NHS Health Check programme

Heather White
Deputy Branch Head
Vascular Programme
Department of Health

Free NHS Health Check
Helping you prevent heart disease, stroke, diabetes and kidney disease.
Background – impact of vascular disease

• Causes 36% of deaths (170,000 pa in England)

• Responsible for a fifth of all hospital admissions

• Especially in
  – deprived communities
  – South Asians - in the UK, mortality from CHD is currently 46% higher for men and 51% higher for women of SA origin than in the non-Asian population
Vascular disease makes up approximately a third of the difference in life expectancy between spearhead areas and the rest of England.

Type II diabetes –
• a growing public health concern
• prevalence is increasing
• contributes significantly to health inequalities

Offers a real opportunity to tackle health inequalities
Background - progress so far

National Service Frameworks and Stroke Strategy

Highlight need for prevention

Previous gains under threat:
- aging population
- rising tide of obesity
- sedentary lifestyles
The Diabetes, Heart Disease and Stroke Prevention Project: identification of people with diabetes in the general population is best achieved through targeted screening along with other vascular disease

The National Screening Committee recommended:
“the introduction of a vascular risk management programme in which the whole population would be offered a risk assessment that could include, among other risk factors, measurement of blood pressure, cholesterol and glucose”

UK NSC Policy Position Chart, November 2007
Purpose of the programme

- A single universal programme for everyone aged 40-74 in England (3 million checks a year; 15 million cohort)
- A preventive programme – not screening for disease
- A risk assessment and management programme
- Risk management key
- To help people stay well for longer

Clinically and cost effective
The NHS Health Check

• Straightforward questions and simple blood test
• Measure risk of heart disease, stroke, diabetes and chronic kidney disease
• Set out how to reduce risk/maintain low risk
• Offer tailored package of prevention
• Repeat check after 5 years – call and recall system
• Suitable for a variety of settings e.g. pharmacies and community facilities

Clinically and cost effective
Impact of the programme

Each year will prevent at least:

- 1,600 heart attacks and strokes
- 4000 people developing diabetes
- detect 20,000 cases diabetes and kidney disease early

[Prevention figures are cautious estimates based only on known effective management applied to those at high risk]
National programme/ local delivery

National programme:
• set of core tests which are consistently and systematically delivered across the country

Locally delivered:
• PCTs decide how best to implement in their areas to broaden coverage and reduce not widen health gaps

Implementation:
• phased from 2009/10
• At full roll out, 1/5\textsuperscript{th} cohort to be invited each year
• Coalition Government is committed to the programme

Clinically and cost effective
NHS Health Check Programme

Risk assessment
- Age
- Gender
- Smoking status
- Physical activity
- Family history
- Ethnicity
- Body Mass Index
- Cholesterol test
- BP Measure
- Diabetes filter: BMI BP measure

Communication of risk
- Sign post or refer to lifestyle interventions

Risk Management
- Behaviour change tool e.g. Mid Life LifeCheck
- NHS stop smoking services referral
- Exercise on prescription or other physical activity intervention
- Weight management on referral
- IFG/IGT lifestyle management advice

High Blood sugar test
- Oral Glucose Tolerance test
- DM
- Statins prescription offered
- Anti-hypertensives prescription
- Assessment for hypertension
- High
- Serum Creatinine
- CKD assessment
- eGFR Low

Key:
- DM: Diabetes Mellitus
- eGFR: estimated Glomerular Filtration Rate
- IFG: Impaired Fasting Glucose
- IGT: Impaired Glucose Tolerance
- CKD: Chronic Kidney Disease

Initially, PCTs decide which people to call first and where the checks can be accessed (e.g. General Practice, pharmacy etc) bearing in mind the need to tackle health inequalities.

All to be undertaken by GP Practice Team
- *or professionals with suitable patient information and prescribing rights

^People recalled to separate appointments for diagnosis
Checking for diabetes risk

Person aged 40 – 74 without diagnosed existing vascular disease

BMI ≥ 30 (or ≥ 27.5 if South Asian) or BP ≥ 140/90

no

BMI ≥ 30 (or ≥ 27.5 if South Asian) or BP ≥ 140/90

no

No further testing

HbA1c

≥ 6.5% / 48mmol/mol (no symptoms)

≥ 6% / 42 mmol/mol to < 6.5% / 48mmol/mol

≥ 7 mmol/l (symptoms)

≥ 7 mmol/l (no symptoms)

≥ 6 to < 7 mmol/l

< 6 mmol/l

OGTT

2hr glucose

2hr glucose

2hr glucose

7.8 - 11.0 mmol/l

≥ 11.1 mmol/l

Healthy lifestyle advice

Healthy lifestyle advice

Non-diabetic hyperglycaemia: intensive lifestyle advice

Non-diabetic hyperglycaemia: intensive lifestyle advice

Diabetes diagnosis: See boxes 4 and 5

≥ 6.5% / 48mmol/mol (symptoms)

≥ 6.5% / 48mmol/mol

< 6.5% / 48mmol/mol

 ≥ 11.1 mmol/l

≥ 6 to < 7 mmol/l

≥ 7 mmol/l (no symptoms)

≥ 7 mmol/l (symptoms)

OGTT

7.8 - 11.0 mmol/l

≥ 6.5% / 48mmol/mol

< 6 % / 42 mmol/mol

FPG

≥ 7 mmol/l (symptoms)

≥ 6 to < 7 mmol/l

< 6 mmol/l
Diabetes prevention - benefits

• Up to 9700 cases of diabetes prevented each year through non diabetic hyperglycaemia detection and lifestyle interventions

• Figures higher in early years because of undetected prevalent IGF

• Average 7900 cases a year prevented in first 4 years
## Savings from NHS Health Check programme

<table>
<thead>
<tr>
<th></th>
<th>Averted strokes</th>
<th>Averted MIs</th>
<th>Diabetes prevented</th>
<th>Diabetes detected early</th>
<th>CKD detected early</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 year average</strong></td>
<td>£5m.</td>
<td>£4m.</td>
<td>£40m.</td>
<td>£1m.</td>
<td>£7m.</td>
<td>£57m.</td>
</tr>
<tr>
<td><strong>10 year average</strong></td>
<td>£9m.</td>
<td>£6m.</td>
<td>£94m.</td>
<td>£1m.</td>
<td>£21m.</td>
<td>£132m.</td>
</tr>
<tr>
<td><strong>15 year average</strong></td>
<td>£12m.</td>
<td>£7m.</td>
<td>£122m.</td>
<td>£2m.</td>
<td>£32m.</td>
<td>£176m.</td>
</tr>
</tbody>
</table>
Diabetes prevention - savings

- By year 15, they are 15 times the year 1 level.

- Savings derive from direct costs of diabetes, and also from averted strokes, MIs, blindness, amputations and renal replacement therapy.

- Savings from diabetes prevention in year 5 are 8 times as high as those in year 1.
Diabetes prevention

• The higher savings over time arise as the population in which diabetes has been prevented grows.

• Diabetes prevented in a single year creates a long-term stream of savings.
Progress on diabetes risk assessment

• Most challenging aspect of the risk assessment for PCTs
• Difficult to wean off random glucose as a filter
• Some resistance to use of HbA1c
  – not WHO gold standard
  – perceived cost (equipment and lab testing)
• General lack of understanding about the importance of identifying and managing pre diabetes
• Working with PCTs to ensure they understand the costs and benefits and have management programmes in place
Treatment of pre diabetes: anecdotal evidence

Lack of clarity within PCTs about what they should be doing to manage pre diabetes:

- some are offering chat with the nurse
- not clear how to use existing services
- not sure what is meant by an intensive lifestyle intervention
- NHS Diabetes and Kidney Care trying to identify examples of evidence based interventions which reduce 5% of body weight