



Public Health  
England

# Dementia risk reduction in England: a public health priority

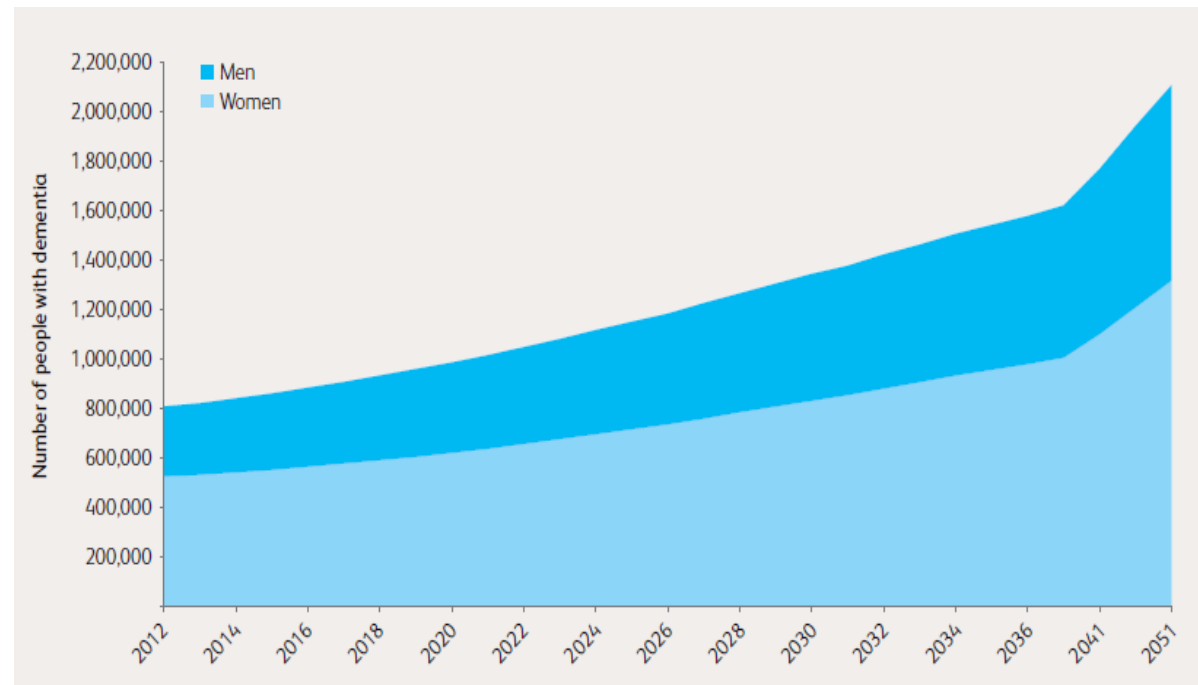
Dr Charles Alessi

Senior Advisor on Dementia, Public Health England



## Why is dementia a public health priority?

- 800,000 people with dementia in the UK
- Expected to climb to more than 1 million by 2021 and more than 2 million by 2051.
- 21 million of the UK population have a close friend or family member with dementia.
- Overall economic impact estimated to be £26 billion a year (ca. \$42 billion)



*Projected increases in the number of people with dementia in the UK (2012–2051)*



# Why dementia risk reduction?

- In the absence of a cure, ***risk reduction is the only way we can reduce the numbers of people getting dementia, postpone the onset and/or mitigate the impact of dementia***
- The ground-breaking Blackfriars Consensus statement, signed by 60 leading figures and organisations from across the dementia and public health community, stated that: the scientific evidence is sufficient to justify action on dementia prevention and risk reduction”
- The evidence suggests that effective public health policies to tackle the major chronic disease risk factors of smoking, physical inactivity, alcohol and poor diet across the population will help reduce the risk of dementia in later life.

Public Health England

UK HEALTH  
PREVENTION FIRST  
FORUM

**Blackfriars Consensus on promoting brain health:**

**Reducing risks for dementia in the population**

1. Following a meeting of public health practitioners, policy makers, voluntary and community representatives, and researchers hosted by the UK Health Forum and Public Health England in London on 30 January 2014, consensus was reached on the potential for incorporation of dementia risk reduction into current approaches for non-communicable diseases (NCDs). Some components of dementia now appear to share common causal links with other non-communicable diseases. However, despite the apparent and emerging associations, current NCD policies and prevention strategies focusing on risk factors do not incorporate their added potential to brain health, and the possibility of reduction for dementia has been largely absent from many dementia policies. Furthermore, clear messages about risks for dementia resulting from known factors such as head injury and alcohol receive scant attention.

**HEADLINE CONSENSUS MESSAGE**

2. Dementia is a common syndrome closely associated with ageing, with some known underlying causes and others which are less well understood. Recent evidence suggests that risk in the population might be reduced so that fewer people at particular ages develop dementia. The scientific evidence is evolving rapidly and sufficient to justify considered action and further research on dementia risk reduction, both by reducing the modifiable risk factors and improving the recognised protective factors.

**CONTEXT**

3. Public health measures to modify vascular risk factors have contributed to a large



# Risk factors

Risk factors for dementia are common with many other conditions, and include:



Blood Pressure



Mood



Physical Exercise



Diabetes



Heart Disease



Smoking



Drinking



Diet



Cognitive Ability



Chronic Kidney Disease



## What is PHE doing on dementia risk reduction?

- We have made dementia risk reduction ***one of our 7 key priorities for the next five years***
- We are particularly focussing on reducing the number of people getting dementia within ten years of retirement age, so that more people can enjoy a healthy and independent life for longer
- We want to ***“transform a generation’s risk of dementia”***

Our programme of work for the first 18 months covers:

Public understanding and personalised tools

Support for people at higher risk

Professional understanding and action

Evidence and research



# What is PHE doing on dementia risk reduction?

## Public understanding and personalised tools

- Major new healthy living **marketing campaign** aimed at getting 40 to 60-year-olds to “reassess” their health and make changes to help them live healthily in older age
- **Personalised diagnostic tools** to help people understand and manage their risk of developing dementia e.g. the brain age tool being developed by University College London

## Support for people at higher risk

- Build dementia risk reduction into **care and support for pre-disposing conditions** and raise awareness of inequalities in dementia, supporting people to receive a timely diagnosis and the care and support they need
- Incorporate dementia risk reduction as a **key outcome in health improvement programmes**, such as the NHS Health Check



# What is PHE doing on dementia risk reduction?

## Professional understanding and action

- Work with our partners e.g. Health Education England, the Royal Colleges and others to **increase professionals' understanding** of dementia risk reduction and enable them to support people in taking action to reduce risk
- For example incorporate dementia risk reduction into **training materials and curricula**

## Evidence and research

- Work with academics and other partners to develop **measures for modelling of dementia incidence and prevalence**
- Support continued development the **evidence base** for dementia risk reduction and its implementation



## The brain age tool prototype

- As part of our work on public awareness and understanding of dementia risk reduction, we want to give people access to personalised diagnostic tools which can help them to understand their risk level and what they can do to reduce it
- Public Health England is working with University College London on development of an online tool which will calculate an individual's 'brain age' based on information such as their blood pressure and cholesterol levels
- We currently have an early prototype and are about to start testing it with users so that we can develop the functionality and messaging
- Video clip demonstrating prototype:  
[Brain age video.mpeg](#)  
[Brain age video.MOV](#)





# The brain age tool prototype – screenshot 1


Brain age calculator *Prototype*

		†	*
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female	N/A	N/A
Age	29 years	N/A	N/A
Total cholesterol	6.2 mmol/L	4.7	11%
HDL cholesterol	0.9 mmol/L	1.2	9%
BP treatment	<input checked="" type="radio"/> Yes <input type="radio"/> No	No	N/A
Systolic BP	125 mmHg	125	0%
Smoking	<input checked="" type="radio"/> Yes <input type="radio"/> No	No	0%
Diabetes	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A	N/A

† - Reference values  
\* - This risk factor makes you worse off by

Our cognitive abilities decline as we get older, with the rate of decline accelerating as we age.

Some of this decline can be attributed to vascular risk factors.



35

Compared to reference risk factor values, your cognitive decline is at a rate which is associated with a 35 year old.



# The brain age tool prototype – screenshot 2

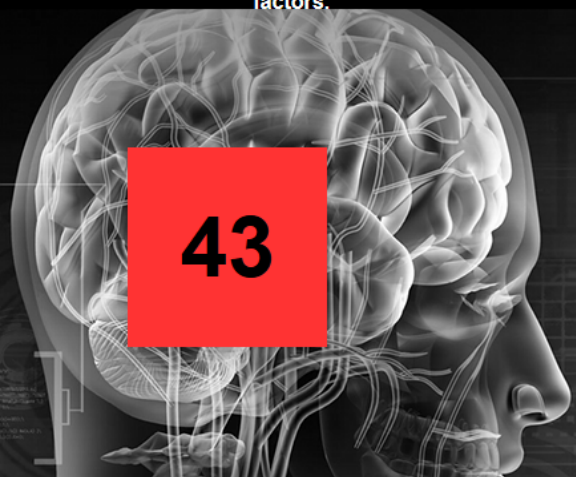
Brain age calculator *Prototype*

		†	*
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female	N/A	N/A
Age	29 years	N/A	N/A
Total cholesterol	6.2 mmol/L	4.7	11%
HDL cholesterol	0.9 mmol/L	1.2	9%
BP treatment	<input checked="" type="radio"/> Yes <input type="radio"/> No	No	N/A
Systolic BP	125 mmHg	125	0%
Smoking	<input type="radio"/> Yes <input checked="" type="radio"/> No	No	24%
Diabetes	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A	N/A

† - Reference values  
\* - This risk factor makes you worse off by

Our cognitive abilities decline as we get older, with the rate of decline accelerating as we age.

Some of this decline can be attributed to vascular risk factors.



43

Compared to reference risk factor values, your cognitive decline is at a rate which is associated with a 43 year old.