
Optimising Lipids and Detecting Familial Hypercholesterolaemia in North East North Cumbria

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AHSN NENC

Cardiovascular disease (CVD) is a leading cause of death in the UK

85% of all CVD deaths are due to myocardial infarctions (heart attack) or strokes



In the UK 27% of all deaths are due to CVD – that's one death every 3 minutes



More than 100,000 hospital admissions in the UK are due to heart attacks – that's one admission every 5 minutes



Stroke is the fourth biggest killer in the UK causing 36,000 deaths each year

with around 100,000 hospital admissions in the UK each year

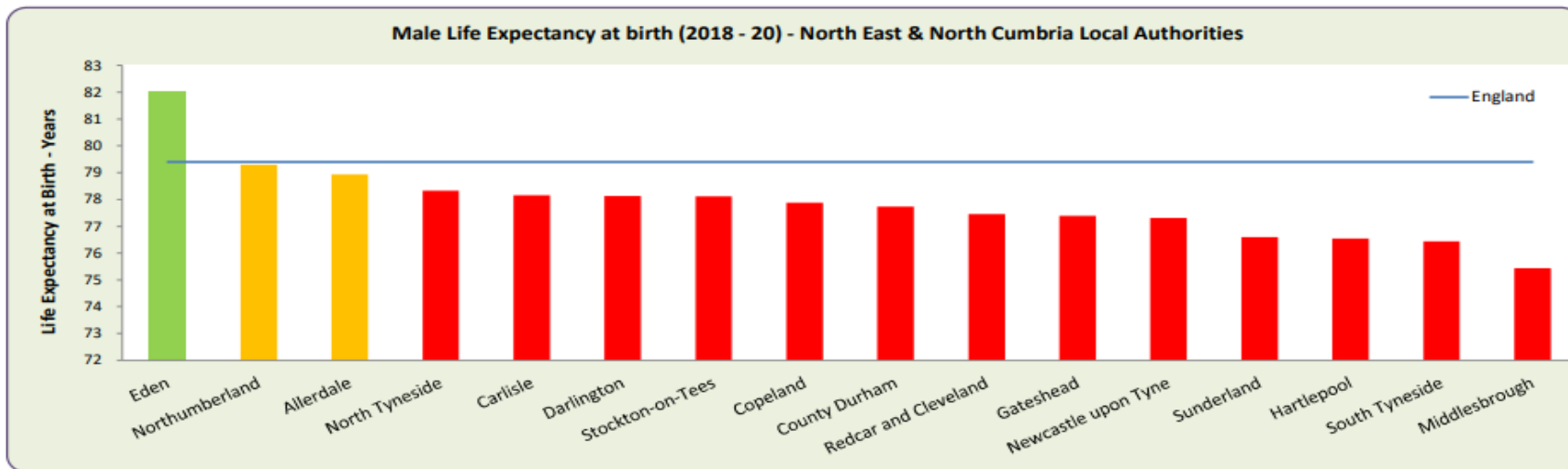
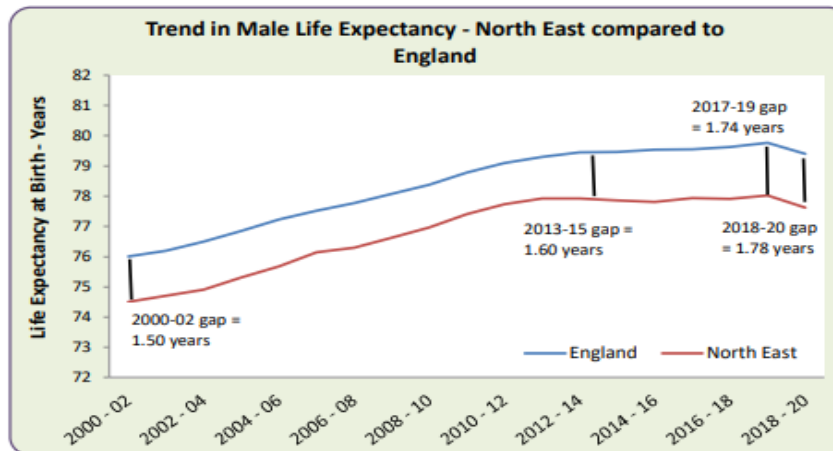
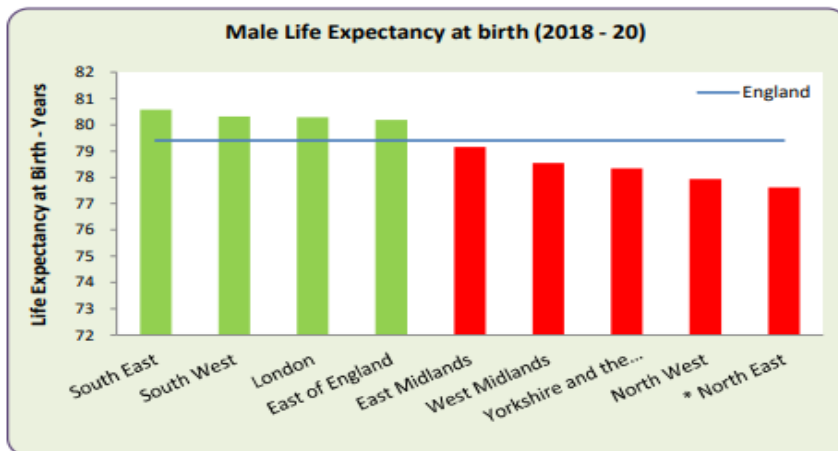


Healthcare costs relating to CVD are estimated at £9 billion Overall CVD costs the UK economy ~£19 billion each year

CVD, cardiovascular disease

Healthy Life Expectancy in Males 2018-2020 NEQOS

South East	South West	London	East of England	East Midlands	West Midlands	Yorkshire and the Humber	North West	North East	England
80.6	80.3	80.3	80.2	79.2	78.5	78.4	77.9	77.6	79.4



Compared with England

■ Significantly Better

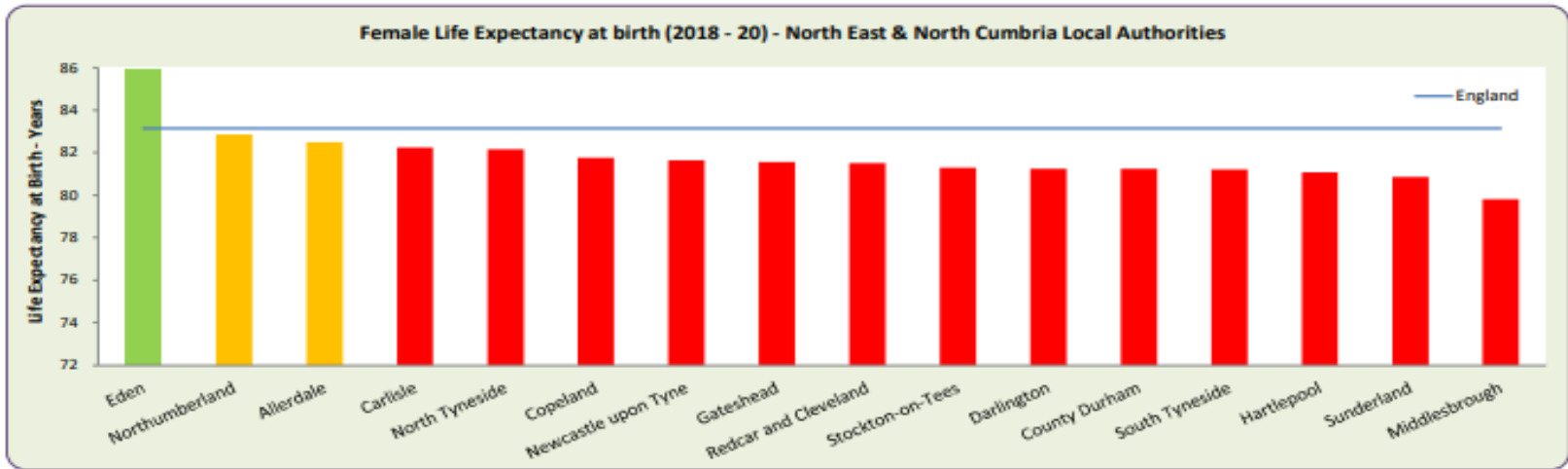
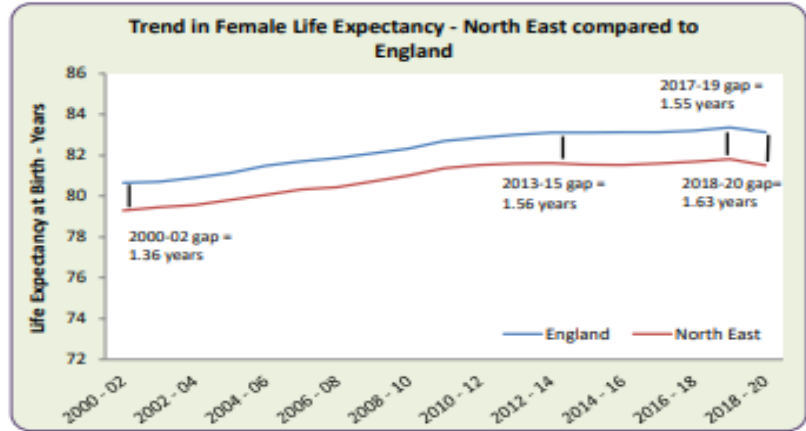
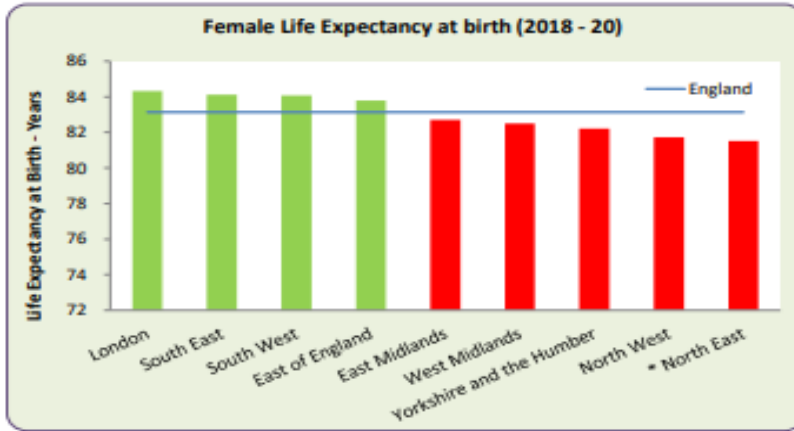
■ Similar

■ Significantly Worse

2. Life Expectancy at Birth - Female (2018 - 2020)

The average number of years a female would expect to live based on contemporary mortality rates.

London	South East	South West	East of England	East Midlands	West Midlands	Yorkshire and the Humber	North West	North East	England
84.3	84.1	84.1	83.8	82.7	82.5	82.2	81.7	81.5	83.1



Compared with England

Significantly Better

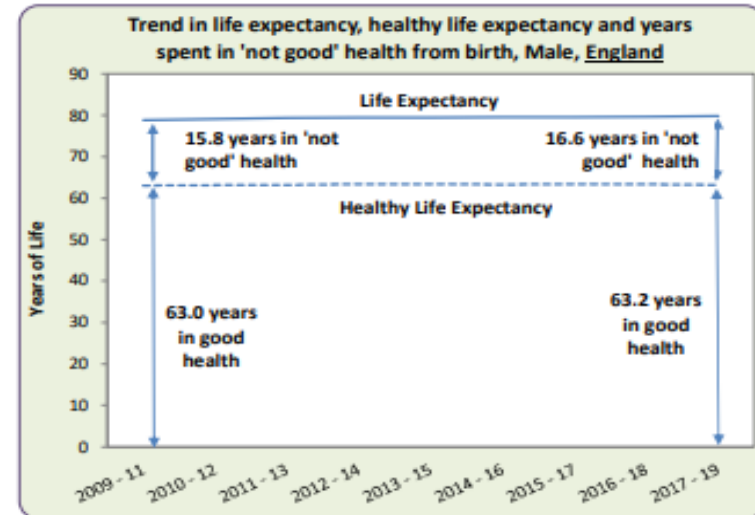
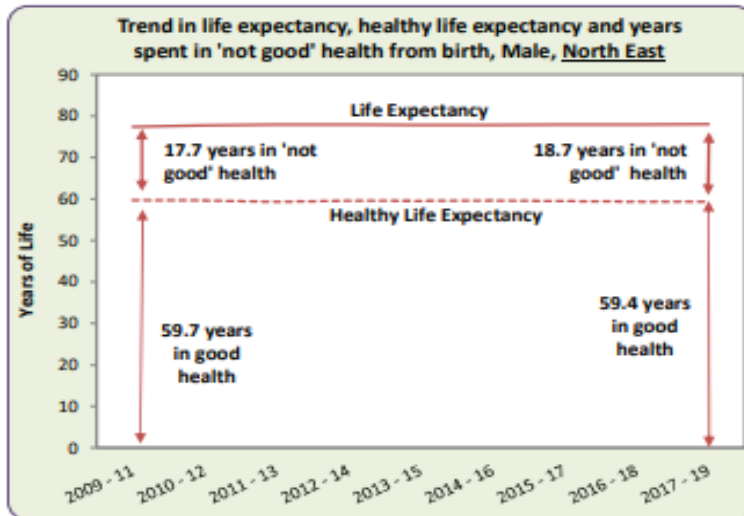
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Significantly Worse

3. Healthy Life expectancy at birth (Male) (2017 - 2019)

The average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

South East	South West	East of England	London	East Midlands	North West	West Midlands	Yorkshire and the Humber	North East	England
65.3	65.2	64.4	63.5	62.2	61.7	61.5	61.2	59.4	63.2



Compared with England

Significantly Better

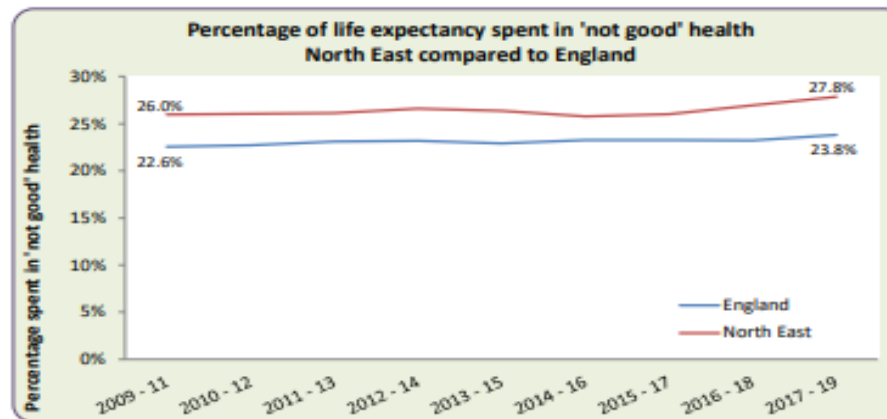
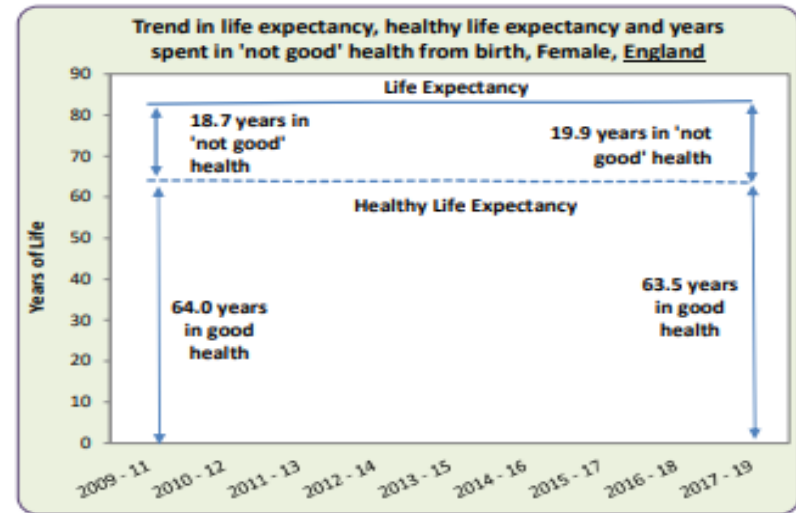
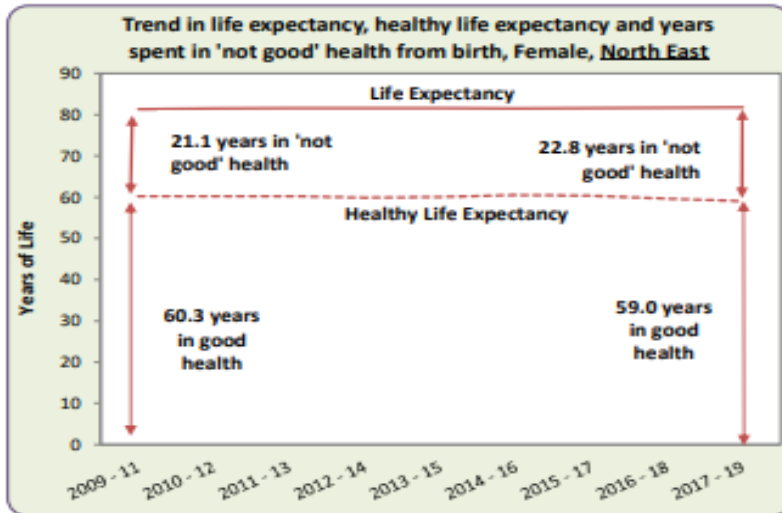
Similar

Significantly Worse

4. Healthy Life expectancy at birth (Female) (2017 - 2019)

The average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

South East	South West	East of England	London	West Midlands	North West	Yorkshire and the Humber	East Midlands	North East	England
65.9	65.0	64.2	64.0	62.6	62.2	61.9	61.9	59.0	63.5



BRITISH MEDICAL BULLETIN

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Volume 134, Issue 1
June 2020

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Life expectancy






JOURNAL ARTICLE

Health inequalities are worsening in the North East of England

Valerie Corris, Emily Dormer, Andrea Brown, Paula Whitty, Paul Collingwood, Clare Bamba, Julia L Newton 

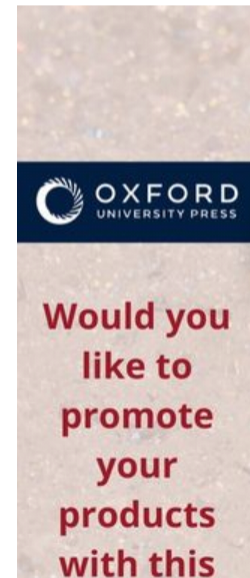
British Medical Bulletin, Volume 134, Issue 1, June 2020, Pages 63–72,
<https://doi.org/10.1093/bmb/ldaa008>

Published: 28 May 2020 **Article history** ▾

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Abstract

Background



PDF

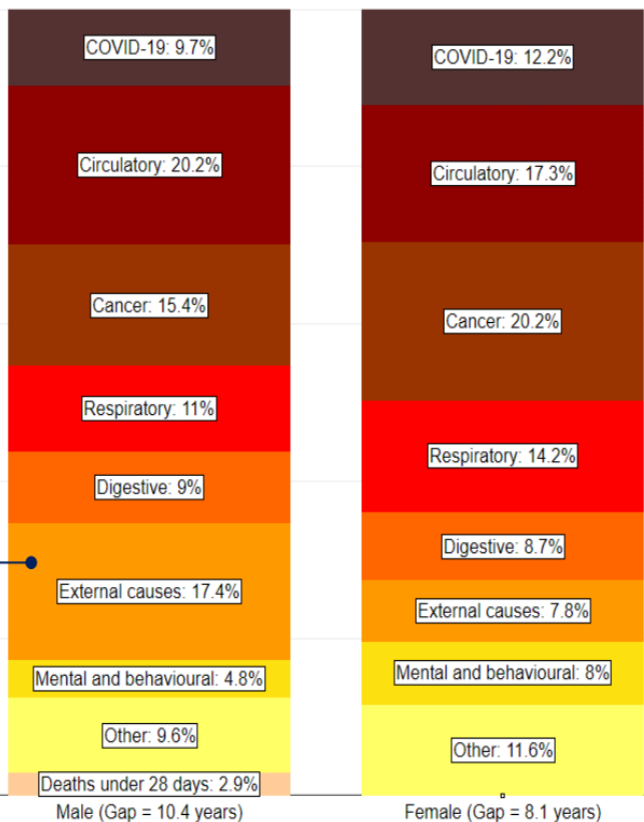
Help

Life expectancy gap by deprivation: Causes of death

North East in 2020 to 2021: Percentage contribution to the life expectancy gap by main disease groups, expressed as percentage of total

In males, the gap in life expectancy between the least and most deprived areas in the region was mostly due to higher mortality in **circulatory disease**, followed by **external causes, cancer, respiratory disease*** and **COVID-19**.

The proportion by external causes in males was highest in the North East than in any other region (1).



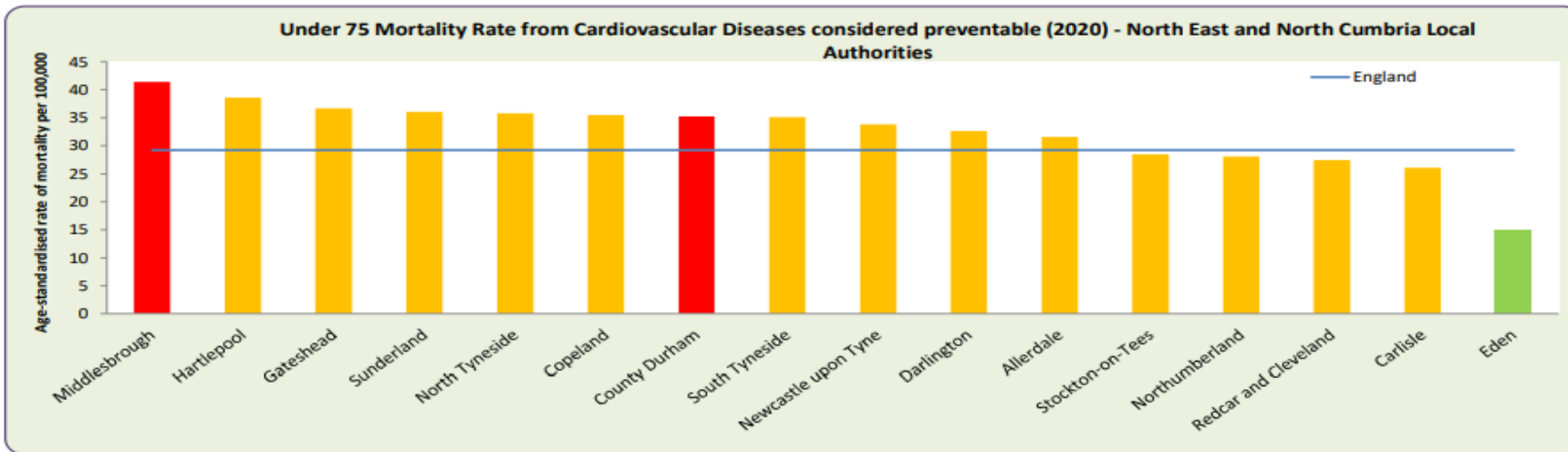
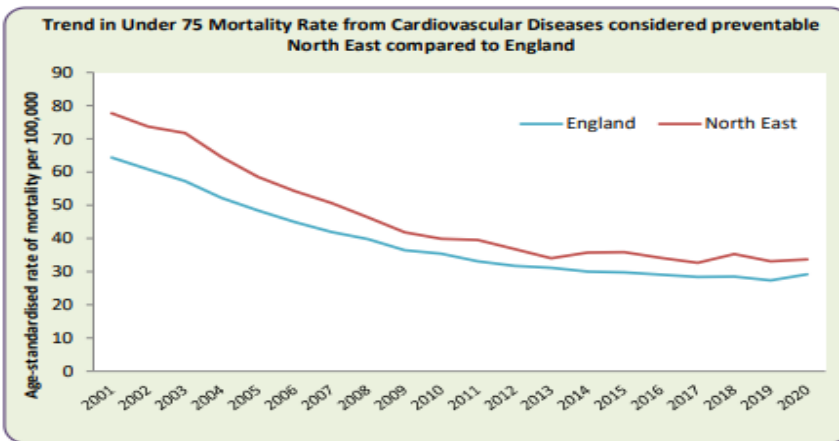
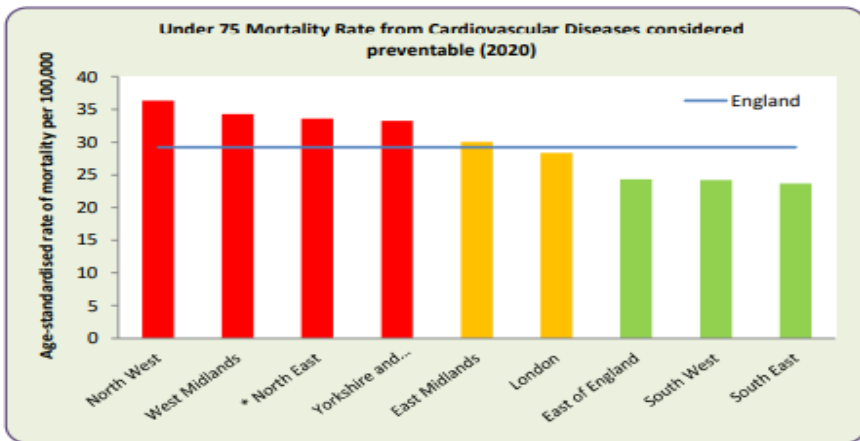
In females, higher mortality in **cancer** in the most deprived areas contributed to the life expectancy gap most, followed by **circulatory disease, respiratory disease** and **COVID-19**

* External includes deaths from injury, poisoning and suicide. Circulatory includes heart disease and stroke. Respiratory includes flu, pneumonia, and chronic lower respiratory disease. Digestive includes alcohol-related conditions such as chronic liver disease and cirrhosis. Mental and behavioural includes dementia and Alzheimer's disease. Percentages may not sum to 100 due to rounding.

Source: [OHID, Segment Tool](#), 2022. The gap is life expectancy in the least deprived quintile minus life expectancy in the most deprived quintile. (1) [Segment Tool: statistical commentary, May 2022](#)

Cardiovascular mortality is high

North West	West Midlands	North East	Yorkshire and the Humber	East Midlands	London	South West	East of England	South East	England
36.3	34.3	33.6	33.2	30.0	28.4	24.3	24.2	23.7	29.2



Open access

Protocol

BMJ Open Tailoring lipid management interventions to reduce inequalities in cardiovascular disease risk management in primary care for deprived communities in Northern England: a mixed-methods intervention development protocol

Yu Fu ^{1,2}, Eugene YH Tang, ¹ Sarah Sowden ¹, Julia L Newton, ^{1,3} Paula Whitty ^{2,4}

To cite: Fu Y, Tang EYH, Sowden S, *et al.* Tailoring lipid management interventions to reduce inequalities in cardiovascular disease risk management in primary care for deprived communities in Northern England: a mixed-methods intervention development protocol. *BMJ Open* 2022;**12**:e058951. doi:10.1136/

ABSTRACT

Introduction Hyperlipidaemia contributes a significant proportion of modifiable cardiovascular disease (CVD) risk, which is a condition that disproportionately affects disadvantaged socioeconomic communities, with death rates in the most deprived areas being four times higher than those in the least deprived. With the national CVD Prevention programme being delivered to minimise risk factors, no evidence is available on what has been implemented in primary care for deprived populations. This study describes the protocol for the development of a

STRENGTHS AND LIMITATIONS OF THIS STUDY


- ⇒ This study will develop a tailored lipid management intervention for deprived populations to help reduce health inequalities, using multiple methods.
- ⇒ Multiple data sources will be used to assess and compare cardiovascular disease risk management for deprived with non-deprived populations in Northern England to England overall.
- ⇒ Primary care staff needs and challenges in delivering current lipid management and resources related

BMJ Open: first published as 10.1136/bmjopen-2021-058951 on 4 July 2022. Downloaded from

Open access

Original research

BMJ Open Cardiovascular-related conditions and risk factors in primary care for deprived communities before and during the COVID-19 pandemic: an observational study in Northern England

Yu Fu ^{1,2} Christopher Price,^{1,2} Shona Haining,³ Bob Gaffney,³ David Julien,⁴ Paula Whitty,² Julia L Newton⁵

To cite: Fu Y, Price C, Haining S, *et al*. Cardiovascular-related conditions and risk factors in primary care for deprived communities before and during the COVID-19 pandemic: an observational study in Northern England. *BMJ Open* 2022;**12**:e066868. doi:10.1136/bmjopen-2022-066868

► Prepublication history for this paper is available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-066868>)

ABSTRACT

Objectives The North East of England, ranked as having the highest poverty levels and the lowest health outcomes, has the highest cardiovascular disease (CVD) premature mortality. This study aimed to compare CVD-related conditions and risk factors for deprived practice populations with other general practice (GP) populations in Northern England to England overall, before and during COVID-19 to identify changes in recorded CVD-related risk factors and conditions and evidence-based lipid prescribing behaviour.

Design A population-based observational study of aggregated practice-level data obtained from publicly

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This study focused on the practices that serve the most deprived populations in Northern England.
- ⇒ This study analysed multiple observational publicly accessible data sets which recorded data aggregated at the general practice (GP) level.
- ⇒ It compared practice profile and cardiovascular disease risk management between the deprived population practices and the rest of the GPs in the region and England overall.
- ⇒ Data analysis undertaken was based on limited data available at the practice level only, without controlling for age, gender, deprivation or ethnicity.

BMJ Open: first published as 10.1136/bmjopen-2022-066868 on 22 November 2022. Downloaded from <https://www.bmjopen.com/> on 06/06/2023 at 15:05:15.

Lipid management interventions to tackle health inequalities in cardiovascular risks and outcomes for socioeconomically disadvantaged populations: a rapid review

Journal:	<i>British Medical Bulletin</i>
Manuscript ID	BMB-2022-038
Manuscript Type:	Invited Review
Date Submitted by the Author:	08-Dec-2022
Complete List of Authors:	Fu, Yu; Newcastle University Faculty of Medical Sciences, Population Health Sciences Institute; NIHR Applied Research Collaboration North East and North Cumbria Yu, Ge; Newcastle University Faculty of Medical Sciences; NIHR Applied Research Collaboration North East and North Cumbria Maulana, Naswa; Newcastle University Faculty of Medical Sciences Thomson, Katie; Newcastle University Faculty of Medical Sciences, Population Health Sciences Institute; NIHR Applied Research Collaboration North East and North Cumbria
Keywords:	Lipid management, socioeconomically disadvantaged, cardiovascular disease, health inequalities, rapid review

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JOURNAL ARTICLE

Optimizing lipid management—impact of the COVID 19 pandemic upon cardiovascular risk in England [Get access >](#)

Julia L Newton ✉, Joseph Hamed, Helen Williams, Matt Kearney, Alison M Metcalfe, Gary A Ford

British Medical Bulletin, ldad009, <https://doi.org/10.1093/bmb/ldad009>

Published: 12 May 2023 **Article history ▾**

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Abstract

Background

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VIEWS

ALTMETRIC

How are we doing it in NENC ?

- Harnessing existing relationships and infrastructure
- Take a tried and tested systematic approach to delivering change
- Keen desire to do the right thing for our population
- Enthusiastic and motivated clinical champions
- Ability to scale innovation at pace
- Willingness to capitalize on opportunities to leverage funding to address population need

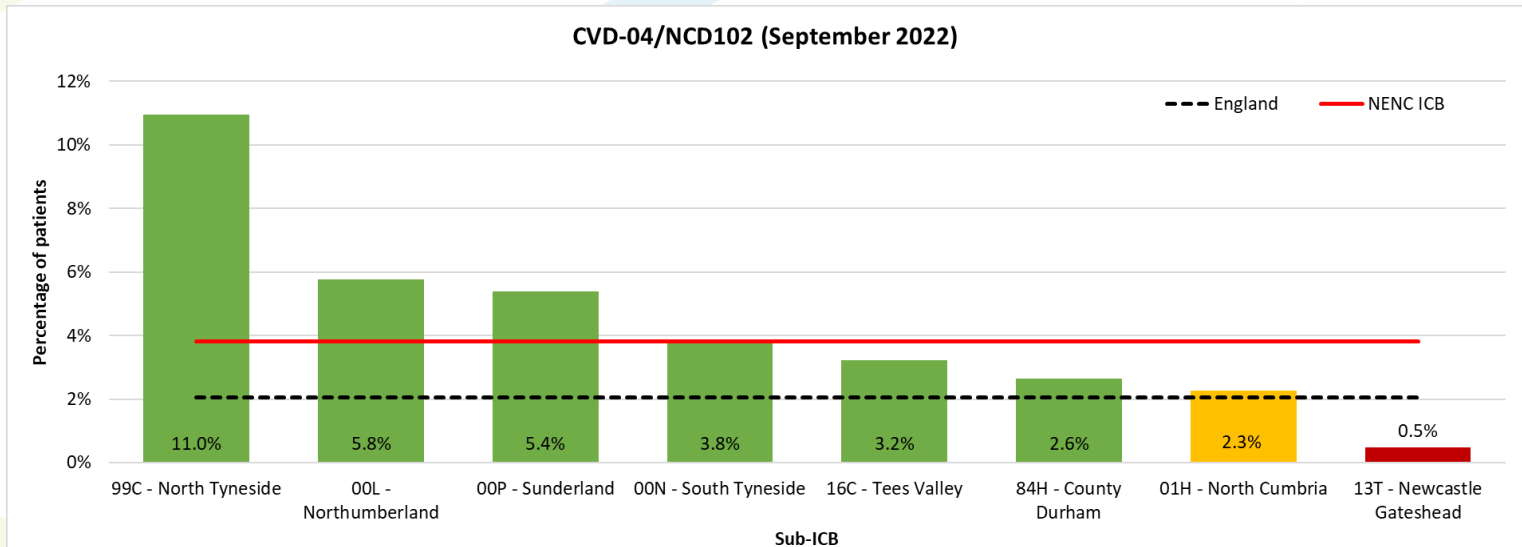
Lipid management metrics

1. Percentage of known cases of Familial Hypercholesterolaemia
Case finding approaches described in NICE Clinical Guideline CG71
Prevalence is estimated to be 1 in 250 people
2. Percentage of CCGs engaged with adoption of the lipid management and FH programmes
3. Percentage of high intensity statins prescribed compared to all statin prescribing in primary care
4. Absolute prescription item numbers of ezetimibe
5. Percentage of PCSK9i prescribed as a proportion of the eligible population for PCSK9 inhibitors
6. Percentage of Inclisiran prescribed as a proportion of the eligible population

Familial hypercholesterolaemia

Percentage of patients aged 29 years or under with a total cholesterol greater than 7.5 OR aged 30 years or over with a total cholesterol greater than 9.0 who have been referred for assessment for familial hypercholesterolemia, by sub-ICB

CVD-04/NCD102 (September 2022)

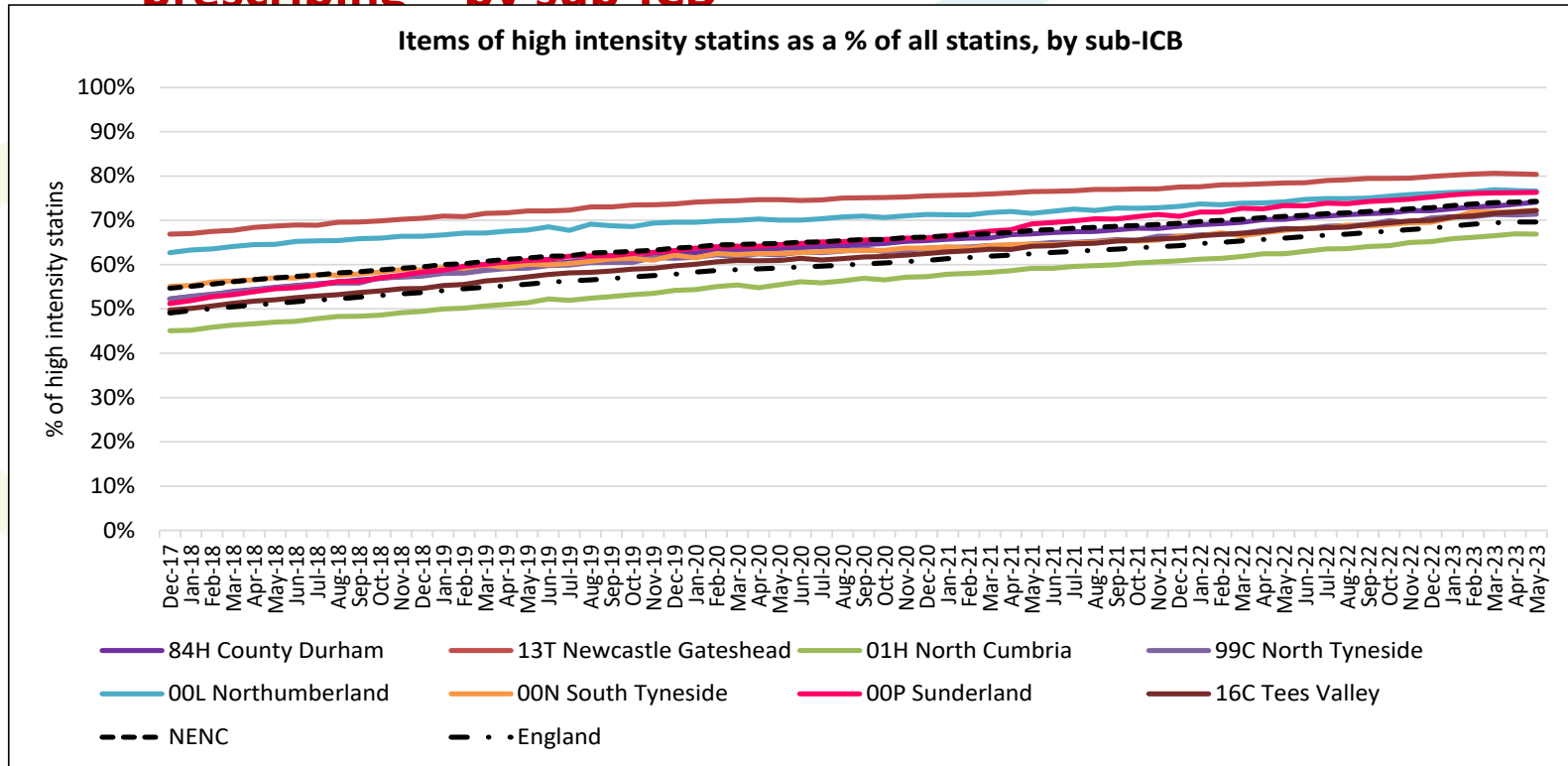


Payment

England: 2.0%

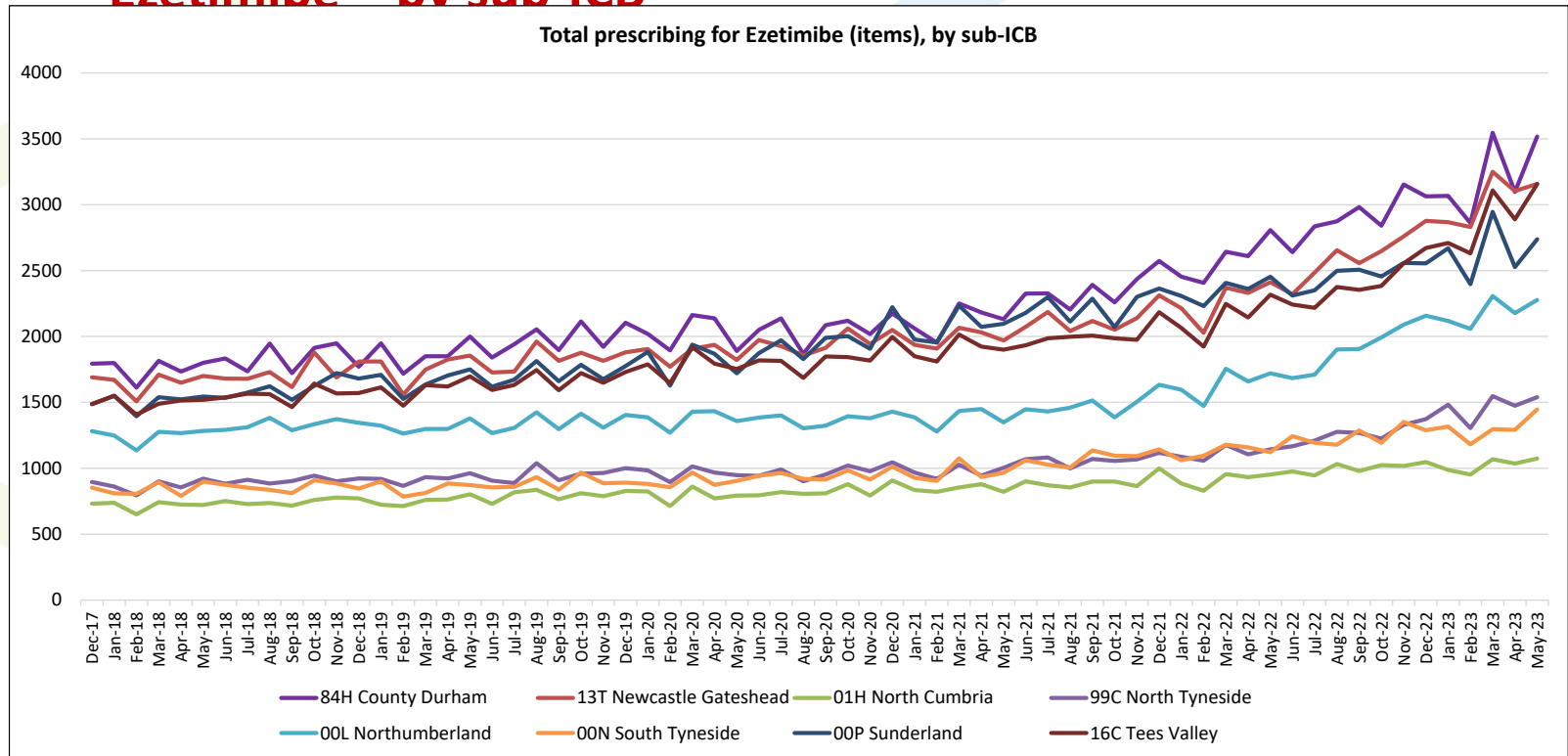
NENC ICB: 3.8%

% HIST compared to all statin prescribing – by sub-ICB



Data source: IRLS Analytics, NHS England

Prescription item numbers of Ezetimibe – by sub-ICB



Data source: IRLS Analytics, NHS England

North-East and North Cumbria ICB Baseline Report

NENC	Inclisiran prescriptions*	High Intensity Statin prescribing as a proportion of all statins**	Ezetimibe (all combinations) ^	PCSK9i \$
Baseline (22/23)	538	72.2%	735,271	98.4%
Apr 23	603	74.1%	752,894	89.5%
May 23	685	74.3%	771,825	90.2%

*CLF – no Inclisiran milestone for stage 2

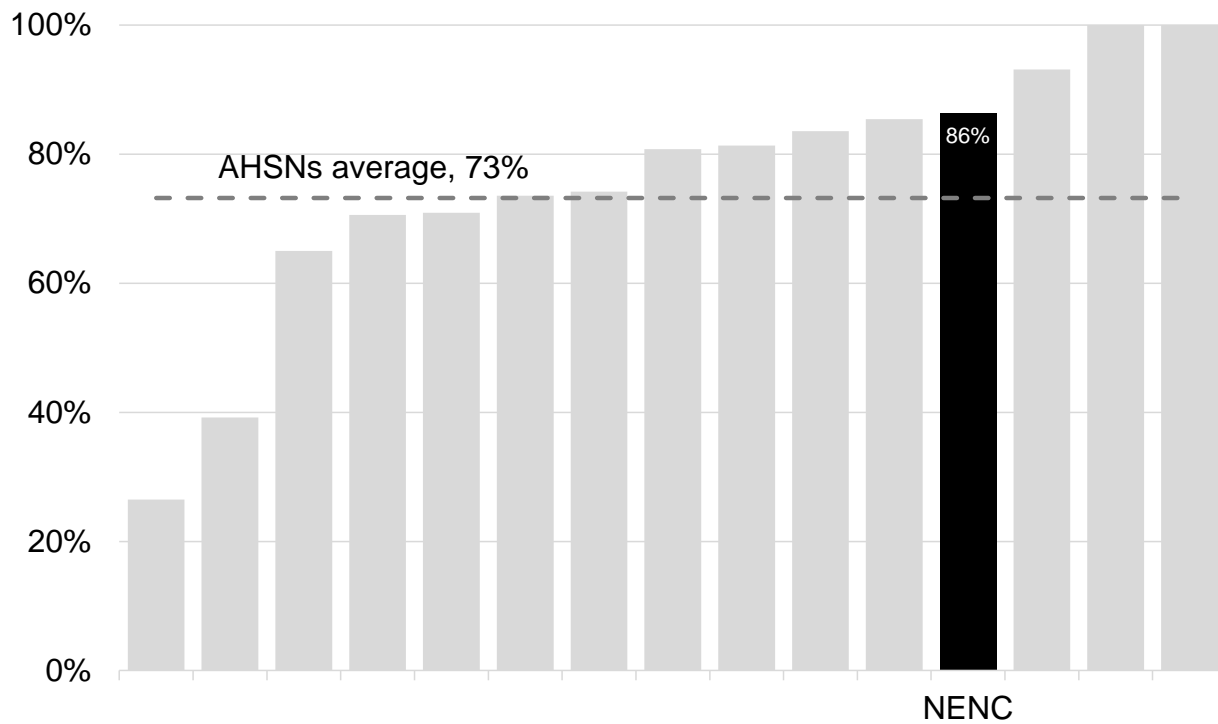
**CLF Stage 2 milestone is to identify baseline

^ CLF Stage 2 milestone to identify baseline

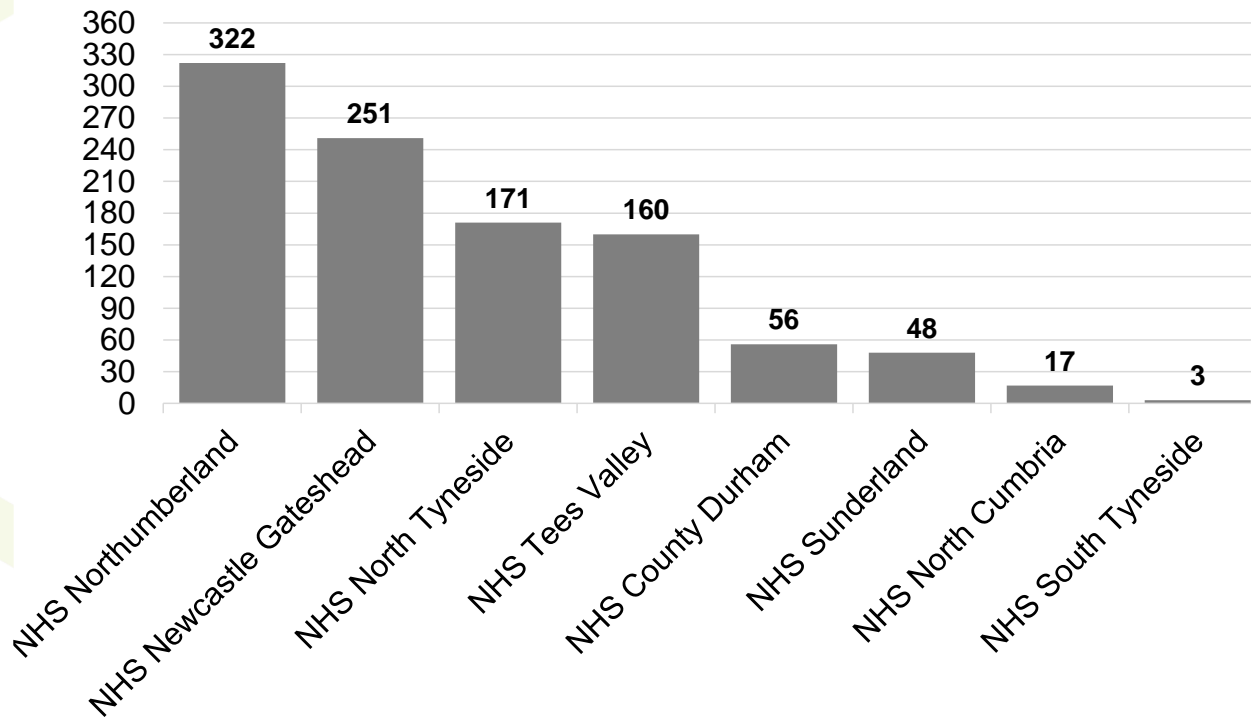
\$ Performance against trajectory used for baseline (rather than patient estimate, quarterly estimate or rolling 3 month estimate)

•Data source - Open Prescribing, EPACT2, Define Database

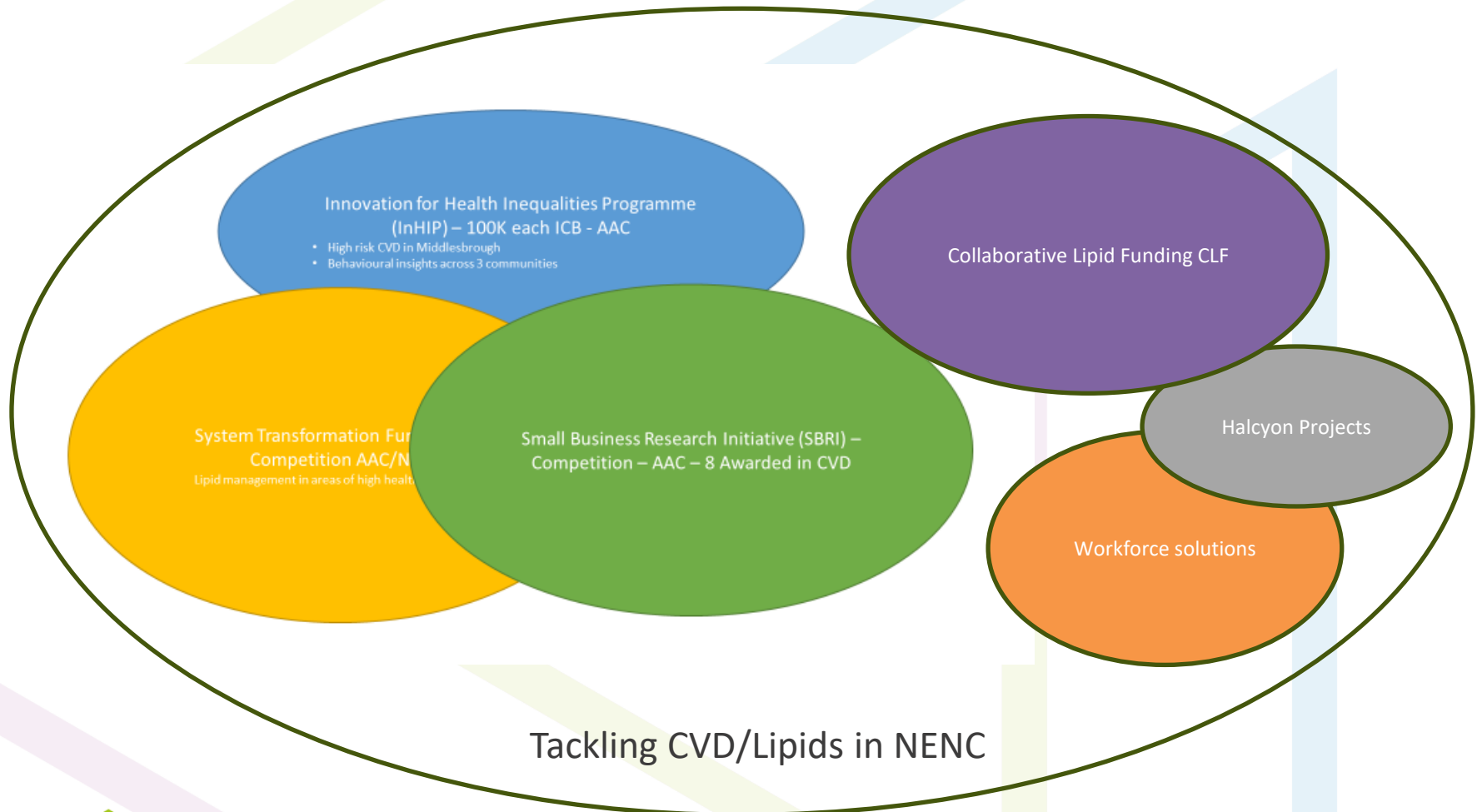
Percentage of PCNs prescribing Inclisiran, AHSNs in England



Number of Inclisiran items ordered, sub-ICBs in NENC



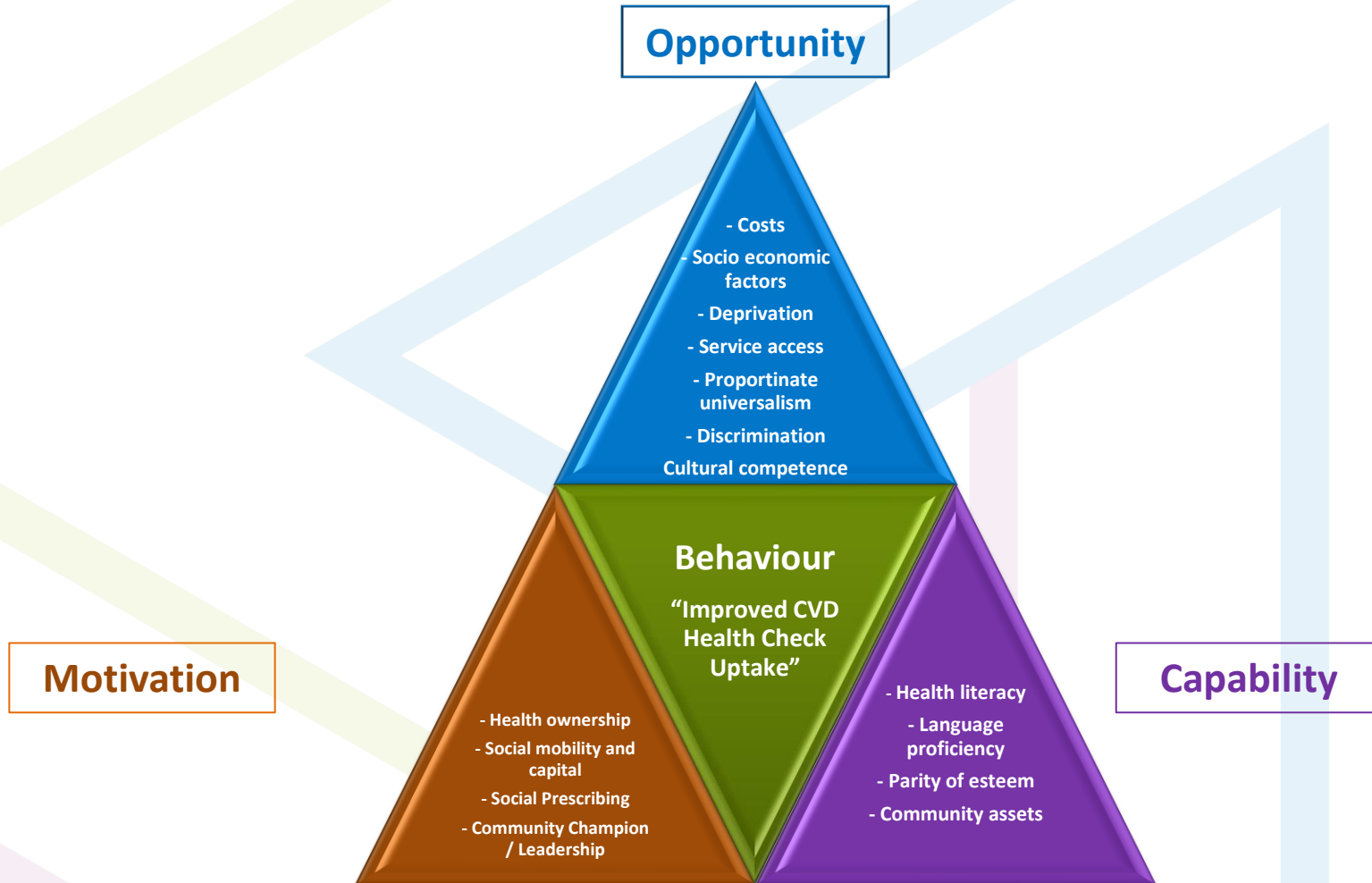
Programmes happening in NENC



Behaviour Change Pyramid: COM-B Framework

Innovations for Healthcare Inequalities Programme

PHASE 1 OUTPUTS



PocDoc



STF
SBRI

PocDoc combines cutting-edge lateral flow technology (UK manufactured) with AI and image analysis in our secure, UK-based diagnostic cloud



Step 1

Download the app

Fill out the PocDoc health questionnaire

Step 2

Prick your finger

And drop your sample onto the PocDoc lateral flow test

Step 3

Develop

Blood separated into plasma which reacts with each test site creating colour reactions over 6 minutes

Step 4

Take a photo

Photo of test sent real-time to PocDoc cloud, software analyses the colour intensity, calibrates it to concentration value for each biomarker

Step 5

Get your results

Results available immediately in the PocDoc app alongside a personalised health assessment.

STF



4000 tests



Secondary prevention



Explore the feasibility and acceptability of near/at home cholesterol testing in deepend practices in CORE20PLUS5 communities



Explore whether this approach increases patient engagement



Village Green Surgery – implementing
Cruddas Park surgery- scoping

SBRI

6500 tests

Primary and secondary prevention

3 workstreams:

- Patients due a lipid test – test at home or pharmacy
- Walk in/booked pharmacy appointments
- Corporate setting

Current activities

- Cleveland police completed “wellness week” – June ’23
- AHSN NENC mini health checks
- Collaboration with Y and H AHSN and Affinity Care
- Riverside asylum seekers surgery
- North Tyneside Outreach services
- NEAS – Health checks in deprived communities
- Newcastle pharmacy students
- Community pharmacy
- Learning Disabilities - PM NHSE and GPSI
- Nursing homes
- NHS staff



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