Becoming Queensland's First Safe Community: Considering Sustainability from the Outset.

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Abstract

While sustainability has become a mandatory piece of public health rhetoric, delivering sustainable programs has proved elusive.

Injury has been identified as an important public health priority in the Mackay Region where hospital separation rates for injury are double those observed for the rest of Queensland. The Mackay/Whitsunday Safe Communities Project is a community-based safety promotion project that aims to reduce injury in the Mackay Region by 30% in five years. It seeks to achieve this by being a catalyst for development of a sustained, systematic, inter-sectoral, community-based safety promotion network using existing community-based resources and expertise. The project has sought to build sustainability into the network from the outset.

This article proposes an ecological framework as a construct for conceptualising sustainability in the context of a community-based Safety Promotion Program and as a tool for systematically designing sustainability.

To improve health outcomes in the long term it is necessary to produce sustained change in the community system that delivered the improved outcome. Nine levels of sustainability are identified:

1. Sustain improved lifestyle outcomes: Community Safety.
2. Sustain altered perception of safety: Safety Perception.
3. Sustain improved injury outcomes: Injury Prevention.
4. Sustain personal change: Behaviour Modification.
5. Sustain ecological change: Environmental & Sociological Modification.
6. Sustain change within member organizations: Institutionalisation.
7. Sustain change within community networks: Capacity Building.
8. Sustain societal change: Advocacy & Empowerment.
9. Sustain structural change: Formalisation.

Sustainable Health Promotion Projects

Program sustainability has been a neglected area of health promotion research and practice. Researchers and practitioners increasingly appreciate many projects do not survive. Hawe[1] suggests the *impact* of a health promotion program is the product of three factors.

1. *Effectiveness* - the effect of an intervention on the target audience.
2. *Reach* - the penetration of the intervention within a target population.
3. *Duration* of the effect.

The addition of a time dimension is an important reminder that the impact of a program is as much dependent on sustaining an intervention as it is on establishing an effective program in a strategic population.

Failure to sustain a program is counterproductive. Not only is it a waste of the resources invested in the program, it is disruptive of the organisational investment staff made in the program and may undermine the trust the organisation had established within the client community[2].

While "project sustainability" is a mandatory piece of politically correct rhetoric, it is less frequently achieved[3,4,5]. Yate[4] reports that 50% of community-based coalitions became inactive after they had performed initial simple tasks. Prestby and Wandersman studied 17 community-based coalitions and found that only 8 of these were still functioning after 1 year[5].

There is an urgent need to get beyond the rhetoric and deliver sustainable projects.

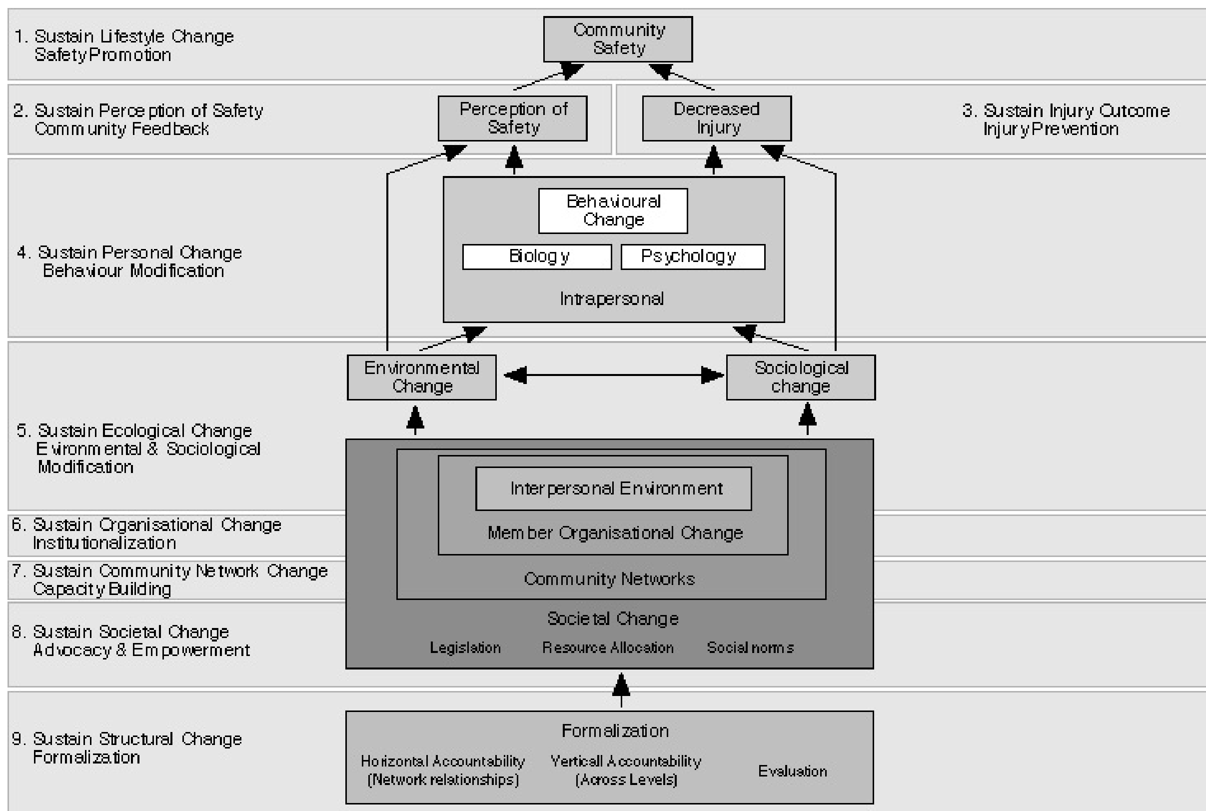
Sustainability - An Ecological View

Sustainability is an ecological concept. Lowe[6] suggests a system is ecologically sustainable "when it has at its disposal an amount of land that supplies all the resources it consumes and absorbs all the waste it produces". The essential idea is that the system must have access to the resources necessary to maintain its lifestyle in the long term and to resolve any adverse by-products of this lifestyle. This concept has been extrapolated into the public health domain. McMurray[7] suggests, "a community can be viewed as an ecosystem, with resources, opportunities and threats to health and healthy lifestyles." Sustaining a community safety process depends not only on the community having the resources necessary to maintain a safe physical and social environment, but also the capacity to identify and rectify any features of this environment that compromise safety.

Interventions dependent on external resources are vulnerable. In an age of financial accountability, economic rationalism and aggressive competition for project funding, short-term project-based funding is the norm in Australia. Projects come and go at political whim, depending on the ability to secure ongoing funding. The solution is to maximize the ability of a community to maintain a project within its own "ecosystem".

This article proposes a systematic ecological conceptualisation of sustainability, which aims to develop and maintain innovations at all levels of a community ecological system. The nine levels are outlined in Figure 1.

Figure 1. Levels of Sustainability for Safety Promotion



By systematically identifying and addressing the different sub components necessary to maintain the desired outcome within the ecological system, attempts to sustain a program are more likely to be successful.

Level 1. Sustain lifestyle change: "community safety"

Safety is an ecological concept[8], concerned with a positive state of wellbeing of individuals within the context of society and their physical environment. It is as much concerned with a subjective dimension – the perception of safety, as it is with the objective dimension – the absence of injury[8,11,12]. Therefore, to develop a "Safe Community", we need to address the community's perception of "*safety*" while simultaneously intervening to reduce the behavioural, environmental and sociological factors that produce injury.

Level 2. Sustain altered perception of safety: "community feedback"

Maintaining an ambience of safety requires ongoing effective channels of communication, and careful use of the media. Without marginalising the concerns of the community, their energies need to be focused onto the real issues. Local surveillance data is an excellent tool with which to stimulate media interest, engage the community, and generate informed public debate that will keep the community "on task" as it attempts to address safety issues[13].

Level 3. Sustain improved injury outcomes: "injury prevention"

A whole of system approach is necessary to achieve and maintain a reduced incidence of injury[8]. An injury event rarely occurs as a consequence of the isolated failure of either an individual or system. Rather, it is the critical combination of social and environmental predisposing factors, triggering factors, and behavioural errors, which conspire together to

create an accident opportunity. Furthermore, not all accidents result in injury, as characteristics of the immediate physical environment may either exacerbate (eg. slippery road) or minimise (eg. seat belt) the consequences of such an event. Achieving a sustained reduction in injury depends on identifying the individual, environmental and sociological factors that produce injury within the target community and then empowering individuals and the community to produce sustained change in these determinants.

Level 4. Sustain personal change: "behaviour modification"

Until recently, safety promotion has largely focused on addressing the behaviour of the individual and their immediate environment. Health education has been the dominant strategy used to address these issues[8]. While informing an individual of risk behaviours and environmental dangers are undoubtedly important, it does not follow that this educational message is sufficient to produce behavioural change[17]. As desirable as changes in behaviour may be, an individual may not posses the motivation, confidence, personal skill, or control over their environment necessary to enact these changes.

The Transtheoretical Model[18] identifies five stages of behavioural change:

1. *Precontemplation* - an individual has no intention of changing their behaviour.
2. *Contemplation* - an individual is considering changing behaviour within six months.
3. *Preparation* - an individual is planning to change their behaviour in the short term.
4. *Action* - an individual is in the process of changing their behaviour.
5. *Maintenance* - an individual has performed the new behaviour for more than six months.

There are three important implications of this construct:

1. To achieve change, it is necessary to facilitate the movement of the target audience through this process of change to a point where they are motivated to change their behaviour.
2. Different strategies are required for different stages.
3. At any one time only a small percentage of the target audience are at a stage where they would contemplate or enact desirable behavioural change. This substantially limits the reach of a Safety Promotion program when delivered over a short time frame. Sustaining a program increases reach by increasing the likelihood of delivering a safety message at a time when people are susceptible to behavioural change.

Change in the individual behaviour is notoriously hard to achieve[14] and harder still to sustain. Structural change, if achieved, is more likely to be self-sustaining[15]. However, these contrasting approaches are complimentary rather than mutually exclusive[16].

Level 5. Sustain ecological change: "environmental & sociological modification"

A safety promotion program must be cognisant of its environmental, economic and social milieu, taking into account the resources available (community capacity) and the constraints placed upon a project by the ecological system (context)[5].

The Ecological Paradigm of Safety Promotion emphasises the dynamic interface between the individual, the physical environment and the social environment[8,18]. These dimensions may in turn be analysed at five levels: intrapersonal, interpersonal, organisational, community and

societal[8,17,18]. Interventions directed at "upstream levels" will affect lower levels, increasing the *reach* of a safety intervention.

As the scope of a safety promotion program increases to involve upstream levels, it is necessary to develop consensus among an increasing number of actors with strategic influence at that level. This increases the complexity of an intervention and consequently the lead time. Success is therefore dependent on the intervention being sustained long enough for structural change to be achieved. However, once the ecological system has been successfully changed, homeostasis with the system will maintain the safety gains achieved[8].

Often a combination of strategies is expedient. Initially targeting a simple downstream issue, with a short lead time, will generate a "quick success", increasing the motivation, self efficacy and credibility of the network. This empowers the network to address more complex upstream issues which require increased skill, dedication and time[19].

In Australia, a combination of mandatory seat belt and drink driving legislation, combined with a public education program and strategic enforcement, are excellent examples of safety interventions conducted "upstream" (societal level) resulting in a dramatic reduction in injury[20].

Level 6. Sustain change within member organizations: "institutionalisation"

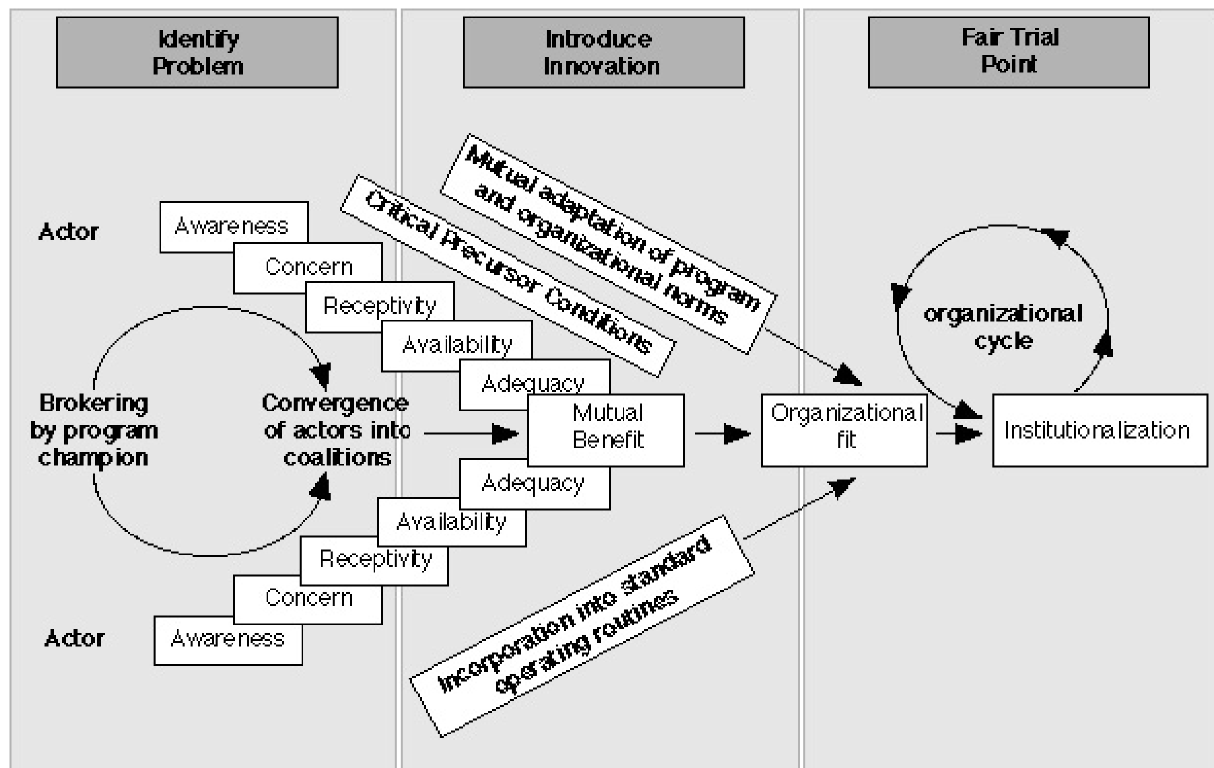
To ensure longevity of a desired health outcome, it is necessary to institutionalise the practice of safety promotion within a member organisation. Institutionalisation is a process where the values, processes and cooperative relationships developed within an intervention are incorporated into the legitimate ongoing practice of the organisation[2].

Goodman and Steckler[2] identify 6 critical factors necessary to establish program institutionalisation (see Table 1 and Figure 2). Key members of the organisation need to conclude that the program fulfils the goals of the organisation (good fit) and through mutual adaptation of program and organisational norms, incorporate the program into the standard operating routines of the organisation. This mutual adaptation of actor's aspirations is frequently brokered by a program champion who leads the organisation/s through 6 critical developmental stages (critical precursor conditions), culminating in a fair trial point where members form a judgement whether or not the perceived benefits of a program outweigh the cost of involvement. For the sake of clarity, we have drawn a distinction between institutionalisation (the process of internalising a program within a member organisation) and capacity building (the process of developing local resources in a community network so that it is self sustaining). However, the principles applied to the process of developing consensus for a program within a member organisation can equally be applied to the process of developing consensus among network partners within a community collaboration.

Table 1. Critical Factors for Program Intitutionalisation[2]

1. Incorporation of a program into standard operating routines of actors within the host organisation
2. A cluster of 6 critical precursor conditions need to be fulfilled;
    i. awareness of the problem
    ii. concern for the problem
    iii. receptivity to change
    iv. availability of solutions
    v. adequacy of program to address the identified problem
    vi. perceived benefits of the program outweigh the costs
3. Mutual adaptation of actors aspirations
4. Program champion
5. Mutual adaptation of program and organisational norms
6. A good fit between the program and organisation mission and core operations

Figure 2. Program Institutionalisation: Critical factors to Ensure Program Sustainability

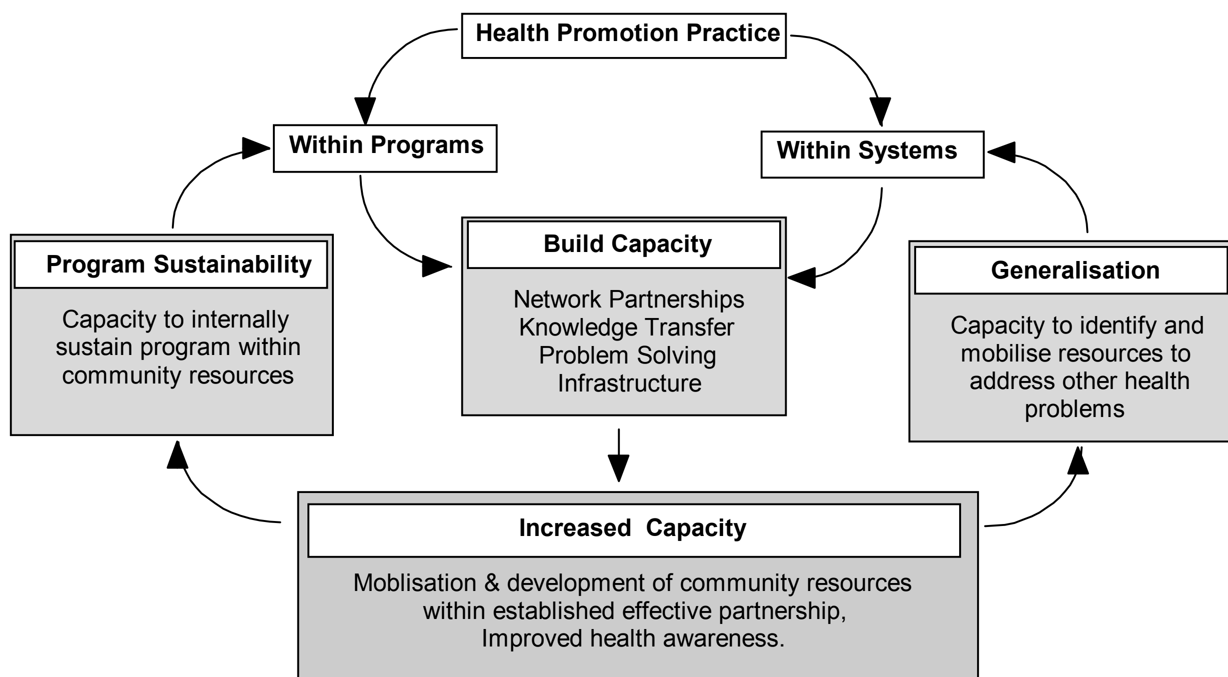


Level 7. Sustain community networks: "capacity building"

To improve health outcomes in the long term it is necessary to produce sustained change in the community.

A community may be viewed from the perspective of its strengths or weaknesses. When focusing on the deficiencies, the community becomes a "half empty cup", unable to solve its own problems but for professional intervention supplied through paternalistic political action[21,22]. Alternately, a community may be viewed as a "half full cup" which, through strategic professional and political support can be mobilised and empowered to address its own problems[21]. Programs that are developed utilising existing community resources are more likely to be sustained[23,24].

Figure 3: Community Capacity Building – Magnifying the Effect of a Health Promotion Program through Sustainability & Generalisation



Capacity building uses an intervention project as a vehicle to identify, mobilise, co-ordinate and develop existing community resources to address local issues. This will increase the community's capacity to sustain change[1,25]. The project itself may become superfluous, as the community becomes capable of maintaining the desired outcome within it own resources (Figure 3). In the long term, it is possible this capacity could be mobilised to address new health problems[23].

Eva Cox in her 1995 Boyer Lectures identified 4 types of community resources or "capital"[26,27]:

1. Financial Capital: the economic resources available to a community or program. While clearly important, it is frequently overemphasised at the expense of other forms of capital.
2. Physical Capital: the natural environment and man made resources (eg. buildings and equipment) available to a community.

3. Human Capital: the skill and knowledge of the individuals contained within a community.
4. Social Capital: the "features of social organisation such as networks, norms and trust, that facilitate co-ordination and co-operation for mutual benefit".

Thus, Community Capacity refers not only to financial, physical and human resources contained within a community but also to its social resources, in particular:

1. The societal norms which define the communities expectations of the behaviour of individuals and organisations within the community.
2. The ability of individuals and organisations within a community to identify health, environmental and sociological problems, and work together for mutual benefit.
3. The strength and effectiveness of individual, organisational and social networks contained within a community.

It has been increasingly appreciated that while social capital can be a positive resource[27,29,30,31,32,33,34], it also provides the context (characteristics of a community have an adverse effect on health outcomes)[28,34].

Bush identifies 4 domains of capacity building[25]:

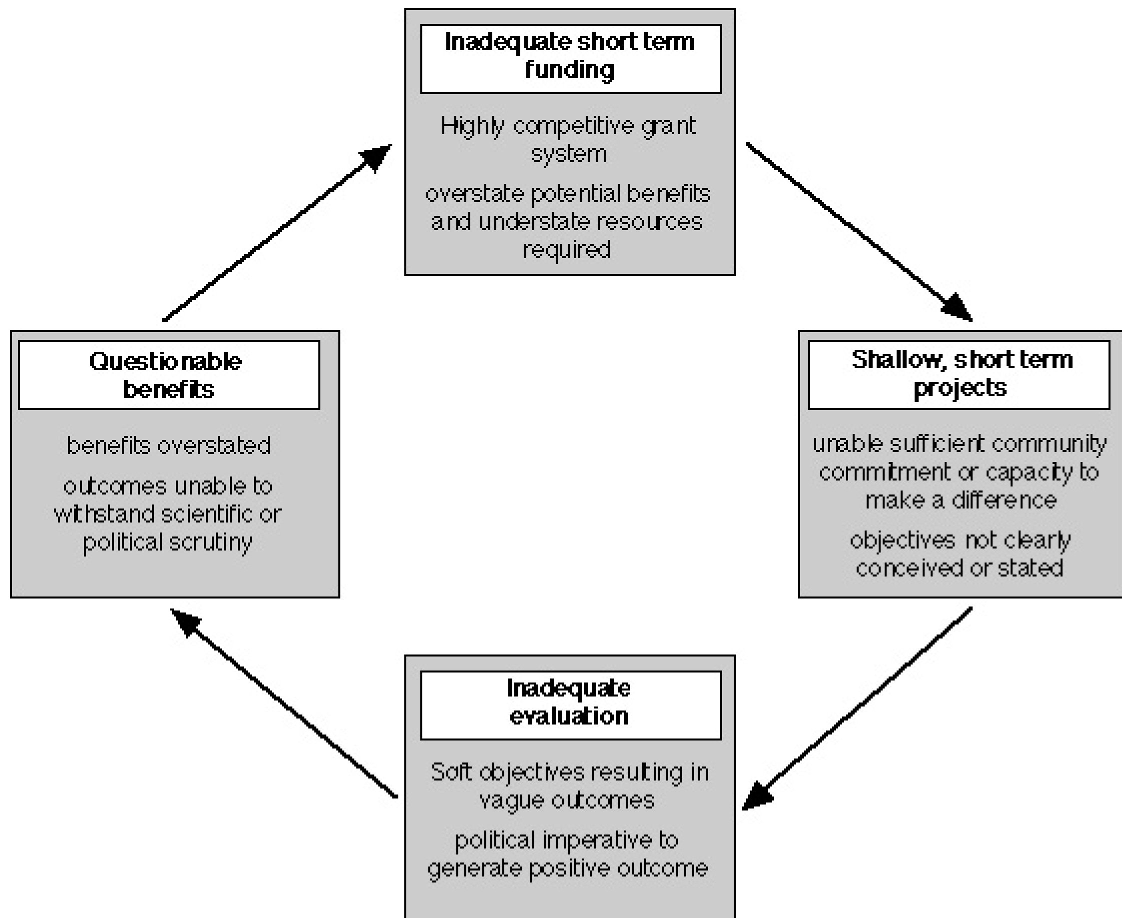
1. *Network partnerships* are formal and informal relationships between key actors in an ecological system. The identification of mutual benefit by network partners increases sustainability and maximises the capacity of the network[5,34,36].
2. *Knowledge Transfer.* Dissemination of knowledge is an important tool to mobilise and develop a network. A combination of academic "best practice" with local "street knowledge" is necessary.
3. *Problem Solving* concerns the development of adaptive skills, empowering network partners to plan, implement, sustain and evaluate a health promotion program, mediate conflict between partners and maximise the resourcefulness of the network.
4. *Infrastructure development.* A project needs to identify, mobilise and invest in the development of local physical, financial, human and social resources[1,23,25]. To this end, it needs to develop sufficient infrastructure to achieve it strategic goals.

Level 8. Sustain societal change: "advocacy and empowerment"

A community-based safety promotion project is nested within the wider politico-social system. Some member organisations are accountable to their statewide bureaucracy, constrained by policy set outside the community, and dependent on resources allocated outside the community. This is both an opportunity and a threat to sustainability. While local initiatives may be left stranded by changes in corporate policy or rationalisation of resources, there is also an opportunity for local members to advocate within their organisation for resources and changes in policy that acknowledge local issues.

Historically, inadequate short term funding has perpetuated "the poverty cycle of health promotion"[17,35]. Intense competition for funds encourages proposals which understate the cost and overstate the benefits of a project. Shallow short-term projects, with poorly articulated objectives, result in vague outcomes of questionable benefit. This, in turn, results in poor funding at the next round (Figure 4). There is an urgent need to break the cycle.

Figure 4. The Poverty Cycle of Health Promotion[17,35]



This cycle of dependency has both subjective and objective dimensions. The objective reality is that network partners are subject to sociological factors beyond their sphere of influence. However, a subjective perception that the community is totally unable to influence its societal context will compromise the community's ability to advocate on its own behalf.

Professionally driven, externally initiated interventions have the potential to exacerbate community dependency if they do not build community capacity, encourage self sufficiency, and foster self efficacy in the target community[22]. Projects should be used as a vehicle for the community to assume control and mastery over itself, using the democratic process as an opportunity to produce social and environmental change to the benefit of the community[36]. Wallerstein[36] defines *empowerment* as a "social process that promotes participation of people, organisations, and communities towards the goals of increased individual and community control, political efficacy, improved quality of community life, and social justice". Strengthening community capacity makes a community more self sufficient, less dependent on external resources and less susceptible to sudden changes of policy or withdrawal of resources. Empowering the community to develop skills of advocacy and astute political efficacy, widens the sphere of influence of community members. This strengthens its ability to act in concert and maximise opportunities to extract commitment and draw resources.

Level 9. Sustain structural change: "formalisation"

Once a network has been established and collaborative relationships developed, formalising these relationships, has been identified as an important characteristic of sustainable community coalitions[19].

Formalisation refers to the clear statement of network goals, roles, structures and procedures and the degree of adherence to these systems by the network. Examples of formalisation include defined goals, memoranda of understanding, minutes of meetings, and formal reporting systems. It increases the accountability of the project to its member organisations and promotes the accountability of network partners to each other, reinforcing commitment to the project[48]. This, in turn, increases the resources invested by network partners into the project[37]. Chavis et al[19,38] observed that community coalitions that were more structured and task oriented were likely to survive longer.

There is currently a re-appraisal of the most appropriate evaluation strategies for health promotion projects. Until recently, it has been assumed that external evaluation is absolutely necessary to ensure objectivity. The NHMRC “Quality of evidence ratings”[39] used by the scientific research community advocates methodologies such as randomised control trials, cohort studies, and case control studies, and stipulates the use of external quantitative methodologies. But, is externally driven evaluation consistent with a Health Promotion Paradigm that seeks to return control to local communities, empowering them to solve their own problems?

Fetterman[40] has coined the term empowerment evaluation for a process where stakeholders control the evaluation, to “continually assess their program towards self determined goals and to reshape their plans and strategies according to this assessment. In the process, self determination is fostered, illumination is generation and liberation actualised.” Evaluation is not the endpoint of a program, but part of the ongoing process of program improvement, capacity building, and community empowerment[19,40,41]. Internally driven evaluation methodologies ensure relevance to the community. Credible outcome data is an important tool for advocacy on behalf of the project.

An Ecological Model for Project Sustainability

There are a number of important implications of this ecological model. Firstly, for a project to be sustained, the community system must have access to the human, physical, social and financial resources necessary to maintain the project. Projects that are dependent on external resources are vulnerable. Secondly, while interventions targeting individual behaviour are undoubtedly important, the desired behaviour is unlikely to be sustained unless it is well grounded in the social and physical environment that reinforces and maintains the desired behaviour and ultimately the desired outcome – reduced injury. Structural change is necessary to minimise the likelihood of an injury should an adverse event occur. However, interventions targeting a community ecological system are necessarily more complex and time consuming.

Given the pre-eminence given to individual accountability for an injury and central state-based control of financial resources, combined with a system of short term project-based funding, most interventions necessarily concentrate on what is achievable within a short time frame. Few have the inclination, much less the time, for the strategic thought and planning that is required to produce change grounded deep within an ecological system. It is therefore not surprising that improvements in outcomes generated by many projects are not sustained.

Case Study: The Mackay Whitsunday Safe Communities Project

In 1998 the Mackay Division of General Practice[42] conducted a community needs analysis, which identified injury as an important public health issue in the region. Subsequent review of hospital separation statistics by the Tropical Public Health Unit confirmed this sentinel observation[43].

The Mackay/Whitsunday Safe Communities Project (MWSCP) was established to address this important public health priority[43]. It seeks to reduce injury in the Mackay Region by being a catalyst for development of a sustained, systematic, inter-sectoral, community-based safety promotion network using existing community resources and expertise.

The project has sought to build sustainability into the network from the outset. Rather than concentrating on attracting external financial resources, the MWSCP has attempted to focus its attention on developing local, human, physical and social resources under the auspices of strategic partners within the Mackay Whitsunday community. In this way it aims to enhance the capacity of the community to solve its own problems, ultimately empowering the community to develop enough expertise, confidence and credibility to be able to effectively attract external resources to address the community's needs.

At the time the project was established, a number of injury prevention programs were being run by various community organisations.

- Farm safety; Tropical Public Health Unit, Mackay Division of General Practice & Farmsafe Australia.
- Falls prevention in the elderly; Home and Community Unit, Mackay Health Service District.
- Water and alcohol safety in licensed premises; Alcohol, Tobacco and Other Drugs Services & Water Police Service.
- Toddler drowning and child scalds prevention; Tropical Public Health Unit, Child and Adolescent Health Services.
- Road & vehicle safety; Queensland Transport, Home and Community Health Unit.
- Electrical safety; Mackay Electrical Board.
- Pedestrian safety; Mackay City Council.

While these programs were based on similar principles and strategies, they were conducted in relative isolation, usually around a single issue. If the motivation and energy existing within the community could be harnessed, and resources already invested pooled, then the process of safety promotion would be more likely to become self-sustaining.

Level 1. Sustain lifestyle change: "safety promotion"

The MWSCP has sought to take a very broad view of safety as a function of the community social system and its environment. Clearly, the priority for this project is to reduce the high incidence of injury observed within the community. However, it has been increasingly appreciated that this goal is more likely to be achieved if the project simultaneously engages the community at the level of community concern - the fear of unprovoked violence and invasion of personal property. To this end the project has established co-operative relationships with the Mackay Crime Prevention Partnership and the Andergrove Neighbourhood Watch. Strategic use of local surveillance data has been important in focusing community debate on the real epidemiological issues.

Level 2. Sustain altered perception of safety: "community feedback"

A baseline public perception telephone survey conducted by James Cook University (JCU) identifies there is a mismatch between community perception of risk and the epidemiological data[44,45]. The street and the motor vehicle were perceived as the most likely location for injury, whereas most injury occurs in the home. Increased compliance with safety practices was associated with increasing age, while most injury occurs in the young.

Realising that strategies aimed at enhancing the public perception of safety are required alongside activities aimed at reducing the epidemiological risk the Mackay Senior Safety Working Group introduced the "Safe Shop" program[46]. This project aims to reassure older members of our community that the Mackay city centre is safe. Safe Shops are identified by a sign at the door, and visitors are welcome to seek information or help should they feel unwell or vulnerable. Review of the project indicates that while community members rarely seek help, they do feel safer.

Level 3. Sustain improved injury outcomes: "injury prevention"

The project is fortunate to have access to an excellent injury surveillance network[13,43]. Since September 1997, all public hospital Emergency Departments (ED's) in the Mackay/Whitsunday region have been collecting high quality injury surveillance data on behalf of the Queensland Injury Surveillance Unit (QISU) [13,43]. Analysing this data at a local level and disseminating it through local networks, provides a firm strategic foundation for the project. This data confirms the sentinel observation that injury rates appear to be high in our community. In 1998/99 there were 17,531 injury presentations to the ED of the Mackay Base Hospital[45], a crude rate of 8,433 presentations per 100,000, two and a half times that observed by QISU in South Brisbane[43]. Males are more at risk than females (11,161 vs 5,635 per 100,000)[45]. Strategic issues identified include falls (especially in children and the elderly), bicycle injuries, injuries in young males, elderly females, injuries in the home, sporting injuries and workplace injuries[43,45]. This information has been important in the consensus building stage of the program, strengthening the resolve of network partners to work collaboratively and address these issues.

Levels 4 and 5. Personal change supported by ecological change

As the behaviour of individuals is just one component of an ecological system that results in injury, the MWSCP has deliberately adopted a multi-strategic, multi-sectorial approach in its interventions. The Whitsunday Child Safety Working Group initially targeted bike safety in primary school children. Residents of the Mackay/Whitsunday region are 1.9 times more likely to present to an ED with a bike injury than residents of South Brisbane[43]. Multiple strategies to address this issue were used, with programs targeting behaviour ("Bike Ed" program[47]) used in concert with programs seeking to augment behavioural change through social reinforcement and structural modification. "Operation Bike Safe" is a positive reinforcement program run by the police as part of the Whitsunday Bike Safety Project. Police issued children identified wearing a helmet and using safe riding behaviours with a certificate. Those children receiving a certificate went into a draw to win one of two brand new pushbikes with safety equipment. The working group also successfully lobbied for structural change to the road environment around local schools. The behaviour of other road users was also targeted with a community education program. Preliminary results are promising showing an increase in helmet wearing and improved safety behaviours. This combination of strategies needs to be more formally tested in a bigger population (such as Mackay).

Level 6. Sustain change within member organizations: "institutionalisation"

In an attempt to encourage institutionalisation, there has been a deliberate attempt to develop projects strategically aligned with the core business of member organisations. The Whitsunday Child Safety Working Group sought to develop a multi-strategic approach to childhood injury utilising expertise already existing within the network and using interventions aligned with the normal business of network partners:

- Queensland Transport; Bike Ed[47].
- Queensland Police; Operation Bike Safe.
- Queensland Education; Bike Ed and Kidpower (a school based safety program)[48].
- Whitsunday Shire; infrastructure development and maintenance of roads and footpaths.
- Queensland Health; incorporate child safety promotion into Child Health Clinics.

Level 7. Sustain community networks: "capacity building"

Building the network was a crucial step in laying a sustainable foundation to the project. In 1999 Tropical Public Health Unit of Queensland Health (TPHU-QH) employed a health promotion practitioner to facilitate an injury prevention program in Mackay. A process of community consultation was instituted, a review of available community capacity undertaken, and potential network partners identified. The Project Management Team was established in September 1999 and included representatives of TPHU-QH, Mackay City Council, Whitsunday Shire Council, Queensland Transport, Queensland Police and Mackay Health Service District of Queensland Health. The establishment of the network has permitted the pooling of resources, extending the resource base of the project, while building self-sufficiency into the network.

Level 8. Sustain societal change: "advocacy and empowerment"

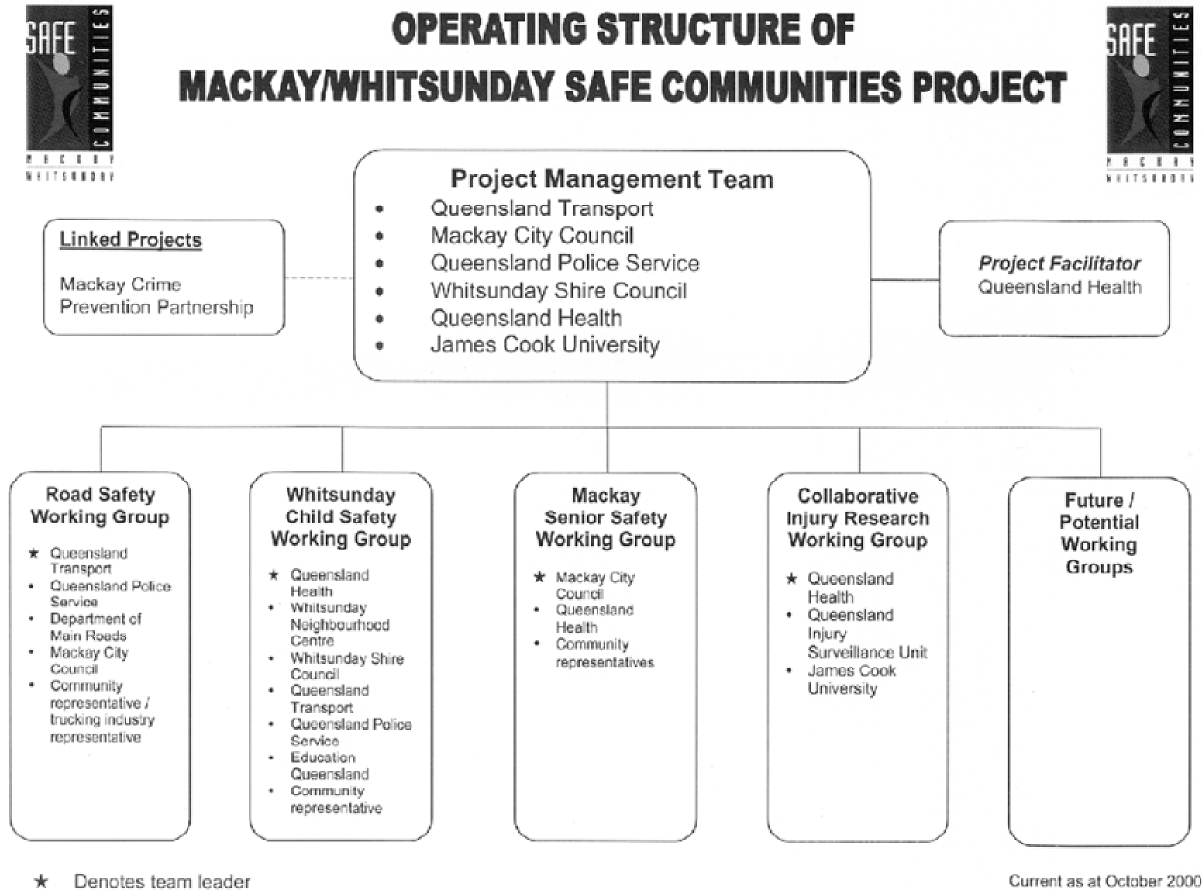
The MWSCP is nested within the wider politico-social system of the state. The challenge is to use the political agenda as a vehicle for change rather than fall victim to it. The Queensland Government has identified Community Safety as one of seven governmental priorities[49]. Mackay City Council has recently completed a process of community consultation in which community safety was identified as a priority issue, which has been incorporated into the council strategic plan[50]. While current community debate, focused on fear of injury from unprovoked violence, has not been supported as a significant epidemiological issue in local surveillance data[22], the issue does provide an excellent opportunity for the MWSCP to harness political energy within the community and the government.

The MWSCP seeks to position itself as a positive community force to be utilised by bureaucrats and politicians. Focused and effective programs, backed up by credible data and ongoing evaluation create an accountable environment that attracts confidence and investment by socio-political systems.

Level 9. Sustain structural change: "formalisation"

Realising the strategic importance of clearly articulated goals and structure the MWSCP has elected to create a formal, clearly articulated network structure. All working parties generate written objectives and report to the Project Management Team, which meets four to six weekly to monitor progress and co-ordinate activities of the network. The project management team reports in turn to member organisations. An annual report is issued, and oral presentations given to the Mackay Health Service District, Mackay City Council and Whitsunday Shire Council.

Figure 5. Organisational Structure of the Mackay/Whitsunday Safe Communities Project



Conclusion

The MWSCP aims to reduce injury in our community by 30% over 5 years. It seeks to achieve this by being a catalyst for development of a sustained, systematic, inter-sectoral, community-based safety promotion network utilising existing community-based networks, resources and expertise.

To improve health outcomes in the long term it is necessary to produce sustained change in the community system that delivered the improved outcome. Nine levels of sustainability have been identified. A systematic ecological conceptualisation of sustainability, which aims to develop and maintain innovations at all levels of the community ecological system, is the key to delivering sustainable programs.

Articulating a rhetoric of sustainability is one thing, but producing and maintaining a sustained injury reduction in our community is entirely a different matter. This paper will be much more impressive if it transpires in ten years that we have achieved and maintained our goal of a 30% reduction in injury within the Mackay/Whitsunday community. However, we have made a start. We trust that by attempting to understand our community ecological system and by seeking to identify and address strategic factors which serve to maintain safety in our community, we have a much greater chance of being successful.

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