

# Chief Medical Officer Summit

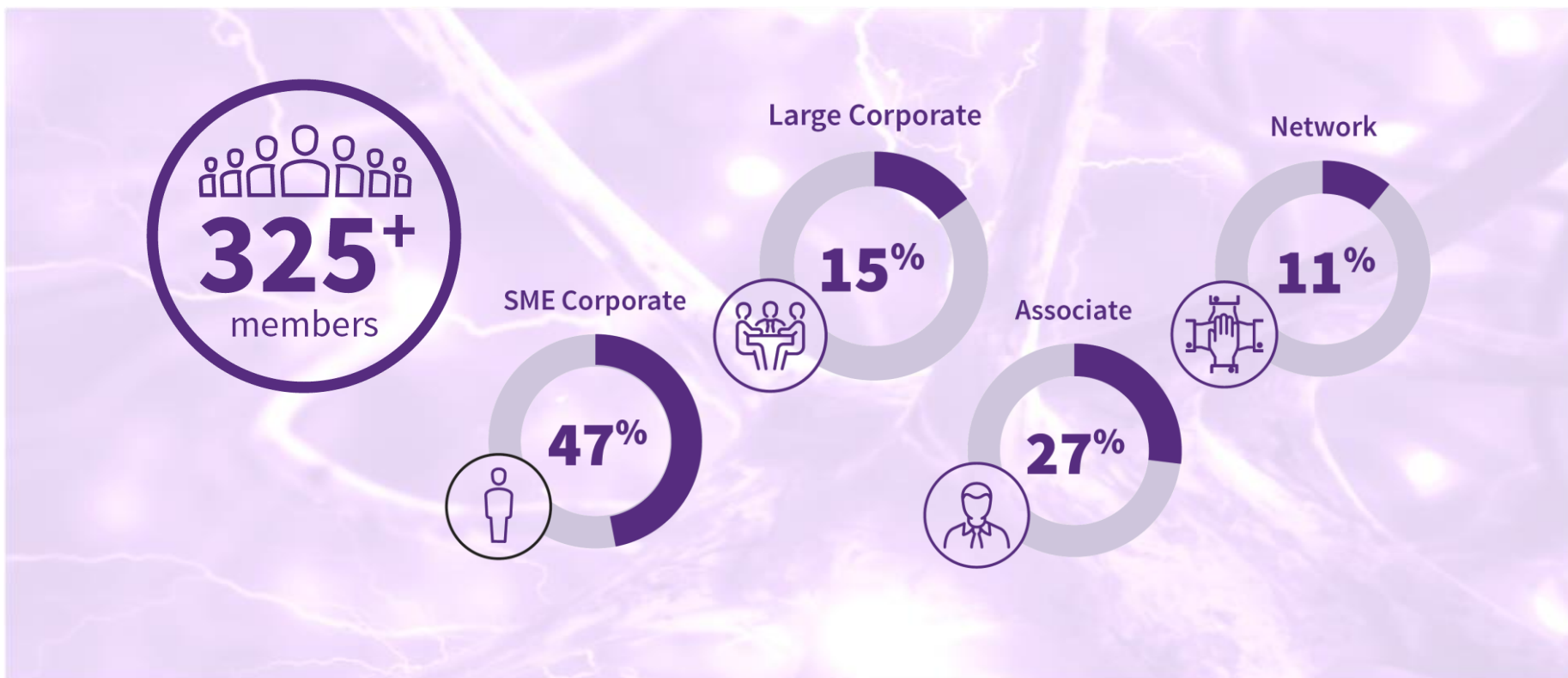
Monday 5 March 2018





**Steve Bates OBE**  
Chief Executive Officer  
BIA

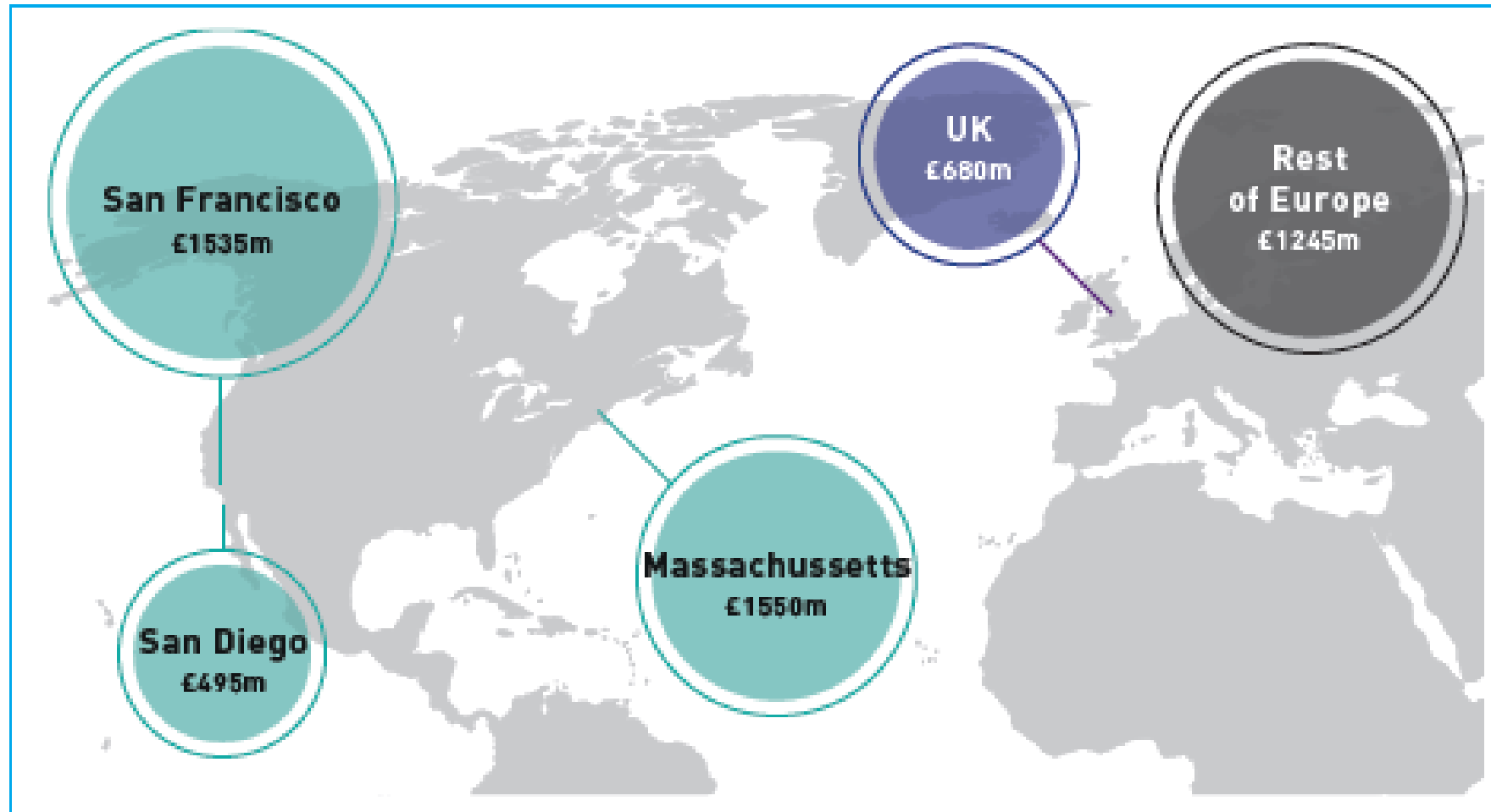
# BIA membership



# A taste of our members...



# Building something great: UK's global bioscience cluster 2016



**Influence, connect, save.**



[www.bioindustry.org](http://www.bioindustry.org)

## Nine key policy areas:

**Leaving the  
EU**

**Finance,  
tax and  
investment**

**Access to  
medicines**

**Skills,  
people and  
talent**

**Pre-clinical  
and clinical  
research**

**Medicines  
regulation**

**IP and tech  
transfer**

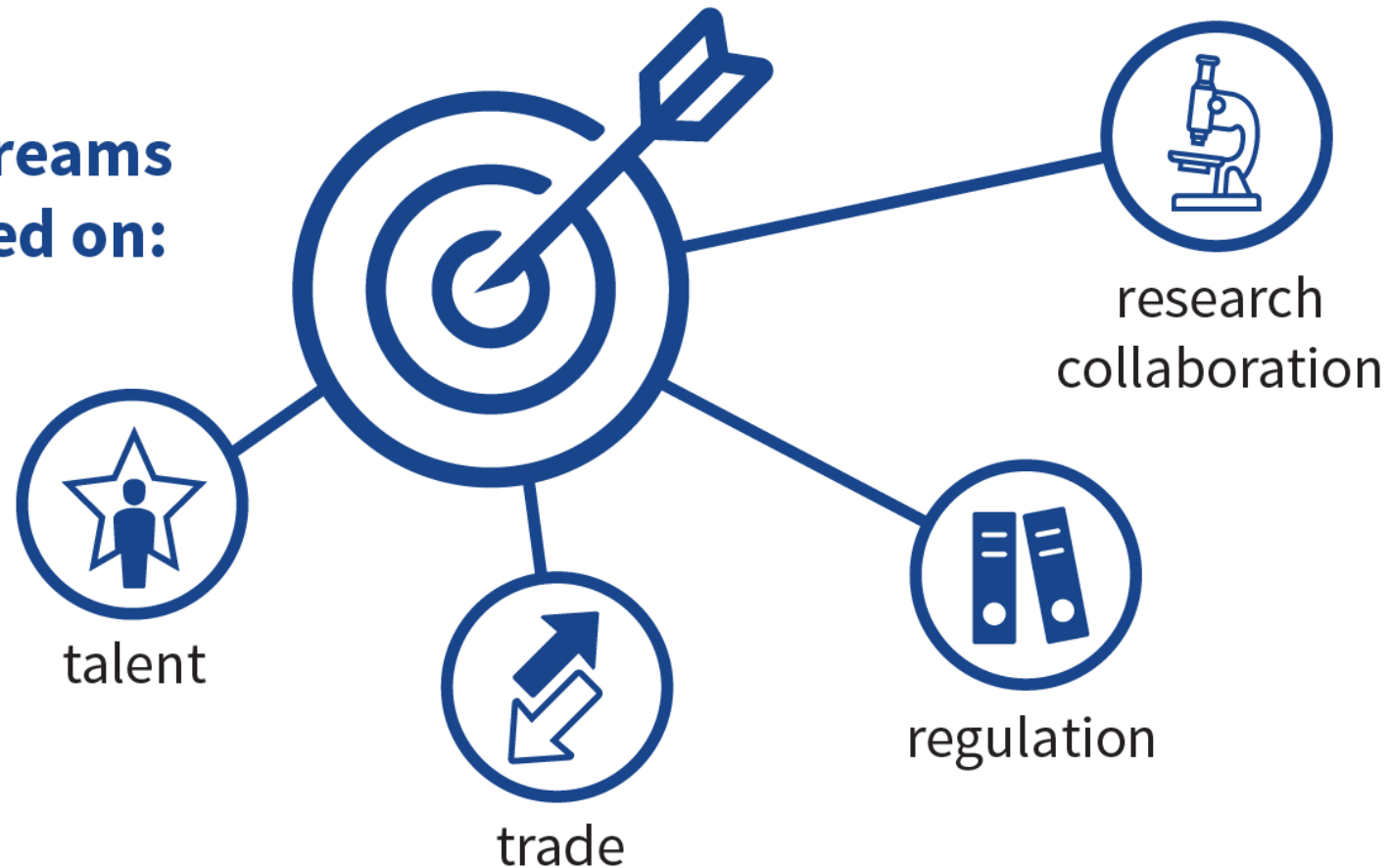
**Manufacturing**

**Strategic  
technologies**

Influence:

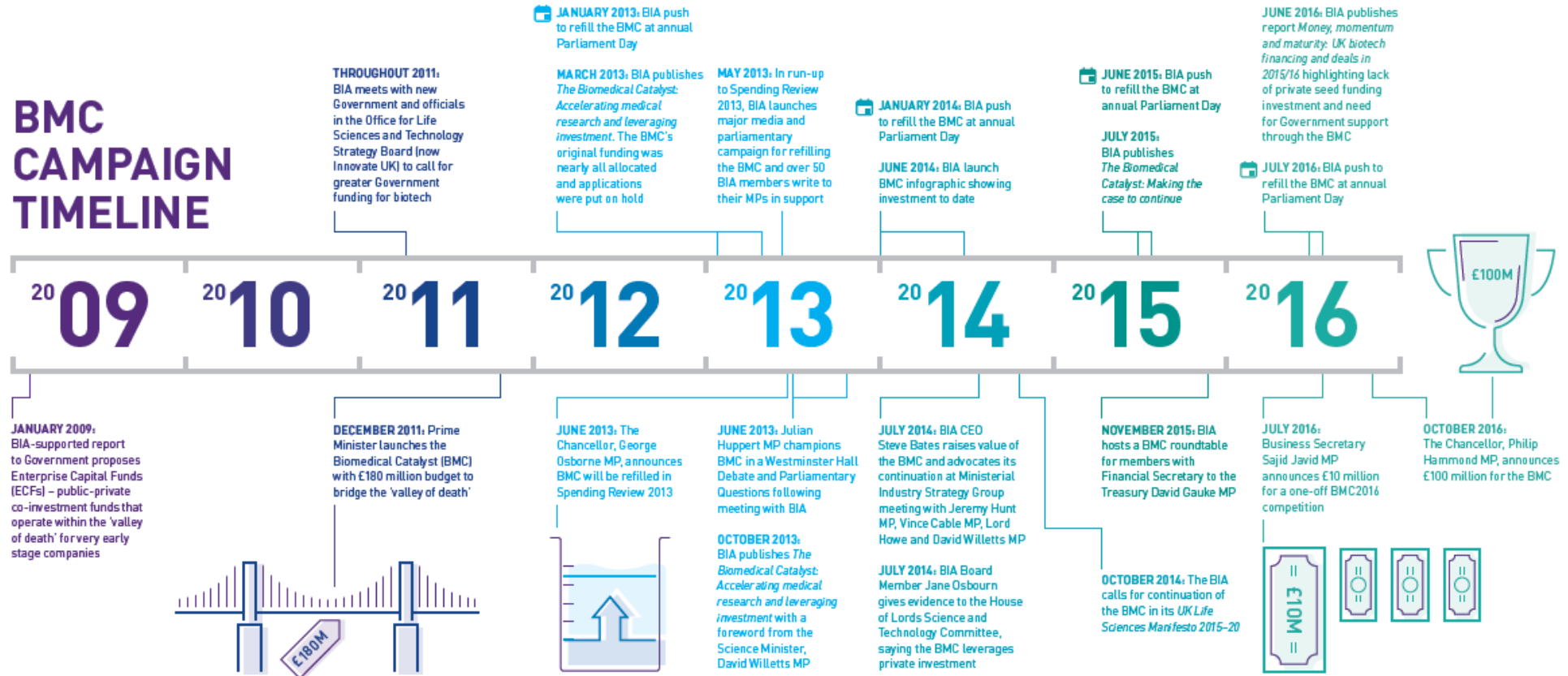
# Leaving the EU

**BIA workstreams  
have focused on:**





# Finance, tax and investment



**Influence, connect, save.**



[www.bioindustry.org](http://www.bioindustry.org)



**2,180<sup>+</sup>**

webinar  
attendees

**2,380<sup>+</sup>**

delegates  
(physical)

**4,560<sup>+</sup>**

webinar and physical  
delegates combined

**6 locations**

London, Cambridge,  
Oxford, Glasgow,  
Manchester, Cardiff

**38**

events

**8,260<sup>+</sup>**

event newsletter  
subscribers

*"You get some really exciting science, some fantastic new companies – which I think are really going to be the core of UK life sciences going forward - and actually in fact a really nice collection of people: very sociable, very engaging, and it's always really good for networking."*

**JO PISANI PWC  
STRATEGY, BIA  
CEO AND  
INVESTOR FORUM  
2017**

# Our events

📍 CEO and Investor Forum



📍 Joint BIA/MHRA Conference



📍 UK Bioscience Forum



📍 bioProcessUK



📍 Women in Biotech



📍 Parliament Day



📍 Regional events



📍 Science & finance webinars

📍 Brexit Briefing webinars

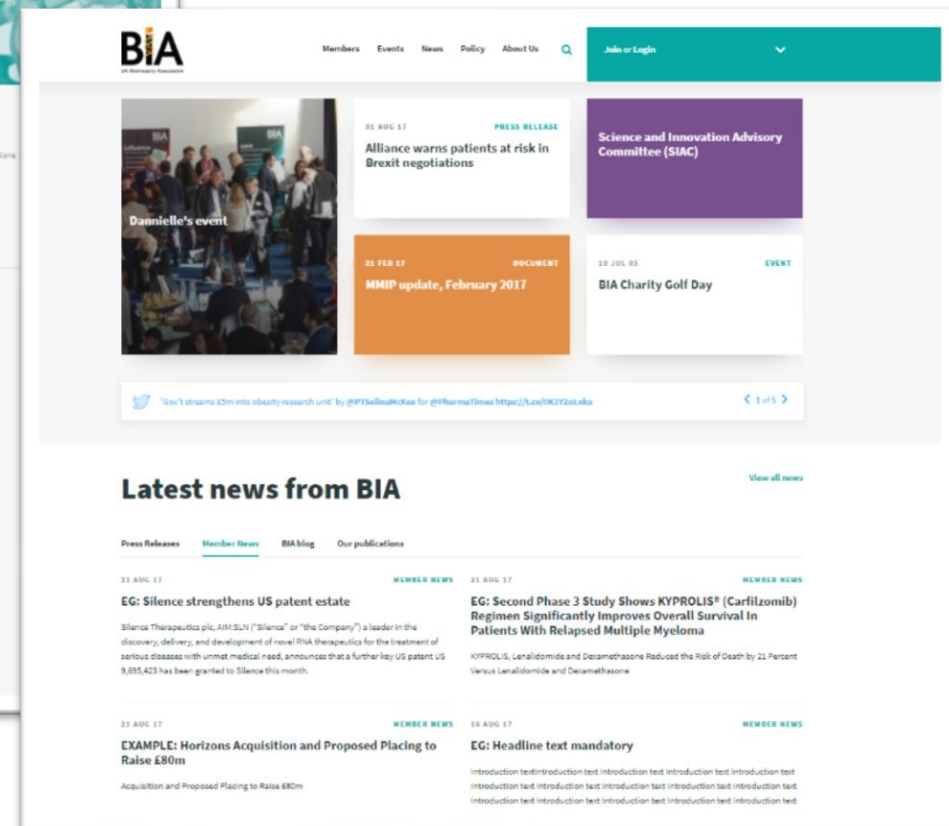
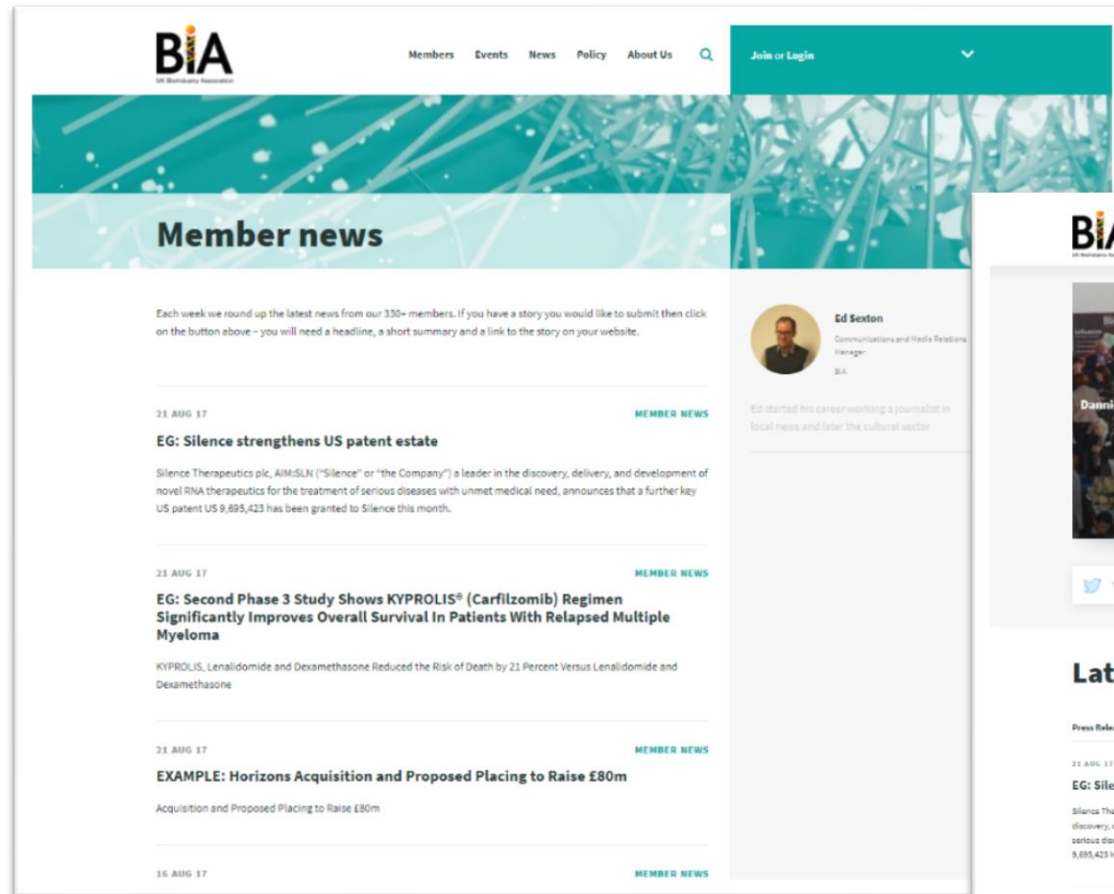




*"May I just congratulate you on organising a wonderful evening. The speakers were truly inspirational – I wish I had had the opportunity to hear such talks and encouragement when I was starting out! – the venue convenient and the chat afterwards very enjoyable. I think you have a good format that I hope will continue to be repeated."*

**JULIE BARRETT-MAJOR**  
**AA THORNTON,**  
**WOMEN IN BIOTECH**  
**2017**





**Influence, connect, save.**



[www.bioindustry.org](http://www.bioindustry.org)

# Save



Members have saved over  
**£6 MILLION**  
(average of 56% off list price!) in 2017.





# 8 BIA Advisory Committees

## **BIA ADVISORY COMMITTEES 2018**

*Cell and Gene Therapy*

*Engineering Biology*

*Finance and Tax*

*Intellectual Property*

*Manufacturing*

*Regulatory Affairs*

*Science and Innovation*

*Genomics – new for 2018*

*People – in transition for 2018*

# Committees key part of BIA Influence work

## Nine key policy areas:

Leaving the EU

Finance,  
tax and  
investment

Access to  
medicines

Skills,  
people and  
talent

Pre-clinical  
and clinical  
research

Medicines  
regulation

IP and tech  
transfer

Manufacturing

Strategic  
technologies

# 2018 priorities for BIA Influence work

Brexit

Industrial  
Strategy

Patient  
Capital  
Review

Accelerated  
Access

Celebrating  
sector success

# Additional and emerging BIA groups

PCR Pensions  
Group

Rare Disease  
Industry Group

Communications  
Forum

Government  
Affairs Network

Brexit Leads  
Network/other  
fora

China Special  
Interest Group

# 2018 so far – Corporate Communications Guide

## The BIA's best practice principles for communicating R&D progress

Building on the legal and governance requirements companies must follow, the BIA recommends bioscience companies follow the sector's best practice principles. Communications should be:



**Well prepared**



**Consistent**



**Fair, balanced and understandable (clear)**



**Mindful of the impact on members of the public to whom it is personally relevant**

These principles apply to public and private bioscience companies. Although focussed on the communication of R&D, they can be applied generally to the communication of other scientific aspects of business activity, including in services and tools companies.

Private companies are not subject to the legal obligations about when to make public announcements to their investors, but these best practice principles can valuably be applied to their communications about R&D to maintain the understanding and trust of their shareholders, stakeholders and potential investors and licensees, both now and in readiness for an IPO or some other corporate or licensing transaction.

*"Transparency and clear communication can help make life sciences companies easier for investors to understand, build trust with the investment community and are critical to attracting additional investment into the sector."*

CLARE TERLOUW  
MANAGING DIRECTOR, CORPORATE BROKING & ADVISORY, NUMIS

## Best practice for communicating R&D progress to investors and the public



Developed in collaboration with



## Best practice in communicating R&D progress

Ensuring investors and the wider public are well informed and confident about bioscience is crucial to the success of individual companies and the sector as a whole.

To support the sector to maintain high standards in communications about R&D progress, the BIA has produced a best practice guide for bioscience companies with a supporting library of resources.

These have been produced through consultation with the BIA membership and the investment community. New content will be added to the resources library on an ongoing basis to ensure the guide remains useful and up-to-date as the UK biotech sector grows and evolves.

[Download the guide](#)

### Resources library

[A practical guide to MiFID II webinar](#)

[Code of Practice for the Pharmaceutical Industry 2016 \(ABPI\)](#)

[Example of a good announcement to the market](#)

[Glossary of terms](#)

[How can we all best use scientific evidence? \(Academy of Medical Sciences\)](#)

[Make it clear \(INVOLVE, National Institute for Health Research\)](#)

[Market Abuse Regulation](#)

# 2018 so far – 2017 finance report

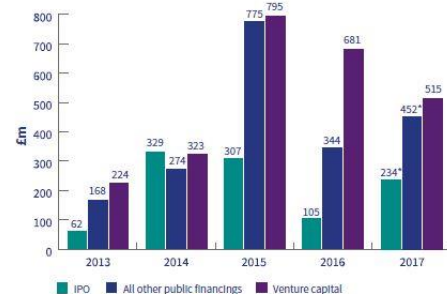
## Overall trends for 2017

The UK is in a good place in Europe with strong levels of funding. 2017 marked a return to a more usual financing pattern that relies on the public markets – 2015, 2014 and 2013 all had greater numbers for public rather than private fundraising.

It's very positive to see that both IPO and follow-on financing were stronger than last year and this shows that the uncertainty around Brexit has not had a detrimental impact on the public markets for biotech. This year's strong public market figures may also have been bolstered by 2016's venture capital fundraisings. The progression to the public markets could show that the sector in the UK continues to mature as companies move through the funding cycle.



### Overall trends, finance raised by UK-based bioscience companies



\*Includes Public financing of UK companies on Non-UK exchanges  
Source: Informa, Strategic Transactions and Scrip

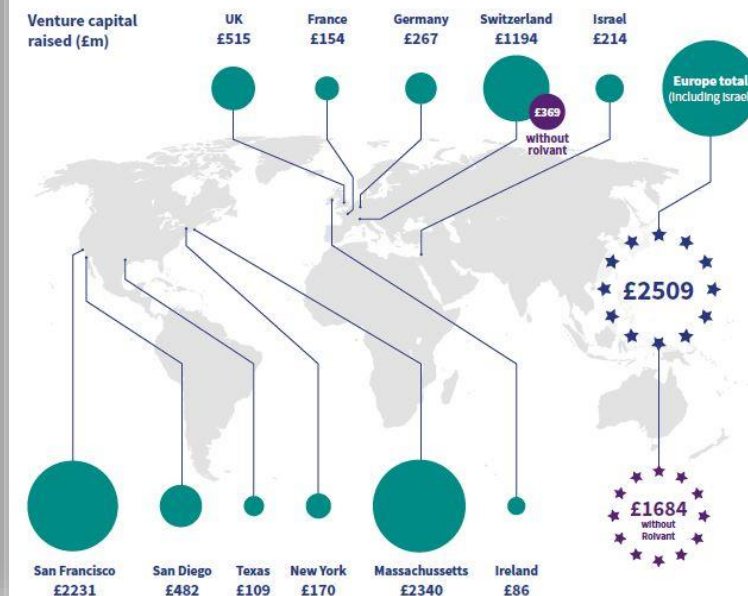
## Pipeline Progressing: The UK's Global Bioscience Cluster in 2017



## Venture capital raised – rest of Europe and USA

The European venture capital picture was skewed by a large fundraising by Swiss company Roivant raising \$1.1bn. Roivant acts as a vehicle for investing in its wholly-owned pharma subsidiaries and also in third party biotechnology companies such as Portola and Arbutus Biopharma.

Without this raising the venture capital picture across Europe remains much the same with around 30% of European venture capital going to the UK – however the inclusion of Roivant drops the UK share down to 20%. Excluding the Roivant deal, the UK is still third globally and this supports the BIA's vision for the UK to be the third global biotech cluster.



# Thank you

**In partnership with**



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**BIA Annual supporters**



# Keynote speaker



**Dr Louise Wood**

Director of Science, Research & Evidence  
Department of Health





Department  
of Health &  
Social Care



*National Institute for  
Health Research*

# **Collaborating with NIHR to advance drug development**

**Chief Medical Officer Summit 2018**

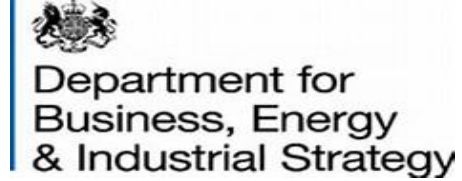
5 March 2018

**Dr Louise Wood**  
**Director of Science, Research & Evidence**  
**Department of Health**

**@klouisewood**

# CURRENT CONTEXT

## Industrial Strategy



## UKRI & ISCF



## Brexit



## General Data Protection Regulations



## Accelerated Access Review



## NHSE – Five Year Forward View Next steps



## General Election 2017



# NIHR – Mission

Improving the health and wealth of the nation through research

- Funds high quality research to improve health.
- Trains and supports health researchers.
- Funds world-class research facilities.
- Works with life science industry and charities to benefit all.
- Involves patients and public at every step.



“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 1978

#### Comment

New ISSCR guidelines: clinical translation of stem cell research  
See page 1978

#### Articles

Delivering safe and effective analgesia for management of renal colic in the emergency department  
See page 1989

#### Articles

Adjuvant sunitinib or sorafenib for high-risk, non-metastatic renal-cell carcinoma  
See page 1998

#### Seminar

Primary glomerulonephritides  
See page 2036

#### Review

Countdown to 2015: a decade of tracking progress for maternal, newborn, and child survival  
See page 2040

# NIHR Infrastructure Schemes

NIHR Biomedical Research Centres ●

NIHR-supported Clinical Research Facilities ●

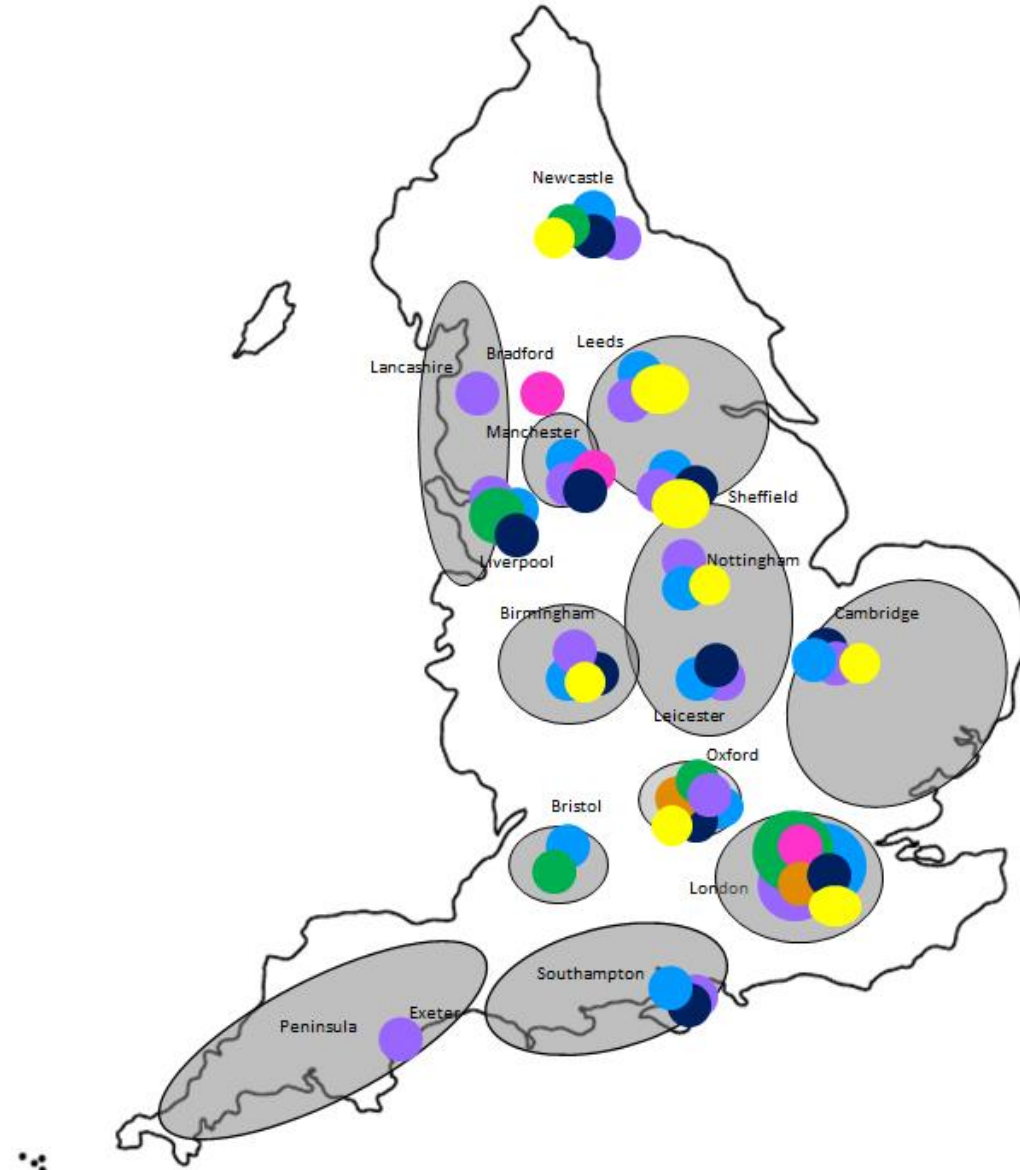
NIHR Medtech and *In vitro* diagnostic  
Co-operatives ●

NIHR/CR-UK Experimental  
Cancer Medicine Centres ●

NIHR Health Protection Research Units ●

NIHR Patient Safety Translational  
Research Centres ●

NIHR Collaborations for Leadership in Applied  
Health Research and Care ○



# NIHR Clinical Research Network

- 15 Local Clinical Research Networks (LCRNs)
- All therapy areas delivered by each LCRN
- Boundaries align with AHSNs
- Allows flexible deployment of resources

Financial year 2016/17:



2055 studies  
729 commercial



666,630+ patients recruited  
34,648 commercial



99.9% NHS  
Trusts research active  
79% commercial

And since 2006:



1000+ new  
CDAs signed  
since 2006





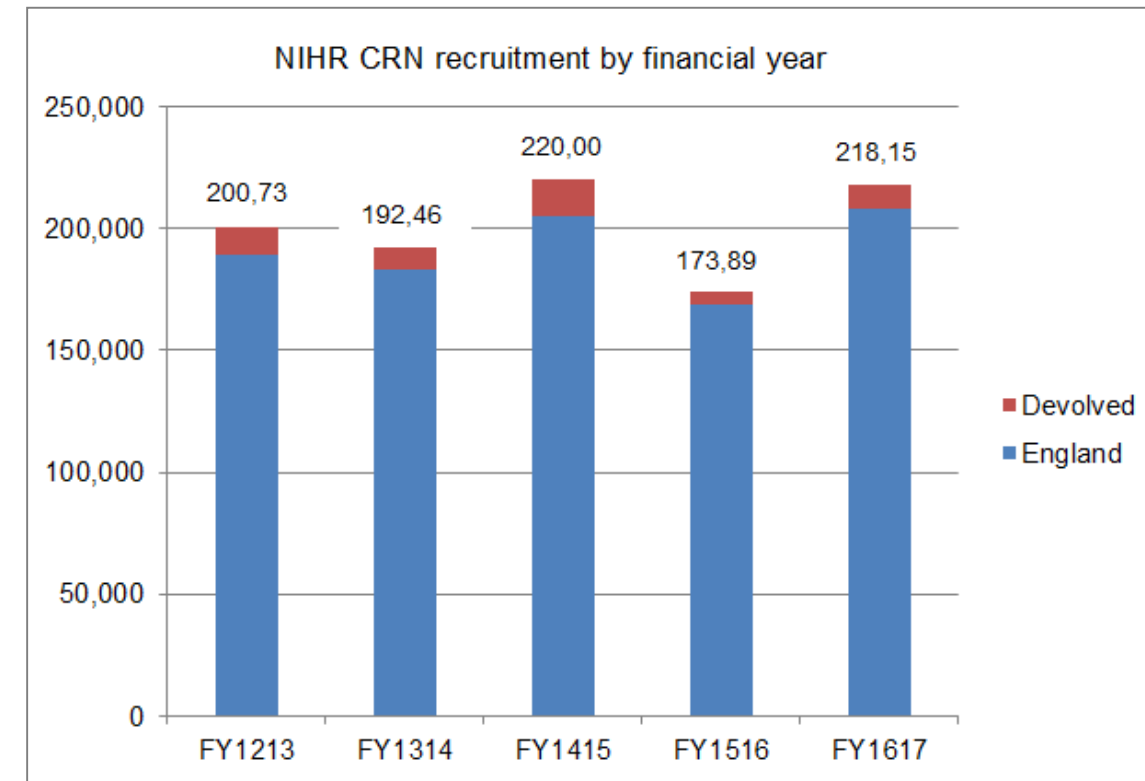
# NIHR Infrastructure and BIA members

*National Institute for  
Health Research*

NIHR Infrastructure	BIA members active projects 2016/17
Biomedical Research Centres (BRCs)	1071
Biomedical Research Units (BRUs)	221
Clinical Research Facilities (CRFs)	1460
Diagnostic Evidence Co-operatives (DECs)	15
Healthcare Technology Co-operatives (HTCs)	2
Collaborations for Leadership in Applied Health Research and Care (CLAHRCs)	1
<b>Total</b>	<b>2770</b>

## Clinical Research Network (CRN) 2016/17:

- 1,702 open BIA member studies
- 208,231 participants recruited



# Impact of NIHR and BIA Members



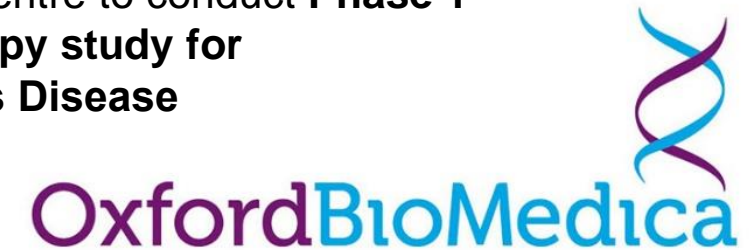
**Domainex** collaboration with NIHR Respiratory Translational Research Partnership helped Domainex to secure a **£1.4m Biomedical Catalyst Award** to develop molecule effective in COPD



**Orchard Therapeutics** partnership with The University of Manchester and Central Manchester University Hospital NHS Foundation Trust and supported by the NIHR/Wellcome Trust Manchester CRF, enabled **trials of stem cell gene therapy treatment to reverse Sanfilippo disease**



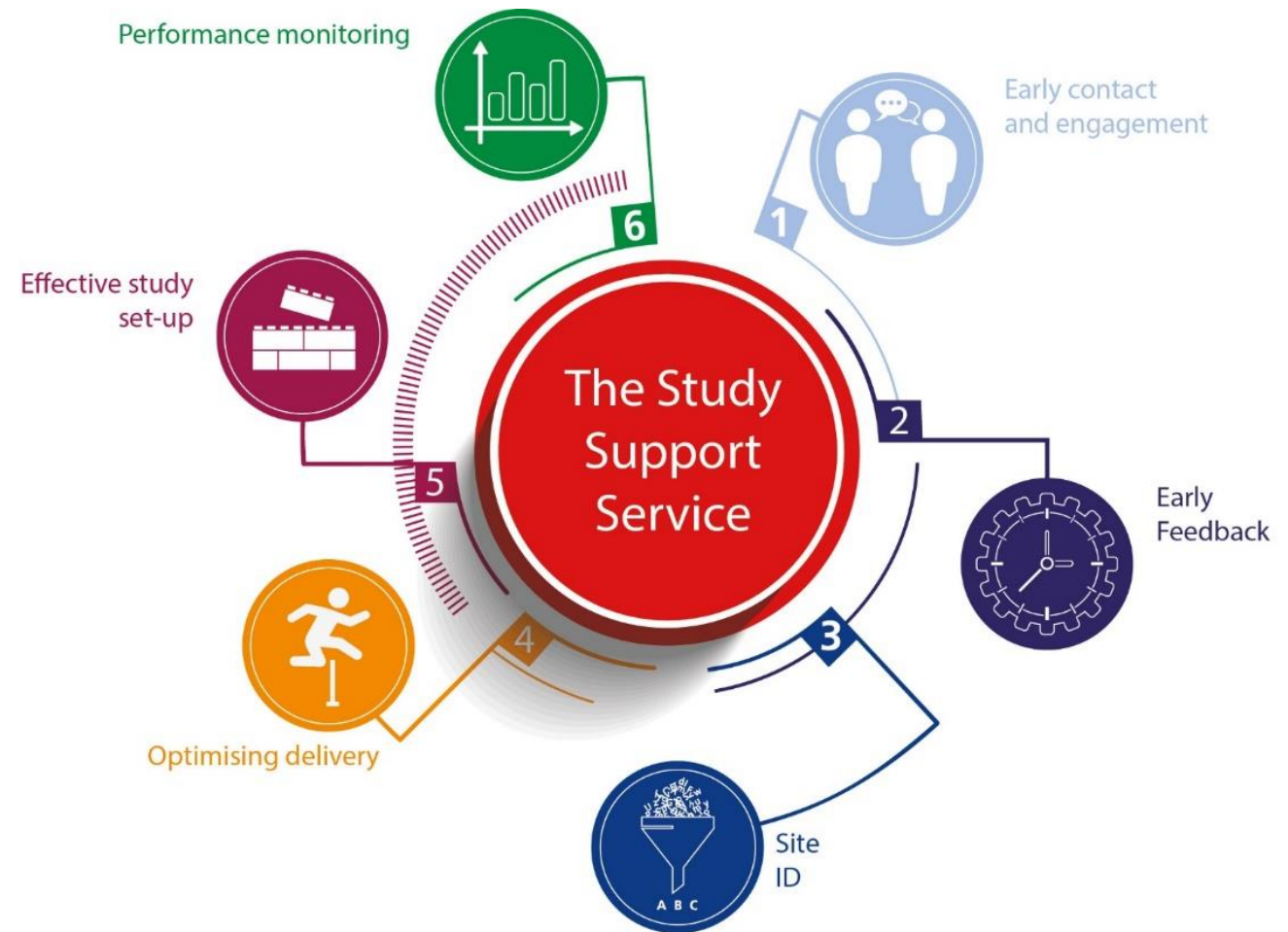
**Oxford BioMedica** collaboration with NIHR Cambridge Biomedical Research Centre to conduct **Phase 1 Gene Therapy study for Parkinson's Disease**



**UCB Biopharma** partnership with NIHR Guy's and St Thomas' Biomedical Research Centre is enabling trials of immunotherapy MultiPepT1De, aimed at **halting the progression of Type 1 diabetes**

# NIHR Study Support Service

- Single point of contact
- Any stage of product development, location, study type, study size, therapy or research area
- NOCRI and NIHR CRN will work together to provide you with tailored support to access all of the NIHR.

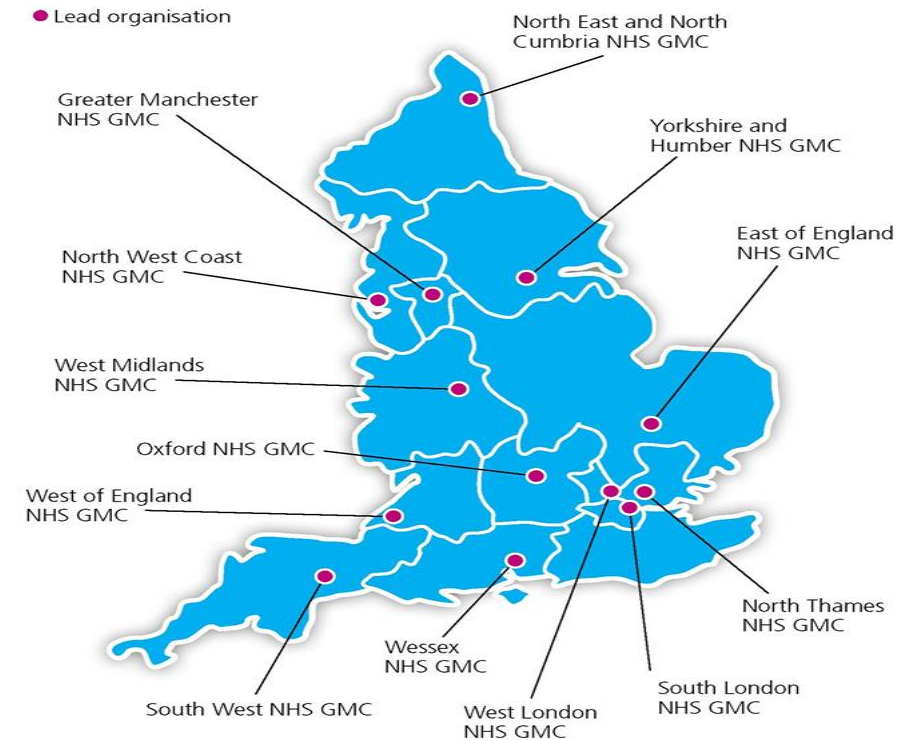


[supportmystudy@nihr.ac.uk](mailto:supportmystudy@nihr.ac.uk)



# Building a genomic medicine infrastructure

- Genomics England
- Illumina - NHS Genomic Medicine Sequencing Centre in Hinxton
- UK Data Infrastructure for Genomic Medicine (with MRC)
- NIHR National Biosample Centre – state-of-the-art facility to store the samples
- 13 NHS Genomic Medicine Centres in England to enrol, validate and feedback to patients



# 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

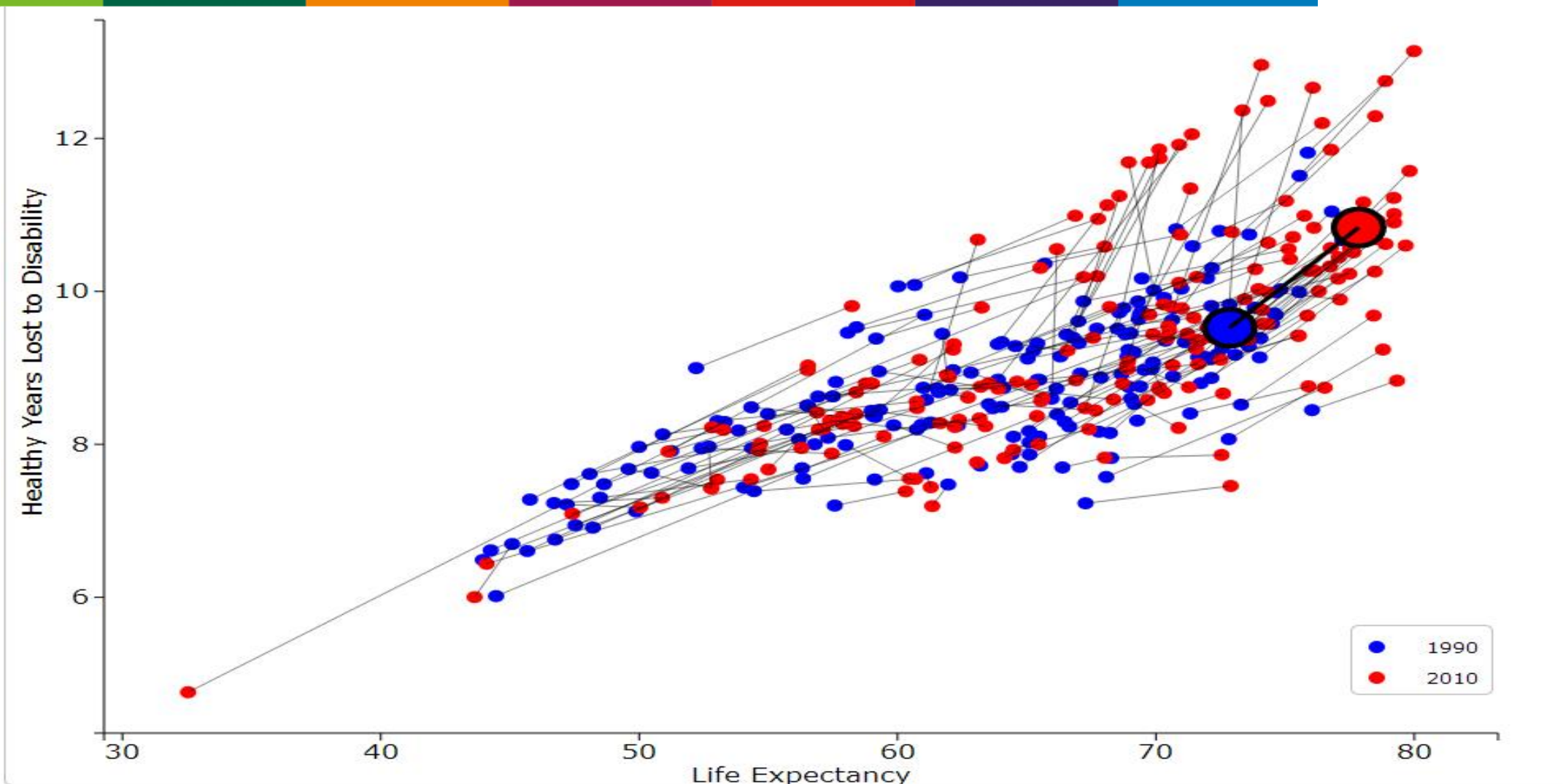
Which issues are overstated & why?

Which issues are understated & why?

<http://smapp2rand.org/surv4/TakeSurvey.aspx?SurveyID=84KM47m5>

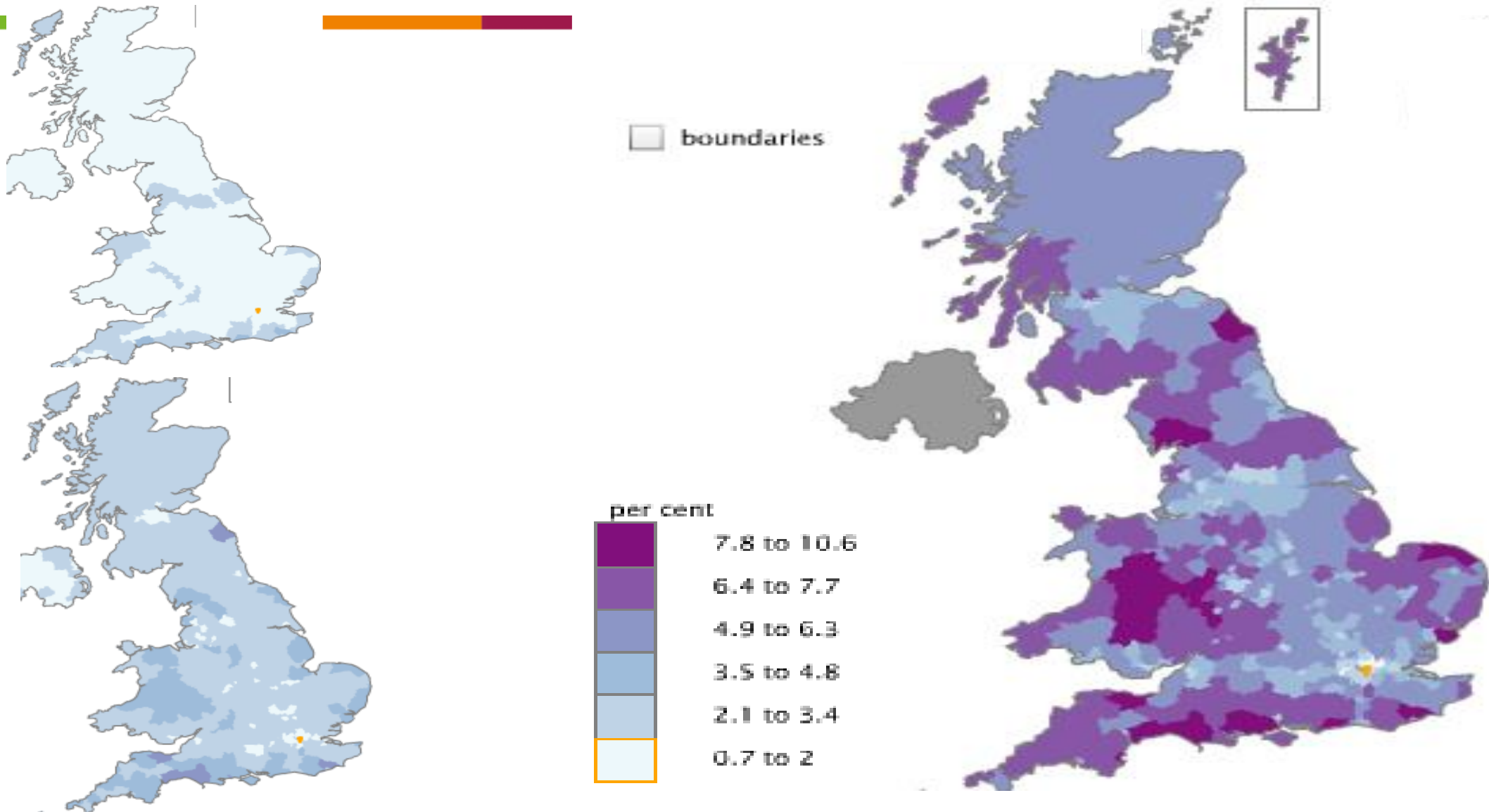


# As life expectancy increases disability increases more: all countries, UK highlighted (GBD 2013)

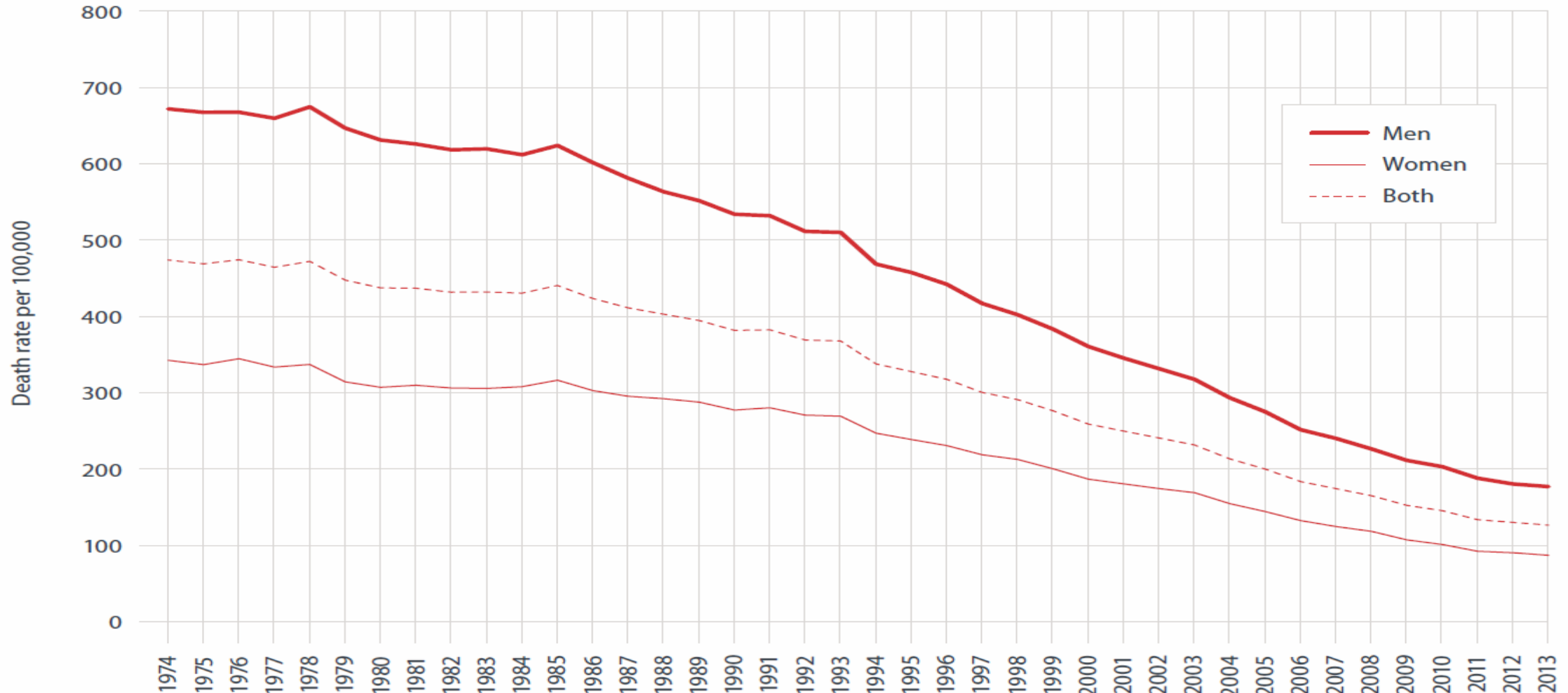




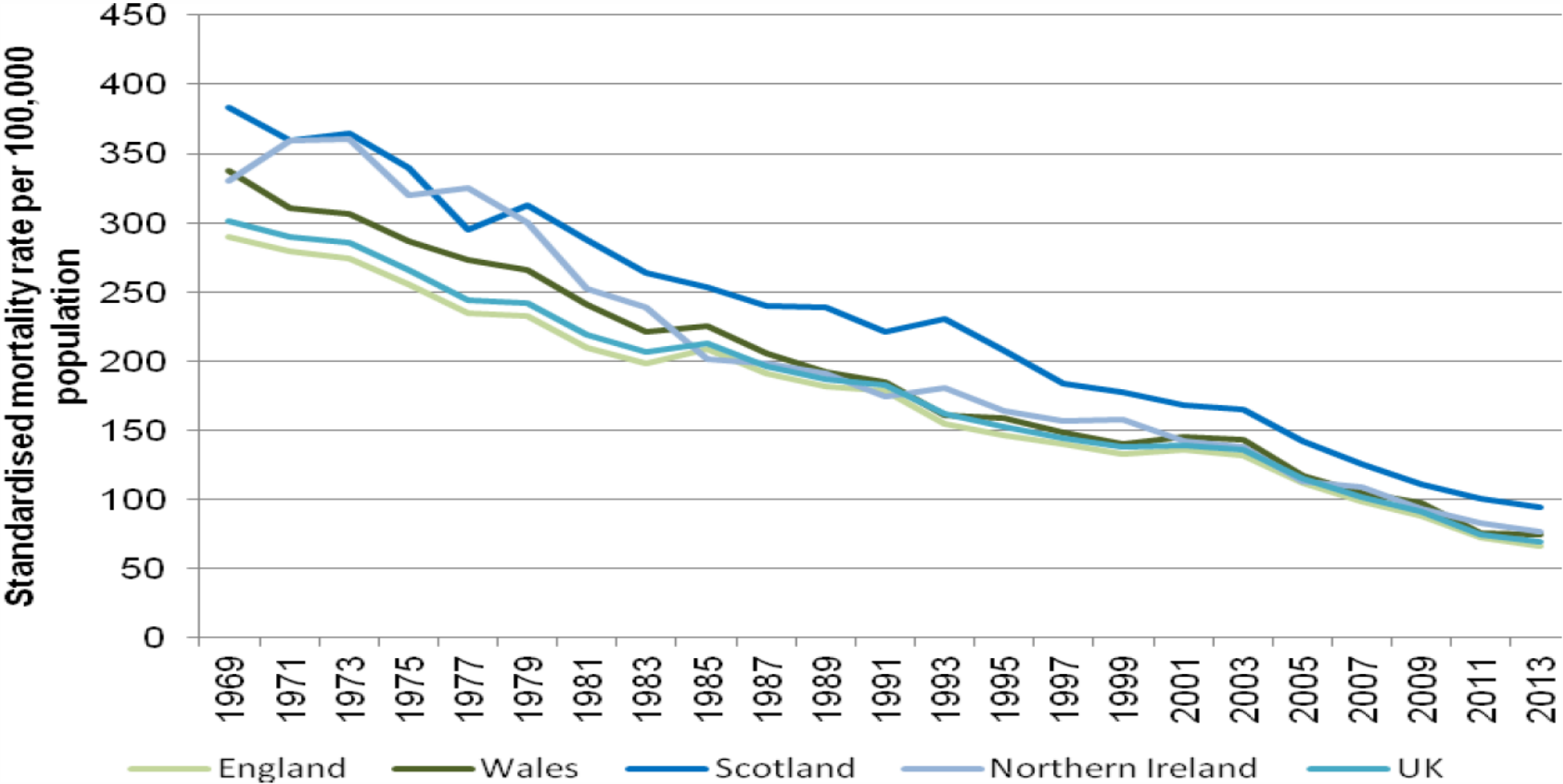
# Population 85 and over: 1992, 2015, 2033 (ONS).



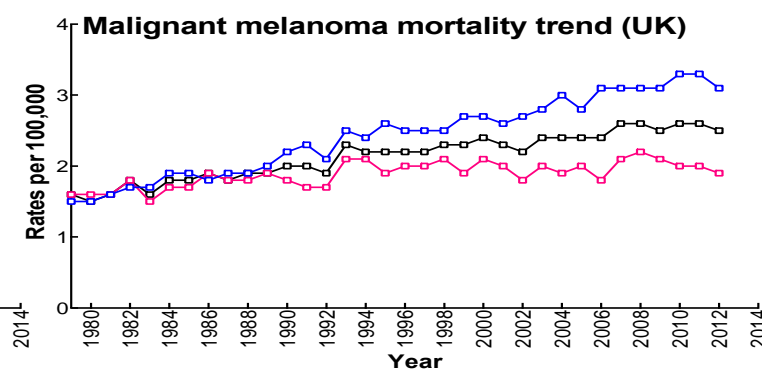
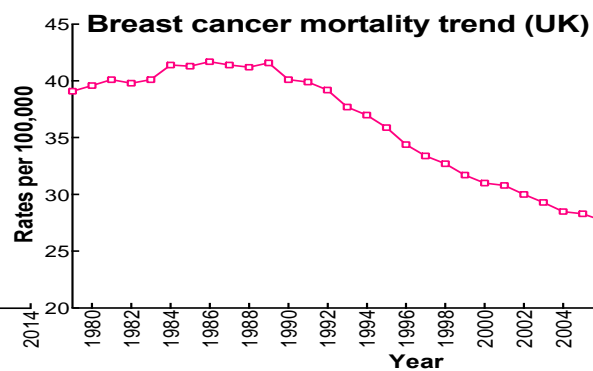
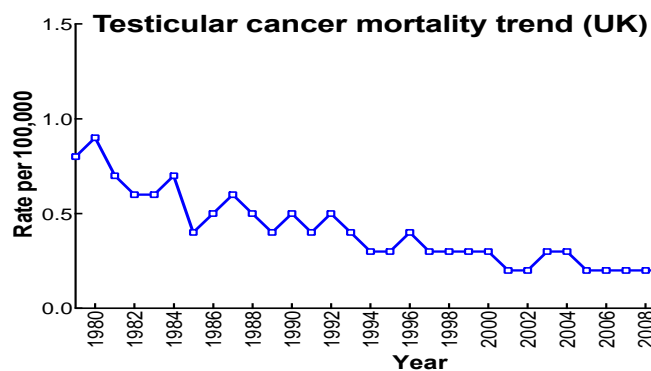
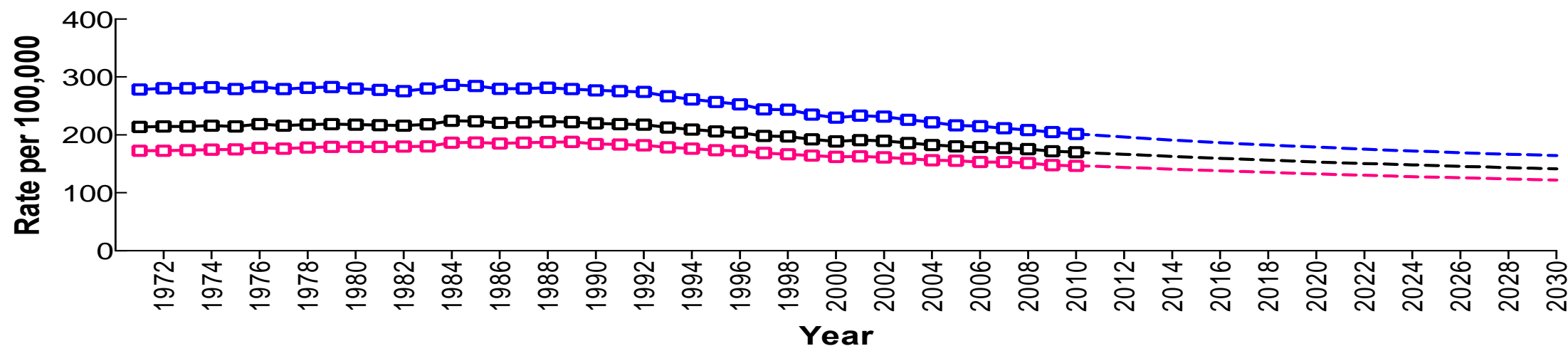
# Age-standardised coronary heart disease mortality rates, UK 1974-2013. 73% reduction overall, 81% reduction on those under 75 years. (BHF)



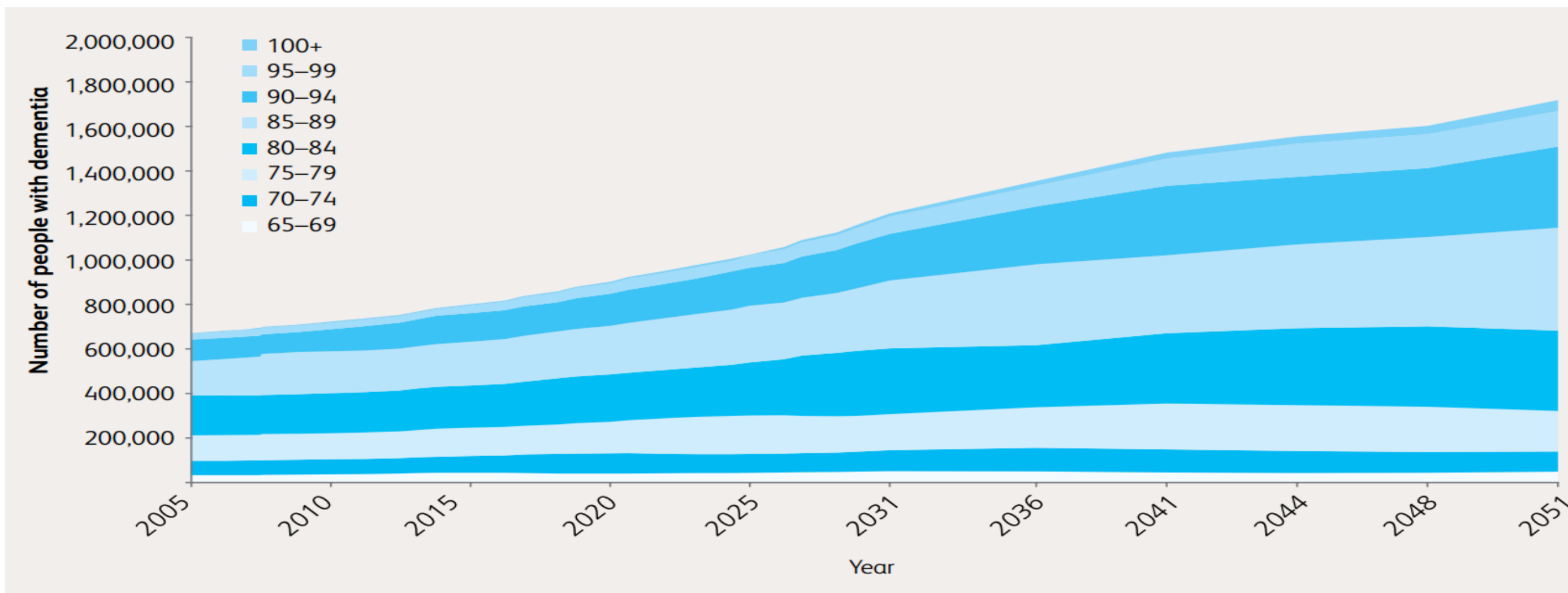
# Stroke mortality in UK. Age-standardised mortality /100,000 population 1969-2013



# UK cancer mortality projections, all cancers



Around 820,000 UK people affected 2016.  
Current projections.  
(Prince et al 2015)





# Multiple-morbidity



*“A non-random series of predictable clusters of conditions”*

- Multi-morbidity - increasing in absolute terms and relative to single morbidity.
- Science has recently become better at being vertically organised for specific conditions ('bench to bedside' etc) but not horizontally between them.
- Current medical specialisation and guideline-based medicine is optimised for dealing with single diseases.
- Research groups, grant-giving bodies, journals all tend to handle multi-morbidity badly.
- Older people and multi-disease often systematically excluded from studies.