

Savings evidence map synthesis report: 2021 update

Mastercard Foundation Savings
Learning Lab

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Savings Learning Lab



Contents

Executive Summary	iii
Introduction	1
Step 1: Setting objectives and scope	2
Step 2: Inclusion and quality criteria	2
Step 3: Search and screening process	4
Step 4: Evidence characterisation	5
Step 5: Evidence Gap Map	8
Step 6: Additional Synthesis of Evidence	13
By the three primary result levels	13
By types of evidence	13
By methods	13
By geography	14
By quality	15
Conclusion and next steps	15
References	17
Appendix 1: Inclusion and quality criteria	18
Appendix 2: Databases and search strings	20
Appendix 3: Chronological overview of microfinance systematic reviews and meta-analyses	23
Appendix 4: Quantitative quality assessment approach	25
Appendix 5: Quantitative and quality assessment results	28
Appendix 6: List of included studies	30

Executive Summary

The goal of the evidence map is to provide consolidated access to relevant evidence related to savings-focused financial inclusion and enable users to navigate and find existing evidence as well as identify existing gaps. The first mapping was conducted in 2018. It is updated annually with newly available evidence that meets the inclusion criteria.

This report presents a synthesis of the evidence based on the third update, completed in early 2021.

It includes a comprehensive description of our approach, a synthesis of the evidence using a set of pre-defined categories, and provides an initial analysis of where the evidence is clustered and where there are gaps. It is intended for practitioners looking for evidence of what works to inform decisions on savings programming and policies, for donors and investors interested in making evidence-based, strategic investments in this area, and for researchers interested in filling the evidence gaps.

The first version of the map included 261 studies. After the first annual update 37 new studies were added, for a total of 298. The second annual update added 38 more studies, bringing the total to 336. This year's update adds another 18 studies, hence a total of 354 studies are now included. The map organizes the evidence into a matrix structure – by type of results grouped into client, institutions and ecosystem level results and by the type of savings intervention documented in the evidence – interventions focused on product type, product design, product distribution channels and target markets.

An interactive version of the map can be found at <https://mangotree.org/Evidence-Map>

Methodology:

- Step 1. Defined the objectives and scope of the evidence map
- Step 2. Designed the protocol for the literature review, inclusion and quality control and evidence categorization
- Step 3. Ran searches to estimate the number of documents in our scope
- Step 4. Classified/tagged the evidence
- Step 5. Developed a comprehensive evidence map in 2018. Most recent update in early 2021.
- Step 6. Synthesized selected evidence presented in our map

Key findings

The overall distribution and characteristics of the evidence have not significantly changed from the first map update:

- Client level results continue to dominate the map while the least amount of evidence is still found at the ecosystem level.
- Client 'usage' is documented more frequently than 'access', a reflection of the sector's shift from a focus on access alone, towards measures of usage and value derived by clients.
- A good amount of studies document alternative delivery channels which is not surprising as providers continue to invest in these to solve proximity, cost and scale challenges.
- For institution level results, most studies examine the sustainability and replicability of savings groups initiatives, as well as the effectiveness of their business model. However, many evidence gaps continue to exist at the institution level, implying we have a limited understanding of the link between savings initiatives and the outcomes on the institutions who provide them.
- Except for a small number of studies documenting results related to policy and regulation, reliable evidence is almost non-existent at ecosystem level, which continues to present a clear opportunity for further research.

- More than half the studies adopted a quantitative approach.
- The geographic focus of the research continues to be in Sub-Saharan Africa.
- Moving from client through institution and ecosystem level results, the proportion of studies that fully met all quality criteria reduces while the proportion of relatively low-quality studies increase.

Introduction

The evidence map presented in this document is developed by Itad as part of the [Mastercard Foundation Savings Learning Lab](#).

The overall goal of the evidence map is to provide consolidated access to relevant evidence related to savings-focused financial inclusion, enable a comprehensive synthesis of types of available evidence, and accurately identify existing gaps. The evidence map aims to help inform evidence-based decisions on savings programming and policies as well as strategic approaches to funding and conducting additional research in this area. It builds on a pilot evidence map developed earlier in the project which was reviewed with target users to gather critical input on how to maximize its relevance and usability. The map is available [on-line](#) and is updated annually with newly available evidence.

This report presents a comprehensive description of our approach. This is primarily designed for researchers and academic stakeholders seeking to understand the methodology we adopted for developing the evidence map (Step 1 – 4 below). It also presents the results of our evidence mapping which is aimed at financial inclusion practitioners, donors and investors seeking to understand where the evidence is clustered and where there are gaps (Step 4 – 7). Similarly, with the evidence map, this synthesis is also updated annually.

We adopted the [3ie Evidence Gap Map approach](#), similar to that used by Itad for the [BEAM Exchange Evidence Gap Map](#). Evidence gap maps systematically scope out available evidence within a given sector through the application of search protocols and rigorous selection and quality assurance criteria. Evidence is then mapped onto a matrix structure, providing a visual representation to help users quickly locate information and identify gaps in available evidence. Gap maps can help navigate the huge range of information available, understand the quality of evidence and identify potential gaps. The savings evidence map is a valuable resource for key stakeholders. Based on an initial consultation¹ the table below illustrates key ways practitioners, donors, investors, policy makers and researchers could find it useful. We have kept these uses at the forefront of our mind as we developed the map and set out plans to take this forward.

Practitioners	Donors, investors, policy makers	Researchers
<ul style="list-style-type: none"> ▪ Looking for evidence of what works to inform savings programming in specific areas ▪ Advocating and fundraising for new approaches in areas where there is little evidence or fewer interventions ▪ Looking to develop guidelines for practice in areas where there is substantial evidence of what works 	<ul style="list-style-type: none"> ▪ Interested in making evidence-based, strategic investments and policies in areas where there is sufficient, high-confidence evidence of what works ▪ Donors looking to identify and support the development of a body of practice in little explored areas by funding programs and research where there is little evidence 	<ul style="list-style-type: none"> ▪ Interested in identifying gaps in evidence and filling these ▪ Interested in conducting systematic reviews of evidence in areas that are not sufficiently or recently synthesized

¹ Itad undertook a consultation of key stakeholders and potential users of the evidence map in late 2017. This included representatives from project implementation, academia and donors. In addition, it included discussions with those who had and hadn't used an Evidence Map

The report is organized in six sections, mirroring the main steps of our methodology. These included:

- Step 1. Objectives and scope of the evidence map
- Step 2. The protocol for the literature review, inclusion and quality control
- Step 3. Search and screening process
- Step 4. Evidence categorization criteria
- Step 5. The evidence map and annual updates
- Step 6. Additional synthesis of evidence and annual updates

The Mastercard Foundation Savings Learning Lab

The Mastercard Foundation Savings Learning Lab is a six-year initiative implemented by Itad, in partnership with the SEEP Network. The Lab's aim is to support learning among the Foundation's savings sector portfolio programs through the generation, synthesis, curation and dissemination of knowledge. Itad, as the Learning Partner, works across and with the Foundation's partners, Foundation staff, and with the wider Savings Sector, to support actionable learning by synthesizing and aggregating learning across the portfolio and sector, conducting complementary research, and facilitating learning and knowledge sharing with key audiences.

For more information on the Savings Learning Lab visit: <https://www.itad.com/project/the-mastercard-foundation-savings-portfolio-learning-partner/>

Step 1: Setting objectives and scope

The consultation process with key target users revealed an interest in accessing relevant and reliable evidence on a broad range of savings initiatives including ones related to savings groups, individual savings, formal and informal savings. There was also interest for the evidence to be categorized by type of results achieved, type of savings intervention, research methods, and level of results achieved.

Within this broad scope, the evidence map builds on the four learning questions of the Mastercard Foundation Savings Learning Lab:

1. **Impact:** does financial access substantially improve the well-being of customers?
2. **Client:** which financial services and channels are most valued by the financially disadvantaged?
3. **Institutions:** what drives the business case for providers to serve the financially disadvantaged?
4. **Ecosystem:** what does an enabling environment look like and what is the appropriate role for funders to play in supporting it?

Step 2: Inclusion and quality criteria

Evidence identified through our comprehensive search process needed to fulfil a number of inclusion as well as quality criteria to be included in the evidence database. The purpose of setting inclusion criteria is to enhance transparency and rigor of the review as they then guided the subsequent screening process.

Table 2a and 2b summaries the primary and quality inclusion criteria. For further details, including definitions and examples, please refer to Appendix 1.

Table 2a: Primary Inclusion Criteria

Criteria	Description
Relevance:	The evidence addresses one of the types of results on clients, institutions and/or ecosystems. The evidence also needs to encompass a 'substantial' savings component (explicitly addresses results related to savings initiatives).
Geographical focus:	All regions
Time cut-off:	Evidence from 2007 onwards only are considered.
Accessibility:	Evidence needs to be available either through academic or institutional databases. Relevant grey literature is also captured ² .
Language:	English and French

Historically, quality assessments have been designed to assess quantitative evidence. However, we increasingly encounter qualitative evidence in the policy realm and as a result, a wealth of qualitative quality assessment tools based on checklists approaches have been developed. However, these are often subjective and resource-intensive. We, therefore, used the quality assessment criteria developed for the BEAM Evidence Gap Map outlined in Table 2b, as this provides a common framework to assess both quantitative and qualitative studies.

Additional analysis was conducted on the quantitative evidence in our final sample to assess the potential risk of bias. (See Appendix 4 and 5 for more details.)

Table 2b: Quality assessment criteria for quantitative and qualitative evidence

Criteria	Description	Coding
Transparency:	The evidence is transparent about the methodology.	YES – all three aspects are described in the document PARTIALLY – some methodological aspects are described NO – methodology is not described at all
Credibility:	The methodology to collect results is not only transparent but also credible by applying good measurement practices.	YES – all three aspects are appropriate ³ PARTIALLY – some of the aspects are appropriate, some not NO – none of the aspects are done appropriately
Cogency:	The argument built by the methodology delivers a coherent and convincing story of results achieved.	YES – the argument made is cogent PARTIALLY – there are some gaps in the logic but the story is still generally convincing NO – there are major gaps in the logic and the story is not convincing
Inclusion decisions for all evidence:		
<ul style="list-style-type: none"> ▪ Included: Studies that met <u>all</u> criteria in Table 1a <u>and</u> fully met or at least partially met each criterion in Table 1b. ▪ Not included: any of the criteria in Table 1a is not met <u>or</u> at least one criteria/aspect in Table 1b are coded as NO. 		

² We should note that most of the academic databases we searched require subscriptions. Some of the grey literature databases require payments too.

³ An aspect can be deemed appropriate if it is in line with good measurement practice, supports answering the research questions and is able to handle scope and scale of the research.

Step 3: Search and screening process

The first step in the search process included reviewing a total of 27 academic and institutional databases using pre-defined search strings which we refined for each of the databases (the databases and particular search strings we used are outlined in more depth in appendix 2).

To identify the wealth of relevant systematic reviews we searched the following specialist databases:

- Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)
- DFID Database for Systematic Reviews⁴
- 3IE Systematic Reviews Database

17 systematic reviews were identified (see appendix 3). Only the systematic reviews with a substantial section on savings were considered (8 in total). In a second step, 'snowballing' was used to gather material from the references listed in the documents shared by MCF, e.g. the studies from the OPM literature review.

All the studies identified through the search process were screened by title and abstract relative to the inclusion criteria defined above.

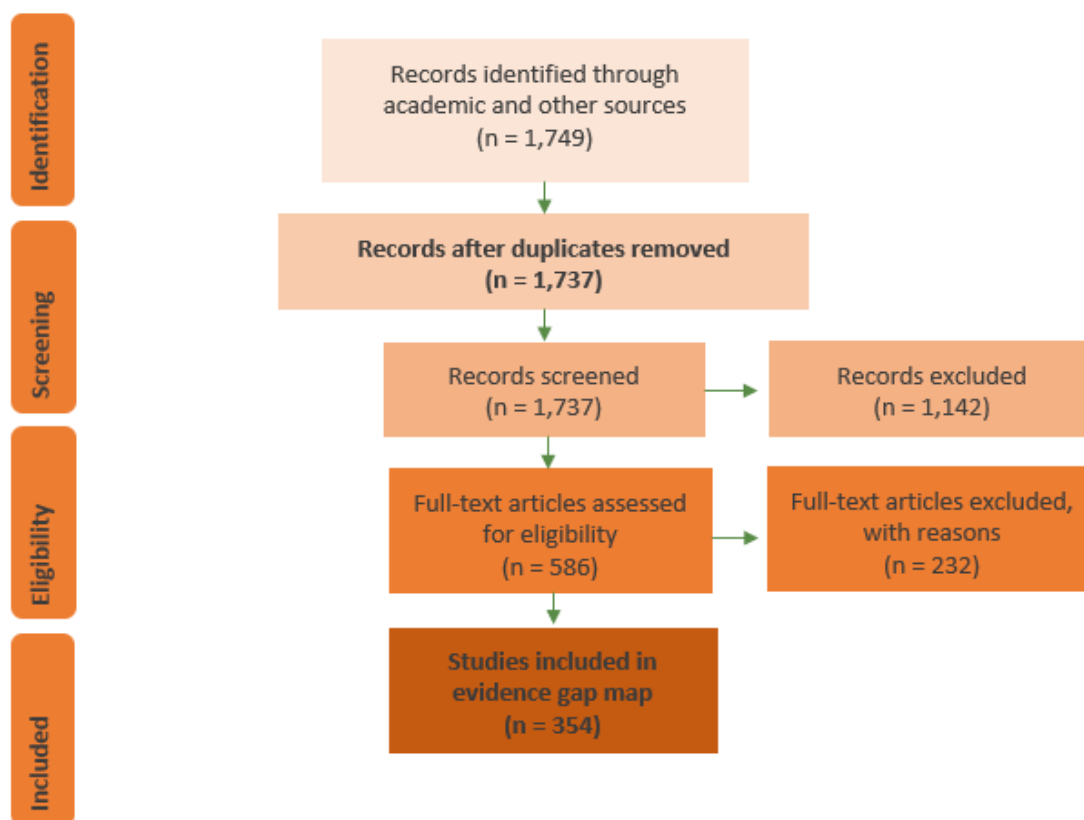
For those studies where insufficient information was available in the title and abstract to assess relevance, the full text was downloaded which was then assessed using the same inclusion criteria (see figure 1 below to summarize the search and screening process). One researcher did the initial screening and two independent reviewers double-checked the screening decisions of the first researcher. The research team discussed the results of the screening process and agreed on a final decision through discussions when there were disagreements. We should also note that 28⁵ studies failed to meet one or more of our quality inclusion criteria and were screened out due to having a 'no' in either transparency, credibility or cogency indicated that they were not of sufficient quality.

A total of 262 studies were included in the evidence map in 2018 and 37 additional ones were added after the first annual update. The third update added 38 additional studies, the fourth update added another 17 studies. The total number currently included in the evidence map is 354 (see Appendix 6).

⁴ <http://r4d.dfid.gov.uk/SystematicReviews.aspx>

⁵ 28 is the cumulative total (in 2018 26 studies were removed and in 2019 2 studies were removed)

Figure 1: PRISMA diagram



Step 4: Evidence characterisation

Once a piece of evidence met the inclusion, it was classified/tagged according to the criteria presented in the table below. Decisions about categorization was based on a combination of input from industry experts (during our consultation process) and established industry classification. This ensures the classification/tagging is tailored to the information needs of our stakeholders and conforms with best practices. We decided to allow for multiple tagging for types of results if evidence included a range of results, as well as for multiple tagging for types of initiative if studies focused on more than one intervention.

Table 3: Classification criteria

Criteria	Classification
1. Intervention type (Multiple tagging in this category)	1. Interventions that focused on product : <ul style="list-style-type: none"> ▪ Individual savings ▪ Savings groups ▪ Other (studies that mixed individual and group accounts, other types of savings such as gold, studies that looked at joint accounts) 2. Interventions that focused on product design : <ul style="list-style-type: none"> ▪ Voluntary savings ▪ Compulsory savings ▪ Commitment based savings

Criteria	Classification
	<ul style="list-style-type: none"> ▪ Savings embedded with other services ▪ Other (other designs including complex RCTs that mixed different product designs) 3. Interventions that focused on delivery channel: <ul style="list-style-type: none"> ▪ Physical branches ▪ Alternative delivery channels (ATM, internet banking, Mobile banking, roving staff, agent banking) ▪ Other (studies where physical branches, mobile banking and other channels were not clearly disaggregated and other channels such as lockboxes) 4. Interventions that focused on a specific target market/client group: <ul style="list-style-type: none"> ▪ Youth ▪ Women ▪ Ultra-Poor⁶ ▪ Rural ▪ Urban ▪ Other (Include various types of target clients, including faith-based groups (e.g. Islamic banking), pensioners and old age clients, disabled people and informal laborer) 5. Interventions that focused on a specific provider/business model: <ul style="list-style-type: none"> ▪ Bank-led ▪ NGO-led ▪ MNO-led ▪ Partnerships ▪ Other
<p>2. Types of Results</p> <p>Multiple tagging in this category</p>	<p>Client level outcomes related to:</p> <ul style="list-style-type: none"> ▪ Access ▪ Usage ▪ Income ▪ Consumption ▪ Assets (asset building, creation and accumulation, including housing) ▪ Business Outcomes (home business outcome, level of business investment, business development) ▪ Resilience and Food Security ▪ Empowerment (Including women’s empowerment) ▪ Health and Nutrition ▪ Education ▪ Other social outcomes (social cohesion, social status, social capital) <p>Institution level</p> <ul style="list-style-type: none"> ▪ Outreach ▪ Sustainability and Replicability (sustainability of the intervention and the extent to which the interventions can be replicated)

⁶ There are many definitions of ‘ultra-poor’ within the evidence in our map. This includes absolute measures of income such as living below the international poverty line or relative measures of poverty, such as those within the poorest quintile of the local population. Other definitions include asset ownership, those ‘least likely’ to make a sustained trajectory out of poverty and food security status. We have therefore adopted a broad definition of ‘ultra-poor’ and studies that identify this as a focus of the study have been tagged accordingly.

Criteria	Classification
	<ul style="list-style-type: none"> ▪ Effectiveness of business model ▪ Institutional capacity ▪ Partnership models <p>Ecosystem</p> <ul style="list-style-type: none"> ▪ Policy and Regulation ▪ Supporting functions (Infrastructure, Skills and technology, Information, Related services) ▪ Market coordination ▪ Informal rules and norms
3. Sign of results	<ul style="list-style-type: none"> ▪ Positive ▪ Negative ▪ Mixed ▪ No result
4. Level of significance of results	<ul style="list-style-type: none"> ▪ Statistically significant ▪ Statistically not significant ('no results') ▪ Statistically significant & statistically not significant ('no result')
5. Types of Evidence	<ul style="list-style-type: none"> ▪ Systematic reviews ▪ Research syntheses, EGMs and literature reviews ▪ Impact Evaluations ▪ Project monitoring reports ▪ Peer reviewed articles ▪ Case studies <p>We exclude opinion pieces, training manuals, state of the sector type reports, and any other documents that are not based on either primary or secondary data or do not discuss results.</p>
6. Research Method Information required for quantitative quality scoring scheme. Multiple tagging in this category	<ol style="list-style-type: none"> 1. Quantitative 2. Qualitative 3. Mixed methods <p><u>Sub-category for quantitative designs:</u></p> <ul style="list-style-type: none"> ▪ Experimental/RCTs ▪ Longitudinal studies: Panel or before/after & with/without ▪ Cross-section studies: Either before/after or with/without ▪ Basic Surveys <p><u>Sub-category for qualitative designs:</u></p> <ul style="list-style-type: none"> ▪ Ethnographic ▪ Semi-structured interviews ▪ Focus group discussions
7. Method of Analysis Information required for quantitative quality scoring scheme.	<p><u>For quantitative evidence:</u></p> <ul style="list-style-type: none"> ▪ Econometric techniques such as IV, PSM, 2SLS, difference in difference, regression discontinuity ▪ Multivariate analysis (OLS/regression-based approaches) ▪ Tabulation/basic descriptive statistics <p><u>For qualitative evidence:</u></p>

Criteria	Classification
Multiple tagging in this category	<ul style="list-style-type: none"> ▪ Content or framework analysis ▪ Grounded theory ▪ Discourse analysis ▪ Narrative analysis
8. Data Source Multiple tagging	<ul style="list-style-type: none"> ▪ Monitoring Data ▪ Primary surveys ▪ Secondary data ▪ Qualitative narratives/data
9. Disaggregated results Multiple tagging	<p>Does the disaggregate data and analyze differences in results for different population segments:</p> <ul style="list-style-type: none"> ▪ Gender ▪ Youth ▪ Rural ▪ Urban ▪ Poverty level (ultra-poor)
10. Geography	<ul style="list-style-type: none"> ▪ Countries and continents

Step 5: Evidence Gap Map

After we categorized the evidence by all the criteria described above in Table 3, we built the evidence map. The map organizes the evidence into a matrix structure – on the horizontal axis (columns) the evidence is organized by **type of results** grouped into client, institutions and ecosystem level results. On the vertical axis (rows) the evidence is organized by the **type of savings intervention** documented in the evidence; interventions focused on product type, product design, product distribution channels and target markets. Each cell indicates the **actual number** of studies documenting a specific type of intervention and its associated type of result. It is important to mention that resources appear multiple times in the map, where they contain evidence for multiple types of results and therefore adding up the figures across cells will exceed the total number of studies included in the map.

In this document, we present the map in four layers: a first, high-level map, which aggregates the evidence by the primary categories of results (Figure 2). We then follow with three additional maps that further unpack the results level – clients (Figure 3), institutions (Figure 4) and ecosystem (Figure 5).

Figure 2: Savings Evidence Map – High-level/aggregate results

Intervention Type		Clients	Institutions	Ecosystem
Product type	Individual savings	103	26	10
	Savings groups	111	51	11
	Other	13	1	2
Product design	Voluntary	27	4	4
	Commitment based	23	4	2
	Compulsory	7	2	
	Embedded with other services	25	6	1
	Other	19	7	
Delivery	Physical branches	8	5	
	Alternative delivery channels	37	16	4
	Other	12	8	3
Target market/Clients	Youth	38	9	1
	Ultra-Poor	16	5	2
	Women	41	6	3
	Rural	68	16	5
	Urban	6	2	
	Other	8	1	

The figures in the map above indicate the number of studies that document evidence at client, institution and ecosystem level by type of intervention. Client level results by far dominate across the studies included in the map. For example, the map shows that 111 studies looking at savings groups include evidence on client outcomes, 103 studies focused on individual savings initiatives document evidence on clients, and so on. The least amount of evidence is found at the ecosystem level. The map also shows that interventions focused on product types are the most documented, especially ones on savings groups. It is important to mention that this distribution has not changed since the first evidence map was created and throughout the updating process.

The following three maps further unpack these figures and discuss how the evidence is clustered and where there are gaps.

Figure 3: Evidence gap map – Client level results

Intervention Type		Access	Usage	Income	Asset	Consumption	Business outcomes	Resilience & Food Security	Empowerment	Health & Nutrition	Education	Social outcomes
Product type	Individual savings	56	85	18	8	14	12	9	5	11	9	9
	Savings groups	43	53	27	14	17	13	23	27	22	15	22
	Other	4	10	3	3	1	0	1	3	1	2	4
Product design	Voluntary	12	24	3	1	4	4		1	4	3	4
	Commitment based	13	18	1			1		5	1	3	1
	Compulsory	3	5	1	1	2	2	1	1		1	3
	Embedded with other services	11	13	4	4	2	2	3	7	5	2	4
	Other	4	13	5	2	1		2	3	7	3	1
Delivery	Physical branches	4	7	1			1	2				1
	Alternative delivery channels	21	33	7	2	2	4	5	2	4	3	
	Other	4	10	3	1	1	1	2	2	3	1	2
Target market/Clients	Youth	22	27	1	4	2	2	3	2	4	10	4
	Ultra-Poor	8	10	7	3	1		7	4	3	2	5
	Women	15	22	10	5	4	5	6	14	6	5	6
	Rural	33	48	18	5	11	8	10	7	10	4	8
	Urban	2	3	1	1		1	2	1	1		
	Other	3	5	1								

Figure 3 (above) presents a more detailed look at the client level results. **The map shows that the most substantial evidence is on usage and access across all intervention types.** It is encouraging to note that usage is documented more frequently than access as the sector has been shifting from a focus on access to finance towards measures of usage and value derived by clients. Changes in income, resilience and food security, health and nutrition as well as empowerment are documented to a lesser extent but still in a good number of studies especially those focused on specific target clients such as women and rural. **The least amount of evidence appears to be on business outcomes and assets.**

The map shows that of all intervention types, individual savings products are the most heavily documented in the areas of access and usage, a change from the first iteration of the map where evidence on savings groups interventions had been the most prevalent. In all other outcome areas, savings groups interventions continue to be studied the most, with results in each of the categories included in the map. A relatively high amount of studies document alternative delivery channels which is not surprising as providers continue to invest in these to solve proximity, cost and scale challenges. The map also presents initiatives focused on the target market with a large proportion of the documents presenting evidence on savings initiatives that target rural clients and women, followed by ones that target youth and the ultra-poor. Since the last update, 10 studies were added that target rural markets.

We also categorized evidence by whether client level results are disaggregated by different client groups (youth, gender, poverty level, rural/urban) but found a very small number of studies that did that. We have not included this categorization in the map to keep it manageable but want to highlight this point as it is somewhat surprising given the increased focus on customer segmentation to help design and deliver products that better meet their needs and preferences.

Figure 4: Evidence gap map – Institution level results

Intervention Type		Outreach	Sustainability & Replicability	Effectiveness of Business Model	Institutional capacity & governance	Partnership models
Product type	Individual savings	11	1	15	1	2
	Savings groups	13	12	33	7	8
	Other		1	0		
Product design	Voluntary	2		2	1	
	Commitment based			4		1
	Compulsory			2		
	Embedded with other services	2	1	3		1
	Other	3	1	3		
Delivery	Physical branches	3		3		
	Alternative delivery channels - Mobile	7		2		
	Other	4	3	2		
Target market/Clients	Youth	7		1		1
	Ultra-Poor	3	1	1		1
	Gender	2	1	1	1	
	Rural	3	1	2		1
	Urban					
	Other	1		1		

Figure 4 shows a more detailed look at institution level results by the same types of interventions. The evidence base is significantly scarcer in this case compared to client level results with a high proportion of evidence examining the effectiveness of business models for savings groups interventions and their sustainability and replicability. Since the last update, 4 studies were added that look at the effectiveness of business models, showing the growing importance of this field. Otherwise, **many evidence gaps exist implying we have a limited understanding of the link between savings initiatives and the outcomes on the institutions who provide them.** It is especially surprising that, given the keen interest in the sector on understanding the sustainability and replicability of various financial inclusion initiatives, we continue to have very little reliable evidence on this topic.

Related to institutions, but from the starting point of the interventions' main focus, we have also set out to identify studies that document evidence of interventions focused on the types of providers (Banks, MNOs, partnerships) who offer savings services (as indicated in Table 2). We found a very small number of studies documenting such interventions and we have therefore not presented this data on the map. However, given the industry's keen interest on commercial viability, scale and innovative implementation models **these gaps highlight the need for more research to help increase our understanding of what approaches are needed for providers to be able to build, deliver and maintain savings products and we will continue to track these trends.**

Figure 5: Evidence gap map – Ecosystem level results

Intervention Type		Policy & Regulation	Supporting functions	Market coordination	Informal rules and norms
Product	Individual savings	5	1	2	3
	Savings groups	8	2		3
	Other	1			1
Product design	Voluntary	1			3
	Commitment based		1		2
	Compulsory				
	Embedded with other services				
	Other				
Delivery	Physical branches				
	Alternative delivery channels - Mobile	1		1	
	Other				
Target market/Clients	Youth	1			
	Ultra-Poor	2			
	Gender		1		
	Rural				
	Urban				
	Other				

This figure outlines the evidence gap map for ecosystem level results. The map shows that the evidence base, in this case, is even scarcer, certainly compared to client level results but also compared to institution level results. **Except for a small number of studies documenting results related to policy and regulation, reliable evidence continues to be almost non-existent at this level, which presents a clear opportunity for further research.** It is, however, encouraging to see that since the last update 5 studies were added that examine the role of informal rules and norms of which most focus on the product and a few on the product design.

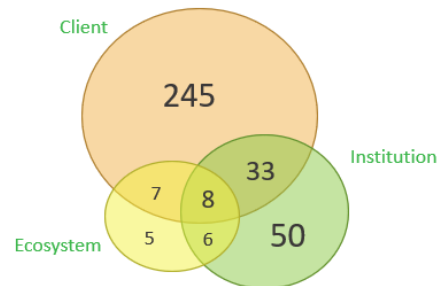
Step 6: Additional Synthesis of Evidence

We synthesize selected evidence presented in our map using some of the additional evidence characterization classification criteria we presented in Table 3 and quality assessment criteria presented in Tables 2a and 2b.

By the three primary result levels

Figure 6: Number of studies by aggregate types of results

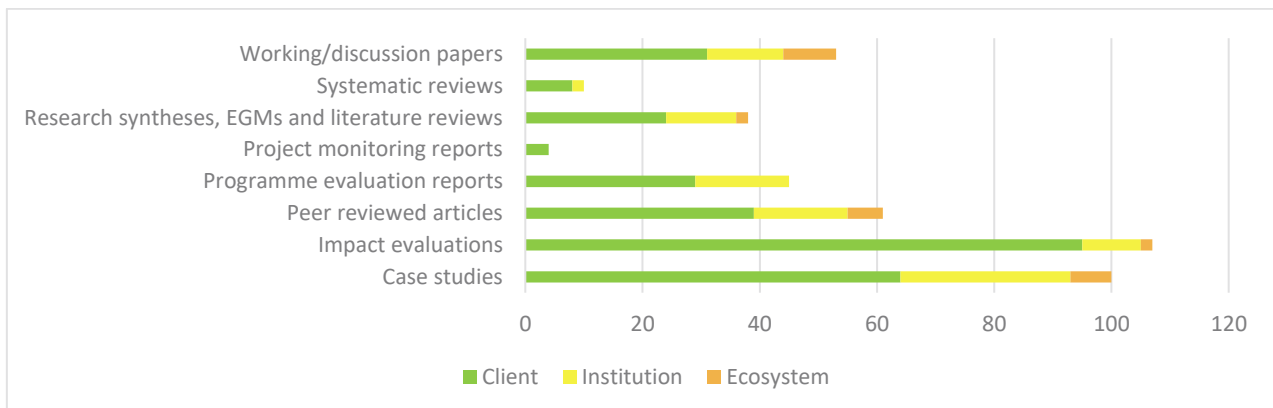
This diagram reiterates that client level results continue to dominate across the studies included in the map. They are mentioned in 245 cases, which is 69% of the total sample of studies. Also as shown in this figure, it is important to emphasize that resources appear multiple times in the map, where they contain evidence for multiple types of results, with six studies including evidence at all three levels.



By types of evidence

When we disaggregate the information on types of results by types of evidence (see Figure 7), we find that impact evaluations continue to dominate client level results, followed by case studies and programme evaluation reports. Figure 7 shows that the majority of research syntheses and literature reviews present evidence at the client level. Case studies and programme evaluation reports dominate institution level results. Evidence about ecosystem level results is mostly documented in case studies and working papers or discussion papers.

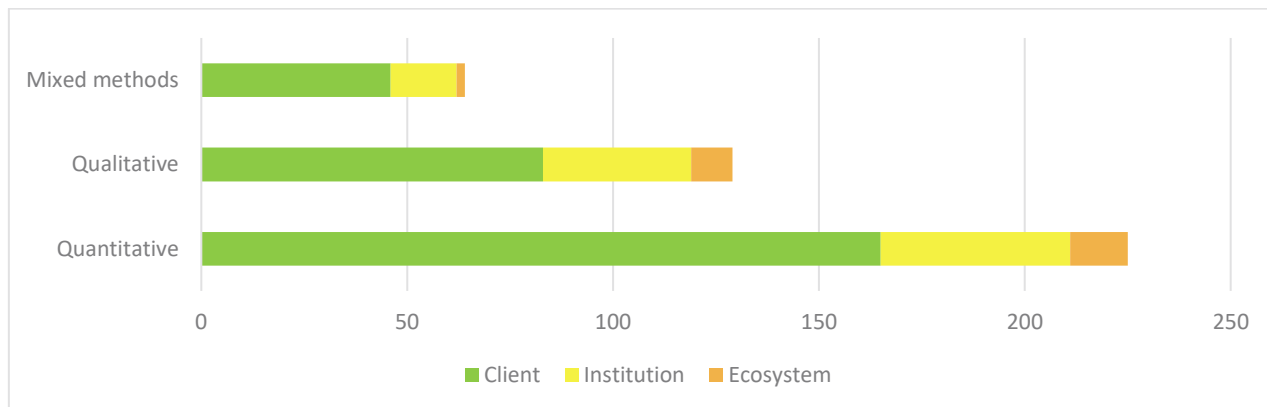
Figure 7: Types of evidence by types of results



By methods

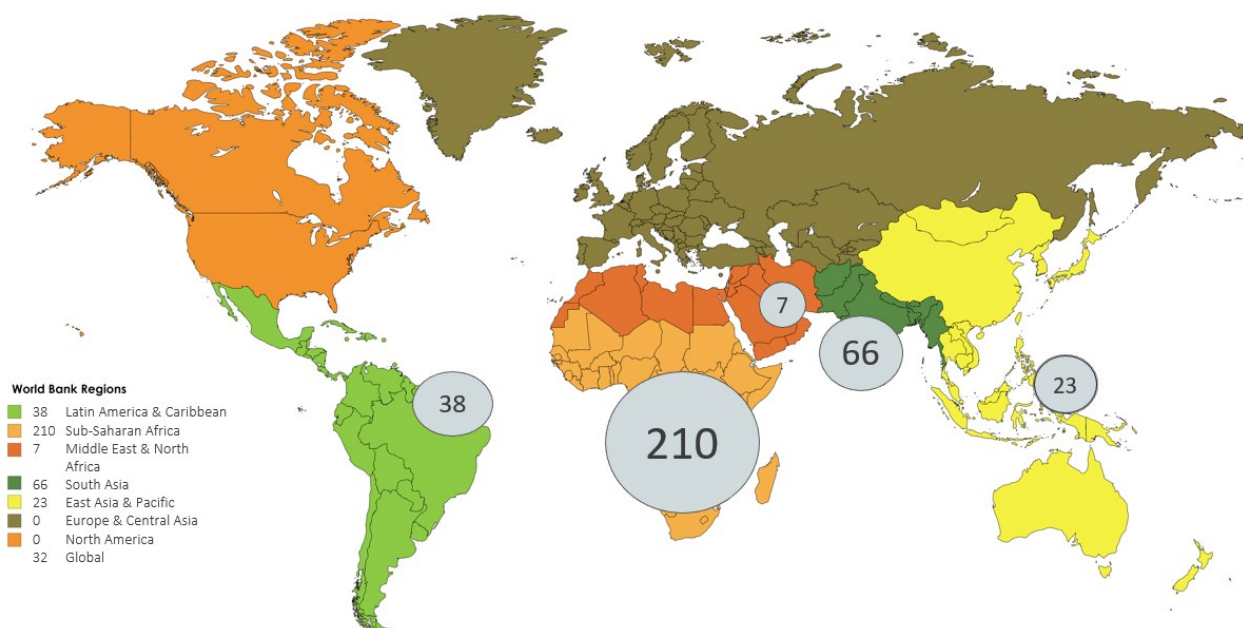
Examining our sample of studies in terms of their methodological choices (figure 8); we find that more than half the studies adopted a quantitative approach (55% of the total sample of included studies); this holds true especially for client and institution level results. Given the large number of impact evaluations we identified in the sample of client level studies, the dominance of quantitative methods is not surprising as recent impact evaluations, in particular, have largely used RCTs to measure impact. This is reflected in the quality assessment where the majority of studies with a low risk of bias score are RCT-driven impact evaluations looking at the impact of micro-savings on the client. Given the recent rise in popularity of mixed methods studies, it is interesting to see that mixed methods approaches continue to be surpassed by qualitative approaches. In 29% of all included studies, qualitative methods have been adopted. Only 16% of all included studies have pursued a mixed methods approach.

Figure 8: Broad methodological choices by types of results



By geography

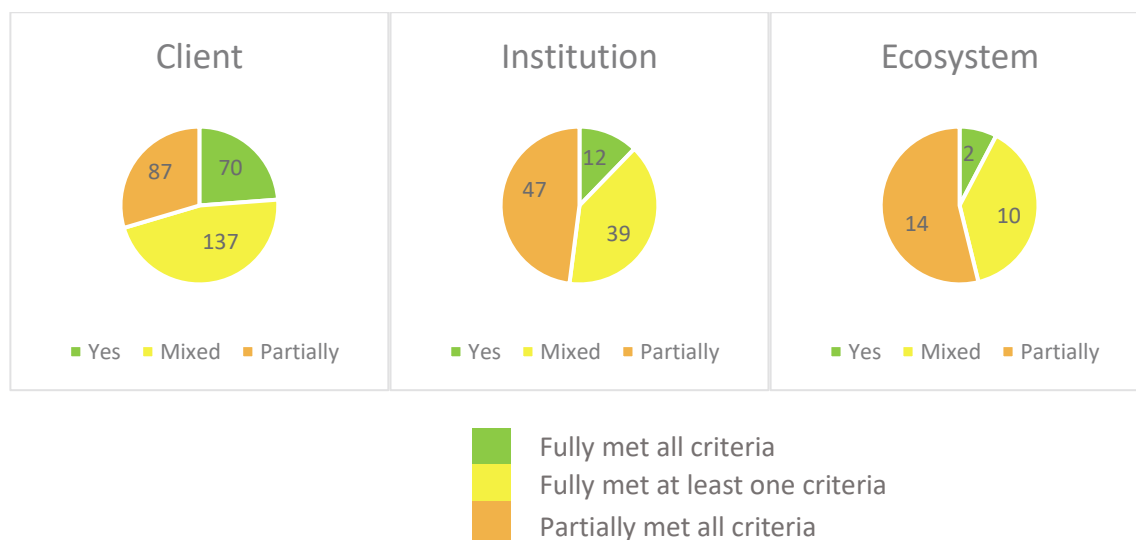
Figure 9: Geographic distribution, by World Bank regions



Examining our sample of studies (excluding systematic reviews, research syntheses, EGMs and literature reviews) by geographic focus, we find the majority of studies continue to focus on Sub-Saharan Africa (210), followed by South Asia (66) and Latin America and the Caribbean (38). While some studies in this sub-sample had a global scope, there are no studies that focus exclusively on either North America or Europe and Central Asia. Given the regional trends in access to and use of savings products and services, it is not surprising that research is focused in less developed regions where a higher proportion of the population are excluded from savings products.

By quality

Figure 10: Type of results by quality score



The three charts shown in Figure 10 show the percentage of studies within each type of result by the quality ratings assigned to each study. Only studies that fully met or partially met all three quality assessment criteria (outlined in Table 1b) were included in the map, therefore studies that ‘partially met all criteria’ are considered to be the lowest quality in the map and those that ‘fully met all criteria’ received the highest quality rating. The Figure shows that as you move from client –to institution – to ecosystem level results, the proportion of studies that fully met all quality criteria reduces while the proportion of relatively low-quality studies increase. It is interesting to note that not only are there more studies focusing on client level results, these studies are also of a higher quality than those which assess institution and ecosystem level results.

Conclusion and next steps

This report describes the approach we used to develop and update the Savings Evidence Map. It also includes an initial analysis of where the evidence is clustered and where there are gaps. Through our initial search process and the two annual updates to date, we identified 1737 studies which were screened using our inclusion criteria. After the screening process, we were left with 354 which met our inclusion criteria. These 354 studies were subjected to a quality assessment and collated into an evidence gap map.

The results of the mapping exercise show that studies documenting client-level results continue to dominate. Within these studies, there is a large amount of evidence focused on access and usage of individual savings and savings groups. The map also shows that, with the exception of savings groups initiatives, there are significant evidence gaps for institution-level results especially in the areas of sustainability and replicability. In other words, very little continues to be researched and documented about the motivations and outcomes of savings providers to serve the financially disadvantaged. **These gaps highlight the need for more research to help increase our understanding of what approaches are needed for providers to be able to build, deliver and maintain savings products sustainably.** Moreover, the map shows an extremely thin evidence base for ecosystem level results which indicates that we do not seem to have solid evidence about the enabling factors that need to be in place to generate an environment that could best facilitate the use of savings products. This presents another opportunity for further research.

Additional synthesis of evidence type reveals that impact evaluations dominate which are mainly driven by quantitative approaches. These are often considered to be superior (from a risk of bias perspective) to qualitative and or mixed methods approaches as indicated by the quality assessment scoring. Lastly, the geographical distribution of evidence shows that the majority of evidence focuses on Sub-Saharan Africa.

We encourage readers to further explore the on-line map which helps navigate the range of studies, quickly locate information, understand the quality of the evidence and identify gaps. To further understand what types of savings interventions work best and for whom we also encourage users to delve deeper into these studies and further synthesis and analyze the results. The Savings Learning Lab for example examined and synthesized findings on youth focused savings initiatives⁷. We will continue to search for newly available evidence and will update the map annually. Next update is scheduled in late 2021.

⁷ Itad (2019) Savings for youth: a review of evidence. Available at <https://mangotree.org/Resource/Savings-for-Youth-A-Review-of-Evidence>

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Appendix 1: Inclusion and quality criteria

In Step 2 we identified a number of inclusion as well as quality criteria to enhance transparency and rigour of the review as they then guided the subsequent screening process. The following tables build on the information presented in Table 2a and 2b in the main body of the report, providing more detail on the definitions used for the primary and quality inclusion criteria.

Table A1a: Primary Inclusion Criteria

Criteria	Description	Examples
<p>Relevance: The evidence addresses one of the types of results on clients, institutions and/or ecosystems</p>	<p>The evidence needs to engage with one of the types of results on clients, institutions and/or ecosystems. The evidence also needs to encompass a 'substantial' savings component. 'Substantial' implies that the evidence explicitly addresses results related to savings initiatives. These may include savings products tied to access to credit, insurance and other financial services. Credit only, insurance only, mobile money only evidence will not be included. General microfinance evidence, without an explicit focus on savings, will not be included. The focus should be on practical and empirical aspects rather than on theoretical considerations. Systematic review evidence is considered to be relevant.</p>	<ul style="list-style-type: none"> ▪ The systematic review evidence linked to microfinance impact evidence. ▪ Empirical primary studies, etc.
<p>Geographical focus: All regions</p>	<p>We consider evidence from all geographical regions as learning can be generated beyond the Sub-Saharan African literature which is the Savings Learning Lab's focus.</p>	
<p>Time cut-off: Evidence from 2007 onwards only are considered</p>	<p>To capture the latest evidence of savings initiatives.</p>	
<p>Accessibility: The evidence is accessible through academic or institutional databases</p>	<p>For evidence to be included in the evidence gap map, it needs to be available either through academic or institutional databases. Relevant grey literature is also captured⁸.</p>	<p>The large body of systematic review evidence is a good starting point.</p>
<p>Language: English and French evidence only</p>	<p>We have the capacity to review evidence in English and French.</p>	

⁸ We should note that most of the academic databases we searched require subscriptions. Some of the grey literature databases require payments too.

Table A1b: Quality assessment criteria for quantitative and qualitative evidence

Criteria	Description	Coding
<p>Transparency: The evidence is transparent about the methodology used</p>	<p>The methodology that was used to collect and analyse the data, and the sample frame used to select data sources (including size and composition) to evidence results has to be described in the document. If the document is based on secondary sources, the methodology to select, assess and compile these sources needs to be explained.</p> <p>Aspects:</p> <ul style="list-style-type: none"> ▪ Data collection methodology ▪ Sampling (intended and actual sample) ▪ Data analysis methodology 	<p>YES – all three aspects are described in the document</p> <p>PARTIALLY – some methodological aspects are described</p> <p>NO – methodology is not described at all</p>
<p>Credibility: The data collection method generates credible data</p>	<p>The methodology to collect results is not only transparent but also credible by applying good measurement practices. The aim here is to exclude evidence that would undermine the credibility of the whole database.</p> <p>Aspects:</p> <ul style="list-style-type: none"> ▪ Methodology ▪ Sampling ▪ Triangulation 	<p>YES – all three aspects are appropriate⁹</p> <p>PARTIALLY – some of the aspects are appropriate, some not</p> <p>NO – none of the aspects are done appropriately</p>
<p>Cogency: The report presents a convincing argument</p>	<p>The argument built by the steps in the report's design and methodology (from data collection to conclusions) delivers a coherent and convincing story of results achieved.</p> <p>Aspects:</p> <ul style="list-style-type: none"> ▪ Design/approach reflects the research questions/intent ▪ Data collection and analysis appropriate for the chosen design ▪ The conclusions accurately reflect the analysis findings 	<p>YES – the argument made is cogent</p> <p>PARTIALLY – there are some gaps in the logic but the story is still generally convincing</p> <p>NO – there are major gaps in the logic and the story is not convincing</p>
<p>Inclusion decisions for all evidence:</p> <p>Included: Studies that met <u>all</u> criteria in Table 1a <u>and</u> fully met or at least partially met each criterion in Table 1b.</p> <p>Not included: any of the criteria in Table 1a is not met <u>or</u> at least one criteria/aspect in Table 1b are coded as NO.</p>		

⁹ An aspect can be deemed appropriate if it is in line with good measurement practice, supports answering the research questions and is able to handle scope and scale of the research.

Appendix 2: Databases and search strings

In Step 3 (search and screening process) of the evidence map methodology we reviewed total of 27 academic and institutional databases, as outlined in Table A2 below. We defined separate search strings, as outlined in table A3, for each of the learning questions to be able to capture the most appropriate evidence.

Table A2: Databases

Academic	Institutional
<ul style="list-style-type: none"> ▪ Google Scholar ▪ Science Direct ▪ Web of Science ▪ IDEAS/ Research Papers in Economics ▪ Jstor ▪ Scopus ▪ Social Science Research Network (SSRN) ▪ The United Nations University World Institute for Development Economics Research ▪ Institute of Economic Growth ▪ Institute of Development Studies ▪ The Financial Access Initiative, New York University Wagner 	<ul style="list-style-type: none"> ▪ Accion Center for Financial Inclusion ▪ Consultative Group to Assist the Poor (CGAP) ▪ Innovations for Poverty Action ▪ MicroSave ▪ Overseas Development Institute ▪ SEEP Network ▪ World Bank eLibrary ▪ Department for International Development (DFID) ▪ Donor Committee for Enterprise Development ▪ 3ie Impact Evaluation repository & 3ie Registry for International Development Impact Evaluations ▪ World Bank Impact Evaluation Working Paper Series ▪ Research4Development (DFID) ▪ African Development Bank Evaluation Reports: ▪ Agence Française de Développement: Impact Evaluations ▪ Asian Development Bank Evaluation Resources ▪ Inter-American Development Bank Evaluations

Table A3: Search strings

General		
"Individual savings"	"Savings groups"	Micro-savings OR microsavings
"Self-help groups"	"Financial inclusion"	ROSCA
Savings	Microfinance	"Financial services"
AND product	AND product	AND product
AND design	AND design	AND design
AND voluntary	AND voluntary	AND voluntary
AND compulsory	AND compulsory	AND compulsory
AND Commitment	AND Commitment	AND Commitment
AND Services	AND Services	AND branch
AND branch	AND branch	AND mobile
AND mobile	AND mobile	AND delivery

AND delivery	AND delivery	AND agent
AND agent	AND agent	AND business model
AND business model	AND business model	AND “financial services providers”
AND “financial services providers”	AND “financial services providers”	AND Bank
AND Bank	AND Bank	AND NGO
AND NGO	AND NGO	AND Partnership
AND Partnership	AND Partnership	AND Client
AND Client	AND Client	AND Market
AND Market	AND Market	AND Youth
AND Youth	AND Youth	AND Poor
AND Poor	AND Poor	AND Disability
AND Disability	AND Disability	AND Gender
AND Gender	AND Gender	AND Women
AND Women	AND Women	AND Access
AND Access	AND Access	AND Usage
AND Usage	AND Usage	AND Income
AND Income	AND Income	AND Consumption
AND Consumption	AND Consumption	AND Resilience
AND Resilience	AND Resilience	AND Finance
AND Finance	AND Finance	AND Social
AND Social	AND Social	AND Empowerment
AND Empowerment	AND Empowerment	AND Participation
AND Participation	AND Participation	AND Health
AND Health	AND Health	AND Education
AND Education	AND Education	AND Institution
AND Institution	AND Institution	MAND School
MAND School	MAND School	AND Sustainability
AND Sustainability	AND Sustainability	AND Efficiency
AND Efficiency	AND Efficiency	AND Scale
AND Scale	AND Scale	And Policy
And Policy	And Policy	AND Ecosystem

AND Ecosystem	AND Ecosystem	AND Regulation
AND Regulation	AND Regulation	AND funder
AND funder	AND funder	AND donor
AND donor	AND donor	AND formal
AND formal	AND formal	AND informal
AND informal	AND informal	

Appendix 3: Chronological overview of microfinance systematic reviews and meta-analyses

In 2018 the following 13 systematic reviews were identified in Step 3 (search and screening process) of the evidence map methodology from the following specialist databases:

- Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)
- DFID Database for Systematic Reviews
- 3IE Systematic Reviews Database

Authors	Details	Geographical focus	Funder
Odell, 2010	Research synthesis	Worldwide	Grameen Foundation
Stewart et al, 2010	SR; quantitative evidence only	Sub-Saharan Africa	DFID
Duvendack et al, 2011	SR; quantitative evidence only	Worldwide	DFID
Bauchet, et al, 2011	RCT evidence only – not a SR	Worldwide	CGAP
Stewart et al, 2012	SR; includes micro-leasing, quantitative evidence only	Worldwide	DFID
Maitrot and Niño-Zarazúa, 2013	SR; quantitative evidence only	Worldwide	Unclear
Cole et al, 2012	SR, micro-insurance focus, quantitative only	Worldwide	DFID
Yang and Stanley, 2013	Meta-analysis only, focus on income	Worldwide	Self-funded
Vaessen et al, 2014	SR including meta-analysis; empowerment focus	Worldwide	3ie
Awaworyi, 2014	Meta-analysis only	Worldwide	Self-funded
Arrivillaga and Salcedo, 2014	SR, focus on HIV/AIDS prevention	Worldwide	Unclear
Madhani, Tompkins, Jack and Fisher, 2015	Modified SR, focus on women's mental health	Worldwide	Unclear
Gopaldaswamy et al, 2016	SR; quantitative evidence only	South Asia	DFID

In the 2019 update the following systematic reviews were identified:

Authors	Details	Geographical focus	Funder
Gash, 2017	SR; mixed-methods	Global	DFID
Rippey, 2018	SR; mixed-methods	Sub-Saharan Africa	DFID
Steinert et al., 2018	SR; mixed-methods	Sub-Saharan Africa	Unclear

Duvendack and Mader, 2019	SR; mixed-methods	Global	Unclear
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In 2020, the update added one more systematic review to the evidence map:

Authors	Details	Geographical focus	Funder
De Hoop et al, 2019	SR; qualitative documentation analysis	Global	Unclear

Appendix 4: Quantitative quality assessment approach

This appendix outlines the available tools and methodology we adopted to assess the risk of bias in our final sample of studies. This analysis was carried out on the initial set of studies but it was not repeated in the 2019 update.

Many of the available tools focus on assessing the validity of experimental designs (e.g. Coalition for Evidence-Based Policy, 2010 for social experiments, Higgins and Green, 2011 for medical experiments) but increasingly tools for assessing quasi-experimental evidence have been developed (e.g. see EPHPP (n.d.), EPOC (n.d.), NICE (2009), Petticrew and Roberts (2006:135), also Deeks et al (2003) for an in depth list and Valentine and Cooper (2008)).

A popular scale often used to assess quantitative evidence is the Maryland Scale of Scientific Methods (see table A4) which categorises the characteristics of research approaches and corresponding evidence.

Table A4: Maryland Scale of Scientific Methods (MSSM)

0 = Descriptive statistics with no control group
1 = Observed correlation between an intervention and outcomes at a single point in time. A study that only measured the impact of the service using a questionnaire at the end of the intervention would fall into this level.
2 = Temporal sequence between the intervention and the outcome clearly observed; or the presence of a comparison group that cannot be demonstrated to be comparable. A study that measured the outcomes of people who used a service before it was set up and after it finished would fit into this level.
3 = A comparison between two or more comparable units of analysis, one with and one without the intervention. A matched-area design using two locations in a country would fit into this category if the individuals in the research and the areas themselves were comparable.
4 = Comparison between multiple units with and without the intervention, controlling for other factors or using comparison units that evidence only minor differences. A method such as propensity score matching, that used statistical techniques to ensure that the programme and comparison groups were similar would fall into this category.
5 = Random assignment and analysis of comparable units to intervention and control groups. A well conducted RCT fits into this category.

Source: Adapted from NAO, 2013, Carpenter et al, 2011.

However, the Cochrane Collaboration explicitly discourages the application of scales in quality appraisal as these have shown to be empirically weak (Higgins and Green, 2011, chapter 8.5). This view is mirrored by Deeks et al (2003). Hence, a scoring scheme by Duvendack et al (2011, 2012) was developed. This scheme categorizes each study by scoring their reported research design and analytical method (see table A5); these scores are then combined into an index. A cut-off point of 2 is applied, e.g. a study with a score of 2 and above is considered to have high threats to validity. Studies with scores of less than 2 have lower threats to validity. Studies with high threats to validity would be excluded from further analysis and synthesis and thus reduce the number of studies for synthesis to a manageable amount.

Given resource constraints and the scope of this study, we propose to use the tool developed by Duvendack et al (2012) outlined in Table A5 to get an estimate for the quality of the quantitative evidence we have included.

Table A5: Potential risk of bias in quasi-experimental designs

	Statistical methods of analysis		
Research design	DID, PSM, IV, RDD	Multivariate (or bivariate with covariate means tests)	Tabulation
RCT	Low	Low	Low–Medium
Natural experiment	Low	Low	Low–Medium
Pipeline	Low–Medium	Medium-high	High
Panel	Low–Medium	N/A	High
Cross section	Low–Medium	High	High

Source: Duvendack et al. (2012).

However, this tool has shortcomings and therefore it is now often combined with an approach developed by Hombrados and Waddington (2012) as outlined in table A6 (for an application of combining these two tools see Duvendack et al, 2014).

Table A6: Internal validity appraisal categories for social experiments and quasi-experiments

Evaluation criteria	Category of bias	Example evaluation questions
1. Mechanism of assignment or identification	Selection bias and confounding	– Does the allocation mechanism generate equivalent groups? – Does the model of participation capture all relevant observable and unobservable differences in covariates between the groups?
2. Group equivalence in implementation of the methodology	Selection bias and confounding	– Is the method of analysis adequately executed? – Are the groups balanced on observables, and all relevant confounders taken into account in the analysis? – Is non-random attrition a threat to validity?
3. Hawthorne effects	Motivation bias	– Are differences in outcomes across the groups influenced by participant motivation as a result of programme implementation and, or monitoring?
4. Spill-overs and cross-overs	Performance bias	Is the programme influencing the outcome of the individuals in the comparison group (including compensating investments for the comparison groups)?
5. File-drawer effects	Outcome reporting bias	Is there evidence that results have been reported selectively?
6. Selective methods of analysis	Analysis reporting bias	Is the analysis convincingly reported and justified?
7. Other	Other biases	Are the results of the study subject to other threats to validity (for example, placebo effects, courtesy bias, inadequate survey instrument and so on)?
8. Statistical significance	Biases leading to type I and type II errors	– Is the study subject to a unit of analysis error? – Does the study take into account effect heterogeneity between sub-groups? – Is insignificance due to lack of power?

Evaluation criteria	Category of bias	Example evaluation questions
		–For regression-based studies, is heteroschedasticity accounted for?

Source: Hombrados and Waddington (2012).

Appendix 5: Quantitative and quality assessment results

Figure A1 and A2 outline the quality assessment (transparency, credibility and cogency outlined in Table 2b) for the included studies and the findings from the risk of bias analysis for the quantitative studies respectively.

Figure A1: Transparency, credibility and cogency coding for the included studies

		Transparency	Credibility	Cogency
Qualitative	Fully Met	36	32	21
	Partially met	68	72	83
Mixed Methods	Fully Met	37	32	20
	Partially met	18	23	35
Quantitative	Fully Met	146	124	53
	Partially met	49	71	142
All	Fully Met	219	188	94
	Partially met	135	166	260
	TOTAL	354	354	354

Figure A2: Risk of bias in the included quantitative studies (2018 update only)

Research design	Statistical methods of analysis		
	DID, PSM, IV, RDD	Multivariate (or bivariate with covariate means tests)	Tabulation
Experiments/RCTs	8	48	1
Longitudinal studies: Panel or before/after & with/without	5	18	0
Cross-section studies: Either before/after or with/without	4	2	2
Basic Surveys	0	17	17
Other	0	3	11

Source: Adaptation from Table A2, based on Duvendack et al. (2012).

Legend for Figure A2:

Low score	83	High score	30
Medium score	23		

There were no natural experiments or pipeline designs present in our sample and we have therefore removed these research designs. Also, some categories in Figure A2 indicate low-medium, but based on the actual scores we calculated for each of our studies we made a clear decision on either low or medium rather than sit on the fence between 2 categories.

Figure A2 indicates that in our sample of 136 quantitative studies, 83 have a low score indicating a low risk of bias, 23 have a medium score indicating a medium risk of bias and 30 studies have a high score meaning they have a high risk of bias. High risk of bias does not mean that studies do not contribute in significant ways either substantively or methodologically, only that they may not have the qualities required for

meaningful inclusion in the evidence gap maps or further in depth synthesis. However, for the time being, we include even the high risk of bias studies in our evidence gap map and then provide further analysis to explore what we can potentially learn from the high risk of bias studies.

Appendix 6: List of included studies

1. Abebe, S. and B. H. Selassie (2009). Impact Evaluation on WORTH Ethiopia Literacy-led Savings and Credit Program. Seep Network.
2. Adetunji, O. and David-West, O. (2019). The Relative Impact of Income and Financial Literacy on Financial Inclusion in Nigeria. *Journal of International Development*, 31(4): 312-335
3. Afrane, S. and Adusei (M. 2014). "Promoting Micro-Savings through the NGO Model: The Success Story of Sinapi Aba Trust." *International Review of Management and Business Research* 3(1): 485-492.
4. Afzal, U., d'Adda, G., Fafchamps, M., Quinn, S., & Said, F. (2017). "Two sides of the same rupee? Comparing demand for microcredit and microsaving in a framed field experiment in rural Pakistan". *The Economic Journal*, 128(614), 2161-2190.
5. Aggarwal, S., Brailovskaya, V., & Robinson, J. (2018). Saving for Multiple Financial Needs: Evidence from Malawi.
6. Aggarwal, S., Francis, E., & Robinson, J. (2018). "Grain today, gain tomorrow: Evidence from a storage experiment with savings clubs in Kenya. *Journal of Development Economics*", 134, 1-15.
7. Ahmed, A. D. (2007). "Potential impact of financial reforms on savings in Botswana: an empirical analysis using a VECM approach." *The Journal of Developing Areas*: 203-219.
8. Aker, J. C. and M. Sawyer (2016) *Get Your Goat: Planning, Saving, and Ceremonial Spending*.
9. Aker, J.C., Sawyer, M., Goldstein, M., O'Sullivan, M., McConnell, M. (2020). Just a bit of Confusion: The role of a simple savings device in meeting planned and unplanned expenses in rural Niger. *World Development* 128
10. Alam, P. and S. Nizamuddin (2013) *Role of Micro Finance & Self Help Groups in Women Empowerment: A Case Study of District Mewat*.
11. Allen, B. (2018) *State of Practice: Savings Groups and the Dynamics of Inclusion*. SEEP State of Practice Report
12. Allen, B., Barvious, M. (2019) *Savings Groups and Consumer Protection - How Savings Groups Responded to Insecurity and Theft in Madagascar*. SEEP Case Study
13. Allen, B., Barvious, M. (2019) *Savings Groups and Consumer Protection - Risk Mitigation through Community-Based Structures*. SEEP Case Study
14. Allen, H. (2009). *Impact and Programme Evaluation of Plan and UHIKI's joint VSL Programme in Tanzania.*, Plan Tanzania.
15. Allen, H. (2010). *Programme Evaluation of Plan and Reseau Marp_s VSL Programme in Burkina Faso*, Plan International.
16. Allen, H. (2010). *Programme evaluation report - Shigikirana: Burundi*.
17. Allen, H. and D. Panetta (2010) *Savings Groups What Are They?*
18. Allen, H., et al. (2010). *Impact Evaluation Report of Shigikirana - Savings for Life*.
19. Amankwah, E. Gockel, F., Osei-Assibey (2019) *Pareto Superior dimension of Rotating Savings and Credit Associations (ROSCAs) in Ghana: Evidence from Asunafo North Municipality of Ghana*.
20. Anand, P., Saxena, S., Gonzalez, R., & Dang, H. A. H. (2019). *Can Women's Self-Help Groups Contribute to Sustainable Development? Evidence of Capability Changes from Northern India*. The World Bank.

21. Anderson, J., et al. (2016). "National Survey and Segmentation of Smallholder Households in Uganda." Understanding Their Demand for Financial, Agricultural and Digital Solutions.
22. Anderson, J., Hopkins, D., Valenzuela V. (2019) The Role of Financial Services in Youth Education and Employment
23. Anderson, S., et al. (2009). "Enforcement in informal saving groups." *Journal of Development Economics* 90(1): 14-23.
24. Andrew et al. (2018). "Insights on the Preferences and Usage of Financial Services by Savings Groups in Tanzania" *Savings at the Frontier*
25. Angelow, W. and I. Radcliffe (2015) WSBI's journey in making small-scale savings work - WSBI Doubling Savings Accounts Program 2008-2015 - Final Program Report.
26. Angelow, W., et al. (2012). "Mass retail banking: how savings banks in Africa, Asia and Latin America can provide usable services to the poor." *Asia and Latin America Can Provide Usable Services to the Poor*.
27. Annan, J., Bundervoet, T., Seban, J., and J. Costigan (2013) A Randomized Impact Evaluation of Village Savings and Loans Associations and Family-Based Interventions in Burundi. *Seep Network*
28. Ansong, A., et al. (2011). "The Effects of Financial Innovation on Financial Savings: Evidence From an Economy in Transition." *Journal of African Business* 12(1): 93-113.
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30. Arora, S., Robinson, I., (2019) *Savings Groups and Consumer Protection: Government Regulation, Rules and Guidelines*
31. Asamoah, M. and F. M. Amoah (2015). "Microcredit Schemes: A Tool for Promoting Rural Savings Capacity among Poor Farm Families: A Case Study in the Eastern Region of Ghana." *Open Journal of Social Sciences* 03(01): 24-30.
32. Asare, E., Nakakeeto, G., & Segarra, E. (2018). "Determinants of the choice of a savings option: The case of African Households" (No. 2015-2018-370).
33. Ashraf, N., et al. (2010). "Female Empowerment: Impact of a Commitment Savings Product in the Philippines." *World Development* 38(3): 333-344.
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36. Atkinson, J., et al. (2010). "Creating incentives to save among microfinance borrowers: A behavioral experiment from Guatemala." University of California at Berkeley, mimeo.
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