Integrating Mixed Methods in Process and Impact Evaluation

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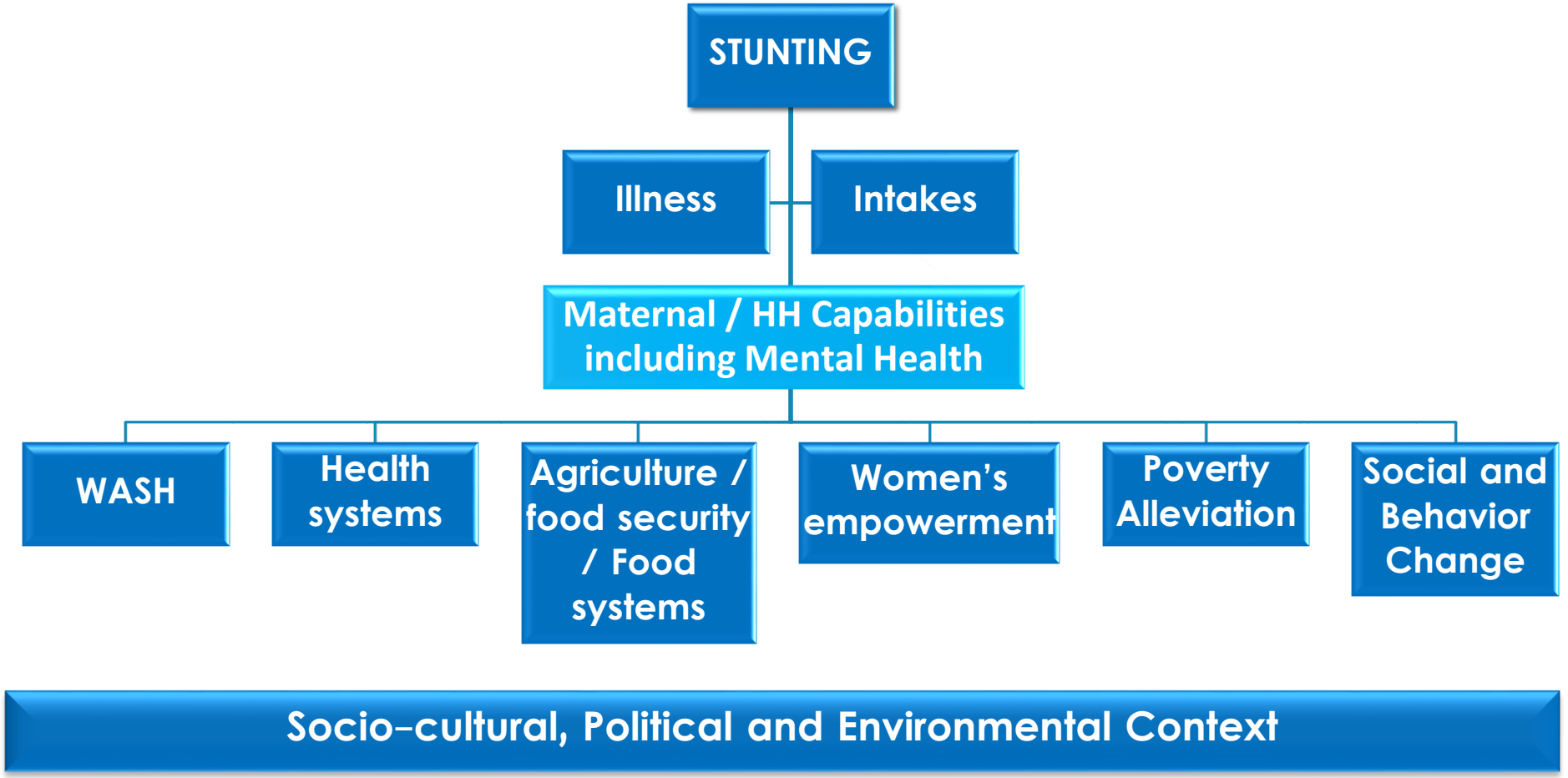
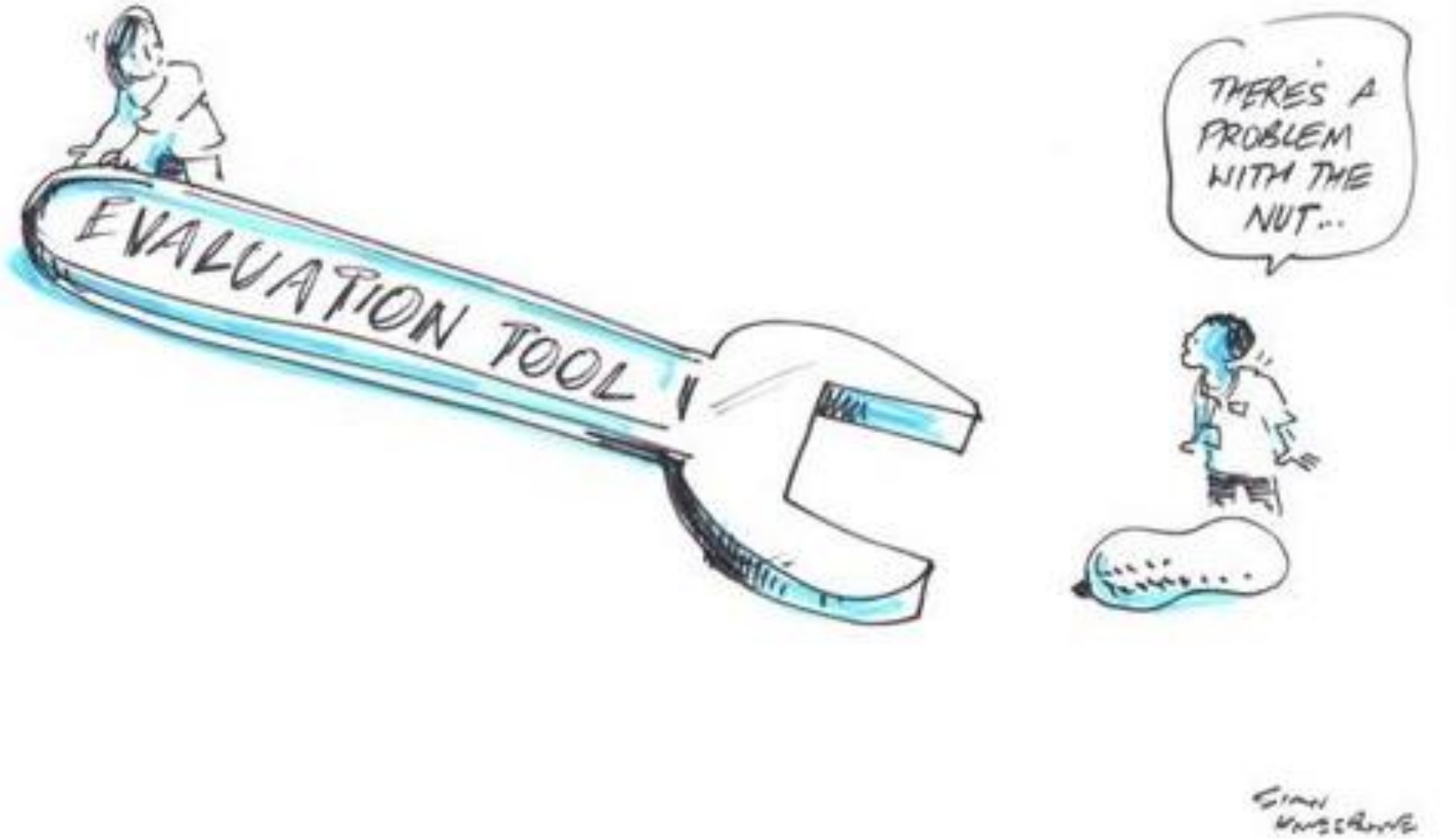


"Scaling up of all ten [nutrition-specific] interventions to 90% coverage was associated with a mean 20.3% (range 10.2–28.9) reduction in stunting and a 61.4% (35.7–72.0) reduction in severe wasting." Bhutta, Z.. et al., *Lancet* 2013; 382: 452–77


EVALUATION TOOL
THERE'S A PROBLEM WITH THE NUT...

Outline

How can “mixed methods” improve the quality and utility of evaluations of complex, integrated programs ?

How do we use MM throughout program design, monitoring, learning and evaluation

Methodological and capacity considerations for rigorous mixed methods

Two Worldviews

Positivist / Empirical

- Measure magnitude, trends, causes, effects
- RCTs, QE, observational
- Large, representative samples
- Surveys, anthropometry, opinion polls, exit interviews
- Analysis is statistical / econometric

Constructivist / Interpretive

- Gain detailed understanding
- Ethnography, case study, narrative, grounded theory
- Small, purposive samples
- Focus group discussions, un/semi-structured interviews; case studies; video/ photovoice; observation
- Analysis is iterative and interpretive

Limitations to Both

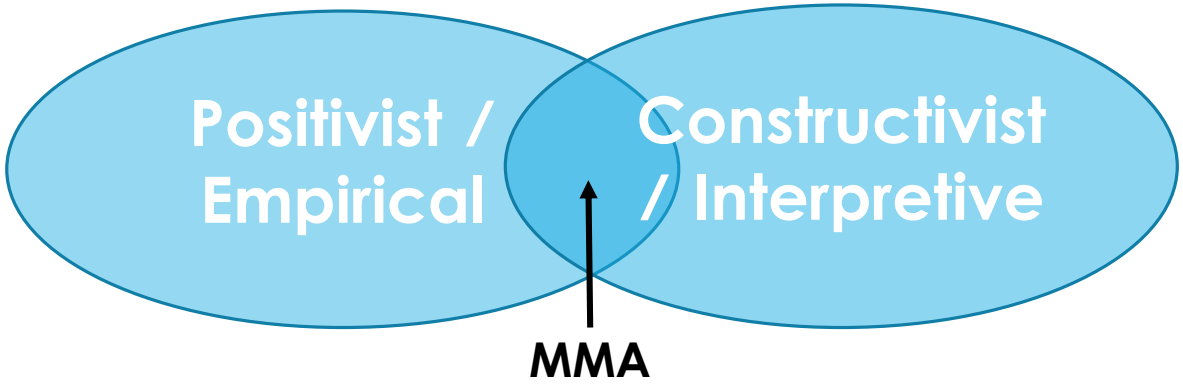
Positivist / Empirical

- Assumes implemented as planned, unable to unpack black box of program processes
- Standardized tools fail to capture nuance and are not adaptable to changing conditions
- Risk becoming decontextualized
- Lack depth and detail

Constructivist / Interpretive

- Sampling may produce biased findings
- Analysis perceived as subjective / opinion / anecdotal
- Limited capacity to examine causality
- Designed to be context specific, not generalizable
- Limited isolation of / control for individual influencers

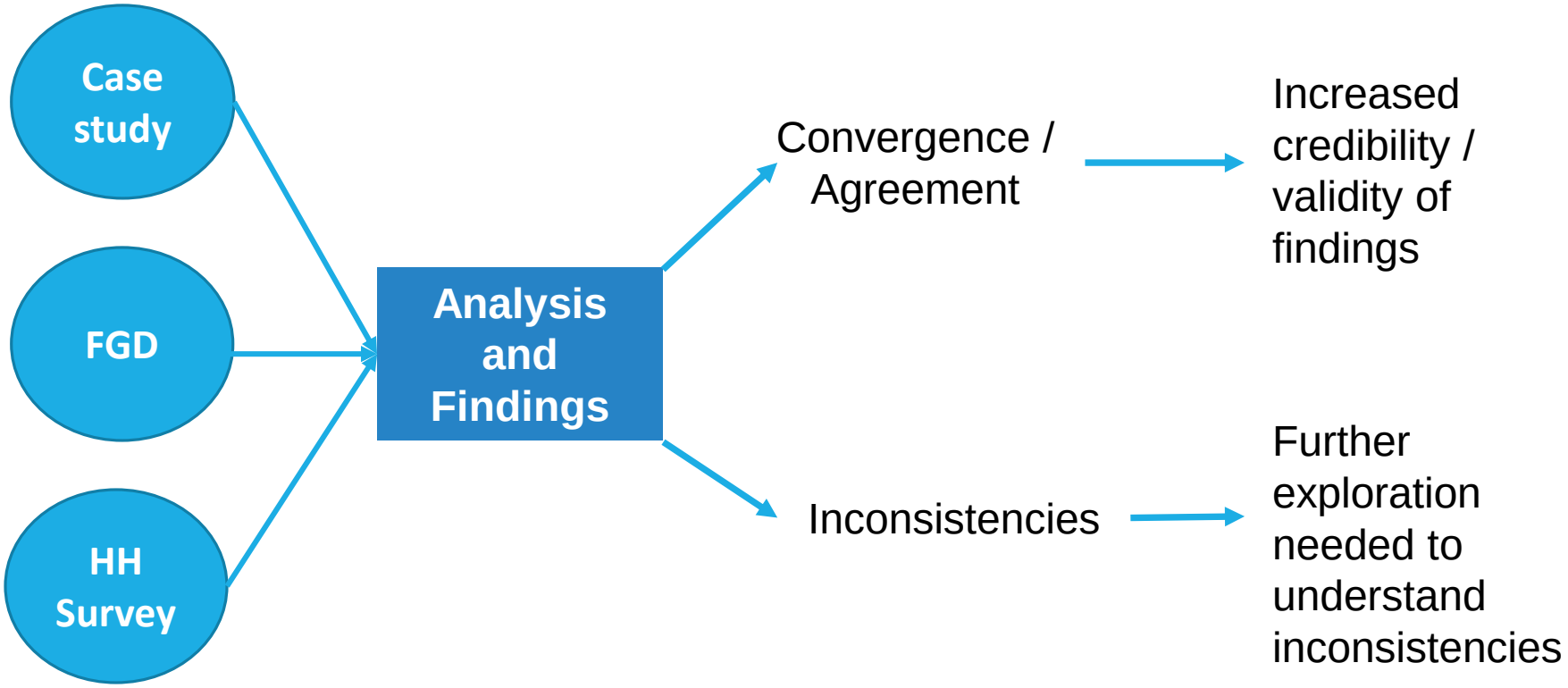
Integrating Two Worldviews



- Compensates for limitations of each strategy
- Reconstruction and validation of baseline conditions
- Broaden methods for definition and estimation of counterfactuals
- Triangulation increases validity/credibility of findings
- Greater buy–in across variety of stakeholders

What do I mean by Triangulation?

Women's empowerment



Complex approaches have complex questions

Does it work?

How does it work and at what costs? Which components and delivery platforms matter most in a given /changing context? What are the unintended consequences?

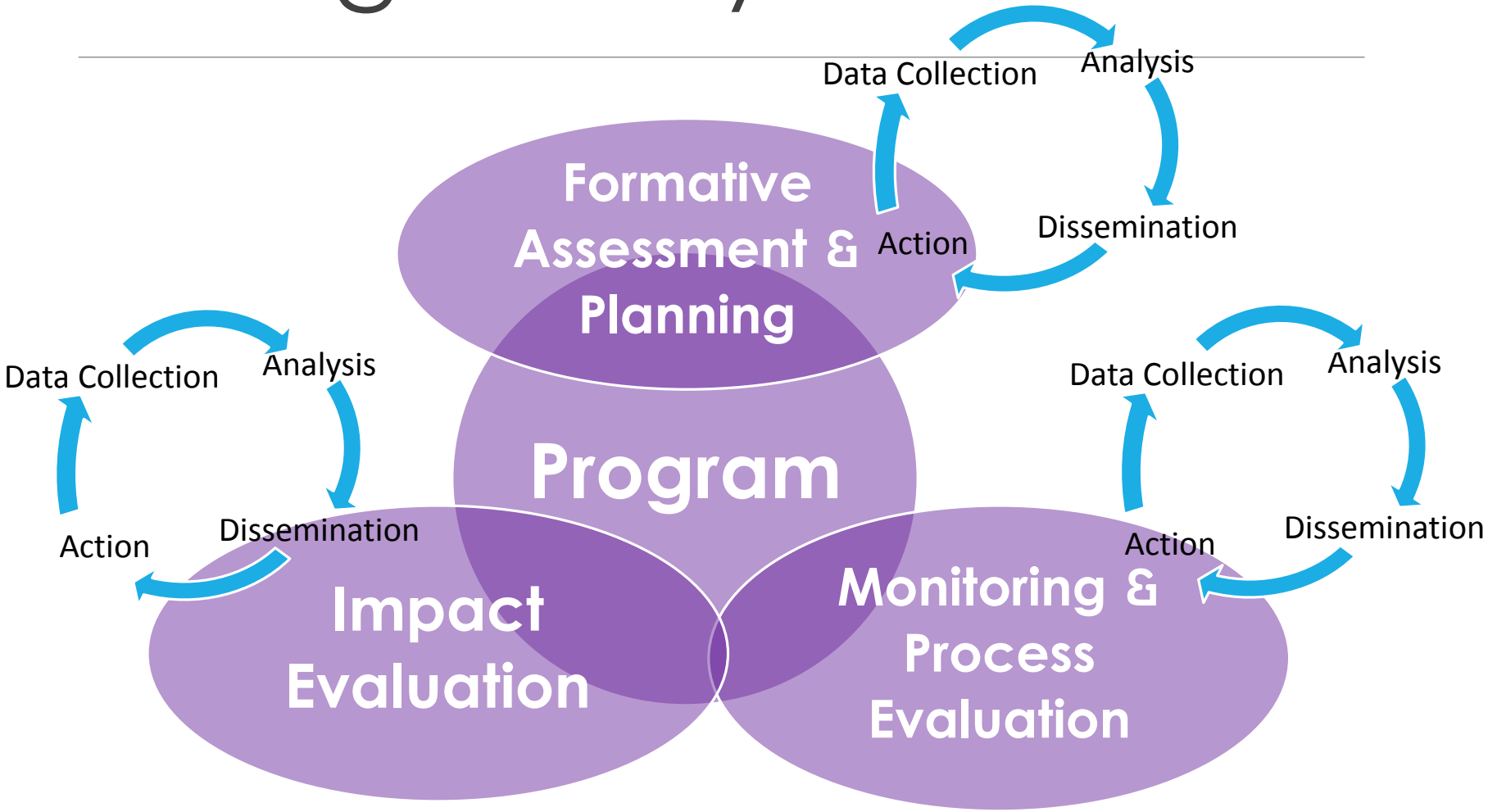
For whom does it work, and why?

If it does not work, why not? Implementation failure or design failure? What changes would be most effective?

How do program partners engage / interact / change? What are implications for scale up and sustainability

How will program components and partners interact with and adapt to social, political and environmental change?

Mixed Methods Through the Program Cycle



Mixed Methods Designs

Sequential

- Exploratory
  - Qual → Quant
- Explanatory
  - Quant → Qual

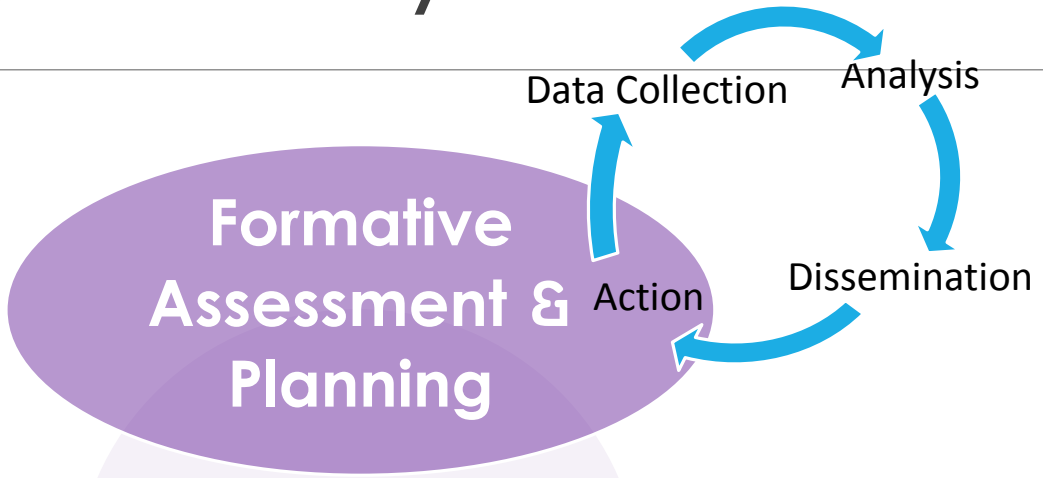
Concurrent

- Conducted simultaneously

Cross sectional / longitudinal

different combinations of designs are used throughout the program life cycle to answer different questions

Mixed Methods Through the Program Cycle



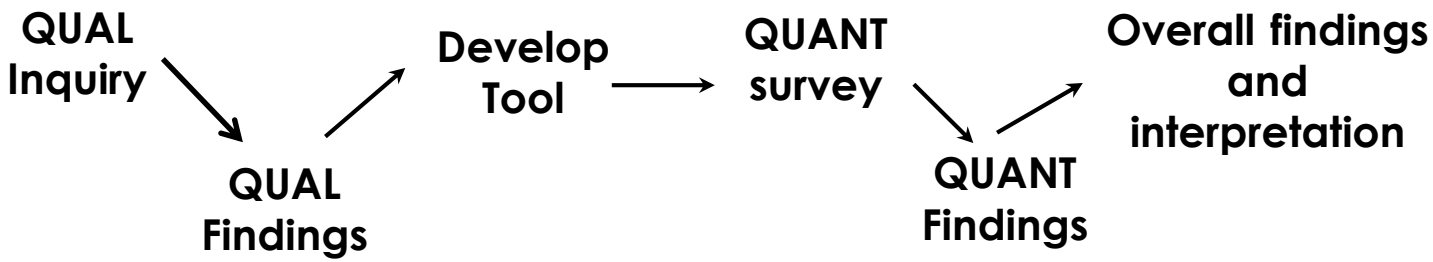
Program

Impact Evaluation

Monitoring & Process Evaluation

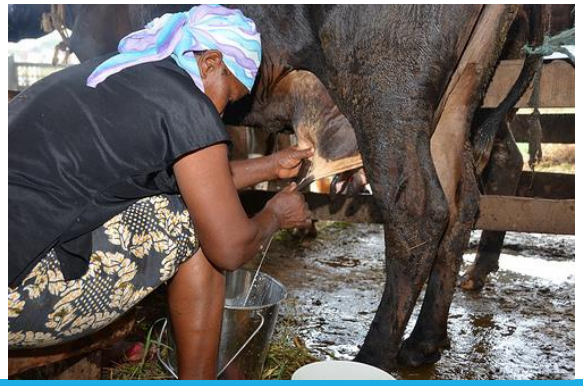
Sequential Exploratory Design for Tool Development

Phase One Phase Two



<u>IDIs / FGDs to explore empowerment</u>
Domains: assets, decision-making, IPV, time use, voice
Terminology
Context: religion, region, livelihoods / value chain

Women's Empowerment in Livestock Index

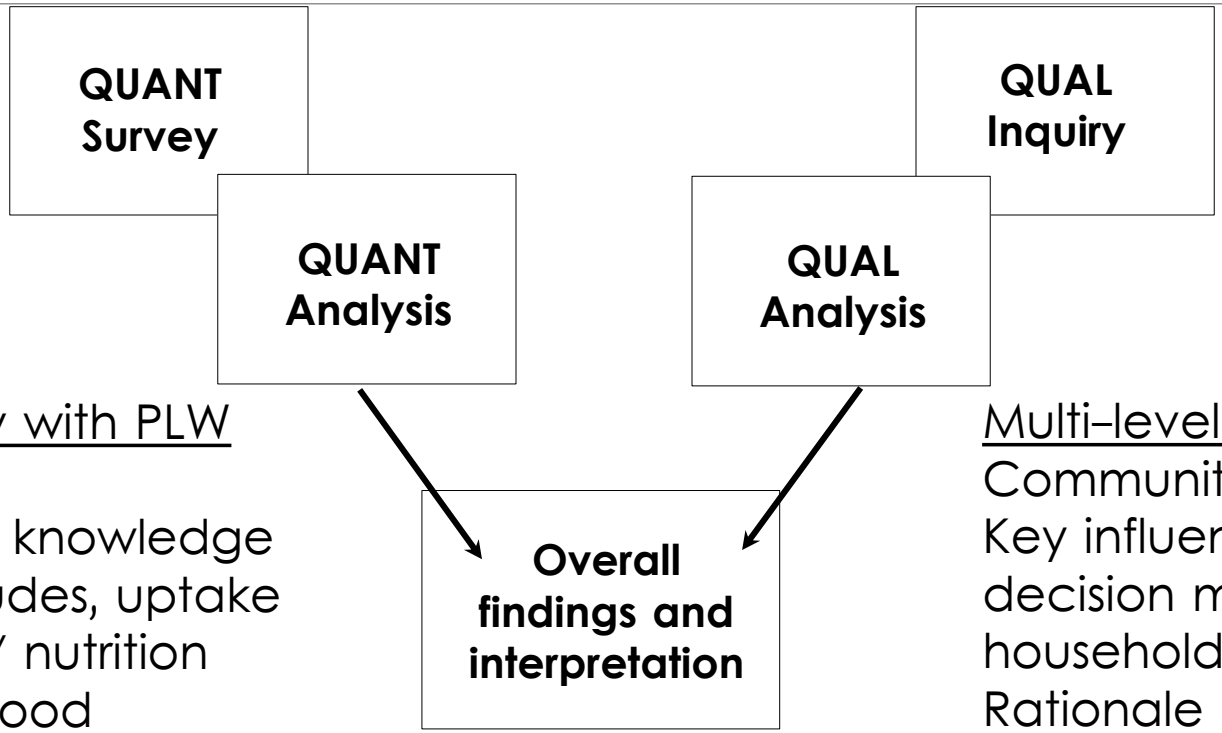


Woman milking, Tanga TZ (CRP-LF)

<u>Administer Survey and Analyze Data</u>
Measure domains and prevalence of empowerment
Analyze associations between WELI and maternal and child nutrition
Assess impacts of dairy hubs on WE

Adapted from: Creswell & Clark 2007

Concurrent Design for Formative Research



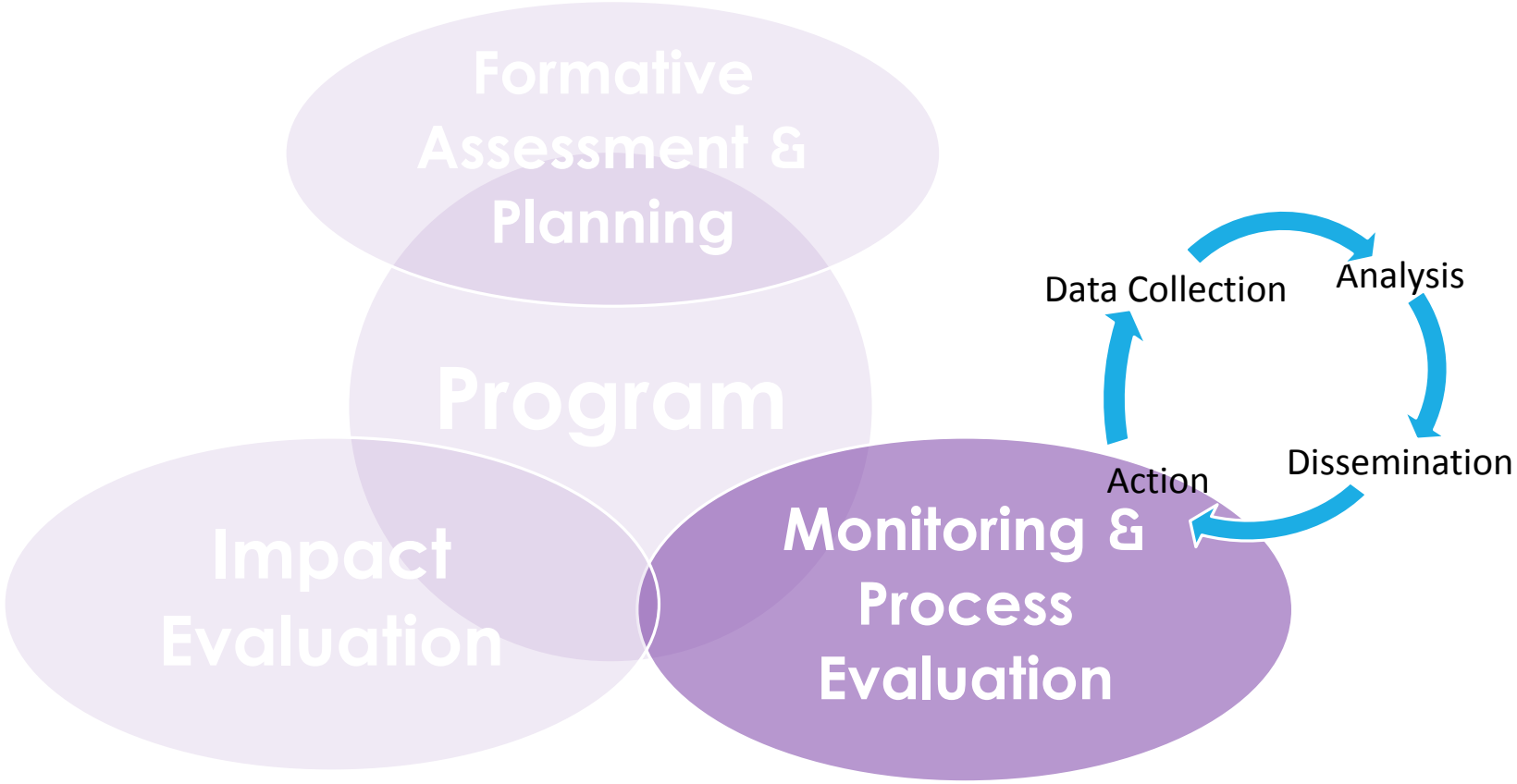
<u>HH Survey with PLW and GM</u>
IYCF, rMN knowledge and attitudes, uptake of health/ nutrition services, food insecurity

Development of Grandmother Focused Strategy for MCN

<u>Multi-level IDIs and FGDs</u>
Community context
Key influencers and decision makers in household for IYCFrMN
Rationale underlying IYCF rMN decision-making
Household roles, responsibilities and age/gender hierarchies

Adapted from: Creswell & Clark 2007

Mixed Methods Through the Program Cycle



Mixed Methods Monitoring and Process Evaluation

ROUTINE MONITORING

Documentation of program activities, participation, changes in context

- feedback sessions with implementing actors
- Structure / unstructured observations of program activities
- Assessments in comparison sites
- Rapid LQAS monitoring surveys of participation and changes in critical behaviors

DEEP DIVES

- Multi–level – includes beneficiaries, implementation actors, other stakeholders
- Deep dive qualitative → Observations, IDIs, case studies, focus group discussions
- Single round (ie. midline) or two rounds
- May include midline survey
- Integrated analysis of **monitoring + deep dive → process evaluation**

Mixed Methods Process Evaluation

- Monitoring + Deep Dives
- Understand how a program is running with respect to the underlying theory of change
  - reach, coverage, fidelity
  - Design failure vs. implementation failure
- Documents
  - constraints to optimal program delivery and potential solutions for testing through operations research
  - differential program delivery
  - Changes in context that can influence attribution
- Captures multiple perspectives on aspects of program delivery to inform change, scale up / out, sustainability

Mixed methods monitoring and PE to improve program performance and achieve impacts in the Mama SASHA project

2008 2009 2010 2011 2012 2013 2014 2015

Plan, pilot intervention program, develop impact pathway, design evaluation

Design cohort & costing studies

Analysis & Write-Up (ongoing)

Pilot intervention in other communities (May 2010-Mar 2011)

Full Intervention: community implementation

monthly community monitoring
quarterly partner meetings
Quarterly mapping of control sites (Apr 2011-Aug 2013)

Vine distribution to control communities (Mar-June 2014)

CNA/ AM Apr & Jun 2008

PE of pilot Nov-Dec 2010

Nested Cohort Study (Oct 2012-June 2014)

Costing Study (Dec 2011-June 2013)

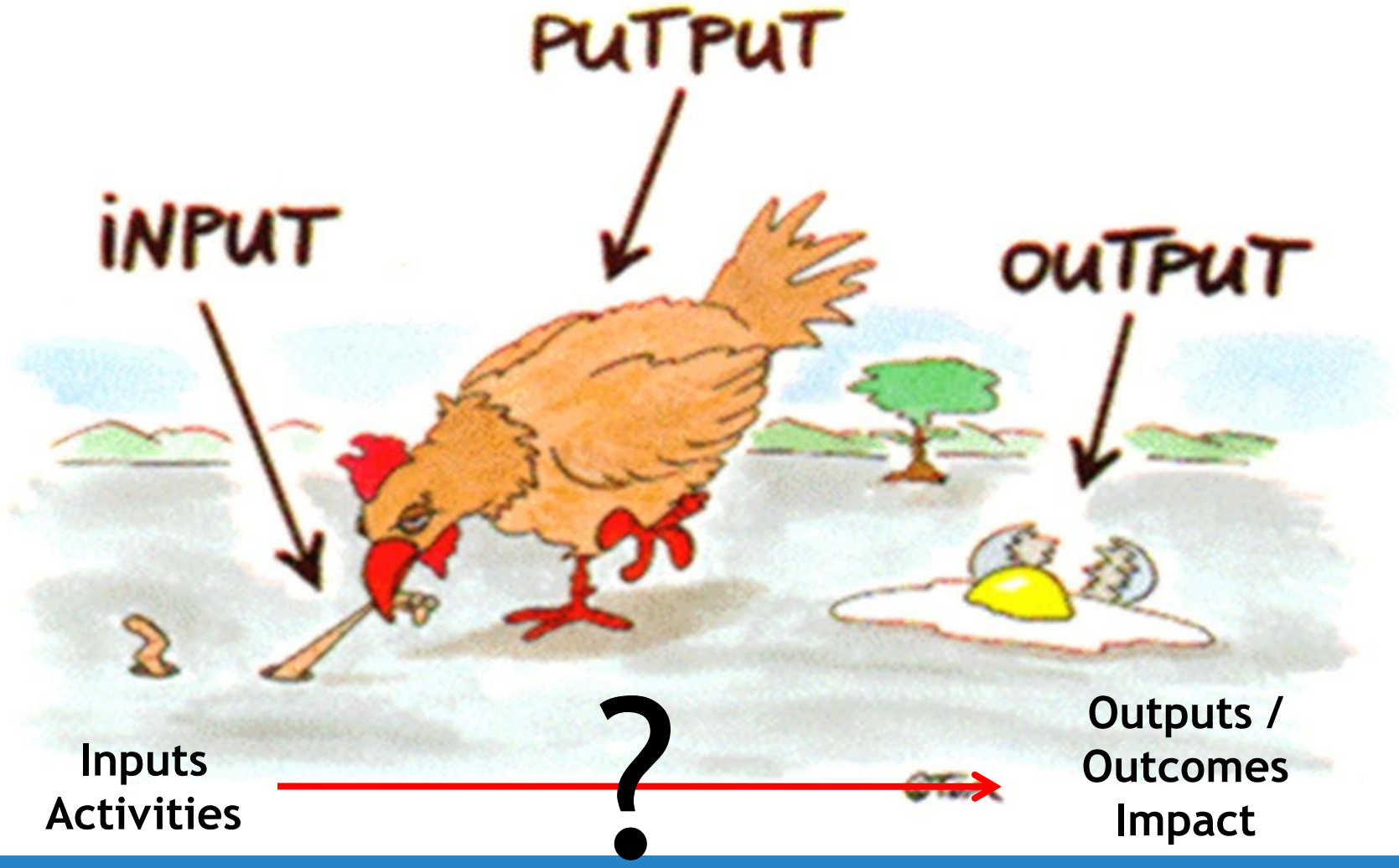
Baseline survey (Mar-May 2011)

PE for full program Apr-Aug 2012

Endline survey (Mar-June 2014)

Cole et al, 2016 Eval Program Plan 56: 11–22

Mixed Methods Monitoring and Process Evaluation



Mixed Methods Impact Evaluation

Increasingly we see mixed methods used for formative work, tool planning and process evaluation - however its use in impact evaluation is still somewhat limited – and this limits the interpretive power of our impact evaluation.

Traditional quantitative IE, often considered the gold standard, typically relies on unidimensional indicators (anthro, knowledge) but many of the domains we seek to effect change in along our impact pathway are complex – think empowerment, poverty, food insecurity, social capital / cohesion -- As well – while the impacts we measure may be important for us, there may be more important impacts in the mind of the community – identifying and honoring these can support community engagement and sustainability – and may also provide us the opportunity to capture unintended consequences that may undermine sustainability -- capturing these however often requires a participatory and qualitative inquiry.

Mixed Methods Impact Evaluation

Sequential Explanatory

Qual inquiry following endline survey to provide greater information of particular findings or explore inconsistencies

Convergent:

In depth interviews / household observations with purposive sample of beneficiaries over life of program to develop narrative case studies of change

Participatory rural appraisals with before / after timeline activities

Most Significant Change

Both require *a priori* planning in regards to timing and budgets.

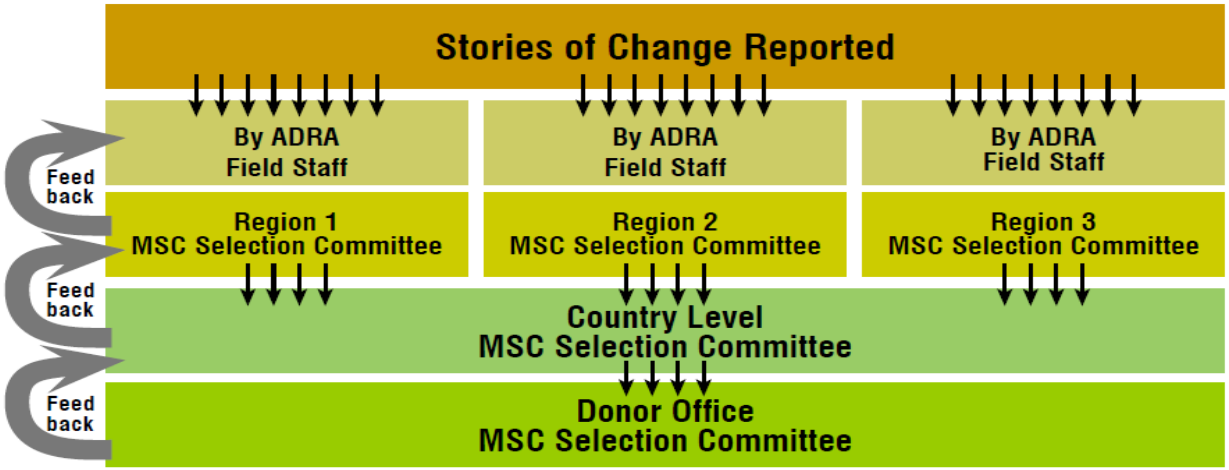
Mixed Methods Impact Evaluation

Ex. Most Significant Change

'During the last month [year / since program began], in your opinion, what was the most significant change that took place for participants in the program?'

'From among all these significant changes, what do you think was the most significant change of all?'

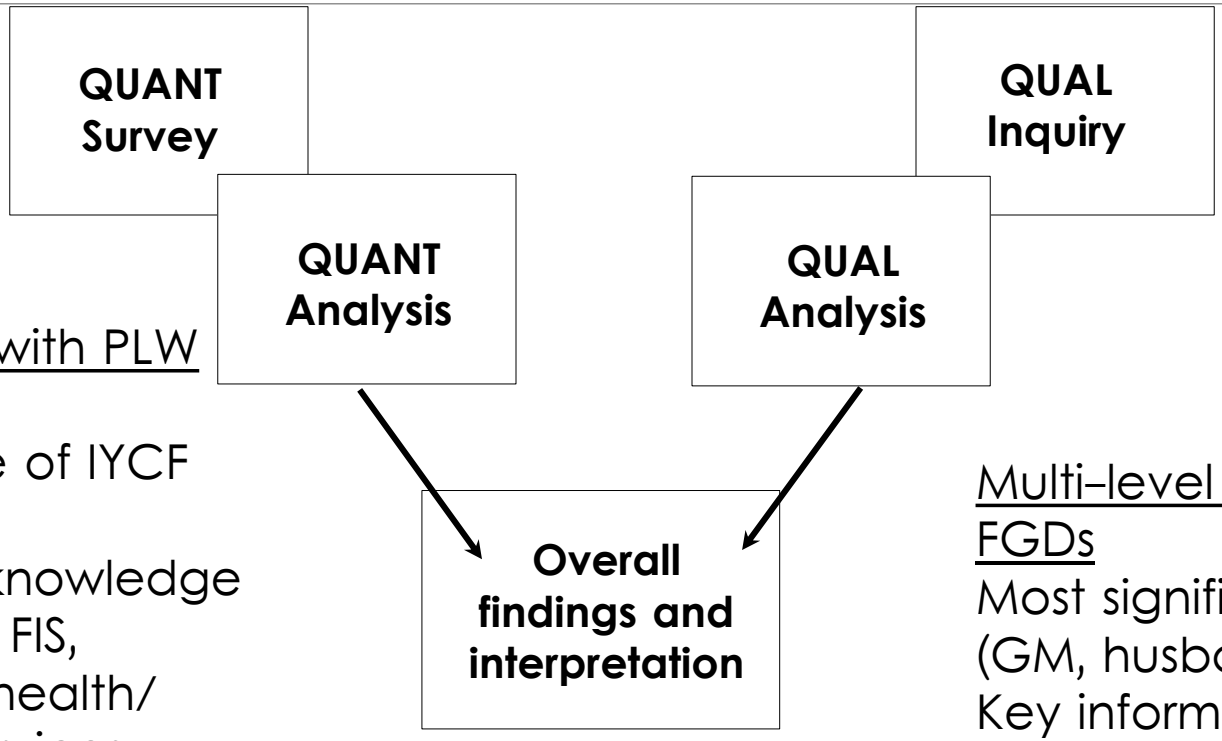
Figure 1. The MSC selection process (example from ADRA Laos)



can be collected as verbal stories or photos/videos taken and explained by community members; selection can be programmatically led or community led

From Davies and Dart, 2005. Most Significant Change Tool: http://www.mande.co.uk/docs/MSCGuide.pdf

Concurrent Impact Evaluation



Evaluation of Grandmother Focused Strategy for MCN

HH Survey with PLW and GM
Prevalence of IYCF practices
IYCF, rMN knowledge / attitudes, FIS, uptake of health/ nutrition services
Facility survey of birthweights from 2013–2016

Multi–level IDIs and FGDs
Most significant change (GM, husbands, mothers)
Key informant interviews (MoH staff, community elders)
Narrative case studies with GM leaders

Adapted from: Creswell & Clark 2007

What qualifies as mixed methods?

"any methodological combination [is] mixed methods research (MM) when it satisfies

1. at least one qualitative method (QUAL) and one quantitative method (QUAN) are combined;
2. each method is used rigorously; and
3. the data collections, and/or data analyses, and/or results are integrated"

Pluye and Nha Hong, 2014 Annu. Rev. Public Health 2014. 35:29–45

Ensuring rigor and integration

Grounded in *theory of change* **AND** relevant *social / behavioral / health theories*

Sampling facilitates generalizability and inclusion of information–rich yet representative participants

Sample size allows you to reach statistical significance and / or thematic saturation

High quality implementation of complementary tools

Integrated analysis designed *a priori* →triangulation to answer key questions of what impacts, for whom, how and why?

Sampling for Qualitative Inquiry

Participants are **purposively selected** because they have specific characteristics / experiences

- Increase representativeness by using quant data to inform typologies of participants included

How many?

- Goal is to reach **saturation** → critical point when data no longer contributes new themes or codes
  - **Small numbers** because mining deeply
  - **Total determined theoretically and practically**

What are you sampling for?

Theory and Goals contribute to deciding who to sample – often may use a combination of the following

- Maximum Variation / Heterogenous?
  - Seeking the gamut of experiences / information – men, women, across life stages, multiple ethnicities, livelihoods
  - Example: Formative research to develop a survey that will be applied to the general population
- Homogenous Selection?
  - Similar characteristics for a very specific type of question
  - Pregnant, urban women younger than 18 who are not in school
- Typical Case?
  - Ordinary, average – people who do not fall to the extremes
  - Typical household in community in terms of wealth, employment, family size
- Critical Case?
  - Lots of experience or information on a given topic / issue
  - Eye–witness account – survivor of hemorrhage, women who received illegal abortions

Collecting Qualitative Data

Most important tenet → The facilitator **IS** the instrument

Facilitators must:

- Establish and maintain rapport
- Actively listen, effectively probe and observe to obtain rich data
- Ask open-ended data-generating questions appropriate to the respondent(s) and the situation
- Be flexible and follow the lead of the participant(s)
- Facilitates discussion and debate, not consensus
- Appropriate and effectively design and integrate participatory activities when needed

Well trained, experienced interviewers / facilitators are critical for producing high quality data

Same applies for analysis of qualitative data

Critical Questions to Ask when Planning MMA

When will MM be used?

Which design –– sequential or concurrent?

single or multilevel? Cross–sectional or longitudinal?

?

Equal weight, or will one methodology be dominant?

What are my available capacities / resources?

Capacity and Resource Considerations for Integration

Multi–disciplinary evaluation team

Planning starts at program conception

- Triangulation Plan
- Analysis plan with time / resources for field follow up
- Document plan in detail – sample, data collection, analysis plan

Data management and analysis is interactive and iterative

Recap of Mixed Methods

Integration allows for a greater array of questions to be addressed to inform understanding process of impact, sustainability and scale up

Triangulation of complementary methods verifies and increases utility of different data sources and findings

Compensates for weaknesses of evaluation strategy due to resource / capacity constraints

Mixed methods require us to stretch ourselves beyond our comfort zones – but the payoffs in terms of program learning and impacts are worth it

How do you assess change in program partners to inform potential sustainability and scale up

Outcome Mapping – going beyond process evaluation

"OM provides a method for [partners] to plan for and assess the capacities that they are helping to [strengthen] in the people, groups, and organizations who will ultimately be responsible for improving the well–being of their communities"

"OM focuses on changes in behaviour and relationships of intermediate local actors {boundary partners} who are supported by the programme and whose actions are believed to contribute towards changes at the level of final beneficiaries"

Great resources on outcome mapping can be found at http://www.outcomemapping.ca/

Outcome Mapping

- Boundary Partners contribute to development of project vision, mission and PIP
- Boundary Partners identify and set their own outcomes → **outcome challenges**
- Boundary partners identify **progress markers** that will lead to outcome challenges
- Boundary Partners develop **strategy maps** and **organizational frameworks** to support achievement of pro
- Boundary Partners conduct routine and systematic **self–assessment** to document progress using **qualitative tools**

Additional Useful Resources on Mixed Methods

USAID, 2012. Conducting Mixed Method Evaluations. Monitoring and Evaluation Series. Available at https://www.usaid.gov/sites/default/files/documents/1870/Mixed_Methods_Evaluations_Technical_Note.pdf

Bamberger, M. 2012. Introduction to Mixed Methods In Impact Evaluation. Impact Evaluation Notes (No. 3). Available at https://www.interaction.org/sites/default/files/Mixed%20Methods%20in%20Impact%20Evaluation%20(English).pdf

Garbarino and Holland, 2009 **Quantitative and Qualitative Methods in Impact Evaluation and Measuring Results. (**DFID Issues Paper) Available at http://www.gsdrc.org/docs/open/eirs4.pdf