

CVD Prevention National Picture & Strategy

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NHS England NEY region
SRO CVD Prevention.

Long Term Plan – the NHS in 10 years 2019-2029



The NHS Long Term Plan

Prevention and Health Inequalities

- **CVD Prevention**
 - Prevent 150,000 heart attacks, strokes and dementia cases
 - Provide education and exercise programmes to tens of thousands more patients with heart problems, preventing up to 14,000 premature deaths



CVDP Strategy



To do the basics correctly -

*Good Processes
Good Guidelines*



Prevention Everywhere

The Role of the NHS in CVD Prevention?

- Chris Whitty (Chief Medical Officer)

Government should be putting more money into prevention
(<https://www.youtube.com/watch?v=1hj9yBzC2-0>)

NHS delivers CVD -- Prevention ?

- Tobacco support
- Weight Management
- Alcohol
- CVD : ABC – Atrial Fibrillation/
Blood pressure / Cholesterol



CVD Prevention - Strategy

Clinical Leadership is Key



Development of CVD
Prevention Clinical
Leadership
at all levels



Data driven decisions



CVD Prevention
Communications Strategy
(Public and Professional)



CVD Prevention Meetings
and Educational Events
(Webinars, Stroke Network
Education Event, wider
events)
Good Guidelines



Bringing together
departments & organisations
to embed the prevention
agenda
NHS & local authorities
working as one



Embracing new technology
and new models of care
Embracing innovation

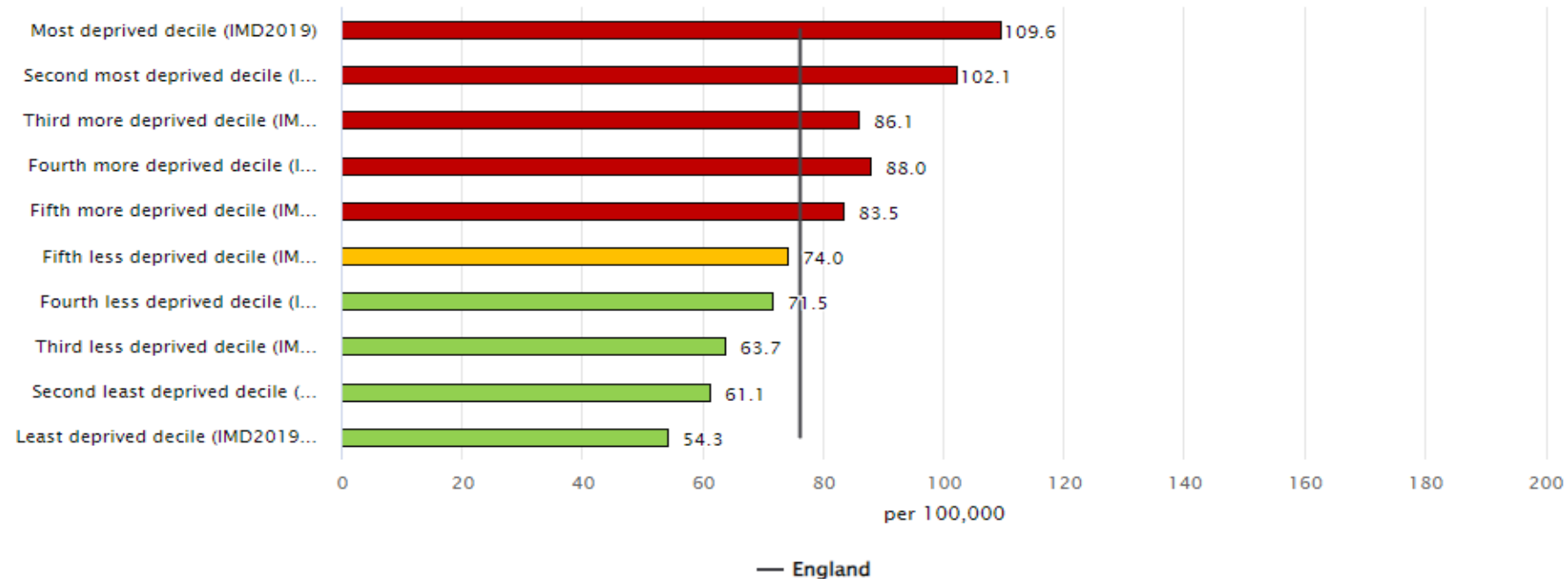
Health Inequalities

Under 75 mortality rate from all cardiovascular diseases (Persons) Directly standardised rate - per 100,000

[Legend](#)
[Benchmark](#)
[More options](#)

Display **Single time period** Trends Inequalities for **England** North East region [Show confidence intervals](#)

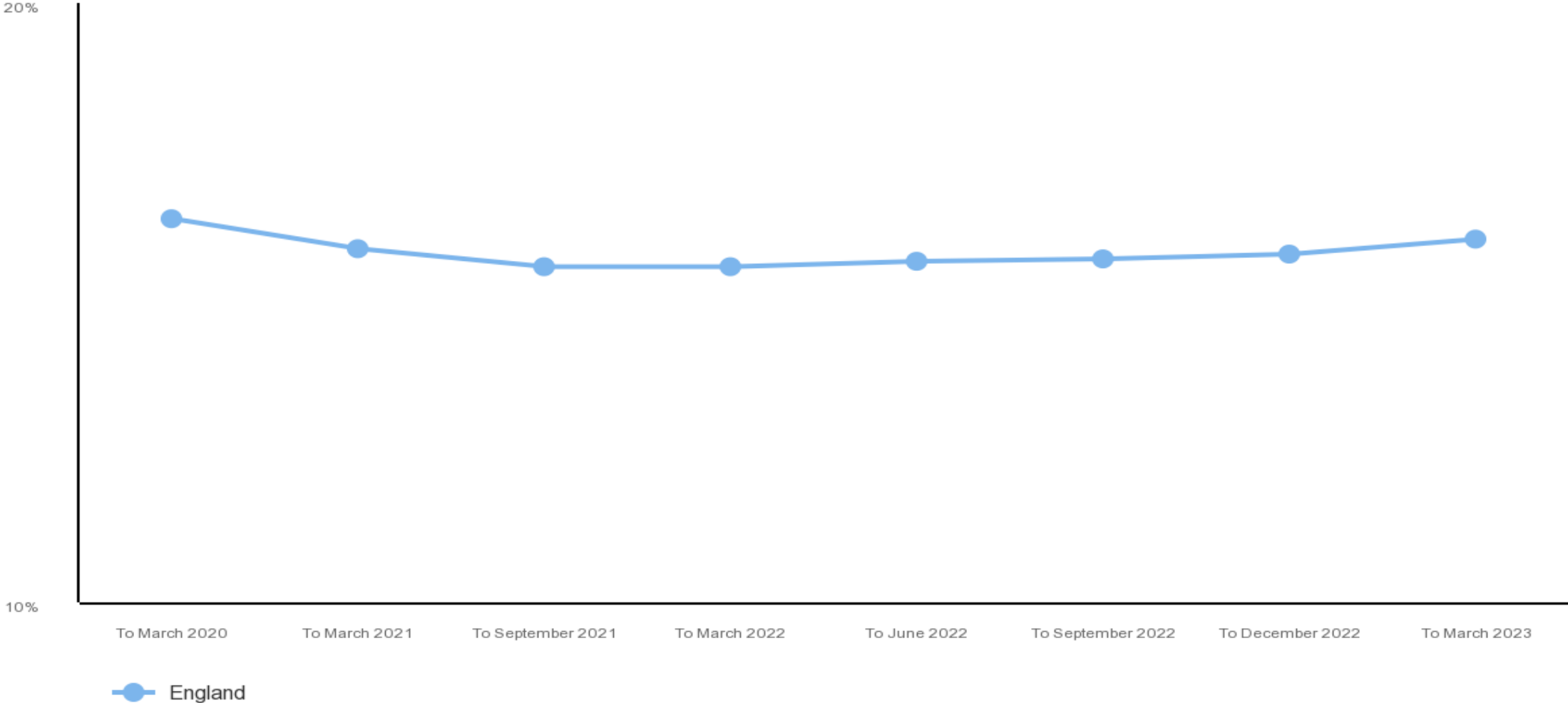
2021



Blood Pressure --

- HYP008. The percentage of patients aged 79 years or under with hypertension in whom the last blood pressure reading (measured in the preceding 12 months) is 140/90 mmHg or less (or equivalent home blood pressure reading)
- HYP009. The percentage of patients aged 80 years or over, with hypertension, in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less, (or equivalent home blood pressure reading)

Prevalence of Hypertension – 16.6%



More hypertension in Least Deprived



HYPERTENSION DIAGNOSIS

CVDP001HYP: Prevalence of GP recorded hypertension in patients aged 18 and over

Data Extract

Metadata

All Persons Time Series

Inequalities Marker Time Series

Area Breakdown

Inequalities Marker Time Series: England

Chart Table

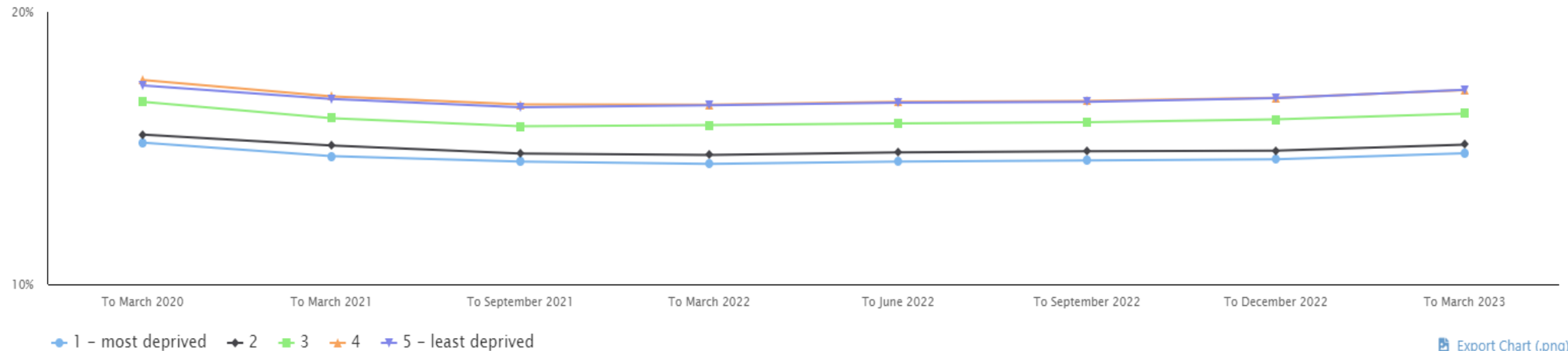
Age group

Deprivation quintile

Sex

Sex - Age Standardised

Deprivation quintile - Age Standardised



Export Chart (.png)

More Hypertension in Elderly Groups

HYPERTENSION DIAGNOSIS

CVDP001HYP: Prevalence of GP recorded hypertension in patients aged 18 and over

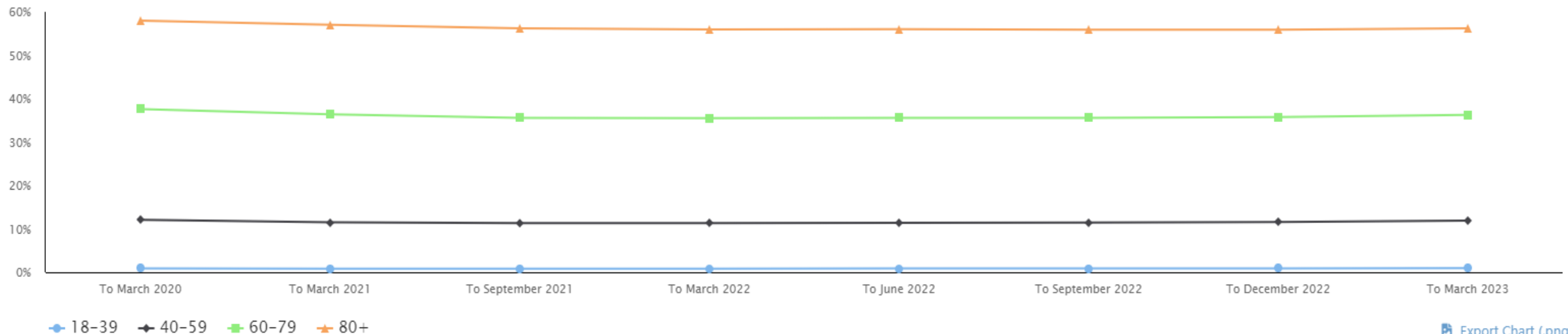
Data Extract Metadata

All Persons Time Series **Inequalities Marker Time Series** Area Breakdown

Inequalities Marker Time Series: England

Chart Table

Age group Deprivation quintile Sex Sex - Age Standardised Deprivation quintile - Age Standardised



Export Chart (.png)

Age Standardised – More disease in the deprived areas

HYPERTENSION DIAGNOSIS

CVDP001HYP: Prevalence of GP recorded hypertension in patients aged 18 and over

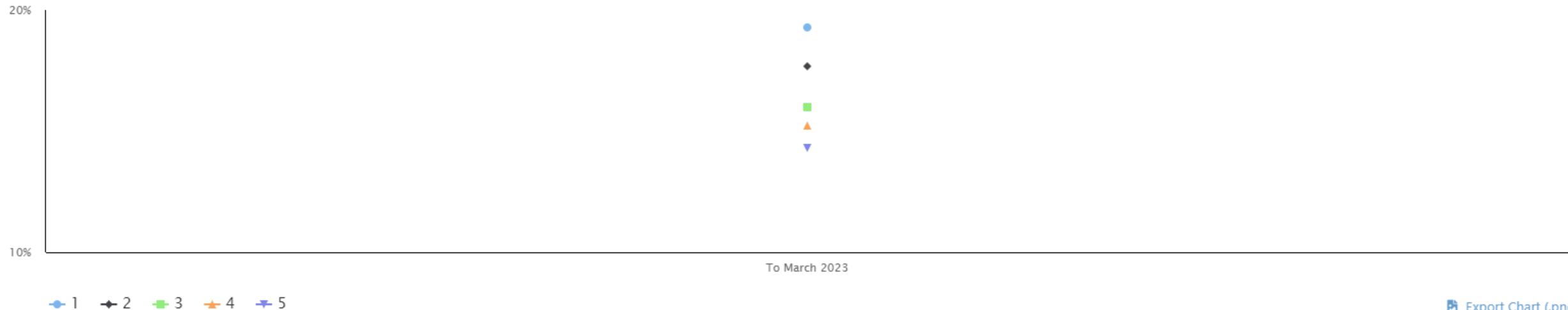
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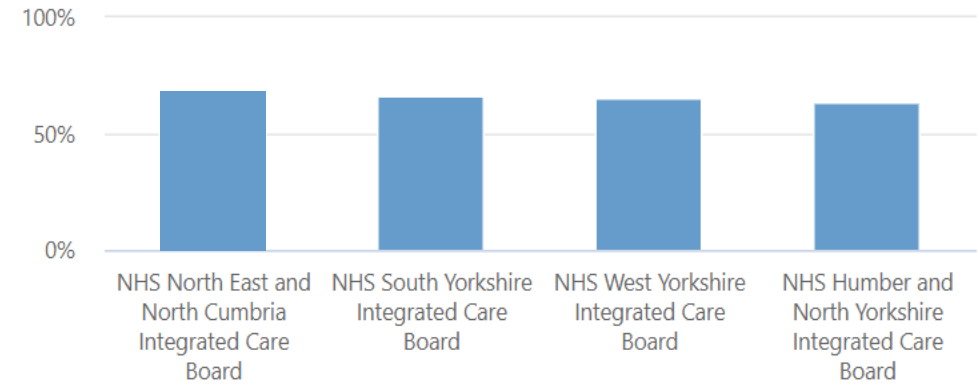
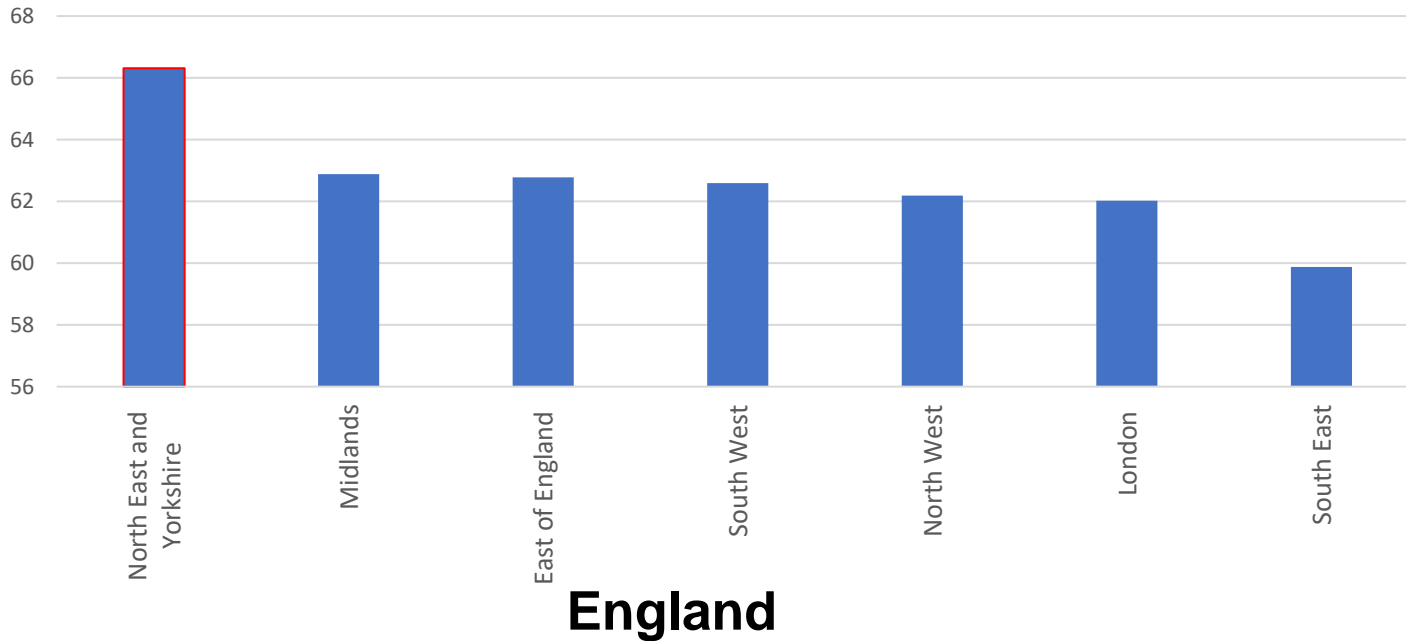
Age group Deprivation quintile Sex Sex - Age Standardised **Deprivation quintile - Age Standardised**



Current % of patients with hypertension treated to target



Percentage of patients aged 18 and over, with GP recorded hypertension, in whom the last blood pressure reading (measured in the preceding 12 months) is below the age appropriate treatment threshold



NEY Breakdown

QOF – Lipids

- CHOL001. Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, Stroke/TIA or Chronic Kidney Disease Register who are currently prescribed a statin, or where a statin is declined or clinically unsuitable, another lipid-lowering therapy 70-95% (14)
- CHOL002. Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, or Stroke/TIA Register, who have a recording of non-HDL cholesterol in the preceding 12 months that is lower than 2.5 mmol/L, or where non-HDL cholesterol is not recorded a recording of LDL cholesterol in the preceding 12 months that is lower than 1.8 mmol/L 20-35% (16)

CHOLESTEROL MANAGEMENT

CVDP009CHOL: Percentage of patients aged 18 and over with GP recorded CVD (narrow definition), who are currently treated with lipid lowering therapy.

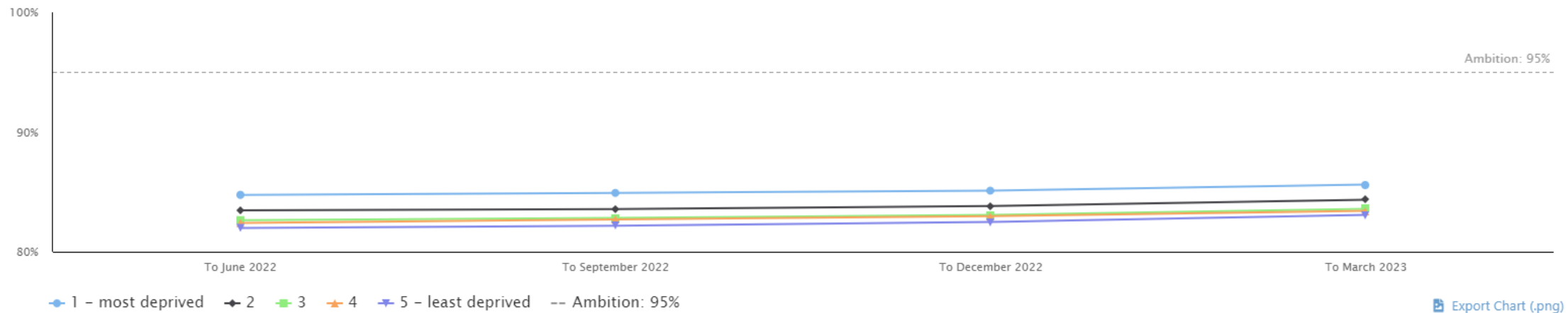
Data Extract

All Persons Time Series **Inequalities Marker Time Series** System Level Comparison Area Breakdown

Inequalities Marker Time Series: North East and Yorkshire

Chart Table

Age group **Deprivation quintile** Ethnicity Sex



Export Chart (.png)

CHOLESTEROL MANAGEMENT

CVDP007CHOL: Percentage of patients aged 18 and over, with GP recorded CVD (narrow definition), in whom the most recent blood cholesterol level (measured in the preceding 12 months) is non-HDL cholesterol less than 2.5mmol/l or LDL-cholesterol less than 1.8mmol/l

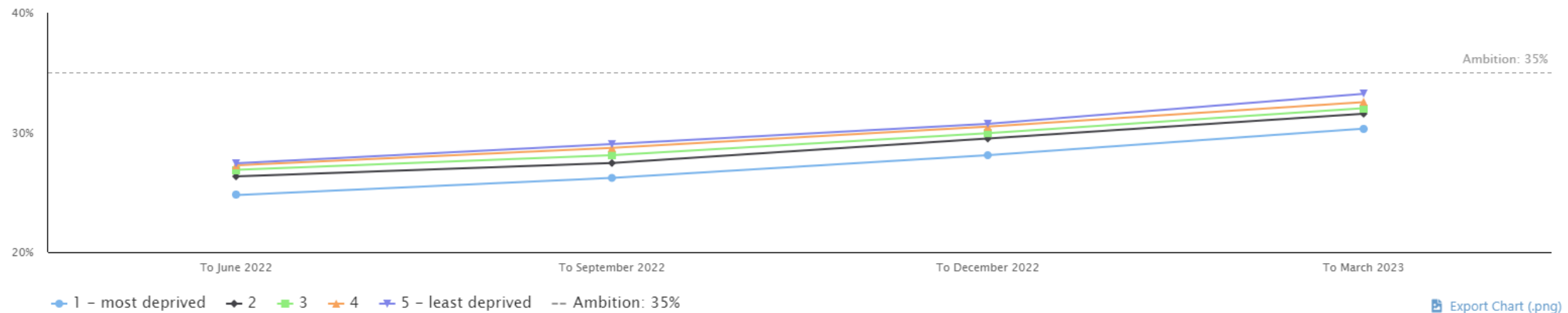
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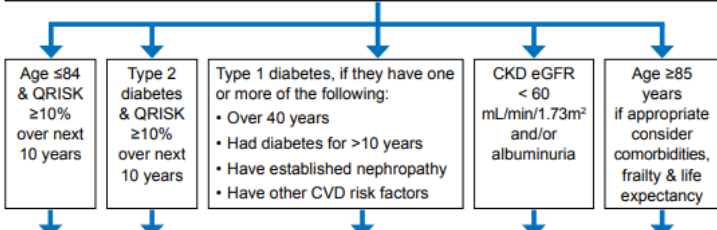
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Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of CVD

INITIAL CONSIDERATIONS:

- Measure non-fasting **full lipid profile** (total cholesterol, HDL-C, non-HDL-C, triglycerides) and HbA1c as part of an initial baseline assessment.
- Consider secondary causes of hyperlipidaemia and manage as needed.
- Ensure appropriate baseline and follow up tests as detailed on page 2. Measure BMI.
- Identify and exclude people with contraindications/drug interactions
- If non-fasting triglyceride above 4.5mmol/L see page 2.

PRIMARY PREVENTION
Consider statin therapy for adults who do not have established CVD but fall into the categories below. Use QRISK risk assessment tool where appropriate (see page 2, 'Primary Prevention Risk Assessment')



Identify and address all modifiable risk factors - smoking, diet, obesity, alcohol intake, physical activity, blood pressure and HbA1c.

Consider additional risk factors, if present, together with QRISK score (treated for HIV, severe mental illness, taking medicines that cause dyslipidaemia, systemic inflammatory disorder (e.g. SLE), impaired fasting glycaemia, recent change in risk factors)

PRIMARY PREVENTION
If lifestyle modification is ineffective or inappropriate offer statin treatment.
Atorvastatin 20mg daily

- Measure full lipid profile again after 3 months (non-fasting).
- High intensity statin treatment should achieve reduction of non-HDL-C > 40% from baseline. If not achieved after 3 months;
 - discuss treatment adherence, timing of dose, diet and lifestyle
 - If at higher risk (based on comorbidities, risk score or clinical judgement – see page 2 'Additional Risk Factors') consider increasing the dose every 2-3 months up to a maximum dose of atorvastatin 80mg daily.
 - For how to increase in people with CKD see 'Special Patient Populations' (page 2).

- If patients on a high-intensity statin have side effects, offer a lower dose or an alternative statin (see page 2 'Extent of lipid lowering with available therapies')
- If maximum tolerated dose of statin does not achieve non-HDL-C reduction > 40% of baseline value after 3 months consider adding Ezetimibe 10mg daily (NICE TA385)
- If statin treatment is contraindicated or not tolerated;
 - See AAC Statin Intolerance Algorithm for advice regarding adverse effects ([click here](#))
 - Ezetimibe 10mg monotherapy may be considered. Assess response after 3 months.
 - Ezetimibe 10mg/bempedoic acid 180 mg combination may be considered when ezetimibe alone does not control non-HDL-C/LDL-C well enough (NICE TA694).

If non-HDL-C reduction remains < 40% of baseline despite maximal tolerated lipid lowering therapy (including people with intolerances and contraindications) consider referral to specialist lipid management clinic according to local arrangements

SEVERE HYPERLIPIDAEMIA
If TC > 7.5mmol/L and/or LDL-C > 4.9mmol/L and/or non-HDL-C > 5.9mmol/L, a personal and/or family history of confirmed CHD (<60 years) and with no secondary causes: suspect familial hypercholesterolaemia (possible heterozygous FH)
Do not use QRISK risk assessment tool

DIAGNOSIS AND REFERRAL
Take fasting blood for repeat lipid profile to measure LDL-C.
Use the **Simon Broome or Dutch Lipid Clinic Network (DLCN)** criteria to make a **clinical diagnosis of FH**.
Refer to Lipid Clinic for further assessment if **clinical diagnosis of FH** or if TC > 9.0mmol/L and/or LDL-C > 6.5mmol/L and/or non-HDL-C > 7.5mmol/L or Fasting triglycerides > 10mmol/L (regardless of family history) (page 2)

TREATMENT TARGETS IN FH
If clinical diagnosis of FH and/or other risk factors present follow the recommended treatment management pathway for primary or secondary prevention as for non-FH, **BUT** Aim to achieve at least a 50% reduction of LDL-C (or non-fasting non-HDL-C) from baseline.
Consider specialist referral for further treatment and/or consideration of PCSK9i therapy IF
- they are assessed to be at very high risk of a coronary event**
- OR therapy is not tolerated
- OR LDL-C remains > 5mmol/L (primary prevention)
- OR LDL-C remains > 3.5mmol/L (secondary prevention)
despite maximal tolerated statin and ezetimibe therapy.
**defined as any of the following:
• Established coronary heart disease
• Two or more other CVD risk factors

SECONDARY PREVENTION
Offer statin therapy to adults with CVD, this includes CHD, angina, Acute Coronary Syndrome (MI or unstable angina), revascularisation, stroke or TIA, or symptomatic peripheral arterial disease. Do not delay statin treatment if a person has acute coronary syndrome. Take a lipid sample on admission (within 24 hours).

Identify and address all modifiable risk factors - smoking, diet, obesity, alcohol intake, physical activity, blood pressure and HbA1c.

SECONDARY PREVENTION
Do not delay statin treatment in secondary prevention while managing modifiable risk factors. Prescribe a high intensity statin:
Atorvastatin 80mg daily
Use a lower dose of atorvastatin if there is a potential drug interaction, high risk of or experiencing adverse effects, or patient preference.
Offer atorvastatin 20mg if CKD (people with GFR < 60 mL/min/1.73m²).

- Measure full lipid profile again after 3 months (non-fasting).
- High intensity statin treatment should achieve reduction of non-HDL-C > 40% from baseline. If not achieved after 3 months
 - discuss treatment adherence, timing of dose, diet and lifestyle measures
 - If started on less than atorvastatin 80mg and the person is judged to be at higher risk (based on comorbidities, risk score or clinical judgement - see page 2 'Additional Risk Factors'), consider increasing to 80mg atorvastatin. For how to increase in people with CKD see 'Special Patient Populations' (page 2).
- If non-HDL-C baseline value is not available*, consider target non-HDL-C < 2.5mmol/L (approximately equivalent to LDL-C < 1.8mmol/L) as recommended by Joint British Societies (JBS3).
**this scenario is not currently covered by NICE CG181. NICE will consider this as part of the guideline update with publication currently expected December 2023*
- If patients on a high-intensity statin have side effects, offer a lower dose or an alternative statin (see page 2 'Extent of lipid lowering with available therapies')

If maximum tolerated dose of statin does not control non-HDL-C/LDL-C well enough after 3 months confirm statin adherence, then consider the following options based on shared decision making* with the patient

If recommended statin treatment is contraindicated or not tolerated - follow **AAC Statin Intolerance Algorithm** for advice regarding adverse effects ([click here](#)).

If statin intolerance is confirmed, consider:
- **Ezetimibe 10mg** monotherapy. Assess response after 3 months (TA385)
- **Ezetimibe 10mg/bempedoic acid 180 mg** combination when ezetimibe alone does not control non-HDL-C sufficiently. (NICE TA694)

If non HDL-C remains > 2.5mmol/L despite other lipid lowering therapies consider **Injectable therapies** - arrange a fasting blood test and assess eligibility criteria (TA393/394, TA733)

Ezetimibe 10mg daily (NICE TA385). Reassess after three months. If non-HDL-C remains > 2.5mmol/L; consider **injectable therapies** arrange a fasting blood test and assess eligibility

Injectable therapies**
If non-HDL-C > 2.5mmol/L; Arrange fasting blood test to measure LDL-C to assess eligibility:
- **Inclisiran** - if fasting LDL-C ≥ 2.6 mmol/L despite maximum tolerated lipid lowering therapy (TA733)
OR
- **PCSK9i** - see overleaf for LDL-C thresholds. (TA393/4)

* See overleaf for information to support shared decision making
** Inclisiran and PCSK9i should not be prescribed concurrently
If eligibility criteria not met, consider **ezetimibe 10mg daily** (if not previously considered)

Additional CV risk reduction considerations - check fasting triglycerides levels and consider icosapent ethyl. See triglycerides section overleaf.

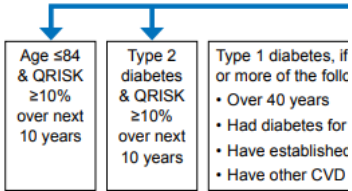
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PRIMARY

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Identify and address all modifiable risk fa physical activity, blo

Consider additional risk factors, if present severe mental illness, taking medicines that ca (e.g. SLE), impaired fasting glyc

PRIMARY

If lifestyle modification is ineffective Atorvasta

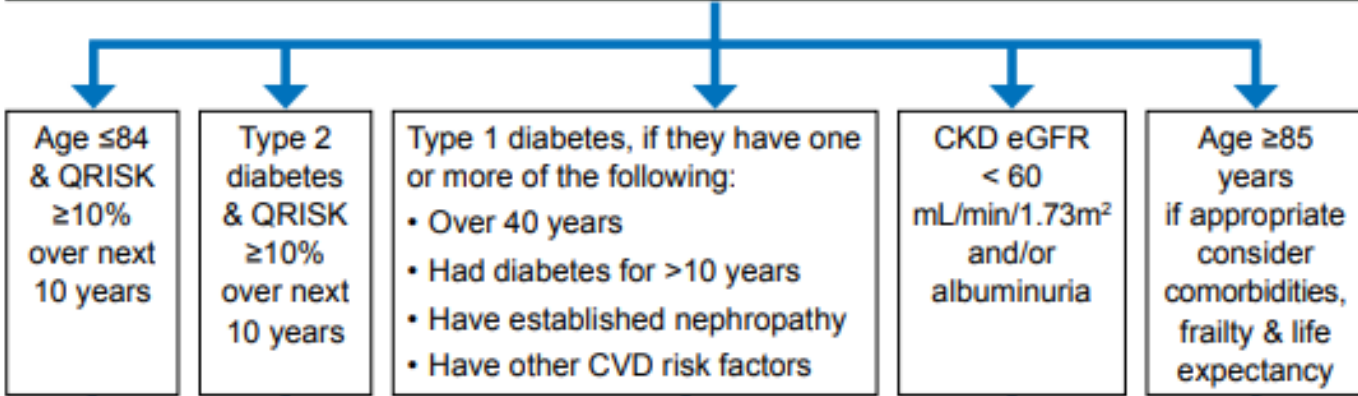
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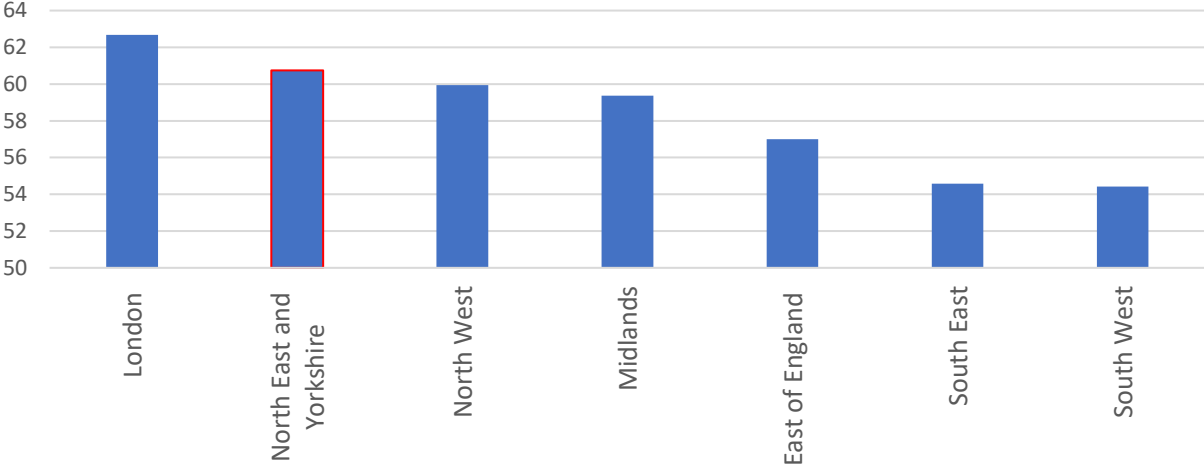
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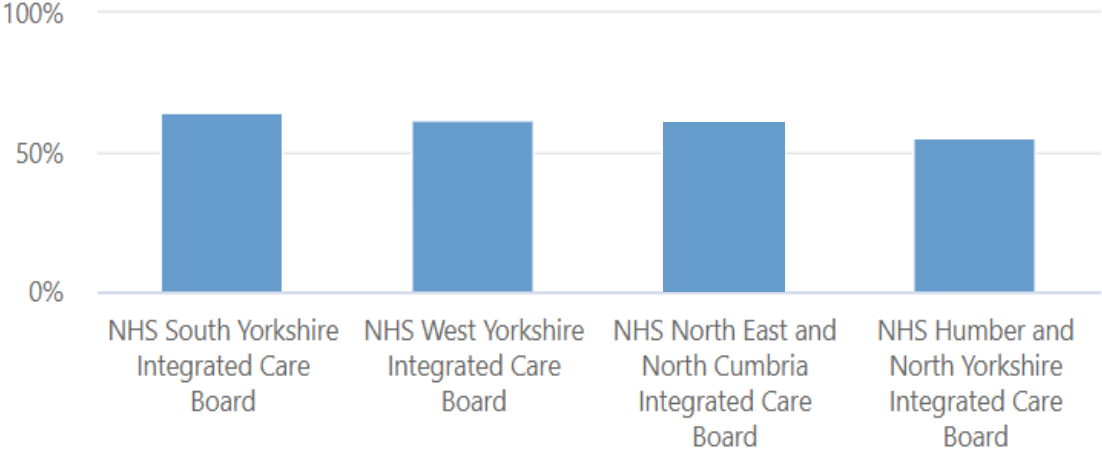
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Current % of Patients with a Qrisk >20% on Lipid Lowering Therapy

Percentage of patients aged 18 and over with no GP recorded CVD and a GP recorded QRISK score of 20% or more, on lipid lowering therapy



England



NEY Breakdown

Mortality Profile ▼

Data view ▼

Compare areas



Geography ▼

Region in England

Topic ▼

Premature mortality



Indicator

Under 75 mortality rate from all cardiovascular diseases (Persons) 2021 Directly standardised rate - per 100,000 ▼

[▶ Legend](#) [▶ Benchmark](#) [▶ More options](#)

Areas **All in England**

Display

Table

Table and chart

[Show 99.8% CI values](#)

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
England	–	37,669	76.0		75.3	76.8
North West region	–	6,175	92.8		90.5	95.1
Yorkshire and the Humber region	–	4,288	86.8		84.2	89.4
North East region	–	2,166	84.5		81.0	88.1
West Midlands region	–	4,339	83.5		81.1	86.1
East Midlands region	–	3,674	81.9		79.2	84.6
London region	–	4,394	74.3		72.1	76.6
East of England region	–	3,733	65.0		62.9	67.1
South West region	–	3,622	64.6		62.5	66.8
South East region	–	5,278	63.1		61.4	64.8

Source: Office for Health Improvement and Disparities (based on Office for National Statistics source data)

[Indicator Definitions and Supporting Information](#)

Why invest in cardiovascular disease prevention

PHE estimates that optimising detection of risk factors for CVD and the uptake of anticoagulants, antihypertensives and statins in line with the ambitions, could prevent:



150,000
CVD events

● NOW

IN 10 YEARS ●

Over 10 years the societal return on investment is estimated to be

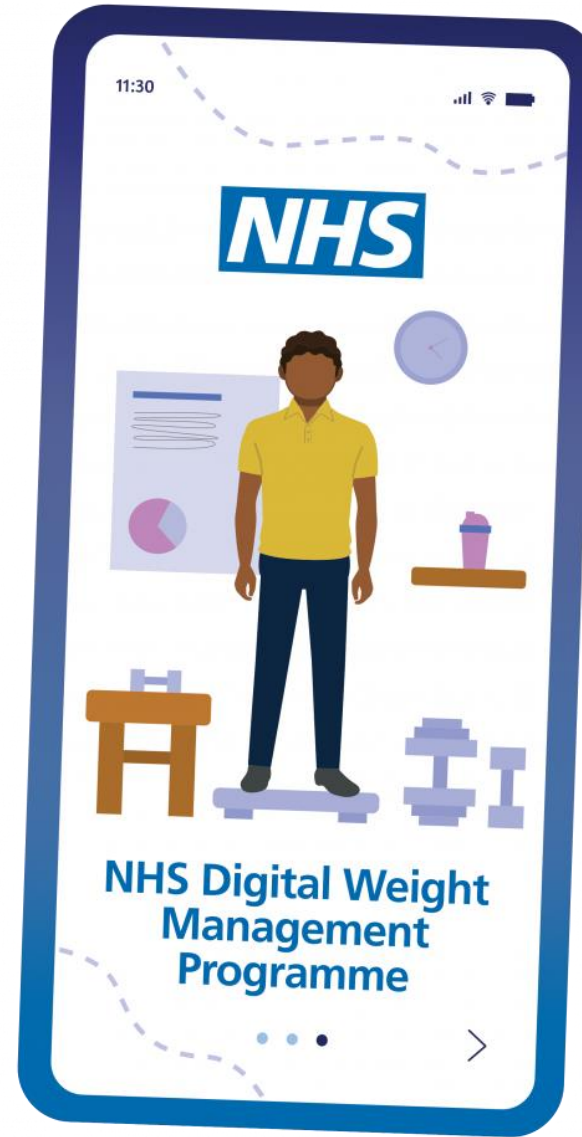
£2.30 for every **£1** spent

including the value placed on improved health

Summary

- We are in a better place than some – thank you
- Big challenges ahead
- Still need more work in deprived communities
- Do the basics well
 - Clinical leadership is key
 - Use data
 - Prevention everywhere
 - Simple Guidelines and Professional & Public Education
 - Work together across organisations
 - Identify the high risk individuals early.

Thank you



- timbutler@nhs.net