



Veggie Garden Mapping Project





We acknowledge the traditional custodians of all the lands on which we live, work and play. We pay our respects to Elders, past present and future, for they hold the memory, culture and stories all First Nations peoples. We commit to Reconciliation through truth telling and recognition of loss of land, language and culture; and, to listening and learning as part of a future where all can grow and thrive.

We recognise and celebrate the diversity of our communities and all people we serve, including First Nations peoples; people with disabilities; lesbian, gay, bisexual, transgender and gender diverse people; intersex people; people experiencing health inequalities; culturally and linguistically diverse people; older people; children and people from rural and remote areas.

We are a Child Safe organisation and will ensure the safety of children and young people at all times.

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Figure 1. Rural City of Wangaratta, North East Victoria (from Council Plan 21-25)

Background and Introduction

The Rural City of Wangaratta (RCoW) is a municipality that includes a vibrant city and surrounding distinctive rural towns. It is known for being home to some of Australia's best local produce. Industries include transport and logistics, health services, education and government agencies, small business and a nationally significant agricultural industry.

The community is a hub for recreational, commercial, educational, tourism and health facilities. Families in the region reportedly value access to childcare and kindergarten services, primary schools, specialist schools, secondary schools and tertiary institutions (RCoW Council Plan 21-25). The RCoW has a population of just over 30,000 with residents living in the larger township and spread across smaller rural areas.

The Health Promotion team at Gateway Health in Wangaratta have partnered with the Rural City of Wangaratta and Northeast Health Wangaratta to deliver Deakin University's research project, RESPOND. RESPOND applies systems science methods to support the development of shared community interventions that positively impact children's health and wellbeing. Wangaratta is one of twelve Local Government Areas in the Hume Region to implement this project.

The RESPOND research project involved data collection to assess key health measures in children. Data was collected for both physical and mental health measures with participating schools and students. Following this, a series of three community workshops allowed community members and organisational representatives to identify factors they believed to influence the health and wellbeing of children locally. These factors were represented as a 'systems map', highlighting connections between the factors.

Project ideas were put forward in the final workshop based on the systems map. These ideas were then prioritised based on both their feasibility and community dedication for delivery. Implementation of these community-led projects commenced in 2023 and evaluation will be completed to determine the impact on children's health and wellbeing locally. To date, six community-led projects have been delivered across the RCoW as part of this process, including recreation 'come and try' days, mobile recycled art bus workshops, cooking and growing skills activities and as discussed in this report, understanding more about early childhood service, school and community-based veggie gardens.

The idea of establishing veggie gardens in places such as playgrounds, early childhood or aged care settings, to share, learn and connect received support from community members and organisations and was identified as a priority for action.

The Gateway Health Health Promotion team has supported food growing gardens across the RCoW over many years to improve access to nourishing foods. The Health Promotion team are in a position to support connections between educational and community-based gardens and community food initiatives, as well as identify further opportunities for collaboration.

In response to the RESPOND action idea, the first step was to map all existing veggie gardens. Thus, the Health Promotion team undertook this mapping project with the aim to understand where veggie gardens are located, how they are used and maintained, the barriers and enablers to success, how the community is engaged and where there might be opportunities to share skills, knowledge and produce. Along with the above, the overall aim was to determine how best to support existing gardens, whether there is a need to establish additional gardens and determine connections between produce from gardens and community needs.

The project was also designed to inform the RCoW Sustainable Food Alliance needs assessment that is being undertaken as part of the VicHealth Local Government Partnership (VLGP) Food Systems Module that the RCoW is implementing with the support of Gateway Health. Together with VicHealth, they are amplifying community voices, ideas and experiences to create a healthier future for all young people. VicHealth has provided a series of health promotion modules, the building blocks for effective change, that will help the council to act on these ideas and initiatives.

The RCoW is taking a focus on the Building Better Food Systems for Healthier Communities module, which aims to strengthen the capacity to create local and healthy food systems and give children and young people opportunities to actively engage in the issues and solutions.

The impact this is designed to have is to:

- Create thriving local food systems;

- Embed healthy food and drink options in council owned and operated places;
- Use healthy rewards and sponsorships in community activities; and,
- Enable healthy partnerships.

This report outlines the Veggie Garden Mapping Project, including the methods used and subsequent results. The methods included stakeholder engagement and surveys with educational and community settings. Results are discussed in relation to policy context, the benefits of veggie gardens and the impact of this on children's health and wellbeing. The report concludes by addressing the question of veggie garden locations and potential, followed by opportunities and recommendations.

Method

The mapping process involved the following.

Stage 1. Stakeholder Engagement

Meetings took place with staff from Northeast Health Wangaratta, Rural City of Wangaratta, Deakin University, Bunnings Wangaratta, Stephanie Alexander Kitchen Garden Foundation, Women's Health Goulburn North East, Ovens Murray Public Healthy Unit and Primary Nexus Health.

Stage 2. Surveys Conducted

Two surveys were conducted subsequently in March and April of 2024, one for educational settings, including early childhood services, primary schools and secondary schools and one for community groups and organisations.

Results

Table 1. Stakeholder engagement information

Organisation	Role	Key information
Women's Health Goulburn North East	Health Promotion Officer	<ul style="list-style-type: none"> Highlighted linkages to the development of the North East Local Food Strategy (NELFS). For example, adding project results to the NELFS website and providing others with the opportunity to add community gardens across the North East. Referenced the Upper Murray Neighbourhood House Network, the peak organisation overseeing all neighbourhood houses and community centres across the North East, would have lots they could contribute. Provided information on report content and opportunities for future funding to support results and deliver recommendations outlined as part of the project.
Albury Wodonga Health Ovens Murray Public Health Unit	Population Health and Prevention Coordinator	<ul style="list-style-type: none"> Offered support for project replication across the region along with funding ideas.
Stephanie Alexander Kitchen Garden Foundation	Healthy Kids Advisor – City of Greater Shepparton	<ul style="list-style-type: none"> Added valuable connections in the food system across the region to both consult and share findings with.
Alpine Health	Health Promotion Officer	<ul style="list-style-type: none"> Shared information on food initiatives and food systems aspects of alpine shire
Deakin University	RESPOND Project Manager and Implementation Coach	<ul style="list-style-type: none"> Provided support for the action planning process and results analysis through the use of the institution's stick-e program.
Primary Nexus Health	Health Promotion Officer	<ul style="list-style-type: none"> Contacted to learn about experience in the establishment of both educational and community-based veggie gardens Shared that one aim of these gardens is to grow food to be donated to their monthly food share event The establishment of the garden involved volunteers, in kind support along with community and business donations, community dedication and connections were key to this project.

Table 2. Survey responses - garden locations

Setting	Wangaratta township	Outlying areas of shire
Early Childhood Services	6	2
Primary and Secondary Schools	8	8
Community Organisations	6	2
Total	20	12

Table 3. Survey responses - overview

Setting	No. of responses	No. of active gardens	Common challenges	Common reasons for success
Early Childhood Services	8	6	<ul style="list-style-type: none"> • Maintenance • Watering • Cost • Time • Space 	<ul style="list-style-type: none"> • Volunteers • Parent helpers • Funds • Team work • Community support • Children's engagement
Primary Schools and Secondary Schools	20 (equivalent of 16 schools as multiple responses from some schools)	16	<ul style="list-style-type: none"> • Time • Cost • Maintenance 	<ul style="list-style-type: none"> • Staff time • Student engagement • Curriculum planning • Donations • Volunteers support • Watering systems • Wicking beds
Community Organisations	10	6	<ul style="list-style-type: none"> • Maintenance • Communication • Repairs • Ownership • Recruiting long-term garden members 	<ul style="list-style-type: none"> • Wicking beds • Sunny location • Budget • Support from Bunnings Wangaratta • Enthusiasm • Greenhouse • Volunteers • Access to water • Garden members sharing skills and knowledge • Workshops at morning teas

Table 4. Survey responses - follow up support areas of interest (education setting)

Setting	Facebook group with gardening guidance	Support from Bunnings to maintain/reactivate garden	Opportunities to share excess produce	Veggie gardening workshops/resources
Early Childhood Services	2	8	3	5
Primary and Secondary Schools	4	15	7	11

Table 5. Survey responses - follow up support areas of interest (community setting)

Setting	Information and resources	Support to reactivate garden (e.g., providing seedlings, materials)	Opportunities to share/receive excess produce	Veggie gardening workshops	Other
Community Organisations	2	2	1	3	2 (grants, solar watering system)

Table 6. Early Childhood Service and School Program Registrations

Setting	School Breakfast Clubs Program	Smiles 4 Miles	SAKG Foundation Membership	Vic Kids Eat Well	Achievement Program	Cooking Classes	Local produce linkages to curriculum	Other
Early Childhood Services	1	8	1 (interested in)	0	2			1 Plastic Free July
Primary Schools and Secondary Schools	9		4	4	1	9	4	

Early childhood service survey results summary

Eight of the seventeen early childhood services in the Rural City of Wangaratta completed the Veggie Garden Mapping Survey. Six of the eight reported to have an 'active' (currently in use) veggie garden at their service; 3 are somewhat active (on and off/seasonal), 2 are actively in use, 1 is inactive but with a plan to activate.

Early childhood services provided information about how their veggie garden is used, maintained and linked to their service or community. Produce from veggie gardens is, or is planned to be shared with their service's kitchen, families and staff to take home at 2 services, eaten at the kindergarten by children (E.g., shared fruit/vegetable platter, herbs used for sensory activities) at 3 services.

Successful gardens reportedly have: Parent helpers to weed, plant and water etc., team work, funds, support from community, as well as children that enjoy participating with the garden, connecting with it and seeing it as a place to explore, as well as eating the fruit and vegetables!

Half of the survey respondents reported the main challenges of having a veggie garden to be maintenance, including weeding, soil fertilisation and repairs. Other challenges reportedly include watering over holiday periods, cost, time, space.

The majority of early childhood services are interested in receiving gardening guidance, resources and workshops, support from Bunnings Wangaratta and opportunities to share excess produce

Primary and Secondary School Survey Results

Sixteen of the twenty-four schools in the Rural City of Wangaratta completed the Veggie Garden Mapping Project, Education Setting Survey, this includes both primary and secondary schools.

Sixteen of the schools reported that they have a veggie garden, eight reported as active, one reported as inactive, seven somewhat (i.e., on and off/seasonal).

In terms of how the produce is used, more than half of the schools (14) reported that it is used in cooking classes/programs with students, such as in: Environmental Studies, Food Technology, Agriculture/Horticulture and for social skill development. These schools, along with others, often share the produce with the school community for example, with students if they need a snack, catering for camps, families taking the produce home, their Outside School Hours Care (OSHC) program, playgroup, community (E.g., left at front of school for collection, 'share shed')

Reasons for success of school veggies gardens varied and included:

- Staff time;
- Participation;
- Dedication and enjoyment;
- Student engagement and interest;
- Curriculum planning for linking lessons and allowing time for cooking;
- Donations;
- 'Garden club';
- Operational greenhouse;
- Support from volunteers (both family and community members);
- 'Hands on learning' curriculum within the school;

- Wicking beds, as it means watering is not an issue;
- Water and good soil; and,
- A designated person to manage the garden.

The challenges of having a veggie garden were overwhelmingly reported as time, cost, maintenance (E.g., watering, planting, tending to beds, harvesting produce). When asked what kind of support the schools would be interested in receiving, their responses included: Facebook group/resources with gardening guidance 4, support from Bunnings to maintain/reactivate garden (e.g., provide seedlings, improvements): 15, opportunities to share excess produce: 7, veggie gardening workshops/resources 11.

Community-based Setting Survey Results

10 community settings responded to the Community Setting Survey as part of the Veggie Garden Mapping Project in the Rural City of Wangaratta. Community-based settings included neighbourhood houses, men's sheds, aged care, community gardens etc. All reported to have a veggie garden; 6 reported them to be active (2 didn't respond to this question), 1 reported theirs to be somewhat active - on and off / seasonal, 1 reported not have a garden but interested in establishing one

Settings reported the produce from their garden to be shared with the wider community (E.g., weekly community lunches, food relief program, shared table, with Men's Shed members, community members can come and pick) x2, used in cooking, including cooking classes x3, used by those who plant the veggies i.e., aged care residents x2

The success of their gardens reportedly comes down to; having wicking beds so veggies survive periods without watering, the garden bed being in a sunny location, there is a budget that includes spending on repair/upgrade/expansion x2, money spent on formalising the beds, raising them to a good working height for older people and placing gravel in between beds for safe access, ease of use, and support from the Activities Organiser at Bunnings Wangaratta who donates seedlings, small team of enthusiastic people, a greenhouse so that we can produce seedlings during the colder weather to cut down on costs, volunteers, access to water x2

The challenges of having a veggie garden are general up keep and maintenance, communication around people knowing they can use the produce, repair and revamp of garden beds, needing someone to take ownership (preferably a resident), a system for equitable use, protection from birds and rabbits, cost of installation, having raised garden beds that limit growing space, maintenance, maintaining volunteers, regular watering, regular harvesting, fruit fly

In terms of support, respondents reported to be interested in receiving information and resources – x2, support to reactivate garden (e.g., providing seedlings, materials) – x2, opportunities to share/receive excess produce – x1, veggie gardening workshops – x3. Other ideas for support included grants to allow expansion of garden beds, solar self-watering systems

Discussion

Introduction

It is well known that veggie gardens in both educational and community settings have the potential to promote health by improving dietary intake of fruits and vegetables, along with psychosocial benefits for individuals (Hoover, Vandyousefi, Martin, Nikah, Hockett Cooper, Muller, Marty, Duswalt-Epstein, Burgermaster, Waugh, Linkenhoker, Davis, 2021). Further, produce from the gardens shared across the community through connections and partnerships has the potential to contribute to a reduction in the increasing demand for emergency food relief and have a positive contribution toward food security (Carlsson, Williams, Hayes-Conroy, Lordly and Callaghan, 2016). Food security is defined by the World Health Organization (WHO) as ‘when all people have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences’ (World Health Organization, 2024). There is growing evidence to suggest that school gardens can positively influence children’s health and wellbeing, including learning in areas of science and sustainability, personal skills such as respect, ownership and understanding of food systems (Carlsson, 2016). School gardens may also increase fruit and vegetable consumption, dietary fiber and vitamin intake in children (Holloway, Dalton, Hughes, Jayasinghe, Patterson, Murray, Soward, Byrne, Hills, Ahuja, 2023).

There is considerable potential for veggie gardens to be included in, and also to influence both local and broad community policies, systems, and environments, such as integration into farmers markets, and connections with local food initiatives. This project considers where veggie gardens, in both educational settings and the community, are identified in relevant strategies and plans. This is an important consideration for future funding opportunities, resourcing and partnerships. Relevant food policy alignment is outlined in the Appendices I.) of this report however further opportunities for connection need to be considered and explored as a means of addressing food insecurity. For now, all settings mapped as part of this project are ideal in reaching large numbers of children and families through a systems approach.

Veggie Garden Challenges

There has been increasing popularity of school gardens however this has corresponded with a growing number of school gardens that have been unsustainable, despite enthusiastic beginnings (Felicia Yu 2012). There were very consistent themes when it came to the reporting of challenges of veggie gardens. Not only are these consistent across the educational and community settings surveyed, but also with research conducted in the area. For example, Hoover et al, 2023 investigated the challenges faced by school veggie gardens, which align with the challenges identified in the local Veggie Garden Mapping survey. These challenges include time (i.e., school staff time), lack of materials, resources and funding, as well as ongoing maintenance of gardens (Hoover et al, 2023). Felicia Yu (2012) examined common challenges to the long-term maintenance of garden programs, these were reported to include funding, maintenance difficulties, and dependence on untrained teachers who are frequently subject to changing employment conditions. Ohly, Gentry, Wigglesworth, Bethel, Lovell and Garside (2016) also set out to understand the health and wellbeing impacts of school gardens and the factors that help or hinder their success. Lack of funding and over reliance on volunteers were thought to threaten success, while involvement with local communities and integration of gardening activities into the school curriculum were thought to support success (Ohly 2016).

Veggie Garden Successes and Benefits

Hoover et al (2021) conducted a study to identify school garden attributes and practices that most strongly contribute to garden use and sustainability and translated them into recommendations for improving garden-based nutrition education. Results showed that thriving school gardens were those that had funding and community partner use, active garden committees, curriculum linkages, teacher training and administrator support. Again, these findings reflect factors identified by the local Veggie Garden Mapping Survey results, such as volunteers, parent helpers, curriculum planning, funds, team work and community support. It was concluded by Hoover et al (2021) that these types of support are fundamental when implementing a school garden and that funding directed at providing teacher garden training, providing garden curriculum, forming garden leadership committees, and partnering with local community organisations will improve garden-based education (Hoover et al 2021).

Holloway et al (2023) investigated how school gardens improve health and wellbeing outcomes for school-aged children, why, and in what circumstances. Types of positive outcomes included increased fruit and vegetable consumption, increased intake of dietary fiber and vitamins A and C, improved body

mass index, and improved well-being of children. A study by Ohly (2016) also found that a range of health and wellbeing impacts of school gardens, particularly, pupils who do not excel in classroom activities were thought to benefit. The Holloway et al (2023) review highlighted that a combination of mechanisms working mutually through school gardening programs leads to embedding of nutrition-based and garden-based education in the curriculum, experiential learning opportunities, family engagement and participation (Holloway et al, 2023).

Community-based gardens, overview

McCormack (2019) used a gardening intervention to improve local access to, and consumption of, fruits and vegetables and as part of efforts of local wellness coalitions. Seasonal garden coordinators were hired, and action plans included goals for nutrition and physical activity education programs and youth and adult engagement. The characteristics of each garden (size, items planted, number of volunteers) and pre and post-intervention surveys were used to understand how the gardens affected communities. Dedicated, trained seasonal garden coordinators made the maintenance and sustainability of the gardens possible, and selecting coordinators from within the community helped to quickly establish trust and buy-in from other community members. The community garden intervention provided opportunities for collaboration with a variety of schools and community organisations. Gardens were part of the local food landscape in rural communities facing limited food access and high rates of food insecurity. The intervention showed that community gardens can produce substantial amounts of produce. Further exploration into what groups in these rural communities are using the produce, how they are using it, and its effect on diet quality and food security is still needed. The ability of gardens to influence broad community policies, systems, and environments, such as integration into farmers markets and farm-to-school, still need to be explored.

Outcomes and Recommendations

Responding to survey results - early childhood services and schools

Gateway Health is working in partnership with Bunnings Wangaratta and Northeast Health Wangaratta to support early childhood services that completed this project's survey by responding to areas of interest noted in their results. This partnership has proven to be a valuable component of engagement and support. Bunnings Wangaratta Activities Officer is available to support early childhood services, schools and community organisations with veggie garden resources. For example, support includes, but is not limited to, providing seeds and seedlings, garden resources and workshops. The process for this is for organisations to contact Bunnings Wangaratta to register interest and they will confirm what they're able to provide. The organisation is to then send a letter with this specific information they are requesting on a letterhead.

As part of the RESPOND Wangaratta Partnership Group, Northeast Health Wangaratta provided early childhood survey respondent services with the opportunity to apply for \$1000 and is providing ongoing support with the successful service's projects to support their veggie gardens. Gateway Health provided \$1000 to five schools to support their veggie gardens and encourage the use of produce.

Criteria used to decide on schools to receive the grants included:

- Consideration of the index of community socio-education advantage (icsea) data for schools which assesses rate of advantage/disadvantage of students and families;
- Consideration of number of students (both high or low);
- Geographical spread across the Rural City of Wangaratta;
- Potential for ongoing engagement and/or support; and,
- Application of the respond accessibility planning checklist.

Funding was one way of providing follow up support for survey results, specifically for schools that expressed interest in further support (E.g., veggie garden workshops, resources or opportunities to share excess produce). Evaluation of this funding provision will take place over six to twelve months and will include capture stories and track changes in the veggie garden and across the school.

The RESPOND Partnership Group also purchased Stephanie Alexander Kitchen Garden Foundation (SAKGF) resources for both early childhood services and schools. These resources are linked to early years and school curriculum, which arose as one challenge for including the veggie garden into the classroom. Follow the purchase a meeting was held with a staff member from SAKGF who confirmed all reported program memberships were accurate and provided information on how to support these settings.

Responding to survey results – community-based settings

Contact was made with all survey respondents, during which they were offered structured and free support from Bunnings Wangaratta regarding reactivation or maintenance of gardens. Further to this, support from Gateway Health was offered for garden establishment (E.g., support for funding applications, contact with local business to build connections and donations) along with produce use and sharing, connections/collaborations between the gardens and also with other community food initiatives.

One project that has come out of RESPOND and aligns well with this project is the pilot program for intergenerational growing and cooking being conducted with children, parents and grandparents at the Yarrunga supported playgroup/early childhood service. A veggie garden was installed with the support of Bunnings Wangaratta and Gateway Health and the RESPOND Partnership Group also funded \$1000 to this. The program will be evaluated and hold potential replication in other community-based veggie garden settings.

Limitations

The main limitation of this project was the considerable variety in the type of community-based settings that completed the survey. Community-based settings ranged from aged care services, a community garden and fire station to a food hub, youth hub and neighbourhood house. Staff time was lacking to be able to investigate best practice for supporting these unique areas individually, but is an initiative that may be possible in future.

Another limitation is that not all schools and early childhood services in the RCoW completed the survey, there may in fact be more settings that do have veggie gardens and/or would like to receive support. There may also be other community-based settings that didn't complete the survey and are in this position. Further information and details may arise following this baseline mapping process.

Future Research

Future research conducted locally in this area will involve the evaluation of the impact of support provided, both financially and in kind, as well as community connections between educational settings and community settings. A focus could be taken on mapping these connections and implementing interventions to support the distribution of produce as an act to improve health and wellbeing as well as contribute to food security challenges.

Conclusion

This project has filled a gap in understanding local veggie gardens, their locations and details on what determine their success. It is now clear where many veggie gardens in the Rural City of Wangaratta are located. They are commonly functioning well due to the commitment from staff and volunteers and funding sources and they are challenged by lack of time, cost and resources for maintenance. At the end of 2024 the funding distributed will be evaluated to determine whether providing this, and Health Promotion support, were effective in reactivating veggie gardens in educational settings. The project has highlighted opportunities for connections between gardens and local food initiatives (previously mapped), presented visually in both GIS and STICK-E maps. Outcomes of this project and those into the future will be tracked using these baseline maps. This report will be shared with the RESPOND community, namely those involved in food systems working groups involving members that put forward the idea of establishing veggie gardens within the Rural City. From here, community-led projects based on these results will be supported by Gateway Health and the RESPOND Wangaratta Partnership Group, particularly by integrating current work with schools and continuing to support veggie gardens as a way of supporting health and wellbeing in children and their families.



References

- Block, K., Carpenter, L., Young, D., Hayman, G., Staiger, P., & Gibbs, L., (2019). What's Cooking?, Evaluation of the long-term impacts of the Stephanie Alexander Kitchen Garden Program, University of Melbourne: Centre for Health Equity, Melbourne School of Population and Global Health
- Carlsson, Williams, Hayes-Conroy, Lordly and Callaghan, 2016, School Gardens: Cultivating Food Security in Nova Scotia Public Schools?, Canadian Journal of Dietetic Practice and Research, Vol 77, DOI: 10.3148/cjdpr-2015-051
- Felicia Yu, 2012, School Garden Sustainability: Major Challenges to the long-term maintenance and success of school garden programs, University of Delaware
- Holloway, Dalton, Hughes, Jayasinghe, Patterson, Murray, Soward, Byrne, Hills, Ahuja, 2023, School Gardening and Health and Well-Being of School-Aged Children: A Realist Synthesis, *Nutrients*. 2023 Mar; 15(5): 1190, doi: 10.3390/nu15051190 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10005652/>
- Hoover, Vandyousefi, Martin, Nikah, Hockett Cooper, Muller, Marty, Duswalt-Epstein, Burgermaster, Waugh, Linkenhoker, Davis, 2021, Barriers, Strategies, and Resources to Thriving School Gardens, *Journal of Nutrition Education and Behavior*, Volume 53, Issue 7, July, Pages 591-601, <https://doi.org/10.1016/j.jneb.2021.02.011>
- Ohly, Gentry, Wigglesworth, Bethel, Lovell and Garside, 2016, A systematic review of the health and well-being impacts of school gardening: synthesis of quantitative and qualitative evidence, Ohly et al. *BMC Public Health* (2016) 16:286, DOI 10.1186/s12889-016-2941-0
- Sylvia Helena Espindola Salles, Giovanna Brito Lins, Adriana Mascarette Labinas, Maria Lúcia Paulino Silva Sousa, Elisa Mitsuko Aoyama, Marcos Roberto Furlan, 2020, Case report: vegetable gardens in rural schools and environmental education, doi:10.4136/ambi-agua.2566
- Stluka S, McCormack LA, Burdette L, Dvorak S, Knight N, Lindvall R, et al. Gardening for Health: Using Garden Coordinators and Volunteers to Implement Rural School and Community Gardens. *Prev Chronic Dis* 2019; 16:190117. DOI: <https://doi.org/10.5888/pcd16.190117>
- Tracey, Gray, Manohar, Kingsley, Bailey, Pettitt, 2023, Identifying Key Benefits and Characteristics of Community Gardening for Vulnerable Populations: A Systematic Review, <https://doi.org/10.1155/2023/5570089>
- World Health Organization, 2024, Food Security & Nutrition: Essential Ingredients to Build Back Better, <https://www.who.int/>



Appendices



Appendix A. Project brief shared with stakeholders during project planning and stakeholder engagement stage



Food Growing Gardens in the Rural City of Wangaratta: A Mapping Project

March - June 2024

Supporting local food growing gardens is one strategy the Health Promotion team at Gateway Health implements to support access to nutritious foods for our community. Food growing gardens can help to increase food growing skills and knowledge, provide access to local, seasonal, affordable, fresh produce, provide opportunities for social connection and reduce food miles and food wastage.

The Health Promotion team currently leads implementation of Deakin University's RESPOND research project that involves community led action to positively impact on children's health and wellbeing. Investigating opportunities for food growing spaces to share, learn skills and connect is one idea for action that was identified by the community.

In response to this, the Health Promotion team is undertaking a mapping project across the Rural City of Wangaratta to understand food growing gardens in terms of:

- where they are located
- how they are used and maintained
- the barriers/enablers to success
- how the community is engaged
- the opportunities to share skills, knowledge, produce, volunteers etc.

The mapping will involve:

1. two surveys (one for education settings and one for community groups)
2. stakeholder engagement
3. the development of a report and map with recommendations of how we can work together to support local food growing gardens.

Overall, the project will determine how best to support existing gardens, whether there is a need to establish additional gardens and determine connections between produce from gardens and community needs. The project will also help to inform the Wangaratta Local Food Coalition's needs assessment that will be undertaken as part of implementing the VicHealth Food Systems module.

Please contact Felicity Kennedy if you would like to contribute to this project.

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Appendix B. Gateway Health Facebook Post



Gateway Health

26 March · 🌐

Supporting local veggie gardens is one way the Health Promotion team helps to increase access to nutritious foods in our community. We are undertaking a mapping project to understand more about veggie gardens in education settings in the Rural City of Wangaratta to guide where our support is required.

Please complete a short survey to help us gather information and to receive follow-up support, you'll also go in the draw to win one of two \$100 gift vouchers to help your veggie garden on its way!

Complete the survey:

https://www.surveymonkey.com/r/Veggie_Gardens_RCOW

survey closes Monday 29th April 2024

Contact the Health Promotion team by emailing HealthPromotion.Team@gatewayhealth.org.au if you would like to discuss the project.

[#GatewayHealth](#) [#PeopleLivingWell](#) [#Nutrition](#)



Veggie Gardens in the Rural City of Wangaratta: A Mapping Project

Supporting local veggie gardens is one way the Health Promotion team at Gateway Health helps to increase access to nutritious foods for our community. We are undertaking a mapping project to understand more about the veggie gardens that exist in the Rural City of Wangaratta, for example where they are located, how they are used and maintained, the barriers/enablers to success, community engagement opportunities. Your information will remain confidential.

A report will be written with an overview of information found and will be used to guide our understanding of where support is required. Please complete this short survey to help us gather information and to receive follow up support for example, applying for grants on your behalf, creating community connections such as with Bunnings, incorporating produce into your service or school. By completing the survey you'll also go in the draw to win a \$100 gift voucher to help your veggie garden on its way!

The survey will close on Mon 29th April, 5pm.

Felicity Kennedy

**Health Promotion Coordinator, Gateway Health
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1. Organisation type

- Early childhood service
- Primary school
- Secondary school
- Other (please specify)

2. Organisation name

3. Does your organisation have a veggie garden?

- Yes
- No



Veggie Gardens in the Rural City of Wangaratta: A Mapping Project

4. Is the garden currently used to grow veggies?

- Yes - active
- No - inactive
- Somewhat - on and off / seasonal

5. How is the produce from the garden used? eg: cooking classes, shared, donated

6. What helps to make your garden successful?

7. What are the challenges of having a veggie garden? Eg: maintenance, watering, harvesting etc

8. Is your organisation involved in food related programs or initiatives? These may or may not be attached to the garden.

- Stephanie Alexander Kitchen Garden Program
- Vic Kids Eat Well
- Achievement Program
- Cooking classes
- Smiles 4 Miles
- Local produce linkages to school curriculum
- School breakfast program
- Other (please explain)

9. Are you interested in any of the following?

- Facebook group with gardening guidance
- Support from Bunnings to maintain/reactivate garden (eg, provide seedlings, improvements)
- Opportunities to share excess produce
- Veggie gardening workshops/resources

Thank you for completing this survey! Your contribution is valued and will contribute to the mapping of Veggie Gardens in the Rural City of Wangaratta.

10. Please provide your details below if you be happy to be contacted to discuss your responses or if you would like a copy of the Veggie Garden Project Summary Report.

Name

Organisation

Contact (email and/or phone)

11. Please indicate your interest:

- I would be happy to be contacted to discuss my responses
- I would like a copy of the Veggie Garden Project Summary Report
- I would like to go into the draw to win a prize

Veggie Garden Mapping Project

SURVEY RESULTS SUMMARY



Early childhood services Childcare and kindergartens

Rural City of Wangaratta

8

of 17 early childhood services completed the Veggie Garden Mapping Survey

6

reported to have an active veggie garden at their service



Three are somewhat active (on and off / seasonal)



Two are actively in use



One is inactive but with a plan to activate

Program linkages

8

reported that they are registered with the Smiles4Miles program



Two reported that they are registered with the Achievement Program



One reported to be registered with the School Breakfast Program



One is interested in Stephanie Alexander Kitchen Garden Program



One is involved in Plastic Free July and has created a recipe booklet for families and involve the children in cooking activities with products gifted to families

Successful gardens reportedly have:

- Parent helpers to weed, plant and water etc;
- Team work;
- An all-team approach;
- Funds;
- Support from community; and,
- Children that enjoy participating with the garden, connecting with it and seeing it as a place to explore, as well as eating the fruit and vegetables!

Challenges include:

- Maintenance including weeding; soil fertilisation and repairs;
- Watering over holiday periods;
- Cost;
- Time; and,
- Space.



How garden produce is used?



Shared with their service's kitchen, families and staff to take home at two services



Eaten at the kindergarten by children (eg. shared fruit and vegetable platter, herbs used for sensory activities) at three services



The majority of early childhood services are interested in receiving:

- Gardening guidance, resources and workshops;
- Support from Bunnings Wangaratta; and,
- Opportunities to share excess produce.

Thank you to all the services that completed this survey and contributed valuable information to the mapping of veggie gardens and their functionality in aim to support children's health and wellbeing.

Veggie Garden Mapping Project

SURVEY RESULTS SUMMARY



Primary and Secondary Schools

Rural City of Wangaratta

16

of 24 schools completed the Veggie Garden Mapping Survey

All 16

reported to have a veggie garden at their schools



Eight reported as active



Seven are somewhat active (on and off / seasonal)



One reported as inactive

Program linkages



Four reported that they are registered with the Stephanie Alexander Kitchen Garden Program



One reported they are registered with Vic Kids Eat Well



One is registered with the Achievement Program



Four have local produce linkages to school curriculum



use it in the school breakfast program



Nine use it for cooking classes

Successful gardens included:

- Staff time, participation, dedication and enjoyment;
- Student engagement and interest;
- Curriculum planning for linking lessons and allowing time for cooking;
- Donations;
- 'Garden Club';
- Operational greenhouse;
- Support from volunteers (both family and community members);
- 'Hands on Learning' curriculum within the school;
- Wicking beds as watering isn't an issue;
- Water and good soil; and,
- A designated person to manage.



How garden produce is used?

More than half of the schools (14) reported it is used in cooking classes and programs such as Environmental Studies, Food Technology, Agriculture/Horticulture and social skill development.

Schools often share the produce with students if they need a snack, catering for camps, families taking the produce home, Outside School Hours Care (OSHC) program, playgroup and the community (eg. left at front of school for collection, 'share shed').



Support schools are interested in receiving

- Facebook group/resources with gardening guidance (5)
- Support from Bunnings to maintain/reactivate garden eg. provide seedlings, improvements (19)
- Opportunities to share excess produce (9)
- Veggie gardening workshops/resources (14)

Challenges include:

- Time;
- Cost; and,
- Maintenance (eg. watering, planting, tending to beds, harvesting).

Thank you to everyone that completed the survey and provided valuable input into the mapping of veggie gardens in educational settings. Gateway Health has funded five schools to support their veggie gardens and is also working in partnership with Bunnings Wangaratta to provide further support.

Veggie Garden Mapping Project

SURVEY RESULTS SUMMARY



Community settings

Rural City of Wangaratta

10
responses



Six reported as active



One is somewhat active (on and off / seasonal)



One did not have a garden but was interested in establishing one

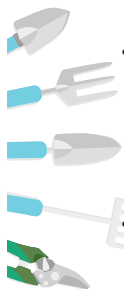
How garden produce is used?



- Shared wider community (eg. weekly community lunches, food relief program, shared table, with Men’s Shed members, community members can come and pick) x2
- Used in cooking, including cooking classes (three settings)
- It is used by those who plant the veggies such as aged care residents/ community garden plot holders (three settings)
- Excess produce is donated to community food pantry at the local neighborhood house

Successful gardens had the following.

- Having wicking beds so veggies survive periods without watering
- The garden bed being in a sunny location
- Budget that includes spending on repair/upgrade/expansion
- Money has been spent on formalising the beds, raising them to a good working height for older people and placing gravel in between beds for safe access
- Ease of use, and support from the Activities Organiser at Bunnings Wangaratta who donates seedlings
- A small team of enthusiastic people
- A greenhouse to produce seedlings during the colder weather to cut down on costs
- Volunteers
- Access to water
- Garden members share skills and knowledge



Challenges included the following.

- General up keep and maintenance
- Communication around people knowing they can use the produce
- Repair and revamp of garden beds
- Needing someone to take ownership (preferably a resident)
- A system for equitable use
- Protection from birds and rabbits.
- Cost of installation
- Having raised garden beds that limit growing space
- Maintenance
- Maintaining volunteers
- Regular watering
- Regular harvesting
- Fruit fly
- Getting long-term garden members



Support services are interested in receiving




- Information and resources (3)
- Support to reactivate garden such as providing seedlings, materials (2)
- Opportunities to share or receive excess produce (2)
- Veggie gardening workshops
- Grants to allow expansion of garden beds
- Solar self-watering systems

Thank you to all the services that completed this survey and contributed valuable information to the mapping of veggie gardens and their functionality in the Rural City of Wangaratta in aim to support children’s health and wellbeing.



VEGETABLE GARDENING RESOURCES AND PROGRAMS



Organisation 	Details 	Website 
Stephanie Alexander Kitchen Garden Foundation	<ul style="list-style-type: none"> Resources page Newsletter subscription 	kitchengardenfoundation.org.au/
Bunnings Garden Corner	<ul style="list-style-type: none"> Composting Garden design 	bunnings.com.au/diy-advice/garden
ABC's Gardening Australia	<ul style="list-style-type: none"> Stories Plant finder How to 	abc.net.au/gardening
Victorian Schools Garden Program	<ul style="list-style-type: none"> Grant opportunities Newsletter subscription 	vsgp.org.au/
Life Education	<ul style="list-style-type: none"> Growing Good Gardens Grant 	https://lifeed.org.au/
North East Planting Guide	A poster developed with the expertise of passionate local gardeners, to help your veggie patch flourish!	necma.vic.gov.au/Solutions/Sustainable-Agriculture/Planting-Guide
The Diggers Club	A shop of plants, seeds, bulbs and garden tools and resources.	diggers.com.au/
Open Gardens Victoria	<ul style="list-style-type: none"> Grant opportunities 	opengardensvictoria.org.au/
Community Garden	<ul style="list-style-type: none"> How to guides 	communitygarden.org.au/how-to-guides-and-information-sheets/
School Breakfast Clubs Program	Foodbank Victoria delivers this vital program providing healthy meals to kids who might otherwise go without, giving them a happy, healthy start to the day.	foodbank.org.au/breakfast-club-milestone/?state=vic
Smiles4Miles – Dental Health Services Victoria (DHSV)	An initiative that aims to improve the oral health of children and their families.	dhsv.org.au/oral-health-programs/smiles4miles
Vic Kids Eat Well, Cancer Council Victoria	A program designed to boost tasty, nutritious food and drink options so kids can learn, play and be active. Supports healthy canteens, lunch orders and events.	vickidseatwell.health.vic.gov.au/
Achievement Program, Department of Health, Victoria	Focuses on health areas like healthy eating, physical activity and mental health and wellbeing to create healthier environments for working and learning.	achievementprogram.health.vic.gov.au/



Appendix H. Policy Alignment

Victorian Public Health and Wellbeing Plan 2019-2023 (VPHWP)

The links to different health priorities in this plan are:

- Increasing healthy eating
- Strategic actions: Accelerating the implementation of healthy food (and drink) supply policies in all key public settings (including health services, schools and early childhood services, sport and recreation settings, events and workplaces). Implementing initiatives and approaches supporting healthier lifestyles and habits. Investing in collaborative place-based approaches to healthy eating and increasing access to healthy food in communities.

Rural City of Wangaratta Council Plan (2021 – 2025)

The RCoW has acknowledged their investment into improving healthy behaviours and lifestyles, particularly in relation to increasing health eating and improving access to healthy food and beverages. Their strategies included in these areas outlined below.

- Increasing healthy eating (Strategies: 2.4, 3.1, 3.3, 3.4, 5.1, 6.5)

2.4 Healthy Behaviours and Lifestyles

2.4.3 Facilitate improved access to healthy food and beverages

Number	Action	Year	Responsibility
2.4.3.3	Support and promote local produce providers supplying local markets and businesses	Ongoing	Development Services/ Community Wellbeing Directorate Partners: Agriculture Victoria Community Food for All Network North East Local Food Strategy Action Group Wangaratta Farmers Market

2.4.4 Take action to address food security challenges within our community

Number	Action	Year	Responsibility
2.4.4.1	In partnership with our stakeholders, develop and support educational resources that promote growing food at home and/ or within the community gardens.	2022 - ongoing	Community Wellbeing Directorate Partners: Neighbourhood Houses Local Schools Gateway Health Community Food for All Network Landcare Wangaratta Community Garden

2.4.4.2	In partnership with community organisations, support the equitable distribution of excess local produce throughout the community.	2022 – Ongoing	Community Wellbeing Directorate Partners: Loaves and Fishes St Vincent de Paul The Centre Neighbourhood Houses Local Schools Gateway Health Community Food for All Network
2.4.4.3	Facilitation of the Community Food for All community group and support the implementation of the North East Local Food Strategy.	2021-ongoing	Community Wellbeing Directorate
2.4.4.4	Advocate at the State and National level to increase accessibility to healthy food.	Ongoing	Community Wellbeing Directorate Partner: Community Food for All Network

Wangaratta Municipal Early Years Plan

Further, the Rural City of Wangaratta’s Municipal Early Years Plan (MEYP) is a local plan designed to provide strategic direction for the development and coordination of early year’s programs, activities and other local community development processes that impact on children 0 – 12 years in the municipality. The MEYP engages the community and partners to work together towards positive early years outcomes for children and families within the Rural City of Wangaratta. Health Promotion staff from Gateway Health represent the RESPOND Partnership Group as member of a working group that has been devised to assist with the development of the MEYP.

North East Local Food Strategy (NELFS)

A strategy that was developed in response to an identified need for a collaborative, cross-sector approach to ensure a sustainable, resilient and equitable food system in the North East, currently being updated.

<https://gatewayhealth.org.au/?resource=north-east-local-food-strategy-2018-2022>

Victorian Consensus Statement

Towards a Healthy, Regenerative and Equitable Food System in Victoria

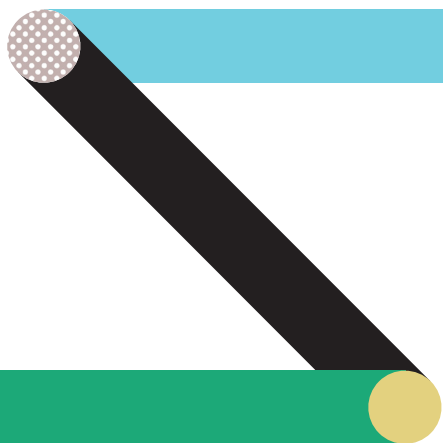
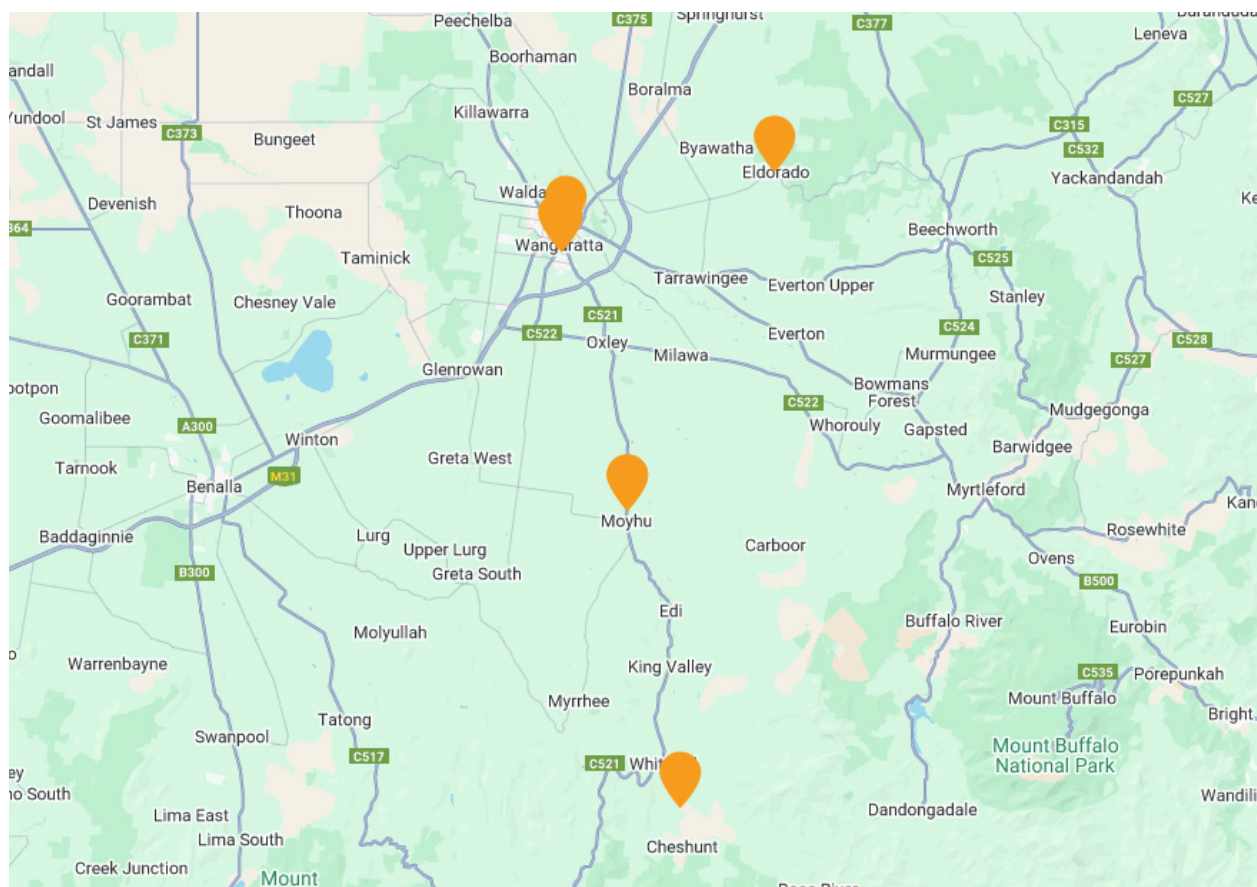
A Consensus Statement by cross-sector organisations to catalyse a transition towards a healthy, regenerative and equitable food system in Victoria.

<https://vicfoodsystem.org.au/>

Appendix I. Map of the community food environment across the Rural City of Wangaratta

This includes community gardens, food shares, food pantries, food hubs and farmers markets.

<https://www.wangaratta.vic.gov.au/Residents/Community-Projects/Community-Food>.



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gateway health

People living well

WANGARATTA

45-47 Mackay Street,
Wangaratta, VIC 3677
T: (03) 5723 2000
F: (03) 5722 2313

WODONGA

155 High Street,
Wodonga, VIC 3690
T: (02) 6022 8888 or
freecall 1800 657 573
F: (02) 6024 5792

MYRTLEFORD

32 Smith Street,
Myrtleford, VIC 3737
T: (03) 5731 3500

E: info@gatewayhealth.org.au

W: gatewayhealth.org.au

