

Project Start Date

1 January 2012 (revised 1 July 2012)

Project End Date

30 November 2013 (revised 30 June 2014)

Project Title

How Can Food Hubs Catalyse Healthy and Resilient Local Food Systems in Victoria:
Developing a Food Hub in the City of Casey

1. Project Description

Context

Poor nutrition and associated health outcomes result from a complex set of factors hindering access to healthy food. Interventions need to address the built, natural, social, economic environments and the 'systems of provision' [Ryan 2002] that make up the social determinants of health in an integrated way. There is an urgent need to address the underlying, compounding and increasing vulnerabilities in the food system. VicHealth has recognised the importance of local food systems to improved health outcomes and resilience of supply, supporting research [e.g. Larsen et al. 2011; Donovan et al. 2011] and programs such as Food for All.

While there is widespread and increasing activity around local and regional food in Victoria and Australia, many current activities are small, remaining niche and very vulnerable (i.e. often reliant on the efforts of one key person or source of funding). There is a need to explore the potential of interventions to scale up the impact and viability of local / regional food, by carefully considering infrastructure and systemic needs.

Food Hubs: Catalysing Local Food Systems

An area of innovative interventions receiving significant international attention is that of 'Food Hubs', established to provide the 'missing middle man' in local food infrastructure. They make it easier for people to access fresh, seasonal foods, by improving channels and facilities for farmers to sell into local markets. There are now over 100 Food Hubs in successful operation across the USA; they build on examples of emerging local food economies (such as farmers' markets and community-supported agriculture enterprises) identifying and meeting key gaps in local circuits of food production, distribution and consumption.

At least 40% of established Food Hubs state an explicit social justice mandate - increasing access to fresh and nutritious food for vulnerable and under-served communities. They primarily seek to do this through some form of aggregation, marketing and distribution of local fresh produce. They can become focus points for training and education; shared community food processing and preparation; enterprise incubation; nutrition advice and support [USDA 2011].

Food Hubs for Victoria

The City of Casey was identified as a promising area for consideration of a Food Hub, as its rapidly growing population is escalating existing challenges [see AFHN 2011a], e.g.

- People not being able to access healthy, nutritious and affordable food, leading to poor nutrition and increasing food insecurity;
- Declining viability of farming in the area, and the loss of productive farms and farmers;

- A vulnerability amongst the majority of residents to increasing costs (particularly fuel) and economic downturn;
- Significant and continuing loss of healthy ecosystems that will support the well-being of future generations.

In June 2011, VicHealth and the City of Casey co-funded an alliance of social enterprises and non-profits (led by Eaterprises Australia) to explore the potential for a Food Hub in the City of Casey. A scoping process reviewed documentation outlining challenges and current strategies in Casey and undertook preliminary consultations with Casey Council staff, growers and food relief agencies. The findings were further developed in a stakeholder workshop (August).

The consultations identified three core objectives as priorities for a Casey Food Hub:

- Healthy eating for residents: health and food security concerns of the area are paramount, with higher than average obesity and poor physical activity coupled with housing stress, employment vulnerability and increasing food stress;
- Skill development, community interaction and job creation through new local enterprises: opportunities for re-skilling and enterprise development as a 'springboard' for jobs, training and innovative food system entrepreneurs; and
- Better marketing outlets and fair prices for producers: increase viability of local farming businesses valuing the benefits of urban proximity.

Consultations also identified four distinct priority stakeholder groups for the first phase:

- *Average family consumers* - 'Mr and Mrs Casey': Couple with two kids, both working and driving to work, tired in evenings, maybe not a lot of extra cash – "It's hard to compete with the \$20 macca's meal – no cooking, no dishes, everyone's fed"
- *Low-income consumers*: Doing it tough – low-SES group, with poor physical and/or financial access to healthy food as well as limited training and employment opportunities. A diverse group, increasingly visible in demand for food relief or malnourished children in schools. Lack of consistent and healthy meal programs in the area has been identified.
- *Small producers*: 10 or more lines, sales channels through wholesale markets, farmers markets and very small amounts sold directly.
- *Large producers*: 2-3 lines, substantial amounts of produce, intensifying and expanding to stay competitive. Mostly selling through supermarkets and wholesale market.

A concept paper was developed exploring potential design responses and strategies as a springboard for further work [AFHN 2011b].

Project Aims and Objectives

This project will build on the scoping project to investigate the design and development of a Food Hub in Casey – using social, action and design research to:

1. Build knowledge about the potential of Food Hubs to catalyse and support local food systems in Victoria and Australia, in the light of activity taking place in other countries;
2. Identify stakeholders and involve them in exploring the design and operation of a Food Hub in Casey that could make fresh food accessible and affordable and strengthen long-term local supply (providing fair returns to farmers);
3. Develop an effective framework for assessing / evaluating the impact of Food Hubs;
4. Establish the Australian Food Hubs Network as a vehicle for developing and propagating knowledge, methodologies and processes for operationalising Food Hubs in Australia.

The research objectives are to engage with local stakeholders to develop a detailed system design, feasibility analysis and evaluation framework for a prototype Food Hub in the City of Casey:

- a) Mapping of the 'state of play' in Casey's local / regional food system, including opportunities in and barriers to development (with a particular focus on any innovative niche activities – see methodology);

- b) Extensive and detailed participatory 'hub and system' design work;
- c) Investigating the feasibility of a Food Hub, with improved health outcomes a primary focus, and develop an effective framework for assessing the impact of Food Hubs;
- d) Translate and transfer the knowledge generated by the project, particularly for a business case development with the City of Casey and through the development of the Australian Food Hubs Network.
- e) *[Optional] Undertake innovative pilots / market-testing of key components of the proposal.*

Why is this Research Innovative

History of Innovative Research Partnerships between VEIL and VicHealth

The Victorian Eco-Innovation Lab (VEIL) is a future-focused think tank at the University of Melbourne. Its core activities are:

- Reframing the need for change, 'joining the dots' about the fundamental systemic unsustainability of the present;
- Articulating positive, plausible, tangible potential for changed futures that are healthy, sustainable and resilient; and
- Catalysing change, experimentation and demonstration through design and support for innovative interventions – with a focus on documenting, sharing, adapting and improving effectiveness.

VicHealth has funded and been a partner with VEIL in two recent projects. The first was undertaken by VEIL, CSIRO and Deakin University [Larsen et al. 2011]: a systematic analysis of different possible trajectories in the food system considered the implications for provision of a nutritious diet to the population of Victoria. The second was the development of *Food Sensitive Planning and Urban Design: A Conceptual Framework for Healthy and Sustainable Food Systems* (Donovan et al. 2011). Food is a dominant feature in VEIL's broader work.

This project pushes into VEIL's third core activity. It seeks to combine the capacities of: research institutions (e.g. University of Melbourne); VEIL's professional and student network; government agencies (e.g. VicHealth and local government); and existing social enterprises, non-profit agencies and businesses (including farmers); in interventions to improve health, environmental and employment outcomes from the food system.

Design-Led Interventions to Achieve Multiple Outcomes

This project presents an innovative approach to health promotion by taking a holistic view of the social determinants of healthy eating and exploring possibilities for interventions that make health outcomes part of longer-term systemic change. It strives for environments that support healthy eating and seeks the most effective leverage points for triggering systemic change towards them, by identifying synergies and 'win-wins' with other critical objectives (e.g. training, jobs and skill development; viable and valued farming communities).

There are six critical objectives to be considered in the design of a strategic intervention in Casey's local food system:

- Increased fruit and vegetable consumption / healthy eating for Casey residents;
- Opportunities for skill development, community interaction and job creation through creation of local socio-ecological enterprises;
- Better marketing outlet and fair prices for producers;
- Increased maintenance of food dollar in Casey (local economy);
- Reduced oil / emissions in Casey residents' food supply chain (resilience and reduced vulnerability to the anticipated impacts of peak oil);
- Strengthen cultural connections and valuing of farming – including cultural heritage and pride.

Applying Distributed Networks of Expertise to Local Interventions

The scoping project (supported by VicHealth and the City of Casey) was managed and undertaken by Eaterprises Australia (which has a knowledge sharing partnership with VEIL). Eaterprises is a new social enterprise focused on the development and facilitation of social innovation to transform the food system. The project was conducted as a trial of a new way of working that could enable a network of affiliated food system specialists to readily apply Australia's best thinking and experience in establishing innovative food system interventions. The scoping project was successfully defined, established and run 'in place' drawing on local knowledge and networks and a broader pool of expertise from around Australia.

A unique aspect of the scoping project, which is reflected in this project, is the recognition of the large, often unpaid, contribution that many individuals, non-profits and social enterprises make to the generation of knowledge for the public good. These contributions of knowledge and experience are often freely made as the interests of participating organisations are in alignment, however they do draw down the usually limited resources of those organisations. This project recognises and values those contributions, explicitly supporting and strengthening networks, shared resources and collaborative working arrangements through the Australian Food Hubs Network.

The success of the working style of the initial scoping project has demonstrated a new mechanism for 'fast and loose' generation and scoping of bold project ideas in partnership with diverse communities and stakeholders. The methodology developed in the scoping project is now openly available for other communities to use, and is already supporting thinking and project development of local councils and community groups e.g. in Mt Alexander, Coffs Harbour and Sunshine Coast.

The opportunity offered by this proposal is to consolidate and expand this community-led approach through a research partnership that can undertake more detailed investigation, rigorous analysis and engagement with the local communities in the detailed design and implementation of a Food Hub. It will build knowledge about and methodologies for the next stages of Food Hub development and contribute to the realisation of a particular Food Hub in the City of Casey.

Other innovative components include:

- Introducing and adapting innovative concepts from overseas;
- Building on and supporting the work of community leaders and social enterprises seeking sustainable and just food systems; and
- Situating research and design as the supporter and enabler of innovation.

AFHN (2011a). Summary of Consultations - Scoping a Casey Food Hub, Eaterprises Australia with the Australian Food Hubs Network

AFHN (2011b). Imagining a Casey Food Hub, Eaterprises Australia with the Australian Food Hubs Network

Donovan, J., Larsen, K., & McWhinnie, J. (2011). Food Sensitive Planning and Urban Design: A Conceptual Framework for Achieving a Healthy and Sustainable Food System, Victorian Eco-Innovation Lab and David Locke Associates for the Heart Foundation,

Larsen, K., Turner, G., Ryan, C., & Lawrence, M. (2011), Victorian Food Supply Scenarios: Impacts on Availability of a Nutritious Diet, Victorian Eco-Innovation Lab, University of Melbourne,

Ryan, C. (2002). Global Status Report: Sustainable Consumption. Paris, United Nations Environment Program.

USDA (2011). Regional Food Hubs: Understanding the Scope and Scale of Food Hub Operations. United States Department of Agriculture (USDA) Agricultural Marketing Service.

2. Methodology

Innovation studies show that new practices, technologies or 'systems of provision' [Ryan 2002] typically emerge from organisational niches within society - from entrepreneurial corporations, small businesses, and even from grassroots activist communities, cultural groups, towns and neighbourhoods. These niches often start with relatively novel socio-technical configurations that are "carried and developed by small networks of dedicated actors, often outsiders or fringe actors" [Geels and Schot 2007:400]. In the right circumstances, these can trigger enduring (sometimes 'disruptive') changes to established regimes of production and consumption (Kemp 1994; Rip and Kemp 1998; Geels 2002).

Grassroots niche 'social innovations' are gaining attention in the context of critical sustainability challenges – seeking alternatives to current social and institutional processes that lock society into unsustainable resource demands and poor community well-being. It can be difficult for these innovations to have wider societal impact; due to *intrinsic* and *diffusion* challenges [Seyfang and Smith 2007]. Intrinsic challenges arise from the nature of a grassroots or small-scale organisation, particularly resource constraints that prevent investment in strategic development; diffusion challenges derive from the scale and location of the niche, fact that its very novelty places it outside of 'mainstream' attention, and resource constraints making reproduction in other places or markets difficult without external support. Programs of investment to nurture and diffuse such innovations are growing, particularly in Europe, with policy frameworks directed at 'niche management' and 'social entrepreneurship' and through public and philanthropic programs of research, venturing and investment in social innovation.

Thus a strategic objective in the design of local food interventions is to identify leverage points to increase the viability and diffusion of small innovations, and to test their potential to trigger or catalyse new functional systems of production and consumption that deliver improved health, environmental and local economic outcomes. These interventions should aim to create a virtuous cycle of: increasing exposure and access to local food (at an affordable price), meeting and strengthening demand, which in turn supports the local producers of food (including the recycling of nutrients and waste for farms and market gardens to build soil fertility). This in turn depends on the creation and nurturing of a culture of local food, so that over time more and more residents regard the practice of eating and celebrating local and seasonal fresh produce as the norm. None of this can be done if the food growers are intrinsically challenged financially, unable to make a sufficient return to incentivise continued farming, particularly in contested areas with encroaching urban populations.

VEIL has found in its work on sustainable futures that a focus on real places and precinct is critical. Explorations of transformation cannot deal with fragments of the economy or living conditions in isolation; innovation in systems has to include the interaction between social and cultural life and physical and technical systems [Ryan 2011]. The City of Casey offers a compelling site for this investigation and potential intervention.

Overarching Research Framework – Design-Led Participatory Action Research

The overarching approach for this research/design project is known as Participatory Action Research (PAR) (McIntyre, 2008; O'Brien, 1998; Wadsworth, 1998); research involving interaction with groups of people to organise conditions under which they can reflect and learn from their own experiences and communicate this experience to others.

The project, which aims to move from the broad set of concepts developed so far to a detailed proposal with deep stakeholder commitment, is inherently suited to action

research. Schmidt et al (2011) demonstrate how a PAR framework has been successfully applied in the context of a food hub project in the US – the Intervale Food Hub.

Key partners in the action research project are: the City of Casey; partners in the Australian Food Hubs Network (see Research Team); emergent local leaders with a strong interest from the scoping project; and a widening circle of interested stakeholders and potential partners in Casey and surrounding region. PAR is a collaborative approach where project participants are partners in the on-going research process.

The detailed components of the research/design process will be further refined with project partners and participants, however the objectives provide a clear project structure. Each stage will deepen engagement with and participation of a widening circle of local stakeholders.

N.B. This project will be subject to University of Melbourne ethics considerations and clearance.

(A) Detailed mapping of the 'state of play' in Casey's local / regional food system, including opportunities in and barriers to development

This project component will build knowledge about Casey's existing local food system; the opportunities and barriers to development; and information / knowledge that can be drawn from elsewhere. This will inform both the development of a viable proposal and establish a benchmark against which the effectiveness of a Food Hub intervention can be assessed. This stage is also about identification and engagement of key stakeholders and framing the design stage (B).

It will include:

Assessing Casey's local food system

- Investigate and benchmark patterns of local food demand; access and barriers to access for different population groups and outlets in the City of Casey (e.g. Berlin et al 2009) – secondary data; grey literature and consumer surveys.
- Investigate and benchmark patterns of sale for local food and barriers to entering that market for diverse producers in the area [e.g. Intervale Centre 2009] – secondary data; grey literature and producer and buyer surveys.
- Identify and engage key actors; current mainstream supply chain actors; relevant local government officers; community and social welfare groups and others to map points of influence in the City and to expand network of engaged critical players.
- Identifying barriers to growth of the local food system with particular attention to critical supply chain points and issues of access – particularly through in-depth interviews.
- Mapping of existing innovative niche developments and considering how they would be affected / supported (competitors and collaborators).

Drawing on existing knowledge

- Drawing on initiatives and niche development in other countries, Australia and Victoria to identify likely opportunities, barriers and critical considerations;
- Considering adaptation of innovative developments and market initiatives from other contexts; and
- Exploring design features of systems that are successfully improving community health and well-being.

Establishing an on-line presence for project and AFHN (see Part D)

(B) Detailed participatory design work

This project component will use participatory design processes to progressively engage and work with interested community members and stakeholders on the development of a detailed system and service design proposal for a Casey Food Hub. It will include:

- Apply VEIL's participatory design-charette process with local actors identified above and professional designers, enabling detailed design work on different perspectives / aspects of the Food Hub (up to 3 workshops focused on the needs of different stakeholder groups). These workshops will explore potential systems and features of a Food Hub; potential to support and diffuse ('amplify') relevant existing niche developments; explore workable systems of provision for the Hub.
- In parallel, VEIL will follow existing process to supervise a 'design studio' with final year of masters students in RMIT/University of Melbourne, to research and conceptualise elements of a Food Hub and food innovations for Casey. (Opportunities to coordinate with local TAFE colleges for additional student work will be investigated).
- Display the ideas and proposals from the above and from the original scoping study, in one or more 'Set-Up Shops' [Mongard, J 2011] and/or easily accessible welcoming public space [Ryan et al 2010] for broad public engagement, feedback and design optimisation (as per VEIL work in Docklands, Hume and Brimbank).

[Option: if this research application is successful, we will seek other funding to extend core activities e.g. draw on expertise from successful international food hubs (bringing a representative to inform and participate in the design discussions) and extending the engagement through development of a mobile exhibition / more set-up shops to maximise public interaction and reach diverse communities].

(C) Investigate the feasibility of the proposed Food Hub; with improved health outcomes a primary focus

Investigate the feasibility of the selected model with analysis of supply chain considerations; cost structures; exploration of possible locations; planning implications; and regulatory and political factors.

A critical area for investigation is whether, and how, a Food Hub can introduce supply chain interventions and innovative business structures (e.g. social enterprises) that support improved food access in both the short and long term i.e. they must improve both demand for and access to healthy food for the population (through competitive and affordable pricing), as well as strengthening the viability of farmers and farming in key productive areas. This will include close examination of functions, costs, business structures and potential programs so that affordable food and good prices for the farmers result.

This research will develop a framework with appropriate measures for evaluation and/or adaptive management of Food Hubs. It will also provide a solid foundation for a business case for a Casey Food Hub.

(D) Support the establishment of the Australian Food Hubs Network as a vehicle for propagating this knowledge and methodology across Australia

The impact of a local project isn't limited to benefits in that location. It can create new models, patterns of responses and learning that can be applied to other places / contexts. The impact will be amplified through networks and platforms for collaboration and dissemination. The initial work on the Casey Food Hub has brought together key experts working on these ideas (now called the Australian Food Hubs Network (AFHN)). Support for development of this network, particularly through an online platform, will enhance outcomes in the Casey context as well as dissemination of ideas more broadly. Specific elements of the proposal include:

- Supporting AFHN to be involved in process (i.e. pay for time);
- Developing and using the on-line platform (e.g. Australian version of <http://ngfn.org/resources/food-hubs/food-hubs>) to translate and communicate findings and outcomes.

(E) Possible Parallel: Pilot components

There would be potential to identify, trial and evaluate core functional components of the proposed food hub modules in the second year. The findings from these trials could be incorporated to inform both the detailed proposal and appropriate measures for evaluation and/or adaptive management of Food Hubs. If successful, we would explore avenues for additional funding for an experimental prototype Hub.

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3. Expected outcomes

The success of this project will be measured by its ability to provide useful and tangible guidance to the development of viable food hubs that deliver health, environmental and economic outcomes and can effectively catalyse local food systems around Australia.

Within the focus area (the City of Casey), this project will deliver:

- Increased community awareness, understanding and engagement in challenges and opportunities for healthier eating environments in Casey;
- An understanding of the potential to achieve multiple outcomes through strategic interventions in Casey's food system;
- A strong network of engaged community representatives and other stakeholders who are interested in the development of a strengthened local food system and willing to participate in and support the establishment of a Food Hub [NB. Strongly supportive community members have been identified through the scoping process and will be actively involved in this project from the outset];
- A detailed design and close investigation of the feasibility of a Food Hub, including development of core data that could support a detailed business case; and
- This kind of work often identifies strategically useful and immediately achievable activities (i.e. that do not have to wait for a Food Hub to get started). There is potential for this project itself to catalyse and/or amplify a range of food system innovations that improve demand for and access to healthy food.

This project will contribute to future research by:

- Pioneering (in Australia) an approach for research to support participatory development and establishment of community-based social enterprises to deliver health outcomes;
- Exploring mechanisms, cost structures and an assessment framework to support development of interventions that reconcile affordability with improved farmer viability, particularly in peri-urban contested landscapes;
- Demonstrating and thereby improving understanding of the potential of trans-disciplinary approaches and teams to support health outcomes. This project will also deepen understanding of the potential for health outcomes to be delivered in conjunction with environmental and economic outcomes through careful design in local contexts.

It would contribute to public health policy changes and health promotion practice by:

- Demonstrating the viability of local food hubs as mechanisms for improving access to fresh, seasonal produce and to combine improved economic and social connections with nutrition and healthy eating outcomes;
- Strengthening the Australian Food Hubs Network as a vehicle for propagating knowledge and practice into community practice;
- Strengthening the viability of research, community enterprise and government agency partnerships to establish interventions that catalyse local food systems; and
- Providing a framework for evaluation and refinement of future local food hub projects in Australia.