Dementia (including Alzheimer’s disease) can be prevented: statement from international experts

A group of 111 international scientific and medical dementia experts from 36 countries have issued a statement today to the G8 dementia summit saying that effectively tackling known risk factors for dementia could perhaps prevent up to one-fifth of new cases by 2025. The experts call upon governments urgently to support more research into prevention and to adopt public health policies that arise from the outcomes of this research. They say that prevention is a powerful additional approach to the development of drugs for treating dementia. Drug development has so far cost around $40 billion without any benefit in slowing disease progression. The statement follows.

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 life-style 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 life-style 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 disease cases world-wide 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 world-wide 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.*

The following have signed:

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J Avila (Centro de Biologia Molecular Severo Ochoa, Madrid)
S Banerjee (University of Sussex, Brighton)
DE Barnes (University of California, San Francisco)
MS Beer (Mount Sinai School of Medicine, New York)
DA Bennett (Rush University Medical Center, Chicago)
S Black (University of Toronto)
C Brayne (University of Cambridge)
J Breitner (McGill University, Montreal)
M Breteler (German Center for Neurodegenerative Diseases, Bonn)
H Brodaty (University of New South Wales, Sydney)
C Chen (National University of Singapore)
MJ Chiu (President Taiwan Alzheimer’s Association, National Taiwan University, Taipei)
M Combrinck (University of Cape Town)
CW Cotman (University of California, Irvine)
P Davies (Feinstein Institute, New York)
C deCarli (University of California Davis, Sacramento)
IV Damulin (I.M. Sechenov First Moscow State Medical University, Moscow)
P Dal-Bianco (Medical University of Vienna)
J de la Torre (University of Texas, Austin)
A de Silva (University of Kelaniya, Colombo, Sri Lanka)
B De Strooper (Catholic University of Leuven)
B Dubois (University of Paris VI)
K Engedal (University of Oslo)
S Engelborghs (University of Antwerp)
MM Esiri (University of Oxford)
RM Faull (University of Auckland)
AM Fjell (University of Oslo)
L Flicker (University of Western Australia, Perth)
A Flöel (Charité-Universitätsmedizin, Berlin)
O Forlenza (University of Sao Paulo, Brazil)
L Fratiglioni (Karolinska Institute, Stockholm)
GB Frisoni (University of Geneva and IRCCS Fatebenefratelli, Brescia)
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T Iwatsubo (University of Tokyo)
R Jacoby (University of Oxford)
J Jia (Beijing Capital Medical University)
KA Jellinger (Medical University of Vienna)
RN Kalaria (University of Newcastle, UK)
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D Knopman (Mayo Clinic, Rochester, MN)
T Kwok (Chinese University, Hongkong)
K Langa (University of Michigan, Ann Arbor)
EB Larson (University of Washington, Seattle)
L Launer (National Institute on Aging, Bethesda, MD)
N Lautenschlager (University of Melbourne)
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J Lök (Karolinska Institute, Stockholm)
O Makeeva (Institute of Medical Genetics, SB RAMS, Tomsk, Russia)
J Marksteiner (President, Austrian Alzheimer Society)
A McCaddon (Cardiff University Medical School)
K Meguro (Tohoku University, Sendai, Japan)
LT Middleton (Imperial College, London)
MC Morris (Rush University, Chicago)
DL Na (Sungkyunkwan University School of Medicine, Seoul)
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STATEMENT OF AN INTERNATIONAL GROUP OF EXPERTS IN DEMENTIA

STRICTLY EMBARGOED UNTIL 10.00 GMT 10 DECEMBER 2013

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J Rinne (University of Turku, Finland)
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WA Rocca (Mayo Clinic, Rochester, MN)
IH Rosenberg (Tufts University, Boston)
PS Sachdev (University of New South Wales)
N Scarmeas (Columbia University New York and University of Athens)
S Scarpa (University of Rome La Sapienza)
R Schmidt (Medical University, Graz, Austria)
P Scheltens (Free University, Amsterdam)
S Seshadri (Boston University)
A Singh-Manoux (INSERM, Villejuif)
I Skoog (University of Gothenburg)
AD Smith (University of Oxford)
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R Sperling (Harvard University, Boston)
P Srisuwan (Phramongkutkla Hospital and College of Medicine, Bangkok)

R Stewart (Institute of Psychiatry, London)
DY Suharya (Executive Director, Alzheimer’s Indonesia)
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AM Troen (Hebrew University of Jerusalem, Israel)
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S van Rensburg (University of Stellenbosch, South Africa)
B Vellas (University of Toulouse)
G Waldemar (Director, Danish Dementia Research Centre, University of Copenhagen)
H Wang (Peking University Institute of Mental Health)
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NG Zhukova (Siberian State Medical University, Tomsk)
IA Zhukova (Siberian State Medical University, Tomsk)

10 December 2013
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.

Some international and national initiatives

European Dementia Prevention Initiative: www.edpi.org

The Healthy Brain Initiative (CDC and Alzheimer’s Association, USA):
http://www.cdc.gov/aging/healthybrain/roadmap.htm

OECD Global Challenge of Alzheimer’s disease

A National Alzheimer's Strategic Plan (Alzheimer’s Association, 2009)

National Plan to Address Alzheimer’s Disease: 2013 update

National dementia strategies for the UK (Alzheimer’s Society)
http://www.alzheimers.org.uk/ndstrategies

National Prevention Research Initiative (UK)
http://www.mrc.ac.uk/Ourresearch/ResearchInitiatives/NPRI/index.htm

UK Department of Health statement (September 2013):
http://dementiachallenge.dh.gov.uk/2013/09/25/on-the-road-to-the-g8-dementia-summit/

This statement will appear in an upcoming issue of Journal of Alzheimer’s Disease

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