



HSS Evaluation Collaborative

# Report: Rapid Evaluation Methods in Health Systems Strengthening

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## Executive Summary

Health Systems Strengthening Interventions are inherently systemic and complex. Evaluating their performance and impact should imbibe the complexity and dynamism of the health system, consider stakeholder inter-relationships and inform on the systemic changes in Health Systems functions, as well as changes in organisation and in people's relationships, roles, rules, and resources (Anwer Aqil 2017). There is a visible need for such evaluations to generate evidence for informing programme and policy within shorter time frames and/or have inbuilt feedback loops that support improving the intervention in tandem to design and implementation for better outcomes/ impact.

Rapid Evaluation Methods (including Rapid Cycle Evaluations and Rapid Feedback Evaluations) are a family of emerging research and evaluation techniques useful to provide systematic findings for decision making. These rely on a mixed-methods approach with quasi-experimental designs with or without comparator cohorts. Their use largely depends on the context and involvement of stakeholders and programme staff throughout the evaluation to ask focused questions and understand influencing factors and specific barriers. Qualitative methods such as interviews, focus group discussions, network analysis, social mapping etc., are primarily used, along with quantitative methods to analyse data from routine programme or administrative data sets with focused and short surveys to fill gaps. As these techniques are still evolving, 'Rapid' for now largely constitutes a significant reduction of time for research implementation and analysis (a study completed within six months) by conducting these steps in parallel (Norman Gill 2021). During the pandemic, addressing time sensitivity, rapid evaluations have found some use at health facility, health professional/ worker and household level. These were mostly discrete choice experiments and used techniques to reduce primary research time through the use of IT-driven tools for data collection and analysis, online/telephone surveys, interactive voice response (IVR) etc.

A systematic review by Cecilia Vindrola Padros, 2021 and scoping review by Norman Gill, 2021 observe scattered and limited application of these methods within the scope of HSS. These methods are inherently iterative and stakeholder-driven, leading to difficulties in examining interventions for consistency and scalability outside the specific contexts. And the overall trend in the design of rapid evaluations is shifting towards studies with multiple short stages with feedback loops or cycles rather than studies that are short (E. B. Cecilia Vindrola Padros 2021). Literature does not comment on the use of REM for the determination of causality of HSS interventions and if these design/methods identify where results stand on a contribution-attribution continuum. Some donors and research teams specialised in HSS evaluations have applied rapid feedback, rapid-cycle evaluations and development evaluations within the MERLA framework (Monitoring, Evaluation, Research, Learning and Adapting) by (USAID, MERLIN 2021), which are a work in progress. The use of rapid evaluation is further impacted by a shortage of health service researchers and evaluators and a lack of funding for timely applied research, such as that using routine data (Selina Rajan 2021).

As this is still an emerging field, a systematic review is required to define Rapid Evaluation Methods and their use in the HSS context, distinguishing them from rapid reviews/appraisal/assessments. It is important to understand the relation of the suitability of such designs, the trustworthiness of data, and the degree to which evaluation findings are used to make changes in practice (i.e., how feedback loops are negotiated with stakeholders) and ultimately, the impact of sharing findings rapidly on decision-making processes (i.e., how were these findings used? (E. B. Cecilia Vindrola-Padros 2021).

## 1. Background

This brief report is prepared in accordance with the Terms of Reference shared by Itad Ltd on 6 December 2021. Discussions with experts at Itad, Lamiaa Shehata and Natasha Palmer, helped in developing a focused report with specific user-friendly (yet technical) guidance on 'Rapid Evaluation Methods (REM) in Health Systems Strengthening (HSS).

The report attempts to:

1. Summarise existing knowledge on REM in HSS evaluation methods covering the approach and key features.
2. Highlights the strengths and limitations of REM, including evaluative challenges and good practice that could be applied to various interventions/evaluations.
3. Presents experience from application of REM during the COVID -19 pandemic.

### 1.1 Methodology for development of this report

A review of published and unpublished literature on evaluations that are described as 'rapid' was conducted. Google search, google scholar and commonly used research databases were used, and the search strategy was iterative using words – Rapid Evaluation, Rapid Research, Rapid Cycle Evaluation, Rapid Response Inquiry etc. Journal articles, reports published by technical/donor agencies and conference proceedings were screened. Information on evaluation research related to health systems strengthening efforts, evaluation of healthcare programmes, initiatives and innovations were considered. Evaluation research from non - healthcare fields and research focused on clinical settings with related improvements in outcomes was not included. It is evident literature was scant and scattered with several cross-references to a few original articles mentioned in **Table 1** and **Table 2**. Development and structure of the summary were largely guided by scoping review on Rapid Evaluations by (Norman Gill 2021), systemic review on Rapid Evaluations and other work by (E. B. Cecilia Vindrola Padros 2021), A review of Rapid Evaluations and Appraisal Methods by (M. McNall 2007), work on Rapid Evaluation approaches by (Hargreaves 2014) and proceedings of the conferences on Rapid Evaluations organised by Nuffield Trust in 2019, 2020 and 2021 (NuffieldTrust 2021).

## 2. Context and Need for Rapid Evaluation Methods

As countries advance on their path to universal health coverage (UHC), cognizant of the gaps exposed during the COVID-19 pandemic, policymakers, health care providers, and public health practitioners are employing multifaceted Health Systems Strengthening (HSS) interventions targeting large-scale organisation and systems change at multiple levels in health care, behavioural health, public health, and human services. There is a need to decipher these interventions in terms of design, implementation, and impact from a process, organisation, and systemic perspective to implement change more effectively from multiple vantage points. Lack of clarity on causal linkages between HSS interventions and system's performance, the dynamic nature of health systems, complexity and interactions among stakeholders involved in the HSS efforts, limits ways to ascertain impact of the strategies deployed, more when interventions are novel, and theory of change is not well articulated (Anwer Aqil 2017). In this scenario, there is a visible need for continuous HSS learning and adaptation in an emerging healthcare context for insights into what works, why, and in what contexts (USAID 2021). Research for generating evidence must (1) imbibe systems thinking to understand the linkages between the intervention and other health system components and functions, (2) involve and consider views of local stakeholders, (3) apply flexible methods to adapt to emerging context, and (4) provide findings periodically within shorter time frames to enable stakeholders to respond to policy priorities and programme needs (Anwer Aqil 2017) (USAID 2021).

Timeliness influences the utility of research as findings shared during windows of opportunity can inform decision-making to reduce the mismatch between policy and evaluation (Cecilia Vindrola 2020). Over the last four decades, diverse techniques denoted as Rapid Evaluation and Appraisal Methods (REAM)<sup>1</sup> have evolved that could be used when time is constrained for putting trustworthy, actionable information at critical moments. Among these, within the scope of HSS, Rapid Evaluation Methods (REM) could be used to quickly generate (in comparison to conventional evaluations) prompt and relevant information for planners and decision-makers who need it for a specific purpose without sacrificing quality (M. Anker 1993). REM have found a use for early and/or ongoing reporting/ feedback of findings during the evaluation of an intervention for process or quality of service improvement or evaluating complicated organisational change programmes and large-scale systemic or population change initiatives (Hargreaves 2014).

It is important to understand that evaluation methods are applied appropriately aligned to the relevance of the HSS evaluation questions. These methods fill gaps in understanding health system dynamics and causal linkages, embedded in the context, thus requiring a mixed-methods approach. While the approach has given rise to cross fertilisations among different types of rapid techniques, application of these methods has been limited, more so in evaluating HSS efforts. There is emerging interest due to changing context of HSS, focus on continuous learning during programme implementation and coping with pressures of the pandemic for quicker and reliable evaluations that could inform governments, donors, researchers, and community on strategies for improving health status, responsiveness, and financial risk protection.

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<sup>1</sup> Rapid Evaluation and Appraisal Methods (REAM) encompass Rapid Evaluation Methods (REM), Real Time Evaluation (RTE), Rapid Cycle Evaluations (RCE), Rapid-Feedback Evaluation (RFE), Rapid Assessment Procedures (RAPs), Rapid Assessment (RA), Rapid Ethnographic Assessment (REA), Rapid Rural Appraisal (RRA), rapid assessment response and evaluation (RARE), Participatory Rural Appraisal (PRA), Rapid qualitative inquiry (RQI), Rapid Assessment Participatory Action Research (RAPAR) etc. For example, rapid assessment approaches are used to study HIV transmission patterns, whereas rapid evaluation approaches are employed to evaluate an HIV/AIDS health care intervention (M. McNall 2007).

### 3. Rapid Evaluation Approach

The term ‘rapid evaluation’ is widely used for approaches that aim to adopt pragmatic methods for the timely assessment of innovations (Norman Gill 2021). However, there is no consensus on the meaning of ‘Rapid’ in Rapid Evaluations. It may indicate (1) a shorter timescale (4 weeks to 6 months) from design to dissemination (2) early/ongoing reporting of findings, and ongoing learning (3) applying techniques/tools that reduce the time for data collection and analysis, (4) specific research processes using a less time-intensive methodology, (5) conducting data collection and analysis in parallel, eliminating transcription or the coding of qualitative data and utilising larger evaluation teams to share the workload (Norman Gill 2021) (E. B. Cecilia Vindrola Padros 2021).

Cecilia Vindrola-Padros 2021, found three main labels are currently being used to define rapid evaluations: Rapid Evaluation Methods (REM), Rapid Feedback Evaluations (RFE), and Rapid Cycle Evaluations (RCE). REMs and Rapid Time Evaluations (RTE<sup>2</sup>) were the oldest approach to rapid evaluations, followed by RFEs and RCEs. All these focus on projects, programmes, or systems primarily concerned with the thoughts and behaviours of the actors within entities. There is an overlap between RFEs and RCEs, but studies using RCEs tended to adapt the concept of rapid cycles to common iterative processes used in quality improvement (i.e., Plan-Do-Study-Act cycles). These have been recently applied in the MERLA Framework (Monitoring, Evaluation, Research, Learning and Adapting). For purposes of this document RCE and RFE are considered as extensions of REM to be used depending on need and the context. Key features are presented in detail in **Annex 1**.

*Rapid evaluation methods (REM) can be defined as timely, team-led, intensive, practical yet systematic inquiry using mixed methods (primarily qualitative) requiring stakeholder participation and based on an iterative process for data collection and analysis to report a holistic understanding of an intervention from an insider’s and an outsider’s perspective (M. Anker 1993) (ITECH 2008).*

**Rapid Evaluation Method (REM)** was developed as a standalone evaluation method in the 1980s by the World Health Organization to assist programme managers to accurately, quickly, and economically identify operational issues with regards to performance and quality of health services without having to conduct large surveys. Rapidity is the key word that distinguishes this method of assessment from other forms of data collection for management of health services completing the study within a few days to weeks (M. Anker 1993).

**Rapid Cycle Evaluation (RCE)** assesses an intervention using regular and frequent assessments for agreed outcomes, providing feedback to key stakeholders, allowing for the identification of opportunities for timely course correction and improvement. Quasi-experimental designs<sup>3</sup> that use time-series analyses are applied to understand the relationship between implementation of the new intervention and immediate changes in outcomes and the rate of change of those outcomes.

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<sup>2</sup> Real-Time Evaluation (RTE) has been used during humanitarian crisis to provide ongoing response to emergencies, with an urgent need for evaluation findings. Evaluators are part of the crisis response “cell,” systematically collecting and reviewing data as the crisis unfolds. RTE evaluators interact and share their observations and recommendations on an ongoing basis with field staff to allow operational problems to be quickly corrected and potential problems to be avoided. Typically, RTEs use a mixed-methods approach, involving semi structured interviews, site visits, a limited number of in-depth interviews, focus groups, and reviews of secondary documentation (M. McNall 2007).

<sup>3</sup> Quasi-experimental research designs, like experimental designs, test causal hypotheses. A quasi-experimental design lacks random assignment. Quasi-experimental designs identify a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics. There are different techniques for creating a valid comparison group such as regression discontinuity design (RDD) and propensity score matching (PSM) (White H 2014).

Comparison groups are used where appropriate, to help clarify the models' causal mechanisms (Shrank.W 2013). For example, the Center for Medicare and Medicaid Innovation (CMMI), USA, uses RCE to evaluate innovative payment and service delivery models that aim to improve the coordination, quality, and efficiency of care under the Patient Protection and Affordable Care Act (ACA). Evaluators collect qualitative information about (1) providers' practices, organisational characteristics, (2) the culture of the health care systems in which they operate, (3) how providers implement the intervention, and (4) the factors that hinder and support change (Hargreaves 2014).

**Rapid Feedback Evaluation (RFE)** uses existing programme data to make a quick, preliminary assessment of programme performance for the timely delivery of findings to inform key programming decisions. Collection of new data on programme performance is done only if gaps exist and is typically limited to brief interviews with programme staff. In an RFE, programme managers have a tightly focused questions about programme performance or have already identified a problem with programme operations and need more information to decide how to correct the problem. Thus, it can be useful as a primer to full-scale evaluation or as a standalone approach (M. McNall 2007). Hargreaves 2014 considers action research and developmental evaluation as variants of RFE that take an iterative approach where researchers facilitate systems change evaluations of large-scale, multisector, multilevel, and community-based initiatives to provide rapid feedback to stakeholders.

**Action Research** creates a cycle of inquiry through an ongoing analysis of contextual conditions, discrete actions are taken to improve those conditions, and an assessment of the efficacy of those actions, followed by a reanalysis of the current conditions (Hargreaves 2014). A group environment called 'situated learning' is created where the researcher facilitates a process for stakeholders to review the consequences of their actions, reflect on the effectiveness of their actions in solving the identified problem to develop a shared understanding of what new actions to take (Rosaen C L 2001). Although the process theoretically ends when the original problem is solved, some argue that because the environment is constantly changing, this "cycle of inquiry, action, and reflection" can be used on a continuous basis (Rappaport 1981).

**Developmental Evaluation** establishes a scenario where the evaluator works with the innovator generating inquiry questions, setting priorities for what to observe and track, collecting data, and interpreting the findings together to draw conclusions about next steps, including how to adapt the innovation in response to changing conditions, new learnings, and emerging patterns. DEs emphasise iterative, real-time data collection and regular reflection to support adaptation and are methodologically agnostic and adjust analytical techniques and evaluation questions as the project changes (USAID, Development Evaluation 2021). Qualitative or quantitative methods can include surveys, focus groups, community indicators, organisational network analyses, consumer feedback, observations, and key informant interviews with influential community leaders or policymakers. The frequency of feedback is based on the nature and timing of the innovation (Patton 2011).

## 4. Application of Rapid Evaluation Methods

According to ITECH 2008, REM can be carried out at any stage of a programme and ideally should be incorporated into a programme's overall design during the planning stage to ensure continuity. During a formative evaluation that takes place prior to programme initiation, REM can be used to determine what issues need to be addressed by a programme. This serves as a baseline for measuring programme performance as well as provide valuable contextual information about local beliefs, norms, risk behaviours and "hotspots" that can be integrated into the programme design. At a programme's midterm, it could be used to identify and fix problems as they occur. Finally, at a programme's end, REM could be used to assess successes, weaknesses, and potential for replication and/or scale-up.

REM is most useful when:

- Limited background information exists about the issue or problem in question
- Programme performance is unexpected (either better or worse than anticipated), and staff want to understand why. Emerging or unexpected problems arise during programme implementation, and staff want to determine the best way to address them.
- An insider's perspective would be helpful to achieving programme success, such as understanding how programme beneficiaries view services.
- There is a need to inform decision-making in relation to a service, programme, or intervention whether to scale up a programme, which is done by identifying specific aspects that should be expanded and ones that should be changed or fixed.

For the purposes of HSS evaluations, Hargreaves 2014, suggests application of REM according to the level of complexity of the HSS intervention. (1) Quality improvement methods for simple process improvement; (2) Rapid cycle evaluations for complicated organisational change programmes, and (3) Systems based rapid feedback methods for large-scale systemic or population change initiatives. These are not mutually exclusive and may be more effective when nested. Regardless of the level of complexity, need, and context, REM should:

1. Consider the dynamics of the intervention's context; the structure, programme logic, and intended outcomes of the intervention itself; and the intended purpose and use of intervention's evaluation (Hargreaves 2014)
2. Maintain a balance between short-term results and long-term outcomes so that there is an alignment of task, management, and strategic control.
3. It should also be part of an interactive and adaptive management process in which internal operational results and external environmental feedback are used together in an iterative process to test and improve the initiative's overall strategy.
4. Use criteria like Guba and Lincoln's (1989) Fourth Generation Evaluation Model, which seems particularly relevant to many REAM studies for guiding and judging whether a rapid evaluation's process, findings accurately portray stakeholders' experiences and concerns (M. McNall 2007).
5. Use the information collected, analysed, and interpreted "as a catalyst for continual change," in which data and action plans are reconsidered, and original assumptions are questioned through a reflective, double-loop learning process that supports rethinking of project goals (doing the right thing) as well as project strategies (doing things right) (Argyris 1982).



## Limited Application of REM for Evaluating HSS Interventions

REM was used for evaluating mother & child health activities, family planning and responding to health/nutrition needs in conflict-affected regions. Over the last four decades, these have been used to assess activities related to disease control, primary healthcare (ITECH 2008), research on drug use (Coomber 2015), on mental health (MG Young 2016) (Murphy A 2018).

Cecilia Vindrola-Padros 2021 conducted a systematic review of literature on REM in healthcare settings based on peer-reviewed articles. Twelve research articles yielded to their rigorous quality assessment. These research studies were conducted and published between 1993 and 2019, and about half of them before 2010. The articles used different labels to describe their rapid evaluation designs. Some evaluations adopted a utilisation-focused design, while others had more exploratory or diagnostic purposes. Six articles identified their studies as using Rapid Evaluation Methods (REM), three used Rapid Feedback Evaluation (RFE), and three used Rapid Cycle Evaluations (RCE). There was an overlap in definitions between RFEs and RCEs, but studies using RCEs tended to adapt the concept of rapid cycles to common iterative processes used in quality improvement (i.e., Plan-Do-Study-Act cycles). A search for this assignment found another article (Krishna D 2020) that confirms the definition of RCE. **A summary of these 13 research studies is presented in Table 1.** Literature does not comment on the use of REM for the determination of causality of HSS interventions and if these design/methods identify where results stand on a contribution-attribution continuum. Techniques/Methods which may be used in identifying emerging intermediate outcomes, causal pathways and linkages with broader HSS outcomes are mentioned in **Annexure 3**.

## Application of REM in MERLA Framework

MERLA framework (Monitoring, Evaluation, Research, Learning and Adaption) uses integrated data-gathering methodologies to provide periodic feedback to local stakeholders<sup>4</sup> that enable iterative learning and continuous adaptation to build flexible, effective, evidence-based programmes. Feedback loops are created through 'Pause and Reflect' sessions, roundtable discussions, after-action reviews etc., to discuss programme activities, deeper questioning, and revisions to the programme's original theory of change, elicit gaps in knowledge for effective implementation and proposed means of action. Focused and quick studies are conducted so that they can rapidly provide evidence to supplement routine M&E data and examine the reasons for a trend, evaluate a piloted intervention to address an identified problem or illuminate the context of a proposed activity (Rachel D Stelmach 2021).

Since 2015, USAID, along with its partners through the MERLIN (Monitoring, Evaluation, Research and Learning Innovations Program) applied MERLA (**Rapid Feedback MERLA, Development Evaluation**) to various HSS programmes (USAID, MERLIN 2021). Rachel D Stelmach (2021), piloted MERLA framework in 2017, in Guinea and Philippines, leading to a gradual scale-up of MERLA use over the next three years to over 20 countries across sub-Saharan Africa and Asia. **These and other such experiences are summarised in Table 2.** Most projects applying these approaches are works in progress. It would be prudent to examine each of these studies in detail to summarise learnings,

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<sup>4</sup> Local stakeholders or champions include program staff and leadership, technical experts, local government partners, donors, clients, and beneficiaries - as well as external experts to include people who have access to the required data, will be affected by the findings of the framework, and/or have the social capital to generate support for MERLA activities.

methods used and to elicit challenges in implementing these methods to the constraints of the project context, especially in terms of stakeholder influence, scientific rigour etc.

### **Application of REM by Rapid Service Evaluation Team ('RSET')<sup>5</sup> and BRACE<sup>6</sup>**

Since 2018, Rapid Service Evaluation Team ('RSET') and BRACE in the United Kingdom have come together to use rapid evaluations methods for service innovations within the realms of National Health Service (NHS) – those driven both by national policy and local needs – from innovative organisational hospital forms such as hospital groups and innovations in the management of services to new ways of delivering services to patients, and quality improvement initiatives. They are using a range of mixed methods, quantitative and qualitative approaches as appropriate to each evaluation, including analyses of administrative and other datasets, economic analysis, stakeholder interviews and focus groups, surveys, and discrete choice experiments<sup>7</sup> etc. They have conducted the following rapid evaluations with a focus on reducing time to deliver findings to stakeholders:

- Remote monitoring models implemented during COVID-19 pandemic first wave in England (M. S. Cecilia Vindrola Padros 2021): This was a study conducted between July and August 2020 that combined qualitative and quantitative approaches to analyse the implementation and impact of models through interviews with staff delivering these models across eight sites in England with the collection and analysis of data on staffing models and resource allocation.
- Special measures for quality improvement and challenged provider regimes (Naomi Fulop 2020): Undertaken within a one-year time frame, including iterative data collection and analysis involving teams of field researchers, with the research team meeting fortnightly to discuss progress and emergent findings. Mixed methods include a systematic review of literature, policy analysis, multi-site case studies (trust performance, quality of care, patient experience and costs), analysis of national performance and workforce indicators, economic analysis.
- Rapid Evaluation of Gateshead Enhanced Health in Care Homes (EHCH) Vanguard aimed to increase collaborative working and establish partnerships between health care providers to improve the health and wellbeing of residents and thereby reduce pressure on primary, secondary and social care services. Quantitative analysis of data (using Interrupted Time Series) from North of England Commissioning Support Unit (NECS) for monthly Secondary Users Service (SUS) was used. Evaluation concluded that when estimating the impact of complex interventions, extra regard should be given to longer time periods to accurately estimate full impact interventions (Andrew McCarthy 2019).
- Ongoing rapid evaluations are – (1) Centralisation of specialist health care services in the UK, Impact of innovations prompted by the COVID-19 pandemic, Peer supported social care in prisons, innovations in outpatient services. Detailed information can be accessed [here](#).

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<sup>5</sup> Comprises health service researchers, health economists and other colleagues from University College London and the Nuffield Trust, funded by the National Institute for Health Research (NIHR) Health Service and Delivery Research (HS&DR) programme for five years, starting on April 2018.

<sup>6</sup> Funded NIHR and HS&DR programme, the Birmingham, RAND, and Cambridge Evaluation Centre, which is a collaboration between the University of Birmingham, RAND Europe, the University of Cambridge, and National Voices.

<sup>7</sup> Discrete choice experiment is a quantitative method used in healthcare to elicit preferences from participants (patients, payers, commissioners) without directly asking them to state their preferred options. In a DCE participants are typically presented with a series of alternative hypothetical scenarios containing several variables or "attributes" (usually ≤5), each of which may have a number of variations or "levels". Participants are asked to state their preferred choice between 2 or 3 competing scenarios, each of which consists of a combination of these attributes/levels. Typically survey instruments include 5-10 of such choices to be completed. (York Health Economics Consortium 2016).

Table 1. Summary of Research Studies using Rapid Evaluation Methods, adapted from (E. B. Cecilia Vindrola Padros 2021)

S.no	Author, Publication Year, Country	Objective	Type of Evaluation	Evaluation Design & Methods	Evaluation Duration
1.	Anker, 1993, Botswana, Madagascar, Papua New Guinea, Uganda, Zambia	Describe the basic components of REM and discuss methodological issues.	Rapid evaluation methods (REM)	Qualitative - Interviews, Focus groups, Record review, Observations	6- 10 days
2	Bjorson Benson, 1993, United States	Develop a monitoring and evaluation system of trial recruitment methods.	Rapid feedback evaluation (RFE)	Quantitative - Review of recruitment reports, Costs	6 months
3	Chowdhury, 2004, Bangladesh	Evaluate a menstrual regulation programme.	Rapid evaluation methods (REM)	Qualitative - Interviews, Observations, Focus groups	3 months
4	McNall, 2004 United States	Evaluate rates of a longitudinal HIV/AIDS care study targeted a hard-to-retain population.	Rapid feedback evaluation (RFE)	Mixed methods - Interviews, routinely collected data	Not Specified
5	Aspray, 2006 United Kingdom	Identify barriers in access to home care for vulnerable population living with diabetes.	Rapid evaluation methods (REM)	Mixed methods - Interviews, Record review	12 months
6	Felisberto, 2008, Brazil	Develop a self-evaluation model of a public health programme.	Rapid evaluation methods (REM)	Mixed methods - Case study, Cross- case comparison, Self-evaluation matrix	7 months
7	Grant, 2011 Malawi, Uganda, Kenya	Describe patient, family, and local community perspectives on impact of three community based palliative care interventions in sub-Saharan Africa.	Rapid evaluation methods (REM)	Mixed methods Interviews, Observations, Local reports	1 week at each site over 5 months
8	Schneeweiss, 2015, United States	Clarify how RCE alters policy decisions, develop the RAPID framework, and provide guidelines on evidence thresholds.	Rapid cycle evaluation (RCE)	Quantitative - Routinely collected data	3–6 months
9	Zakocs, 2015, United States	Describe the data-to-action framework: A process to guide evaluators and practitioners in using rapid feedback cycles in implementation.	Rapid feedback evaluation (RFE)	Mixed methods - Interviews, Record review, Focus groups	3 years, with 20 Feedback cycles
10	Keith, 2017, United States	Present an approach for supporting the rapid cycle evaluation of the implementation of healthcare delivery interventions.	Rapid cycle evaluation (RCE)	Qualitative - Interviews, Observations	4 months
11	Munday, 2018, India	Evaluate a palliative care model of care.	Rapid evaluation methods (REM)	Mixed methods - Interviews, Document review, Questionnaire, Observations	2 months
12	Skillman, 2019, United States	Describe the advantages and limitations of a framework for rapid-cycle, multi-site mixed method evaluation.	Rapid cycle evaluation (RCE)	Mixed methods - Interviews, Focus Groups Document review	9 months (quarterly Feedback sessions)
13	Krishna D, 2020, India	Rapid-Cycle Evaluation in an Early Intervention Programme for Children with Developmental Disabilities in South India	Rapid cycle evaluation (RCE)	Mixed methods - Interviews, Document review, Questionnaire, Observations	3 years with unspecified cycles

Table 2: A summary of interventions using MERLA to inform programme & policy decisions, authors own from (Rachel D Stelmach 2021), (USAID, MERLIN 2021)

S.no	Author, Publication Year, Country	Objective	MERLA framework implemented by the in-country MERLA team in concert with local stakeholders.		
			Methods used to elicit gaps	Result	Action Taken
1	Rachel D Stelmach, 2021, Guinea	Malaria prevention during pregnancy by improving adherence to intermittent treatment (IPTp) during ANC visits	<ul style="list-style-type: none"> <li>Review routine programme data on IPTp</li> <li>In-country programme staff facilitated informal learning conversations with community members and health providers to better understand why pregnant women might not attend ANC visits.</li> <li>In-country MERLA team conducted a small pilot study (Flueckiger et al., 2019) to compare ANC attendance and IPTp coverage among pregnant women who received an SMS reminder and those who did not in the same region.</li> <li>Pause and reflect session with stakeholders conducted to share evidence from research along with routine M&amp;E data to show the possible effects of the intervention.</li> <li>Reviewed the monitoring results with staff from poorly performing health facilities</li> </ul>	<ul style="list-style-type: none"> <li>Found data lacked true denominator to measure of the number of pregnant women served by facilities, or overall target population of the intervention.</li> <li>Programme team learned pregnant women did not always know that they should attend follow-up ANC visits</li> <li>Women enrolled in the pilot were three times more likely to receive second dose of IPTp and 12 times more likely to receive a third dose of IPTp than those not enrolled (Flueckiger et al., 2019).</li> <li>Health facility staff agreed the importance of closely monitoring IPTp coverage. They helped identify potential means of increasing IPTp use in addition to SMS reminders, including communication activities using community health workers and closer follow-up by providers.</li> </ul>	<ul style="list-style-type: none"> <li>Routine data, supplemented with a new monitoring form to track cohort of pregnant women to identify areas of low/ high IPTp coverage.</li> <li>Explored communication methods to address knowledge gaps developed SMS system reminding people of their upcoming ANC.</li> <li>Gained national support for using SMS reminders to increase IPTp coverage National Malaria Control Program (NMCP) agreed to begin using SMS reminders for ANC visits and used the monitoring data to prioritise facilities for additional interventions.</li> </ul>
2	Rachel D Stelmach, 2021, Philippines	To understand what percentage of exclusively breastfeeding women were, in fact, meeting the Lactational Amenorrhea Method (LAM) criteria for protection against an unintended pregnancy.	<ul style="list-style-type: none"> <li>Health staff, city health officials and community health workers (CHWs) designed and implemented (1) Quantitative study using prospective design where CHWs tracked compliance with LAM and uptake of modern family planning methods over a 9-month period among 521 women who recently gave birth. (2) Qualitative study comprised of structured interviews and focus group discussions with community health workers and women who had recently given birth.</li> </ul>	<ul style="list-style-type: none"> <li>Found at 6 months postpartum, 57% of participants not protected from pregnancy through modern family planning method (MFP).</li> <li>Women assumed exclusive breastfeeding protected them from unintended pregnancy leading to not using MFP.</li> <li>In the pause and reflect sessions, stakeholders recognised although women always had access to a range MFP, exclusive emphasis on LAM meant that few sought out non-LAM methods.</li> </ul>	<ul style="list-style-type: none"> <li>City health department revised its community health worker trainings to emphasise that, in addition to LAM, community health workers should provide information and support for other modern family planning methods</li> </ul>

3	R4D, Mathematica, World Health Partners – USAID-funded consortium, <b>work in progress</b> , 2021, India – Karnataka, Haryana, Gujarat. (R4D n.d.)	Evaluation of Integrated Digital Adherence Technologies (IDAT) pilot that assessed the feasibility and utility of three different adherence technologies: the directly observed treatment, short-course (99DOTS) medication packaging and calling system; medication event reminder monitor (MERM) boxes; and video-observed therapy (VOT)	<ul style="list-style-type: none"> <li>• A Rapid Feedback MERL assessment using a mixed-methods analysis – (1) analysed two rounds of national patient-level quantitative data and (2) conducted focus groups and key informant interviews with patients, providers, and healthcare workers.</li> <li>• A series of reports and Learning Checks (convenings of key stakeholders to pause and reflect on the findings from the research activities and to discuss the implications for future research/programming), findings from these analyses were integrated over the past year into TB programming and treatment regimens.</li> </ul>	<ul style="list-style-type: none"> <li>• Technologies offer a way to estimate patient adherence and save health worker time, but challenges with recording doses, cellular signal, and supply chains mean they are not a replacement for health worker engagement.</li> <li>• Patient counselling was identified as the next priority area for ensuring continuity of care, as establishing an open relationship with patients can mitigate patient confusion and improve engagement.</li> <li>• Women, marginalised patients, and those with less technology familiarity experienced the technologies differently and faced more barriers than other patients</li> </ul>	Though it is feasible to scale multiple technologies to suit the diverse patient populations of the pilot geographies, patient characteristics must be taken into consideration to improve technology engagement and, ultimately, adherence. The next phase of the IDAT pilot will include “Enhanced Care” working to improve patient and healthcare worker experience with the technologies through tailored support and counselling.
4	USAID Consortium - Social Impact, Search for Common Ground and the William Davidson Institute (USAID, BORESHA AFYA 2020) , Tanzania, 2017 - 21	To strengthen integrated health services, particularly for women and youth in Tanzania	<ul style="list-style-type: none"> <li>• Development Evaluation - Evaluators used diverse data collection methods, including observational research, outcome harvesting and rapid reconnaissance. Outcome Harvesting collects evidence of what has changed (“outcomes”) and then, working backwards, determines whether and how an intervention has contributed to these changes.</li> </ul>	<ul style="list-style-type: none"> <li>• Boresha Afya made adaptations to improve integration of the project’s health services based on the findings from these different sources.</li> <li>• Evaluators offered on-site recommendations based on issues identified during site visits. Then the team discusses possible solutions with the facility team at that point [in time] ... So, some things were being addressed as they visited the site.</li> </ul>	<ul style="list-style-type: none"> <li>• In response to demand from health service providers, Evaluators shared different strategies to promote male engagement in prenatal care services offered to women.</li> </ul>
5	USAID Consortium - Social Impact, Search for Common Ground and the William Davidson Institute (USAID, Jilinde 2020)	Scaling up HIV Prevention Program Jilinde (Pre-Exposure Prophylaxis to the most vulnerable (PrEP) & reaching and retaining the high-risk people for oral PrEP services)	<ul style="list-style-type: none"> <li>• Development Evaluation - Evaluators used standardised facilitation &amp; reporting guide, “DE Tool.” at facility, county, country, project levels. Teams are expected to “pause, reflect &amp; document” challenges through monthly &amp; quarterly review sessions using the DE Tool. Data from client exit surveys; client-level clinical data; monthly service delivery data; qualitative information from interviews was discussed.</li> </ul>	<ul style="list-style-type: none"> <li>• Developing “continuation indicators “to provide data on PrEP services continuation and thereby better target people likely to adhere to the PrEP regimen.</li> </ul>	<ul style="list-style-type: none"> <li>• Restructuring outreach around drop-in centres that provide more security and comfort to vulnerable populations, giving better continuation over time.</li> <li>• Prioritising recruitment of clients committed to receiving refills,</li> </ul>

## 5. Strengths

- REM can be used in circumstances where time or resources are short, and evaluation is already built into the programme to yield cost-effective and accurate information (M. Anker 1993).
- REM is beneficial if issues in question are yet to be clearly articulated or for investigating specific and emerging issues (Hargreaves 2014).
- The results are available to the decision-makers within days or weeks after the end of the REM field survey or at periodic intervals through feedback loops (M. McNall 2007).
- As REM is participatory, involving stakeholders and community throughout, insiders' perspectives can explain the complicated problems, "whys" and "hows" of programme implementation that are difficult to capture using quantitative measures alone (ITECH 2008). REM helps identify stakeholders' level of ownership of - the problem, underlying causes and intervention/solution, emerging system-wide effects, causal relationships/linkage to HS outcomes, which leads to a holistic synthesis of system changes needed to sustain improvement.
- REM provides rich, detailed, contextual information about community beliefs, attitudes, and values that can impact programme design, implementation, and performance (ITECH 2008).
- The designs using REM granted flexibility to the evaluators (if changes need to be made in the design midway through the study) and facilitated communication and engagement with stakeholders (particularly designs with feedback loops) (E. B. Cecilia Vindrola Padros 2021).
- Can support improving the ongoing process of implementation and organisational learning so that knowledge is captured about processes of adoption, and adaptation, as the intervention proceeds. A rapid evaluation team can also make suggestions about the types of outcomes data and processes that could allow people on the ground to keep monitoring how an intervention is going long after the evaluators have departed (ITECH 2008).

## 6. Limitations

- The specificity of a REM's focus may not fully explore and understand the salient issues of topics that evolve over time (ITECH 2008).
- REM is not appropriate for all evaluations, such as those requiring statistical methods or those with a focus on economic issues, such as programme cost-effectiveness (ITECH 2008). If the REM solely uses qualitative methods, it cannot determine the effect-size of the intervention(s) or intervention's intensity and would need a quantitative method to do that.
- The evaluation using REM should be led by a team of experienced professionals; otherwise, the results can be inaccurate and untrustworthy. Evaluation team leaders must be highly trained in research methods and able to guide the data collection and analysis processes (M. McNall 2007).
- REM uses a team of researchers, which pose difficulties in producing a shared understanding among the team from different backgrounds, creating a collaborative working environment, and maintaining communication across the stages of the research process. These challenges are particularly salient in studies that utilise a team-based rapid qualitative approach, as the need to produce and share findings in a timely and actionable manner can generate additional internal and external pressures (Cecilia Vindrola 2020).
- A review of research using REM conducted by (Ginger A. Johnson 2017) and (Vindrola-Padros C 2018) indicate the main limitations as low quality of the collected data, small sample sizes, and little time for cross-checking facts with other data sources to reduce bias, poor quality of reporting of study designs, mainly data analysis methods, and lack of reflexivity.

- REM generally produces accurate results, but the levels of validity and reliability are not as high as those produced by quantitative methods in most cases, however, the levels are high enough for programme staff to make confident, informed decisions (M. Anker 1993).
- Researchers using REM qualitative designs rarely engage in a process of reflection of the role of the evaluator and how their presence might influence the collection of data (G. A. Cecilia Vindrola Padros 2020) along with stakeholders' involvement throughout which requires to examine this through an ethical lens.

## 7. Rapid Evaluation Methods during COVID – 19

COVID-19 has presented an unprecedented complexity for health systems coupled with a sluggish socio-economic context. Countries across the board are struggling to find appropriate public health measures, treatments, and vaccines to address the pandemic. There is a pace of change in health and care services, with rapid implementation of new pathways and service models, coupled with a dramatic shift to digital and remote provision (Selina Rajan 2021). Demand for research has been amplified, and the responsiveness of research infrastructure has been under intense focus. There is increasing demand for timely, rigorous evaluation of innovation in health and social care (Norman Gill 2021). Research related to disease perception, social practices that might be linked to spread, health-seeking behaviours, health care delivery models, and barriers to care are being carried out. Particularly rapid research methods are being used to inform response efforts (Cecilia Vindrola 2020) aimed at exploring health care delivery in the context of COVID-19.

The literature screened focuses on rapid reviews, rapid systemic reviews of clinical protocols for treatment, emergency response to outbreaks, vaccine delivery, hesitancy etc. Rapid inquiry and rapid qualitative research methods were also used in the United Kingdom within the National Health Systems Interventions for COVID-19. Telephone interviews with frontline HCWs and stakeholders and a review of UK government policies and guidance were conducted. Rapid appraisal designs often combined two or more different methods of data collection, which were then triangulated to improve the validity of the findings (Cecilia Vindrola-Padros 2020).

Rapid assessments were conducted to understand the preparedness of clinical settings (healthcare workers, health facilities, laboratories, point of entries into countries, emergency rooms etc.) (Tran Bach Xuan 2021) (ECDC 2021) and communities (UNICEF 2021) to address COVID-19, vaccine hesitancy (Khubchandani J 2021). Real-time assessments (RTA) were also undertaken between November 2020 and March 2021 (five months) by UNICEF at a regional level to review the quality and effectiveness of the COVID response. This was a 'light touch' exercise adopting a flexible approach to adjust objectives, scope, and methods throughout the evaluative process to ensure the usability of the recommendations. The focus of the RTA evolved from an initial programmatic approach ('what to prioritise') to an analysis of the quality of the response ('how to reinforce quality'). A mixed-methods approach was used, including qualitative and quantitative data collection methods where primary and secondary information was collected through remote data collection methods. Multiple sources were used to triangulate data and reduce bias. Findings and recommendations were validated and prioritised during CO and RO workshops. Organisational ethical guidance documents were followed, and informed consent was requested prior to interviews and explained how data would be used for reporting (UNICEFLAC 2021).

Rapid Evaluation studies were conducted on vaccine hesitancy in emergency settings (Rodriguez RM 2021), remote follow up care for discharged patients (Bell LC and team 2021), implementation of

remote home monitoring models (M. S. Cecilia Vindrola Padros 2021), assessing the safety of home oximetry (Jonathan Clarke 2021), a discrete choice experiment for vaccine preference using an online survey in the Netherlands (Niek Mouter 2021). Quantitative, qualitative, and mixed methods were used, including discrete choice experiments. Review of records, analysis of large data sets from administrative and clinical data, focused short surveys, key informant interviews, remote data collection via telephone surveys, interactive voice response (IVR), and online surveys were used.

Some researchers highlight the importance of rapid evaluations to inform evidence-based public health responses in times of pandemic but caution that social scientists might still struggle to design and implement research in such context due to ethical concerns if studies are deemed too intrusive or burdensome for participants, patients, health care workers (HCWs), public health authorities, or members of the public who are already struggling with the impact of the disease (Jane Richardson 2021). Due to the immediacy of the situation, “actionable” findings are to be shared, almost in real time, requiring a type of data analysis that is not common in the social sciences (G. A. Cecilia Vindrola Padros 2020).

Qualitative and quantitative research has been conducted during the pandemic for informing policy and programme implementation within the scope of HSS in responding to COVID-19. To assign these as evaluations and rapid evaluations may require further exploratory scoping and systematic literature reviews applying key features of REM.

## 8. Conclusions

HSS strategies should adapt and improve within a dynamic health system and emerging socio-economic context to deliver expected outcomes. For research and evaluations to have an impact on healthcare organisation and delivery, they need to be rapid, responsive, and relevant creating “rapid-learning research systems,” which bring together researchers, funders, practitioners, and community partners to ask relevant questions and use efficient and innovative research designs (Riley W 2013).

Evaluators grappling with this need have used varied rapid evaluation techniques under the overarching Rapid Evaluation and Appraisal Methods (REAM), arguing that the features that all of these approaches had in common were (a) the study was conducted over a short timeframe (weeks or months), (b) the study design tended to be participatory, (c) the studies combined multiple research methods and triangulated data during data analysis, and (d) the studies were iterative, in the sense that data collection and analysis tended to be carried out in parallel and emerging findings shaped the data collection process (M. McNall 2007).

REAM’s evaluation variants Rapid Evaluation Methods, Rapid Feedback Evaluations and Rapid Cycle Evaluations have been applied within the scope of HSS Evaluations and show some promise. There is not one best rapid evaluation method that works in all circumstances. The right rapid evaluation design addresses the goals of the evaluation and captures the complexities of the intervention and its environment. When system dynamics are not considered in an evaluation’s design, the evaluation will inevitably miss crucial aspects of the intervention and its environment that are affecting the intervention’s implementation, operation, and results (Hargreaves 2014).

It is important to understand that evaluation methods are applied appropriately aligned to the relevance of the HSS evaluation questions. These methods fill gaps in understanding health system dynamics and causal linkages embedded in the context, thus requiring a mixed-methods approach.



The purpose is to have evaluators engage in a reflective practice for a ‘real-time’ or ‘alongside’ evaluation to support innovation, development, and implementation of an intervention (Smith 2019). This requires a team of researchers with expertise in systems and design thinking. It is key they understand causal inference and challenge assumptions before starting data collection and analysis and have the confidence to describe the limitations of the findings (Cheema 2019). Overall, the trend in the design of rapid evaluations is shifting towards studies with multiple short stages with feedback loops or cycles rather than studies that are short. This change in design leads to evaluation approaches that are more centred on stakeholder engagement and continuous learning and dissemination of findings (Cecilia Vindrola-Padros 2021). MERLA (Monitoring, Evaluation, Research, Learning and Adapting) is one such approach being used to inform programme decisions by some donors. Its application to practice is nascent, and most such projects are a work in progress. Learnings from such experiences in future may help stakeholders influence and scientific rigour in designing and improving HSS programmes.

With limited application so far, there is a need for clarity and consistency in terms of what constitutes rapid evaluation. There is little comparative research to assess the advantages and disadvantages of rapid methodology in terms of rigour, cost, and impact (Norman Gill 2021). The central challenge that all REAM users face is achieving a balance between speed and trustworthiness (M. McNall 2007). Recent work in qualitative research has compared rapid and “traditional” longer-term approaches to qualitative data analysis, finding that both approaches can lead to similar, valid results. Lack of capacities also impacts using rapid evaluations, including a shortage of health services researchers and evaluators and a lack of funding for timely applied research, such as that using routine data (Selina Rajan 2021).

Nevertheless, the literature does not comment on the use of REM for the determination of causality of HSS interventions and if these design/methods identify where results stand on a contribution-attribution continuum. Questions remain in relation to the suitability of rapid evaluation designs, the trustworthiness of the data, and the degree to which evaluation findings are used to make changes in practice. Not much is known on how dissemination is built into evaluation designs (i.e., how feedback loops are negotiated with stakeholders), the formats that are effective for the sharing of findings, and ultimately, the impact of sharing findings rapidly on decision-making processes (i.e., how were these findings used?) (E. B. Cecilia Vindrola Padros 2021).

## Annex 1: Key Features of Rapid Evaluation Methods

Basic characteristics of REM presented here are summarised from Cecilia Vindrola-Padros 2021, M. McNall 2007, ITECH 2008 and M. Anker 1993.

- **Speed:** REM can take anywhere between 4 weeks to 6 months to accomplish. Typically, the average time frame to implement the research is 4-6 weeks. But the preparatory phase at least takes the same time or much longer to ensure appropriate design and methods applied and data collection and analysis are synchronised. These time ranges are further complicated by rapid feedback and rapid cycle evaluations that might be longer in duration (perhaps 1 to 3 years) but include feedback or cycle loops as the evaluation is ongoing to share emerging findings. These reports are often described as “short” reports or “memos” ranging from 7 to 20 pages in length with the inclusion of summary tables to aid stakeholders in better understanding study findings and their associated recommendations.
- **Iterative:** Exploratory emphasis allows for a flexible discovery process in which local knowledge is reconstructed through a cycle of data collection, analysis, and planning what to examine next forming feedback loops. This also allows for adapting to changes in the healthcare climate or the needs of stakeholders. Evaluation teams tended to maintain close relationships with the evaluation users and other relevant stakeholders to keep abreast of these changes.
- **Teamwork:** The evaluation is to be led by a team of (at least 4-5) experienced professionals with considerable knowledge of principles, techniques, and methods. Formation of this expert team may require collaboration among professionals from multiple disciplines and organisations. This team is required to work together at all stages - planning, data collection, analysis and interpretation of findings and presentation of results. The main role of this team is to share methods, formats, and analytical techniques to facilitate the stakeholders realise the goals of the evaluation.
- **Stakeholder/Local Participation:** REM is planned and executed with the active participation of a “core” group of stakeholders - health programme and service managers, staff trainers and supervisors, and staff themselves. Evaluation process relies on local stakeholders/participants’ involvement in evaluation design, implementation, and guidance to access knowledge and beliefs. Findings are shared with this group on a continuous basis (through feedback loops or cycles to make sure the aims of the evaluation responded to the needs of stakeholders and future users of the findings). This assures stakeholder and community ownership for longer lasting programmatic success. From a practical standpoint, this can greatly accelerate the process of data collection and analysis.
- **Mixed Methods and Triangulation:** Emphasis is to garner insiders’ perspectives to piece together a more accurate picture of a program’s context, status, and impact. A mix of complementary qualitative and quantitative methods are used. Multiple sources increase data validity and reliability. Issue-information matrix presents an appropriate and practical approach to data collection is thus determined for each information item. Comparison of results from different sources (Triangulation) helps ensuring quality of information and data and to assess the consistency of results.  
Quantitative data is collected primarily through focused short surveys and the review of existing routine administrative data sets. Qualitative data are collected through five principal methods: (a) record reviews (b) formal and informal interviews with key informants (stakeholders,

managers, policy makers & community), patient/ beneficiaries (c) focus groups and community meetings, and (d) direct task/field observations (checking task performance of health workers, functionality of equipment and supplies), (e) mapping is frequently used to delineate areas and populations affected by the problem in question. **Details of each of the methods in Annexure 2.**

- **Stratified and Nominative sampling:** depending on availability of information and other constraints, M Anker 1993, suggest that REM is conducted using a representative sample to cover diversity within a geographical area in terms of health system attributes in both rural and urban conditions and beneficiary spectrum. It is ideal to use cluster samples with stratification, allowing for aggregation of data from several sampling units. The minimum sample size required can be determined by the level of precision required to make decisions based on the indicator. It is usually more efficient to take a small number of larger samples than several small samples. Used for qualitative interviews, nominative sampling technique is a way to select people to interview by having informants suggest other informants to interview.
- **Practicality:** the evaluation is specific and targeted to understand the “real world” of the intervention where time and resources are limited. It is tailored for and necessarily followed by managerial decisions and actions ranging from improvements in training and supervision to new service strengthening projects, and overall health development plans. The inquiry is specific to suggest improvements within the specific context rather than answering broader questions.

## Annex 2: Common Methods used in Rapid Research

Adapted from (Vondal 2010)

S.no	Method	Useful for Providing	Example	Advantages	Limitations
1	<b>Interviews</b>	<ul style="list-style-type: none"> <li>– A general overview of the topic from someone who has a broad knowledge and in-depth experience and understanding (key informant) or in-depth information on a very specific topic or subtopic (individual)</li> <li>– Suggestions and recommendations to improve key aspects of a program</li> </ul>	<p>Key informant: Interview with program implementation director</p> <p>Interview with director of a regional trade association</p> <p>Individual: Interview with an activity manager within an overall development program</p> <p>Interview with a local entrepreneur trying to enter export trade</p>	<p>Provides in-depth, inside information on specific issues from the individuals perspective and experience</p> <ul style="list-style-type: none"> <li>– Flexibility permits exploring unanticipated topics</li> <li>– Easy to administer</li> <li>– Low cost</li> </ul>	<p>Susceptible to interviewer and selection biases</p> <ul style="list-style-type: none"> <li>– Individual interviews lack the broader understanding and insight that a key informant can provide</li> </ul>
2	<b>Mini surveys</b>	<ul style="list-style-type: none"> <li>– Quantitative data on narrowly focused questions, for a relatively homogeneous population, when representative sampling is not possible or required</li> <li>– Quick data on attitudes, beliefs, behaviours of beneficiaries or partners</li> </ul>	<ul style="list-style-type: none"> <li>– A customer service assessment</li> <li>– Rapid exit interviews after voting</li> </ul>	<ul style="list-style-type: none"> <li>– Quantitative data from multiple respondents</li> <li>– Low cost</li> </ul>	<ul style="list-style-type: none"> <li>– Findings are less generalisable than those from sample surveys unless the universe of the population is surveyed</li> </ul>
3	<b>Focus Groups</b>	<ul style="list-style-type: none"> <li>– Customer views on services, products, benefits</li> <li>– Information on implementation problems</li> <li>– Suggestions and recommendations for improving specific activities</li> </ul>	<ul style="list-style-type: none"> <li>– Discussion on experience related to a specific program intervention</li> <li>– Effects of a new business regulation or proposed price changes</li> </ul>	<ul style="list-style-type: none"> <li>– Group discussion may reduce inhibitions, allowing free exchange of ideas</li> <li>– Low cost</li> </ul>	<ul style="list-style-type: none"> <li>– Discussion may be dominated by a few individuals unless the process is facilitated/ managed well</li> </ul>
4	<b>Group Discussions</b>	<ul style="list-style-type: none"> <li>– Understanding of issues from different perspectives and experiences of participants from a specific subpopulation</li> </ul>	<ul style="list-style-type: none"> <li>– Discussion with young women on access to prenatal and infant care</li> <li>– Discussion with entrepreneurs about export regulations</li> </ul>	<ul style="list-style-type: none"> <li>– Small group size allows full participation</li> <li>– Allows good understanding of specific topics</li> <li>– Low cost</li> </ul>	<ul style="list-style-type: none"> <li>– Findings cannot be generalised to a larger population</li> </ul>
5	<b>Community Discussions</b>	<ul style="list-style-type: none"> <li>– Understanding of an issue or topic from a wide range of participants from key evaluation sites within a village, town, city, or city neighbourhood</li> </ul>	<ul style="list-style-type: none"> <li>– A Town Hall meeting</li> </ul>	<ul style="list-style-type: none"> <li>– Yields a wide range of opinions on issues important to participants</li> </ul>	<ul style="list-style-type: none"> <li>– Findings cannot be generalised to larger population or to subpopulations of concern</li> </ul>

				– A great deal of information can be obtained at one point of time	– Larger groups difficult to moderate
6	<b>Direct Observation</b>	<ul style="list-style-type: none"> <li>– Visual data on physical infrastructure, supplies, conditions</li> <li>– Information about an agencies or business’s delivery systems, services</li> <li>– Market place to observe goods being bought and sold, who is involved, sales interactions</li> </ul>	<ul style="list-style-type: none"> <li>– Insights into behaviours or events</li> <li>– Low cost</li> </ul>	– Confirms data from interviews	– Observer bias unless two to three evaluators observe same place or activity
7	<b>Collecting Secondary Data</b>	Validity to findings gathered from interviews and group discussions	<ul style="list-style-type: none"> <li>– Microenterprise bank loan info. – Value and volume of exports</li> <li>– Number of people served by a health clinic, social service provider</li> </ul>	– Quick, low-cost way of obtaining important quantitative data	– Must be able to determine reliability and validity of data
8	<b>Transect Walks</b>	– Important visual and locational information and a deeper understanding of situations and issues	– Walk with key informant from one end of a village or urban neighbourhood to another, through a marketplace, etc.	<ul style="list-style-type: none"> <li>– Insider’s viewpoint</li> <li>– Quick way to find out location of places of interest to the evaluator</li> <li>– Low cost</li> </ul>	– Susceptible to interviewer and selection biases
9	<b>Community Mapping</b>	<ul style="list-style-type: none"> <li>– Info. on locations important for data collection that could be difficult to find</li> <li>– Quick comprehension on spatial location of services/resources in a region which can give insight to access issues</li> </ul>	– Map of village and surrounding area with locations of markets, water and fuel sources, conflict areas, etc.	– Important locational data when there are no detailed maps of the program site	– Rough locational information

### Annex 3: Techniques to identify emerging intermediate outcomes, causal pathways, and linkages with broader HSS outcomes

S. No	Technique/ Method	Application in HSS
1.	<p><b>Outcome Harvesting</b></p> <p>Information is collected or “harvested” using a range of methods to yield evidence-based answers to useful, actionable questions (“harvesting questions”) of what has changed and then, working backwards, determines whether and how an intervention contributed to these changes. The outcome(s) can be positive or negative, intended, or unintended, direct, or indirect, but the connection between the intervention and the outcomes should be plausible. Outcome Harvesting can be used for monitoring as well as for evaluation (including developmental, formative, or summative evaluation) of interventions or organisations (Wilson-Grau 2015). This alternative approach to conventional monitoring and evaluation intends to serve the needs of the managers, donors and evaluators of innovative interventions attempting to solve intractable problems or new, unexpected challenges in development and social change (Outcome Harvesting n.d.).</p>	<p><b>Case studies of Pilots</b> (WorldBank 2014)</p> <ol style="list-style-type: none"> <li><b>Improving Governance in Pharmaceutical Procurement and Supply Chain Management in Kenya, Tanzania and Uganda</b> to address Challenges in pharmaceutical procurement and supply chain management—such as poor coordination between varied actors, inefficiency and misallocation of public resources—result in waste and limit citizens’ access to essential medicines at affordable prices and of good quality.</li> <li><b>Priority Setting and Constitutional Mandates in Health</b> in Latin America, Africa, and the Middle- East to enhance the effectiveness of health and judiciary arrangements, and the transparency, accountability, and participatory process for setting priorities and delivery services to realise the right to health for all citizens.</li> </ol>
2.	<p><b>Outcome Mapping</b> (Hearon n.d.).</p> <p>Outcome mapping unpacks an initiative’s theory of change, provides a framework to collect data on immediate, basic changes that lead to longer, more transformative change, and allows for the plausible assessment of the initiative’s contribution to results. The process of outcome mapping helps a project team or program be specific about the actors it intends to target, the changes it hopes to see and the strategies appropriate to achieve these. For ongoing monitoring, OM provides a set of tools to design and gather information on the results of the change process, measured in terms of the changes in behavior, actions or relationships that can be influenced by the team or program.</p>	<ol style="list-style-type: none"> <li><b>Uganda Health Information Network Project</b> to support better health outcomes by enabling policy makers, planners and health providers to communicate critical information in a timely manner demonstrating the effectiveness of a locally controlled, low-cost ICT that can be easily replicated in other settings and serve other sectors beyond health and scaling up to a national scale in a short time span ( Outcome Mapping Learning Community n.d.).</li> <li><b>Using Outcome Mapping to Advance Palliative Care</b> to assist the implementation of a new workforce model in palliative care for an approved provider of aged care services (Outcome Mapping Learning Community n.d.).</li> </ol>
3.	<p><b>Nimble RCT’s</b> (Tiina Pasanen 2019)</p> <p>Nimble randomised controlled trials (RCTs) are an application of standard RCTs with the aim of experimental learning and testing variations of programme strategies or operations. While standard RCTs typically focus on measuring impact (which usually takes longer to appear), nimble RCTs (also called rapid-fire testing) focus on short-term or initial outcomes such as</p>	<ol style="list-style-type: none"> <li><b>Armenia: Comparing Different Demand-Side Incentives for Health Screenings</b> to measure the impact of different approaches to increase take-up of screening, including a personal invitation sent in the mail, one-time cash payments, or lottery tickets for a prize (WorldBank 2021) .</li> </ol>

	<p>enrolment or attendance rates, or product uptake. For this, a programme needs to have good monitoring or administrative data and big enough sample sizes to calculate differences between groups, as well as a programme or service that can be varied. Nimble RCTs can be considered a part of ‘Nimble evaluations’, a term used by the Strategic Impact Evaluation Fund (SIEF), SIEF defines nimble evaluations as rapid, low-cost evaluations that produce robust and actionable evidence to inform scale-up or adaptation of an intervention using RCTs or quasi-experiments and capitalise on sets of data collected by programmes or national data systems. Nimble evaluations are focused on changes that you would expect to see within a year (or less) of the intervention starting.</p>	
<p>4.</p>	<p><b>Process Tracing</b></p> <p>Process tracing is a qualitative analysis to establish whether, and how, a potential cause or causes influenced a specified change or set of changes. This is done by applying formal tests to examine the strength of evidence linking potential causes to the changes. Process tracing also involves testing alternative ideas about how change might have come about (INTRAC, Process Tracing 2017).</p> <p>It aims to investigate the causal mechanisms that have led to a particular event or to an observed development of an object of investigation. The period under consideration ranges from an initial to a defined final state. The analysis can be based on a wide range of information sources (documentary sources, primary or secondary statistics, and professional studies) and methodological instruments of data collection and analysis (standardised surveys, interviews, statistical investigations, and model analyses) (Michael Rothgang 2021).</p>	<p><b>1. Changing fortunes: analysis of fluctuating policy space for family planning in Kenya</b> to understand policy evolution to understand the underlying factors for fluctuation levels of commitment for policy making and implementation. Conducted using semi structured key informant interviews, group discussions with key stakeholders and review of policy documents (Crichton 2008).</p>
<p>5.</p>	<p><b>Contribution Analysis</b></p> <p>Contribution analysis is a methodology used to identify the contribution a development intervention has made to a change or set of changes. The aim is to produce a credible, evidence-based narrative of contribution that a reasonable person would be likely to agree with, rather than to produce conclusive proof. Contribution analysis can be used during a development intervention, at the end, or afterwards (INTRAC, Contribution Analysis 2017). Contribution analysis is particularly useful in situations where the programme is not experimental, i.e. not in trial projects but in situations where the programme has been funded on the basis of a relatively clearly articulated theory of change and where there is little or no scope for varying how the program is implemented (BetterEvaluation n.d.).</p>	<p><b>1. Interventions for Improving practitioners'</b> understanding of the assumptions and underlying mechanisms which influence program delivery and outcomes in real world practice, New South Wales Australia (Janice S Biggs 2014).</p>

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