NHS England
Getting Serious About Prevention

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NHS England and Public Health England
“The NHS needs a radical upgrade in prevention if it is to be sustainable”

5 year Forward View 2014
Prevention works

Fig 6. Number of avoidable deaths among under-75s in England (2010)\(^8\)

- Not avoidable, 50,000
- Preventable only, 50,000
- Amenable only, 19,000
- Preventable & amenable, 34,000

Two thirds of premature deaths are avoidable through prevention or better treatment
The burden of cardiovascular disease

Premature death rates from cardiovascular disease in the most deprived 10% of the population were almost twice as high as the least deprived 10% of the population in 2012-14.

1 in 4 premature deaths caused by cardiovascular disease.

27% of all deaths caused by cardiovascular disease.

Cardiovascular disease costs the NHS £6.8 billion a year.

7 million people in the UK affected by cardiovascular disease.
CVD dramatic fall in mortality

Total CVD mortality declined by 68% between 1980 and 2013 in the UK

Ref: Bhatnagar et al, Heart Online, 2016

Figure 1: Age-standardised death rates per 100,000 from cardiovascular disease, all ages, UK and England, Wales, Scotland, Northern Ireland, 1979-2013.
CVD – dramatic rise in primary care management

From 1981 to 2014
7-fold increase in CVD prescriptions in England

Ref: British Heart Foundation, 2015
A population getting older …
And a population getting bigger

Health Survey for England 1993-2014 (3-year average)

- Women
- Men

Adult (aged 16+) obesity, BMI ≥ 30 kg/m². Three year average of published prevalence figures.
Global Burden of Disease Study 2013
Leading causes of premature death and disability in England
Getting serious about prevention – What’s the role of the NHS?

1. Advocate for population level interventions
2. Support for individual behaviour change
3. Early diagnosis and optimal treatment of the high risk conditions
1. Primary prevention – population measures

- **National action**
  - Tobacco restrictions, obesity strategy, sugar tax, food reformulation and labelling

- **Local action**
  - Place based approach of STPs
  - Local Authority, NHS, employers, schools, communities as partners
  - Planning, licensing, marketing, active transport, healthy workplace, etc

- **Opportunity for NHS leadership through STPs**
2. Primary Prevention – support for behaviour change

One million daily consultations across primary care

- Multiple opportunities to identify lifestyle risk factors, provide brief interventions and signpost.

Systematic support to make this more effective:

- NHS Health Check Programme
- Diabetes Prevention Programme
- One You, All our Health
- New models of social prescribing and wellbeing hubs linked to practices
3. Secondary prevention in high risk conditions
Secondary Prevention
The high risk conditions for CVD

- BP
- AF
- Heart attack
- Stroke
- PVD
- CKD
- Dementia
- ‘Pre-diabetes’
- Diabetes
- Cholesterol

But late diagnosis and suboptimal treatment are common
These conditions are high risk

- High Blood Pressure: Contributes to half of all strokes and heart attacks
- Atrial Fibrillation: 5-fold increase in stroke risk and more likely to kill & disable
- High Cholesterol: Progressive increase in risk of heart attacks and strokes
Treatment is VERY effective at preventing heart attacks and strokes.

High Blood Pressure
- Contributes to half of all strokes and heart attacks
- Every 10 mmHg BP reduction reduces risk of CV event by 20%

Atrial Fibrillation
- 5-fold increase in stroke risk, more likely to kill/disable
- Anticoagulation reduces strokes by 2/3 in high risk AF

High Cholesterol
- Progressive increase in risk of heart attack/stroke
- Every 1 unit reduction lowers risk of CV event by 25% each year
<table>
<thead>
<tr>
<th>Condition</th>
<th>Diagnosed</th>
<th>Number of People (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Blood Pressure</td>
<td>Controlled to 140/90</td>
<td>6 in 10*</td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>Known AF and on anticoagulant at time of stroke</td>
<td>1 in 2*</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>10 year CVD risk above 20% and on statins</td>
<td>1 in 2*</td>
</tr>
</tbody>
</table>

(*with wide geographical variation)
1. Improving detection and treatment in high BP, high cholesterol and atrial fibrillation would significantly improve outcomes

2. For example, NICE has modelled that if all appropriate patients with AF received anticoagulants, there would be **10,000 fewer strokes in England every year**

3. If we only improved treatment in half the eligible patients, that would still prevent 5,000 strokes per year – **that’s 25 strokes in every CCG**
Supporting primary care to get serious about CVD prevention

Welcome to

NHS HEALTH CHECK

Helping you prevent
- diabetes
- heart disease
- kidney disease
- stroke & dementia

NHS RightCare
Reducing unwarranted variation to improve people’s health.

Cardiovascular Disease Prevention
optimal value pathway
### NHS RightCare CVD Prevention

#### Optimal Value Pathway

**Cardiovascular Disease Prevention:**
Risk Detection and Management in Primary Care

### The Interventions

<table>
<thead>
<tr>
<th>Cross Cutting</th>
<th>High BP detection and treatment</th>
<th>AF detection &amp; anticoagulation</th>
<th>Detection, CVD risk assessment, treatment</th>
<th>Type 2 Diabetes preventive intervention</th>
<th>Diabetes detection and treatment</th>
<th>CKD detection and management</th>
</tr>
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<tbody>
<tr>
<td>1. NHS Health Check - systematic detection of high BP, AF, NDH, T2DM, CKD, high cholesterol, CVD risk</td>
<td>5 million un-diagnosed, 40% poorly controlled</td>
<td>30% undiagnosed. Over half untreated or poorly controlled</td>
<td>85% of FH undiagnosed. Most people at high CVD risk don't receive statins</td>
<td>5 million with NDH, Most do not receive intervention</td>
<td>940k undiagnosed. 40% do not receive all 8 care processes</td>
<td>1.2m undiagnosed. Many have poor BP &amp; proteinuria control</td>
</tr>
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### The Opportunities

- BP lowering prevents strokes and heart attacks
- Anticoagulation prevents 2/3 of strokes in AF
- Behaviour change and statins reduce lifetime risk of CVD
- Intensive behaviour change (e.g. Nhs CPP) reduces T2DM risk 30-60%
- Control of BP, HbA1c and lipids improves CVD outcomes
- Control of BP, CVD risk and proteinuria improves outcomes

### The Evidence

- **Blood Pressure**
- **Atrial Fibrillation**
- **High CVD risk & Familial H/cholesterol**
- **Non Diabetic Hyperglycaemia ('pre-diabetes')**
- **Type 1 and 2 Diabetes**
- **Chronic Kidney Disease**

### Detection and 2°/3° Prevention

- **Blood Pressure**
- **50% of all strokes & heart attacks, plus CKD & dementia**
- **AF detection & anticoagulation**
- **5-fold increase in strokes, often of greater severity**
- **Detection, CVD risk assessment, treatment**
- **Marked increase in premature death and disability from CVD**
- **Type 2 Diabetes preventive intervention**
- **Marked increase in Type 2 DM and CVD at an earlier age**
- **Diabetes detection and treatment**
- **Marked increase in heart attack, stroke, kidney, eye, nerve damage**
- **CKD detection and management**
- **Increase in CVD, acute kidney injury & renal replacement**
1. **Local clinical leadership** – GP, nurse, consultant, pharmacist, public health, commissioner, patient

2. **Local intelligence** – how well are we doing and how many strokes and heart attacks could we prevent by doing better

3. **Clarity of vision** - relentless local focus on the size of the prize

4. **Doing things differently** – high impact interventions
   - Mobilising the wider system to support general practice
   - Expanded role for pharmacists in diagnosis and management
   - Self testing and self monitoring
   - New technologies eg AliveCor, WatchBP
   - Boosting NHS Health Check uptake
   - Improvement at scale eg Bradford Healthy Hearts
“The NHS needs a radical upgrade in prevention if it is to be sustainable”
5 year Forward View 2014
Thank You
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