



## Co-design of a personalised digital intervention to improve vegetable intake in adults living in Australian rural communities

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Diets low in vegetables are a main contributor to the health burden experienced by Australians living in rural communities. Given the ubiquity of smartphones and access to the Internet, digital interventions may offer an accessible delivery model for a dietary intervention in rural communities. However, no digital interventions to address low vegetable intake have been co-designed with adults living in rural areas<sup>(1)</sup>. This research aims to describe the co-design of a digital intervention to improve vegetable intake with rural community members and research partners. Active participants in the co-design process were adults  $\geq 18$  years living in three rural Australian communities (total  $n = 57$ ) and research partners ( $n = 4$ ) representing three local rural governments and one peak non-government health organisation. An iterative co-design process<sup>(2)</sup> was undertaken to understand the needs (pre-design phase) and ideas (generative phase) of the target population through eight online workshops and a 21-item online community survey between July and December 2021. Prioritisation methods were used to help workshop participants identify the ‘Must-have, Should-have, Could-have, and Won’t-have or will not have right now’ (MoSCoW) features and functions of the digital intervention. Workshops were transcribed and inductively analysed using NVivo. Convergent and divergent themes were identified between the workshops and community survey to identify how to implement the digital intervention in the community. Consensus was reached on a concept for a digital intervention that addressed individual and food environment barriers to vegetable intake, specific to rural communities. Implementation recommendations centred on i) food literacy approaches to improve skills via access to vegetable-rich recipes and healthy eating resources, ii) access to personalisation options and behaviour change support, and iii) improving the community food environment by providing information on and access to local food initiatives. Rural-dwelling adults expressed preferences for personalised intervention features that can enhance food literacy and engagement with community food environments. This co-design process will inform the development of a prototype (evaluation phase) and feasibility testing (post-design phase) of this intervention. The resulting intervention is anticipated to reduce barriers and support enablers, across individual and community levels, to facilitate higher consumption of vegetables among rural Australians. These outcomes have the potential to contribute to improved wellbeing in the short term and reduced chronic disease risk in the long term, decreasing public health inequities.

**Keywords:** co-design; digital health; behaviour change; vegetable intake

### Ethics Declaration

Yes



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### References

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