



Department  
of Health &  
Social Care



National Institute for  
Health Research

# NIHR – what's new

HSR UK Conference 2018

**Dr Louise Wood**

Director of Science, Research & Evidence

Department of Health & Social Care

@klouisewood

# Impact of the first ten years of NIHR



## THE LANCET

Volume 387 · Number 10021 · Pages 1569-2062 · May 14-20, 2016 [www.thelancet.com](http://www.thelancet.com)

“The NHS has benefited enormously from the National Institute for Health Research (NIHR) and its approach to clinical research in the past 10 years; its need for the NIHR will be even greater in the future.”

See Comment page 1570

Comment	Articles	Articles	Seminar	Review
New ISSCR guidelines: clinical translation of stem cell research See page 1579	Delivering safe and effective analgesia for management of renal colic in the emergency department See page 1609	Adjuvant sorafenib or sunitinib for high-risk, non-metastatic renal-cell carcinoma See page 1618	Primary glimepiride/ghrelin See page 1628	Countdown to 2015: a decade of tracking progress for maternal, newborn, and child survival See page 1643

£5.00 Registered as a newspaper · ISSN 0140-6736  
Founded 1823 · Published weekly

**The National Institute for Health Research at 10 years**  
**An impact synthesis**  
Summary report

RAND Europe and the Policy Institute at King's

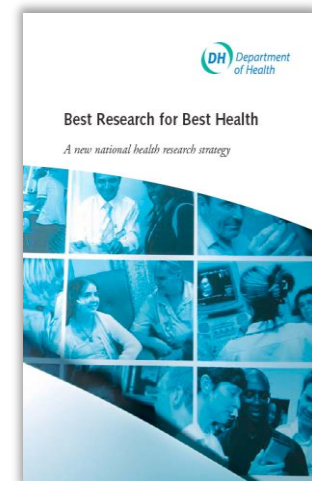
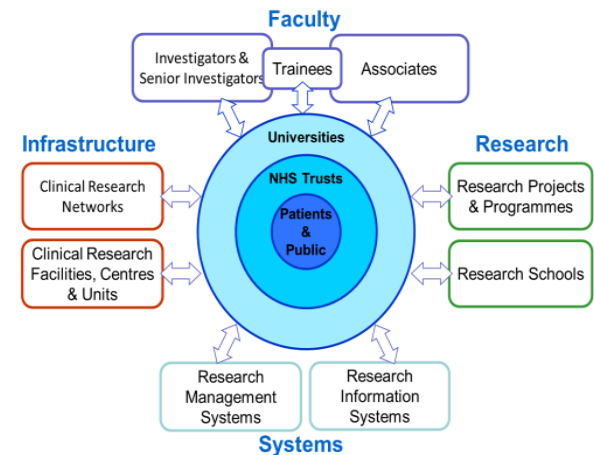
# History of NIHR – establishment strategy

## NIHR Vision

To improve the **health** and **wealth** of the nation **through research**

**A health research system** in which the NHS supports:

- outstanding **individuals**
- working in **world-class facilities**
- conducting **leading-edge research**
- focused on the **needs of patients and the public**



# Current context

Industrial Strategy



Department for  
Business, Energy  
& Industrial Strategy



UKRI & ISCF



Brexit



General Data Protection Regulations



Department for  
Digital, Culture  
Media & Sport

NHS long-term plan

Accelerated Access Collaborative



2.4% GDP target R&D investment



# Setting research priorities



- **System pull**, e.g. NHSE research priorities, HTA Programme triage process, Priority Setting Partnerships
- **Underserved need** – where scale of tractable problem and scale of research effort are badly aligned
- **Community consensus**, e.g. NIHR Future of Health report and reports from AMS and ASS
- **Ministers** e.g. dementia, mental health, brain and pancreatic cancers

# NIHR “Health Futures” 20 year forward look



National Institute for  
Health Research

Differences in state of health & provision of healthcare and differential impact e.g by geography

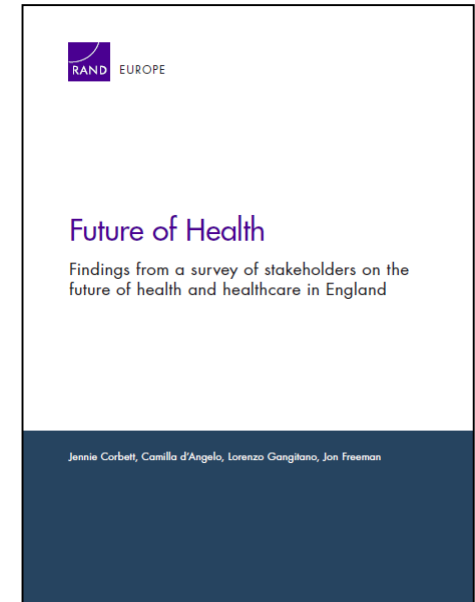
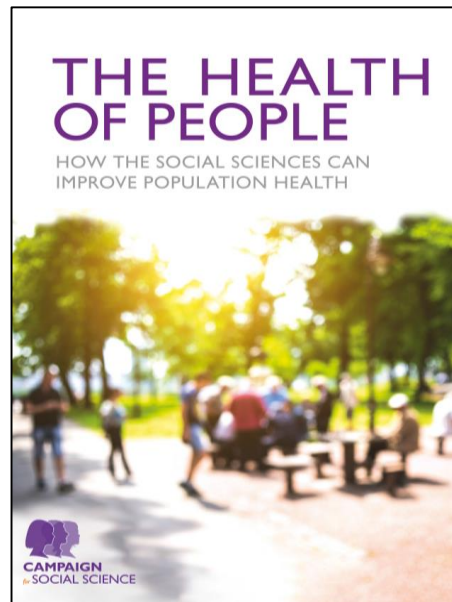
Key drivers for change

Major trends in health & healthcare

Which issues are overstated & why?

Which issues are understated & why?

[Link: https://www.rand.org/pubs/research\\_reports/RR2147.html](https://www.rand.org/pubs/research_reports/RR2147.html)

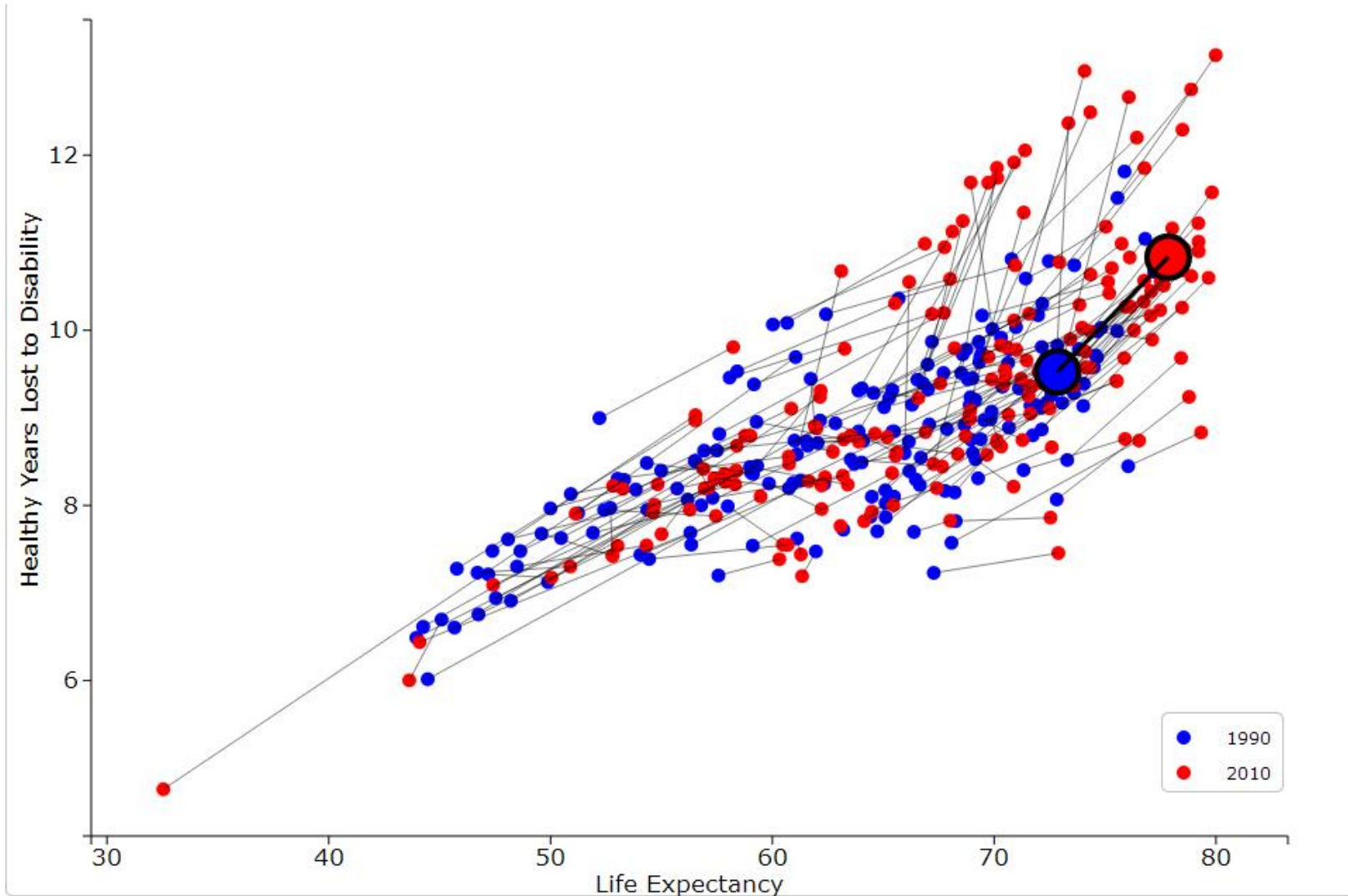


# Health futures - recurring themes



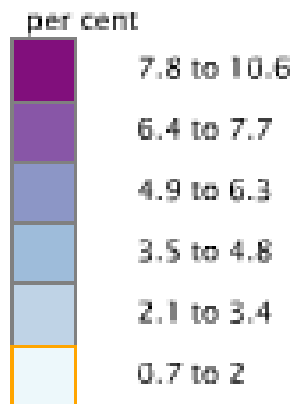
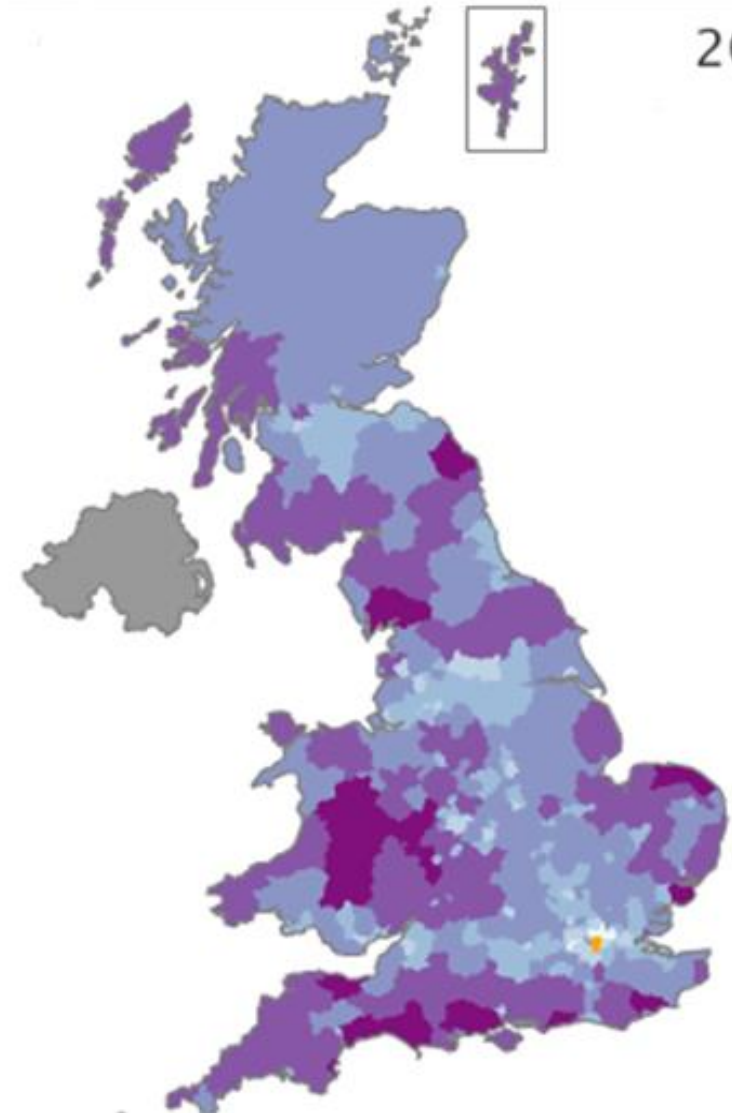
- **Transformation** in organisation and delivery of health and social care
- **Patient expectations and voice** are growing
- Increasing **health inequalities** driven by wider determinants
- Challenge of **lifestyle and environmental drivers** for public health needs – obesity and air pollution
- Growing burden of **mental ill-health** (young and old highlighted)
- **Demographic pressures** (ageing population with multi-morbidities)
- Improving maternal and child health & end-of-life care –**life course approach**
- Challenge of keeping pace with **advances in technology** and positive/negative consequences of new personal digital devices
- **Global challenges** and changing patterns of disease - infectious disease – climate change and AMR

# As life expectancy increases disability increases more: all countries, UK highlighted (GBD 2013)





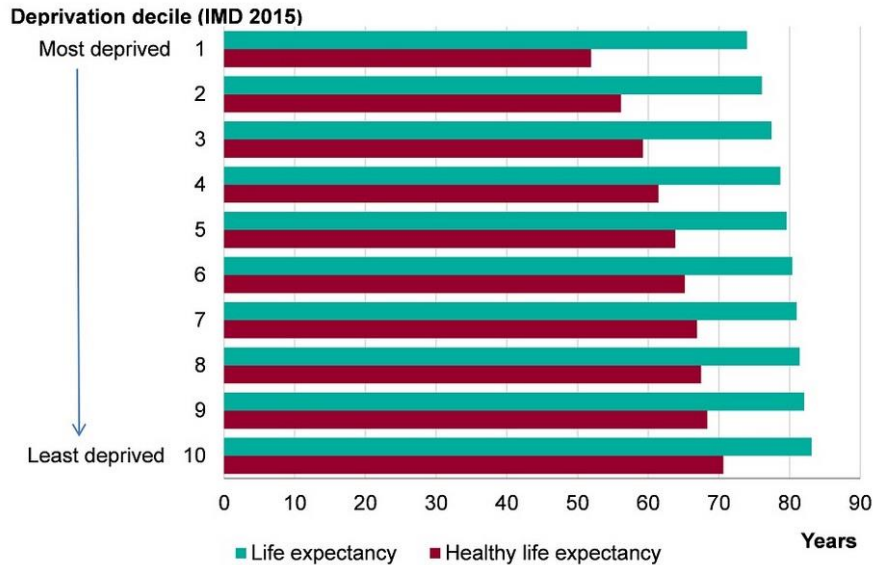
# Population 85 and over: 1992, 2015, 2033 (ONS)



# Life expectancies

## Male life expectancy and healthy life expectancy at birth by deprivation decile, England, 2013 to 2015

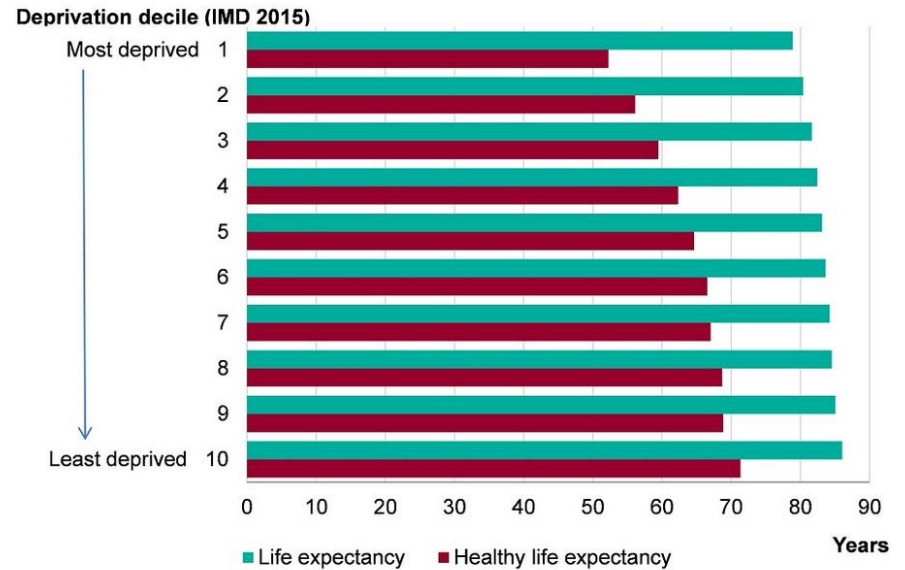
For males, both life expectancy and healthy life expectancy were highest in the least deprived areas and lowest in the most deprived areas



Source: Public Health Outcomes Framework

## Female life expectancy and healthy life expectancy at birth by deprivation decile, England, 2013 to 2015

For females, both life expectancy and healthy life expectancy were highest in the least deprived areas and lowest in the most deprived areas

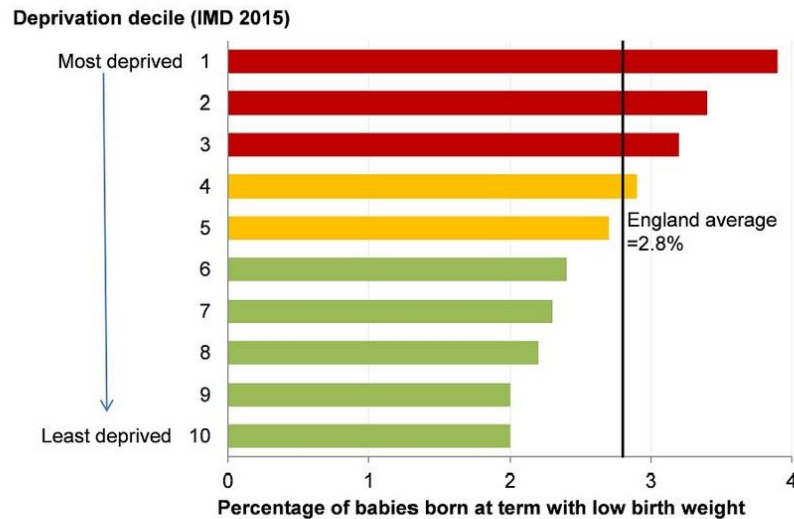


Source: Public Health Outcomes Framework

# Live births/infant mortality

## Proportion of live births at term with low birth weight (<2500g) by deprivation decile, England, 2012 to 2014

A higher percentage of babies are born at term with a low birth weight in the 3 most deprived decile groups

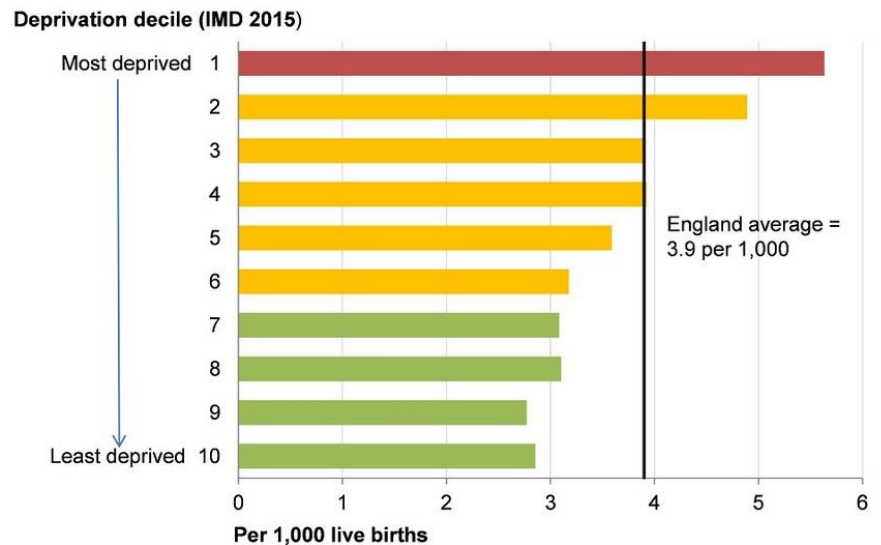


Compared to England average: ■ Significantly below ■ Similar ■ Significantly above

Source: Public Health Outcomes Framework: Health Equity Report. Focus on Ethnicity (2017)

## Infant mortality rate by deprivation decile, England, 2013 to 2015

The infant mortality rate is highest in the most deprived decile group and lowest in the least deprived

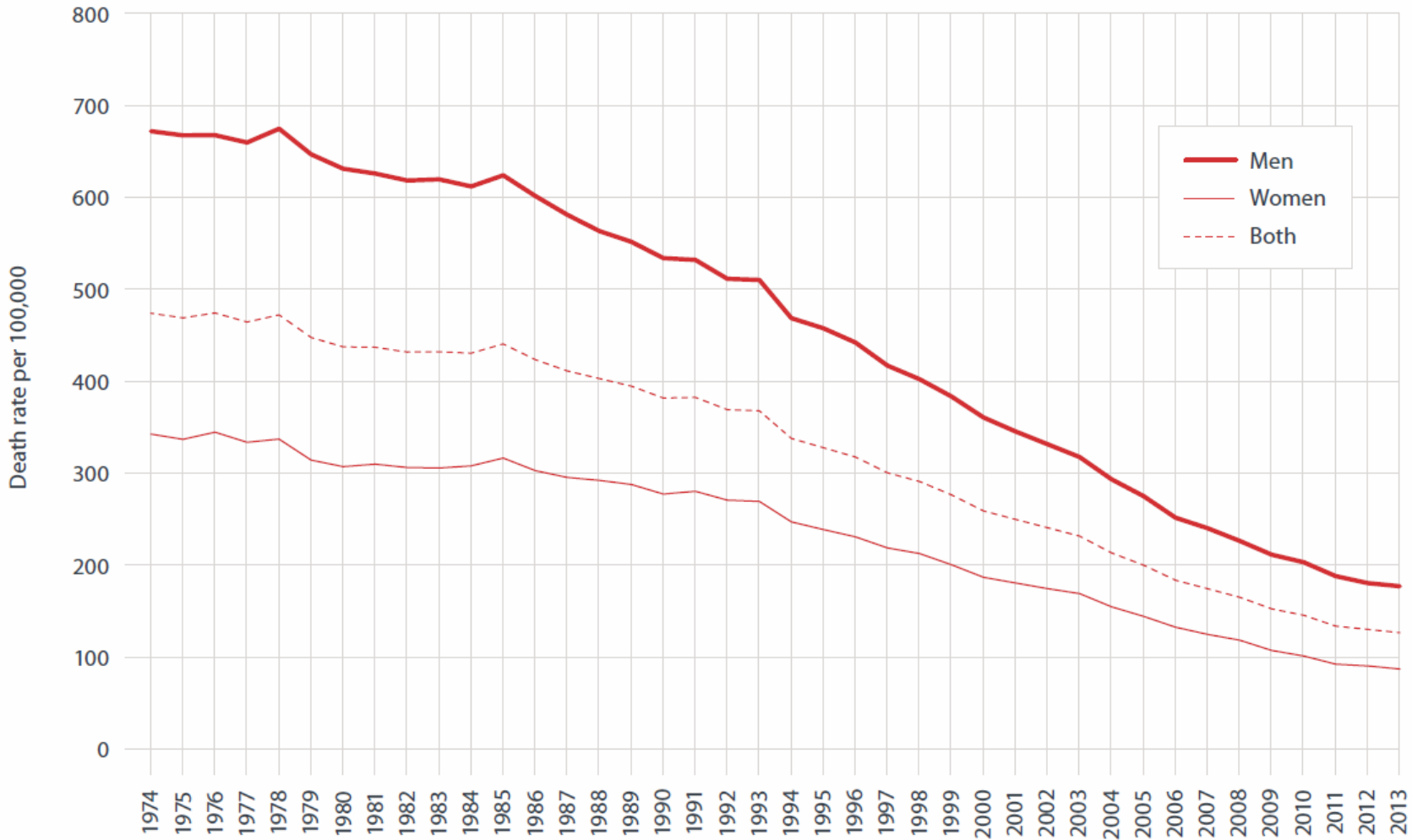


Compared to England average: ■ Significantly below ■ Similar ■ Significantly above

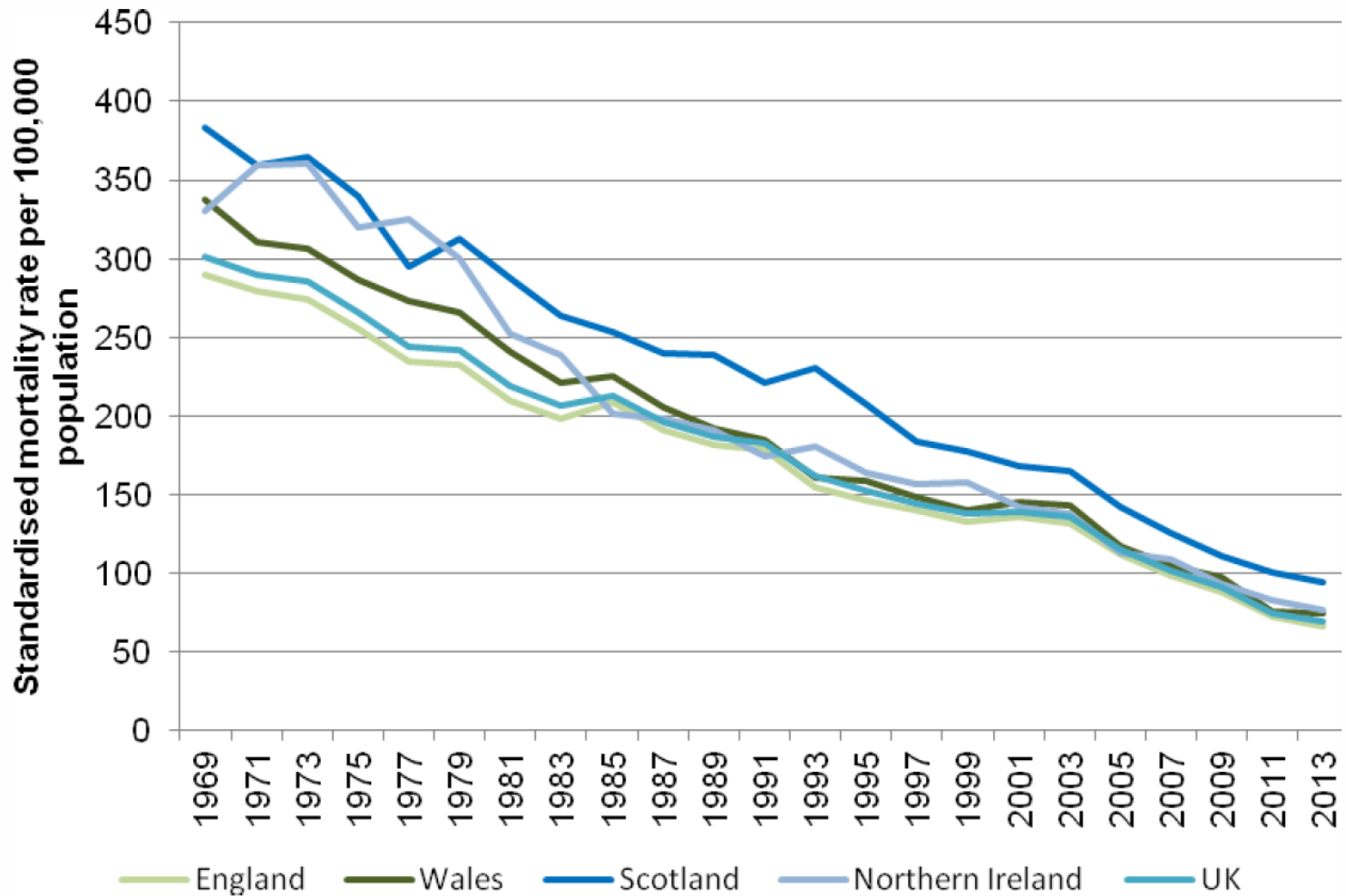
Source: Public Health Outcomes Framework

# Age-standardised coronary heart disease mortality rates, UK 1974-2013. 73% reduction overall,

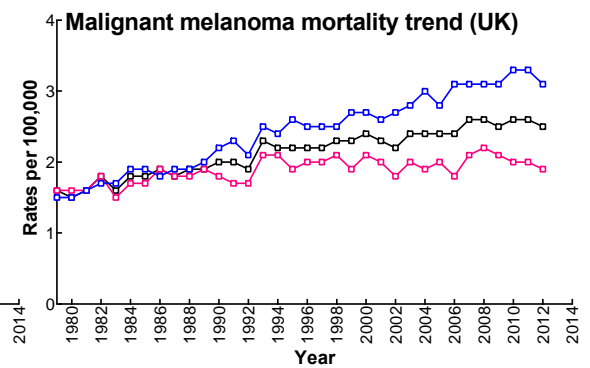
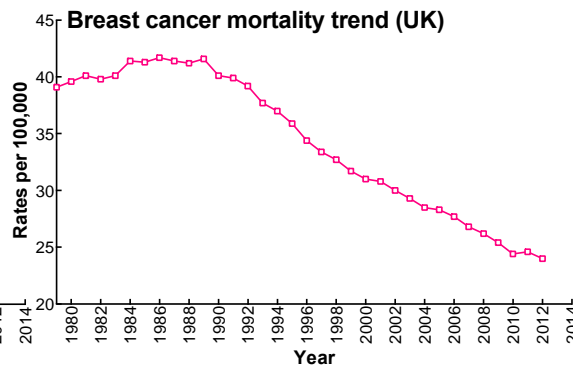
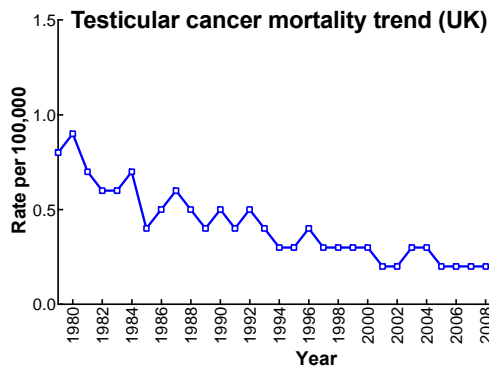
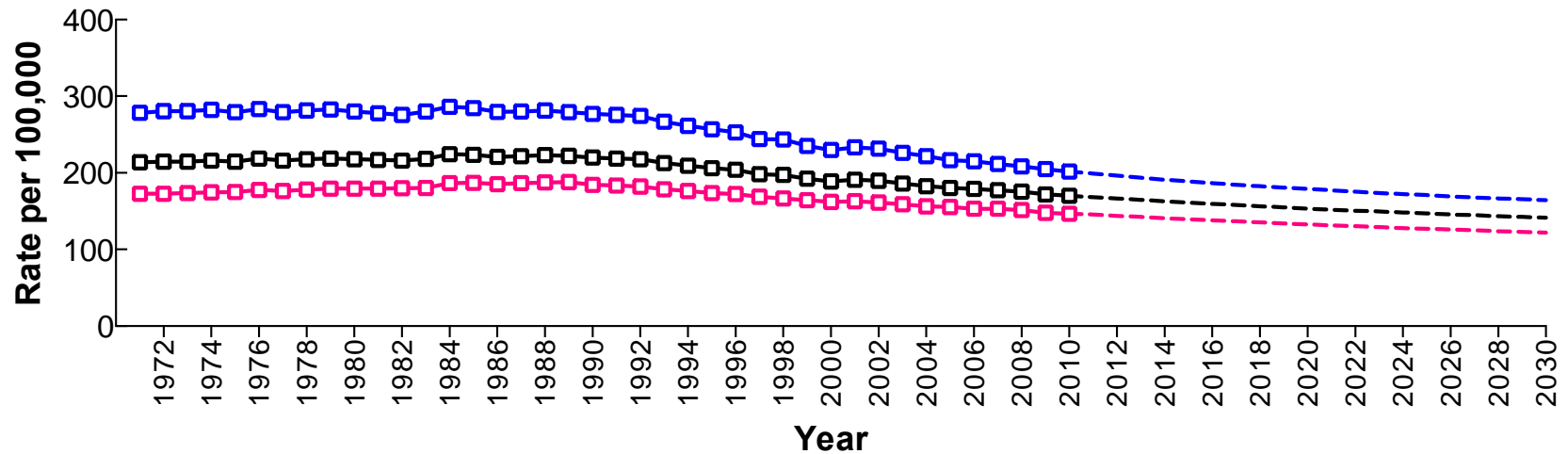
81% reduction on those under 75 years. (BHF)



# Stroke mortality in UK. Age-standardised mortality /100,000 population 1969-2013



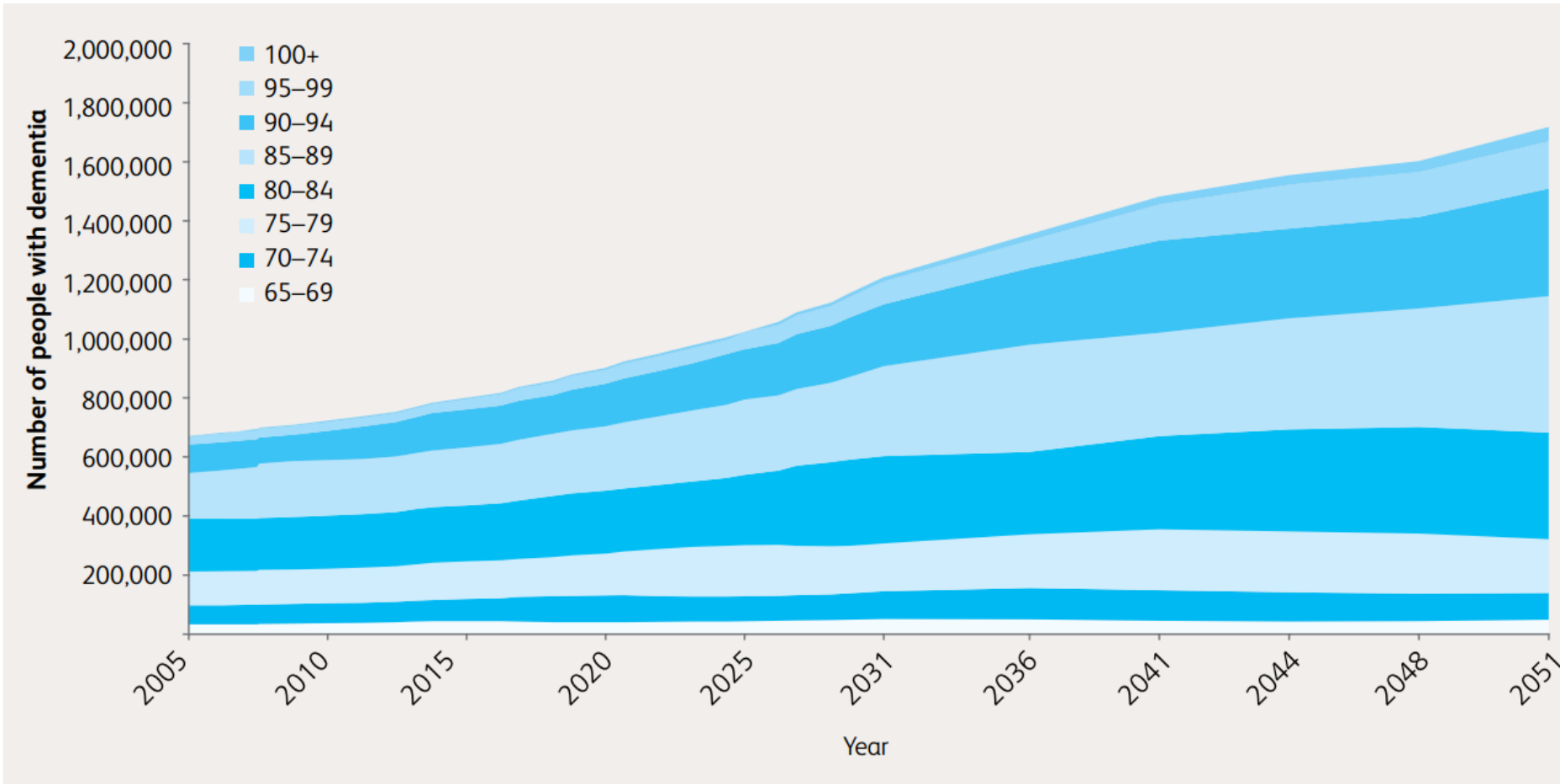
# UK cancer mortality projections, all cancers



# Around 820,000 UK people affected 2016.

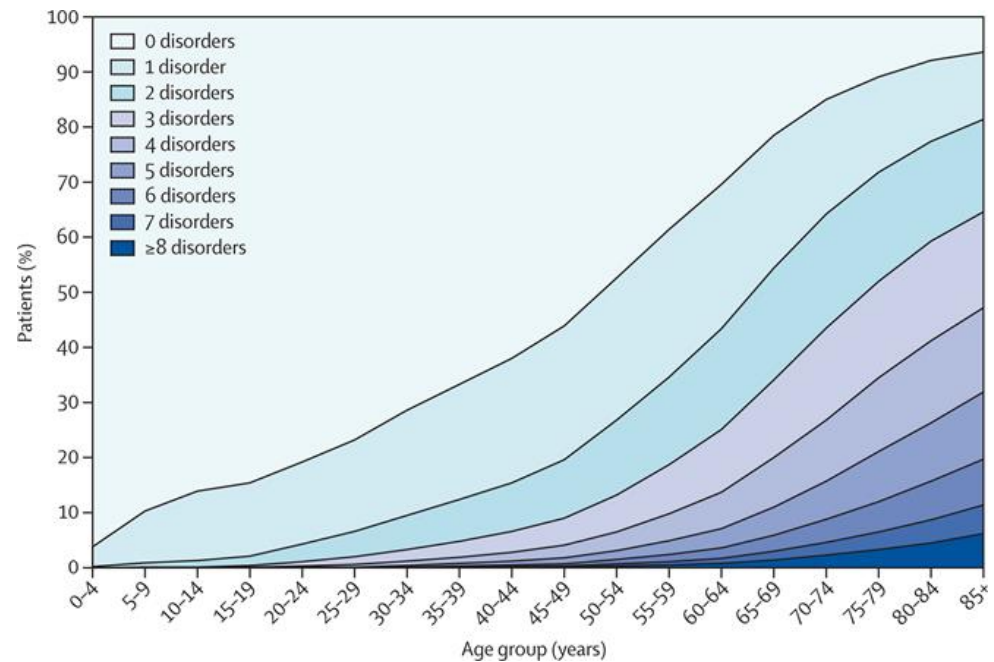
## Current projections.

(Prince et al 2015)



# Clusters of multi-morbidity

- Strong basic science, epidemiology, applied science essential to tackling.
- Work initiated with other funders
- Pushing morbidity clusters to the right in age could be transformational.



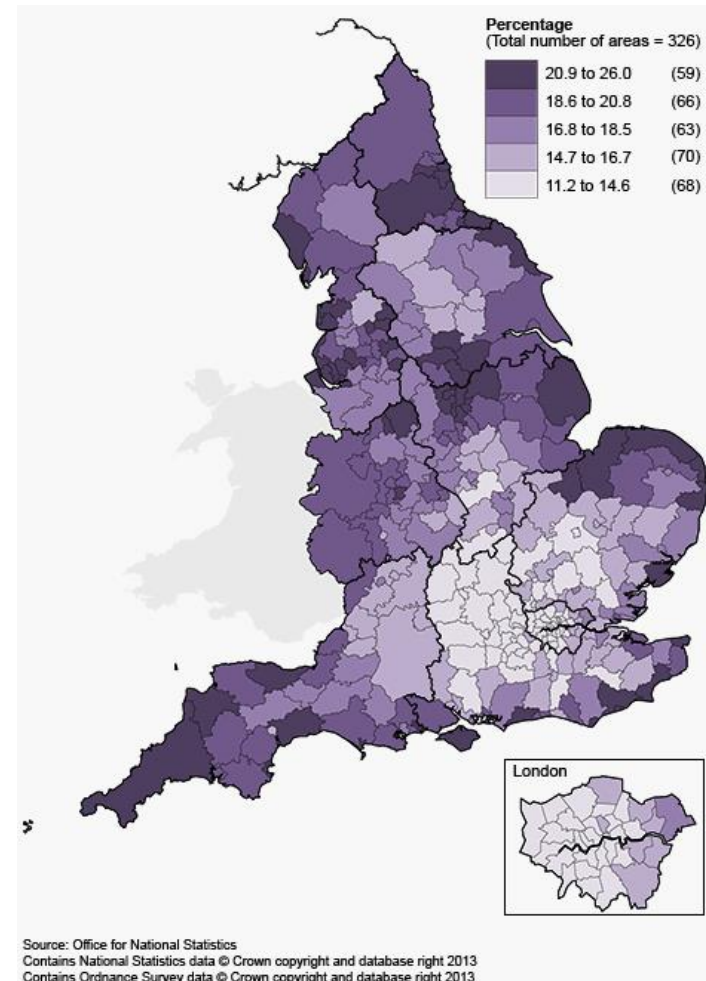
*Barnett et al 2012*



# Reported limitations of daily activity (ONS 2011 data)

National Institute for Health Research

- Does not correlate well with research activity.
- Good scientific, as well as ethical, reasons the best research should go to the greatest need.
- Include representative population, study size.




# Future of Health report – lay review



- Welcome life course approach  
*“What does it mean to be born well, live well and die well?”*
- Over-medicalised view of the future – reflects “the bubble”
- Self management not straight-forward issue for patients
- Discussion on inequalities not reflective of patient experience
- Perceived reluctance to grapple with implementation
- Danger of “ghettoising” public involvement - need new methods and approaches  
*“The future is about equality not coding”*

# Our changing relationship with patients and the public (Denegri)



## Past and present

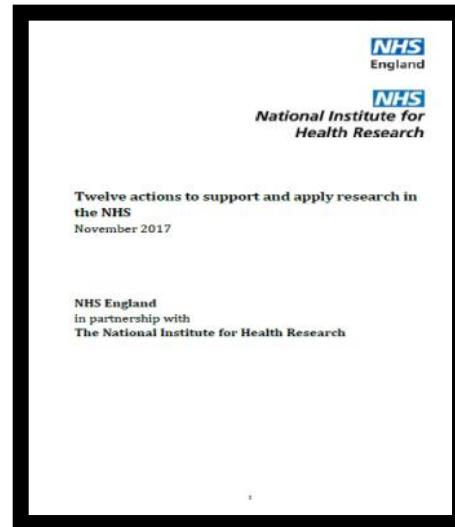
- Involvement, engagement and participation
- The individual
- Clinical research, clinical trials, clinical studies
- Process
- Centrally controlled and driven
- Partnership
- The committee room
- Patients, carers, the public
- National focus
- NIHR and 'the few'

## The future

- Co-production, co-creation,
- Mobilisation
- The community
- Public health, social care research
- Outcomes
- Citizen driven, Grassroots
- Collaboration
- Digital, tech, AI, social media
- Consumers
- Global movement – thinking 'globally acting locally'
- Charities and industry

)

**NIHR Dissemination Centre**



**NIHR Clinical Research Network to support broader range of research studies  
12 December 2017**

The NIHR Clinical Research Network (CRN) will be extending support into health and social care research taking place in non-NHS settings.

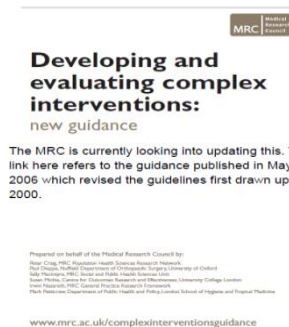
The Department of Health has agreed an important change to the criteria that describes which clinical research studies can benefit from CRN support; this includes expert advice and support to plan, set up and deliver research efficiently

**NIHR announces £150m investment in applied health research 01 July 2018**

The NIHR has announced £150 million of funding for applied health research to tackle the key issues facing our healthcare system, including the pressures of an ageing population and the increasing demands on the NHS.

Leading academics and technology experts will be able to apply for the research funding to develop health solutions for the future, helping give patients greater independence and choice about how they manage their healthcare.

A total of £135 million will be awarded to new NIHR Applied Research Collaborations (ARCs), which will undertake applied health and care research and support implementation of research into practice.



# NIHR mission (refreshed)




Our mission is to **improve the health and wealth of the nation through research**. We do this by:

- Funding, supporting and delivering **high quality research** that benefits the NHS, public health and social care
- **Engaging and involving patients, carers and the public** in order to deliver the best possible research
- Attracting, training and supporting the **best health and care researchers** to tackle complex health challenges
- **Investing in world-class research facilities and a skilled workforce** to accelerate translation of discoveries into new treatments, diagnostics and devices
- **Partnering with other public funders, charities and industry** to maximise the value of research to patients and the economy


# Strategic priorities

---

- Responding to **demographic pressures** inc ageing, disease clusters of multi-morbidity and frailty
- Building **research capacity and capability in underserved areas of greatest need**, e.g. social care, public health, primary care and mental health  

- Encouraging **applied health research activity to follow patient need** and attract the nation's leading researchers
- Implementation of the **NIHR Training Strategy**, inc NIHR Academy
- **Equality, diversity and inclusivity** in the research workforce, research participants and those who shape the research agenda (inc team science)
- **Maximise the benefit to LMICs** of our ODA funding portfolio by adding distinctive value to the funding ecosystem

# Strategic enablers of research and impact



- Patient **data**, AI, machine learning, “**omics**” inc genomics etc.
- Better **evidence synthesis**, new research **methodologies** and greater research **inter-disciplinarity** ( e.g. economics, humanities, social science)
- Simplification and addressing barriers –  applications forms, peer review, ETCs
- Better **linkage** with **commissioners** and elements of system responsible for **adoption and diffusion of innovation**
- **AVIR**, NIHR **digital** and **comms** strategies
- **Cohesion** and **connectivity** of NIHR and of UK life sciences ecosystem
- **Impact** demonstration and quantification

# NIHR – what's new?



- Renew and refresh of Best Research for Best (Sept 2018)
- Inclusion of ODA and policy research programme in NIHR
- Explicit focus on responding to predictable demographic and disease trends and some under-served areas e.g. mental health, public health, social care & multi-morbidities
- Emphasis on research activity following patient need in applied health research
- Relationships with health and care system and public(s)
- Training strategy – NIHR Academy – inc diversity & equality in the workforce
- Methodologies, platforms and focus on inter-disciplinarity