



Convincing the public that time really does matter in brain health

Professor Philip Scheltens

Alzheimer Center Amsterdam, Amsterdam
University Medical Centers, Amsterdam,
Netherlands





Additional authors

- **Dr Alastair Noyce**, Wolfson Institute of Preventive Medicine, Queen Mary University of London, London, UK
- **Professor Gavin Giovannoni**, Blizard Institute and Wolfson Institute of Preventive Medicine, Queen Mary University of London, and Barts and The London School of Medicine and Dentistry, London, UK
- **Professor Daniela Berg**, Department of Neurology, Christian-Albrechts University of Kiel, Kiel, Germany
- **Professor Laurie Brown**, Institute for Governance and Policy Analysis, University of Canberra, Canberra, Australia
- **Professor Kris Dierickx**, Centre for Biomedical Ethics and Law, Catholic University of Leuven, Leuven, Belgium
- **Professor Giovanni Frisoni**, Centre de la Mémoire, University Hospitals and University of Geneva, Geneva, Switzerland
- **Professor John Hardy**, Department of Neurodegenerative Diseases, University College London, London, UK
- **Dr Karl Heilbron**, 23andMe, Inc., Sunnyvale, CA, USA



Why does time matter?



Public awareness

To maximize the potential for early intervention, the general public needs to understand the **modifiable** risk factors that can affect their brain health



Diagnostic development

Biomarkers in development will help to diagnose the underlying cause of dementia early



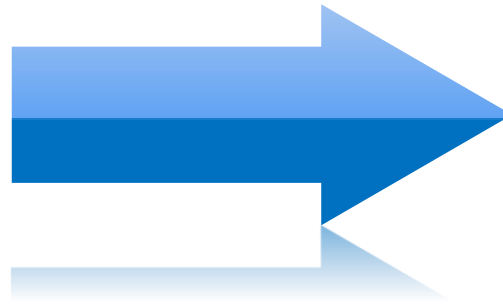
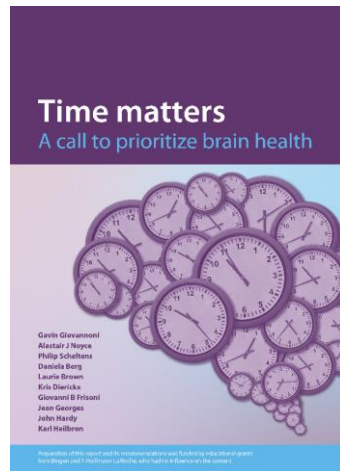
Window of opportunity

Adjustment of modifiable lifestyle factors in **early- to midlife** can significantly help to reduce the risk of developing a neurodegenerative disease



Time matters – report development

An expert group developed **evidence-based recommendations** and a **call to action** encouraging positive behaviour change and policies to promote brain health, working towards the prevention of neurodegenerative diseases



Health promotion



Clinical



Research



Health promotion recommendations



- Policymakers and public health bodies should act on the recommendations:
 - Protect and provide public health budgets
 - Encourage behaviour to **improve brain health**
 - Support and empower individuals to make **lifestyle changes**
 - Prepare for (commercial) genetic testing
 - Provide **access to available and effective treatments**

“What’s good for your heart is good for your brain”



Clinical recommendations



- Healthcare professionals and administrators play a key role in the **management of people with, or at risk of**, a neurodegenerative disease and should act on the two clinical recommendations:
 - Refer to **specialist or multidisciplinary services**
 - **Provide follow-up** with ongoing, widely accessible holistic care, including prevention information, treatment options and support



Research recommendations



- Researchers and organizations that fund scientific research, as well as healthcare decision makers should act on the recommendations:
 - Develop treatments for neurodegenerative diseases
 - Validate diagnostic tools to identify people at risk
 - Facilitate earlier disease detection and intervention
 - Additional funding is needed to deliver key research recommendations
- Priority research goals include:
 - Identifying the effectiveness and cost-effectiveness of interventions to promote brain health
 - Understanding how people with risk factors for a neurodegenerative disease may be motivated to change their behaviour
 - Assessing the relative weight of different risk factors and their interactions



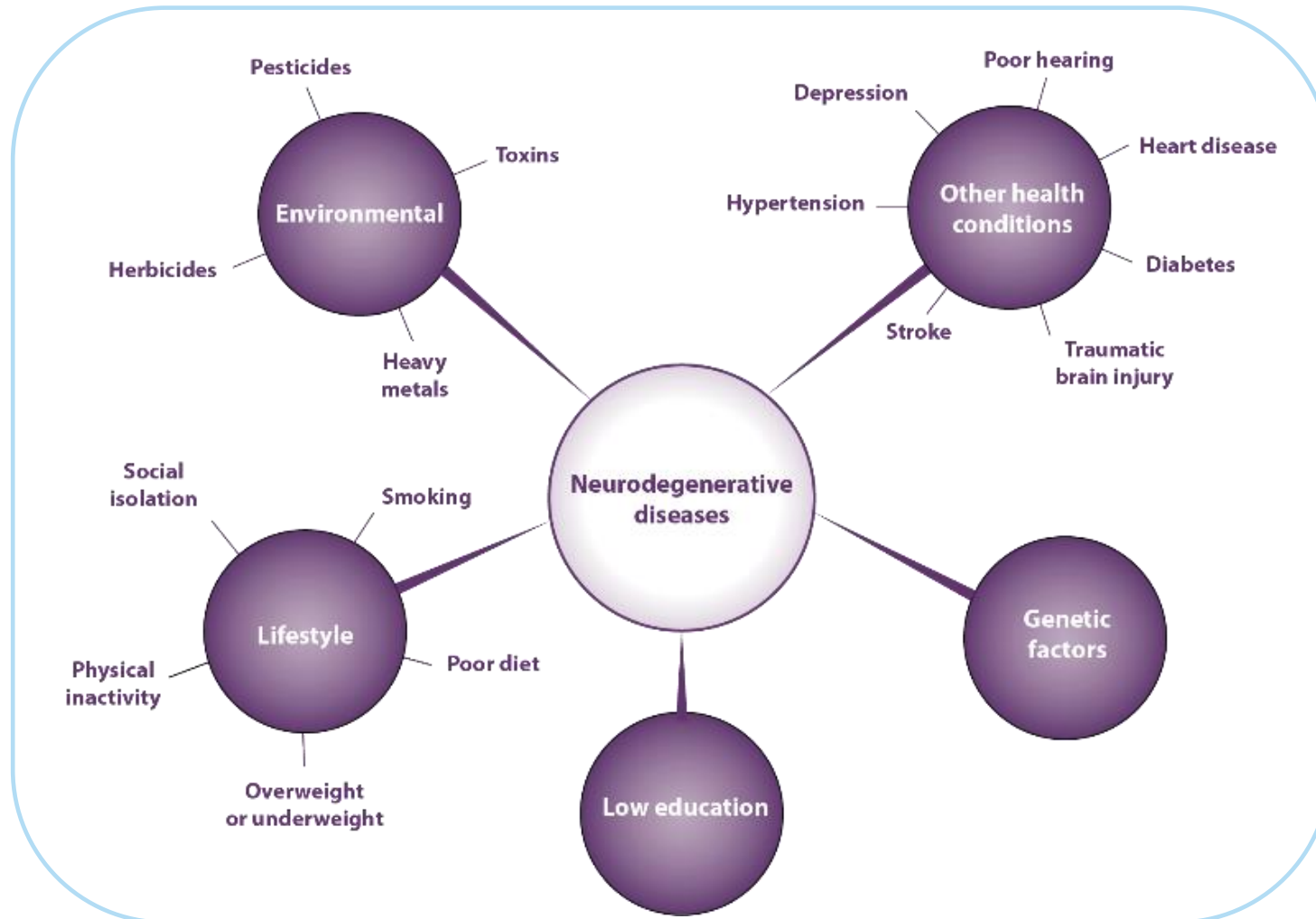
Society needs to understand and talk more about brain health

- There is a window of opportunity for healthcare intervention!
- But public understanding is generally poor
- Health systems are not yet equipped to manage the large numbers of people who are potentially at high risk of long-term neurodegenerative conditions
- The general public needs to understand risk factors and what can be done to maintain brain health

**Dementia is not an
inevitable part of ageing**

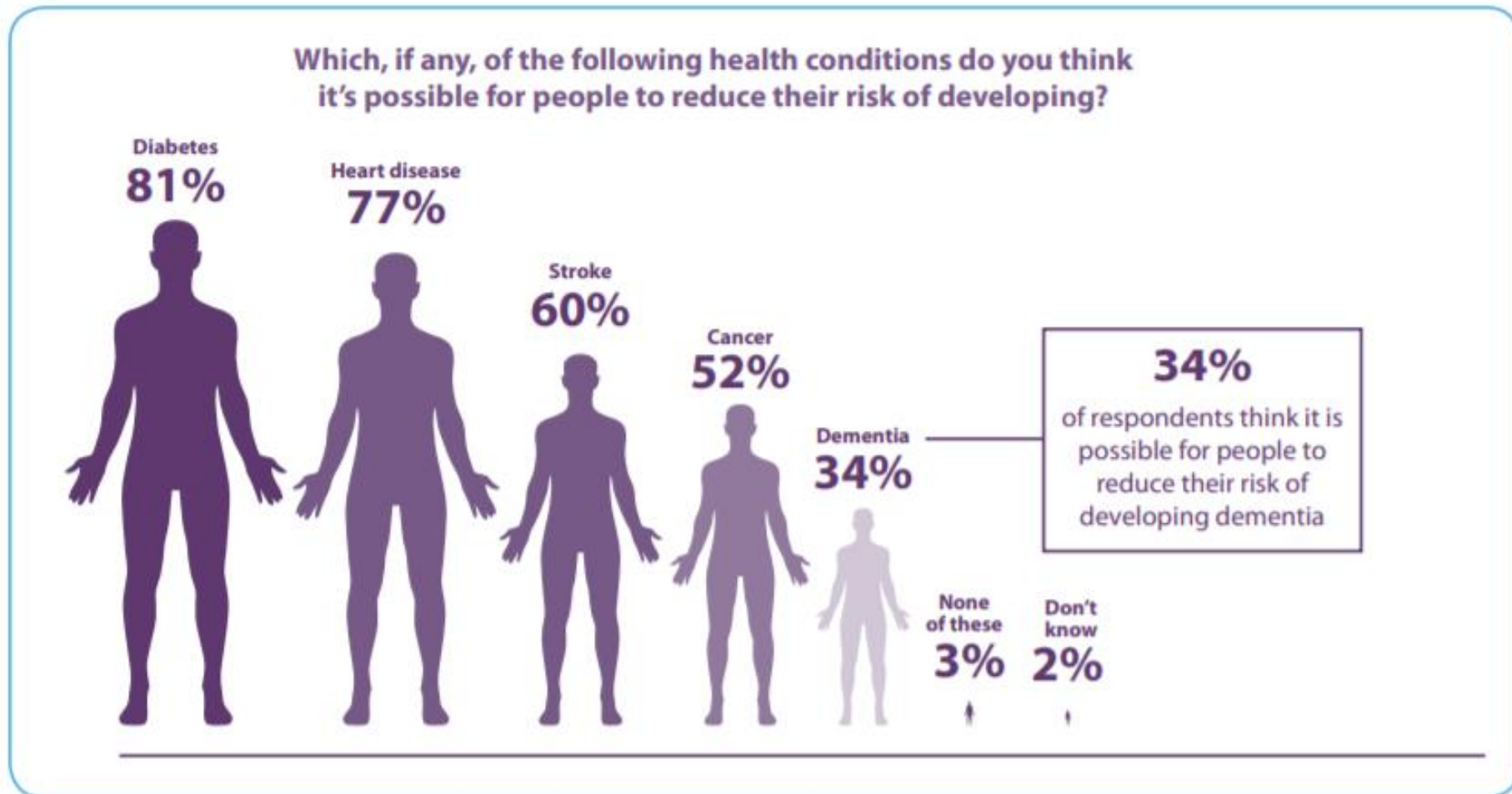


What does the general public need to know about risk factors for neurodegenerative diseases?





Current perceptions of risk reduction





Communicating risk

- More and more individuals are keen to know their risk of brain disease
- Genetic testing is available on a commercial basis
- How best to communicate to individuals the potentially complex results of genetic tests needs to be studied
- Appropriate training for this is needed to help them encourage behavioural changes that reduce individual risk of brain disease





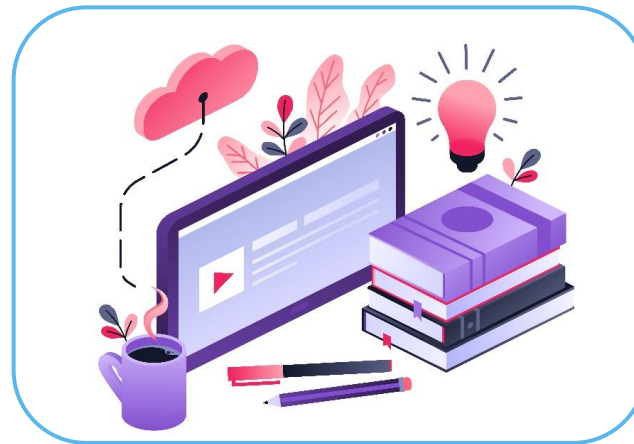
Conclusions

A collaborative effort is needed to achieve our common goals



Behaviour change

The report highlights the need for everyone to prioritize their brain health and to implement behaviours that reduce the risks as they age



Education

Policymakers, public health bodies and health professionals must educate and empower the public



Research

Further work is needed to validate diagnostic tools to identify people at risk and develop effective treatments



Acknowledgements and disclosures (1)

- Support for the development of this publication was provided by Oxford Health Policy Forum CIC, UK, funded by grants from Biogen, F. Hoffmann-La Roche and UCB Biopharma SRL, who had no influence on the content
- **Philip Scheltens** has received consultancy/speaker fees (paid to the institution) from Biogen, People Bio, Roche (Diagnostics) and Novartis Cardiology. He is Principal Investigator of studies with Probiodrug, EIP Pharma, IONIS, CogRx, AC Immune and Toyama
- **Alastair Noyce** is funded by the Barts Charity. He reports additional grants from Parkinson's UK, Virginia Keiley Benefaction, Aligning Science Across Parkinson's (ASAP) and The Michael J Fox Foundation; grants and non-financial support from GE Healthcare; and personal fees from Bial Pharmaceuticals, Britannia Pharmaceuticals, AbbVie Pharmaceuticals, Profile Pharmaceuticals, F. Hoffmann-La Roche and Biogen
- **Gavin Giovannoni** has received compensation for serving as a consultant or speaker for, or has received research support from, AbbVie, Actelion, Atara Bio, Biogen, Canbex, Celgene, EMD Serono, Japanese Tobacco, Sanofi-Genzyme, Genentech, GlaxoSmithKline, GW Pharma, Merck, Novartis, F. Hoffmann-La Roche, Synthon BV and Teva



Acknowledgements and disclosures (2)

- **Daniela Berg** has within the last year received compensation in the form of consultancies, honoraria or grants from AbbVie, Biogen, BIAL, Lundbeck, UCB Pharma, Zambon, Desitin, GE Healthcare, Janssen Pharmaceutica NV, German Parkinson's Disease Association, German federal support (BMW and BMBF), Parkinson Fonds Deutschland, European Union, Novartis Pharma and Damp Foundation
- **John Hardy** has received funding and support from Dementia Research Institute, Medical Research Council, Wellcome Trust, Dolby Family Fund and National Institute for Health Research University College London Hospitals Biomedical Research Centre
- **Karl Heilbron** is an employee of and has stock, stock options, or both, in 23andMe
- **Laurie Brown, Kris Dierickx** and **Giovanni Frisoni** have no disclosures to report
- The authors acknowledge the expertise of **Dr Nick Fahy**, University of Oxford, in providing guidance about policy recommendations and processes