MONASH University
Monash Sustainability Institute

The Australian Prevention
Partnership Centre
Systems and solutions for better health

# Systemic inquiry: A system for the prevention of chronic disease in Australia
## Scoping workshop report

**July 2015**

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## Introduction

On 31 March 2015, The Australian Prevention Partnership Centre (Prevention Centre) in collaboration with the Systemic Governance Research Program (SGRP) at Monash University, held a one-day event in Sydney designed to enable a key group of stakeholders to experience a systemic inquiry process. Based on their interest and experience of the day, participants were invited to become collaborators in a longer-term systemic inquiry to imagine what a system for the prevention of chronic disease in Australia might look like and to create the groundwork for the emergence of such a system.

## Purpose and objectives

Traditionally, prevention efforts have focused on shifting individual behaviour, but as practitioners, scholars and policy makers, we are aware that broader contextual factors affect individual choice and opportunity, and therefore capacity for change. Therefore efforts to prevent chronic disease must recognise and adopt approaches that address the complexity of the social, physical and economic environment that influence individual behaviour.

In this event the Prevention Centre joined with the SGRP to offer a space to begin this conversation. The objectives for the gathering were to:

1. Create an experience for a participants that would encourage them to join in co-designing and co-managing a systemic inquiry into a system for the prevention of chronic disease
2. Explore the boundaries of the current system – state, national, etc and within the agreed boundaries, map the elements of the existing 'chronic disease prevention system
3. Frame a shared understanding of the chronic disease prevention syste' as it is perceived to exist
4. Scope interest and commitment to a larger systemic inquiry.

## Event synopsis and results

The day began with an exercise on contracting – an informal way of establishing a group contract to ensure that, in working collectively over the course of the day, the event was valuable and constructive for everyone engaged. As a group we explored the kinds of interactions we could have with each other that permitted this to take place.

## Conversation mapping

In our first activity we explored the question/prompt: "Improving the prevention of chronic disease in Australia?" In small groups, participants built a map of their conversation on this. Each statement was captured on the map and linked with the one that followed from it. The conversation continued until no new points were made. The map created a resource for understanding the complexity of the question from multiple perspectives. Participants stood back to review the map and consider, based on their collective understanding, what issues and opportunities they could identify and why.

Issues were interpreted as being characterised by uncertainty, conflict, risk, novelty, unusual insight, contested perspectives, power struggles, lack of information etc. An opportunity is a special type of issue – it has the leverage to cause significant change in the 'trigger' idea if it is understood/used/developed.

The purpose of this activity was to highlight the multiple understandings and perspectives of those who work in chronic disease prevention, and then draw on the collective knowledge to identify places of leverage for change. The following images in Figure 1 depict the activity; each table group reported the issues and opportunities emerging from their table-based conversation maps.

**Figure 1: A snapshot of the conversation mapping exercise**

**Issues and opportunities from Table 1**

| Issues | Opportunities |
|---|---|
| The boundary to what we mean by chronic disease is an issue because it is contested | Drawing on our multicultural society may be an opportunity to change our behaviours/culture regarding alcohol |
| Reliance on education is an issue because the best choice isn't always easiest and most convenient | The school curriculum is an opportunity because it influences culture |
| The gap between responsibility and capability is an issue because of responsibility diffusion | Understanding value is an opportunity because this can filter into message, framing, etc |
|  | Growing awareness that healthy eating and active living is not just a responsibility of health is an opportunity that will allow for more systemic and sustainable actions |
|  | Food labelling is an opportunity because it will inform healthy choices |
|  | Going into contexts is an opportunity because we can see what actually happens |

**Issues and opportunities from Table 2**

| Issues | Opportunities |
|---|---|
| Marketing of unhealthy products is an issue | There is some available evidence of what works |
| Government don't implement effective regulation because of industry pressure and vested interests | Increasing community awareness is an opportunity – (not enough) but parents are waking up |
| Government willingness to commit and engage, especially regulation | Australia's leadership on public health issues – e.g. plain packaging, seatbelt laws, fluoridation of water |
| Trans-Pacific Partnership agreement is a huge issue because of potential for government to lose sovereign rights to regulate | World Health Organization set of recommendations – evidence that voluntary agreements are failing |
| Absence of a national plan | Global plan and commitment = framework for a national plan |

**Issues and opportunities from Table 3**

| Issues | Opportunities |
|---|---|
| Health insurance industry has a vested interest in keeping people healthy | Existing frameworks provide opportunities for inter-agency intervention |
| Environmental change is only seen as a cost | New technology is an opportunity – quick feedback and high saturation rate of mobile technology |
| Nanny state is an excuse for making hard decisions | We have evidence of what works, we need to prioritise expenditure |
| Genomics feeds individual responsibility theme | Health care cost because prevention is seen as part of [continuous] costs |
| Implementation is an issue because health is political and there is a lack of courage (and consensus) | Inter-agency engagement – co-benefits across agencies |
| How we measure health success is an issue because we prioritise treatment | Local communities have more sense of immediate benefit |
| Political will is an issue as evidence is not the only motivator for decisions | Changing perception that individual responsibility for health choices so government need to be involved |
| Courage is an issue because health is political | Prevention is seen as a response to genome information |

| | |
|---|---|
| New technology – giving feedback to individuals to change behaviour (effectiveness?) | Increased role of co-morbidities is an opportunity to create improved linkages within the system |
| | Food labelling by country of origin |
| | State/Federal may be an opportunity because of Federalism review |
| | Measurement is an opportunity to create a sense of urgency at a population level |
| | Creating a sense of urgency is an opportunity because of government concern regarding health |

## Reflections on conversation mapping outcomes

Conversation mapping reveals the complexity (including issues and opportunities) of a situation of concern as appreciated by those in the conversation. It is a diverging phase of an inquiry which does not deal with the systemic nature of the complexity but acts as a starting phase in an inquiry process. The process generated a rich set of opportunities as seen in Tables 1-3. But issues often constrain the realisation of opportunities. Rach table-based group given the same task came up with a different set of issues and opportunities (with some overlap). In the next phase of inquiry it will be necessary to:

1. Design an inquiry process that draws in a wider range of perspectives – but deciding where and whom would be a responsibility for an inquiry reference group and/or a consideration of resource availability

2. Agree or test whether issues and opportunities differed significantly between states, and thus the desirability, or not of setting up separate state-based and/or a national inquiry

3. Explore strategically – perhaps through doing a power mapping activity (by TAPPC staff or a newly constituted reference group) – whose stakeholding in a future inquiry process warrants building (i.e. who needs to be in the conversation?)

4. The role of a reference group is not to generate the systemic understanding needed to act and innovate, but to hold responsibility for the design and overall learning as well facilitating responses to emerging strategic opportunity

5. In our designed systemic inquiries we always seek to have enough time to move from a diverging phase to a converging phase (around building qualitative systemic models of the situation and of action to change, improve, innovate). It needs to be recognised that this is just not possible in a one day event, barely achievable in a two day event but that beyond two days the depth and usefulness of the inquiry for subsequent action improves substantially.

## Systems mapping

Systems mapping provided participants with a second opportunity to surface different perspectives on what they understood as the current chronic disease prevention system. This technique guides participants to identify as many elements of the system as they perceive, and to aggregate these elements in higher order categories (moving up and down different levels of abstraction). The technique surfaces different perspectives as to how different elements are related (through categorisations) and into making boundary judgments at system, sub-system and meta-system (or system environment) levels.

Individually, participants wrote down as many elements of the Australian chronic disease prevention system that they could think of. Once completed the data were winnowed down through several steps of group evaluation. First removing any duplicates, participants worked together to group the elements into similar clusters, for example into service providers or lifestyle risk factors. Participants also considered how these clusters might be embedded within one another, to produce a hierarchical map of clusters that collectively create the system of interest. This process fosters agreement by those involved as to where boundaries to systems and sub-systems should be placed.
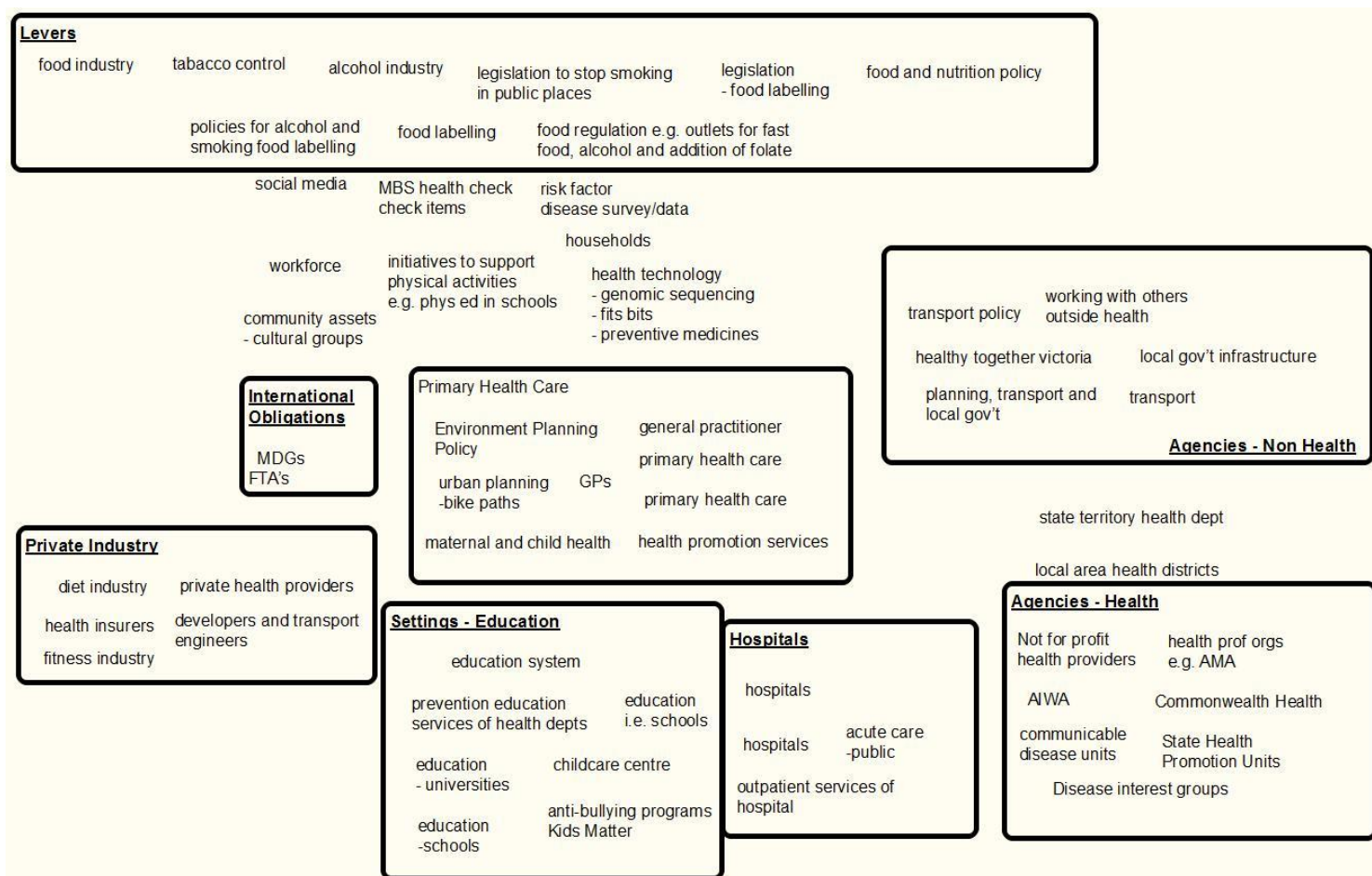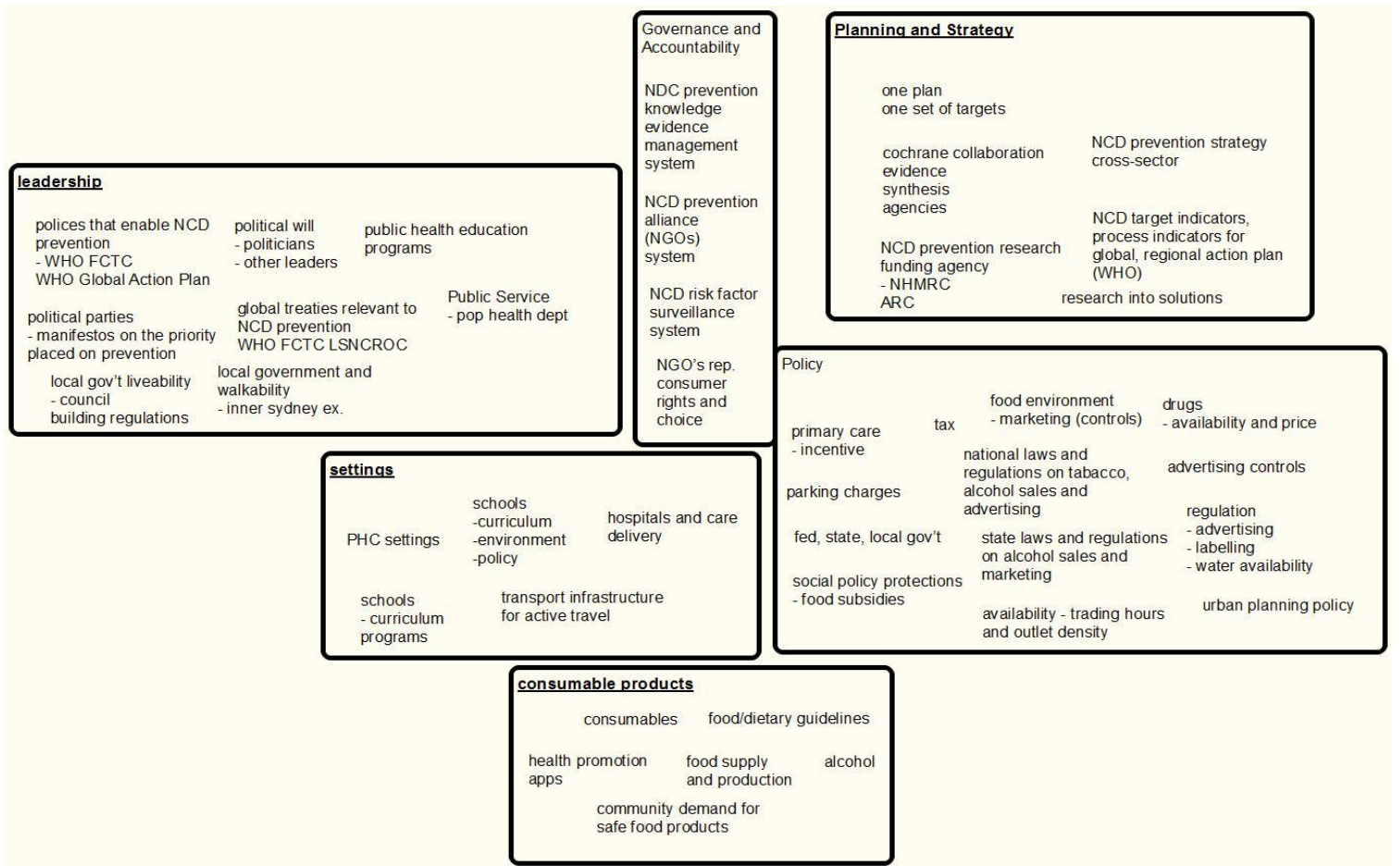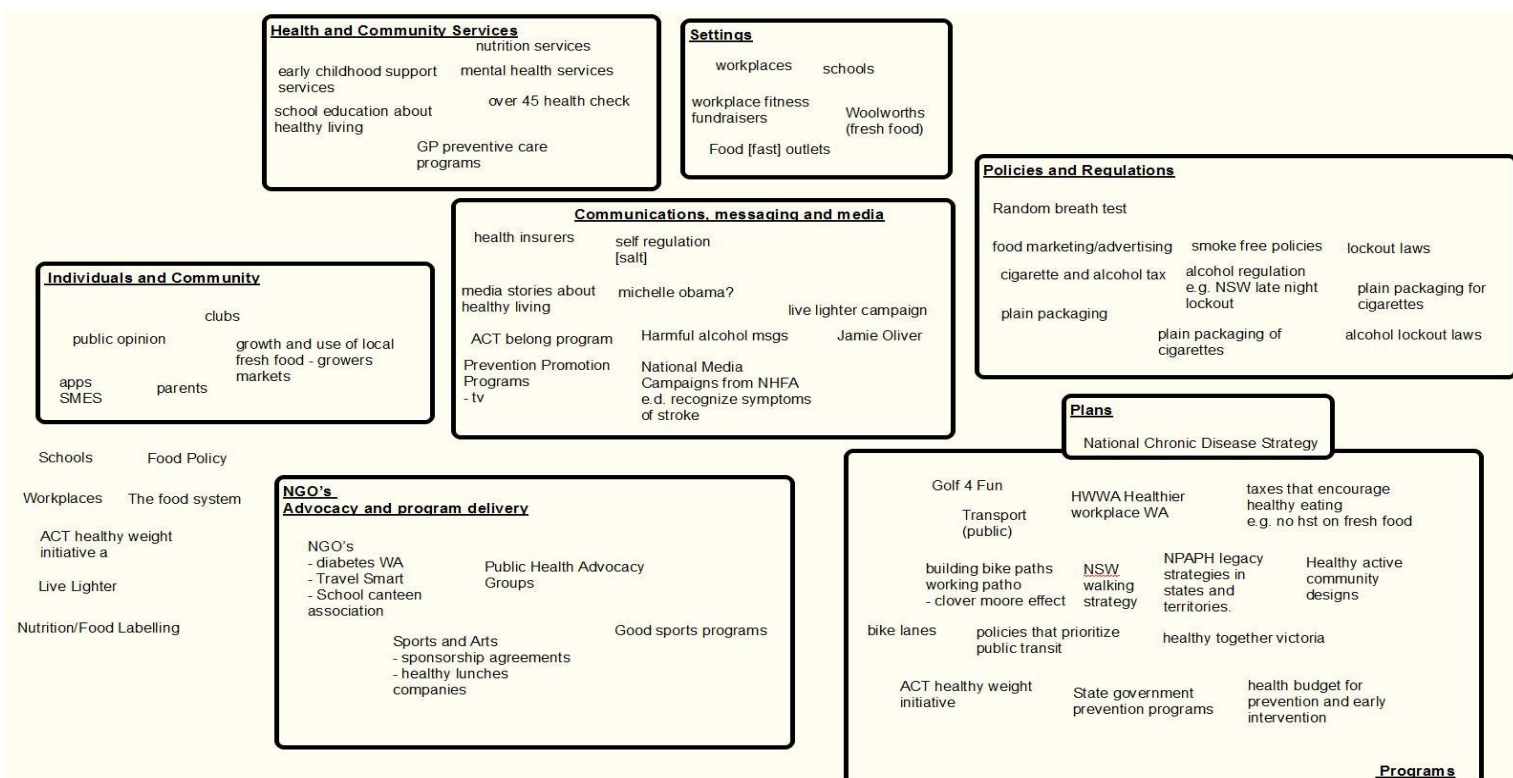
**Table 1**

**Table 2**

**Governance and Accountability**

NDC prevention knowledge evidence management system

NCD prevention alliance (NGOs) system

NCD risk factor surveillance system

NGO's rep. consumer rights and choice

**Planning and Strategy**

one plan
one set of targets

cochrane collaboration evidence synthesis agencies

NCD prevention research funding agency
- NHMRC
ARC

NCD prevention strategy cross-sector

NCD target indicators, process indicators for global, regional action plan (WHO)

research into solutions

**leadership**

polices that enable NCD prevention
- WHO FCTC
WHO Global Action Plan

political will
- politicians
- other leaders

public health education programs

political parties
- manifestos on the priority placed on prevention

global treaties relevant to NCD prevention
WHO FCTC LSNCROC

Public Service
- pop health dept

local gov't liveability
- council
building regulations

local government and walkability
- inner sydney ex.

**settings**

PHC settings

schools
-curriculum
-environment
-policy

hospitals and care delivery

schools
- curriculum
programs

transport infrastructure for active travel

**Policy**

primary care
- incentive

parking charges

fed, state, local gov't

social policy protections
- food subsidies

tax

food environment
- marketing (controls)

national laws and regulations on tabacco, alcohol sales and advertising

state laws and regulations on alcohol sales and marketing

availability - trading hours and outlet density

drugs
- availability and price

advertising controls

regulation
- advertising
- labelling
- water availability

urban planning policy

**consumable products**

consumables        food/dietary guidelines

health promotion apps

food supply and production

alcohol

community demand for safe food products

**Table 3**

**Health and Community Services**

nutrition services

early childhood support services

mental health services

school education about healthy living

over 45 health check

GP preventive care programs

**Settings**

workplaces        schools

workplace fitness fundraisers

Woolworths (fresh food)

Food [fast] outlets

**Communications, messaging and media**

health insurers

self regulation [salt]

media stories about healthy living

michelle obama?

live lighter campaign

ACT belong program

Harmful alcohol msgs

Jamie Oliver

Prevention Promotion Programs
- tv

National Media Campaigns from NHFA e.d. recognize symptoms of stroke

**Policies and Regulations**

Random breath test

food marketing/advertising

smoke free policies

lockout laws

cigarette and alcohol tax

alcohol regulation e.g. NSW late night lockout

plain packaging for cigarettes

plain packaging

plain packaging of cigarettes

alcohol lockout laws

**Individuals and Community**

clubs

public opinion

growth and use of local fresh food - growers markets

apps
SMES

parents

Schools        Food Policy

Workplaces        The food system

ACT healthy weight initiative a

Live Lighter

Nutrition/Food Labelling

**NGO's**
**Advocacy and program delivery**

NGO's
- diabetes WA
- Travel Smart
- School canteen association

Public Health Advocacy Groups

Sports and Arts
- sponsorship agreements
- healthy lunches companies

Good sports programs

**Plans**

National Chronic Disease Strategy

Golf 4 Fun

HWWA Healthier workplace WA

taxes that encourage healthy eating e.g. no hst on fresh food

Transport (public)

building bike paths working patho
- clover moore effect

NSW walking strategy

NPAPH legacy strategies in states and territories.

Healthy active community designs

bike lanes

policies that prioritize public transit

healthy together victoria

ACT healthy weight initiative

State government prevention programs

health budget for prevention and early intervention

**Programs**

**Systemic inquiry: A system for the prevention of chronic disease in Australia**

## Reflections on system mapping outcomes

The table groups were asked to map the same system. The results demonstrate that for any given group of stakeholders no objective or real system exists. There are only multiple-partial perspectives that can be consolidated through the systems mapping exercise. With further iteration it would be possible to stabilise an agreed model of the system of interest. This stabilised (negotiated or agreed) system would prove useful as an analytical and/or communicative device for a period of time; it is a task worth doing in the next iteration of an inquiry process.

It is important to appreciate though that the elements, and thus the system of interest, would change over time; as new interests and issues emerge the need to change boundary conditions will emerge. At all times awareness is needed that the process of doing the systems mapping is richer in learning than using the stabilised map as a communicative device. On the other hand a systems map agreed in one jurisdiction could be used to facilitate an inquiry in another jurisdiction by exploring differences and similarities.

A systems mapping exercise can be followed up in a longer inquiry by qualitative systems dynamics modelling which begins with the stabilised systems maps and, when justified, by quantitative systems dynamics modelling.

## Perspectives mapping

In our final activity, in small groups, participants were given a 'character' with a name, location and a chronic disease. Through a series of questions, the group expanded on the story of the character, drawing on their own knowledge and insight of people living with chronic disease. Each table was then asked to identify any health-related services this character might require, as well as other services they might require based on their needs. The objective of the activity was to surface the interdependent service needs of the patient and how access to one might impact the access to or adoption of another. The exercise exemplified what West Churchman meant when he claimed that a systems approach begins when you put yourself in the shoes of another.

| Character | Description/outcomes |
|---|---|
| Jack | Located in Sydney CBD, living with bi-polar<br><br>Challenges: interaction between bi-polar condition and lifestyle risks<br><br>Identified opportunity for collaboration between health and non-health related services:<br><br>An incentivised system – workplace-based get healthy program |
| Rose | Located in Campbelltown NSW, living with cancer<br><br>Challenge: breast cancer as a result of post-menopausal weight gain<br><br>Identified opportunity for collaboration between health and non-health related services:<br><br>Cancer Council and weight-loss industry partners (Jenny Craig)<br>Using post-menopausal time/group as a time to intervene |
| Reuben | Located in Swan Hill, Victoria, living with type 2 diabetes<br><br>Challenge: lower socio-economic status reduces access to services and support<br><br>Identified opportunity for collaboration between health and non-health related services:<br><br>Health and wellbeing prevention through the community, funding focused on supporting the Aboriginal Health Service |

## Reflections on perspectives mapping outcomes

The open-ended and emergent nature of this process appealed to many, but not all participants. Considerable creativity was called upon to build the required scenarios and in this process many systemic issues and insights were revealed. The activity highlights how those responsible for policy or innovations who act without good systemic awareness of a situation may, even with the best intentions, make life more difficult for some rather than better.

## Meta-reflection on process

The final part of the day involved reflections on the three main activities. We then moved to a meta-level (reflection on reflection) situating what was done within the processes of systemic inquiry and a social learning approach to governance of complex, uncertain or 'wicked issues'. We have grouped the responses shared by the participants by theme.

## Shifts in understanding

| | |
|---|---|
| From system maps showing government organisations to governance transformation | How chronic disease is defined. Participants witnessed the diversity of definitions in the room. This was similar for prevention. |
| That the question we start with is a key starting condition e.g. what is a prevention system vs how can we transform the situation? | We come away with learning, not a map of the system – this is the output i.e. the process is more important than the product |
| Through the process, broad areas for actions were identified that were not earlier in the day considered part of the system | Framing the question – is it just a matter of public cost? |

## Shifts for practice

| | |
|---|---|
| How to integrate what we have learned in the workshop into existing roles? | |

## Questions, issues and ideas for co-inquiry

| Question, issues, ideas | Comment from SGRP |
|---|---|
| Does everyone have to go through this process [i.e. activities in first gathering] to be involved? | Not necessarily |
| Differences in issues at global, federal, state and local level in dealing with prevention e.g. many issues traverse across scale<br><br>Need to know what is appropriate at each scale and how the scales interact | This might present itself as an opportunity |
| Does health have a stronger moral imperative than | This could affect the positioning and engagement with |

| other departments? | other sectors |
|---|---|
| Prevention is not on the federal agenda. Its moment will arrive, around a crisis? The recent reduction in budget is like a jenga piece removed. | Speaks to the opportunity moment – has influence for when it is time to act |
| What would have a tangible chronic disease prevention impact? | Referring to what action – considers the measurable elements of the work |
| What could we do that would have practical use for our funders | Have a cohesive national inquiry network (achieved through good relational capital gained through a systemic inquiry process?) in place to be able to fill the policy space when it emerges or act as facilitators of policy emergence? |
| Has the Prevention Centre set its boundaries for what is in and out of the chronic disease system appropriately? | This issue emerged in a number of conversations and will clearly have to be taken on board moving forward. |

## Aim of co-inquiry

| | |
|---|---|
| Try to find insights that might motivate political leaders to invest in change | Identify cross sectoral actions (e.g. invest in more active transport) |
| Resolving a stable set of policy outcomes | Forming a national council of prevention |
| Focus on what a system for the prevention of chronic disease would look like | Would identify capabilities to respond to different things. and an opportunity to scale up |
| What might a national prevention system become? | |

## Governance of co-inquiry

| | |
|---|---|
| Needs to be steered by reference group – made up of a core of co-inquirers | Must be owned by insiders |
| Facilitated by someone central | Supported/held by the Prevention Centre |

## Departing reflections

Before participants left, we asked them to leave a one-sentence reflection on the day,

**Responses**

- I think this is important work. To better understand how the system manages and responds to chronic disease is important for reducing the burden on families and on Australia. Who knows where this journey might go, but it is worth trying to understand what the opportunities might be.
- My reflection is we need to get the right people in the room in our inquiry process.
- Prevention needs to be considered in the Reform of Federation Health process. A national systemic inquiry on improving prevention is needed. State governments would support this.
- Prevention happens before the illness is diagnosed.
- Model of innovative horizontal governance was the best bit!
- Everyone in the room is an actor in this system. The discussion should have focused a bit on what we can and should do. Otherwise we just end up creating undeliverable solutions or another Foresight map.
- Agree we should work together and seize opportunities. Today was a good start; important to get basics like definitions sorted.
- My reflection is "system as dynamic process rather than structure or organisation".
- The day was a useful insight into how to approach system thinking, but it's complicated and I struggle to see its applicability.
- My reflection is that system mapping is a key place to start. The challenge will be not letting the complexity of the system paralyse our attempts at making change.
- A national review as discussed would be well placed to identify a range of future opportunities for political masters of all types to consider.
- The importance of the process as a transformative experience was very apparent – indicating the need for engaging the power brokers and decision makers in any future actions.

## Survey results

Two days after the gathering a survey was circulated to 16 participants asking them to comment on the co-inquiry, a reminder was sent eight days later and nine people responded. The data are below.

All nine survey respondents would like to stay engaged in initiative

**Q: Which activities or systems concepts would you use in your own work?***

> Five respondents answered conversation mapping
> Five respondents answered systems mapping
> Five respondents answered boundary judgements
> Two respondents answered perspectives mapping
> Two respondents answered systemic inquiry

\* Respondents were permitted to select more than one answer.

**Q: What would you need in order to continue to be involved?**

> Four responses held similar themes which included: a clear path with tangible outcomes and timeline in order to justify time allocation from their home organisation.

**Q: What was valuable about the day?**

> Seven respondents answered networking
> Six respondents answered systems concepts
> Five respondents answered exposure to new ideas and approaches
> Three respondents answered tools
> Two respondents answered progress towards preventing chronic disease

\* Respondents were permitted to select more than one answer

Eight respondents fully agreed that a systemic inquiry could improve the prevention of chronic disease.

Four respondents commented that it would be very important to broaden beyond health professionals in the next round, with one offering that a framing on either sustainable cities, liveability, or managing urban development might be useful.

Asked if they had any further comments, one respondent stated: "I liked the interactive nature of the program, much better than talking heads."

## Discussion

The following discussion is structured around the four workshop objectives.

### Co-designing a systemic inquiry

*Objective 1: Create an experience for participants that would encourage them to join in co-designing and co-managing a systemic inquiry into a 'system for the prevention of chronic disease'*

The scoping workshop was planned to be the first of several that collectively would form a systemic inquiry into the prevention system. This initial gathering was a first exposure for most participants to this tradition of systems thinking and its application into the health domain. The set of activities provided preliminary opportunities for participants to operate in a social learning setting and to explore the approaches of systems analysis. Data from the survey indicate that many (n = 6 of 9) found this introduction to systems concepts valuable, and they had an appreciation for the new ideas and approaches shared. Almost all (n = 8 of 9) agreed that a systemic inquiry could improve the prevention of chronic disease, while all nine wanted to stay engaged in the initiative. This suggests a very positive response to the methods and approaches of this inquiry, as well as the overall intent and opportunity for it to contribute meaningful insight into a prevention system.

Importantly, beyond enthusiasm for the inquiry, participants could identify their own role in this process as they considered how they would integrate these approaches into their daily work. This highlights that the work of a prevention system is not limited to the gatherings of the inquiry, but more significantly, it will happen through the work of individual participants, and within their own organisations. Additionally, participants recognised the need to broaden the diversity of perspectives included in the inquiry, to ensure it is as robust as possible, with specific attention paid to actors who operate as power brokers and decision makers. Furthermore, participants commented on the need for the inquiry to be driven by those working within the health prevention space, and for it to be supported by a central actor such as Prevention Centre, along with an external reference group.

Attention should be paid to comments provided in the survey regarding future steps. A few (n = 4 of 9) participants commented on the need to have a 'clear path' and 'tangible outcomes' to be engaged. This suggests the need for caution in setting expectations on the process and how opportunities for change are identified and achieved in a systemic inquiry. The systemic inquiry process operates differently from many strategic planning approaches where specific goals and objectives are defined from the outset, with planning then geared on steps to achieve those objectives. This is not to say a systemic inquiry does not have an ultimate goal in mind. Instead a systemic inquiry starts within a situation of concern, and participants uncover appropriate and meaningful areas of opportunity as newly defined and understood through the social learning process[1]. This marks a significant departure from most organisational and project planning processes, and requires a cultural shift of understanding and values in order to comfortably operate in this space.

Transformative learning opportunities, time, and regular reminders of why a systemic inquiry is shaped the way it is, and what it can achieve will help to develop this new culture. In the interim, clear and concise steps that define the systemic inquiry process may satiate the call for tangible outcomes and a clear path. It is also a reminder that the more the process can develop systemic skills within the participants, the more they are able to engage with the tools and concepts within their own organisations and therefore demonstrate the value and relevancy of this approach.

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[1] See 'Notes on our theoretical and methodological frameworks' later in this report.

## Exploring the boundaries of a prevention system

*Objective 2: Explore the boundaries to the current system - state, national, etc and within the agreed boundaries map the elements of the existing chronic disease prevention system*

The prevention system boundaries were explored through two separate exercises: systems mapping and perspectives mapping. The key contribution of the systems mapping process was to illuminate previously hidden relationships and interconnections, as well as system elements. The systems maps between the three work groups had a few shared features such as the identification of settings (i.e. where prevention strategies could be delivered) health agencies, and the policy environment. Between the maps there were varying focuses and emphasis on system elements.

One systems map examined the policy environment more closely to identify programs, plans and delivery, and which actor is responsible for delivery. A second focused more on the diverse settings of prevention work (hospitals, schools, industry). The third conceptualised the system as one more attuned to leadership and accountability. While the systems maps apply slightly different framing for some of the elements, the pieces identified are to a large degree the same between the three maps. It is important to recognise that one system map is not more 'correct' than another, rather each represent the collective understanding of the system based on the participants who engage in the exercise.

The second activity on perspectives mapping constructively surfaced two boundaries for further exploration. The first related to defining the space in which the inquiry would like to operate, in terms of chronic disease and prevention management. It may be useful to explore if there is a framework already identified by a health agency, policy or plan the inquiry should adopt, or if one will be negotiated and defined by the group given that there was not a clear consensus.

The second boundary was the expansion of perspectives from outside the health sector. The perspectives exercise specifically engaged the participants in considering the services provided by non-health agencies that align with prevention management. Participants commented on this in the survey:

> *"I found it interesting how in our group we all shared very similar perspectives, surely this is not representative of the broader community – it made me hope that future events can successfully pull in others from broader areas than just health. We can only see what we know, we need others to show us what we don't!"*

This is a constructive comment, and reminds us of the need to invite a broader set of actors because current participants recognise their perspective is only one of many that exist and can contribute to this process.

This second element also points to an important matter of process in a systemic inquiry, one of divergence. The widest range of perspectives permits the greatest divergence in a process. Divergence is necessary to surface as many possible ideas, opinions and insights, so that during the later convergence stage the strongest set of opportunities, paths and sets of resources are recombined in order to offer the greatest tractable innovation.

## Framing chronic disease prevention

*Objective 3: Frame a shared understanding of the 'chronic disease prevention system' as it is currently perceived to exist*

While the systems mapping exercise revealed some similar perceptions among participants of the elements of a chronic disease prevention system, further work is needed to frame a shared understanding. Furthermore, survey respondents identified that a greater diversity of insights would likely shift perceptions of the chronic disease prevention system in different directions; for example, including the views of transport planners would direct attention to mobility aspects of health prevention.

Conversation mapping helped participants to identify a range of emergent issues and opportunities in the health prevention system, which are described in full in the results section and synthesised, with some possible linkages, in Figure 2 (next page).
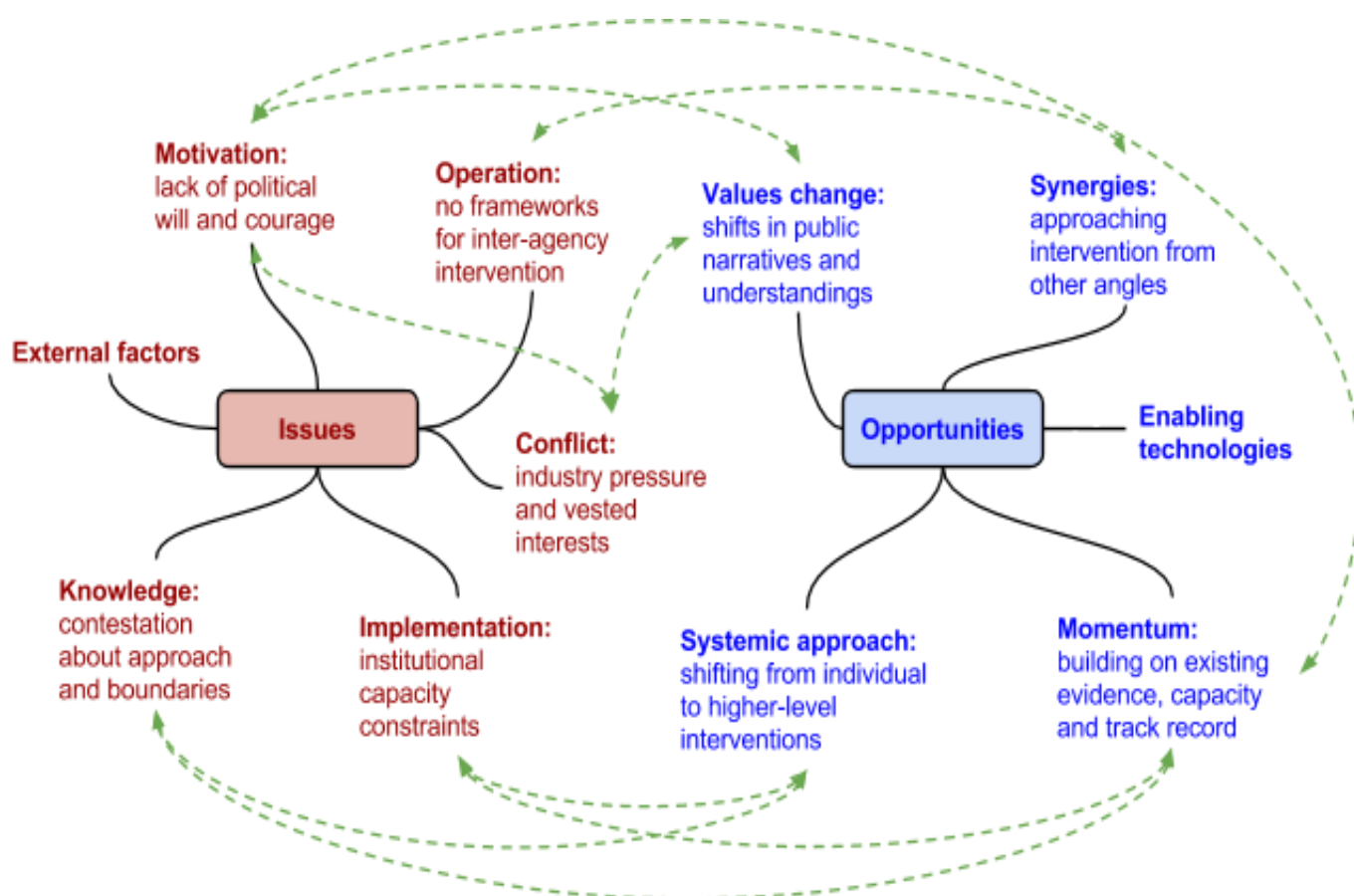
**Figure 2: A synthesis of issues and opportunities identified in the conversation mapping exercise, and some possible linkages**

The issues resolved around six main areas:

- Issues around motivation and a lack of political will and courage, which is in part a response to the trade-offs made against other areas of policy, as well as the political decisions made without the best evidence (e.g. prevention vs management and treatment of chronic disease).
- Issues of motivation are linked to issues of industry pressure and vested interests, which are both potentially positive (e.g. health insurance has a vested interested in keeping people healthy) and negative (e.g. opposition to food labelling or marketing of unhealthy products) influences on chronic disease prevention.
- Issues were identified around agency operation within the health sector, including the challenges of inter-agency intervention. These issues would be even greater in cross-sectoral interventions (e.g. transport, planning and health policies).
- Operational issues are linked to the institutional issues in implementation of chronic disease prevention, particularly the lack of a national plan but also the different approaches to dealing with prevention at global, federal, state and local levels.
- Knowledge issues revolve around contestation about what is included in prevention, how we measure success, and what evidence and approaches count (e.g. tensions between approaches that preference individual responsibility and those that address systemic factors). The perspectives mapping exercise also highlighted a challenge around shared definitions of chronic and prevention.
- The general issue of external factors, for example participants also identified the threat of the Trans-Pacific Partnership Agreement in that it could affect the government's capacity to regulate.

Five main clusters of opportunities were identified:

- The opportunity of values change, where shifts in public narratives and understandings can provide the required motivation for political change; for example, where greater public understanding of nutrition invokes push-back against marketing of unhealthy products.
- The synergies of approaching chronic disease prevention from other angles; for example, recognition that inter-agency engagement can create co-benefits across agencies.
- Building on the existing evidence, capacity and track record of the prevention system, such as learning from public health campaigns such as those for plain packaging of tobacco products.
- Enabling technologies (e.g. smartphones or fitness monitoring), but technologies could also be understood as 'solutions waiting for problems'.
- Taking a systemic approach, particularly in shifting from individual-focused interventions to those aimed at institutional change.

### Committing to further systemic inquiry

*Objective 4: Scope interest and commitment to a larger systemic inquiry*

All nine survey respondents said they would like to stay engaged in the initiative, while eight said they see how a systemic inquiry could improve the prevention of chronic disease. In the end-of-day reflections, a participant said they could see the value of the journey even if the end point was not known, which suggests there is openness for the process to unfold as it emerges over time.

Three specific guidelines were proposed for future steps: form a reference group, TAPPC should support the process, and it should be facilitated by someone central to the problem situation. Ideas for aim of co-inquiry were also established; and important questions for further exploration identified. Therefore the group appears well poised to move into deeper engagement and action.

## Concluding remarks

This scoping workshop represents the first step of a systemic inquiry into a system for the prevention of chronic disease in Australia. The main aim of this report was to capture the outputs of the workshop to feed into an ongoing process of inquiry.

The activities in the workshop revealed that there are different perceptions of a system for chronic disease prevention in Australia, where participants drew different boundaries around the system. It remains to be understood where an agreed set of boundaries would be drawn and who would be the appropriate people to make the boundary judgment. Thus future activities of this systemic inquiry could be to clarify what an agreed set of boundaries looks like, particularly if additional participants from the health sector and participants from other sectors (e.g. transport, etc.) were involved.

The workshop produced a rich set of issues and potential opportunities for chronic disease prevention that could be explored further and potentially lead to a set of action proposals. Further inquiry could help to clarify this existing set of ideas, or identify new issues and opportunities.

Given the overall positive experience of participants, there seems to be a need to:

- Agree a structure for the core co-inquiry group
- Convene a preliminary meeting of the co-inquiry core group and use an approach like soft systems methodology to scope out the inquiry process
- Formulate a proposal with invitation lists to a first event to a wider group.

## Notes on our theoretical and methodological frameworks

### Theories of change

The SGRP employs a 'theory of change' primarily based on systems and complexity theories (Figure 3) as well as that of social learning; a process of collaborative action to transform complex, uncertain situations (Figure). Social learning can also be understood as a governance mechanism that can be deployed in "wicked problem situations" (Ison et al. 2015) alongside of regulation, education or information provision and fiscal or market mechanisms.

Drawing on the work of C. West Churchman (see Figure 3) we employ an institutional form called systemic inquiry developed through an appreciation that "inquiry is .... reflective learning in the literal sense.... it is the thinking about thinking, doubting about doubting, learning about learning, and (hopefully) knowing about knowing" (Churchman 1971 p. 17).
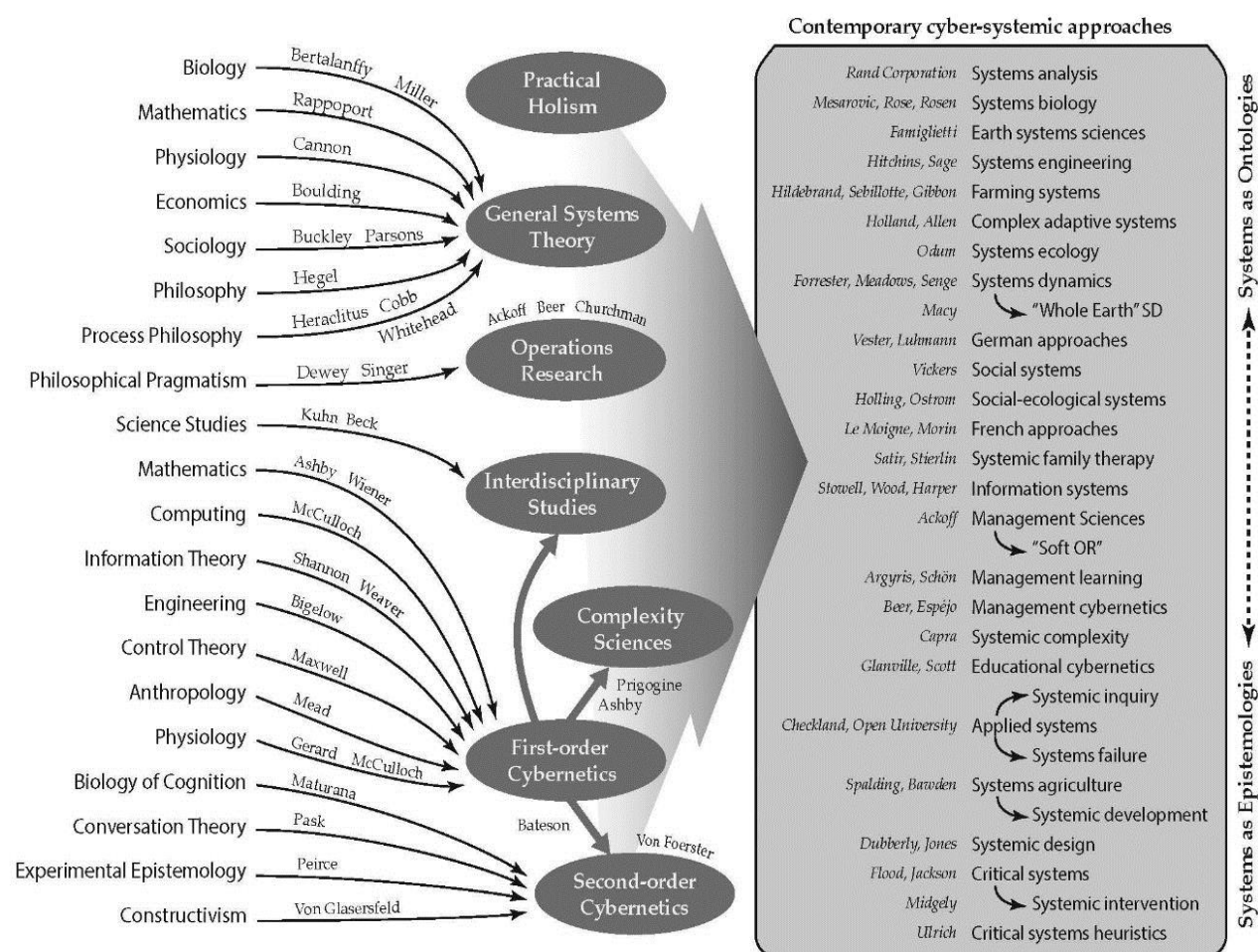


**Figure 3: The different lineages that give rise to contemporary systems and complexity approaches (Source: Ison and Schlindwein 2015).**

As well as helping to explain the systems theoretical frameworks and methods employed by the SGRP, Figure 3 highlights the variety of systems approaches that can make valuable contributions to the prevention of chronic disease – a stated objective of the Prevention Centre (Box 1).

## Box 1. The Australian Prevention Partnership Centre's approach to building evidence and capacity

**(Source: Prevention Centre website http://preventioncentre.org.au/about-us/our-approach/)**

**We recognise the need for systems approaches.** The lifestyle-related behaviours that cause chronic health problems are complex and embedded into everyday life. Achieving and sustaining meaningful change requires a different way of intervening. We need a systems perspective, which recognises the role of social, economic and environmental factors and how each of these interacts, if we are to achieve sustained prevention of complex chronic health problems.

**We equally value evidence from research and practice.** A fundamental pillar of our approach is that public health practice and practitioners should inform prevention research as much as research should inform policy and practice. We will develop and apply new ways to systematically capture practice knowledge and combine it with research evidence.

**We support collaboration.** Our funding model and structure ensures that researchers and the end users of the research – policy makers and practitioners – work together to develop research questions, conduct the research, and interpret and apply the findings.

**We are building skills and knowledge.** We are offering training and other skills development opportunities to increase the understanding and use of systems approaches among researchers and policy, program and service delivery decision makers.
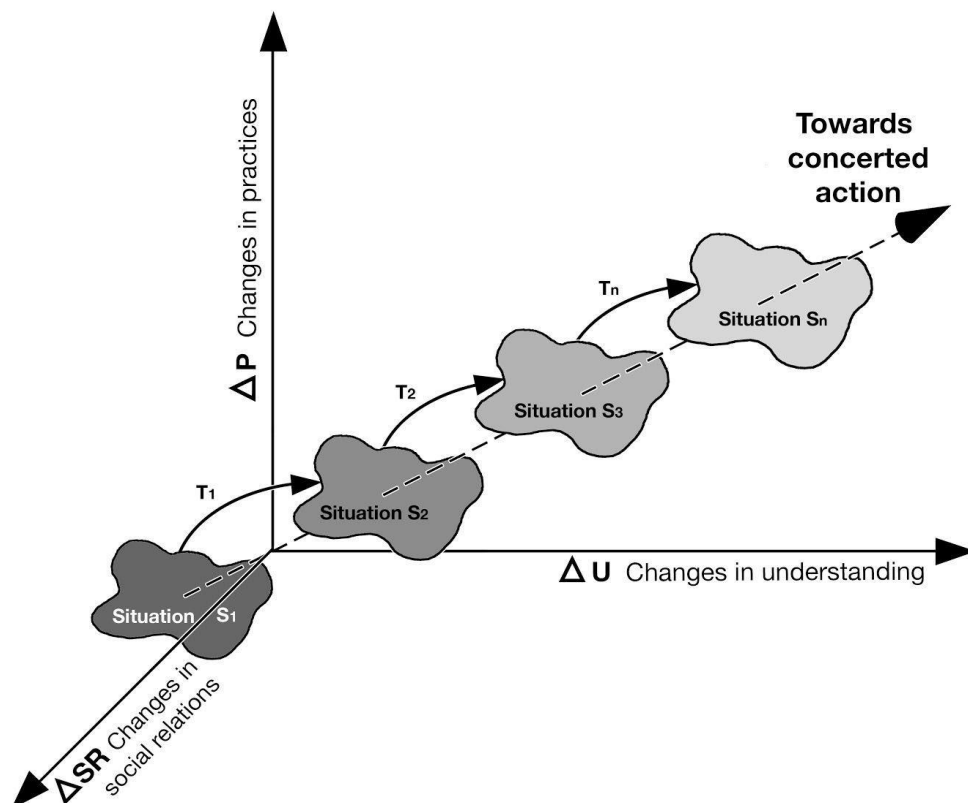


**Figure 4. Social learning understood as moving from one situation ($S_1$) to another ($S_2$, etc) through changes in practices, understanding and social relations leading to concerted action over time (Source: Collins et al submitted).**

Systemic inquiry: A system for the prevention of chronic disease in Australia

## Systemic inquiry

Systemic inquiry involves:

- Understanding situations in context and especially the history of the situation
- Addressing questions of purpose
- Clarifying and distinguishing 'what' from 'how' as well as addressing 'why'
- Facilitating action that is purposeful and which is systemically desirable and culturally feasible
- Developing a means to orchestrate practices across space and time which continue to address a phenomenon or phenomena of social concern when it is unclear at the start as to what would constitute an improvement
- An inquiry-based approach that enables managing and/or researching for emergence
- A form of practice in which ethics arise in context-related action
- Practice in which purposeful connections are made with the history of systems thinking and practice (the various systems lineages in *Figure 3*).

Systemic inquiry is both a practice and an institutional form (in the institutional economics sense of this term where an institution is a norm or rule of the game invented by humans). It is particularly suited to situations of uncertainty and complexity where there is no agreement over the problem or issue and thus what would constitute an improvement. In situations like these, for example where the Australian system for the prevention of chronic diseases begins and ends now and into the future, then the institutional form of a project or program is ill-suited because the reductionism, linear causality and false certainty that the institution entails.
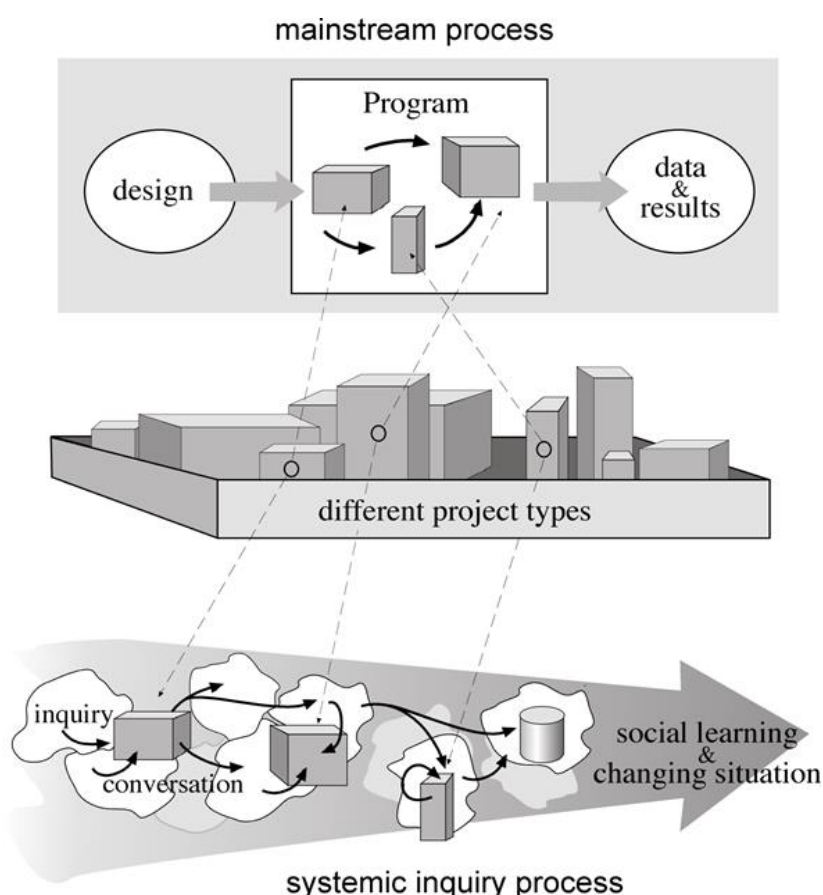


**Figure 5: A depiction of systemic inquiry as different from traditional program and project design (Source: Ison 2010).**

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