

Living without dementia? Enhancing public policy to prevent dementia in Ireland

Overview of a joint discussion paper by IPH and ASI

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Mandate for action on dementia prevention

World Health Organization, 2012

‘There is growing consensus that the scientific evidence is now sufficient to justify policy action across the lifecourse and for further research to reduce modifiable risk factors for dementia and improve the population profile for recognised protective factors’

Mandate for action on dementia prevention

Blackfriars Consensus Statement

UK Health Forum and Public Health England, 2014

‘Evidence is now sufficient to justify action and further research on dementia risk reduction by reducing modifiable risk factors and improving protective factors’

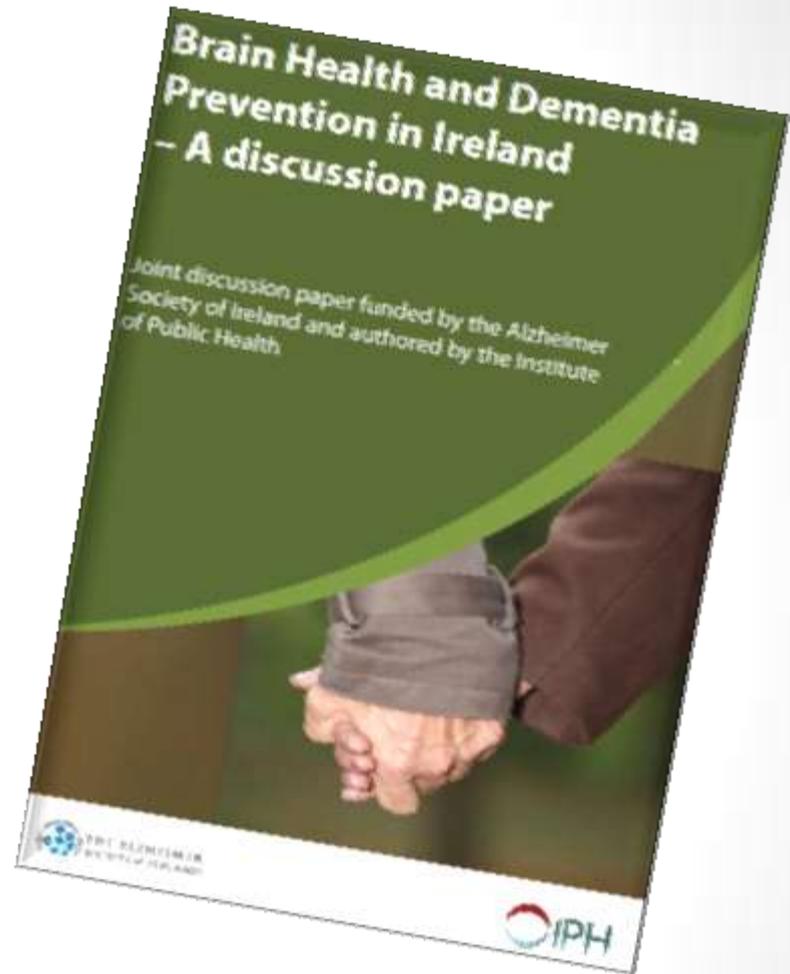
Submission to National Dementia Strategy 2012

- Emphasis on a commitment to explore the development of a public health approach to dementia prevention
- Absence of evidence on dementia prevention in an Irish context
- Ambiguity on dementia prevention
- Lack of policy focus on preventing dementia



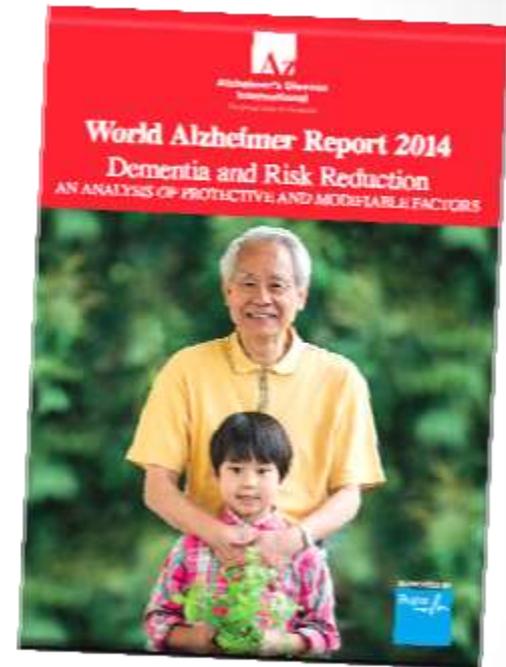
Objectives

1. Rapid review of evidence base (2014)
2. Conceptual framework
3. Calculate population attributable risks for leading modifiable factors in Ireland and potentially avoidable cases of dementia in 2011
4. Examine potential for research, policy and practice to delay onset/prevent dementia



Assessing the evidence-base

- Primary prevention – prevent or delay dementia onset
- Interpretation of the evidence
 - Observational studies
 - Endpoints in analyses – cognitive reserve/decline/impairment, dementia – Alzheimers?
 - Reverse causality and bias
 - Randomised control trials (RCTs) –provides strongest evidence for potential risk reduction



Summary of Risk and Protective Factors for Dementia

Non-modifiable Factors – age, sex, learning disabilities and genetics

Modifiable Factors

- Hypertension
- Obesity
- Dyslipidaemia
- Type II diabetes

Cardiovascular
risk factors

- Physical activity
- Smoking
- Alcohol consumption
- Mental activity
- Dietary factors

Health related
behaviours

- Early life factors
- Educational attainment
- Occupational status

Developmental
Factors

- Depression
- Psychological distress
- Sleep

Psychosocial
and mental
health factors

Estimates of the effect of risk factor modification in Ireland

- Estimated the population attributable risk (PAR) for seven established risk factors
 - Type 2 diabetes, hypertension, obesity, physical activity, depression, smoking and low educational attainment
- SLÁN risk factor and 2011 dementia prevalence estimates
- Estimated the PAR corresponding to an elimination of all seven risk factors in the population
- 10% reduction in all 7 factors (taking into account the associations between risk factors) could have resulted in 1,084 fewer cases of dementia in 2011

Potentially avoidable risk of dementia, 2011.

Risk factors	SLAN 2007 weighted prevalence %	Relative Risk 95% CI's		Population Attributable Risk 95% CI's corresponding to eliminating risk factors		Number of potentially avoidable dementia cases (in 2011) if risk factor prevalence was reduced by 10% (N=47,849) 95% Cis	
Low education	37%	1.59	(1.35-1.86)	18.3%	(11.4-24.1)	715	(490-896)
Obesity	12%	1.6	(1.34-1.92)	16.9%	(3.8-9.7)	294	(176-422)
High Blood Pressure	9%	1.61	(1.16-2.24)	16.5%	(1.5-10.3)	244	(69-447)
Physical Inactivity	21%	1.82	(1.19-2.78)	20.8%	(3.9-27.5)	615	(180-981)
Smoking	28%	1.59	(1.15-2.2)	10.6%	(4.1-25.3)	594	(187-927)
Type II Diabetes	3%	1.46	(1.2-1.77)	3.5%	(0.6-2.2)	64	(28-105)
Depression	11%	1.65	(1.42-1.92)	3.1%	(3.3-9.0)	294	(199-1344)
COMBINED (adjusted)				29.2%	(14.4-43.3)	1,084	(612-1344)

Some important caveats..

- Estimates based on best available evidence
- PAR estimates assume a causal relationship between risk factor and dementia outcome
 - It is not yet established if removal/reduction of single risk factors will lower dementia incidence
 - True effect in modifying risk factors remains unknown and we require further studies to fully investigate this
- Other potentially important factors influencing risk not accounted for in analyses.

Progressing action on dementia prevention

1. No known cure – apply the precautionary principle

The **precautionary principle** asserts.....that when there are threats of serious damage, scientific uncertainty must be resolved in favor of prevention.

Progressing action on dementia prevention

2. Develop useful concepts and language and start talking the talk



Progressing action on dementia prevention

3. Focus policy

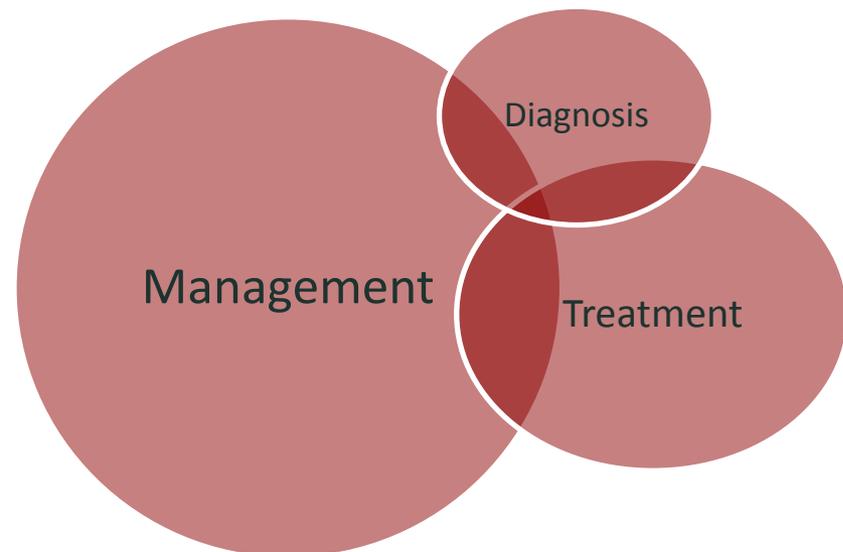
- Dementia strategy – emphasis on raising awareness of risk factors and guidance from policy frameworks on Management of Chronic Disease
- Ensure prevention is in the dementia remit and dementia is in the prevention remit
- Identify existing gaps in policy and practice and lobby for recognition of dementia
- Begin with the headliners and align with current policy and practice objectives



Progressing action on dementia prevention

4. Address the imbalance in funding dementia research and preventative approaches

- I. The economic cost of dementia ranks higher than stroke, heart disease or cancer (*Lowin et al, 2001*)
- II. €40,500 - average cost per person with dementia per annum €1.69 billion in 2010 (*Connolly et al, 2014*)
- III. A 10% reduction across the 7 risk factors equates to a saving of €44 million in 2011



Progressing action on dementia prevention

5. Increase research capacity and improve research quality

- Many challenges in study quality and interpreting the evidence
- Greater emphasis on public health interventions
- Lobby for the inclusion of quality dementia prevention research in Irish and International research frameworks
- Continually monitor emerging concepts and findings
- Translate the evidence!



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Thank You!

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