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**The Power and Potential of System Dynamics as an Evaluative Tool for Community-based Programmes**

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**Objectives/aims**

System dynamics will be introduced as an evaluative methodology able to deal with the real-life complexity of community-based programmes. System dynamics is able to take into account factors such as contextual complexity, stakeholder expertise and multiple issues of concern, that reductionist methodologies cannot. It is a powerful systems methodology that involves building representative models based on feedback loops, stocks and flows. Results improve insight into current programme behaviour as well as, through manipulation of identified elements, exploration of other possibilities.

**Methods**

The presentation will start with a brief introduction to system dynamics, followed by an interactive “micro-workshop” with audience participation. The workshop will involve constructing three or four causal loop diagrams and associated stock and flow diagrams, utilising the Indigenous youth resilience project I am currently involved with. The presentation will close by displaying a fully completed complex systems dynamics model of the causes of obesity to give evidence of the power of the methodology.

**Main findings**

The aim is to give participants a basic understanding of the power of systems dynamics and an introductory ‘taster’ to systems thinking. It will demonstrate that this systems-based methodology is able to deal with multiple inputs and outputs, diverse goals, time delays, and both quantitative and qualitative aspects of a ‘situation of interest’. The presentation will show that system dynamics is able to give unique insights into the behaviour of real-life community-based programmes, that reductionist methodologies are unable to.