



British Heart
Foundation

Opportunities to enhance FH detection via the NHS Health Check programme

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**FIGHT
FOR EVERY
HEARTBEAT**

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Section 5.2

‘Individuals whose cholesterol level >7.5 mmols and have a family history of premature CHD should be referred for consideration of FH **and** for cascade testing of family members if a FH diagnosis is confirmed’.



Public Health
England

Protecting and improving the nation's health

NHS Health Check
Best practice guidance

December 2017

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Cardiovascular Disease Prevention: Risk Detection and Management in Primary Care

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|---------------------------|--|---|---|--|---|---|
| The Interventions | Cross Cutting: 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 | | | | | |
| | High BP detection and treatment | AF detection & anticoagulation | Detection, CVD risk assessment, treatment | Type 2 Diabetes preventive intervention | Diabetes detection and treatment | CKD detection and management |
| 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 | Blood Pressure | Atrial Fibrillation | High CVD risk & Familial H/cholesterol | Non Diabetic Hyperglycemia ('pre-diabetes') | Type 1 and 2 Diabetes | Chronic Kidney Disease |

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 |
|---------------------|---|---|--|--|--|--|



New NICE 2017 Recommendation

- Systematically search primary care records for people:
 - younger than 30 years, with a total cholesterol concentration greater than 7.5 mmol/l **and**
 - 30 years or older, with a total cholesterol concentration greater than 9.0 mmol/l

as these are the people who are at highest risk of FH.

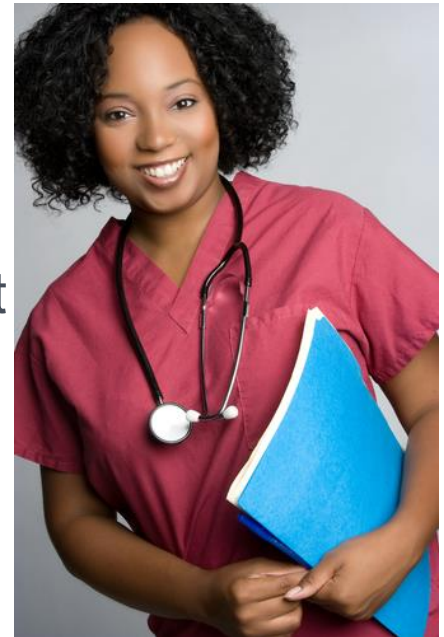
This should allow identification of thousands of new possible FH cases for referral and cascade testing



Example of a 'Bench to Bedside' project Familial Hypercholesterolaemia (FH)

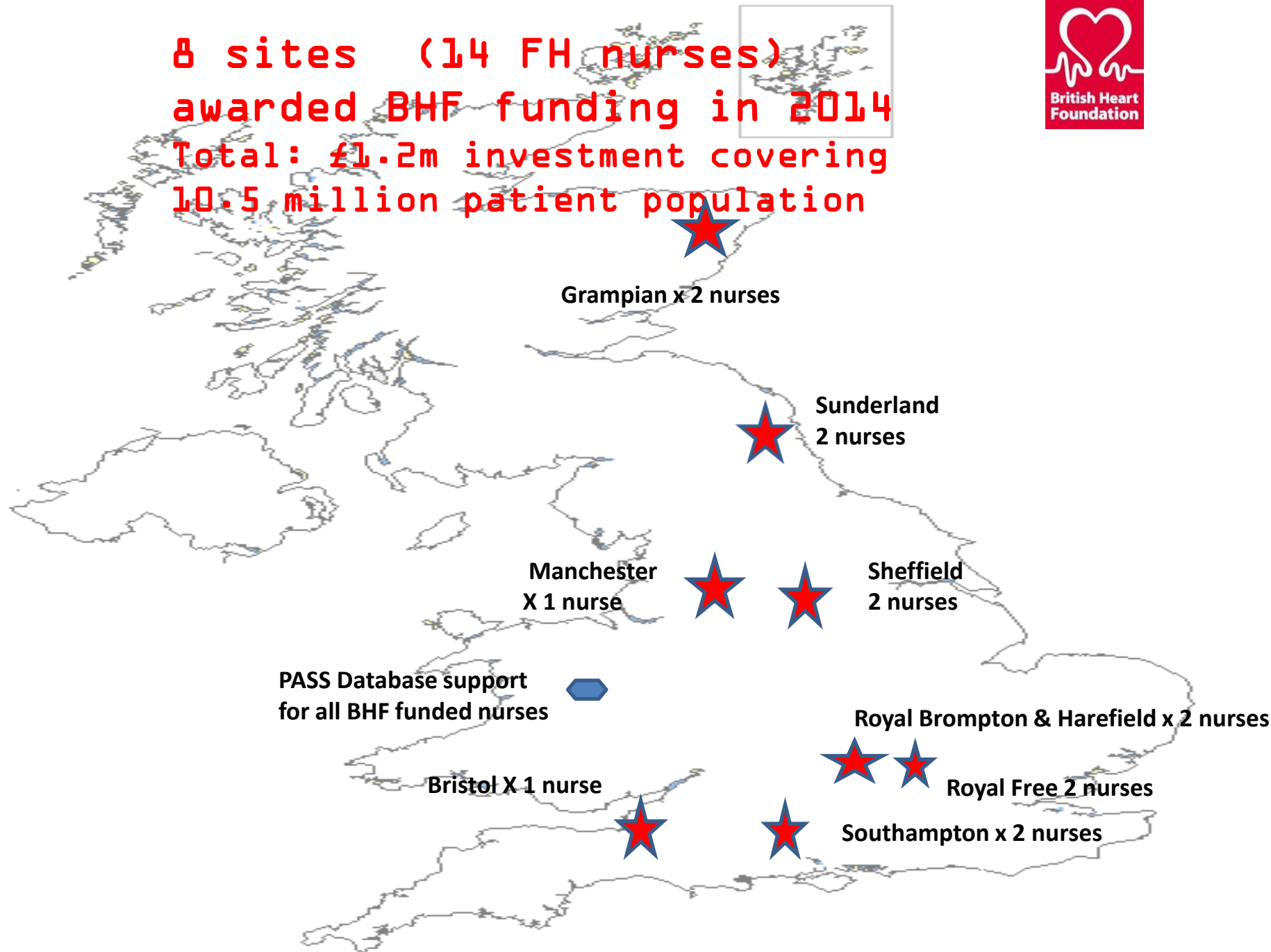
1 in 250 people living with inherited FH

- From initial pilot in Wales, the BHF have since funded 27 FH nurse posts delivering the roll out of FH cascade testing services across 12 sites in England and Scotland to increase the identification, diagnosis and optimal management of people with FH to reduce risk of premature and avoidable CVD deaths.





**8 sites (14 FH nurses)
awarded BHF funding in 2014
Total: £1.2m investment covering
10.5 million patient population**



FH AWARDS 2015:
Total: £900,000 investment
covering approx. 11.5 million
patient population

Western Isles x 0.5 nurse

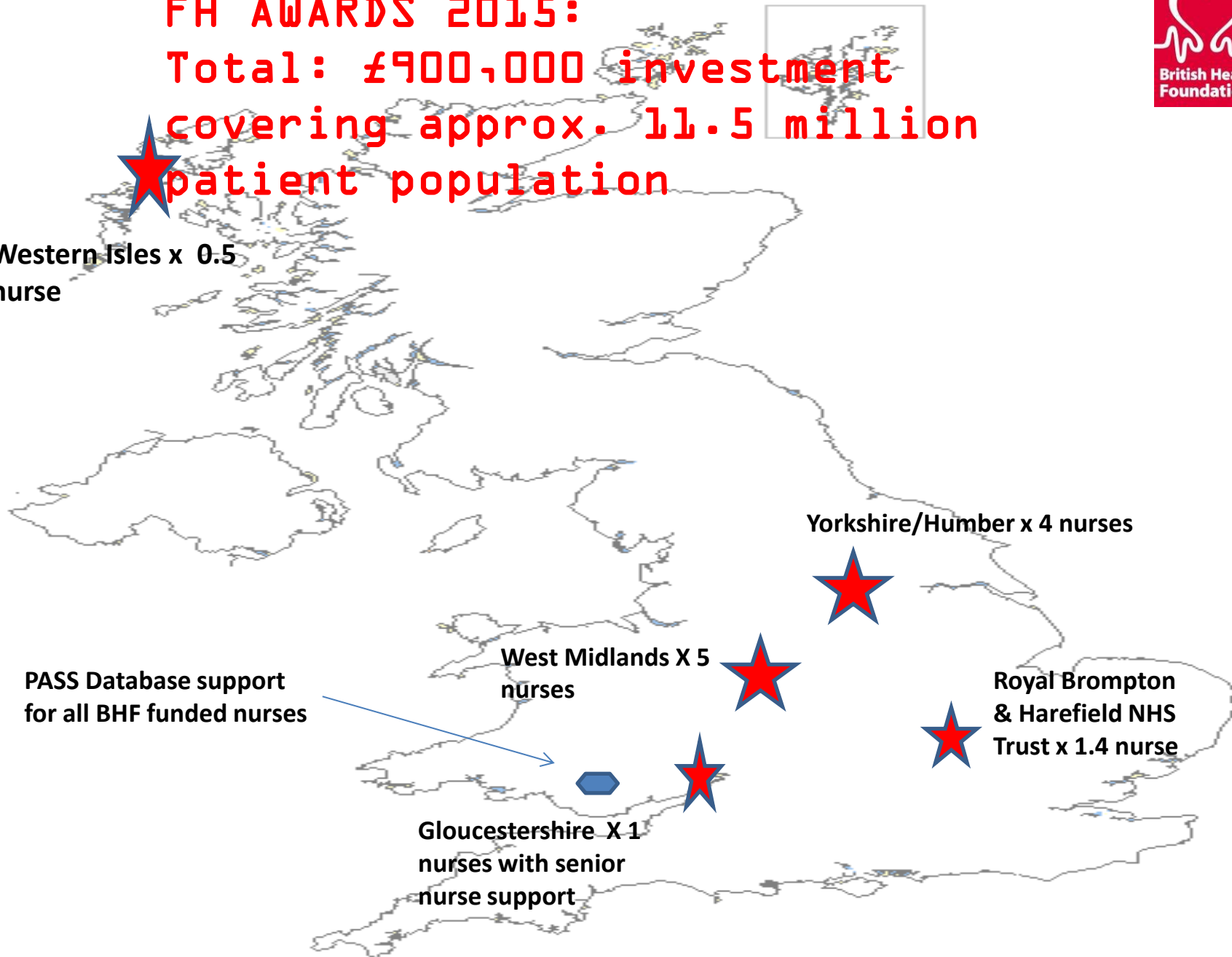
Yorkshire/Humber x 4 nurses

PASS Database support for all BHF funded nurses

West Midlands X 5 nurses

Royal Brompton & Harefield NHS Trust x 1.4 nurse

Gloucestershire X 1 nurses with senior nurse support

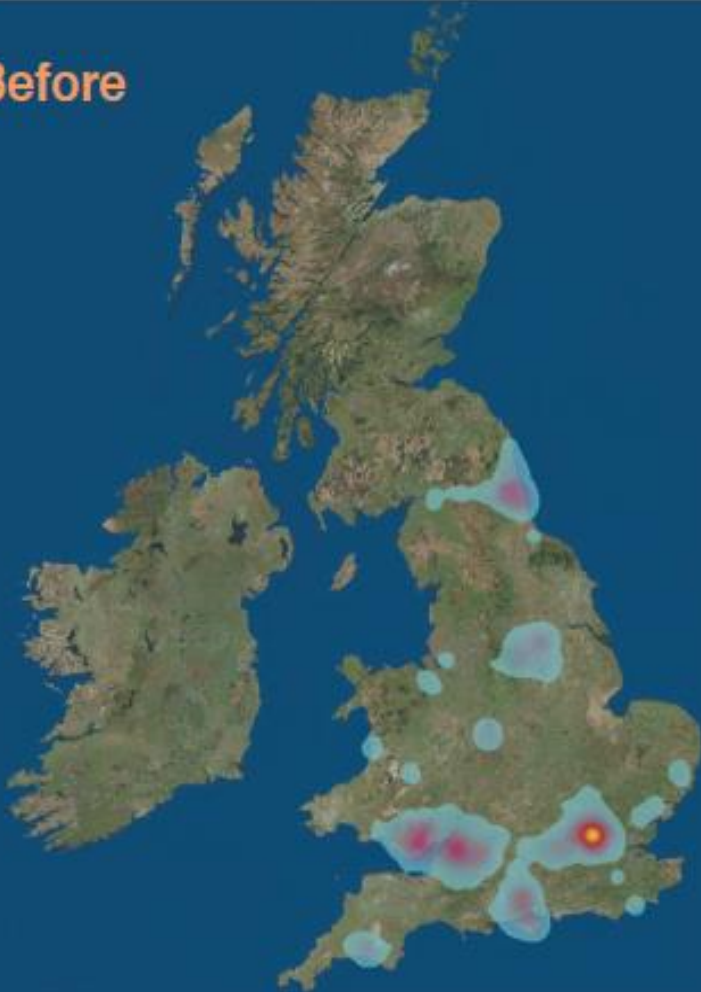




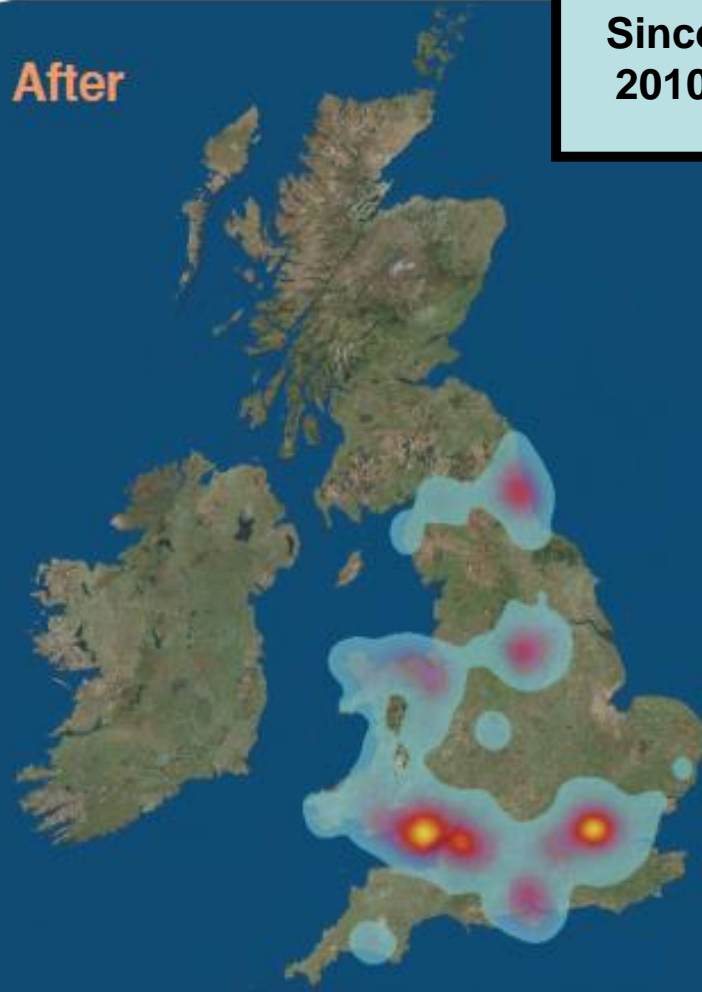
FH genetic diagnoses before & after BHF investment

6 fold
Increase
Since
2010

Before



After





Why NHS Health Checks?

- Anecdotally, index cases are becoming harder to find in the established FH services
- The cost effectiveness paper concluded that increasing the number of index cases would significantly increase the cost effectiveness of cascade testing – the NHS Health Checks are one vehicle that could significantly increase index case identification
- NHS Health Checks routinely test for Total Cholesterol (TC) and ascertain family history of premature CVD



Evaluation of NHS HC

- 195,994 patients had their cholesterol checked as part of the NHS Health Check programme.
- Mean total cholesterol was 5.5 mmol/l.
- This translates into 2.5% of population with a TC >7.5mmol/l (Simon Broome cut off) and 0.3% with a level of above 8.5mmol/l.



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Thank you