

Building Capacity for Dementia Risk Reduction: The Preventing Dementia MOOC

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1. Background

- Evidence suggests that reducing population exposure to modifiable risk factors may prevent millions of cases of dementia.¹
- Increased community education about this potential is needed to enable individuals, health professionals and policy makers to adopt dementia risk reduction strategies.²
- The Preventing Dementia Massive Open Online Course (PD MOOC) was developed by the University of Tasmania’s Wicking Dementia Research and Education Centre as a public health initiative.
- The course aims to educate people with an interest in reducing their own risk of dementia, as well as those involved in providing services to others at risk, on the scientific basis of dementia risk reduction.

2. The Preventing Dementia MOOC

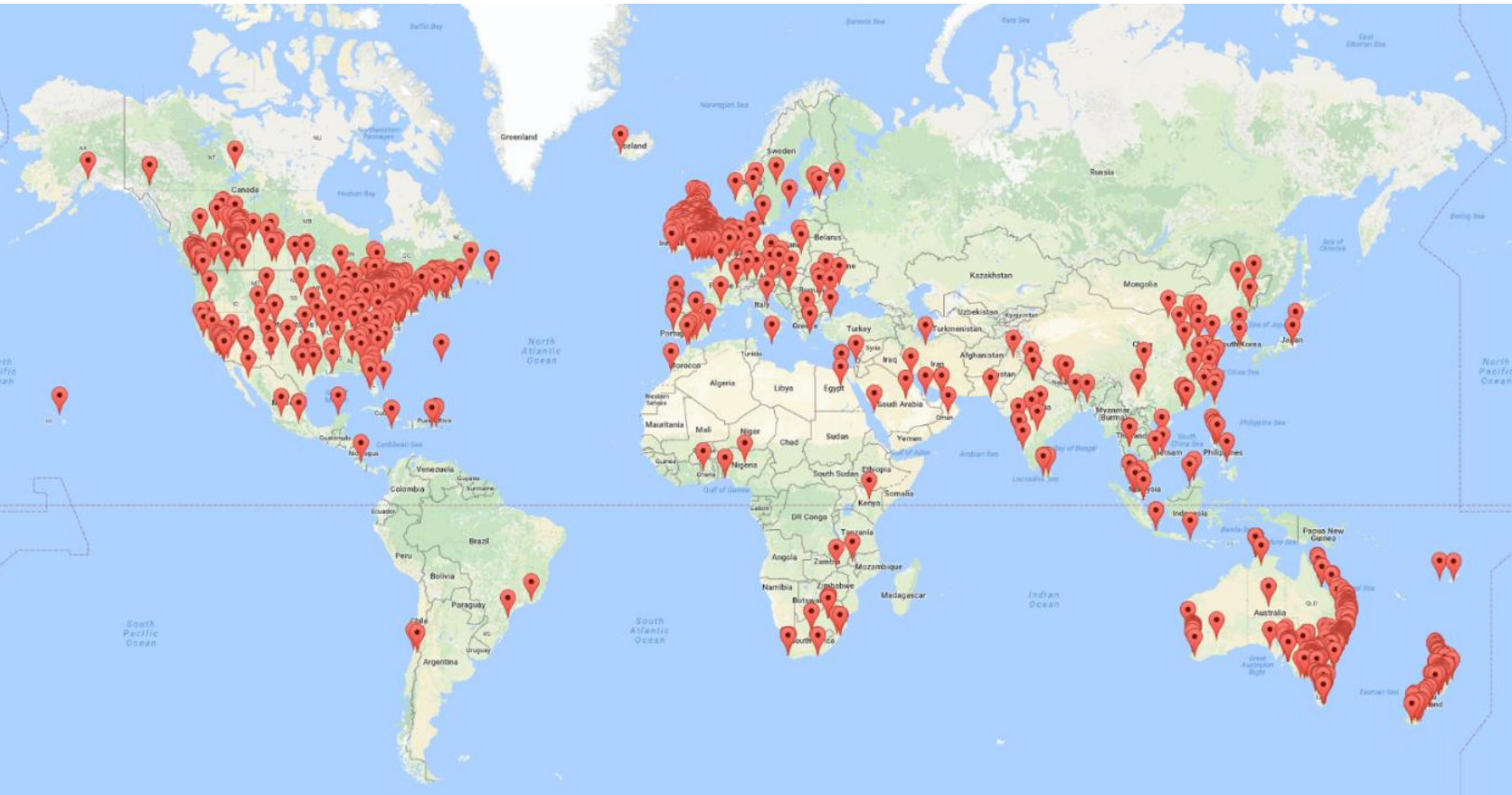
- The five-week PD MOOC addresses the non-modifiable risk factors for dementia, the key modifiable risk factors estimated to account for almost one-third of Alzheimer’s disease cases,¹ myths about dementia risk and causes, and barriers and enablers of health-behaviour change.
- Information is presented across five modules (see Table 1) using interviews with international experts, animated videos, infographics, and interactive discussions.

Table 1: Content summaries of the five Preventing Dementia MOOC modules

Modules	Content
1. Can dementia be prevented?	- The major factors that influence dementia risk - The potential impact of addressing modifiable risk factors - Dementia and the diseases that cause it - Key concepts in dementia prevention
2. Risks for dementia	- How we study dementia risk in populations - The major non-modifiable and modifiable risk factors - How dementia risk is measured in individuals and populations
3. Dementia risk – it’s not all in your head	- The critical relationship between vascular function and brain function - Evidence supporting links between key vascular factors and dementia risk
4. A healthy and active mind	- Evidence supporting links between key lifestyle factors and risk of dementia - The impact of education and other cognitively stimulating activities on dementia risk - Impact of depression on dementia risk
5. Interventions for prevention	- Key strategies for prevention for individuals and populations - Encouraging healthy behaviours - What can you do to reduce your risk of dementia? - Current research initiatives

3. Participant Characteristics

The inaugural (2016) Preventing Dementia MOOC attracted 11,185 participants from around the world, with 49.5% completing the course.



- Participants mean age was 49 years; 75% had some post-school education; 40% had an immediate family member with dementia; and 77% provided professional health care to people with dementia (see Table 2 for demographics).

Table 2: Demographic information for Preventing Dementia MOOC participants

Characteristic	% of Participants	Characteristic	% of Participants
Age		Education	
<25	4.0	School only	12.5
25 - 44	29.8	Certificate	19.7
45 - 64	46.9	University degree	41.4
65 - 84	7.3	Postgraduate degree	13.5
85+	0.1		
Gender		Country of birth	
Male	10.9	Australia	69.5
Female	89.1	Other	30.5

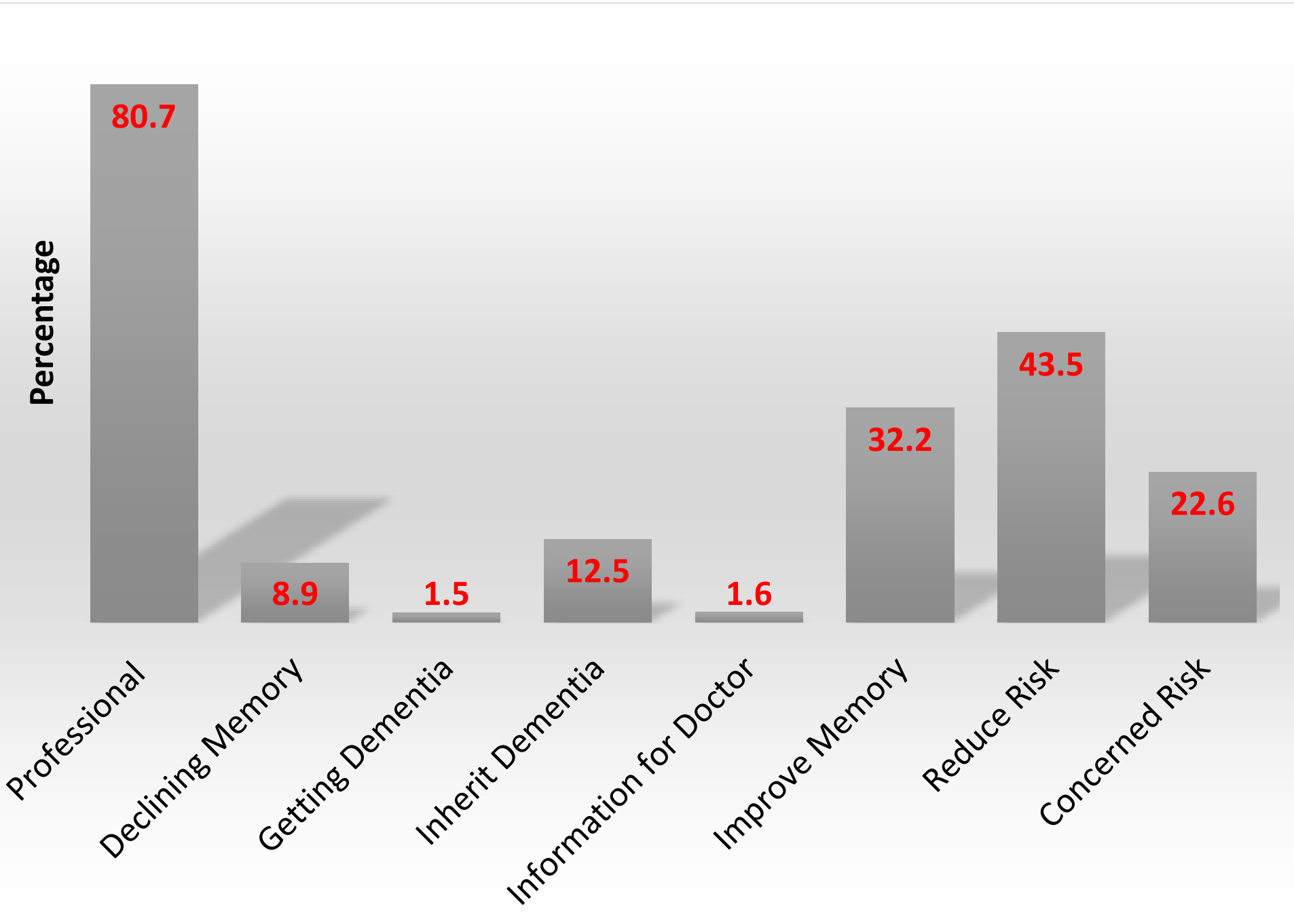


Figure 1: Preventing Dementia MOOC participants’ reasons for interest in the course

Question Key:
Professional = I am interested for professional reasons
Declining Memory = I feel my memory or other thinking skills are getting worse
Getting Dementia = I think I may be getting dementia
Inherit Dementia = I think I may inherit dementia from my parent or grandparent
Information for Doctor = I want information to take to my doctor
Improve Memory = I want to improve my memory or thinking skills
Reduce Risk = I want to reduce my risk of dementia
Concerned Risk = I worry about my chances of getting dementia

Acknowledgements

The development of the Preventing Dementia MOOC was supported by the Faculty of Health, University of Tasmania. The Wicking Centre is supported by core funding from the J.O. and J.R. Wicking Trust. The authors thank the study participants for their time and Makrina Tsinoglou for assistance with data analysis. Thanks also to our colleagues who provided their expertise to the PD MOOC.

4. Participant Feedback

- 2,149 participants completed a feedback survey on completion of the PD MOOC.
- Levels of participant satisfaction with the PD MOOC learning experience were high (see Table 3).
- There were high levels of agreement that the PD MOOC can impact dementia risk reduction (see Table 4).

Table 3: Preventing Dementia MOOC participants’ learning experience

Question	Participants in Agreement (%)
Online teaching was of high quality	98.8
Discussion questions were useful	89.0
Quizzes helped my learning	97.3
Videos helped my learning	96.0
I understood what I was learning	99.1

Table 4: Application of Preventing Dementia MOOC learning

Question	Participants in Agreement (%)
The PD MOOC...	
Can improve dementia prevention practices	98.2
Can help individuals reduce their dementia risk	98.0
Improved my understanding of dementia prevention	97.7
Increased my motivation to do something to reduce my dementia risk	93.9
Has given me the information I need to reduce my dementia risk	95.2
Impacted on my behaviour and lifestyle choices	83.6
I have already applied the knowledge I gained from the MOOC	68.9
<i>I would recommend the MOOC to others</i>	<i>99.5</i>

5. Conclusions

- The large enrolment and high completion rate for the inaugural PD MOOC highlight the scale of unmet need for quality, evidence-based and in-depth dementia risk reduction education.
- Participant feedback supports the appropriateness of the PD MOOC to increase knowledge and motivation, and its potential ability to modify dementia risk.
- Whether completion of the PD MOOC is associated with prolonged engagement in activities associated with lower dementia risk will be explored in future research.

References

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- Farrow M & O’Connor E. *Targeting brain, body and heart for cognitive health and dementia prevention*. Canberra: Alzheimer’s Australia; 2012.