 babies were referred for diagnostic testing. Although the numbers are small, the benefits of screening allow these babies to receive the early specialist treatment they need to improve their health outcomes and prevent severe disability or even death.

Newborn hearing screening
During 2013/14 more than 25,000 babies were screened by the newborn hearing programme, with more than 98% of babies having their screening test completed by 3 months of age. 2% of those screened were referred for diagnostic testing.

Cross-programme activity
A four-year action plan (2012-2015) to help promote informed choice in cancer screening, including among the hard to reach groups, is being implemented. To date, this work has included a survey of women who have not attended for breast screening and the piloting of a teaser letter into the invitation process for bowel screening.
The big picture

- AAA screening achieved national coverage
- changes announced to the age range and frequency of cervical screening that will be implemented in 2016
- expert group established to consider business case for HPV testing within the Scottish Cervical Screening Programme
- randomised control trial under way in four health boards with encouraging early results to ascertain acceptability of flexible sigmoidoscopy within the Scottish Bowel Cancer Screening Programme
- social marketing used to raise awareness of bowel screening

Key data by screening programme 2013/14

Breast screening

The Scottish Breast Screening Programme invites women aged 50 to 70 for screening every three years. Women over 70 can self-refer. In 2013/14, 185,000 women – 72.9% of those invited – were screened across Scotland and more than 1,450 cases of screen-detected breast cancer were diagnosed.

In 2012 the Scottish Government announced £12 million funding over three years to replace all analogue mammography equipment with digital equipment. This means better images are produced from mammograms, improving the quality of service provided. Progress on the introduction of digital mammography continues apace within the six regional screening centres and 19 supporting mobile screening units.

Cervical screening

Cervical screening in Scotland has been offered routinely to eligible women aged 20-60 every three years. Further to the report of the Scottish Expert Review Group and recommendations by the UK NSC, the Scottish Government announced that routine cervical screening will now be offered three-yearly from the age of 25 but five-yearly from the age of 50 to 64. These changes will come into force in 2016 and work continues with stakeholders to prepare for the switchover.
An expert group established to consider the evidence for HPV testing within the Scottish programme reported in spring 2013. Further work is under way to ascertain the cost effectiveness of such a programme and how it would operate before a final decision is made on implementation in 2015/16.

**Bowel screening**

During 2013/14, analysis was undertaken of the clinical and cost benefits of introducing fecal immunochemical testing as a first line test in the Scottish Bowel Screening Programme. A final decision will be made on implementation in 2014/15.

Following the UK NSC’s 2011 announcement on the use of flexible sigmoidoscopy within a population-based bowel screening programme, a randomised control trial was developed in four health boards to find out the acceptability of this method within the Scottish programme. The trial is under way and expected to conclude in late 2015. Initial uptake rates within the study, which invites those aged 60 for flexible-sigmoidoscopy, are encouraging.

A range of social marketing initiatives have been utilised throughout the year to encourage uptake within the Bowel Screening Programme. See www.getcheckedearly.org

**Abdominal aortic aneurysm (AAA) screening**

The rollout of abdominal aortic aneurysm screening for men aged 65 and over started in Scotland in July 2012. By the end of October 2013 AAA screening had achieved full national roll-out across all 14 of Scotland’s health boards.

**Diabetic retinopathy screening**

A total of 14 local programmes deliver diabetic retinopathy screening across Scotland. The number of eligible people with diabetes continues to increase and in 2013/14 the number increased by 3.6%. During 2013/14, 76.4% of eligible people with diabetes (from a total of 255,928) attended screening, with 3.5% being referred on to ophthalmology with signs of sight-threatening disease.
The big picture

- around 32,000 pregnant women took part in antenatal screening
- about 34,000 newborn babies were screened as part of newborn blood sport and newborn hearing screening
- around 475,000 people underwent a cancer screening test
- around 15,000 men were screened for abdominal aortic aneurysms

Key data by screening programme 2013/14

Breast Test Wales

More than 104,000 women were screened for breast cancer and uptake was 72.1%. Nearly 1,100 cancers were diagnosed among women aged 50-70 who were routinely invited. See www.breasttestwales.wales.nhs.uk

Cervical Screening Wales

More than 210,000 women were screened. Coverage at 5 years for women aged 25-64 was 78.6% meaning that about 8 out of 10 women attended their screening appointment. 8,800 women were seen in colposcopy and 2,400 had CIN2/3 (abnormal cells) or worse diagnosed. See www.cervicalscreeningwales.wales.nhs.uk

Bowel Screening Wales

More than 161,500 test kits were validated in the year. Uptake was 52.6%, showing an improvement on the previous year. Around 2,500 had colonoscopy investigation and approximately 250 cancers were diagnosed. See www.screeningforlife.wales.nhs.uk/bowel-screening-wales

Antenatal Screening Wales

More than 17,000 pregnant women were screened for Down’s syndrome during their pregnancy and more than 560 were identified with a possible risk to their baby. More than 31,600 women were screened for hepatitis B, syphilis, HIV and rubella susceptibility. More than 6,000 women were screened to identify carriers of sickle cell or thalassaemia genes. See www.antenatalscreening.wales.nhs.uk

Newborn Blood Spot Screening Wales

Nearly 34,000 newborn babies were screened, with fewer than 20 declines – an uptake rate of over 99%. See www.newbornbloodspotscreening.wales.nhs.uk
Newborn Hearing Screening Wales

More than 33,500 babies were screened for hearing loss, which is 99.4% of eligible births. Nearly 450 babies were referred for further investigation. Approximately 30 babies were diagnosed with a hearing loss.
See www.newbornhearingscreening.wales.nhs.uk

Diabetic Retinopathy Screening Service Wales

More than 156,300 patients were eligible for the service, an increase from the revised figure of approximately 150,000 in 2012/13. Of the total in 2013/14, more than 13,800 were new registrations. 115,344 results were reported during the year. 29.8% were found to have some degree of diabetic retinopathy. In 3.0% of cases, potential sight-threatening retinopathy was found. Around 20% of those screened aged 19 and under were found to have diabetic retinopathy. 60.3% of patients screened with Type 1 diabetes were found to have some degree of diabetic retinopathy, compared with 27.9% of patients who had Type 2 diabetes.
See www.cardiffandvaleuhb.wales.nhs.uk/drssw

Wales Abdominal Aortic Aneurysm Screening Programme

More than 15,000 men were screened with a definitive result in this time period and nearly 200 aneurysms were detected – a detection rate of 1.3%. Of these, six men were referred to the elective multidisciplinary team and the remainder were placed on surveillance.
See www.aaascreening.wales.nhs.uk

Highlights

- the Wales Abdominal Aortic Aneurysm Screening Programme was launched in May 2013. Data from May 2013 to March 2014 showed an overall uptake of 74.1% which is positive for a new programme
- sickle cell newborn blood spot testing was implemented in Wales in June 2013
- the age range and frequency of cervical screening was changed in September 2013 – starting age of screening up to 25 from 20 and the screening interval increased from 3 to 5 years for those aged 50-plus, bringing Wales in line with UK NSC policy
- in April 2014, Newborn Bloodspot Screening Wales was established as a programme under the governance of Public Health Wales. An information-based failsafe system was introduced in February 2014 to identify babies in Wales for whom a newborn blood spot screening sample had not been received in the newborn screening laboratory by day 14 of life
- a project was undertaken to enhance the usability and content of websites across all the Public Health Wales led programmes, including information for the public and professionals
- the Screening for Life campaign was launched, run by Public Health Wales to raise awareness of the national screening programmes and promote informed choice.