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Collaborative Intersectoral Approaches to Nutrition in a Community on the Urban Fringe

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A case study is presented that describes the 10-year evolution of a local intersectoral project aimed at improving components of a community's food system as an approach to improving nutrition. Aspects of innovation and good contemporary practice in collaborating for health promotion are illustrated. Key initiators of the project were a university public health department, a community health service, and a local government authority. Players brought into the process included the agricultural sector and food retailers. Several strategies have contributed to the success and institutionalization of the project. These include a specific focus on organizational development and capacity building among the key intersectoral partners and the use of formative evaluation methods to hasten the natural phases of collaborative problem solving. The project achieved many policy- and system-level changes. The impact on food consumption patterns is still to be evaluated.

A job advertisement appeared recently in a Sydney metropolitan newspaper, which read as follows:

Health facilitator, Penrith City Council. . . . The Penrith Food Project grew from a vision to develop an environment whereby many different organisations could work together to create a healthier food supply. . . . The project has been very successful in achieving sustainable improvements to the local food system. . . . It is now time to take the project forward . . . to

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build on the successes of the past and plan for the successes of the future. To do this, we are looking for a dynamic person with excellent communication skills and the ability to act as a change agent.

This advertisement, placed by the local government authority, for a position now cofunded by local government (city council) and the health service, attests to the successful path toward institutionalization of an innovative program for nutrition promotion, which commenced in 1994. In this article, we describe the evolution of the Penrith Food Project (hereafter referred to as the project), which aims to alter aspects of an Australian community's food system. We will illustrate aspects of innovation and good contemporary practice in collaborating for health promotion, along with the challenges ahead. A focus on the food "environment" or food system, the use of theory to guide collaborative approaches, and use of formative evaluation to record and address threats to the project's sustainability are highlighted. The challenges for relevant and useful evaluation of such projects are also discussed.

BACKGROUND

Improving the nutritional status of populations is an ever-increasing challenge. Many forces undermine nutrition—not necessarily with malintent but nevertheless work against wide-scale nutritional improvements. One such force is the powerful and complex free-market (for-profit) food system, which comprises all those sectors that produce, process, market, and distribute food to regions, nations, communities, households, and individuals. Government intervention is theoretically only required when the free market fails. Protecting the population's nutritional status and the safety of food is one arena in which market failure has been demonstrated repeatedly, when the profit motive far overshadows nutrition and health objectives.¹ In both developing and developed countries, the free-market system has been unable to guarantee the food security of communities and households—that is, the continuous production, distribution, and marketing of foods so that the nutritional needs of all members of the population are able to be met at all times.² Chapman has argued that the primary role of government is the "honest brokerage" of nutrition information to consumers, to enable them to negotiate their way around the baffling array of choices.³ This has, in fact, been the focus of most of the nutrition improvement effort by governments of developed countries. Others suggest that this is not enough, that the aim of government intervention in the food system and other related systems (e.g., regulation, transport, welfare) should be to ensure attention to nutrition and health objectives in the production, distribution, and marketing of foods.⁴

CONTEXT

Health promotion and nutrition education programs expanded in the 1980s. Community-based projects that aimed, in part, to improve the social marketing of nutrition and health messages were established and flourished during this period. However, the early evaluation of such programs (confirmed later in full-evaluation reports) revealed only small improvements in dietary and other health behaviors and risk factors despite large resource inputs.⁵ Consequently, interest turned to modifying environments and policies that influence health and nutrition.⁶ In Australia in the mid-1980s, a national nutrition

task force identified several ways in which food production, processing, and distribution could be modified to promote better health on a national scale.⁷ The program that followed brought with it a mandate to create supportive environments for nutrition, locally and globally, in accordance with the Ottawa Charter for Health Promotion, combined with strategies to improve consumer knowledge, attitudes, and behavioral change skills.

Thus, a stimulus was provided for experimentation with a new supply-oriented approach, in the form of program funding for innovation in community nutrition practice that addressed “food environments.” A second stimulus came from the local health service’s concern about the problems of higher rates of premature deaths from heart disease and diabetes and associated risk factors (particularly obesity and high-fat diets) in this urban fringe community.

When the Penrith Food Project was first conceived, environmentally directed policies and programs in nutrition were uncommon in Australia.⁸ The literature and the experience of colleagues to guide the project’s early planning and development were scarce. The project planners turned to seminal, local food system projects in North America for models and guidance, particularly the Knoxville Food Policy Council,⁹ whose remit was to address the problems of hunger and food security in a U.S. city. This project was seated in a local government authority; addressed many local food system issues, including access to healthy foods; was driven by a multisector food policy committee; and had a considerable record of achievements,^{8,9} as well as sustained political support. These features thus provided “shape” to a possible Australian counterpart. Local government was seen as a key partner because of its credibility with citizens and local businesses, its regulatory involvement with the safety of food outlets, and its role in urban development and agricultural protection. However, it was recognized that government advocacy for changes in the food system (local or global) could only occur by collaboration with (rather than regulation of) the private sector. This is because no single level of government has the jurisdiction, the mandate, or the budgets to control much of the decision making or to compete with the private-sector food system.

In the early days of planning the project, most community nutrition interventions were guided by theories about individual behavior change and social marketing.¹⁰ Because this project set out to make explicit changes to system-level factors, theories from other fields were sought, including organizational change theory,¹¹ models of interorganizational problem solving in the private sector,^{12,13} and ecological thinking in health promotion.¹⁴

PROJECT DESCRIPTION

Feasibility Study: Could a Community-Based Food Supply Intervention Be Mounted?

A priori, the following criteria for feasibility were set: (1) a history of successful collaboration on issues or projects between local government, health agencies, and other community organizations; (2) sufficient organizational interest by local government, the health service, and local food businesses to work on a new project; (3) support among community opinion leaders for the conceptual basis of the project, including a focus on food supply improvements rather than community education; and (4) a “starter list” of local food system problems that captured the interest of prospective partner organizations.

From initial consultations, one local government area in western Sydney met the first two criteria and was selected for further assessment.¹⁵ In this area, not only had the health service worked successfully with local government and businesses on health action previously, but the health promotion workers already had adopted an explicit organizational development approach to the reorientation of health services toward primary prevention.¹⁶ That is, they had worked indirectly by facilitating other health workers to plan and deliver health promotion programs.¹⁷

A list of issues was identified from audits of the local food system.¹⁸ A plethora of problems was to be overcome if healthy choices were to be made easy choices. For example, although the residents of this local government area rank as “average” on socioeconomic status compared with the rest of New South Wales, the prices of healthy foods were higher than those in more affluent areas of Sydney. The predominance of new housing estates was accompanied by a deficit of food retail shopping facilities, home delivery options, and adequate public transport to and from supermarkets. Growth in the take-away food and convenience store sectors was exponential, but the range of products rarely included healthier foods; these were found more commonly in established middle- and upper-income urban areas. Local horticultural and other agricultural food production was high but declining due to the economic pressures to expand housing and the mining industries. Opinion leaders confirmed majority support for a new approach to improved community nutrition, and there was interest in tackling food system issues. However, support for a food system approach was neither unanimous nor unqualified. It was clear from the outset that some semblance of “traditional” health education approaches would be required simply to provide visible activities for the engagement of some partner organizations.

The founding partner organizations included a university department of public health, a local health service (health promotion unit), and a local government authority (city council). Partners contributed intellectual, financial, technical, political advocacy, and staffing resources to the project. Initially, the state health department provided funding for a project officer for 3 years.

The Food Policy Committee

An intersectoral project working party was established with the city council, which led subsequently to the establishment of a standing Food Policy Committee. The committee has been the project’s “engine room” as well as “flagship” during the past 7 years. The Food Policy Committee plans and oversees project implementation and promotes local food system reform consistent with community nutrition objectives.

Members of the Food Policy Committee are directors or supervisors representing a wide range of organizations with a stake in the local food system. The health sector has provided the largest portion of the membership. In establishing the committee, seniority of members was considered important for community credibility as well as implementation of policies and plans. Members have included elected city councilors and representatives of several directorates of city council and the health service; the regional office of the state agriculture department; various university departments of public health, nutrition, and environmental health; a large national food-processing company; a major national chain grocery retailer; a local bank; the chamber of commerce; and a fruit and vegetable marketing board. It has been recognized that many skills and roles are required for the

committee to conduct its business effectively, including political advocacy and spokespersons, visionaries, planners, doers, managers, enthusiasts, decision makers, advisers, and technical experts.

Located within local government, the committee has operated with a considerable degree of formality, based on a constitution, which outlines requirements for accountability, annual general meetings, and decision-making processes. The cofunding agreement requires the food policy committee to specify, in advance, annual expected outcomes. Monthly business meetings and agendas are managed to enable a balance of information sharing, planning, and decision making and to explore a policy or content issue. Due attention to formality was considered important because it has been associated with more successful cross-organizational collaboration.

Project Infrastructure

The structure for decision making, implementation, and accountability of the project is relatively complex because of the cofunding arrangements, the substantive involvement of the university, and the intersectoral nature of food system policies and implementation. The project's infrastructure has been described in detail elsewhere. In brief, an executive officer has been employed by the city council to implement the plans of the committee under the managerial direction of a "management group" (i.e., two supervisors, one each from the health service and the city council). The location of the project within the organizational structure of the city council has proved to be an important influence on the project implementation; for example, when the project was situated within the Health and Building Directorate, the emphasis was on "visible activities" and building regulations, whereas within its current location in the Planning Directorate, the emphasis will be more on the reform of urban planning, transport, and shopping policies and practices.

University-project relations have been strengthened through the establishment and maintenance of a research and development group, consisting largely of university staff and selected members of the Food Policy Committee. The group has guided project planning and evaluation. Technical working groups of the Food Policy Committee were convened to advise on specific programs and activities relating to the five action areas of the project. These working groups have provided an opportunity for businesses and organizations to participate in planning particular activities, although many were not interested in the overall project planning and oversight.

PROJECT METHODS

The Food Policy Committee began its work with the development of a 3-year strategic plan¹⁹ (recently revised²⁰) using exercises to clarify the vision of the committee for the local food system and priorities to improve it for the nutritional benefit of residents and workers. Five key activity areas were identified: (1) improving access to food retail outlets and related transport services, (2) expanding the availability of healthy choices in food outlets and food services, (3) increasing community facilities and support for breastfeeding, (4) promoting local agriculture, and (5) increasing the safety of food sold. The strategic plan has served the project well in making choices about activities and policy.

Each year, an action plan has guided the activities of the project and the committee. In practice, the activities have been a mix of deliberate efforts to pursue objectives in a sys-

tematic manner and opportunities, which arise during the year, to “showcase” the mission of the committee.

The project has used four strategies to achieve its objectives: (1) planning and consultation, (2) policy development and/or reform, (3) exemplary activities, and (4) intersectoral collaboration and organizational development. The project has participated in planning groups that influence the local food and nutrition system—for example, urban planning committees for new housing estates, new shopping center planning groups, and established networks of child care center managers. Participation in such planning usually leads to improvements only in the “targeted” service or housing estate but often demonstrates the value of broad policy development to increase the reach of well-conceived plans. Policy offers the potential for wider reach and more enduring change than would be possible by planning services on a case-by-case basis. The project has used an iterative policy development process. Thus, policy development by project members has involved the inclusion of *all* groups affected by the proposed policies to obtain a better policy and one that has a greater chance of adoption and implementation.

Annual exemplary activities have been conducted to showcase aspects of the project’s intent to the city council and the community. This has demonstrated the “flavor” and value of the project while enabling continued conduct of less visible planning and policy development. Organizational development was instituted by the local health service prior to the project’s inception and has continued throughout the past decade. That is, to foster effective work across sectors, senior managers of the health service and the local government have met regularly for discussions about actual and potential areas for collaborative work to pursue mutual goals and to raise issues that cause tension and conflict. With the increasing “collaborative climate” between health and local government, senior-level support for the project has grown. Intersectoral collaboration has occurred also within the Food Policy Committee and in project activities through a process of initial discussion with potential partners, negotiation, and usually written agreements. Much has been learned about how to collaborate effectively, through experience and from the literature (see below).

Creating Sustainability at the Outset

The timely publication by Goodman and Steckler²¹ was fundamental to planning for program institutionalization. High-level project champions within local government and the health sectors were cultivated from both eager and (initially) reluctant players using a slow and incremental capacity-building approach, guided by models of informal and incidental learning.²² Audiovisual resources were developed to support players with diverse roles to speak about the project in various forums and settings. This was in contrast to the traditional and often exclusive role assigned to academics of “giving a talk” about the project. A participatory action approach was used in which local health promotion workers assisted the Food Policy Committee to set goals about members’ capacities to tackle system-level change.²³⁻²⁶ This involved role-modeling skills in program development and policy change, making members of the committee more conscious of the personal networks and opportunities to promote the project, and placing committee members in situations that required them to be more proactive, creative, and reflective.²⁵ A further aspect of this work was to seed the project rhetoric into many levels and domains of local government activity, from mission statements, annual plans, and job descriptions. Thus, the intention was to make the “hidden agendas” of organizational and interorganizational development processes more explicit and increase accountability.

Using Formative Evaluation Processes to Enhance Project Development

Two distinct phases of formative evaluation in 1994 and 1998 enabled the Food Policy Committee to anticipate and address threats to the project. The first evaluation was commissioned after 12 months of formal Food Policy Committee meetings, when a sense of stagnation and frustration was developing among members. Survey feedback methods were used to assess committee members' motivations, views, and hopes for the future and to engage them in critical reflection about processes and outcomes. McCann has argued that organizations working together progress through critical phases.²⁷ In the early stages of intersectoral action, the chief issues are about direction setting and securing a sufficient number and diversity of players to obtain a comprehensive view of the problem. Project structures best allow maximum involvement for all players at this stage. As the collaboration matures, restructuring enables some players to assume roles more suited to their needs and interests. The phases of our project were consistent with McCann's framework, and our formative evaluation appeared to hasten this development. The restructuring that was undertaken as a result of this evaluation of the project involved the formation of a smaller core of key players who continued to attend all meetings and the formation of a broader network of people who became more involved in particular tasks and events. The restructuring led to increased decision making and actions by the committee, as documented in a time-series analysis.²³ Since these changes were made, attendance and participation have remained relatively high—most committee members have served actively on the committee since it was established in 1993. This experience is consistent with Green's recent observations on coalitions—that the initiators of an enterprise are not always the best players for its implementation.²⁸

In the second evaluation, the project was just one of several that the local government authority selected in its annual round of project reviews. The fact that the project was not singled out for special review but was simply one chosen as part of a fleet of projects within the city council would indicate that the project was already institutionalized to some degree.²¹ In response, the Food Policy Committee commissioned an external consultant to undertake a formative evaluation. Interviews with key senior managers in the city council and the health service, as well as all members of the Food Policy Committee, identified factors that had contributed to the success of the project and suggested future directions for planning, management, and implementation that would enhance project effectiveness. While the evaluation again identified several process issues to be addressed, it was notable that the chief "negative" findings were that the project was somewhat marginal to city council operations and that the highly regarded model of working had not been disseminated sufficiently to other local government authorities. The only criticism of the executive officer was for "being too much of a 'doer' and not sufficiently 'a facilitator.'" These criticisms are significant because they presuppose that the project is valuable; they also suggest that the interviewees have embraced a capacity-building approach to intersectoral health action.

Project Achievements

The project's achievements in terms of change in the local food system have been substantial. Some examples related to each objective are shown in Table 1.²⁹ The most far-reaching of these have been the policy changes within city council and the community-

wide organizational support for the project's work. For example, nutrition objectives are now a routine consideration in applications for public building development—all facilities must have parent rooms to enable breast-feeding. A nutrition policy for the city council guides food choices and catering practices for the 17 city council–run day care centers, city council functions, and health facility food services. The criteria developed by the Food Policy Committee are now used by urban planners when considering shopping facilities for new housing estates. The highly successful Open Farm Days run by the project led to the initiation by the city council of a rural lands study, an encouraging sign for policy reform to protect and promote local agriculture. Collaboration with several local food businesses has proved very successful also. For example, where there were no fruit and vegetable shops or home delivery services, there are now fruit and vegetable home delivery services in all 21 suburbs. A pilot project “ordering from home” has enabled homebound residents to obtain groceries each week from a supermarket without reliance on additional services. Underpinning these achievements has been the building of a cohesive and committed Food Policy Committee with credibility and good relations with a wide range of people and organizations—an investment likely to continue to pay off for the project. These notable achievements are only a start toward making “healthy choices easy” in this rapidly growing housing estate community. Considerable collaborative work is still required, as are constant advocacy and vigilance regarding policy implementation.

ANALYSIS OF CONDITIONS AND PROCESSES FOR EFFECTIVE ACTION

Meeting the Right Conditions for Collaboration

Much has been published since the inception of the project about lessons learned from intersectoral collaboration for promoting health and addressing community environmental problems.³⁰⁻³⁴ A review of intersectoral health promotion programs in Australia (which included the project) identified six conditions that lead to more effective action.³⁴ An assessment of the extent to which partners in the project met these conditions is shown in Table 2 and is further explained below.

Necessity relates to the extent to which the proposed collaborative actions coincide, dovetail, or overlap (or are perceived to) with the core business of each collaborating organization. In the case of the Penrith Food Project, only the health sector perceived the urgent need to collaborate because most of the elements of the local food system that the project is seeking to influence lie outside the control of the health sector. Initially, although there was no perceived need for local government to collaborate, there was some overlap of interests in the urban development and the food safety aims of the project, both of which are core business of local government. The organizational development activities described above aimed at, and succeeded in, persuading senior managers in health and local government that for many “environmental” factors affecting health, more could be done together than alone. This has been reinforced in the most recent restructuring of the city council and the integration of the project into the city council's planning processes.

Opportunity refers to a stimulus or “trigger” for action, as perceived by one or all of the potential partners. For the project, the initial triggers for action were both in the health

Table 1. Selected Achievements of the Penrith Food Project by Objective²⁹

Improving access to food retail facilities and public transport
A census of food retail shops, transport, and audit of healthy choices within shops (planned for repeat analysis)
Policy guidelines for neighborhood food access for use in planning new housing estates
Home-delivered fruit and vegetable services established in less well-served areas
Establishment of fruit barrows in business districts through collaboration with retailers and the city council
With national supermarket chain, development of pilot home grocery order and delivery service for homebound elderly
Bus route changes for an outlying housing estate to a major food shopping center, through collaborating with city council's transport forum
Expanding availability of healthy choices
Regular monitoring and publishing prices of healthy choices through collaboration with local price-watch group
Food and nutrition policy for long day care centers (developed and monitored with cooks and center managers)
Catering improvement in local restaurants and take-away food shops by a "nutrition advice" service
School canteen menu checklist to standardize means of monitoring food available for sale
Model food services policy regarding specification of healthy choices for the city council and health facility food services
Improving community support for breast-feeding
Parenting facilities policy for public buildings adopted and implemented when reviewing applications for constructing public buildings and facilities (went on to be adopted as a policy by the National Assembly of Local Governments)
Conducted successful pilot workplace policy to improve facilities and incentives for mothers to combine work and breast-feeding, which was subsequently adopted by the trial organization and used as a model to recommend action in other workplaces
Promoting local agriculture
Annual Open Farm Day and local farm tours developed and now regularly run for more than a thousand visitors each year, with local farmers and the state tourism authority—the city council negotiated with tourism to take over the lead in the planning and implementation of these regular events
Creation of a school garden, a breakfast program, and a healthy canteen in a disadvantaged area, which have been maintained for several years through collaboration with a school principal
Establishment of Sydney's Fresh Food Bowl, a collaborative project between many organizations (which grew directly out of the Penrith Food Project), advocates for the maintenance of local agricultural industries near the urban area, and the promotion of local produce
Improving food safety
Delineation of roles and responsibilities for food inspections and food safety surveillance between health and local government agencies by facilitating better communication

sector as outlined above in the background. To a lesser extent, the city council was favorably disposed to intersectoral action in seeking to respond to the challenge of better facilities and services planning for new housing estates and exhortations from the state government and the commonwealth government to experiment with innovation. Thus, the

Table 2. Preconditions for Successful Collaborative Health Action and Assessment of Extent to Which These Were Met for the Penrith Food Project³⁴

Precondition	Definition	Star Rating (out of five) for Penrith Food Project
Necessity	The need for collaboration must be high, solo efforts seen as poor alternatives	*
Opportunity	A trigger for action must be provided	*
Capacity	The organizations must have resources, support, and skill to carry out actions	***
Relationships	Relationships between parties must be stable, strong, and able to be maintained during the time of the project	****
Planned action	Conditions for joint planning; an agreed way of working and resolving conflict must be set	***
Sustained Outcomes	Ways of working and of monitoring outcomes, and addressing the need for further review and action must be devised	***

NOTE: Star ratings for project partners and organizational environment at the outset: * = minor favorable beginnings of criteria; ** = substantial favorable beginnings of criteria, at least on one side of collaboration (health or local government); *** = both initiators (health and local government) met criteria adequately; **** = both initiators met criteria well; ***** = both initiators met criteria fully.

triggers were weak for the city council. As the project has evolved, a task of the Food Policy Committee has been to watch for triggers of key relevance to local government and food businesses and to make these explicit in communications (e.g., the call for local governments to develop local environmental plans and health plans).

Capacity to conduct the project was found to be high initially; the feasibility study identified sufficient organizational support, commitment to partnerships, and skill to carry out such a project. Adequate funding for a project officer for a reasonable period was also available, so that the collaborative partner had little to lose. Despite this, many skills for working with food system partners and local government and more generally managing complex intersectoral projects needed to be built. The needs for training in many areas were recognized, and some were met, particularly after the first formative evaluation.

Relationships between collaborators were strong from the start. The project selected this local government as the auspicing organization because of its history of collaboration with the local health service, its durability, and its centrality to local life. Also, because Penrith is a relatively small and delineated "community" on the fringe of a large city, people from community organizations and businesses and service providers often meet as representatives of their organizations, as well as private citizens. Relationships between people and organizations develop and tend to be more stable of necessity. Over and above the organizations, many of the key people involved in the project have remained involved for the duration, which has reduced the fragmentation and loss of corporate memory that often occur with public-sector projects.

Planned action was developed jointly, and the relationship and official lines of communication with the city council were outlined in the initial terms of reference and constitution of the committee. The strategic plan and the vision for the project were widely endorsed by the city council. However, one senior manager was not supportive of special

projects of the city council so that, in practice, the two-way flow of information between the Food Policy Committee and the city council was limited, which hindered responsive joint planning. At least annually, extraordinary meetings with top-level management were required to put out "forest fires." The second formative evaluation helped to identify blocks in communication within the city council bureaucracy, and immediate improvements were instituted.

Sustained outcomes (as described in the Project Methods section) commenced with the goal of becoming sustainable in the long term and undertook deliberate steps toward this goal. In addition, the formative evaluation enabled the project to anticipate and address threats to its sustainability, also described earlier. Many changes are occurring that signal integration of the project's objectives into the city council's work and that of other partner organizations (e.g., local tourist operators now run the Open Farm Day). The newly advertised job of health facilitator outlined in the introduction of this article indicates that the emphasis of future work of the project within the city council will be policy oriented, a more sustainable way of working, as long as policy implementation is monitored and improved.

CHALLENGES

While local food system projects were uncommon when the project was initiated, many food policy projects have developed in the past decade or so in North America, Europe, and Australia.³⁵⁻⁴⁰ Some have grown and flourished, while others have disbanded. Pioneer food policy projects, such as the Knoxville project cited earlier,⁹ have served as models for newer projects, yet there has been no impact and outcome evaluation of these models. This lack of evaluation limits the dissemination of effective elements of projects.

The foregoing analysis of the apparently successful elements of a local intersectoral food and nutrition project relies entirely on formative, process, and reflective (subjective) approaches to evaluation. While these approaches have their place and are in contrast to the premature impact and outcome evaluation undertaken by many health promotion projects (before projects have been implemented as planned), they are not sufficient. The effectiveness of such a project in improving the food supply in communities and the capacity to sustain the effort need to be documented systematically if a rational approach to the dissemination of effective elements is to occur.

The challenge of impact and outcome evaluation should not be underestimated. A recent study of the evaluation experience among local food system projects in North America revealed that while the importance of evaluation for disseminating guidelines for good practice is recognized, little systematic evaluation had occurred, and there were many perceived and real barriers.⁴¹ Of key importance were the inadequate resourcing to cover evaluation and the short time frames of funders (1-3 years). Food system project organizers described the long time frame and the extra investment required to make a coalition viable and to maintain it long enough to accumulate measurable impacts. A second set of barriers related to the difficulty in capturing the full impact of projects and a tension about the objectives of evaluation. Preferred impacts and outcomes were wide-ranging and included coalition building and policy-setting processes (because these affect the quality and implementation of resulting policies), impact of discrete activities on intended target groups (dietary intakes or food system changes), and the capacity building of local community organizations and resulting spin-offs. Thus, a substantial

risk of a narrow and traditional approach to health promotion program evaluation was that this approach could underestimate project impact by excluding important achievements from the assessment. Thus, a challenge exists to identify *relevant* indicators and capture the range of effects that local food system projects are seeking to achieve. Attempts at impact and outcome evaluation of the project have been hindered for all of these reasons, although progress is being made toward identifying a range of food supply indicators to be evaluated in the next phase of the project.

CONCLUSIONS

The Penrith Food Project is one of many local collaborative food system projects around the world. Guidance from collaborative health promotion projects has been published in the past decade about how to collaborate effectively for health action. The project, which has been operating for 10 years and is on the path to institutionalization within local government, illustrates the application of theory and evidence to practice. The project has spawned several interorganizational development projects in nutrition and health promotion in Australia. Reflections of the architects and historians of the project highlight the importance of adequately assessing the feasibility of preconditions; creating sustainability at the outset; seeking guidance from organizational and collaboration theory for planning and implementation; regularly conducting formative evaluations of collaborative processes and the capacity of local organizations to sustain the effort. The challenge remains to document the impact of the project on the local food system and on the capacity of community organizations to reform and implement food policies consistent with improved nutrition. Linking food system changes in communities with changes in dietary intakes of residents should boost the credibility of the more systemic and long-term strategies, which in turn will contribute to the wider dissemination and adoption of community food system approaches to improving nutrition.

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