

Section 3: Children & Young People

Antenatal to Childhood screening



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Briefing (and hyperlink)	Section
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Smoking	Health promotion and preventative services
Screening	Health promotion and preventative services

Outcome Frameworks Summary

The Public Health Outcomes Framework for England, 2013-2016¹ outlines the overarching vision for public health as “to improve and protect the nation’s health and wellbeing, and improve the health of the poorest fastest”. The following indicators from this framework are relevant to this section.

Framework	Reference	Indicator
Public Health	2.1	Low birth weight of term babies
Public Health	2.21	Access to non-cancer screening programmes: (i) HIV (ii) syphilis, hepatitis B and susceptibility to rubella (iii) antenatal sickle cell and thalassaemia (iv) newborn blood spot (v) newborn hearing (vi) newborn physical examination
Public Health	4.1	Infant mortality

Edition

Edition	Version no.	Changes/Comments

Executive summary

The NHS screening agenda is driven by a range of NHS and Department of Health policies and standards. The UK National Screening Committee (UK NSC) currently recommends the offer of the following antenatal and newborn screening test:

- sickle cell and thalassaemia;
- infectious diseases in pregnancy;
- Down's syndrome and fetal anomaly ultrasound screening;
- newborn and infant physical examination
- newborn bloodspot
- newborn hearing

These are complemented by additional programmes in childhood around growth; hearing and vision.

Information on the current service provision and performance of the antenatal screening programmes in the South West is contained in the South West annual antenatal and child health screening report². The report highlights key achievements as well as challenges and priorities for improvement in the region.

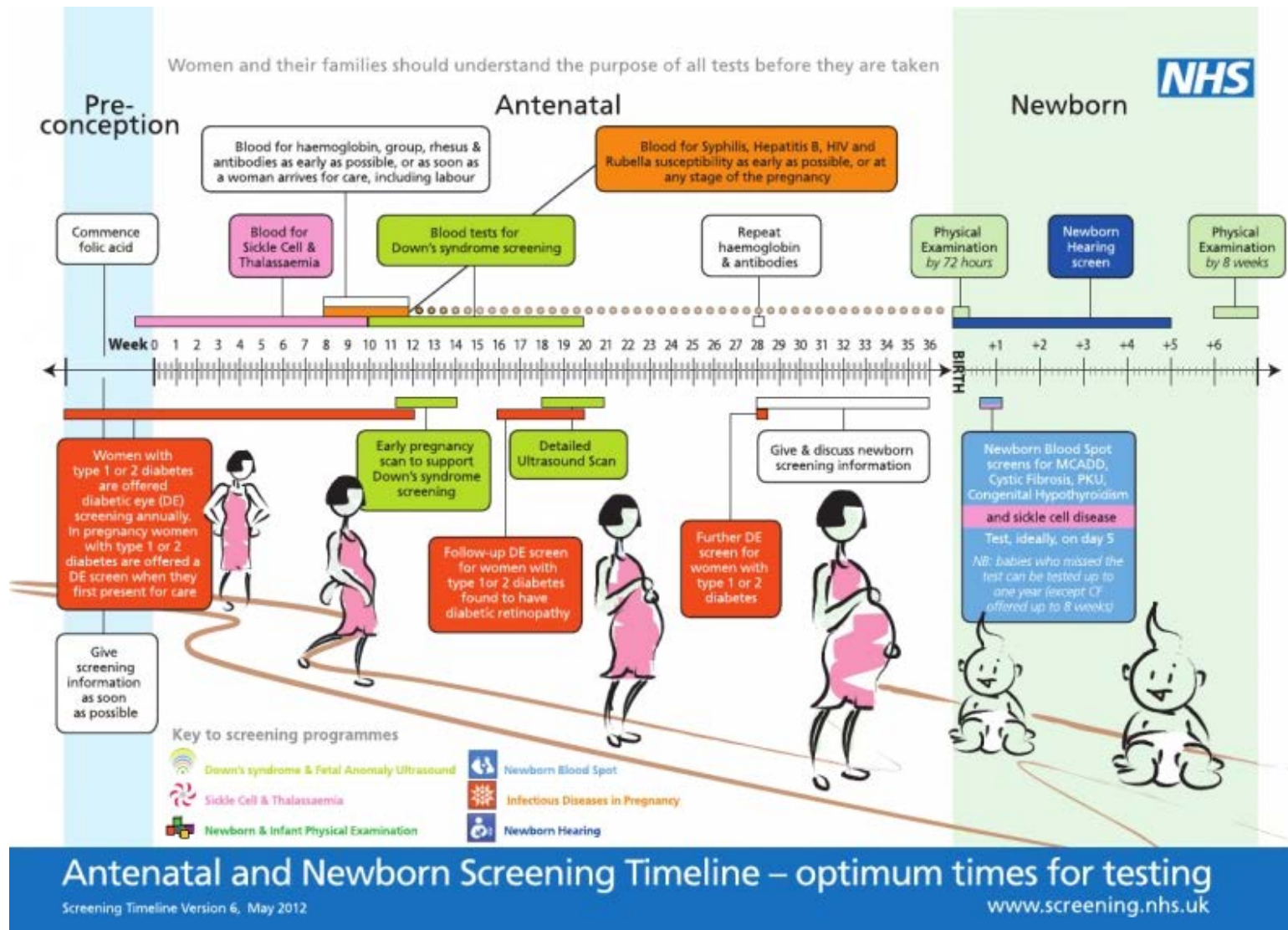
Many of the priorities for improvement highlighted in the report have since been addressed in Wiltshire. Current challenges locally centre around the need for better IT systems to improve links between laboratories and maternity services and to make it easier for services to monitor the effectiveness of screening programmes.

Why this area is important?

The underlying concept of screening is that early detection of risk factors or early disease is beneficial for the clinical or public health outcome.

Figure 1 shows the antenatal and newborn screening timeline in England.

Figure 1: antenatal and newborn screening timeline in England



Antenatal screening programmes

The following screening programmes are included as part of antenatal screening

- sickle cell and thalassaemia;
- infectious diseases in pregnancy;
- Down's syndrome and fetal anomaly ultrasound screening;

The [Review of Public Health Screening Programmes in NHS South West](#)³ report describes the aims, methodologies and performance of these screening programmes.

Further information on the current service provision and performance of the antenatal screening programmes in the South West is contained in the South West annual antenatal and child health screening report⁴. The report also highlights key achievements as well as challenges and priorities for improvement in the region.

Human Immunodeficiency Virus (HIV)

HIV is screened for as part of the infectious diseases in pregnancy programme and usefully demonstrates the importance and benefit of antenatal screening.

HIV can be passed from mother to baby during pregnancy, whilst giving birth or through breastfeeding. HIV is the virus which causes AIDS (Acquired Immune Deficiency Syndrome). Once infected, an individual requires on-going treatment for life.

The HIV test looks for antibodies to HIV. If the test is negative, it usually means that the mother is not infected with HIV. However, it can take up to three months for antibodies to develop, so if a pregnant woman thinks she may have been at risk of exposure to the HIV virus recently, it is important to discuss this with her midwife.

If a pregnant mother is found to have the HIV infection, interventions can be employed to prevent mother to child transmission of the virus. The treatment may also help to keep the mother in better health. Discussions regarding offer of testing to sexual partners and any other children can be offered if required.

In 2011 in the South West there was over 95% uptake of HIV screening and the antenatal screening programme in the South West identified 5 newly diagnosed HIV positive women⁵.

Newborn screening programmes

The following screening programmes are included as part of newborn screening

- newborn and infant physical examination
- newborn bloodspot

- newborn hearing

The [Review of Public Health Screening Programmes in NHS South West](#)⁶ report describes the aims, methodologies and performance of these screening programmes.

Further information on the current service provision and performance of the newborn screening programmes in the South West is contained in the South West annual antenatal and child health screening report⁷. The report also highlights key achievements as well as challenges and priorities for improvement in the region.

The Atlas of Variation⁸ indicators on hearing include the mean time from referral to assessment for hearing tests in newborns. Wiltshire was found to be in the top performing quintile for this indicator, i.e. it had a low mean time to assessment. http://www.rightcare.nhs.uk/atlas/downloads/Hearing_AoV_2011.pdf. Congenital deafness has a major impact on child development. Early identification by the NHS Newborn Hearing Screening Programme (NHSP) greatly reduces this impact.

Childhood screening programmes

Table 1 describes the childhood screening programmes currently in place.

Table 1: Children's screening programmes⁹

Growth	Height and weight should be measured around the time of school entry. The measurements can be used to identify growth disorders, and are an important public health population measurement.
Hearing	Screening for hearing impairment is offered to school-aged children.
Vision	Screening for visual impairment is offered at age 4–5 years.

Information on the National Childhood Measurement Programme can be found in the [Children and Young People obesity section](#).

Diabetic retinopathy screening is offered to people with diabetes aged 12 and above. Information on this screening programme can be found in the [diabetes section](#)

What works and what resources are there?

UK Screening Portal

This is the website of the UK National Screening Committee (UK NSC). They advise Ministers and the NHS on screening in each of the UK countries.

<http://www.screening.nhs.uk/>

UK Newborn Screening Programme Centre

The UK Newborn Screening Programme Centre has responsibility for developing, implementing and maintaining a high quality, uniform screening programme for all newborn babies and their parents. <http://newbornbloodspot.screening.nhs.uk/>

Key performance indicators

UK National Screening Committee (2011) Key Performance Indicators for Screening 2011-2012. www.screening.nhs.uk/kpi

NHS Newborn Hearing Screening Programme

Facts about the NHS Newborn Hearing Screening Programme (NHSP)
<http://hearing.screening.nhs.uk/statistics>

Challenges for consideration

Current challenges for Wiltshire are:

- Explore the electronic links between pathology and maternity IT systems.
- Robust arrangements in place to ensure all aspects of the antenatal and newborn screening co-ordinator role are delivered irrespective of absence due to sickness or annual leave.
- Develop more robust systems and checks to improve communication between services locally to ensure timely and effective sharing of information when women transfer their care from one service to another during pregnancy
- Referral pathways in place to ensure all mothers and babies identified with screen positive results are appropriately referred and attend their appointment.
- Ensure all staff involved in antenatal screening programmes to continue to receive an annual update for all screening programmes and specific training when there are new revised standards.

Contact information

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¹ Department of Health

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358]

² Antenatal and Child Health Screening South West Region, Annual Report 2011-2012, NHS Screening Programmes and NHS South of England.

<http://www.screening.nhs.uk/southwest#fileid14313>

³ A Review of Public Health Screening Programmes in NHS South West, NHS South West, 30th June 2011

⁴ Antenatal and Child Health Screening South West Region, Annual Report 2011-2012, NHS Screening Programmes and NHS South of England.

<http://www.screening.nhs.uk/southwest#fileid14313>

⁵ Antenatal and Child Health Screening South West Region, Annual Report 2011-2012, NHS Screening Programmes and NHS South of England.

<http://www.screening.nhs.uk/southwest#fileid14313>

⁶ A Review of Public Health Screening Programmes in NHS South West, NHS South West, 30th June 2011

⁷ Antenatal and Child Health Screening South West Region, Annual Report 2011-2012, NHS Screening Programmes and NHS South of England.

<http://www.screening.nhs.uk/southwest#fileid14313>

⁸ <http://www.rightcare.nhs.uk/index.php/atlas/atlas-of-variation-2011/>

⁹ Mastering Public Health, Lewis, G, et al, , 2011, London. ISBN-13 9781853157813