

# **NHS England**

# **Getting Serious About Prevention**

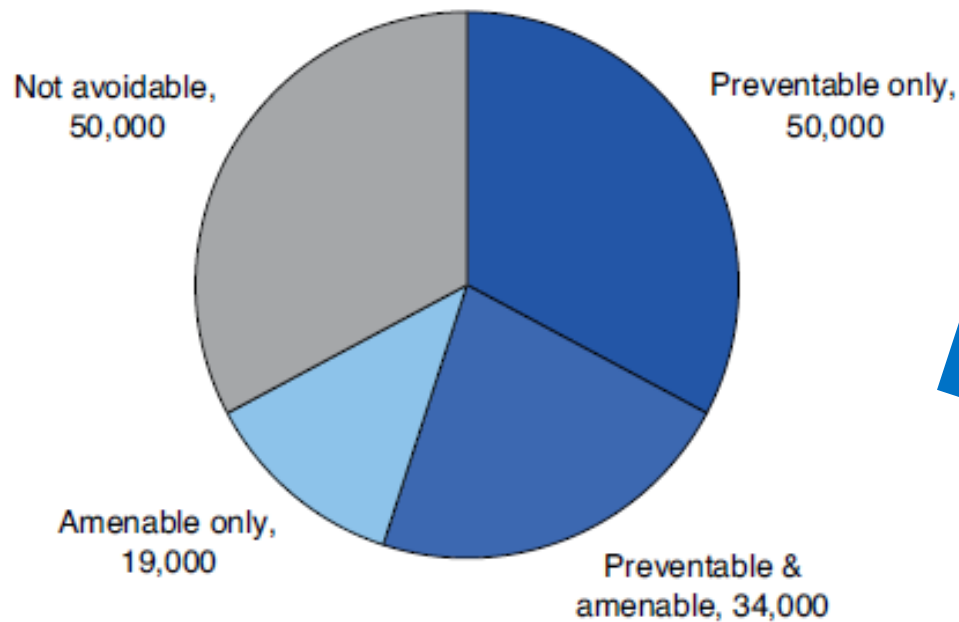
**Dr Matt Kearney**

GP and National Clinical Director for Cardiovascular Disease Prevention  
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**

Fig 6. Number of avoidable deaths among under-75s in England (2010)<sup>8</sup>

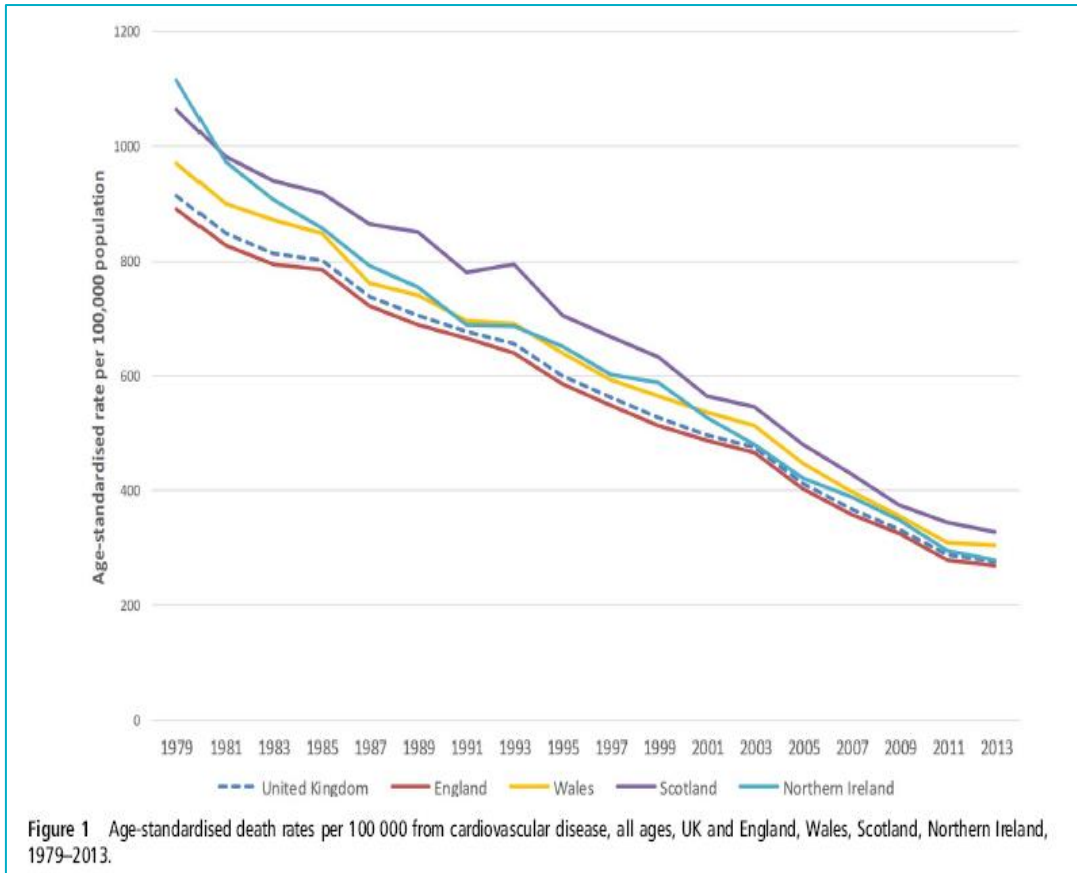


Two thirds of premature deaths are avoidable through prevention or better treatment

# The burden of cardiovascular disease



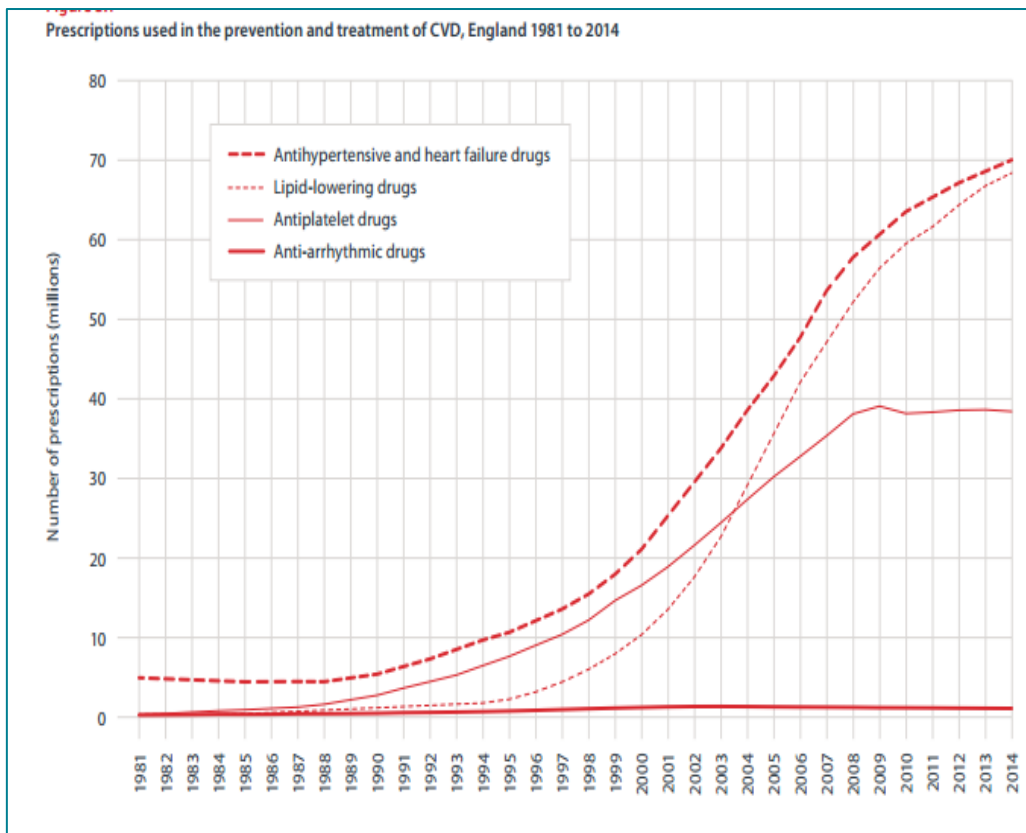
# CVD dramatic fall in mortality



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

Ref: Bhatnagar et al, Heart Online, 2016

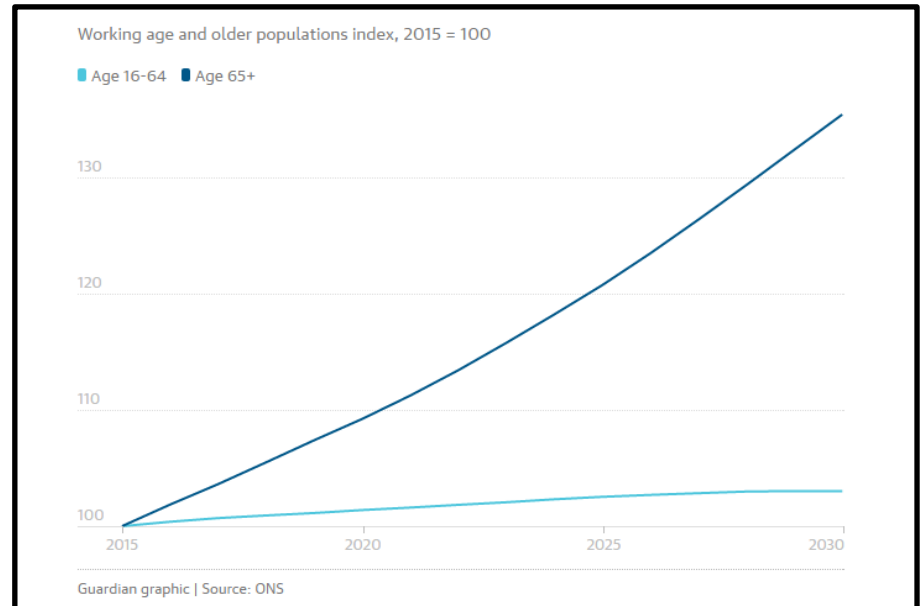
# CVD – dramatic rise in primary care management



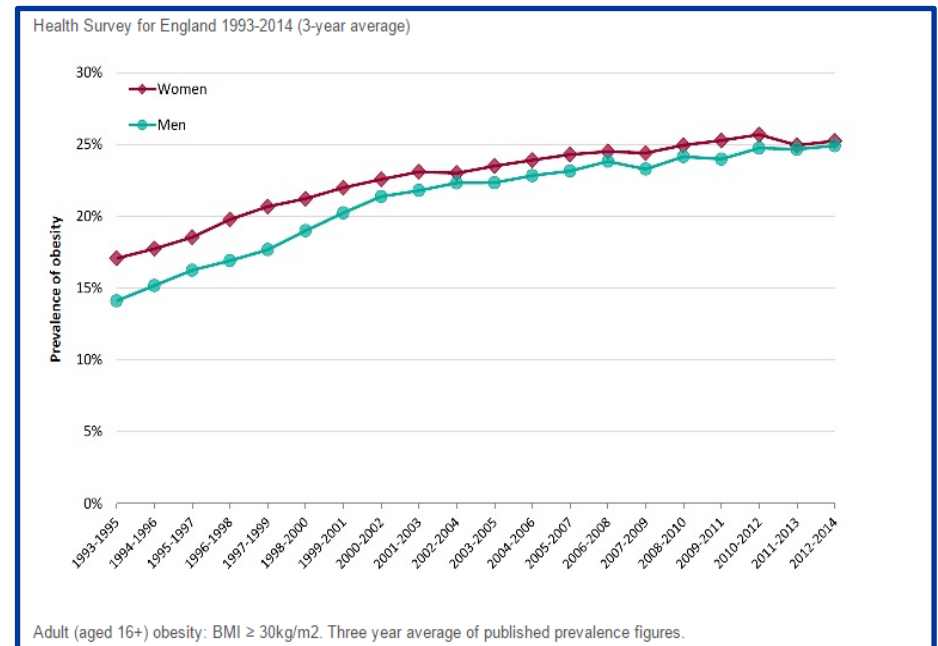
**From 1981 to 2014  
7-fold increase in  
CVD prescriptions  
in England**

Ref: British Heart  
Foundation, 2015

# A population getting older ...



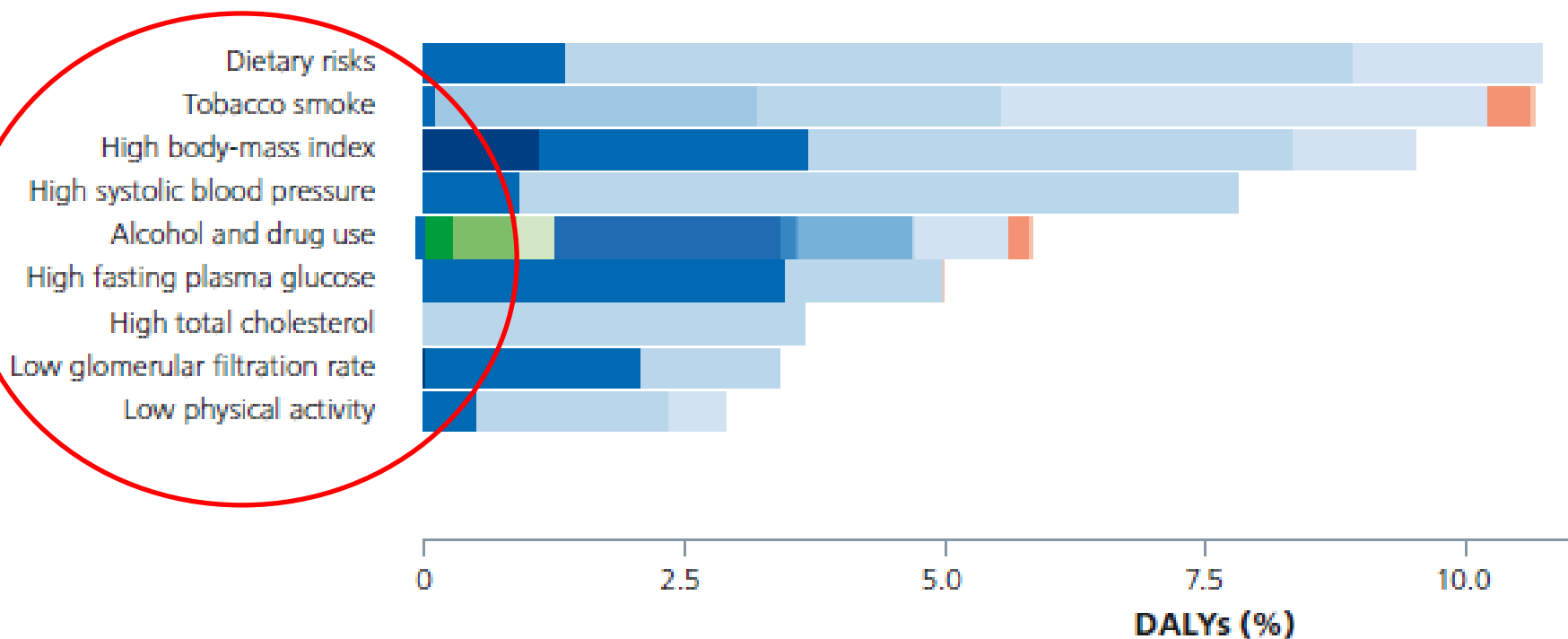
# And a population getting bigger





# Global Burden of Disease Study 2013

## Leading causes of premature death and disability in England



**KEY**

- HIV/AIDS and tuberculosis
- Diarrhoea, lower respiratory, and other common infectious diseases
- Maternal disorders
- Nutritional deficiencies
- Other communicable, maternal, neonatal, and nutritional diseases
- Neoplasms
- Cardiovascular diseases
- Chronic respiratory diseases
- Cirrhosis
- Digestive diseases
- Neurological disorders
- Mental and substance use disorders
- Diabetes, urogenital, blood, and endocrine diseases
- Musculoskeletal disorders
- Other non-communicable diseases
- Transport injuries
- Unintentional injuries
- Self-harm and interpersonal violence

# 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.

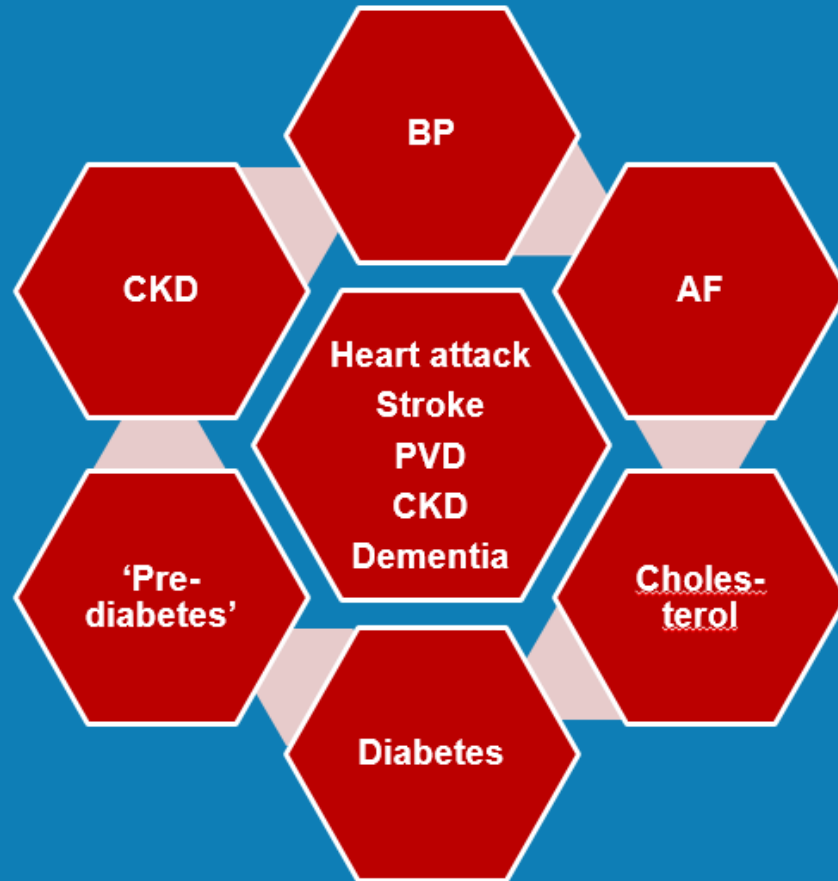
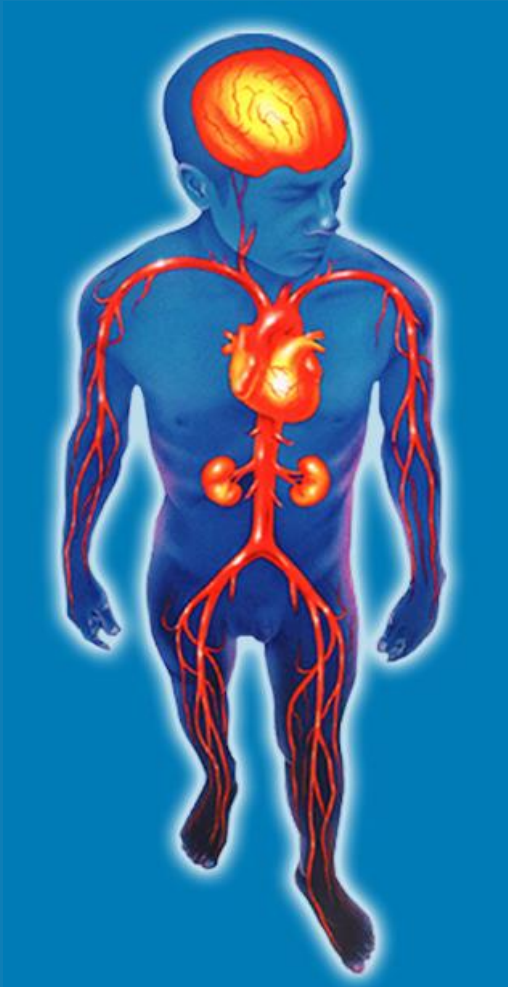
**Systematic support to make this more effective:**

- 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



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 10mmHg 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**



# But many people at high risk do not receive optimal therapy

High Blood Pressure	Diagnosed Controlled to 140/90	6 in 10* 6 in 10*
Atrial Fibrillation	Known AF and on anticoagulant at time of stroke	1 in 2*
High Cholesterol	10 year CVD risk above 20% and on statins	1 in 2*

(\*with wide geographical variation)

## Plugging the CVD Prevention Gap – the size of the prize

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

The banner features a blue background with a faint anatomical illustration of a human torso showing the heart and major blood vessels. The text is arranged in a clean, modern layout with a mix of white and blue colors.



**NHS RightCare**

Reducing unwarranted variation to improve people's health.

**Cardiovascular Disease  
Prevention**

*optimal value pathway*

The banner is enclosed in a dark blue border. On the left side, there is a graphic of several curved lines in shades of blue and green, representing a pathway or data flow. The text is positioned to the right of this graphic, with the main title in a large, bold, dark blue font.

# NHS RightCare CVD Prevention

## Optimal Value Pathway

Preventing heart attacks & strokes – at scale & pace



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

The Interventions	<b>Cross Cutting:</b> 1. NHS Health Check - systematic detection of high BP, AF, NDH, T2DM, CKD, high cholesterol, CVD risk 2. System level action to support guideline implementation by clinicians 3. Support for patient activation, individual behaviour change and self management					
	<b>High BP detection and treatment</b>	<b>AF detection &amp; anticoagulation</b>	<b>Detection, CVD risk assessment, treatment</b>	<b>Type 2 Diabetes preventive intervention</b>	<b>Diabetes detection and treatment</b>	<b>CKD detection and management</b>
The Opportunities	5 million un-diagnosed. 40% poorly controlled	30% undiagnosed. Over half untreated or poorly controlled	85% of FH undiagnosed. Most people at high CVD risk don't receive statins	5 million with NDH. Most do not receive intervention	940k undiagnosed. 40% do not receive all 8 care processes	1.2m undiagnosed. Many have poor BP & proteinuria control
The Evidence	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 (eg NHS DPP) reduces T2DM risk 30-60%	Control of BP, HbA1c and lipids improves CVD outcomes	Control of BP, CVD risk and proteinuria improves outcomes
The Risk Condition	<b>Blood Pressure</b>	<b>Atrial Fibrillation</b>	<b>High CVD risk &amp; Familial H/cholesterol</b>	<b>Non Diabetic Hyperglycemia ('pre-diabetes')</b>	<b>Type 1 and 2 Diabetes</b>	<b>Chronic Kidney Disease</b>

### Detection and 2°/3° Prevention

The Outcomes	50% of all strokes & heart attacks, plus CKD & dementia	5-fold increase in strokes, often of greater severity	Marked increase in premature death and disability from CVD	Marked increase in Type 2 DM and CVD at an earlier age	Marked increase in heart attack, stroke, kidney, eye, nerve damage	Increase in CVD, acute kidney injury & renal replacement
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# NHS RightCare – driving CCG focus on CVD prevention

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

Cardiovascular Disease Prevention: Risk Detection and Management in Primary Care						
1. NHS Health Check - systematic detection of high BP, Af, NHA, T2DM, CVD, high cholesterol, CVD risk 2. System level action to support guideline implementation by clinicians 3. Support for patient activation, individual behaviour change and self management						
<b>The Interventions</b>	<b>Cross Cutting:</b> High BP detection and treatment	<b>Af detection &amp; anticoagulation</b>	<b>Detection, CVD risk assessment, treatment</b>	<b>Type 2 Diabetes preventive intervention</b>	<b>Diabetes detection and treatment</b>	<b>CKD detection and management</b>
<b>The Opportunities</b>	5 million un-diagnosed, often poorly controlled	50% undiagnosed, often not detected or poorly controlled	80% of FH individuals, most people at high CVD risk don't receive statins	5 million with NCDs that do not receive interventions	94% undiagnosed, 40% do not receive all 4 cases processes	1.2m undiagnosed, many have poor BP & proteinuria control
<b>The Evidence</b>	BP screening prevents strokes and heart attacks	Anticoagulation prevents 2/3 of strokes in Af	Behaviour change and statins reduce incidence risk of CVD	Intensive behavioural change (eg NHS Change4Life) improves CVD outcomes	Control of BP, HbA1c and lipids improves CVD outcomes	Control of BP, CVD risk and proteinuria improves outcomes
<b>The Risk Condition</b>	Blood Pressure	Atrial Fibrillation	High CVD risk & Familial Hx cholesterol	Non Diabetic Hyperglycaemia (pre-diabetes)	Type 1 and 2 Diabetes	Chronic Kidney Disease
<b>Detection and 2°/3° Prevention</b> ❤️						
<b>The Outcomes</b>	50% of all strokes & heart attacks, plus CVD & dementia	5-fold increase in strokes, often of greater severity	Marked increase in premature death and disability from CVD	Marked increase in Type 2 DM and CVD in men under age	Marked increase in heart attack, stroke, kidney, eye, nerve damage	Increase in CVD, acute kidney injury & renal replacement

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upgrade in prevention if it  
is to be sustainable”***

**5 year Forward View 2014**

**Thank You**  
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