Dementia (Including Alzheimer’s Disease) can be Prevented: Statement Supported by International Experts

On the occasion of the G8 dementia summit in London on 11 December 2013, we call upon the governments of the G8 countries to make prevention of dementia one of their major health aims.

- The commonest dementia (Alzheimer’s disease) is irreversible and develops slowly over many years.
- So far drugs have only relieved symptoms, but have not been effective against disease progression.
- About half of the large decline in deaths from heart disease and stroke over the past 50 years has been the result of public health measures to modify risk factors. We are confident that the same approach will work for dementia.
- We propose that a concerted effort be made to discover modifiable risk factors for dementia and to exploit those already identified.
- International collaboration is needed on large-scale clinical trials to test whether modifying risk factors will lead to prevention of dementia.
- Health authorities should aim to identify high risk individuals at an early stage, when intervention is more likely to help.
- There is already sufficient evidence to justify immediate action. Trials in those at risk of developing dementia should be done of the following: exercise; controlling blood sugar, including diabetes treatment; depression treatment; high blood pressure treatment; B vitamins; omega-3 fatty acids; cognitive training; and social activities.
- Public health policies should encourage middle-aged people to stop smoking; exercise; eat diets rich in fruit and vegetables and fish (Mediterranean foods); avoid becoming obese and diabetic; avoid excessive alcohol intake; treat high blood pressure. In other words – tell people that adopting a healthy lifestyle may help to ward off dementia as it does for other diseases.
- It is notable that the prevalence of dementia and cognitive impairment in some Western countries is now less than anticipated, possibly as a result of changes in lifestyle and the reduction in cardiovascular risk factors, although this may not necessarily mean that worldwide trends in the burden of dementia will be substantially reduced.
- We estimate that about half of Alzheimer’s disease cases worldwide might be attributable to known risk factors. Taking immediate action on the known risk factors could perhaps prevent up to one-fifth of predicted new cases by 2025.
- The worldwide costs of dementia in 2010 have been estimated to be $604 billion, most of it in G8 countries. Prevention of dementia would thus not only prevent a lot of human suffering but would save huge sums of money.
- We call upon the Health Ministers of the G8 countries to greatly increase government funding for research on the prevention of dementia.

A. David Smith, Department of Pharmacology, University of Oxford, Oxford, UK; david.smith@pharm.ox.ac.uk
Kristine Yaffe, University of California, San Francisco, San Francisco, CA, USA; Kristine.Yaffe@ucsf.edu

The following 109 scientists from 36 countries have signed in support:

P Aisen (University of California, San Diego)
M Albert (Johns Hopkins University, Baltimore, MD)
K Anstey (Australian National University, Canberra)
Some selected references to recent relevant literature are:

Designing prevention programmes to reduce incidence of dementia: Prospective cohort study of modifiable risk factors.

The projected effect of risk factor reduction on Alzheimer’s disease prevalence.

Creating a transatlantic research enterprise for preventing Alzheimer’s disease.


Developing a global strategy to prevent Alzheimer’s disease: Leon Thal Symposium 2010.

Efficacy of Souvenaid in mild Alzheimer’s disease: Results from a randomized, controlled trial.

Mediterranean diet, cognitive function, and dementia: A systematic review.


Midlife risk score for the prediction of dementia four decades later.

Long-chain omega-3 fatty acids improve brain function and structure in older adults.

Preventing Alzheimer’s disease-related gray matter atrophy by B-vitamin treatment.
Nonpharmacologic treatment and prevention strategies for dementia.

Trends in the prevalence and mortality of cognitive impairment in the United States: is there evidence of a compression of cognitive morbidity?

The effect of dementia trends and treatments on longevity and disability: A simulation model based on the MRC Cognitive Function and Ageing Study (MRC CFAS).

Methodological challenges in designing dementia prevention trials - the European Dementia Prevention Initiative (EDPI).

Trends in the incidence and prevalence of Alzheimer’s disease, dementia, and cognitive impairment in the United States.

Is dementia incidence declining?: Trends in dementia incidence since 1990 in the Rotterdam Study.

Twenty-year changes in dementia occurrence suggest decreasing incidence in central Stockholm, Sweden.

A two-decade comparison of prevalence of dementia in individuals aged 65 years and older from three geographical areas of England: Results of the Cognitive Function and Ageing Study I and II.


The worldwide economic impact of dementia 2010.

The global prevalence of dementia: A systematic review and metaanalysis.

New insights into the dementia epidemic.

Some international and national initiatives
European Dementia Prevention Initiative: http://www.edpi.org/
The Healthy Brain Initiative (CDC and Alzheimer’s Association, USA): http://www.cdc.gov/aging/healthybrain/roadmap.htm
National dementia strategies for the UK (Alzheimer’s Society): http://www.alzheimers.org.uk/ndstrategies
UK Department of Health statement (September 2013):http://dementiachallenge.dh.gov.uk/2013/09/25/on-the-road-to-the-g8-dementia-summit/

CONFLICT OF INTEREST STATEMENT
ADS is named as inventor on patents held by the University of Oxford for the use of B vitamins.
in the treatment of mild cognitive impairment and Alzheimer’s disease; he has grant support from the Norman Collisson Foundation. KY serves on the data and safety monitoring boards for the National Institute on Aging, Takeda Pharmaceutical Company Limited and Beeson Scientific Advisory and is a consultant to Pfizer and Novartis; she has grant support from National Institute on Aging, Alzheimer’s Association, American Health Assistance Foundation, the California Department of Public Health, and the US Department of Defense.