

Improving diets in regional communities: insights from place-based data and a feasibility trial

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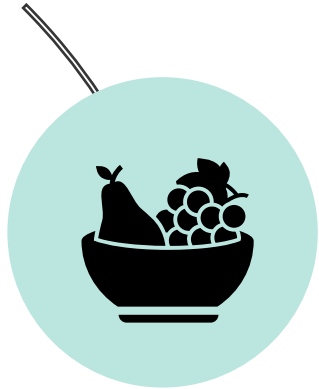


Acknowledgment of Country



Source: <https://www.deakin.edu.au/indigenous-students>

Presentation outline



Place-based data on diets in regional communities

- 2019 Active Living Census



Co-designed digital intervention to improve diets in regional communities

- 12-week Veg4Me feasibility trial

Place-based data: 2019 Active Living Census



Active Living CENSUS



Scan here to download the full report.
www.bendigo.vic.gov.au/ALC

2014
Selected Findings



Active Living CENSUS



2019
Loddon Campaspe Region
Selected Findings

Research Question

What are the barriers and enablers to fruit and vegetable consumption in regional Australian adults and do these vary by shire?

Methods



Study Design

Active Living Census 2019
Place-based data



Population

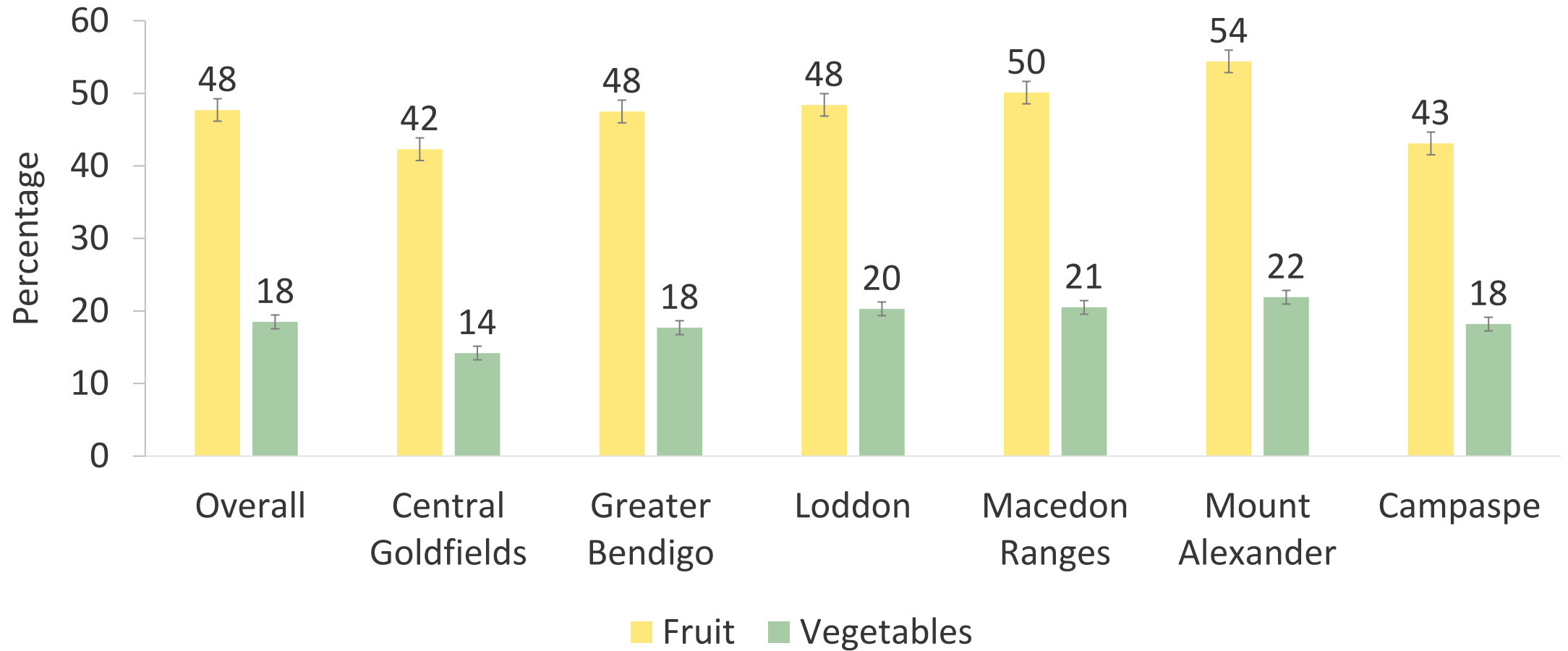
Loddon Campaspe Region
Sample size 13,464
Mean age 48 years
51% female



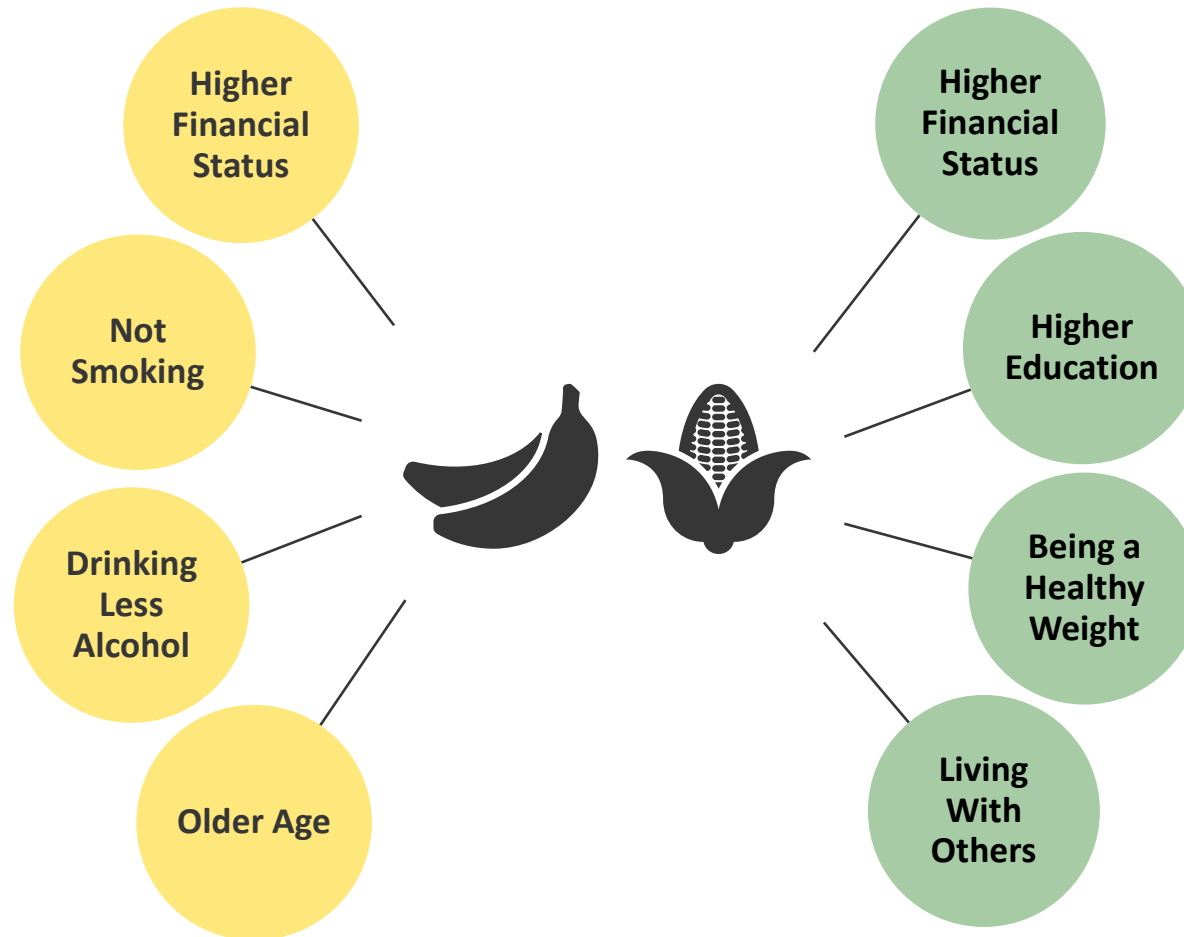
Study Measures

Fruit and vegetable intake
Barriers
Enablers

Percent of adults meeting recommended intakes by shire



Facilitators to fruit and vegetable intake



For both fruit and vegetables, access to community gardens enabled more residents to eat the recommended 2 serves of fruit and 5 serves of vegetables.



Barriers to eating fruit

1

Food and taste preference

2

Lack of time

3

Sugars content



Barriers to eating veg

1

Lack of time

2

Food and taste preference

3

Guidelines unachievable

Top barrier to fruit and vegetable consumption by shire

Central Goldfields Shire



Food taste and preference



Lack of time

Greater Bendigo



Food taste and preference



Dependent on meals

Loddon Shire



Food taste and preference



Access, quality and cost

Macedon Ranges Shire



Sugars content



Dependent on meals

Mount Alexander Shire



Food taste and preference



Unachievable guidelines

Campaspe



Access, quality and cost



Dependent on meals



Barriers for fruit

“During the summer I would definitely eat more fruit, however in the winter I eat less.”

(Participant 10010, 44 years)

“Stopped eating as much fruit due to concern over sugar content.”

(Participant 9327, 36 years)



Barriers for vegetables

“It is difficult to prepare the fresh vegetables when you are busy.”

(Participant 7975, 43 years)

“I find it difficult fitting that many serves of fruit and veg into the types of meals/snacks I like to eat.”

(Participant 7028, 44 years)

BARRIERS AND FACILITATORS TO FRUIT AND VEGETABLE INTAKE IN REGIONAL VICTORIA

Analysis of the 2019 Active Living Census

Ms Brooke Carroll & Dr Katherine Livingstone
Prepared for the City of Greater Bendigo
February 2024

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IMPLICATIONS



Support access to good quality and affordable fruit and vegetables (e.g. via community gardens)



Improve food literacy skills (e.g. meal preparation) so that vegetables can be incorporated into busy lives.



Encourage consumption of fruit and vegetables at a variety of eating occasions, such as snacks.



How placed-based data can be used

- 1 Provide a snapshot of current data as a benchmark for evaluating the success of local initiatives
- 2 Ascertain health and wellbeing needs to inform future planning, decision making and investments
- 3 Increase coordination across the community and a heightened focus on evidence-based priorities
- 4 Allow for analysis to draw comparisons between different demographics
- 5 Provide data for researchers for use in their own work, which often leads to new opportunities

12-week feasibility trial: the Veg4Me study

**VEG
4ME**



What young adults wanted in Veg4Me

Individual level barriers

BCC/ Education and skills

Recipes and cooking

“Recipes are always good because there’s so many people that are lost. [...] Like yesterday, I picked up eggplants, they look wonderful, and I said, “What can I do with this?”

(Workshop 3, Female)

BCC/ Nutrition advice

Personalisation

“You can set the reminder yourself for what you want. Have you done the shopping, or if you’re pre-planning your shopping and your meal, so it will just give you a reminder then.”

(Workshop 8, Female, 34 years)

Food environment level barriers

FE/ Offer healthy foods

Community

“Sharing food is important because we’d also build up relationships in the community.”

(Workshop 3, Female)

What does Veg4Me include?

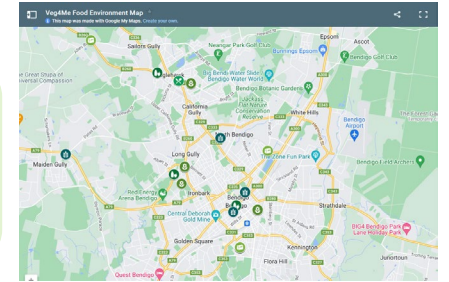


Moroccan herb couscous

Personalised Heart Foundation recipes

Personalised food environment map

VEG
4ME



Pumpkin and tofu satay

Heart Foundation recipe library

Healthy eating hub

Snack ideas

Vegetables can make tasty snacks and this is a great way to boost your these tips and recipes to work vegetables into your snack options:



ACTION TIP

Taking a vegetable snack to work each day can help replace healthy options, and can help you to achieve your recomm intake!

Goal setting portal

Personalised newsletters

Veg4Me weekly personalised recipes




Your week 1 recipes


[MY PROFILE](#) [WEEK 1](#)

Here is a selection of recipes you might like to try this week.


Want even more inspiration?
Check out the Recipe library.




Zucchini ribbon pasta salad




Moroccan herb couscous




One pot veggie mac 'n' cheese



Savoury breakfast muffins



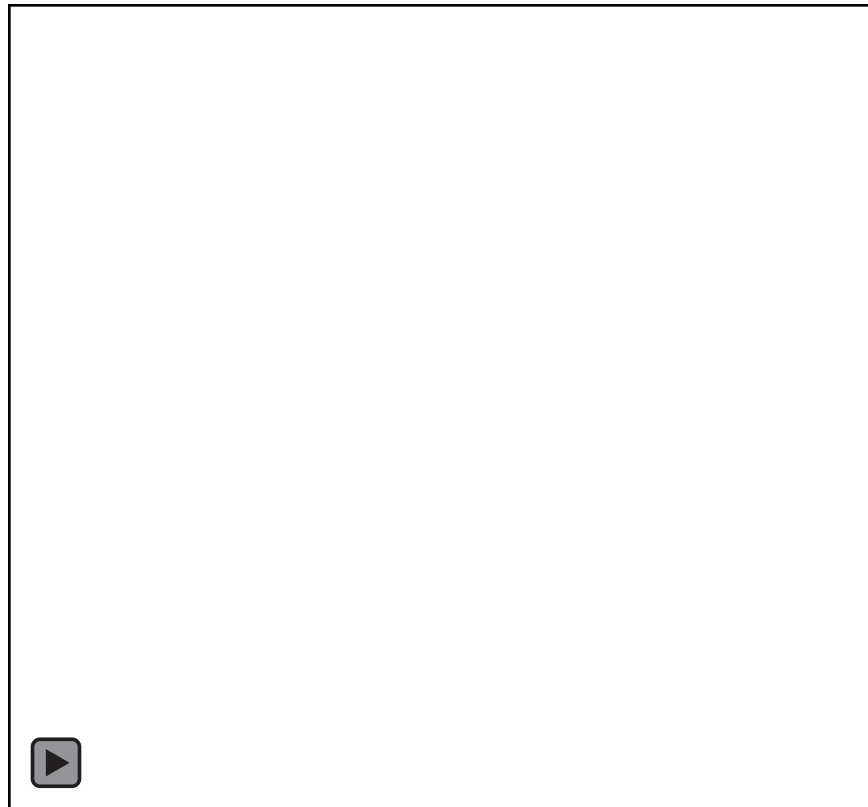
Green and red open tart with lentil salad



Guacamole




Veg4Me recipe library and healthy eating hub



VEG
4ME

HOME LOG OUT




Healthy Eating Hub

MY PROFILE HEALTHY EATING HUB

Welcome to the one-stop shop for everything you need to know about vegetables! What would you like to learn about vegetables?

- Health benefits
- Colours
- Types
- How many to eat
- Choosing
- Storing
- Seasonality
- Snack ideas
- Meal ideas
- Cooking
- More Info



Snack ideas

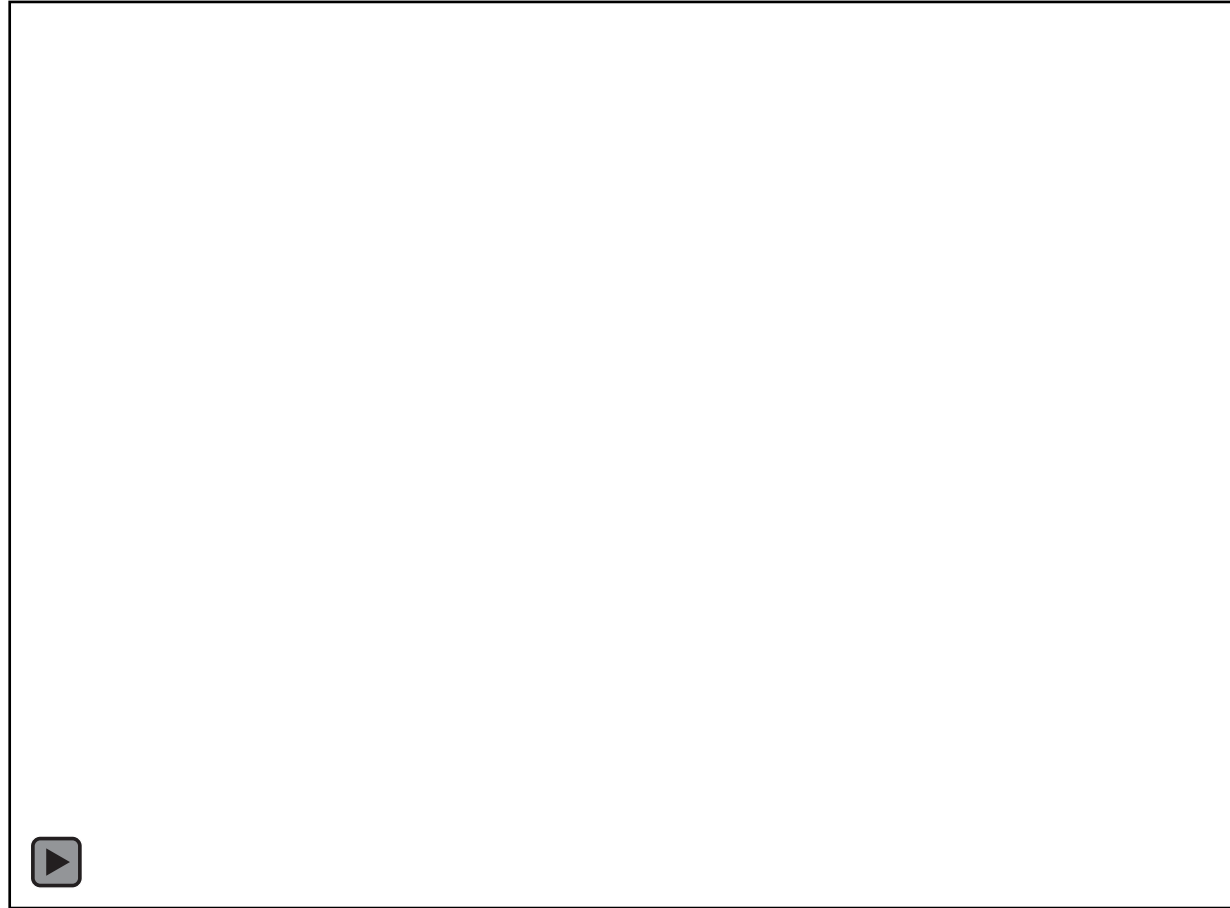
Vegetables can make tasty snacks and this is a great way to boost your daily intake. Try these tips and recipes to work vegetables into your snack options:

- click me
- click me
- click me
- click me

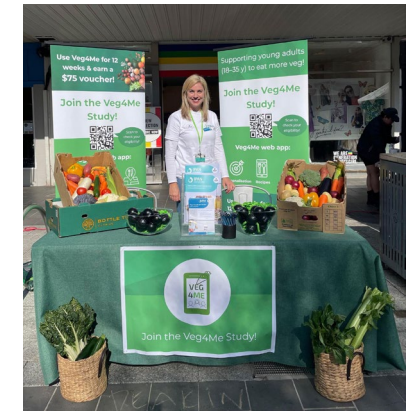
Try pairing vegetable sticks with bean/vegetable and yoghurt-based dips, such as hummus, or peanut butter. Try to avoid creamy or cheese-based dips.

RECIPE Try: [Warm roasted pumpkin dip with vegetable crudites & wholemeal pita or guacamole!](#)

Veg4Me local food environment map



Veg4Me feasibility trial



App to help young people eat more vegetables

By Joel Hicklen
Aug 16, 2023



Research: Deakin University Institute for Physical Activity and Nutrition's Dr Katherine Livingston.

Deakin University is calling on people aged between 18 to 35 in the Campaspe Shire to help test an app to improve their daily intake of vegetables.

An app-etite for vegies

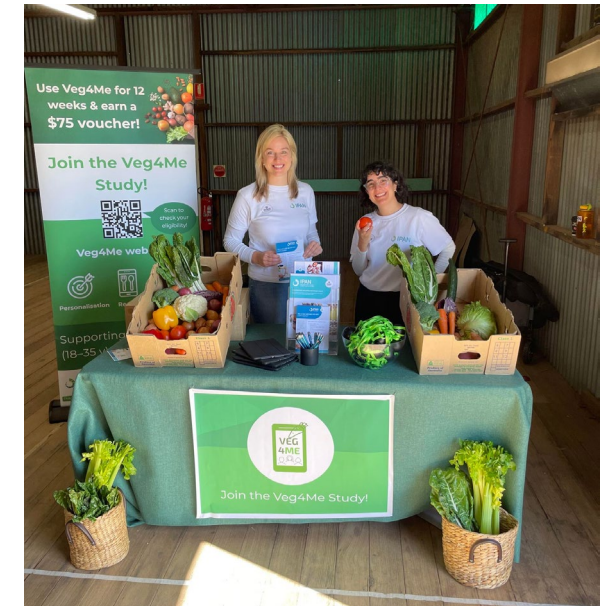
Young adults living in rural areas are not eating enough vegetables, but researchers are hoping technology might remove some of the barriers they face eating the recommended five serves a day.

A team from Deakin University's Institute for Physical Activity and Nutrition and Deakin Rural Health is looking for young people living in rural Victoria to test a

web-based app called Veg4Me that aims to boost daily intake of vegetables.

Veg4Me has been co-designed with young adults, local government and a peak health organisation and offers a range of features to encourage young adults to eat more vegetables.

Young adults with access to the personalised app will receive recipes tailored to their dietary preferences.



Veg4Me feasibility trial



Data collected

Web app engagement

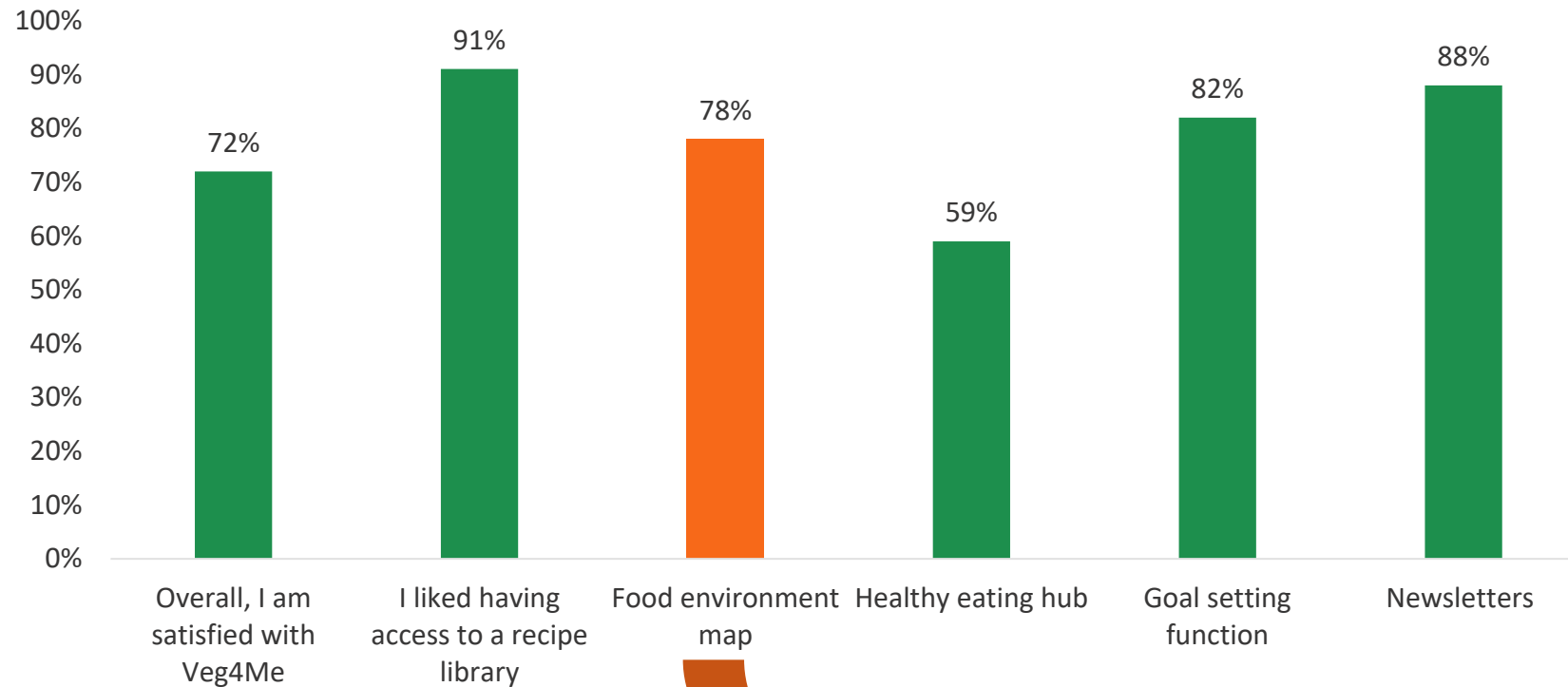
Baseline survey and 12-week survey:

- Experience with resources
- Food habits

Process evaluation interviews

Young adults' experience with resources

Percentage of intervention participants (n=32) who agree/ used the resource

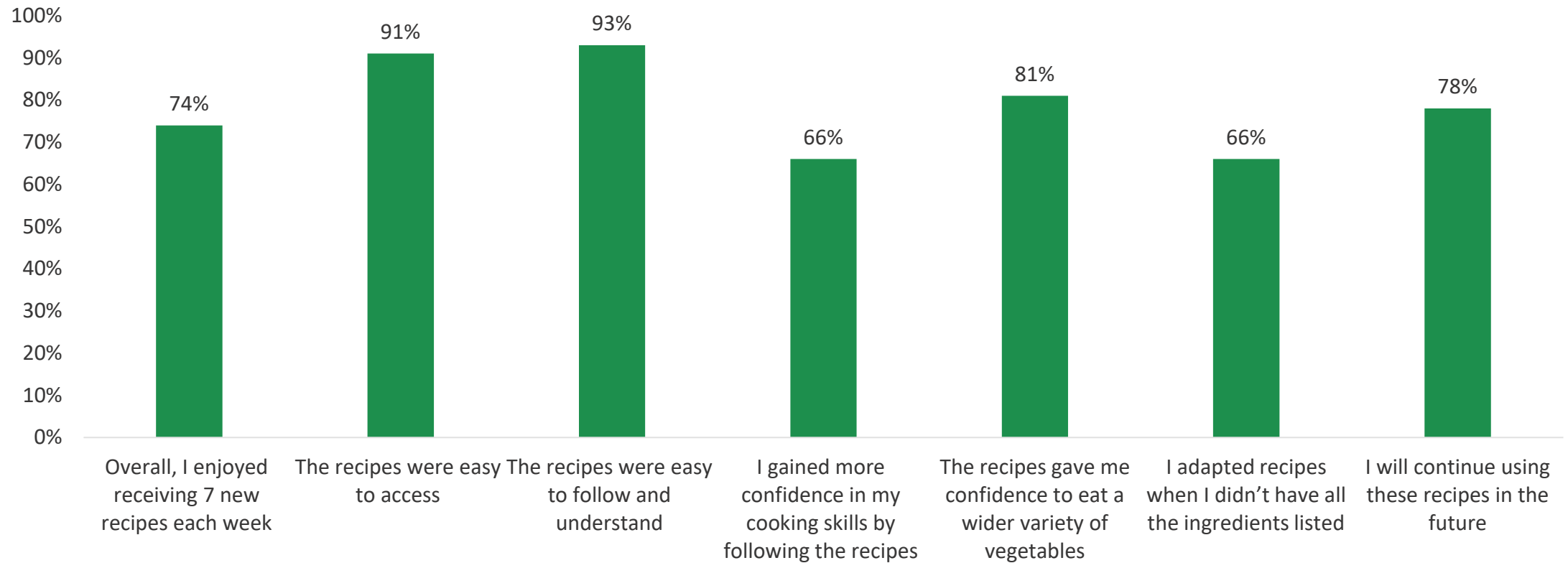


63% found food relief resources useful



Young adults' experience with recipes

Percentage of intervention participants (n=32) who Agree (strongly or somewhat)



What young adults told us

“From using the app and then starting to feel better, I felt more motivated to eat better. I could see my health and energy improving and I was less sick. I was saving money when shopping and enjoying healthy meals that were not too hard to make :) I even got a small garden going of fresh potato, chives, herbs. Fresh garlic, onion and fruit on my list next!”

(Participant 724, female, 27 years)

“These recipes helped my support workers plan better food options for my cooking day. We used to just cook cakes and cookies. Now they help me cook veggies and meals.”

(Participant 34, male, 24 years)

“Being able to access a local community group was nice for mental health. Finding like-minded people was great for motivation. There's a positive feeling when connecting with people who were able to help/give advice and also talk through options and give suggestions.”

(Participant 50, female, 28 years)

Young adults' food habits

Percentage of intervention participants (n=32) who agree

84% changed
vegetable intake
in last 12 weeks



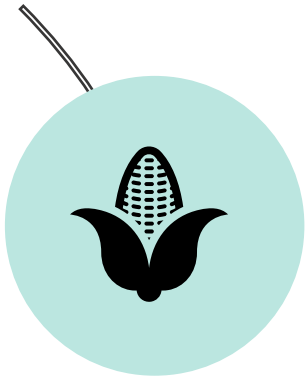
88% confident
to cook root
vegetables



94% confident to
cook fresh green
vegetables



Feasibility trial outcomes and next steps



Preliminary data show Veg4Me is feasible and engaging. We are now testing updates to Veg4Me based on process evaluation feedback and a review of materials by a young adult consumer.



Next steps is to run a trial of effectiveness and implementation potential to see if Veg4Me helps young adults to increase their vegetable intake, is cost-effective and has potential to be implemented.

Acknowledgments

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Veg4Me co-design publication: Livingstone *et al.* BMC Public Health 2024

Veg4Me protocol publication: Livingstone *et al.* BMJ Open 2024

Review of digital interventions publication: Livingstone *et al.* IJBPNA 2023



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