



Session 6.

Evaluating interventions – Theory of Change and measuring impact

Health Systems Research Course

Western China School of Public Health

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西部农村卫生发展研究中心

WEST CHINA RESEARCH CENTER FOR RURAL HEALTH DEVELOPMENT (WCRC-RHD)



Four key steps in HSR

1. Identify research focus (problem/concern/ opportunity) *and* question
2. **Design study**
3. Ensure quality and rigour
4. Apply ethical principles



Outline

- Review of health system interventions as complex interventions
- Theory of change (Melisa)
- Evaluating impact of interventions (Kara)

Programme evaluation

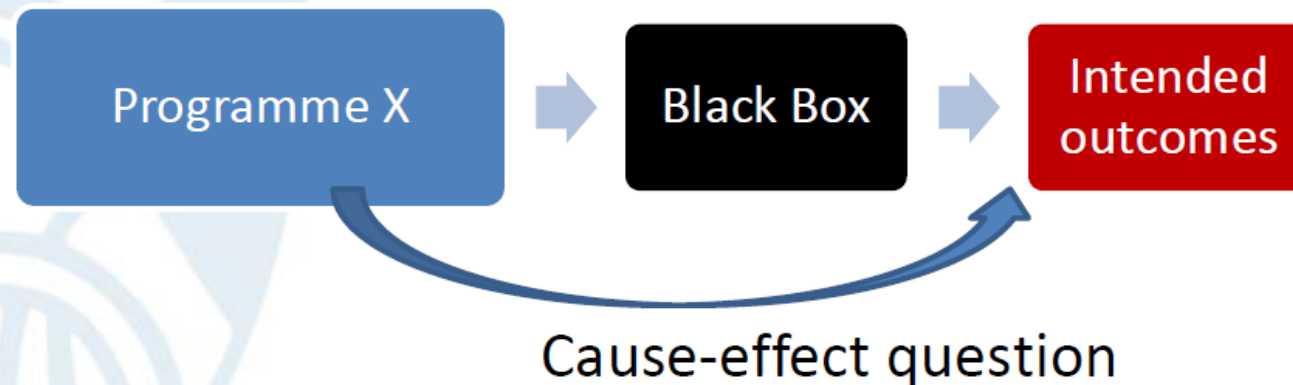


Study questions

How?

What?

Why?



Source: Borghi, J. Process evaluation. Evaluation of complex interventions workshop. London 2015

HEALTH SYSTEM INTERVENTIONS ARE “COMPLEX”



- Number of and interaction between components
- Number of and difficulty of behaviours required by those receiving the intervention
- Number of groups / organisational levels targeted by the intervention
- Number and variability of outcomes
- Degree of flexibility/tailoring of intervention permitted

Source: MRC Guidance for evaluating complex interventions
(Thanks to Kara Hanson)

MRC GUIDANCE FOR EVALUATING COMPLEX INTERVENTIONS



Good **theoretical understanding** of change mechanism needed

Risk of implementation failure means **process evaluation** essential

Higher level processes may influence individual outcomes: larger sample size, RCT

No **single outcome** measure; potential **unintended consequences** must be measured

Strict fidelity to protocol may be inappropriate; may need **local adaptation**

UK Medical Research Council Guidance for evaluating complex interventions, Craig et al. 2008; (Thanks to Kara Hanson)



Good theoretical understanding of mechanism

Theory driven approach to evaluation

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- Need to understand the theory of how an intervention works in order to evaluate if it has worked
- Especially important for complex/health systems interventions where pathways to impact may be unclear
- Helps to unpack the 'black box'

Theory of Change



- A theory about *how* and *why* an intervention works
- Answers: Whether, how and why an intervention works
- Developed by researchers (high level TOC)
- Can be further developed and refined with implementers as learning on how and why the intervention works evolves
- Can be tested empirically
 - Measure indicators along the causal pathway
- Can be visually represented in a diagram

Theory Of Change



- Not a theory as such but can be informed by theory
- Provides a framework for Monitoring & Evaluation
- Can be used to inform evaluation design and choice of indicators (integrated within an impact evaluation)

Differences with other approaches



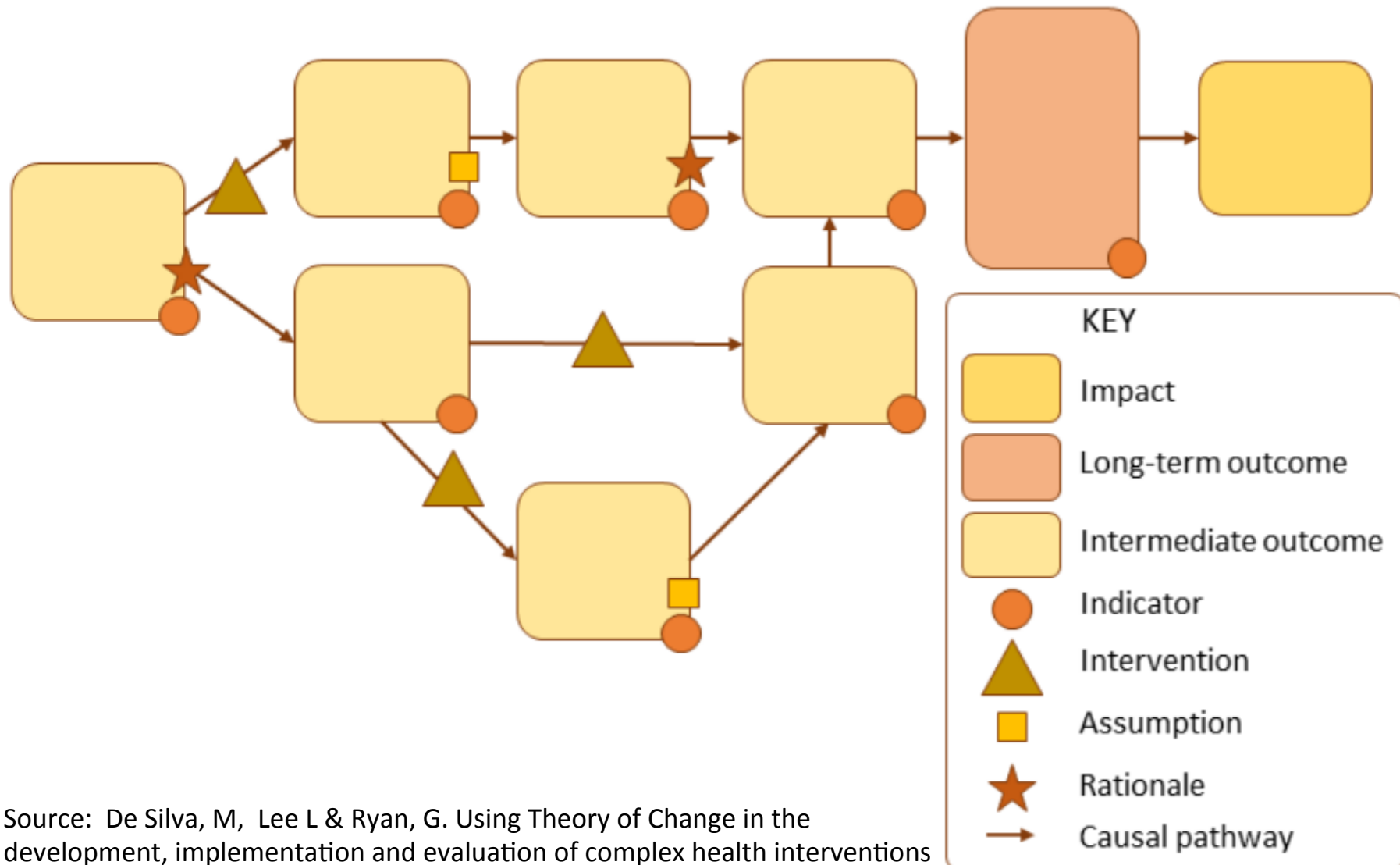
- Logic models: linear; rigid (inputs, outputs, outcomes)
- TOC more flexible, allow for multiple possible causal pathways; feedback loops



A good Theory of Change should be:

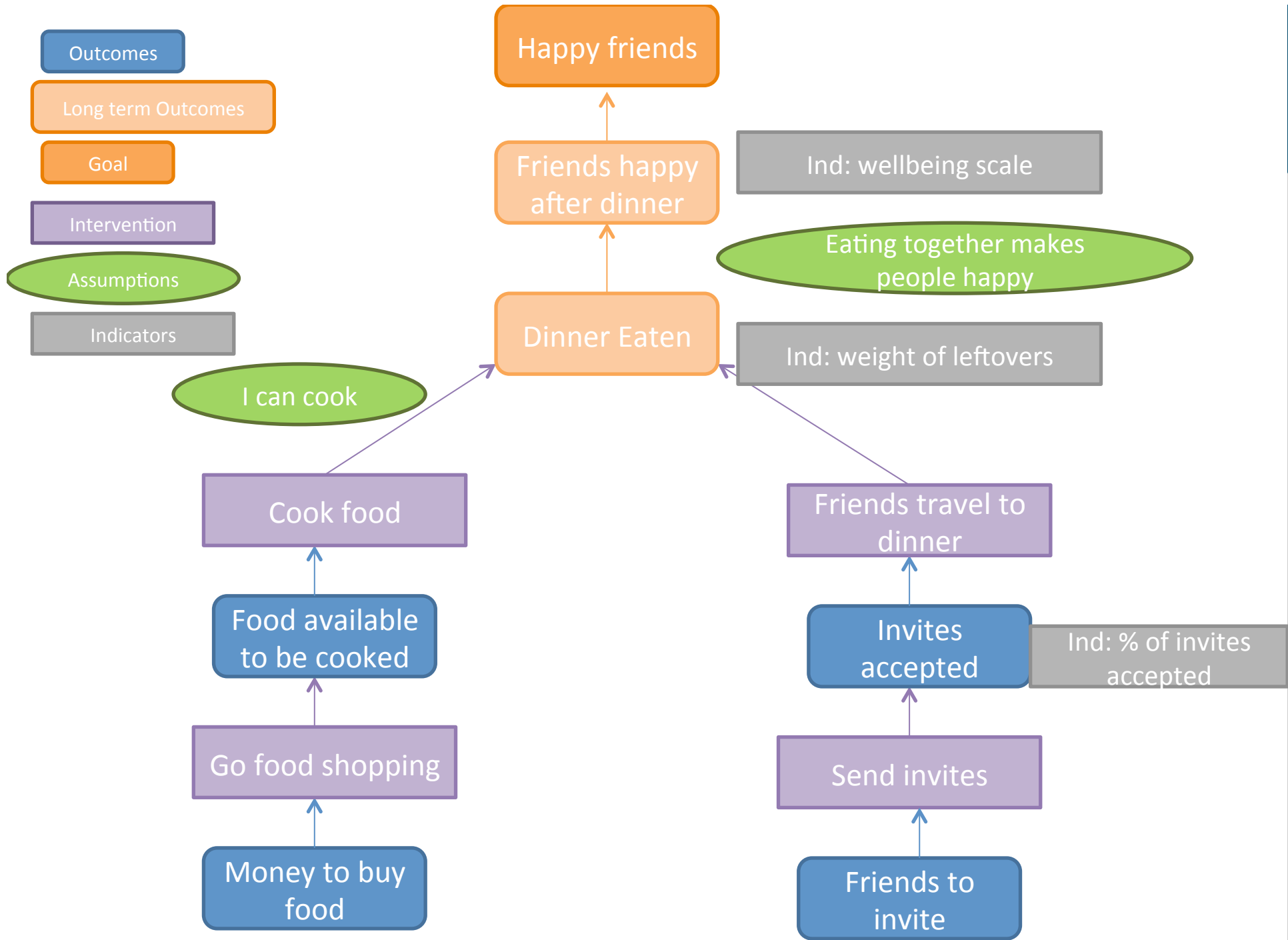
- Plausible
- Doable
- Testable

What does a theory of change look like?



Source: De Silva, M, Lee L & Ryan, G. Using Theory of Change in the development, implementation and evaluation of complex health interventions *A practical guide*. The Centre for Global Mental Health & the Mental Health Innovation Network

Figure 1: Example Theory of Change framework and key



Terminology	Definition
Impact (ultimate outcome, goal)	The real world change you are trying to affect. The program may contribute towards achieving this impact, and not achieve it solely on its own.
Long term outcome	The final outcome the program is able to change on its own
Intermediate outcomes	The intended results of the interventions.
Indicator	Things you can measure and document to determine whether you are making progress towards, or have achieved, each intermediate outcome.
Interventions (strategies)	The different components of the complex intervention.
Rationale	Key beliefs that underlie why one intermediate outcome is a precondition for the next, and why you must do certain activities to produce the desired intermediate outcomes. Can be based on evidence or experience
Assumptions	An external condition beyond the control of the project that must exist for the intermediate outcome to be achieved.

How to develop a ToC



Step 1: Draw up a generic roadmap of you envisage the policy will play out in practice and achieve its objectives (a 'high level' theory of change).

Step 2: Identify key actors (groups/individuals) to work with in developing/refining the theory of change – how they will achieve goals.

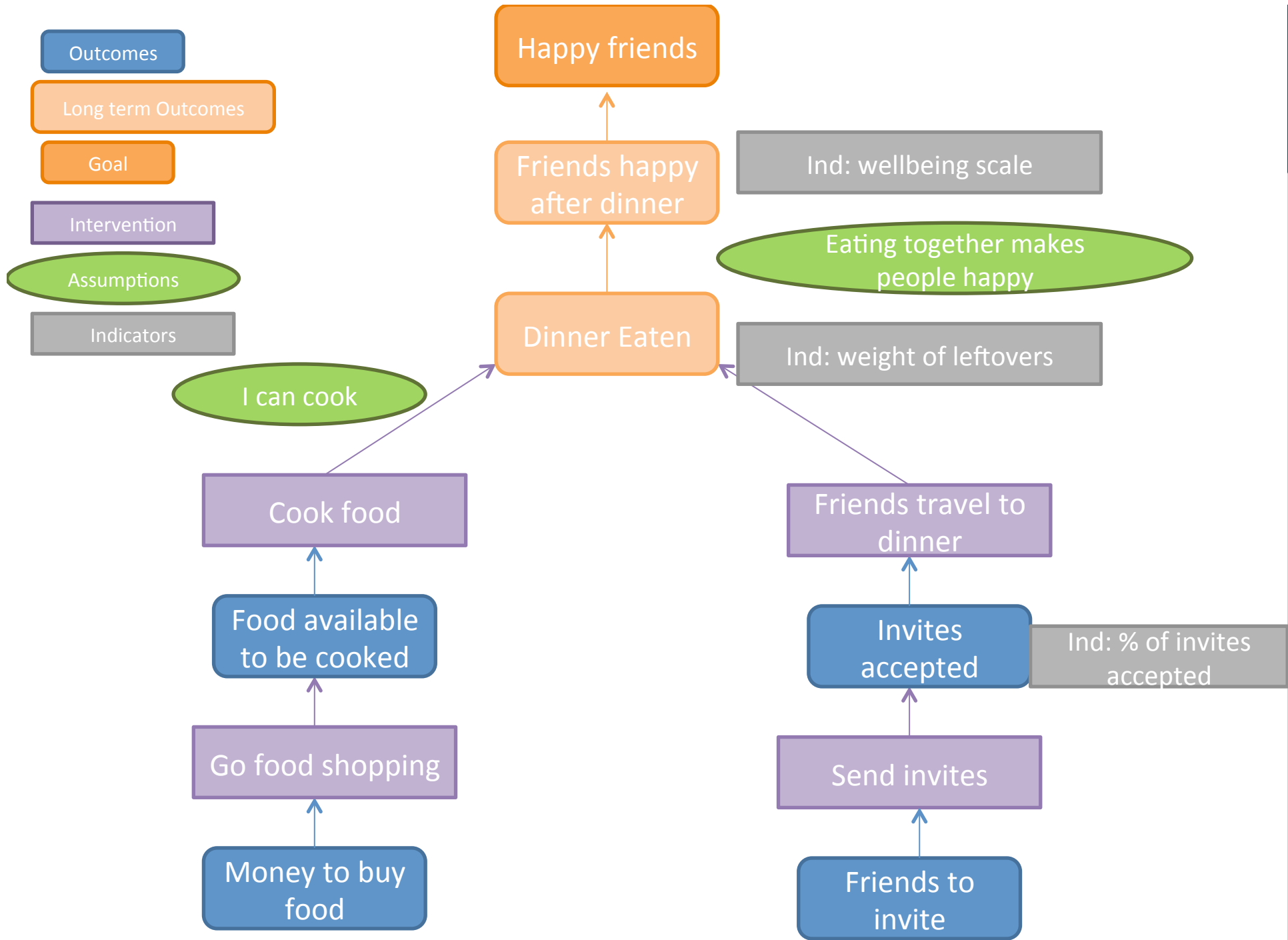
Key questions:

- What are the goals of this intervention?
- How has this been achieved and why?

Step 1: How to draw a “ToC map”



1. Decide on impact
2. Brainstorm intermediate outcomes needed to achieve impact
3. Classify intermediate outcomes
 - a) Short-term
 - b) Long-term
4. Add specific interventions
5. Add assumptions and rationale
 - a) Including context
6. Define indicators



Advantages/limitations



- Consider context within which an intervention unfolds
- Identify knowledge gaps
- Provides link between process and impact evaluation – combined in a single framework
- Helps implementers to think through issues they may not have thought of (some can find the exercise quite challenging/abstract)
- Can be complex – many outcomes/indicators



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Thank you

Some of the material in this presentation is drawn from:

Impact evaluation of interventions addressing social determinants of health (SDH) online course (<http://tie.inspvirtual.mx/portales/sdhnet/impact.php>) and the LSHTM Centre for Global Mental Health (<http://www.centreforglobalmentalhealth.org/>)



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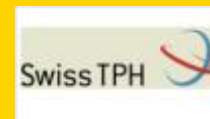
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