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Savings Learning Lab

Savings and financial health

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Evidence Review

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The Mastercard Foundation's Savings Learning Lab

The Mastercard Foundation Savings Learning Lab is a six-year initiative implemented by Itad that supports learning among the Foundation's current savings sector portfolio programmes: Scale2Save, implemented by WSBI and Savings at the Frontier, implemented by OPM.

The Savings Learning Lab support learning among the partners and the wider sector through the generation, synthesis, curation and dissemination of knowledge on savings focused financial inclusion.

List of acronyms

LQ	Learning Question
SILC	Savings and Internal Lending Community
VSLA	Village Savings and Loan Associations
UNCDF	United Nations Capital Development Fund
UNSGSA	United Nations Secretary-General's Special Advocate for Inclusive Finance for Development

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Objective and learning questions

This meta-study examines existing evidence on savings in light of the emerging concept of financial health. It identifies findings from the savings literature that relate to the key elements used to define financial health and explores whether the findings indicate how savings contribute to financial health. It also identifies elements within the realms of financial health and savings that have been relatively well studied and other elements that remain underexplored.

Researchers have been studying savings for many years, while financial health has only recently been studied outside a few high-income countries. In the wider evidence base on savings, there is a body of work that does not use the financial health lens but does assess the link between savings and key financial health outcomes, such as the ability to smooth consumption, resilience, and financial empowerment. Through re-analyzing and synthesizing lessons from these studies using the financial health lens, this report aims to connect a deep body of knowledge on savings with the new conversations on financial health.

Despite increases in financial access and usage across the world, enormous gaps in financial health remain. The World Bank's Global Findex surveys in both 2014 and 2017 found that although financial inclusion (defined by account ownership) rose across the world, resilience was slightly lower in 2017 than in 2014 in all regions, excluding high-income countries (Rhyne & Kelly, 2018, p. 23).[1] In Kenya's FinAccess surveys, the number of 'financially healthy' adults – defined using the first three of the United Nations Secretary-General's Special Advocate for Inclusive Finance for Development's (UNSGSA's) four elements of financial health – dropped from 39% in 2016 to 22% in 2019, even though access and usage of financial services increased (FinAccess, 2019, p. 53).[2] The Findex also found that savings in accounts did not budge: the newly included do not necessarily use their accounts to save. These findings set the stage for examining how savings relate to financial health.

The objective of this paper is to examine the evidence base on the link between savings (both formal and informal) and key financial health indicators. The learning questions (LQs) we posed are:

- **A.** What does the literature on savings tell us about how savings contribute to financial health?
- **B.** Does the mode of savings matter for financial health (savings groups, in-kind savings, bank accounts, etc.)?
- **C.** What links between savings and financial health have been most thoroughly substantiated, and where are there gaps?
- **D.** Does using a financial health framework provide new insights into savings?

This paper is aimed at practitioners, donors and researchers working on savings and/or financial health in the broader financial inclusion context.

1 Rhyne, E. & Kelly, S. 2018. Financial Inclusion Hype vs. Reality: Deconstructing the Findex 2017 Results. Washington: Center for Financial Inclusion at Accion

2 Central Bank of Kenya, Kenya National Bureau of Statistics, and FSD Kenya, **2019 FinAccess Household Survey, Survey,** April 2019, pp 53

Clarifying the concepts: financial health and savings

Neither financial health nor savings are as conceptually as straightforward as might be wished, and this complexity needs to be stated at the outset.

The UNSGSA Financial Health Working Group suggests the following definition for financial health:[3]

> **"Financial health or wellbeing is the extent to which a person or family can smoothly manage their current financial obligations and have confidence in their financial future."**

The group notes that this definition includes four key elements that shape a person's financial health:

- "**Day to day finances:** Smooth short-term finances to meet financial obligations and consumption needs
- **Resilience:** Capacity to absorb financial shocks
- **Goals:** On track to reach future goals
- **Confidence:** Feeling secure and in control of finances"

Financial health is seen as both something that individuals and families the world over strive for and, at a policy level, as an overarching goal for financial inclusion. While it is generally measured as a snapshot in time, it is a state that changes with the ups and downs of a person's economic life. The elements of financial health noted above refer to a range of time frames from immediate to long-term, as suggested in the financial well-being tagline adopted by the Commonwealth Bank of Australia: "**Every day. Rainy day. One day.**"[4]

Savings itself is a multifaceted concept and often difficult to pin down. As a noun, 'savings' refers to resources held aside for future use. As a verb it refers to the habit of setting resources aside. Furthermore, people amass savings for various reasons with varying time frames, from a pool of liquidity for day to day use to special goals (which can be short, medium or longer-term) or a general emergency buffer. And they save in a variety of forms, including monetary and in-kind forms. Many people even save indirectly by maintaining their access to formal or informal credit.

Methodology and Caveats

The research on savings addresses all the various aspects of savings even though many studies focus on just one aspect. For example, an impact evaluation of a program to promote commitment savings may examine only whether people used this service. Given the existing body of evidence, including the studies in Itad's Savings Evidence Map, a large share of the studies examined savings groups of various kinds. A smaller but still substantial share examined whether a specific intervention, such as training or incentives, caused account holders to increase savings balances in various forms of accounts.

We developed a conceptual framework that sorts specific situations and outcomes according to one or more of the four main elements of financial health, and further breaks these into sub-elements based on subcategories that appear in the literature on measuring financial health (see Annex). The subcategorization allows us to match results from studies on savings research that may mention only one aspect of the broader financial health concept. In addition, as we reviewed, we identified several other key considerations mentioned in the research that could impact financial health through the use of savings.

3 unsgsa.org/sites/default/files/resources-files/2021-09/UNSGSA%20Financial-health-introduction-for-policymakers.pdf

4 commbank.com.au/banking/guidance.html

Figure 1: Framework for Analysis

Day to Day Finance	Resilience	Long Term Goals	Confidence	Other Factors that could impact financial health
Meeting payment and debt obligations	Ability to raise a lump sum in an emergency	Access to long-term funds	Feeling confident and in control (or conversely, anxiety and worry)	Time use
Smoothing consumption and controlling spending	Time consumption can be maintained if income is interrupted	Ability to pursue specific long-term goals (shelter, education, etc.)	Specific focus of worry	Gender norms
Short term coping strategies	Consequences of lack of resilience in emergency	Savings or strategy for old age	Agency in financial decision making	Use of financial services
Improved microenterprise outcomes and other income	Insurance and safety nets	Building assets		Access to information and financial advice
Food security	Liquid savings balances			Income and income volatility
				Protection against high inflation
				Time use

We then built a database of studies on savings, beginning with the English language studies in Itad's Savings Evidence Map. In the second stage, we used Google Scholar to search, using key words and phrases. Finally, we examined academic and institutional databases, such as SSRN and CGAP (see Annex for a full listing). In all, 110 papers about savings were reviewed, of which only 39 had evidence pertinent to our learning questions. Several studies were eliminated from the data base because the researchers did not address any element of financial health. This gap is, in itself, a significant finding.

The nature of this methodology suggests several caveats:

- Potential omissions or biases in search terms and search engines.
- For many, if not most, of the studies, identifying and exploring the link between financial health and savings was not the primary intent or focus of the research.
- The review did not assess the validity of the research. It aimed simply to identify findings relevant to the financial health lens. Studies included both qualitative and quantitative surveys and designs with and without control groups. We incorporated their findings regardless of method.

Thus, this review is not meant to be exhaustive but is meant to illustrate how existing studies on savings may be measuring elements of financial health even if they do not explicitly acknowledge it. In doing so, it presents a technique for meta-analysis that can be used by others interested in examining a pre-existing body of knowledge for its relevance to financial health.

Findings:

Below, we outline our findings with respect to the LQs outlined in the previous section.

LQ1: How do savings contribute to financial health?

The research noted examples of positive financial health effects from savings across all four elements of the financial health framework; however, there was an uneven depth of studies and examples across the four elements. The elements most frequently addressed were day to day finances and confidence. The resilience aspect, as defined in the context of financial health, was not frequently addressed – at least, not directly. Some long-term goals were addressed (such as education), but others (such as old age) were not.

In this section we discuss the findings in each of the four financial health elements, describing the depth of evidence, major takeaways and illustrative examples.

DAY TO DAY FINANCES

In the context of financial health, 'day to day finances' refers to the ability to manage short-term finances to meet financial obligations and smooth consumption.[5] These obligations and consumption needs fall into several categories – the ability to pay bills on time and repay debts; food security; money left at the end of the month, or the ability to make discretionary purchases; and how short-term finances are managed, including savings, budgeting and social networks.

As noted above, day to day finances was the element of financial health addressed more than any other by studies and was the element for which there was the greatest depth of evidence. The literature revealed positive financial health effects from savings in three elements of the day to day finances: short-term food security, ability to pay bills on time, and income. Some observations and examples in each of these elements are outlined below.

Studies on **food security** were more prevalent than other topics. For example, an impact evaluation of a savings program in Mali showed that savings helped households to smooth consumption over seasonal periods of greater food insecurity (Bureau of Applied Research in Anthropology et al., 2013). A number of studies also noted that engaging in savings, especially by the ultra-poor, results in greater food security and dietary diversity, which can impact health and nutrition indicators positively in the long run. For example, a study on the Influence of Savings and Loans Associations in empowering women towards household food security in Bondo District, Kenya showed that Village Savings and Loan Associations (VSLAs) enhanced the ability of women to produce more food and to purchase food of higher quality and in greater quantities, increasing their ability to engage more in decisions relating to food variety and quality (Awiti, 2013).

The **ability to pay bills on time** is indirectly evidenced in the statement 'reduced the probability that someone becomes poor', such as in a study of savings and credit associations in Mexico (Lensink et al., 2017).

A number of studies noted **increased earnings** resulting from participation in savings groups. Lowe et al. (2019), who studied youth associations and cooperatives in Ghana, found that increased savings and access to loans through VSLAs allowed youth to rent bigger pieces of land and thus plant and harvest more to increase their income. Odera and Muruka (2007) showed that members of a Savings and Internal Lending Community (SILC) in Kenya were able to initiate group or individual income-generating activities, such as purchasing in bulk for later resale.

5 unsgsa.org/sites/default/files/resources-files/2021-09/UNSGSA%20Financial-health-introduction-for-policymakers.pdf

RESILIENCE

In the context of financial health, resilience refers to the maintenance of an emergency buffer to meet financial shocks.

In the research we reviewed, this type of resilience was not often mentioned explicitly and there were significantly fewer studies than on day to day finances; however, it should be noted that, given the overlapping nature of the elements of financial health, it was not always possible to distinguish where the results of some of the studies fitted best. For example, a food security deficit could indicate an inability to manage daily finances, or it could arise from an external shock. The resilience concept did appear in discussions of food security during shocks, and several of these studies found that participants in groups had greater food security during a shock. Further examples are described below.

The study mentioned earlier – on Mexican savings and credit associations – showed that households that saved had better ability to smooth consumption in the face of shocks. An evaluation of a savings for change program in Mali showed that the program was helping households smooth consumption over seasonal periods of greater food insecurity (Bureau of Applied Research in Anthropology et al., 2013). In another study in rural India, participants in a savings program in banks also reported smoothing of consumption and nutrition. A study in Kenya showed that VSLAs had enhanced the ability of women who joined them to produce more food and to purchase food of a higher quality and in greater quantities, as well as cushioning them from shocks, as a result of which they did not reduce nutritional intake (Awiti, 2013).

Another interesting set of findings concerns behavior of those who are least resilient. Miller et al. (2011), in a study in Zimbabwe, showed that participation in a SILC reduced the probability of getting involved with a 'sugar daddy' or engaging in transactional sex. A study in Kenya with female sex workers echoed similar effects: sex workers with savings were less likely to rely on transactional sex to cope with shocks (Jones & Gong, 2019). These two studies highlight that when shocks occur, people with low resilience may turn to desperate behaviors. Broadening the lens from sex workers to the general population, the range of desperate behaviors could include pulling kids out of school, migrating in search of work, skipping meals, etc. Reduced quantity or quality of food is one of the most commonly observed measures, as a number of studies in this review confirmed.

LONG TERM GOALS

In the context of financial health, long-term goals include the ability to: access long-term funds; pursue education, housing and other goals; save for old age; or invest in business over a period of time.

In general, the savings research focused much more often on day to day challenges than on long-term goals, and therefore the depth of studies that referenced this aspect was shallow. However, the ability to plan and meet some long-term goals was mentioned. For instance, education as a long-term goal features in various studies, as did improvement to housing. Saving for old age and investing in business over a period of time were not covered by the evidence we reviewed. Some illustrative examples are provided below.

Miller et al. (2011) found that in Zimbabwe, adolescent girls who participated in a SILC invested in their own education, stayed in school and, in many cases, paid their siblings' fees as well. Garnier-Crussard (2011) found that savings groups in Mali valued the ability to save for future needs without specifying which goals.

Certain product innovations appeared to also contribute to financial health; one example is deferred wages as a form of savings (when people sign up to receive a portion of their wages as a lump sum after a defined period). A study in Malawi found that savings in the form of deferred wages generate large positive impacts on reported savings and some downstream outcomes, such as the ability to make investments in homes (Brune et al., 2021). Two-thirds of such deferred wage savings were used for 'lumpy purchases' such as household durables, implying an improvement in life status.

CONFIDENCE

In the context of financial health, 'confidence' refers to feeling secure and in control of one's finances.

As outlined in the introduction, this was an element that was covered in many of the studies – more often than resilience or long-term goals. Much of the research reviewed, especially research on savings groups participation, found positive effects on empowerment – in terms of the ability to control one's life, greater agency in financial decision making, and/or the ability to access information to help make decisions. However, due to the design of the studies, it is difficult to separate the effects of participating in a group from the effects of increasing savings itself, or the influence each of these has in increasing confidence. This observation also applies to findings about the other financial health elements, as discussed below. Some examples of studies that looked at this element of financial health are included below.

Through their membership in a savings and loans cooperative, female heads of household in Indonesia were able to increase their voice and agency over economic decision making (Quak, 2019). In Mongolia, adolescent girls who opened a bank account reported a sense of pride in managing financial affairs and a greater desire for financial autonomy. They also developed social networks and teamwork skills through participating in the financial education sessions (Shell, 2009–2011). In Tanzania, the overall positive impact of the M-Pawa intervention on women's empowerment was mostly driven by increases in women's say over how to spend money earned from their businesses and on major household and children's expenditures (Bastian et al., 2018). In a study conducted with savings groups in Northern Ghana, Theophilus and Paul (2019) noted that participation in the savings group had resulted in a more equal relationship between spouses, as husbands began to consult their wives on financial matters and had joined groups themselves. The ability to cooperate in new income-generating activities (noted above) was also mentioned as a confidence-related aspect of groups.

There were also a number of studies on youth savings programs that showed financial health benefits, from reduction in risky behavior to an increase in confidence to manage one's own finances, alongside an increase in skills such as teamwork and enhanced social networks. For example, an evaluation of a school-based savings program among young Ghanaians indicated that this approach is a promising tool that may help young people accumulate material and nonmaterial resources to reduce sexual risk-taking and victimization.[6]

It is also worth noting that while empowerment in some form was frequently cited, most of the findings refer to a limited context – primarily decision making within the group and, in some cases, within the household or local community. Several studies noted that empowerment increased within the context of women's accepted spheres of activity but did not cross traditional gender lines.

6 Youth & Society 52(7), 1083–1106.

LQ2: Does the mode of savings matter for financial health?

Our review produced a strong positive finding about the contribution of savings groups to financial health, and was also positive – though less conclusive – about other modes of saving.

Our review produced a strong positive finding about the contribution of savings groups to financial health, and was also positive – though less conclusive – about other modes of saving.

The studies on savings groups were dominant in the literature. The evidence reviewed included research on groups of various types: VSLAs, rotating savings and credit associations, susus and others. Furthermore, many of these studies reported findings related to financial health. Savings groups were seen as especially important contributors to members' ability to manage day to day finances, maintain consumption in the face of shocks, and build confidence. The range of benefits from participation in groups also included maintaining access to credit and expanding income through collective activities. Many studies showed groups providing opportunities for confidence-building through leadership and collective voice. In some studies, collective action enabled income-earning activities. Training often accompanied savings group formation, and Garnier-Crussard (2011) found that savings groups in Mali valued the chance to learn more about managing money (but the study could not determine whether this learning affected behavior).

Indeed, the flexibility of groups in responding to various situations appears to be one of the reasons they were so often found to have financial health benefits. The benefits derived not just from amassing savings but also from maintaining the ability to borrow, gaining leadership experience through group participation, pursuing economic activities collectively, learning from peers, and other sources. These groups appear to support financial lives as a whole.

An important observation to note for further research on savings groups is that it was difficult to isolate the benefit of savings per se from the effects of the full range of group activities, including the effect of being part of a group. In general, the studies on savings groups did not attempt to separate the effects of these distinct activities but rather studied the overall benefits from membership and participation. In practice, separating the effects is not necessary: taken together, the studies provide a strong endorsement of savings groups as a contributor to financial health.

Other modes of saving that appeared in the literature included commitment savings programs, community-based microfinance, bank accounts, school-based savings, mobile savings, and post bank accounts. Savings for old age/pension were limited, and the evidence on digital savings is just emerging. The research on these types of savings products rarely included questions that enabled conclusions about their effect on financial health. Relatively few studies looked in depth at the use of conventional or special savings accounts, although some examples have been outlined in the findings related to LQ1. As noted earlier, many of the studies we initially identified were not included in the review because they had no finding referring to any element of financial health, confining their results to measuring the effects of various interventions on savings balances. It is possible that the researchers in these studies may have taken it as a given that higher savings balances were a positive customer outcome, and therefore did not explicitly examine the question. Studies that were included in the review had at least some findings related to an element of financial health. As with the studies on groups, however, they also lacked the ability to separate out the role of savings as an amount, as a habit, or vis-à-vis the choice of instrument. We anticipate that Savings Learning Lab partners – Scale2Save and Savings at the Frontier – will be able to share lessons from their programs on savings outcomes later this year (2022).

LQ3: What links between savings and financial health have been most thoroughly substantiated and where are there gaps?

As outlined in LQ1, the depth of evidence that speaks to the different financial health elements varied significantly between the four elements.

Some elements, such as day to day finances and confidence (in the context of savings groups), have been studied extensively; other elements of financial health have received less attention and warrant further research. Resilience – both preparedness and recovery – were often not explicitly examined. Saving for long-term goals was also relatively thinly studied. The research focus on shorter-term well-being may be somewhat unavoidable given the practical challenges of conducting research over a longer time.

From a customer segment perspective, aside from a broad focus on women, two segments were particularly well explored in savings studies analyzed here: adolescents and sex workers. For both segments, access to savings resulted in improved confidence and better life outcomes. Other segments are less well studied.

LQ4: Does using a financial health framework provide new insights into savings?

Using a financial health lens to look at existing literature has highlighted the importance of looking at savings as an aspect of an ongoing process of financial management. Studies were not able to comment on all of the financial health elements, highlighting that the complex nature of financial lives presents challenges for studying any one financial behavior in isolation. Financial health considers financial lives holistically from the viewpoint of the people leading them. People continually make strategic decisions to pursue their needs and purposes, using whatever tools are available and managing across the present and the future. For many people, maintaining financial health is a continuing balancing act between satisfying immediate and longer-term needs and trading off continually across financial instruments, such as savings, credit, investing in assets, income generation, etc.

Research that focuses specifically on savings may risk treating savings as an isolated activity apart from this ongoing process. For many studies that appeared in our searches, the primary research question was whether savings in a specific account or mechanism went up following an intervention. The answer to this question reveals little about whether the intervention improved financial health. With a financial health lens, one must ask: how did an increase in savings balances occur? Did research subjects reduce spending, increase income, raid the cookie jar, or sell the cow? Each of these behaviors reflects either different financial management challenges or different ways to solve them, or both. Each would produce a different financial health outcome. A more holistic look is needed for researchers to conclude that an increase in a given savings account balance has a clear benefit to the customer.

These observations have important implications for both policy/program and research design.

Conclusion

The body of research reviewed here affirms links between savings and elements of financial health, but the findings were not as clear-cut as we expected. The depth of evidence related to the four elements varied significantly from a strong evidence base surrounding day to day finances and confidence to fewer studies that addressed resilience and even fewer on long-term planning. The evidence also varied significantly from in-depth treatment of the financial health benefits of participating in savings groups to far less exploration of how use of savings accounts impacts the elements of financial health.
This overarching conclusion suggests several key implications going forward:

- Policymakers and program designers interested in promoting financial health should consider the active promotion of savings groups as a key tool to help people improve their financial health. Links between group participation and elements of financial health are clearly positive and repeatedly documented.
- Savings-focused initiatives would benefit from being designed in the context of broader financial management strategies, taking into account that people use a mix of tools and modalities to achieve their financial goals. Seen in isolation, an increase in savings balances may not indicate improvement in financial health.
- Savings-focused research/evaluation could benefit from adopting a financial health lens that gives researchers/evaluators a framework for building a holistic understanding of financial lives and the interplay among the elements of financial health.
- Hypotheses about the links between savings and some elements of financial health should be explored and documented more explicitly, particularly resilience in the face of external shocks and specific long-term goals.

Annex: Methodology

To analyze the extensive body of research on savings, we created a matrix based on expanding the four elements of financial health into their main component parts. This process drew upon key reports that establish the concepts and provide frameworks for measuring financial health:

1. Eight ways to measure financial health[7]
2. Financial Health Score Toolkit[8]
3. UNCDF's Financial Health resources[9]
4. Financial Health Network resources[10]
5. Cenfri Measuring Financial Health[11]

We developed a conceptual framework that sorts specific situations and outcomes achieved through a savings instrument according to one or more of the four main elements of financial health. These elements are further broken into sub-elements, which allows us to match studies on savings research that may mention only one portion or aspect of the concept. In addition, as they were mentioned in the research, we identified several other key considerations that could impact financial health through the use of savings.

Figure 2: Conceptual framework to analyze the evidence

Dimensions of financial health	What does it help with?
Day to day finances	Meeting payment and debt obligations
	Smooth consumption and controlling expenditure
	Short-term coping strategies
Resilience	Ability to raise a lump sum in an emergency
	Length of time consumption can be maintained if income is interrupted
	Consequences of lack of resilience in emergency
	Insurance and safety nets
	Liquid savings balances
Other factors	Protection against hyperinflation
Long-term goals	Access to long-term funds
	Ability to pursue education, shelter, other specific goals
	Savings or strategy for old age
Other factors	Build assets
	Improved microenterprise outcomes
Confidence	Feelings of confidence and control or, conversely, anxiety and worry
	Specific focus of worry
	Agency in financial decision making
Other factors	Gender norms
	Access to information
Other considerations	Sources of financial advice
	Income and income volatility
	Use of financial services
	Time use

7 s3.amazonaws.com/cfsi-innovation-files-2018/wp-content/uploads/2016/05/09212818/Consumer-FinHealth-Metrics-FINAL_May.pdf
8 s3.amazonaws.com/cfsi-innovation-files-2018/wp-content/uploads/2017/09/27154520/Methodology-Memo-01.pdf
9 www.uncdf.org/gfh
10 finhealthnetwork.org/measurement/
11 findevgateway.org/paper/2020/05/measuring-financial-health-what-policymakers-need-know

The next task was to build a database of studies on savings. To identify research we began with a search of the studies in Itad's Savings Evidence Map – which collates a total of 354 studies in English and French. The **savings evidence map** is organized helpfully into a searchable database that allows searches according to countries/regions, types of evidence, research methods, methods of analysis, data source, quality assessment criteria and language. Our search was limited to papers published in English.

The database classifies studies into three categories:

1. **Clients:** Outcomes of savings initiatives on clients/beneficiaries.
2. **Institutions:** Outcomes of savings initiatives identified at the institutional level.
3. **Ecosystem:** Outcomes of savings initiatives on the broader financial inclusion ecosystem.

We systematically went through studies that were listed under outcomes of savings initiatives on clients/beneficiaries to check if the evidence included any aspect of financial health as outlined in Figure 2. For instance, several of the studies examine drivers of choice – features such as interest rates, financial literacy initiatives, or nudges used in delivering products – but did not examine further outcomes on financial health indicators. Studies that used an experimental approach to increase savings were disregarded since the long-term, permanent impact was outside the scope of the study.

In the second stage, we used Google Scholar as a search engine, with the search strings 'savings poor households day to day finances impact', 'loan repayment savings studies' and 'savings financial health'. This search quickly established that there are few studies that examine the specific link between savings and any of the four elements of financial health. We then expanded the search terms to identify studies on savings and any one of the criteria listed in our conceptual framework. Figure 3 below shows the search terms used.

Figure 3: Search terms used

Dimensions of financial health	What does it help with?		Search terms for online search			
Day-to-day finances	Meeting payment and debt obligations	Manageable debt load; paying debts and bills on time	Repayment burden	Loan repayment	Financial behaviour	Timely payments
	Smooth consumption and controlling expenditure	e.g. food security; money left at end of month; ability to make small discretionary purchases	Consumption response	Excessive spending	Cash flow management	
	Short term coping strategies	How short-term finances are managed, including savings, budgeting, social networks	Savings and social networks	Savings and budgeting		
Resilience	Ability to raise a lump sum in an emergency					
	Length of time consumption can be maintained if income is interrupted	May be days, weeks, months	Mobile money savings resilience			
	Consequences of lack of resilience in emergency	e.g. Did not obtain medical care or medicine due to lack of funds	Savings help in emergency			
	Insurance and safety nets	Includes both formal and non-formal sources	Precautionary savings	Micro-insurance	Emergency savings	Savings ability to raise lump sum during emergency
	Liquid savings balances	Any form (cash at home, mobile money account, bank balance)				
Other factors	Protection against hyperinflation					
Long term goals	Access to long-term funds	Long-term savings in money or in kind: ability to borrow				
	Ability to pursue education, shelter, other specific goals					
	Savings or strategy for old age		Precautionary savings			
Other factors	Build assets					
	Improved microenterprise outcomes					
Confidence	Feelings of confidence and control or conversely, anxiety and worry		Financial capabilities			
	Specific focus of worry					
	Agency in financial decision making	Intra-household dynamics				
Other factors	Gender norms					
	Access to information					
Other considerations	Sources of financial advice					
	Income and income volatility	Includes seasonality				
	Use of financial services					
	Time use					

We used Google Scholar to look for academic papers, and also examined a combination of academic and institutional databases. Academic databases accessed included Springer, Science Direct, IDEAS/RePEc, JSTOR, SSRN and NBER. Institutional databases accessed included CGAP, IPA, Financial Access Initiative, Microsave Library, ODI, SEEP Network and MarketLinks.org. In our search, we disregarded papers that focused on high-income countries.

We reviewed 110 papers in all, of which 39 papers provided some form of evidence between savings and some aspect of financial health. Papers that appeared to be published in lesser-known journals were disregarded. It should be noted that most papers which discussed any link between savings and financial health looked largely at savings groups and were found in the SEEP global resource database. Other savings instruments appear to be less widely studied. This indicates a research gap and an opportunity for future research studies.

Limitations of the methodology

First, the studies picked are influenced by the search terms, search engines and databases used. The use of Google Scholar, academic databases and institutional databases with which the researchers are familiar has an inherent bias, since it limits the studies available to a known universe. Specifically, Google Scholar is also known to be biased, since 'citation is a social and political process that disadvantages certain groups, including women, younger scholars, scholars in smaller research communities [...]' (Jensenius et al., 2018).12

Second, the link that we draw between savings and key financial health outcomes was usually not part of the core research question in the studies. Therefore there are limitations to drawing conclusions on the actual impact on financial health, unless the research was originally designed to measure it.

Third, the evidence provided in each of the research studies has not been independently verified by the authors of this report. The aim was not to determine which results were valid but simply to categorize the findings using the financial health lens.

We acknowledge these limitations. However, this knowledge product is not meant to be exhaustive in its analysis of studies. It is merely meant to illustrate how existing studies on savings may be measuring an element of financial health, even if they do not explicitly acknowledge it. In doing so, it presents a technique for meta-analysis that can be used by other donors, practitioners and researchers interested in the intersection of savings impact and financial health.

12 chwe.net/michael/gs.pdf

Studies Included in Analysis

1. Aker, J., Sawyer, M., Goldstein, M., O'Sullivan, M., & McConnell, M. (2020). Just a bit of cushion: The role of a simple savings device in meeting planned and unplanned expenses in rural Niger. World Development 128. Available from **https://doi.org/10.1016/j.worlddev.2019.104772**
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