UNIVERSITY of TASMANIA
WICKING
Dementia Research and Education Centre

Using real world data to visualize longitudinal modifiable dementia Risk factors in the community through an online interactive map

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THE ISLAND PROJECT

1. Background

- Up to 45% of dementia cases could be prevented by addressing behavioural and lifestyle factors[1,2,3]
- Many of the modifiable risk factors offer distinct opportunities for targeted interventions, yet there is still a gap in how we address existing distributions of risk factor adherence in order to more effectively tailor interventions

2. Methods

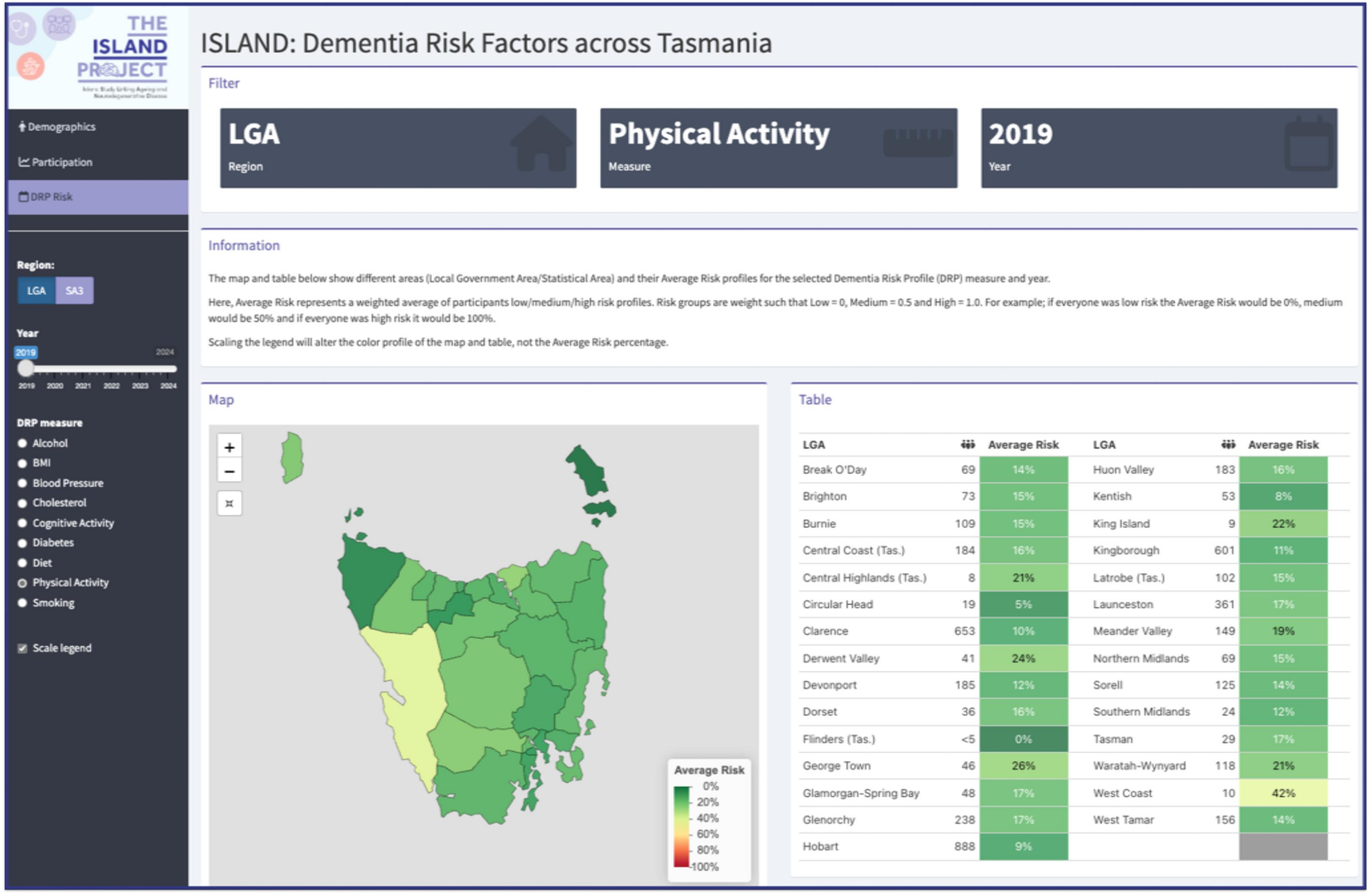
- Six years of annual survey data were used (2019-2024) from ISLAND (Island Study Linking Ageing and Neurodegenerative Disease); a public health initiative aiming to reduce dementia risk.
- Modifiable risk factors (n = 8,891) were assessed at each timepoint using the Dementia Risk Profile (DRP), a personalised traffic light tool based on evidence from the World Health Organisation

3. Results I

- There were observable geographic variations in education (range 13.4- 16.2 years), age (range 66.7-72.4 years) and severable modifiable risk factors for dementia across Tasmania, Australia.
- Participants with higher ages tended to be in regional areas of the North-West, whilst risk factor prevalence in Body Mass Index (BMI), Blood Pressure and Physical Activity were notably higher in the more remote West Coast region of Tasmania. Over time through the ISLAND initiative, all modifiable risk factors were seen to be shifting towards lower weighted averages on the DRP (Figure 1)

3. Conclusion

- Geographically visualizing modifiable risk factors in an online interactive format identified specific regions where targeted interventions are needed to reduce risk of dementia
- We were able to visualize the efficacy of the ISLAND intervention across Tasmania
  - **Please have a look for yourself here!:**



LGA		Average Risk	LGA		Average Risk
Break O'Day	69	14%	Huon Valley	183	16%
Brighton	73	15%	Kentish	53	8%
Burnie	109	15%	King Island	9	22%
Central Coast (Tas.)	184	16%	Kingborough	601	11%
Central Highlands (Tas.)	8	21%	Latrobe (Tas.)	102	15%
Circular Head	19	5%	Launceston	361	17%
Clarence	653	10%	Meander Valley	149	19%
Derwent Valley	41	24%	Northern Midlands	69	15%
Devonport	185	12%	Sorell	125	14%
Dorset	36	16%	Southern Midlands	24	12%
Flinders (Tas.)	<5	0%	Tasman	29	17%
George Town	46	26%	Waratah-Wynyard	118	21%
Glamorgan-Spring Bay	48	17%	West Coast	10	42%
Glenorchy	238	17%	West Tamar	156	14%
Hobart	888	9%			

References

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