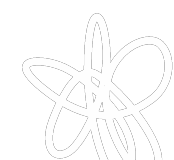
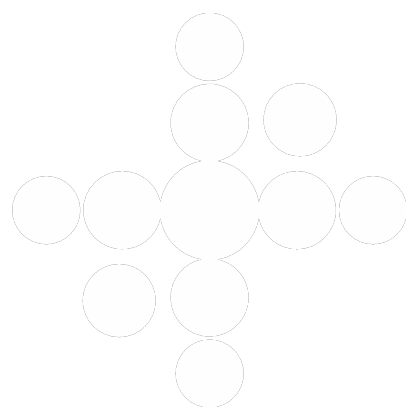




CEIPS

centre of
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The Australian Prevention
Partnership Centre
Systems and solutions for better health





Introduction

- Obesity and chronic disease prevention are complex problems.
- There is a literature on systems theory but little on its practical application.
- Group model building is a useful, but time intensive, method of learning about and applying systems thinking.
- We trialed brief workshops to introduce systems thinking concepts to health promotion teams working in local government.
- Aim to see if this would help participants understand their local system and better ascertain what policy and environmental changes were worth pursuing to address obesity.

What is the difference between systems and systems thinking?



A system is: “a set of things—people, cells, molecules, or whatever—interconnected in such a way that they **produce their own pattern of behavior over time**”. (Meadows 2009)

Systems thinking is both:

- A perspective that sharpens one’s awareness of:
 - the whole or the ‘big picture’
 - the elements that make up the whole
 - and the way the elements inter-relate to cause the system to behave in the way that it does.
- The use of tools or methods that help describe, understand, or analyse a system (Williams & Hummelbrunner, 2011)



Project Aims

To determine if a brief, hands on workshop that introduces systems thinking tools and concepts can:

- 1) Build health promotion practitioners' capacity to 'think systems'
- 2) Help health promotion practitioners identify leverage points for change (e.g. policies and environmental processes for preventing chronic disease related to obesity).

Research Design/Methods



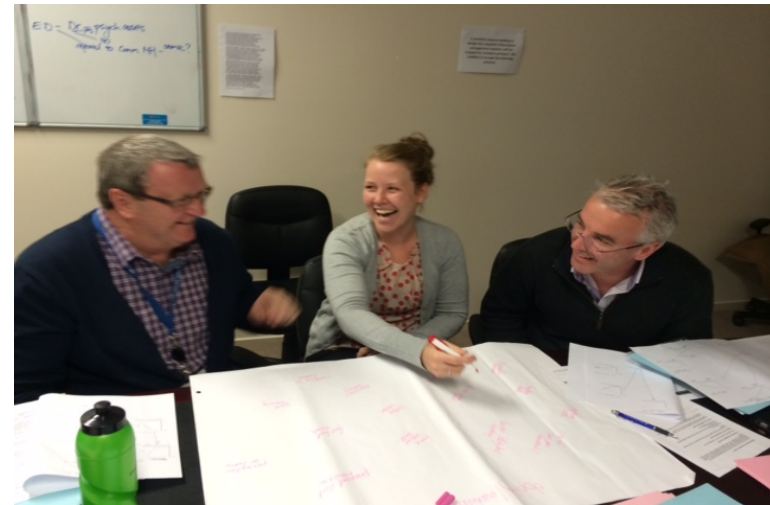
- Conduct ‘introduction to systems thinking’ workshops with health promotion practitioners in two local government areas in Victoria.
- Data Collection
 - Survey feedback at each workshop
 - Two focus groups - 3 months post workshops
 - Four Key informant interviews



Workshops

- Each workshop provided experiential learning opportunities to use and understand key system concepts.
- A sample of two of the systems methods we covered in the workshop:

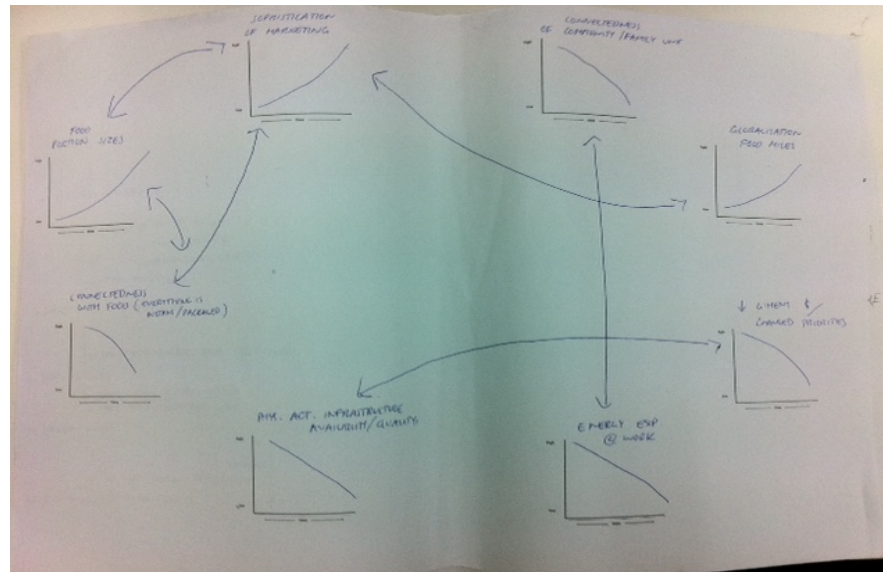
- 1) Behaviour Over Time Graphs
- 2) Causal Loop Diagrams and places to intervene in the system





What did we do in the workshops

- Introduction on hopes and fears
- Behaviour over time graphs to show dynamic problems (i. e. how a problem is changing over time)



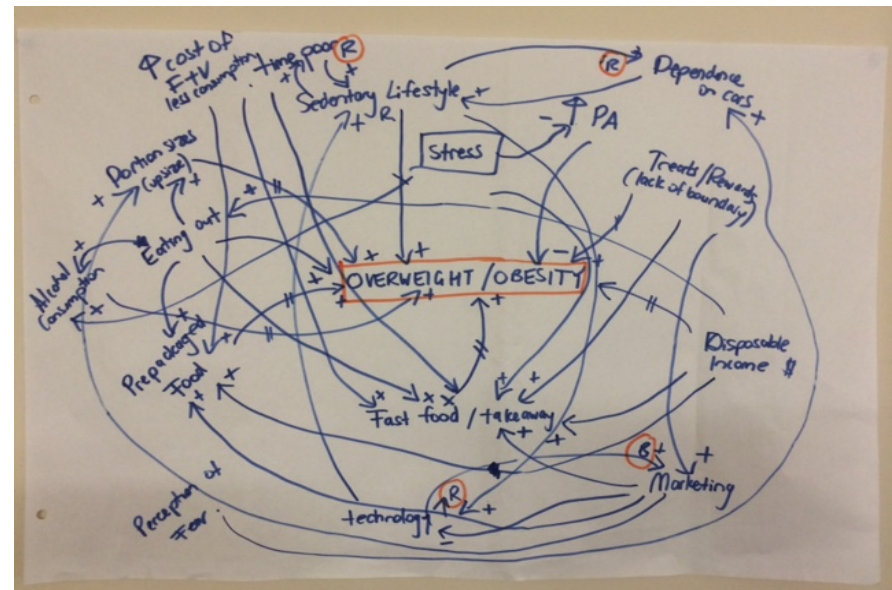
Using causal loop diagrams to assess the system



Causal Loop Diagrams provide an opportunity:

- 1) To visually represent the local system
- 2) Identify how relationships within the system drive or reinforce causal patterns contributing to disease.

The process of building the model beds down the systems jargon by slowly introducing concepts through group activity.





Places in Intervene in a System

Introducing Donella Meadows (2009) and Diane Finegood (2011)

Level	Definition
Paradigm	Deepest held beliefs, the way we understand the problem
Goals	What we are trying to achieve
Structure	Information flows, connectivity, trust
Feedback and Delays	Self regulation, reinforcement and adaptation
Structural elements	Subsystems, actors, operating parameters

Finegood, DT. The Complex System Science of Obesity. In: The Social Science of Obesity, Ed. J Cawley. Oxford University Press, 2011

Self Reported Improvement



The three areas with the biggest improvement were:

- I understand how the components in a system are related to each other through feedback loops
- I understand the distinction between dynamic and static systems
- I understand non-linear relationships and the notion of “accumulation” in systems

Focus Groups



Key Themes emerging from the focus groups

- Capacity building and confidence
- Shared view of the system
- Systems terminology
- Barriers and limitations





Summary of results

- The workshop has proved to be a useful way of engaging people in systems thinking and methods
- The immediate reaction is positive. Participants are engaged. It fosters a shared view of the system.
- Three month follow-up showed some tools were used by practitioners in their day-to-day work, they had shared ideas learnt and were encouraged to find out more, however further support is necessary to make full use of some of the tools introduced.

Implications for Capacity Building and Implementation



- We are now considering alternative workshop formats to better match the intensity of the material and the training needs
- We are also exploring other ways to support practitioners in the field as they seek to use systems concepts to explore and improve their practices



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RESEARCH TEAM

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