



The Promise of Design Thinking and Implementation Science for Evaluation

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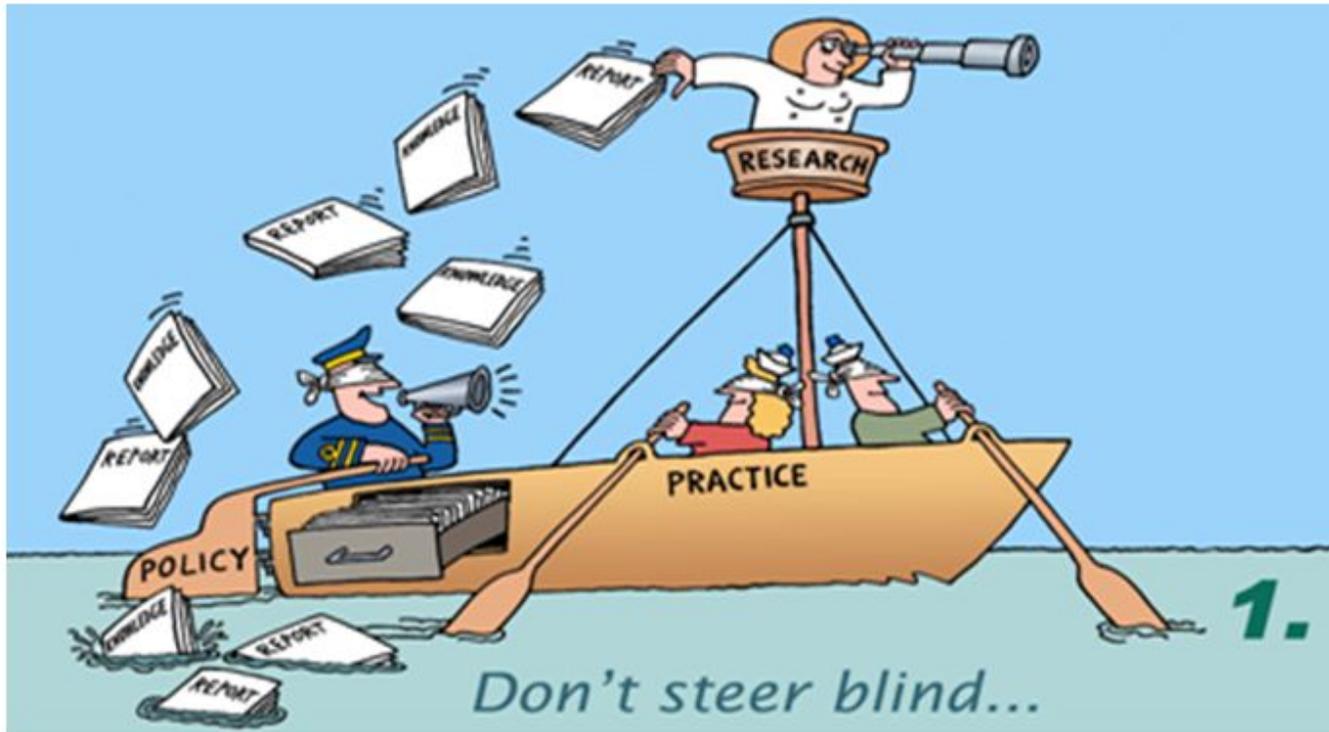
AES Conference 2018
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Our Agenda





Presentation purpose



“ It is clear that the most important work of evaluators in the 21st century will be to evaluate social programs designed to prevent and ameliorate social problems that threaten the wellbeing of children, adolescents, substantial portions of the world’s adult populations and the elderly. (Donaldson & Scriven, 2009)

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Framing social change & indicators of progress



Research focus

AIM: Understand how the impact of **complex** interventions acting on the social determinants of health can be evaluated.

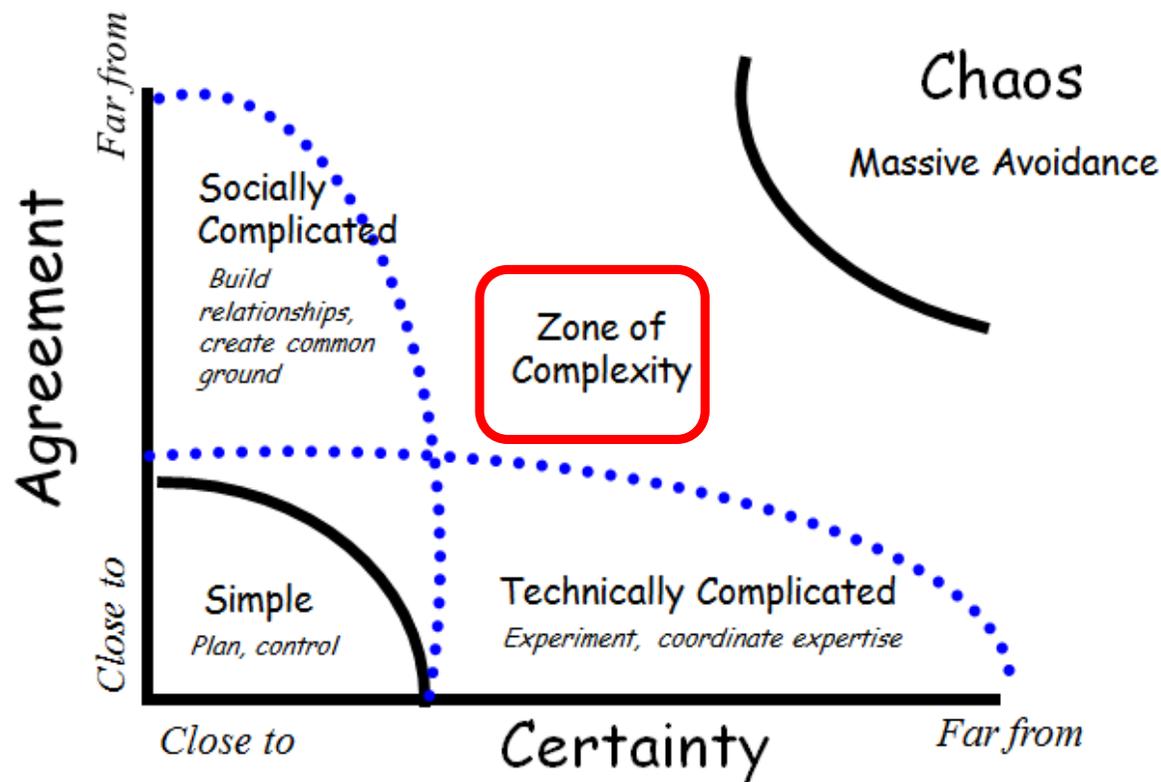
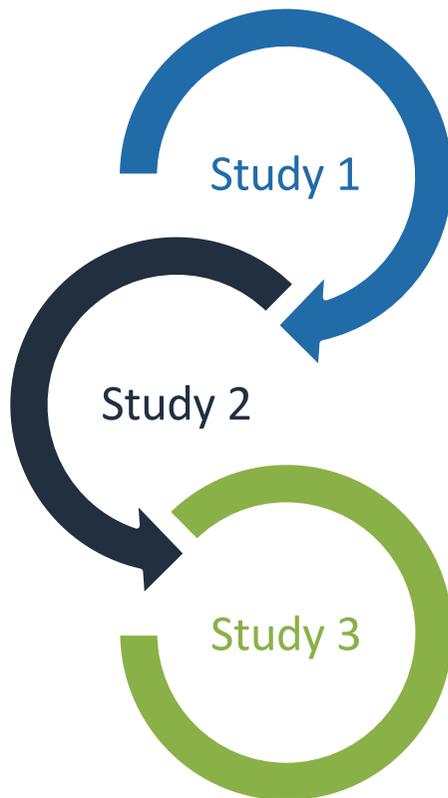


Figure 1: Zone of Complexity (Patton, 2010)

Research design



01 Literature Review & Indicator development
What is social change in health?

02 Meta-analysis of complex interventions
Testing whether the indicators predict impact

03 Case study of a complex intervention
Are the indicators practical and relevant in a intervention setting?

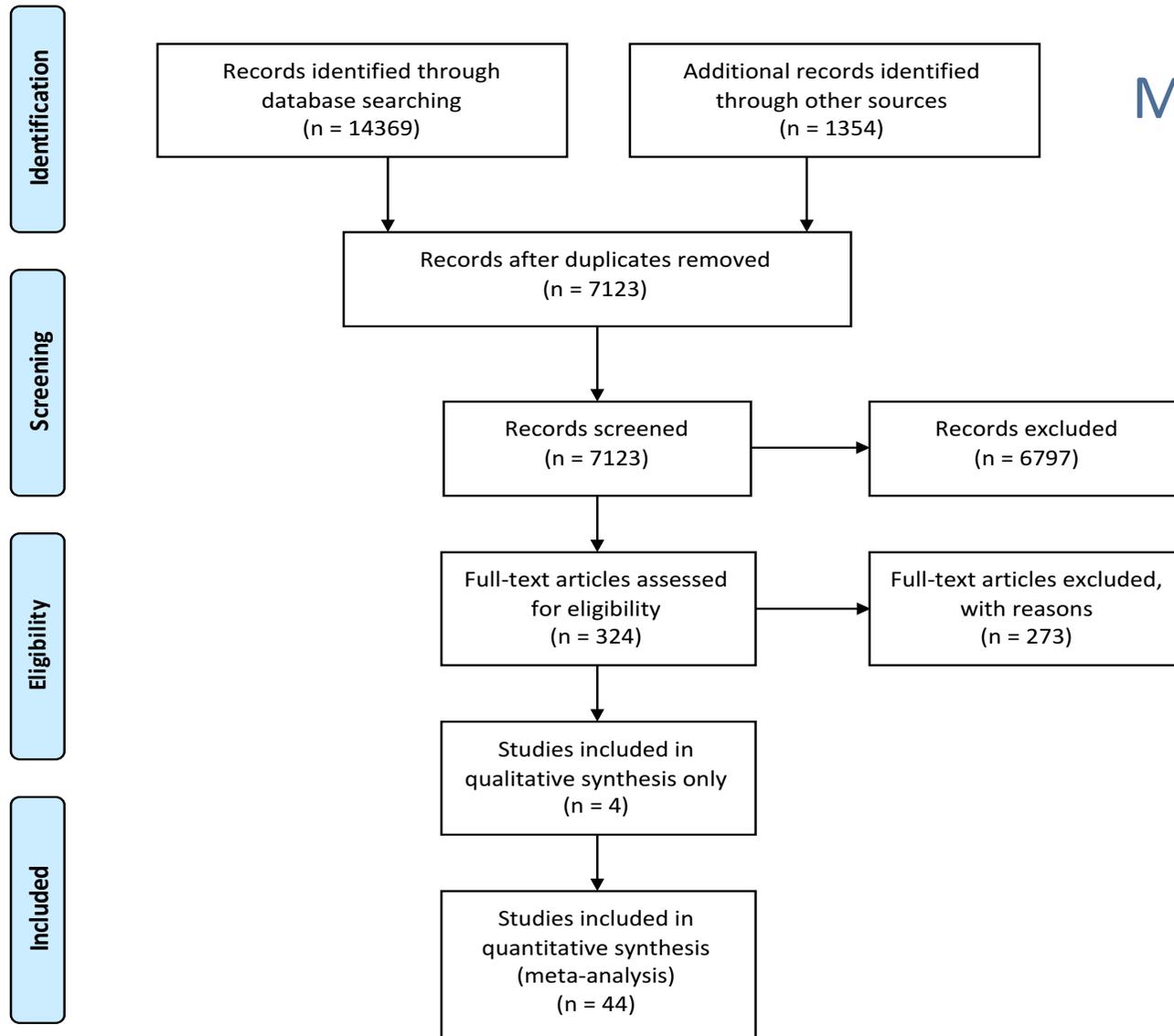
Narrative review findings

- Lack of universal or shared definition of social change
 - Limited information about how/whether social change interventions work
 - Systems and complexity theory tends to dominate discussion
 - Process evaluation, and examining implementation of interventions becoming more common
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Indicators that relate to impact

| Indicator | Description |
|---|--|
| Fidelity | Examined practitioner/implementer fidelity AND participant fidelity separately |
| Dosage | How much of the intervention was delivered AND received by participants |
| Quality of implementation | What was the quality of implementation AND how was this monitored |
| Participant responsiveness | How responsive were participants to the intervention? Was adherence and retention high? Did participants indicate high levels of adoption? |
| Program evidence-based (including theory) | To what extent was the intervention design based on evidence (could be previous interventions, theory) |
| Monitoring of control/comparison conditions | To what extent were the conditions of the control/comparison/follow-up group monitored? |
| Program reach | To what extent did the intervention 'reach' the target group? Sample representativeness, participant attendance/dose received |
| Adaptation | What, if any adaptations occurred? How did these adaptations enhance responsiveness/reach/adoption? |
| Sustainability/transferability | To what extent is the intervention (design & implementation) sustainable and transferable to another context? |
| Collaboration | To what extent was the intervention development and/or delivered through partnerships (formal or informal)/involvement with stakeholders, community members, community agencies etc. |
| Communication | What and how did communication occur between program designers, implementers and stakeholders during the design and implementation? |

Meta-analysis to test indicators in ASCVD interventions



- Published 2011 – 2016
- 20 RCTs
- 6 cohort studies
- 8 pre-post design studies
- 3 evaluations
- 2 pragmatic RCTs
- 1 cluster RCT
- 7 quasi-experimental studies
- 1 comparison study

How effective were complex interventions on ASCVD risk factors?*

| ASCVD modifiable risk factor | ES (SE) | |
|------------------------------|--------------|----|
| Total cholesterol | -0.38 (0.15) | ↓↓ |
| FBG | -0.28 (0.08) | ↓↓ |
| Systolic BP | -0.28 (0.06) | ↓↓ |
| Diastolic BP | -0.24 (0.10) | ↓ |
| LDL cholesterol | -0.23 (0.09) | ↓ |
| BMI | -0.21 (0.06) | ↓ |
| Triglycerides | -0.14 (0.05) | ↓ |
| HbA1c | -0.11 (0.11) | ↓ |
| HDL cholesterol | -0.06 (0.04) | |

*All reviewed interventions were conducted with healthy populations (low ASCVD risk), and were all complex in design

How well did the interventions perform on the indicators?

| Process Variable | N | Mean | SD | Missing |
|--|----|------|------|---------|
| Monitoring comparison/control conditions | 39 | 4.97 | 0.16 | 20.4% |
| Program evidence-based | 44 | 4.02 | 0.73 | 10.2% |
| Participant responsiveness | 34 | 3.97 | 0.83 | 30.6% |
| Implementer fidelity | 18 | 3.94 | 0.80 | 63.3% |
| Participant fidelity | 12 | 3.91 | 1.08 | 75.5% |
| Communication | 11 | 3.91 | 0.83 | 77.6% |
| Adaptation | 10 | 3.9 | 1.45 | 79.6% |
| Quality of implementation | 9 | 3.67 | 0.87 | 81.6% |
| Collaboration | 20 | 3.55 | 1.14 | 59.2% |
| Dosage | 30 | 3.37 | 1.03 | 38.8% |
| Program reach/power | 41 | 3 | 1.14 | 16.3% |
| Generalisability/transferability | 32 | 2.62 | 0.98 | 34.7% |

How important/distinct are the indicators?

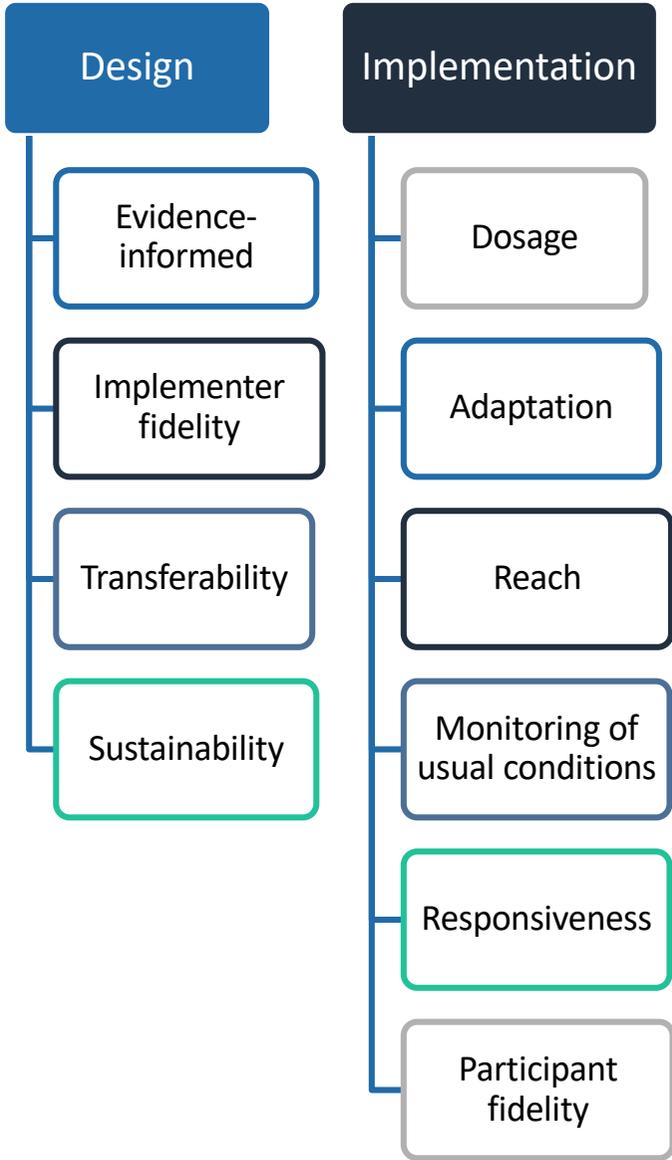
Exploratory factor analysis of 11 indicators, indicated two distinct factors:

Intervention design, explaining 43.3% of variance

Intervention implementation, explaining 30.7% of variance

Program design and program implementation are moderators of impact

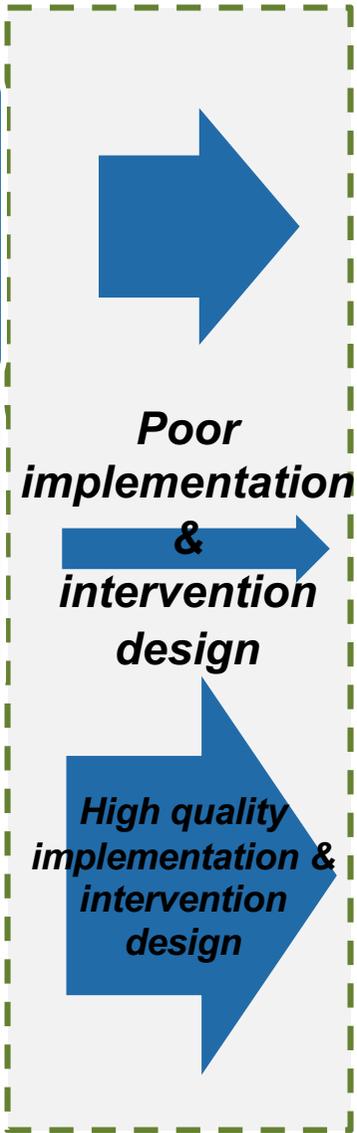




**Complex
ASCVD
intervention**

**Complex
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**Complex
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**Reduction in risk
factor exposure**

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Key findings

- Complex social change interventions can achieve clinically significant health outcomes
 - Effectiveness of social change interventions is related to intervention design and implementation
 - There is limited monitoring or evaluation conducted on intervention design and implementation
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Views from evaluators Timoci & Rachel

How do we evaluate complex, multi-year projects when their impact can not be seen or determined over the course of the evaluation?

- Monitoring progression of implementation
 - Consolidated Framework for Implementation Research developed by Maria Fernandez and colleagues. (<https://cfirguide.org/>)
 - Generating actionable feedback to improve implementation and overall program effectiveness
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Community arts sector and social change

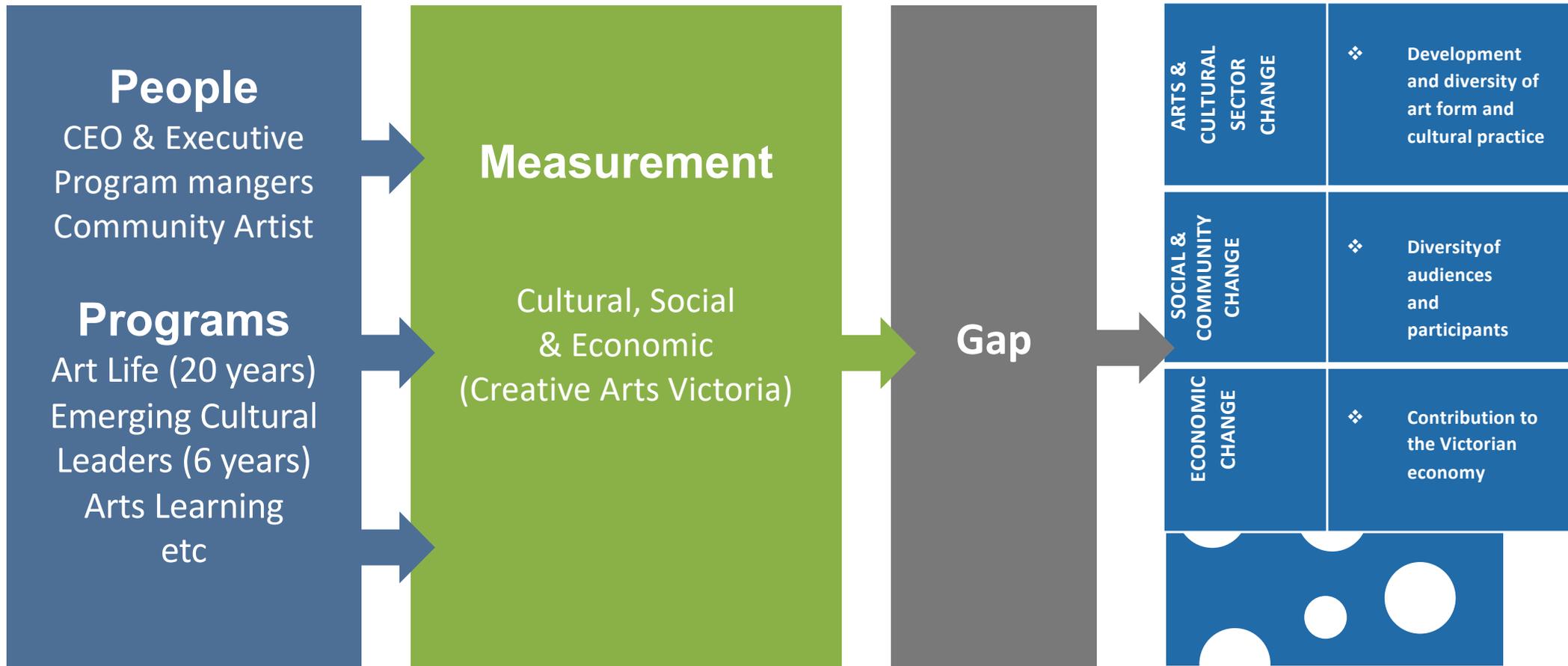
- **Perspective:** Volunteer resident evaluator
- **Purpose:** Collaboratively build evaluation capacity with a focus on measuring and reporting on social change
- **Organisation:** Footscray Community Arts Centre (FCAC)

“We collaborate with artists, communities and organisations to build capacity, create opportunities and drive social change”



Photo: Participants of FCAC's annual GENERATE professional development series in contemporary community engaged practice.

The challenge & opportunities



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Views from practitioners

Robbie Francis

Research and practice implications

- **Policy makers & commissioners** – funding, reporting, accountability and stewardship for social change interventions
- **Researchers** – development of measures for quality implementation & exemplars
- **Practitioners** – importance of internal evaluation and quality monitoring, implementer skill

Evaluating social change, high risk & high reward



