

Edith Cowan University  
**Research Online**

---

ECU Publications Post 2013

---

1-1-2020

## South West Food Community: How government and community initiatives are supporting systemic change towards enhanced food security

Stephanie Louise Godrich  
*Edith Cowan University, s.godrich@ecu.edu.au*

Melissa Stoneham

Melinda Edmunds

Amanda Devine  
*Edith Cowan University, a.devine@ecu.edu.au*

Follow this and additional works at: <https://ro.ecu.edu.au/ecuworkspost2013>

 Part of the [Medicine and Health Sciences Commons](#)

---

10.1111/1753-6405.12975

Godrich, S. L., Stoneham, M., Edmunds, M., & Devine, A. (2020). South West Food Community: How government and community initiatives are supporting systemic change towards enhanced food security. *Australian and New Zealand Journal of Public Health, 44*(2), 129-136. <https://doi.org/10.1111/1753-6405.12975>

This Journal Article is posted at Research Online.  
<https://ro.ecu.edu.au/ecuworkspost2013/8133>

# South West Food Community: how government and community initiatives are supporting systemic change towards enhanced food security

Stephanie Louise Godrich,<sup>1</sup> Melissa Stoneham,<sup>2</sup> Melinda Edmunds,<sup>2</sup> Amanda Devine<sup>1</sup>

It is generally recognised that food security is a multidimensional phenomenon.

It is complex. This is apparent when looking at the definitions of the pillars that measure food security. Food security refers to adequate physical, social and economic access to food, with food availability, access, use and stability pillars often used to frame the concept.<sup>1</sup> Food availability relates to the variety, quality, cost and promotion of food available in a community, and whether or not there are sufficient quantities of food.<sup>1,3</sup> Food access relates to financial resources, social support and physical access to food, including transport to food sources.<sup>1,3-5</sup> Food utilisation includes knowledge and skills, food preparation and storage facilities, sufficient time to source and prepare food, and food preferences.<sup>2-5</sup> Stability refers to food access being available at all times.<sup>1</sup> However, these pillars do not function in isolation<sup>6</sup>; interrelated challenges and opportunities associated with food security exist, and these have led to reduced food security being deemed a complex, 'wicked' problem.<sup>7,8</sup>

Existing research has identified a number of strategies, which have the potential to contribute to addressing wicked problems. One example is the development of a visionary policy narrative, which focuses on the whole systems of initiatives (i.e. a 'solution ecosystem'), rather than programs in isolation.<sup>9</sup> Other strategies include aligning community-based programs with government priorities and connecting government and stakeholders in decision making.<sup>10</sup> Community empowerment, such

## Abstract

**Objective:** Food security refers to adequate physical, social and economic access to food and is regarded as a complex, 'wicked' issue. This research aimed to understand the perspectives of initiative leaders (stakeholders), regarding their project relating to food security and its possession of characteristics associated with system change to enhance food security.

**Methods:** Stakeholders (n=51) participated in semi-structured interviews that evaluated initiatives (n=52) against 36 desirable characteristics for system change. Transcripts were analysed using QSR NVivo and Wicked Lab's Tool for Systemic Change.

**Results:** Community-based initiatives often harnessed the passion of local communities to enhance food security through awareness-raising activities and partnerships. Few initiatives created conflict to disrupt the current way of working. The largest 'window of opportunity' included better connection between government and community groups.

**Conclusions:** This novel contribution provided in-depth understanding of individual initiatives and patterns of working among the food security system in the South West region of Western Australia.

**Implications for public health:** Recommendations to better foster connection between the government and community initiatives include: ensuring government worker responsibilities include task and indicator-related measures; and strengthening understanding of food security among community groups of staff and elected member roles within local government and the ways local government could be supported to harness community knowledge.

**Key words:** food security, systemic innovation, rural, community programs

as by engaging role models for the 'change effort',<sup>11</sup> is imperative and can galvanise change and support innovations. These innovations are often outcomes of the collaborative design of solutions to address issues.<sup>12</sup> Further, using symbols or shared language and resource-sharing among stakeholders can also enhance initiative efficiency and effectiveness.<sup>11</sup>

To enhance food security, an understanding of the food security system – initiatives collectively working to support healthy food availability, access, use and stability

– and how it functions is imperative. Such functioning could be understood through a Systemic Innovation Lab approach<sup>13</sup> and this methodology possesses features identified as important to address complex wicked problems.<sup>13</sup> For example, this approach is place-based, meaning that the focus is at a 'fine grain local level', which helps to remove some of the 'wickedness' of the complex problem.<sup>14</sup> The approach includes bringing together a range of collaborators and a system of initiatives working to address the problem and advocates that governments

1. School of Medical and Health Sciences, Edith Cowan University, Western Australia

2. Public Health Advocacy Institute of Western Australia, Curtin University, Western Australia

**Correspondence to:** Dr Stephanie Godrich, School of Medical and Health Sciences, Edith Cowan University, 585 Robertson Drive, Bunbury, Western Australia 6230; e-mail: s.godrich@ecu.edu.au

Submitted: September 2019; Revision requested: December 2019; Accepted: January 2020

The authors have stated they have no conflict of interest.

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

*Aust NZ J Public Health.* 2020; 44:129-36; doi: 10.1111/1753-6405.12975

should recognise its role as an enabler of change.<sup>13</sup> In practice, the approach comprehensively evaluates initiatives working to address a complex issue against desirable system change characteristics.<sup>13</sup> This comprehensive process identifies how initiatives are working as a system to address the issue and, among other things, identifies 'windows of opportunity' that require strengthening. The approach includes strategies to support participating initiatives to transition to a better way of working.<sup>13</sup> This paper will focus on recent research that identified such windows of opportunity. The Systemic Innovation Lab methodology was selected for this study given that other lab-type approaches, while addressing one or more of the abovementioned key features, do not possess all features to address complex wicked problems.<sup>13</sup>

To date, limited rigorous and systematic evaluation has been conducted of programs perceived by stakeholders as supporting food security.<sup>15</sup> Therefore, the true impact of such programs on enhancing food security is unknown due to potentially inappropriate goals, objectives or evaluation. Further, evaluations have often focused on individual programs in isolation and by and large on urban populations.<sup>15</sup> It remains to be seen how food security initiatives impact overall community-level food security. Therefore, the objective of this research was to understand the perspectives of initiative leaders regarding their initiatives and the possession of characteristics associated with system change to enhance food security.

## Methods

### Sampling and recruitment

The South West Food Community pilot was implemented in the South West region of Western Australia (WA), a region covering almost 24,000 square kilometres<sup>16</sup>, with towns deemed Inner Regional or Outer Regional<sup>17</sup>. Given the initial steps of this work have been previously published in detail,<sup>18</sup> a summary will be provided herein.

The sample comprised stakeholders working in health, community development, food production, social work and education fields, volunteers and committee members. Stakeholders were involved in initiatives supporting healthy food availability, access or use in the South West region. Initially, an internet (Google) search facilitated the compilation of a database identifying potential initiatives to be included in the

research. These initiatives aligned with the aforementioned food security pillars (i.e. availability, access, use) and one or more determinants of food security, such as social support, food availability in outlets, or nutrition knowledge.<sup>2,3,5</sup> Key search terms to identify initiatives included terminology such as: 'food availability programs South West WA'. This search yielded initiative names to include in the database. Other information included a description of the initiative, the date the initiative commenced, a contact name, email address, website URL and any initiative partners. A second 'organisation' database was created, including the organisations that facilitated the listed initiatives. This included information about the sector the organisation worked within and website URL.

A strategy to identify additional initiatives and increase community awareness of the project included a project launch. The launch, held in the South West region, included a project presentation, and interactive sessions to enable stakeholders to comment on the proposed approach and co-create a project logo. A total of 79 prospective participants identified by the internet search and the project launch were invited to participate in an interview, via an emailed information letter and consent form. A total of 51 stakeholders consented to participate by returning a signed consent form to the project team (65% response rate).

### Approach

A Systemic Innovation Lab approach,<sup>13</sup> developed by the organisation Wicked Lab, underpinned this project. The lab methodology, coined 'FEMLAS',<sup>13</sup> is an acronym for Form, Explore, Map, Learn, Address and Share project stages. The Form, Explore, Map and Learn stages are the focus of this publication and are described below. The Address and Share stages are further explored in a subsequent publication.

The Form stage included formation of a core team, reference group and boundaries for the project. In this case, the project focused on supporting healthy food availability, access and use in the South West region of WA.

The Explore stage included stakeholder engagement and interviews to collect in-depth initiative information and assess them against 36 desirable characteristics identified in the literature as supporting transition towards a more effective way of addressing complex problems. These 36 characteristics were embedded within nine Focus Areas, their plain language versions as follows:

- 1) Shaking up the current way of working;
- 2) Transitioning towards a better way of working;
- 3) Organisations working in new ways;
- 4) Locking in the new way of working;
- 5) Disseminating information throughout the system;
- 6) Aligning community organisations' work with government priorities;
- 7) Community organisations shaping government policies;
- 8) Government supporting community initiatives;
- 9) Government sharing information about community initiatives.<sup>18</sup> Further detail about these Focus Area characteristics has been published elsewhere.<sup>19,20</sup>

The Map stage included uploading the responses to the 36 characteristics questions into the Tool for Systemic Change, an online tool developed by the organisation Wicked Lab, to graphically depict where initiatives possessed the desirable Focus Area characteristics, and where 'windows of opportunity' existed that could be strengthened.

At the Learn stage, data were analysed, including identifying windows of opportunity that could be harnessed through initiative changes, which would result in shifting the entire system of initiatives towards a more effective way of supporting food security.

### Instrument

A 45-item interview guide included demographic questions (i.e. worker type), initiative description, and questions linked to the nine Focus Areas' 36 initiative characteristics (Explore stage). An example question included: "Does your initiative include the bringing together of a variety of stakeholders and opening up discussion, encouraging differences that foster new ideas to emerge and to utilise collective knowledge?" (Focus Area 2, initiative characteristic 10). While the survey questions prompted 'Yes' or 'No' responses, each question also allowed for an open-ended response. The open-ended comments provided the opportunity for participants to describe how their initiative did or did not possess the respective Focus Area characteristic. Initiative characteristic questions commentary aligned with the online Tool for Systemic Change components, which housed the data and supported data analyses.

### Data collection

A qualitative approach using structured interviews was deemed appropriate for the Explore stage, as an in-depth understanding

of the issues being discussed was required.<sup>21</sup> Forty-one interviews were conducted with 51 participants between July and October 2018. A total of 41 individual interviews and two group interviews (n=10) were conducted via telephone (n=38) or in-person (n=3), with the first interview co-conducted by two team interviewers, who had qualitative research experience, to ensure consistency. Handwritten notes were taken during the interviews by interviewers, with transcription occurring thereafter by interviewers into a Microsoft Excel spreadsheet.

### Data analysis

The Microsoft Excel spreadsheet containing transcribed interviews was uploaded into the Tool for Systemic Change (Map stage). Descriptive statistics were generated by the Tool for Systemic Change 'Reports' function, which provided the number of initiatives that possessed characteristics within each Focus Area and participant comments relating to how their initiative possessed the characteristics. See Godrich et al.<sup>18</sup> for a supplementary file containing interview questions mapped to the Focus Areas and corresponding characteristics. Open-ended responses contained in the Microsoft Excel spreadsheet were imported into QSR NVivo software (QSR International Pty Ltd. Version 12, 2018) for further analyses by the lead author. The coding framework included: responses to each Focus Area characteristic were grouped under the characteristic name within nodes of either 'Presence of [Focus Area characteristic name]' or 'Absence of [Focus Area characteristic]'. Within each of these nodes, a synthesis of the description was developed by both the lead author and another co-author to provide deeper understanding of the experience, meaning and perspective relating to the corresponding Focus Area from the standpoint of the participant.

The research was approved by the Edith Cowan University Human Research Ethics Committee.

## Results

### Participants' and project characteristics

The majority of participants were volunteers, directors or allied health professionals who had been associated with their role for an average of 3.1 years (Table 1). One-third of initiatives were health promotion

interventions, followed by hunger relief/social support initiatives or community gardens (Table 2).

Participants were prompted to outline whether or not their initiative possessed each characteristic within the nine Focus Areas. The following results provide a synthesis of participants' comments relating to each Focus Area, with comments to exemplify Focus Area characteristics included in Table 3.

### Shaking up the current way of working to address food security in a new and innovative way

Focus Area 1 concentrated on shaking up the current way of working. The majority (n=48, 92%) of participants reported their initiative encouraged communities to address a complex issue in a new or innovative way, mainly through social media, word of mouth, newsletters and inviting people to attend workshops or the program. Many initiatives used a combination of methods, for example, a community e-newsletter list with case studies and links to social media.

More than three-quarters (n=40, 77%) of interviewees believed their initiative created a passion for the community to take action around food security; however, some could not articulate how this passion was created. The 37 interviewees who could elaborate identified strategies to create and sustain passion, such as: increasing awareness about local food options and sustainability (n=15, 41%); developing policy and partnerships (n=6, 16%); encouraging food sharing and community pride (n=5, 14%); fostering new friendships and networks (n=3, 8%); offering new food-growing skills (n=3, 8%); increasing awareness about local community needs (n=2, 5%); enabling advocacy (n=2,

5%); and reducing stigma regarding food for vulnerable people (n=1, 3%). The concept of passion was often not a constant within initiatives, with one interviewee stating that passion "fluctuates due to client capacity and is influenced by social constraints". Within organisations, passion sometimes emanated as partnerships or policy initiatives with an example being a committee aiming to improve water supply and increase agriculture, and another being a local government member involved in a local alliance.

When asked if there was a project plan developed to outline the initiative, 46 (88%) interviewees advised there was. The majority of formal organisations such as non-government agencies or local governments had project plans with specific aims and objectives. The more 'organic' projects such as food swaps had informal, less-structured plans.

Just over two-thirds (n=34, 65%) of interviewees advised their initiative had no pre-defined outcomes or expectations. Comments such as "steep learning curve", "suck it and see" and "moving beast" reflected the fact that food security projects remain novel within community settings.

Participants were asked if their initiative exposed conflict, assisting to challenge the status quo, such as working in a different way to how the community operates, or differences in understanding between community members regarding understanding of an issue. Two-thirds (n=34, 65%) advised their initiative did, with conflicts categorised into environmental, behavioural, social, economic or policy conflicts (i.e. misalignment between local and state policies, due to community needs).

**Table 1: Participant characteristics (total n and %).**

| Characteristic          | Response category               | n (%)     |
|-------------------------|---------------------------------|-----------|
| Role                    | Volunteer or committee member   | 13 (24.5) |
|                         | Director                        | 11 (20.8) |
|                         | Allied health professional      | 9 (17)    |
|                         | Community development type role | 7 (13.2)  |
|                         | Food producer                   | 6 (11.3)  |
|                         | Other                           | 7 (13.2)  |
| Total participant roles |                                 | 53* (100) |
| Length of time in field | Less than 12 months             | 1 (2)     |
|                         | 1 – 3 years                     | 35 (70)   |
|                         | 4-6 years                       | 11 (22)   |
|                         | Over 6 years                    | 2 (4)     |
| Total participants      |                                 | 51 (100)  |

Note:

\*some interviewees reported having multiple roles.

### **Moving to a new and better way of working**

Focus Area 2 centred around transitioning to a new and better way of working. When asked if the initiative brought a variety of stakeholders together and opened up discussion to use collective knowledge, 83% (n=43) advised they did. Many described their initiative as one supporting collective action amongst community members, such as “participating in committees” and “bringing different people together from community, local government, industry and education sectors”.

Just over three-quarters (n=40, 77%) of respondents reported their initiatives had established networks with the most common network types being social media. Others included “databases are developed through [the] interest group” or had established volunteer networks.

Very few participants (n=10, 19%) reported their initiatives partitioned food security into sub-systems, such as through identifying the different causal factors of low food security and working with other stakeholders on specific tasks to address these causal factors. Those who did formed working groups to spread their workload and to “give the topic true credence and expert input”. Those who did not had the perception that there was

limited scope within their initiative to do so or that other organisations or community groups addressed different parts of the issue through their work.

### **Organisations working in new and more effective ways with each other**

Focus Area 3 centred around encouraging self-organisation amongst the food security system. One way to achieve this is through connection through language and symbols, assisting to create a shared understanding. More than three-quarters (n=40, 77%) of participants’ initiatives had created a connection by using symbols such as branding. These included logos on vehicles, at premises such as community gardens, markets, on websites, name badges, at events or on resources. Taglines were also used to ensure consistent language was used. Some initiatives that did not use symbols or language reported they were interested in working with their overarching organisation to do so.

As role models can assist with the change effort to enhance food security, just over half (n=27, 52%) the participants believed their initiatives encouraged members or network contacts to accept positions as role models. Some of these were identified as experts, functioned as ambassadors encouraging

others to participate in a program, or were encouraged to lead future program sessions.

Some initiatives increased the exchanging of information through committees, working groups, or between departments. In contrast, some groups had not identified stakeholder networks and did not facilitate information exchanges between them.

When prompted to state whether their initiative enabled resources and capabilities to recombine, such as teams forming and sharing resources and capabilities in relation to a project working on food security, almost two-thirds (n=31, 60%) of participants advised they did. The scope of examples was broad, such as: “People access resources like tools, equipment, handouts and lesson plans available for anyone to use, e.g. horticulturalist from TAFE”. Others were yet to incorporate this attribute into their project, commenting: “Only with regard to stallholders working together for the viability of the market”.

### **The new way of working becoming the dominant way of working among the organisations in the system**

Focus Area 4 related to integrating local constraints, providing opportunities for diverse stakeholders to work together, a variety of promotional activities to increase awareness and enabling unforeseen outcomes to be monitored. Forty-three participants (83%) indicated their initiative did so. Examples included worked around transport limitations by approaching local services for support to overcome the tyranny of distance for vulnerable people to access food, worked around funding or resourcing issues.

When asked if their initiative was monitored for emerging outcomes, which are important in stabilising a system of initiatives, 81% (n=42) of participants indicated they did so. Some examples included program evaluation, monitoring demand for services and products, community consultations, and working group and elected member feedback.

### **Helping to get information spread throughout the system**

Focus Area 5 related to keeping stakeholders informed and connected about the multiple influences of food security. Social media sites such as Facebook were popular information-sharing strategies among initiatives, as were workshops and electronic newsletters.

**Table 2: Description of food security initiatives.**

| Type of initiative                 | Brief descriptors  | n (%)           |
|------------------------------------|--|-----------------|
| Community garden                   | Access to food<br>Social interaction<br>Food-growing skills  | 6 (12)          |
| Festival or event                  | Promote and support purchasing of local produce and support for producers  | 3 (6)           |
| Health promotion intervention      | Vulnerable populations<br>Increase awareness and skills about healthy eating<br>Increase awareness about reducing waste<br>Increase awareness about how to grow food<br>Sustainable living | 15 (29)         |
| Food swapping groups               | Swap excess produce using share system<br>Social interaction   | 3 (6)           |
| Hunger relief/social support       | Vouchers<br>Food van<br>Hampers  | 6 (12)          |
| Food trail/farm education          | Increase awareness of local food   | 3 (6)           |
| Farmers Market                     | Sell local produce/food access   | 5 (10)          |
| Policy development                 | Promote community health and wellbeing<br>Maintain land for food production<br>Food mapping  | 4 (7)           |
| Food safety training/auditing      | Increase knowledge and skills among food handlers  | 1 (1)           |
| Private/social enterprise projects | Accommodation and education<br>Food production/processing business   | 6 (11)          |
| <b>Total initiatives</b>           |  | <b>52 (100)</b> |

**Table 3: Focus Areas, embedded characteristics, and example participant comments.**

| Focus Areas and characteristics  | Example participant comment  |
|--|--|
| <b>Focus Area 1: Create a disequilibrium state (Shaking up the current way of working)</b>   |  |
| Highlight the need to organise communities differently   | "Provides an opportunity use second grade produce and education young people about acceptability of less than perfectly formed produce and food waste."  |
| Cultivate a passion for action   | "Passionate about helping others . . . and helping the community feel they can make a difference."   |
| Manage initial starting conditions   | "Five years to reach planting phase [for a community garden]. Local Government Authority approval, meet grant criteria, acquire infrastructure funds, budget and committee formation."                         |
| Specify goals in advance   | "Flexible as long as it is reducing food waste and supporting the exchange and sharing of food."   |
| Establish appropriate boundaries   | "Geographically - food to be produced locally within Shire as first priority. Will take producers from next zone if it's not available locally."   |
| Embrace uncertainty  | "Watching for flow on effect, prefer not to have pre-determined outcomes but prepared to adapt to change. Prefer not to have as [it] could stifle project."  |
| Surface conflict   | "Always difference of opinion between authority and community regarding the way things 'should' be done."  |
| Create controversy   | "Waste in supermarkets pushes farmer prices down, long term storage, poor quality produce and more expensive resulting in less return to farmers and low quality product for consumer."                        |
| <b>Focus Area 2: Amplify action (moving to a new and better way of working)</b>  |  |
| Enable safe fail experimentation   | "The fruit and veg food hamper is a new initiative to provide fresh produce and if it hadn't worked, nothing would have been lost and the food would not have been wasted."                                    |
| Enable rich interactions in relational spaces  | "The CRC [Community Resource Centre] draws in a variety of community members and stakeholders because of the services provided there."   |
| Support collective action  | "The City [Shire] facilitated initial discussions for collective action with the community garden and links with men's sheds, Lions and fundraising. This resulted in land leased, business plan and funding." |
| Partition the system   | "Form a sub-working group to spread the workload and give this topic true credence and expert input."  |
| Establish network linkages   | "Network of producers and working with others on local festivals and events."  |
| Frame issues to match diverse perspectives   | "Hold forums and speakers around food production."   |
| <b>Focus Area 3: Encourage self-organisation (organisations working in new and more effective ways with each other)</b>  |  |
| Create correlation through language and symbols  | "Logo, use of infographics and consistent messages."   |
| Encourage individuals to accept positions as role models for the change effort   | "Ambassadors for [program name] encourage others to take up the training."   |
| Enable periodic information exchanges between partitioned subsystems   | "Between the town planning department and CDO [Community Development Officer] to identify land use options."   |
| Enable resources and capabilities to recombine   | "Training for [organisations] and cooking equipment kit mean it's at no cost, so can be used across adult and student programs."   |
| <b>Focus Area 4: Stabilise feedback (the new way of working becomes the dominant way of working among the organisations in the system).</b>                            |  |
| Integrate local constraints  | "Shire guidelines, food preparation and labelling, product in season, weather on the day, seasonal conditions."  |
| Provide a multiple perspective context and system structure  | "New owners at the local supermarket want to support food affordability so have aligned with the fruit and vegetable program in attracting local produce and reducing excessive prices."                       |
| Enable problem representations to anchor in the community  | "Shire has on line 'Your Say' tool with comments published weekly in the paper. Also post public policy in paper for comment."   |
| Enable emergent outcomes to be monitored   | "Pre and post group survey to see changes in knowledge and skills etc. Feedback from partners."  |
| <b>Focus Area 5: Enable information flows (helping to get information spread throughout the system)</b>  |  |
| Assist system members to keep informed and knowledgeable of forces influencing their community system  | "Relevant food information included in printed fliers, newsletters, event info."   |
| Assist in the connection, dissemination and processing of information  | "Electronic newsletters, social media. CDO [Community Development Officer] also strong conduit for information sharing."   |
| Enable connectivity between people who have different perspectives on community issues   | "Reference groups with NGOs [non-government organisations], academics, volunteers, service clubs, police, chaplains, disability reps, work for the dole."  |
| Retain and reuse knowledge and ideas generated through interactions  | "City [Shire] uses digital stories and case studies and the Social Plan captures knowledge and ideas."   |
| <b>Focus Area 6: Public administration – adaptive community interface (Helping the work undertaken by community organisations to align with government priorities)</b> |  |
| Assist public administrators to frame policies in a manner which enables community adaptation of policies  | "Annual report statistics can be utilised by LGAs [Local Government Authorities] and community groups to drive change."  |
| Remove information differences to enable the ideas and views of citizens to align to the challenges being addressed by governments                                     | "Broad discussion around public policy underpins group discussions and workshops."   |
| Encourage and assist street level workers to take into account the ideas and views of citizens   | "On advisory committee for local shire."<br>"Have had a council stall at the market – provides an opportunity to directly educate the public about something."   |

Table 3 cont.: Focus Areas, embedded characteristics, and example participant comments.

| Focus Areas and characteristics   | Example participant comment   |
|---|---|
| <b>Focus Area 7: Elected government – adaptive community interface (Creating government policies that are shaped by community)</b>  |   |
| Assist Elected Members to frame policies in a manner which enables community adaptation of policies   | "Campaign can spark community advocacy."  |
| Assist Elected Members to take into account the ideas and views of citizens   | "Elected Members are targeted for workshops, seminars and presentations."   |
| <b>Focus Area 8: Community innovation – public administration interface (Government using community knowledge and ideas)</b>  |   |
| Encourage and assist street level workers to exploit the knowledge, ideas and innovations of citizens   | "CDO [Community Development Officer] role ensures links between community and Shire officers are made."   |
| Bridge community-led activities and projects to the strategic plans of governments  | "Case studies show value, or link to relevant LGA strategic plan and about how healthy built environments can help them to achieve their strategic plan." |
| Gather, retain and reuse community knowledge and ideas in other contexts  | "Use the [name removed for confidentiality] register"   |
| <b>Focus Area 9: Community innovation – elected government interface (Government sharing information about community initiatives operating in their area)</b>                   |   |
| Encourage and assist Elected Members to exploit the knowledge, ideas and innovations of citizens  | "Council Elected Members had been made aware of initiatives especially through the Shire grants scheme and lobbying of Elected Member by community."      |
| Collect, analyse, synthesise, reconfigure, manage and represent community information that is relevant to the electorate or area of portfolio responsibility of Elected Members | "Access ideas from other LGAs [Local Government Authorities], events register on City website."   |

### Helping the work undertaken by community organisations to align with government priorities

Focus Area 6 included questioning stakeholders about the government-community interface. Forty per cent (n=21) of participants indicated their initiative assisted public administrators to frame policies in a manner that enables community adaptation of policies. One participant commented there was "limited opportunity to date around food security but [I] envisage increased opportunity with public health planning".

When asked if stakeholders felt their initiative was enabling the ideas and views of community members to align with the challenges being addressed by governments, 44% (n=23) believed their initiative did. Stakeholders used social media, websites, newsletters, group discussions and workshops to encourage this. One stakeholder commented that the alignment of community member ideas with challenges being addressed by government were dependent on council members, stating it "depends who is on council and their openness to listen and if agriculture is on the agenda".

Participants were asked if they had encouraged and assisted government staff who have direct contact with community members ('street-level workers') to take their ideas into account, with 54% (n=28) stating their did. Activities supporting this characteristic included forming a

close working relationship with the local government community development officer, inviting the local government to host a stall at a farmers' market or joining a local committee to ensure issues were prioritised.

### Creating government policies that are shaped by community

Focus Area 7 saw the recipients asked to identify if they assisted elected members to write or talk about policies in a way that allowed the community to adapt them, such as a community project that started because of the way a policy was talked about in the media. Only 14 participants (27%) reported that their initiative did so, and most were aided by personal or committee connections with local politicians. An example was having an elected member on their committee, which facilitated discussion about food security. One government sector interviewee described how they had included a focus on early years in their strategic plan, which emphasised community food security. Another participant advised their initiative did not possess this characteristic and reflected that they intended on taking more of an advocacy role.

Participants were asked if their initiative assisted elected members to take the ideas of community members into account, such as community development training of local elected members. A total of 42% of respondents (n=22) advised this had occurred. In one local government, capacity

building workshops and training were available to elected members.

### Government using community knowledge and ideas

Continuing along the interface between the initiatives and government, participants were prompted to describe if their initiative encouraged and assisted government workers working directly with community members ('street-level workers') to use the knowledge and ideas of community members (Focus Area 8). Only 20 participants (38%) said their initiatives did this. Some initiatives were included in signed Memorandums of Understanding with government departments.

Forty-four per cent of participants (n=23) indicated their initiative bridged community-led activities and projects to the objectives included in government strategic plans. One participant advised that they "recognise the interface with public health planning and the benefits this will bring to align activity with strategic plans", and this was reflective of most comments. Another participant who was yet to include this attribute in their initiative advised that they were "keen to find that bridge".

When asked if the initiative encouraged and assisted government workers who work directly with community members to retain and re-use the knowledge and ideas gathered from community members, 21 participants (40%) advised their did. Examples included

a Local Government Authority sharing information across directorates to inform longer-term planning; another shared knowledge about a community garden concept in one locality to neighbouring localities.

### **Government sharing information about community initiatives operating in their area**

The final series of questions (Focus Area 9) centred around initiatives encouraging and assisting elected members to re-use the knowledge, ideas and innovations of community members, with 38% of participants (n=20 initiatives) advising they had. However, in most cases, informants indicated this happened informally, especially in small towns. One local government's strategic planning process included community consultation, which facilitated the use of community knowledge in other ways. Forums were also mechanisms for community knowledge dissemination, with community feedback on food security a prominent conversation topic. Others advised it would happen "sometime in the future".

With respect to collecting and using community information that is relevant to the local government area, local governments used a range of platforms to access information to indicate demand for agricultural products. Community events were listed on government websites to share information as were project registers. Event summaries were provided via community development officers. Community feedback regarding food security was obtained through community forums. Interviewees who advised their initiative did not possess this characteristic indicated that they didn't collect information but would use the information if it were available. Another participant outlined that there were no procedures to undertake this work and they were not contracted to do so.

## **Discussion**

This project aimed to understand participant perspectives of their initiatives, with regard to possession of characteristics associated with transitioning to a more effective way of supporting food security. Key findings included that community-based initiatives often harnessed the passion of local communities to enhance food security through awareness-raising activities and

partnerships; many initiatives operated without pre-determined outcomes in mind and used social media platforms to disseminate knowledge and information through networks. A large majority of initiatives opened up discussion around food security, demonstrating a collaborative way to support enhanced food security. Fewer initiatives created conflict to shake up the current way of working, used role models in the change effort or worked around local constraints. However, the largest 'windows of opportunity' to transition to a more effective way of working included better connection between government and community groups. Fewer than half of the initiatives supported alignment between community projects and government strategic plans or assisted government to take community views into account; fewer still initiatives fostered the re-use and exploitation of community knowledge by government. Among initiatives that did, most participants suggested that success came through direct contact between government and community.

The finding that two-thirds of initiatives did not have pre-defined outcomes or expectations demonstrated the grassroots, 'organic' and adaptive nature of such food security initiatives. Previous evidence has suggested this can increase energy within the system of initiatives<sup>11</sup> and therefore can support the pursuit of new opportunities or ways of working.<sup>11</sup> Very few initiatives partitioned their work on food security, such as by having working groups address different determinants of the issue. This partitioning is important, as it can break down complex challenges into smaller tasks and concentrate the effort.<sup>22</sup> There was also very limited use of community knowledge by government. Creative, community-based strategies to address complex issues can be incorporated in government work, thereby enhancing how a complex problem can be addressed.<sup>23</sup> This is especially important, as governments cannot solve complex problems alone, but can be more effective by collaborating with those affected by the issue.<sup>24</sup>

This study possessed a number of strengths, such as its novel approach to understanding how community and government initiatives were transitioning to a more effective way of working. The approach also included a more detailed assessment of initiatives against identified desirable attributes

for change, which is a current gap in the evidence base. This project used a place-based approach, which enabled fine-grain local-level assessment of food security projects.<sup>14</sup> Limitations included a small sample, reducing the generalisability of these findings. As there were a variety of participant types included in this project (i.e. director, volunteer), it is possible that some participants had limited knowledge of how their initiative functioned, which may have influenced the results. Further, a lack of understanding among some participants regarding differentiation between questions was perceived, despite the team refining the academic language used in each Focus Area, initiative characteristic titles and provision of examples. This could have resulted in inaccurate information being captured.

## **Implications for public health**

This project has used an innovative approach to understand a localised food security system. The following recommendations are suggested:

- i) Foster connections between the government and community initiatives, such as through supporting government staff to engage with community groups to learn from their innovative ways of supporting food security. Strategies could include devising position descriptions with task measures such as a requirement to consider community ideas, and performance frameworks with indicator-related measures, which citizens can hold them accountable for.<sup>25</sup> In addition, the development of 'how to' engagement toolkits would be useful for citizens and community groups. Community groups could support this use of knowledge by developing fact sheets explaining their initiative or completing and supplying a simple theory of change or logic model template to government for use in, for example, project registers. Such templates and toolkits could be supplied for groups to access through a new Australian food security web platform that is being constructed. Previous research has described digital engagement of members as an opportunity, suggesting governments could initially engage the community through information dissemination, followed by two-way communication.<sup>26</sup>
- ii) Strengthen understanding of food security among community groups of street-level staff and elected member roles within the local



government sector, and how these groups could be supported to harness community innovation and knowledge. Strategies could include brief interviews or podcasts with local government workers, also placed on the abovementioned web platform. Local government staff could be encouraged to develop brief fact sheets about their role for inclusion on their own websites, or through a 'meet your local government team' community forum.

iii) Focus effort towards poor community response to low food security through support of partitioning of the system and facilitation of working groups to address components or determinant areas of food security. This could be achieved through initiation of a local or regional Food Policy Council with sub-working groups, which would also serve as a strategy to connect community and government.<sup>27</sup>

iv) Refine the Systemic Innovation Lab methodology to ensure participant understanding of questions through simplification of language and further delineation between different local government roles, i.e. public administration, elected members, street-level workers.

v) Scale up to other WA regions (and potentially nationally) to ensure place-based understanding of local food security systems is acquired.

## Conclusion

This novel contribution included a more in-depth understanding of individual initiatives and patterns of working among the food security system in South West WA. This new knowledge could inform future policy and practice to improve existing initiatives to increase their sustainability and efficacy to enhance food availability, access and use, facilitating enhanced food security.

## References

1. Food and Agriculture Organization of the United Nations. *Food Security*. Geneva (CHE): FAO's Agriculture and Development Economics Division (ESA); 2006.
2. Rychetnik L, Webb K, Story L, Katz T. *Food Security Options Paper: A Planning Framework and Menu of Options for Policy and Practice Interventions*. Sydney (AUST): NSW Centre for Public Health Nutrition; 2003.
3. Innes-Hughes C, Bowers K, King L, Chapman K, Eden B. *Food Security: The What, How, Why and Where to of Food Security in NSW*. Discussion Paper. Sydney (AUST): Physical Activity Nutrition Obesity Research Group, Heart Foundation NSW and Cancer Council NSW; 2010.
4. Renzaho A, Kumanyika S, Tucker KL. Family functioning, parental psychological distress, child behavioural problems, socio-economic disadvantage and fruit and vegetable consumption among 4–12 year-old Victorians, Australia. *Health Promot Int*. 2010;26(3):263–75.
5. Godrich SL, Davies CR, Darby J, Devine A. What are the determinants of food security among regional and remote Western Australian children? *Aust N Z J Public Health*. 2017;41(2):172–7.
6. Berry EM, Dermeni S, Burlingame B, Meybeck A, Conforti P. Food security and sustainability: can one exist without the other? *Public Health Nutr*. 2015;18(13):2293–302.
7. Termeer CJ, Dewulf A, Breeman G, Stiller SJ. Governance capabilities for dealing wisely with wicked problems. *Adm Soc*. 2015;47(6):680–710.
8. MacMillan T, Dowler E. Just and sustainable? Examining the rhetoric and potential realities of UK food security. *J Agric Environ Ethics*. 2012;25(2):181–204.
9. Davies A, Mulgan G, Norman W, Pulford L, Patrick R, Simon J. *Social Innovation*. Brussels (BEL): European Commission 2012.
10. Glenn JC, Gordon TJ, Project UM, University American Council for the United Nations University. *State of the Future*. Washington (DC): ACUN; 2004.
11. Lichtenstein BB, Plowman, D.A. The leadership of emergence: A complex systems leadership theory of emergence at successive organisational levels. *Leadersh Q*. 2009;20(4):617–30.
12. Fleming L. Recombinant uncertainty in technological search. *Manage Sci*. 2001;47(1):117–32.
13. Zivkovic S. Systemic Innovation Labs: A lab for wicked problems. *Soc Enterp J*. 2018;14(3):348–66.
14. Marsh I, Crowley K, Grube D, Eccleston R. Delivering public services: Locality, learning and reciprocity in place based practice. *Aust J Public Administration*. 2017;76(4):443–56.
15. Collins PA, Power EM, Little MH. Municipal-level responses to household food insecurity in Canada: A call for critical, evaluative research. *Can J Public Health*. 2014;105(2):e138–41.
16. Department of Regional Development. *Our WA Regions* [Internet]. Perth (AUST): State Government of Western Australia; 2014 [cited 2015 Nov 27]. Available from: <http://www.drd.wa.gov.au/regions/Pages/default.aspx>
17. Australian Bureau of Statistics. *Locality 2017 to Remoteness Area 2016*. Canberra (AUST): ABS; 2018.
18. Godrich SL, Payet J, Brealey D, Edmunds M, Stoneham M, Devine A. (2019). South West Food Community: A place-based pilot study to understand the food security system. *Nutrients – Nutrition and Vulnerable Groups special issue*, 11(4), 1–12. doi:10.3390/nu10111603.
19. Zivkovic S. Addressing food insecurity: a systemic innovation approach. *Soc Enterp J*. 2017;13(3):234–350.
20. Zivkovic S. A complexity based diagnostic tool for tackling wicked problems. *Emergence: Complexity Organization*. 2015;17(4).
21. Jamshed S. Qualitative research method-interviewing and observation. *J Basic Clin Pharm*. 2014;5(4):87–8.
22. Surie G, Hazy JK. Generative leadership: Nurturing innovation in complex systems. *Emergence Complexity Organization*. 2006;8(4):13–26.
23. Uhl-Bien M, Marion R, McKelvey B. Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *Leadersh Q*. 2007;18(4):298–318.
24. Australian Public Service Commission. *Tackling Wicked Problems: A Public Policy Perspective*. Canberra (AUST): Government of Australia; 2018.
25. Hupe P, Hill M. Street-Level bureaucracy and public accountability. *Public Adm*. 2007;85(2):279–99.
26. Firmstone J, Coleman S. Public engagement in local government: The voice and influence of citizens in online communicative spaces. *Inf Commun Soc*. 2015;18(6):680–95.
27. Dietitians of Canada. *Community Food Security: Position of Dietitians of Canada*. Ontario (CAN); Dietitians of CA.