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USAID NAWIRI RURAL ENTREPRENEUR ACCESS PROJECT (REAP) WORKING GROUP

SAVINGS GROUPS AND NUTRITION DESK REVIEW: A REVIEW AND SYNTHESIS OF EVIDENCE ON NUTRITION OUTCOMES FROM SAVINGS GROUPS

September 2021

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LIST OF ABBREVIATIONS

ASAL	Arid and Semi-Arid Land
ASCA	Accumulating Savings and Credit Association
ASP	Adaptive Social Protection
BoC	Banking on Change
CBR	Community-Based Rehabilitation
CBT	Community-Based Trainer
CI	Confidence Interval
CRS	Catholic Relief Services
EKATA	Empowerment Knowledge and Transformative Action
FGD	Focus Group Discussion
FISP	Zambia's Farmer Input Support Program
FSD Kenya	Financial Sector Deepening Kenya
GRAD	Graduation with Resilience to Achieve Sustainable Development
IPA	Innovation for Poverty Action
IYCF	Infant and Young Child Feeding
MCHN	Maternal and Child Health and Nutrition
MFI	Microfinance Institution
MIS	Management Information System
MIYCN	Maternal, Infant, and Young Child Nutrition
Mpesa	mobile banking service offered by Safaricom in Kenya and other Vodafone-affiliated telecommunications companies
NGO	Non-Governmental Organization
NSSP	National School Support Program
PEC	Popular Education Center
PSP	Private Service Provider
RCT	Randomized Control Trial
RE	Realist Evaluation
ROSCA	Rotating Savings and Credit Association
S4T	Savings for Transformation group
SACCO	Savings and Credit Cooperative
SANI	Southern African Nutrition Initiative
SAVIX	Savings Group Information Exchange

SDG	Sustainable Development Goal
SEEP Network	a member-based, nonprofit organization that seeks to promote economic opportunities for the world's poor
SHOUHARDO	Strengthening Household Ability to Respond to Development Opportunities
SILC	Savings and Internal Lending Community
TESFA	Towards Improved Economic and Sexual Reproductive Health Outcomes for Adolescent Girls
Tsh	Tanzania Shilling
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VA	Village Agent
VESA	Village Economic and Social Association
VUP	Vision 2020 Umurenge Program
VSLA	Village Savings and Loan Association
WHO	World Health Organization
YSLA	Youth Savings and Loan Association

EXECUTIVE SUMMARY

Savings groups have been in operation all over the world for decades, but the implementation of savings groups has mushroomed during the last 25 years including in arid and semi-arid lands (ASALs), post-conflict and/or conflict-prone communities, and pastoralist contexts, such as those targeted in Nawiri. Savings groups or associations have become tools and platforms that deliver impact across different areas, including food and nutrition security, health, nutrition, and economic empowerment for households and communities. While much of the initial evidence around impact across different areas was anecdotal, savings group implementers, and research organizations have made more deliberate efforts to study and document evidence over the last decade.

This review aims to draw on evidence from ASAL contexts, where available, but also includes global grey and published literature. Nawiri is considering the following questions regarding savings groups and health and nutrition outcomes:

1. What is the evidence that savings groups contribute to household nutrition, dietary diversity, and food security?
2. What is the evidence that savings groups layered or integrated with nutrition-specific components have an impact on nutrition and food security outcomes?
3. What are the main pathways through which savings groups contribute to household nutrition and food security?
4. What are models for the sustainability of savings group beyond the initial funding period?

To date, the most concrete evidence available is the link between membership in savings groups and increased access to savings, access to microcredit, and women's agency and empowerment. Where available, the literature is clear that stand-alone savings group programs are insufficient to create meaningful, long-lasting improvements in nutrition. Simply implementing savings groups programs ***may*** have indirect influences on household health and nutrition outcomes because of increased access to microcredit and micro savings. However, these changes either remain at low levels and/or are short-lived unless they are paired with deliberate health- and nutrition-targeted program activities. In addition to their savings, credit, and business-related functions, savings groups provide a base for household and community sensitization on normative issues related to food, including its production and consumption. These may include social norms around gender roles, workload sharing, and household decision-making related to food and productive assets. Savings groups may also be used as a platform for health-related behavior change communication to group members and provision of health insurance. Well-formed savings groups with strong cohesion, leadership, and self-management are the base required to increase the impact and sustainability of any layered content, whether that content is targeted at all group members or specific members (e.g., pregnant and lactating women). Key strategies for sustaining savings groups are the village agent and private service provider models, whereby savings group member contribute funds to pay their leader to manage the group.

Evidence suggests that adapting savings group by layering health and nutrition messaging or training may be effective in improving nutrition outcomes of savings group members and their children. In the context where Nawiri is operating, this type of layering needs to be adapted to ensure that savings group participants can overcome the access and availability

barriers to adequate health services and nutritious diets by addressing supply side challenges. Even if complementary market system, health system, and/or other interventions come together to address such barriers, Nawiri must examine and, if necessary, address the underlying gender and decision-making dynamics to adequately influence investment in child health and nutrition.

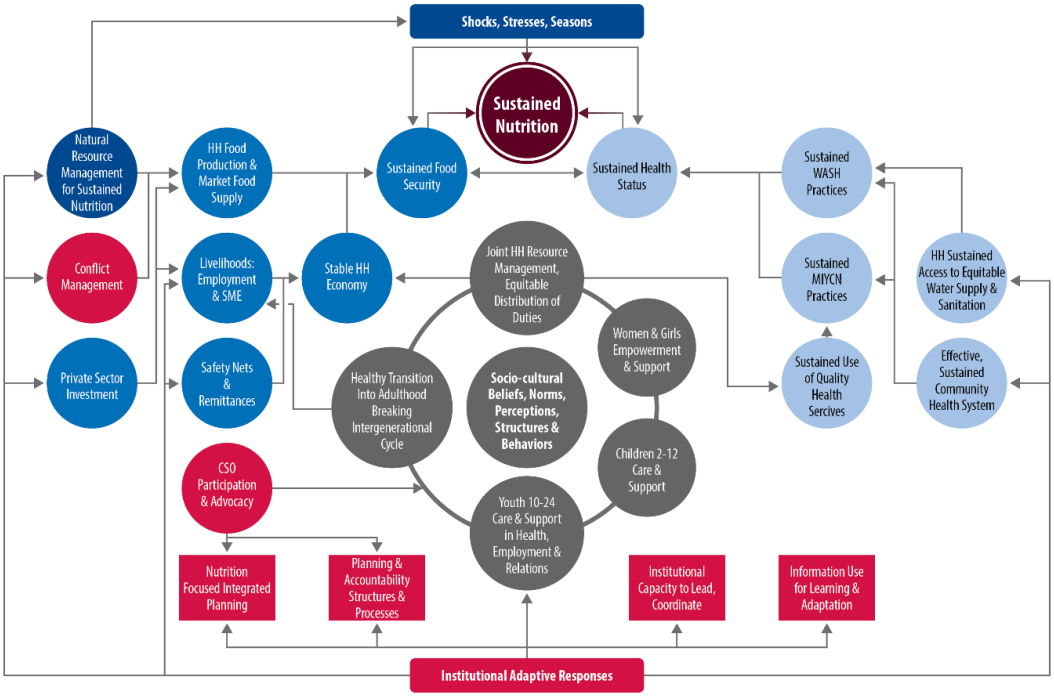
1. INTRODUCTION

1.1 NAWIRI PROGRAM

The goal of the U.S. Agency for International Development (USAID) Nawiri program is to sustainably reduce levels of persistent acute malnutrition in Kenya's arid and semi-arid lands (ASALs). In Samburu and Turkana Counties, USAID Nawiri is facilitated by a Mercy Corps-led consortium of diverse international and national partners that share a commitment to putting county governments and their citizens in the driver's seat of their own journeys to self-reliance. In the first phase of Nawiri, the consortium is carrying out desk reviews, formative data collection, and implementation research to identify household and systemic drivers of acute malnutrition and using the information gained to tailor and test program activities so that they address the key drivers of acute malnutrition.

Nawiri has developed an initial theory of change for the program (**Figure 1**) that is based on a conceptual framework of acute malnutrition in Africa's drylands (Young 2019), adapted from the United Nations Children's Fund (UNICEF) nutrition framework (United Nations Children's Fund 1991), Nawiri's theory of change indicates that a wide variety of interrelated factors contribute to nutrition in this context. As shown in the medium blue section on the left side of the theory of change, livelihoods through small and medium enterprises contribute to a stable household economy, which contributes to sustained food security and further to improved nutrition.

Figure 1. Nawiri's Theory of Change



1.2 RATIONALE FOR CONDUCTING THIS DESK REVIEW AS PART OF NAWIRI

This document synthesizes key findings and learning from available documentation and experiences with savings groups in line with outcomes in food and nutrition security. Studies with a stronger evidence base have been prioritized, with some additional qualitative and anecdotal findings where necessary, to add context.

The questions addressed in this desk review are:

- What is the evidence that savings groups contribute to household nutrition, dietary diversity, and food security?
  - To what extent do savings that are held in savings groups cushion savers' households during shocks?
- What is the evidence that savings groups layered or integrated with nutrition-specific components have an impact on nutrition and food security outcomes?
  - Which types of layered activities and implementation modalities are most effective?
- What are the main pathways through which savings groups contribute to household nutrition and food security?
- What are the models for sustaining and continuing to offer support to savings groups beyond the life of sponsoring organizations?

2. BACKGROUND

2.1 DEFINITION OF SAVINGS GROUPS AND COMMON SAVINGS GROUPS METHODOLOGIES AND APPROACHES

2.1.1 The Basic Savings Group Model

The modern approach to savings groups is a modification of an age-old practice by communities in sub-Saharan Africa and other parts of the world, where community members, mostly women, would meet regularly to pool their resources for a common purpose.

In 2010, Hugh Allen and David Panetta wrote a paper describing the basic characteristics of savings groups (Allen and Panetta 2010), as summarized in **Table 1**.

Table 1. Components of the Basic Savings Group Model

Group Membership and Management	"Groups are made up of self-selected individuals and range in size from 5 to 30 members, with an average of about 22 members." The members of the group are self-selected and decide who can join their group. This is important for group cohesion given the important role that trust plays in the successful function of the groups. Groups also "elect their own management committee and money counters. No one else touches the group's money" (Allen and Panetta 2010, 7). Groups develop a set of rules (constitution) based on a template often provided by supporting organizations:

	▪ "It mandates regular elections, at least annually. ▪ It defines the role and authority of the management committee. ▪ It describes the services that the group offers to its members, including terms and conditions of savings, lending, and insurance" (Allen and Panetta 2010, 7). Group members are often allowed to leave at any time during the cycle, however, some groups enact penalties to discourage this.
Savings Amount and Location	"Members save regularly at a frequency determined by the group, sometimes the same amount for everyone, sometimes different amounts. The amount saved ranges between $0.10 and $5.00. Some savings groups set the minimum amount to be saved as a 'share value' and allow members to save more than one share at each meeting, up to a specified maximum (e.g., five shares)" (Allen and Panetta 2010, 8). Traditionally, savings groups use a lockable cash box with multiple padlocks (typically three) to store the cash collected at each meeting as well as important group documents. To ensure safety of the money and avoid fraud, the key to each lock and the box were given to different people, appointed by the group, for safe keeping. Opening the lockbox requires the presence of all these designated individuals, and ideally only occurs during organized meetings with all members present. Today, many savings groups make use of formal financial services and digital financial tools to save their collected money or store excess liquidity. The availability and accessibility of these products and services varies by country and within countries.
Access to Loans	"Savings are used to capitalize a loan fund from which members can borrow. The loan conditions are set by the group; usually loan terms do not exceed 3 months. Monthly interest rates range 5–10%, but can be as low as 1% or as high as 20%. The loan fund usually provides loans to individual members, but can also be used to fund group-based investments, such as grain trading or livestock rearing, so long as all of the members agree. Nearly all interest paid on loans (except for minor expenses) is returned to the member at the time of share-out. Returns on savings and assets (often the same thing) are often in the 20%–50% range" (Allen and Panetta 2010, 8).
Share Out/Action Audit	The group meets once every cycle to conduct an action-audit, commonly done in the form of a 'share-out' where each member gets their share of the savings with the proportional accumulated interest, corresponding to the number of shares they purchased during the cycle. The share-out is most often timed to coincide with a period in the year when members need cash, such as the "lean" season or the return to school (Allen and Panetta 2010, 7). Some groups choose to roll over some or all of their funds into another cycle, to allow them to have access to more resources at the beginning of the new cycle, when funds would otherwise be less available.

Record Keeping and Transparency	Traditionally, "records are kept, using one of three basic approaches: ▪ Memorization (usually effective with groups where the literacy level is very low) ▪ Passbooks and recording of ending fund balances only ▪ Central ledgers to track financial activity through the group secretary ▪ Most recently through digital ledger systems" (Allen and Panetta 2010, 8) Generally, transactions take place in the presence of all members for the sake of transparency. In the last decade, efforts have been made to digitize savings groups' physical paper ledgers. These digital ledgers often mimic the group's original processes (e.g., individual passbooks and common ledgers, have different levels of functionality). Some serve as basic record keeping tools while others have added advantages, such as automatic loan interest calculators and digital marketplaces, which allow groups to purchase additional products and services based on their needs.
Social Fund	"Groups ***may choose*** to contribute to a social fund, which is a simple form of insurance to cover the costs of small emergencies" (Allen and Panetta 2010, 8). The groups often stipulate in their constitutions what is considered to be an emergency and the corresponding assistance provided as a result. The assistance may take the form of a grant or an interest-free loan.

2.1.2 Different Savings Group Methodologies and Examples

Table 2 describes several common savings group methodologies.

Table 2. Savings Group Methodologies

Savings Group Model	Methodology/Approach	Examples
Rotating Savings and Credit Association (ROSCAs)	A ROSCA is made up of a group of individuals acting as an informal financial institution that serves as an alternative financial vehicle. Activities involve pooling identical contribution of funds from multiple members, and the total is given to a single member on a rotating basis until all members have had a turn. ROSCAs are most common in developing economies or among immigrant groups in the developed world. Early examples of ROSCAs appeared in South America, Africa, and Asia (Jain 2016).	Common examples include *Merry-Go-Round* in Kenya, *Djanggi* in Cameroon, *Tontines* in Mali, and *Susu* in Ghana
Accumulating Savings and	ASCAs are informal savings groups. All members regularly save the same fixed amount	Business support groups, village savings and loan

Savings Group Model	Methodology/Approach	Examples
Credit Associations (ASCAs)	and participants may borrow from the group. Interest is usually charged on loans. ASCAs require bookkeeping because the members do not all transact in the same way. Some members borrow while others are savers only, and borrowers may borrow different amounts on different dates for different periods. If members pay interest on their loans, the return to savings must be individually calculated and fairly shared among the group (Boachie 2016). ASCAs are seen as an improvement on ROSCAs given the latter's risk of having a member refuse to provide a contribution after they receive the lump sum contributions from other members. Another feature that sets ASCAs apart from ROSCAs is the presence of a 'social fund' that is separate from the main loan fund. This is an emergency fund financed by members with a regular contribution aimed at providing small grants or in some cases, interest free loans to help group members recover from shocks and emergencies agreed to in the group's constitution.	associations (VSLAs), implemented by CARE; savings and internal lending communities (SILCs), implemented by Catholic Relief Services (CRS); youth savings and lending associations (YSLAs), Savings4Transformation (S4T), implemented by World Vision
Self-Help Groups	Self-help groups are informal groups of people who come together to address their common problems. While self-help might imply a focus on the individual, one important characteristic of self-help groups is the idea of mutual support among group members. Groups often set up fund collection modalities that are targeted at providing assistance to support major life events, including but not limited to death of a member or family relation, birth of a child, and major illness. Self-help groups can serve many different purposes depending on the situation and the need. In a lot of cases, these groups are targeted through government programs as a means to provide financial and technical assistance to communities, especially women.	Common examples include Funeral Clubs and Associations in multiple countries, Empowerment Knowledge and Transformative Action (EKATA) in Bangladesh, Popular Education Centers (PECs) in Nepal

ASCAs are often the model most commonly referred to when people talk about savings groups. This is also the approach taken by this review, unless otherwise specified.

The most common types of ASCAs that will be referred to in this review are:

Savings and Internal Lending Communities (SILC)

The SILC model has been designed and refined by Catholic Relief Services (CRS). SILCs are user-owned and managed groups that are typically comprised of 15 to 30 members who generally cannot access appropriate formal financial services, due to lack of availability or access (Catholic Relief Services 2019). Through their SILC, members agree on a set of rules to guide their activities of providing accessible, transparent, and flexible savings and lending services among themselves. They select leadership, decide upon meeting times, set contribution targets, and fix loan interest rates and terms. SILCs also put a social fund in place, which is intended to respond to members' emergency needs. SILCs keep their financial records in a central ledger book and share out members' accumulated savings, plus their proportional share of interest every 8 to 12 months, after which members have the option to leave, new members may join, and there is the option to reinvest in a new cycle of SILC activity.

The most recent SILC guidelines from CRS emphasize community-wide participation, with intentional inclusion of the extreme poor, youth, refugees, people with disabilities, and other groups that may have previously been left out. The savings policy no longer requires a minimum contribution or penalizes members who cannot save at every meeting, but encourages "targeted" saving, according to ability. Those who cannot save are still encouraged to attend meetings.

The other key feature of CRS's approach is the Private Service Provider (PSP) replication approach, which certifies SILC field agents as fee-for-service PSPs who are paid by savings groups for training and accompaniment. This approach is intended to ensure high quality, sustained replication of SILCs in response to community demand, independent of any donor funding.

Village Savings and Loans Associations (VSLA)

Initially established and implemented by CARE in Niger in 1991, VSLAs are a type of savings and lending association that typically serves small to medium-sized rural communities in developing countries or emerging economies (CARE International 2017a). These groups take in money deposited by their members (commonly referred to as savers) and may then grant loans to members for specific purposes. VSLA methodology builds and improves upon the long-standing practice of ROSCAs in many African communities. VSLAs are self-managed, comprised of 15 to 25 people who regularly meet to save their money in a safe space, access small loans, and obtain emergency insurance. Most VSLAs keep records using an individual passbook system. The group activities are time-bound, with a periodic action audit at which all funds are paid out to the members. VSLAs are generally based in rural communities targeting the economically vulnerable people whose income is irregular and less reliable. The fundamental principle behind this community-based financial service is to help poor people manage their household cash flow for household expense items, including food, shelter, clothes, and health care needs.

While established by CARE, VSLAs have been rolled out by a number of different actors in the development and civil society space, as well as government actors.

Savings for Transformation (S4T) Groups

An ASCA model commonly rolled out by World Vision, S4T groups were established to serve as "less risky product for the vulnerable poor" (World Vision 2019, 2). Similar to other ASCA methodologies, membership of a group ranges between 15 to 25 people, offering loans and social funds to cover emergencies for group members. What differentiates S4T groups from other members is the focus on personal development. "The groups provide unique opportunities to develop leadership, confidence and a sense of self-respect that often spills over into the home and wider community" (World Vision 2019, 2). Like other types, S4T groups are meant to be sustainable and self-replicating beyond the presence of supporting agencies, in this case, World Vision.

2.2 SAVINGS GROUPS IN KENYA

The government of Kenya has instituted policies and legal frameworks to reduce poverty and food insecurity among the urban and rural poor. At the global level, Kenya is a signatory to United Nations Sustainable Development Goals (SDGs), of which Goals 1, 2, 3, and 5 are relevant to savings groups. In Goal 1, Kenya commits to end poverty in all forms and everywhere. In Goal 2, Kenya commits to undertake major transformations in agriculture and food systems to end hunger, achieve food security, and improve nutrition by 2030. Notably, the fundamental principle for improved food security is also in the 2010 Kenyan Constitution, with Article 43 on economic and social rights that stating, "Every person has the right to be free from hunger and to have adequate food of acceptable quality." Additionally, SDGs 3 and 5 address commitments to the improvement of good health and well-being as well as gender equality, both of which can be strongly influenced through community participation in savings groups activities.

Through the Constitution of Kenya 2010, the government of Kenya established the Self-Help Association Act, 2015, to address poverty reduction among the low-income population in the country. The act defines "self-help association" as a non-professional association formed by community members from the same socioeconomic background with a common problem or situation for the purpose of pooling resources, gathering information, and offering mutual support, services, or care.

The objectives and purposes of this act are to:

- Provide a mechanism for the registration of self-help associations within the counties;
- Provide an administrative and regulatory framework within which self-help associations can conduct their affairs within the counties;
- Encourage self-help associations to maintain adequate standards of governance, transparency, and accountability and to improve those standards;
- Provide a platform that encourages collaboration between self-help associations, the government, financial institutions, and other stakeholders;[1]

[1] The Women, Youth, and Uwezo development funds of the government of Kenya provide accessible and affordable credit to savings groups. This is the case for registered savings groups. Currently, savings groups are registered under the Cooperatives Societies Act (Cap 490); however, there are current moves to pass the community groups registration bill, which would provide a framework for the mobilization, registration, coordination, and regulation of community groups in Kenya.

- Create an environment that promotes self-reliance and self-sufficiency; and
- Provide a platform for the establishment of a linkage between financial institutions, the government, and other institutions with self-help associations for socioeconomic development.

According to Financial Sector Deepening Kenya (FSD Kenya), informal service providers such as ROSCAs, ASCAs, and other community-based savings solutions are a core part of people's financial portfolio in Kenya. An estimated 25% of the adult population reported saving or borrowing from informal groups in 2013 (FSD Kenya n.d.).

Table 3 shows a breakdown of important information on the number of savings groups in Kenya registered on the Savings Groups Information Exchange (SAVIX) Management Information System (MIS). The SAVIX MIS is an integrated reporting system that provides standardized and up-to-date reports on savings groups programs worldwide. It collects, validates, and visualizes financial and operational data from over 600,000 savings groups across the world and is used as a data source for savings groups by over 1,000 institutions globally. The system is run by VSL Associates, which is a consortium of microfinance practitioners that are dedicated to spreading basic, affordable, and profitable community-managed financial services throughout the world. (Note: While this provides a picture of savings groups in Kenya, it likely does not include all groups, especially those created by village agents or outside the structure of a donor-funded project in which there is an incentive for entering regular data in SAVIX.)

Table 3. Summary of Savings Groups in Kenya as of August 2021

Total number of groups	31,121
Total number of members	648,024
Percentage of women members	79%
Total savings	$16,943,655
Average savings per member	$22
Average annualized savings per member	$81
Total value of loans outstanding	$16,482,576
Average outstanding loan size per member	$43
Percentage of members with loans outstanding	56%
Fund utilization rate	80%
Return on assets	17%
Return on savings	24%

2.3 SAVINGS GROUP MEMBER PROFILE: WHO PARTICIPATES IN SAVINGS GROUPS, KEY FOCUS ON THE GROUP COMPOSITION

A recent realist evaluation (RE)-based impact assessment conducted by Oxford Policy Management in partnership with CARE Kenya and CRS presented five profiles of savings group members in Kenya, summarized in **Table 4** (FSD Kenya n.d., Oxford Policy Management 2017)**.**

Table 4. Saving Group Member Profiles in Kenya[2]

Survivors
These are mainly widows, aged 24–46 years, who derive their incomes from micro business and casual labor. The women rely mainly on informal groups of different kinds and MPesa. Unlike other individuals who are able to invest through participating in savings groups, survivors, with their meagre income and assets, use groups predominantly to cope with emergencies and unexpected expenses, and to buy small household items or livestock. In this respect, savings groups have been valuable in keeping their small businesses alive and taking care of family needs. Savings group membership has been valuable to build the resilience of these households and improve their ability to face shocks. For widowed women, savings groups enable them to legitimately take loans when they face an emergency, since they often lack support from a partner, and asking for help from neighbors often comes with negative stigma.
Housewives
These women (aged 26–52) have husbands who are working and are primarily dependent on remittances from their husbands, supplemented by petty trade. Housewives rely primarily on informal groups and MPesa. For them, membership of savings groups has been valuable in increasing their independence from their husbands and improving the management of their households. These women are now more actively participating in financial decision-making for their households together with their husbands. They feel that they can now plan for the future of their children, and their savings group membership is motivating them to take more business initiatives. Having control over resources by being motivated to regularly save and take loans is particularly attractive for housewives who would not otherwise have means to accumulate money, since Mpesa is often seen as being too liquid.
Developers
These are both men and women aged between 45 and 55. The majority are married with established businesses in agriculture and trading, often involved in multiple income-generating activities. This is the biggest segment of savings group members. Developers mainly rely on informal groups and Mpesa, but a minority also use savings and credit cooperatives (SACCOs) and bank accounts. Their income is stable enough to allow this segment of members to regularly save in their savings groups and take loans for investment. They use the money from their groups to invest extensively in both business improvement and school fees, as well as assets and house improvements. Some have been able to move their children from public to private schools. For women developers, who are often reliant on neighbors for support in times of need, being part of a savings group means they no longer have to "beg around," improving their independence and self-esteem. For this segment, saving is difficult due to the seasonal and irregular nature of their businesses. The savings group gives them the flexibility to convert small sums into large sums through small regular savings, and the opportunity to take out loans when needed for school fees and other business investments, which can be repaid gradually on a flexible basis.
Young Investors and Accumulators
These are mainly young women aged 24–38 years, mostly married or with supportive partners. These members are running successful businesses in farming, livestock, and trading, often involving an extensive diversification of income sources. They rely not only

[2] The SAVIX, VSL Associates data shared through the SAVIX MIS have been entered by implementing partners. There are a lot of savings groups that are operational but have not been registered in the SAVIX database.

on informal services but also on SACCOs and bank accounts. These members are mainly from an area in Rachuonyo sub-county, Nandi County, where soil fertility is very good and there is extensive investment in land and dairy cows, but they can also be found in other regions, especially among women in established businesses. Unlike other savings group segments, accumulators mainly use their group loans for business investment, and small loans for household items are never taken. For this segment, savings group membership has meant increased investment and liquidity and has taught them how to manage their money to make it "work" more effectively to uplift their livelihoods. For the few members with bank accounts, these are mainly used for saving and accumulating sums of money that are not needed for business. Money in the bank does not grow, and members often do not trust the bank to keep their money safe, because of high charges. On the other hand, the ability to take frequent loans from their savings group while saving is particularly important for these young business investors, because they can maintain the high level of liquidity needed for their business to grow.
Socially Driven Members
These are married men between 47 and 72 years old. They are either farmers or retired from formal employment and using a mix of informal and formal financial services. Unlike other members, these men were early adopters and promoters of savings groups, and they also have other social roles in their communities. They use their groups in various ways. However, they mainly see savings groups as a powerful means to bring positive change and development in their communities. They have ambitious plans, not only for themselves, but also for their communities and want their savings group to be a forum for unity and development. Many socially driven male members used to save in the bank, but they have realized that the bank does not give them the same return that they can get from the group. On the other hand, the group setting is for them the most appealing aspect of the savings group model. The norm of "developing together" and upliftment of the community is central to their trust in the savings group model. Indeed, as they use savings group services, they are encouraging other people to become part of a group and benefit from this opportunity to develop their livelihoods

Source: Oxford Policy Management. (September 2017). Impact evaluation of FSD Kenya's savings groups project. *FSD Reviews,* 5.

Similar evaluations have been conducted in other countries and had a variety of findings. In 2012 researchers from Innovation for Poverty Action (IPA), along with CARE staff and their implementing partners, conducted an RCTof savings group programs in Ghana, Malawi, and Uganda. In this evaluation, the savings program was offered to households in communities that were randomly chosen from each country's sample. In each village, the program rolled out naturally, with village members coming together to form groups. These groups were then trained by trainers or agents in the community. Each household in the study was asked to respond to both the baseline and endline survey. Overall, 13,555 households were surveyed across the three countries for the baseline, and 15,397 households were surveyed at endline (Karlan et al. 2012). There were no statistically significant differences in age and literacy levels between savings group members and non-members in the pooled sample. These results were largely driven by strong variation in how education affects participation in savings groups at the country level. In Uganda and Malawi, more-educated community members are more likely to participate and members were more literate than non-members, by 12 and 10 percentage points respectively. In Uganda 51% of members had at least 5 years of school attendance as compared to 40% of non-members. The research also found that savings group

members in Uganda were on average 2 years older than non-members. By contrast, neither educational attainment nor age was correlated with savings group participation in Ghana.

On the general wealth levels, a paper by the SEEP Network that consolidated seven randomized control trials (RCTs) on savings groups concluded that savings groups tended to attract members who were "relatively wealthier and more socially and financially active than non-members, although overall the programs [do] reach the very poor" (Gash and Odell 2013, 8). There was evidence though, that 'less socially integrated' women joined the groups later compared to their less marginalized counterparts.

2.4 GENERAL RATIONALE OF FORMATION OF THE SAVING GROUPS

The RE study mentioned above also found that there are cross-cutting benefits of savings group membership. According to FSD Kenya, generally, savings groups have changed the perception of participants in a way that "increased women's motivation to work hard," and this has also had an impact on the status and empowerment of women members (Elliott 2014). Indeed, independently of what savings groups allowed women to achieve economically, women members said they experienced a change in social status. They were labelled "busy women" and their status in the community and in their household changed because of their hard work. "This may take the form of more respect from husbands and in-laws, increased joint-decision-making in the household, more control over their labor, and less dependence on casual work on other people's farms" (Elliott 2014, 2).

Another cross-cutting effect is the impact that being part of a savings group has on people's capabilities. Being part of a savings group becomes a learning process for many members, and this is illustrated by how people engage with their groups over time. Members across all categories are experimenting not only with savings group services but also alternative strategies and credit sources. They have learned how to save and make money work for them. They have also learned how to borrow, and they have ultimately become more creditworthy within the overall community. These mechanisms and financial impacts are, therefore, working for all members of savings groups, regardless of their age, location, gender, and household composition.

While savings group membership has effected a clear change in women's status, the study found that this was not the case for men. Indeed, while some men benefitted financially from savings groups by regularly investing in loans and sharing out money into their business and assets, this did not seem to have generally changed their status in the community and their attitude toward work. Indeed, men who became members of savings groups were usually already serving in other social roles in their communities, such as chairperson at a local church, and were already regarded as respected and trusted men. At the same time, it was clear from the different categories of members that men often joined groups because they had a bigger social mission to develop their communities by giving people tools for their self-development.

3. RESULTS

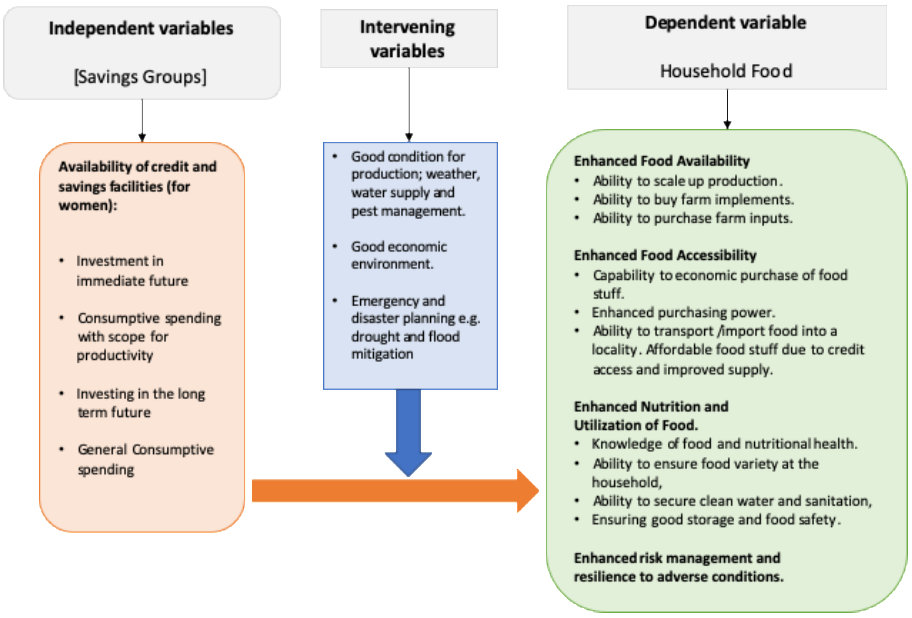
3.1 MODELS AND FRAMEWORKS

This section aims to respond to the question "What are the main pathways through which savings groups contribute to household nutrition and food security?"

3.1.1 Savings Group Model

This model shows how a potential contribution of a savings groups only model can directly and/or indirectly contribute to household food security, nutrition, and resilience outcomes. The simplified logic model that links savings groups membership with outcomes in food and nutrition security is summarized into a conceptual framework in **Figure 2**.

Figure 2. Model Conceptual Framework That Links Savings Group Membership and Outcomes in Health and Nutrition



Source: Hongo 2013.

3.1.2 Deliberately-Layered Savings Groups Models

Savings groups activities layered with nutrition-sensitive program activities

In this section, two examples are provided of implementation models that have been used in savings group programs for the purpose of layering savings group activities with different content, including activities intended to achieve food security and health and nutrition outcomes. **Figure 3** shows how content (in green box) can be layered onto the traditional VSLA schedule (in yellow box). The additional training content used in this framework is divided into nine different training components/modules over 38 weeks. It follows advice that any additional training be introduced only after the first 12–15 weeks, by which time groups have learned and practiced the basic savings group principles.

Figure 3. Example of a Layered Savings Group Format Based on the Standard VSLA Model

Preparatory phase: This provides general information to prospective VSLA members. They will decide if they want to be trained.
Intensive phase: 12 weeks. It starts off with 3 visits in the first week, and then continues with 7 visits over the next 8 weeks.
Development phase: 12 weeks. 3 visits. One every month.
Maturity phase: 12 – 26 weeks. One visit every two months and one final share-out meeting visit.

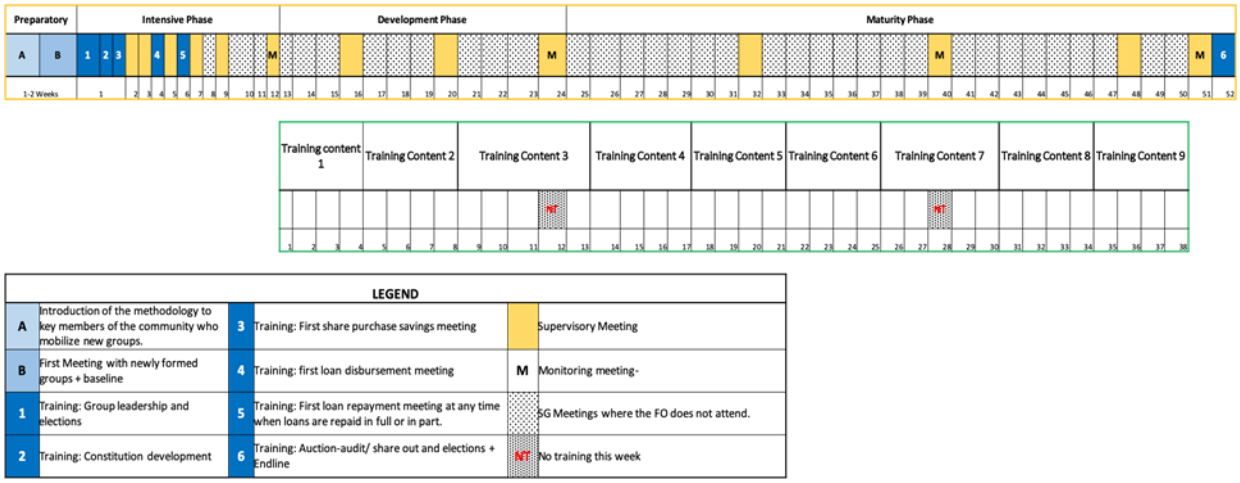
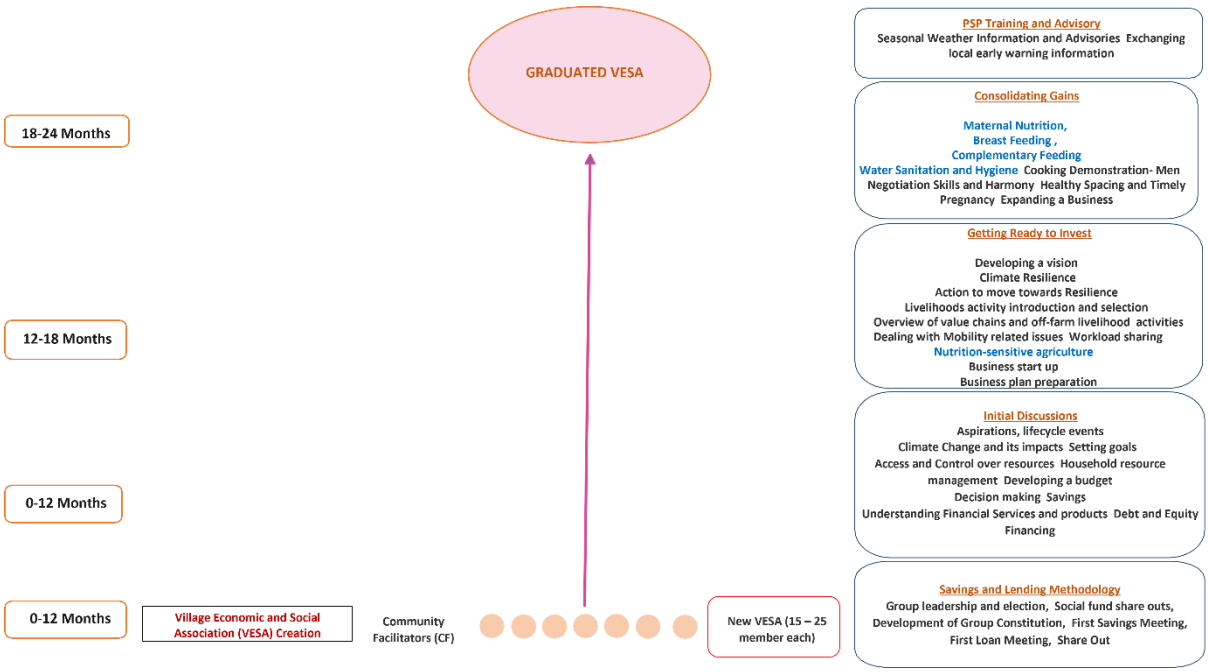


Figure 4 shows the author's visual representation of a specific example of how this model was applied in the USAID-funded Graduation with Resilience to Achieve Sustainable Development (GRAD) program in Ethiopia, using the Village Economic and Social Associations (VESA) training module content. The VESA model is an example of the nutrition-sensitive program activities layered within savings group activities. While health and nutrition activites were not the central part of the program's implementation outcomes, content on health and nutrition were layered into savings group activities, including trainings, with the aim to enhance information about nutrition.

Figure 4. Layout Example of the VESA Graduation Model



Savings groups activities layered with health and nutrition-sensitive program activities

A number of programs also work with savings groups layered with health and nutrition-specific program activities. These tend to involve Maternal, Infant, and Young Child Nutrition (MIYCN) and maternal and child health and nutrition (MCHN) programming specifically targeted at increasing nutrition outcomes for children under the age of 5 and pregnant and lactating mothers, as well as women of a reproductive age. There are different ways these programs are implemented, as described below.

Combined MCHN/MIYCN and savings group activities

In some programs, participants, mainly pregnant and lactating women, are organized into groups with layered purpose or MCHN/MIYCN activities are layered onto existing savings groups. Savings group members are trained in a traditional savings model, and they are provided with training and support by implementing partner organizations together with local health service providers and/or trained community health volunteers in their journeys as pregnant or lactating mothers. The type of service provider depends on the kind of health and nutrition service being provided. The more technical the service, the more technical the provider needs to be. This means that the implementing organization should select the providers based on the output/outcomes of the program. The program must develop partnership arrangements to ensure that participants receive the assistance required. In some rare circumstances, these groups would also include women of reproductive age more generally. The rationale for this model is to pair the financial activities of the group with the increased financial needs that come about with pregnancy and/or taking care of a newborn or child under the age of 5. Most groups are formed as a part of programs focused on the first 1,000 days.

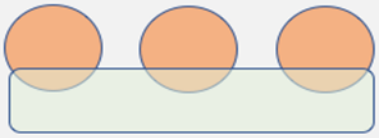
Separate savings group and MCHN/MIYCN

A second iteration of the model involves savings groups that act as a platform for dissemination of general information. Participants, both men and women, are taught a basic savings and lending model. In addition to this, they are taught basic information on other cross-cutting issues, such as gender and nutrition among others, depending on the intended outcomes of the program.

In addition to the savings groups, the community hosts special MCHN/MIYCN groups that include pregnant and lactating mothers (and if relevant, women of a reproductive age). These specialized groups meet separately from their regular savings group meeting. This additional platform provides the space for a closer supervision of pregnancy, lactation, and other relevant content outside their savings groups meeting.

Figure 5 provides a summary of the advantages and disadvantages of each of these two modalities.

Figure 5. Comparison of Maternal and Child Health and Nutrition Savings Groups and Plain Savings Groups

	Plain Savings Group	Maternal and Child Health and Nutrition Savings Groups
Groups		
Characteristics	• Savings groups are formed specifically for pregnant and lactating women; exclusively includes women. • Pregnancy or lactation considered a requirement for group membership. • The main focus of the model is around health and nutrition for pregnant, lactating mother and infant. • Usually the structure for 'First 1000 days' programs.	• Savings groups are formed around economic/financial goals. • All savings groups receive basic training around health and nutrition. • Has a separate group(s) for pregnant and lactating women (and women of reproductive age) which receives specialized, additional training content. • Allows and encourages the participation of men.
Advantages	• Allows for very specific training content targeted at pregnant and lactating women. • Easier to find synergies and content around increased nutrition particularly for infants and children under 5. • Can provide for specific loan packages and social funds that are targeted at increasing nutrition outcomes for women and their children.	• Allows for the inclusion of men; the financial incentives encourage men's participation- which provides a platform for them to learn about health and nutrition, among other content. • Allows for self selection- especially around the financial content. This is important for trust and group cohesion. • Allows for group members to stay in their savings groups even when they are done lactating, should they choose to do so. Increases chances of savings group sustainability.
Disadvantages	• Self-selection, a core requirement for successful savings groups is challenging; this could lead to issues around trust and cohesion of the group. • Potential for change of members at least every 2 years, unless members get pregnant again (which is not advisable). May lead to issues of group sustainability. • Excludes men- given the hyper focus on pregnant and lactating women; may exacerbate the stereotype of women being the primary caretakers responsible for health and nutrition in the households.	• May exacerbate women's time poverty- would require pregnant and lactating mothers to spend more time in meetings/training. Key Specialized- pregnant and lactating women's group. Savings Group

It is important to note that many factors may influence how successfully a savings group is able to produce impacts in food and nutrition security. According to a review done in Timor-Leste, the methodology and timing of the group formation and management is critical; "the process by which a group is formed, and timing of the share out, can influence whether the share out is used for a productive asset that is able to create long-term growth, or simply treated as a short-term windfall" (TOMAK 2018, 7).

The same review shows a higher nutrition impact when programs are targeted at specific groups, such as pregnant or lactating women, and when implementers take deliberate action to ensure the inclusion of these specific target groups in savings group promotion and formation. "Many positive behaviors for nutrition are specific to a life cycle stage (such as infants under six months, two years, adolescents, pregnant women) but savings group membership is fixed, with only minimal changes each cycle" (TOMAK 2018, 5).

3.2 EVIDENCE

This section of the report responds to the questions: What is the evidence that savings groups contribute to household nutrition, dietary diversity, and food security? And to what extent do savings that are held in savings groups cushion savers' households during shocks?

The evidence is organized around four outcome areas deemed to be relevant to Nawiri's implementation context.

Outcomes:

- Household Economic Impacts
- Health and Health Seeking Behaviors
- Food and Nutrition Outcomes
- Resilience to Shock

3.2.1 Household Economic Impacts

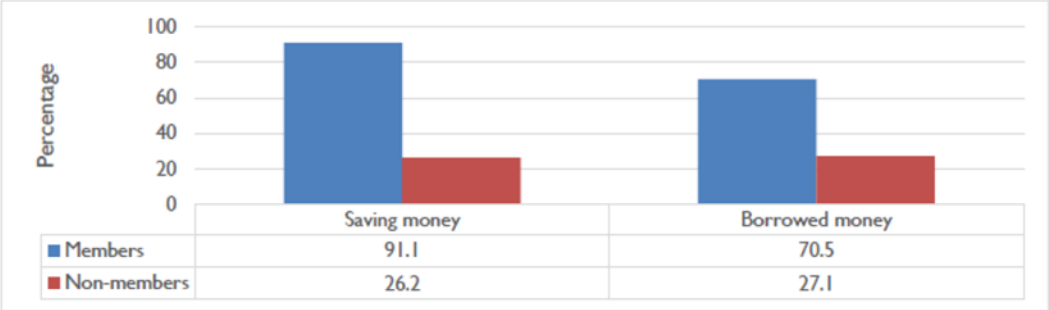
Savings and credit

Changes in access and use of savings and credit is the clearest benefit of savings group membership. In their analysis of seven savings groups RCT studies, Gash and Odell (2013) found that the "availability of savings groups clearly increases savings and the use of credit in treatment areas" (Gash and Odell 2013).

Karlan et al. (2017) showed that the promotion of savings groups in Ghana, Malawi, and Uganda resulted in an improvement in financial inclusion for women, for whom savings increased by 34% relative to the comparison group, while access to credit increased by 11% compared to the comparison group. This was also the case, in Ghana, where a study conducted by CARE International showed significant differences between the proportion of cocoa farmers who were members of savings groups that reported saving and accessing loans compared to non-members (Hinson et al. 2017 as cited in Bwalya and Mabvuto 2021).

A mixed method study to evaluate World Vision's Zambia S4T model showed that the proportion of savings group members who indicated that they had saved money in the previous 12 months was much higher than for non-members (91.1% versus 26.2%, $P < 0.01$) (**Figure 6**) (Bwalya and Mabvuto 2021). The proportion of savings group members who indicated that they had borrowed money in the previous 12 months also was much higher than for non-members (70.5% versus 27.1% $P < 0.05$).

Figure *6*. Proportions of Households That Borrowed and Saved Money in the Past 12 Months

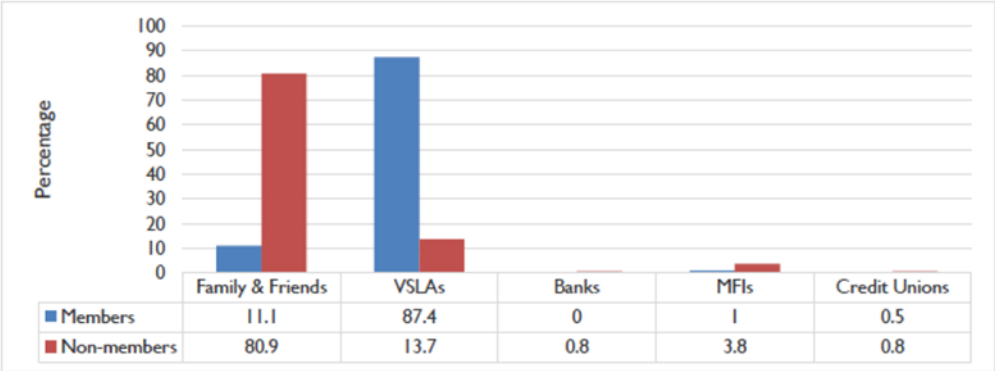


Source: Bwalya and Mabvuto 2021, 50.

The majority of savings groups members in the World Vision study in Zambia reported borrowing from their groups (**Figure 7**). For those who were not in savings groups, the main source of credit remained family and friends. According to a community agent in Zambia, "Most people want to expand their businesses but cannot get loans from banks due to high-

interest rates. As such, they have found a lot of benefits from the low-interest loans being offered by the savings groups" (Bwalya and Mabvuto 2021, 51).

Figure 6. Comparison of Credit Sources Between the Group and Non-Group Members



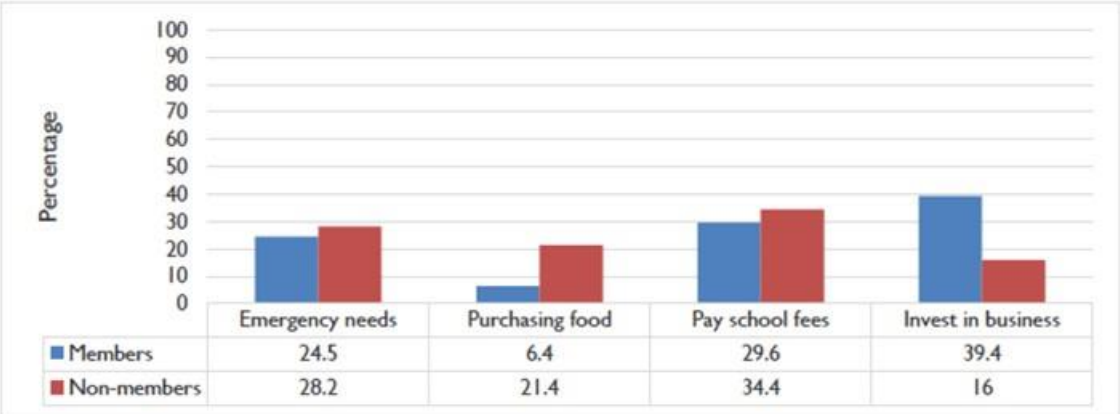
	Family & Friends	VSLAs	Banks	MFIs	Credit Unions
Members	11.1	87.4	0	1	0.5
Non-members	80.9	13.7	0.8	3.8	0.8

Source: Bwalya and Mabvuto 2021, 51.

Income and income generating activities

The S4T study also looked at whether membership in savings groups was associated with increased business or entrepreneurship activities by comparing the use of borrowed funds between members of savings groups and non-members. The results showed that respondents in the savings groups were significantly more likely to indicate that the primary reason for obtaining the loan in the past 12 months was to invest in a business (**Figure 8**).

Figure 7. Reasons for Borrowing Money Between Savings Group and Non-Savings Group Members



	Emergency needs	Purchasing food	Pay school fees	Invest in business
Members	24.5	6.4	29.6	39.4
Non-members	28.2	21.4	34.4	16

Source: Bwalya and Mabvuto 2021, 52.

There is a notable difference in the use of credit to purchase food among savings group members and non-members. While this was not explored in the Zambia study, another study in Ghana showed that savings group members had higher food availability than non-group members, which could be explained by using credit from savings groups to purchase food or from the additional income or credit that savings group members built through their businesses (Abubakari, Sadik, and Keisan 2014).

The 2012 IPA RCT study was conducted when members had been part of a group for an average of 15 months, and 61% of members had gone through a full savings cycle, normally lasting between 8 and 12 months (Karlan et al. 2012). This study revealed the following.

- There was a small but significant increase in the likelihood that a woman who participated in savings groups ran a business. The pooled sample showed a 1.9 percentage point increase in the fraction of women who ran their own businesses, corresponding to a shift from 20% in the treatment areas to 18% in the control group.
- Over a period of 12 months before the evaluation, business profits increased by $5.37, from $19.64 in the control group to $25 in treatment communities. The authors note that the figures for yearly income from businesses seem small because they are averages of all women's income, and many of the women did not have businesses and so had zero profits. The report does not include data relating to only those who had businesses.
- The percentage of women in the treatment group who belonged to at least one savings group rose to 53.5%, compared to 36.6% in control areas.
- The estimated average savings balance in savings groups was $5.90 for respondents in control areas, and $11.84 for respondents in the treatment areas. Thus, the program increased balances of savings held by $5.94.
- The savings group program increased use of credit by respondents in treatment communities. In these communities, 41.7% of women obtained a loan in the 12 months before the endline survey, a difference of 10.6 percentage points compared to the control group.

A study conducted with the same groups after they had been running for 2–3 years showed that women in the treatment group had increased total savings by $14, which was a 34-percentage point increase relative to the control group. In addition, 42% of women group members in the treatment group also obtained a loan in the year leading up to the endline survey, which represented an 11-percentage point difference compared to the control group. showed a slightly different picture (Karlan et al. 2017). While across all three countries, access to savings groups led to increased savings and credit access, improved microenterprise outcomes, and increased women's empowerment, membership in these groups did not lead to improvements in household financial well-being.

Asset accumulation

The accumulation of durable assets is one of the specific pathways that households can use to generate long-term sustainable improvements in household well-being. Savings groups offer members opportunities for asset accumulation through a number of different mechanisms:

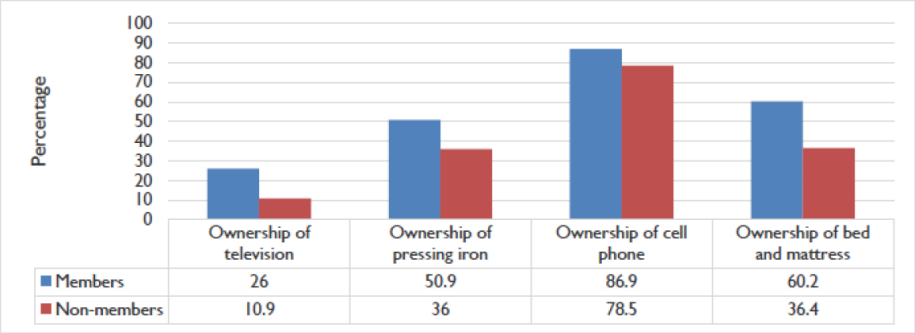
1. The increased ability to accumulate savings makes lump-sum investments more feasible, particularly through end-of-cycle savings share-outs.
2. The social fund and loans from the group replace sales of assets as a means to react to shocks and afford other necessary expenses.
3. There can be growth in enterprise or farm outputs if the savings group leads to increased and profitable investments.

A review of several evaluations shows a somewhat mixed picture of the impacts that savings groups have on asset accumulation. An RCT in Burundi found large increases in ownership

of assets such as livestock, radios, mattresses and beds, bicycles, and mobile phones among households participating in savings groups as compared to the control households. The average difference attributed to the savings group intervention was approximately one extra head of cattle per household (Annan et al. 2013). In addition, an analysis on the role of savings groups in a graduation program in Ethiopia found that they were a major contributing factor to the increase in assets of participants over the duration of the program (Fowler and Endalamaw 2012).

In the S4T study, respondents were asked to provide information on whether they owned assets, such as televisions, pressing irons, mobile phones, and beds with mattresses, to assess the impact of membership in saving programs on household asset accumulation (Bwalya and Mabvuto 2021). The proportion of savings group members who owned televisions, pressing irons, mobile phones, and beds was significantly higher (all $P<0.05$) than for non-members (**Figure 9**).

Figure 8. Ownership of Selected Household Assets by Group Membership

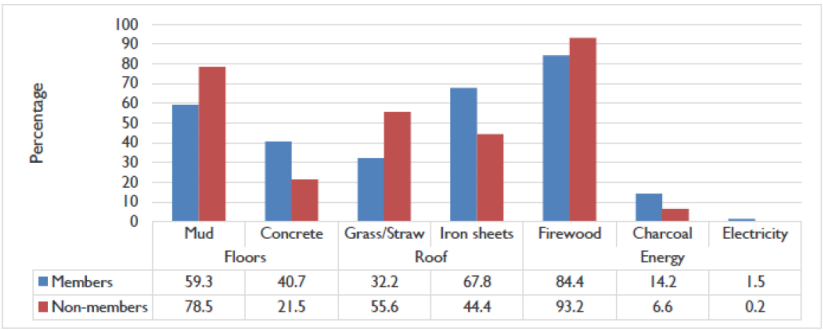


	Ownership of television	Ownership of pressing iron	Ownership of cell phone	Ownership of bed and mattress
Members	26	50.9	86.9	60.2
Non-members	10.9	36	78.5	36.4

Source: Bwalya and Mabvuto 2021, 57.

The study also investigated the impact of membership in savings groups on respondents' housing characteristics. For this, the study used flooring and roofing materials and sources of cooking energy as indicators. The proportion of savings group members whose homes had iron roofing and concrete floors was higher than for non-members (both $P<0.05$) (**Figure 10**). The number of study participants using electricity was low, making it difficult to detect a difference in that indicator between members and non-members.

Figure 9. Housing Characteristics and Group Membership, from the S4T Study



	Mud	Concrete	Grass/Straw	Iron sheets	Firewood	Charcoal	Electricity
	Floors		Roof		Energy		
Members	59.3	40.7	32.2	67.8	84.4	14.2	1.5
Non-members	78.5	21.5	55.6	44.4	93.2	6.6	0.2

Source: Bwalya and Mabvuto 2021, 58.

This results of the S4T study align with the findings of an evaluation of CARE Australia's savings group program in the Mekong region (Vietnam, Laos, Cambodia, and Myanmar) conducted in 2016 by the Coady International Institute (Massu, Michaud, and Jain 2017). The aim was to evaluate the effectiveness, sustainability, and impacts of the VSLA savings group model. The study involved a desk review of work across the four countries and field evaluation in Cambodia and Myanmar. The evaluation included 447 individual structured surveys with women savings group members, 31 focus group discussions (FGDs), and 257 individual in-depth interviews with individual savings group members, family members, community stakeholders, non-savings group members, and village agents. The survey and FGDs showed clear evidence of savings groups having led to increased asset ownership. Share-outs appeared to be the main opportunity to invest in household assets. In Myanmar, 60.8% of women reported investing in livestock, followed by gold (6.3%) and household goods (5.9%). In Cambodia, the highest percentage of women (69.2%) reported investing in household goods, followed by livestock (50.0%) and gold (38.0%). Overall, only 8% of women in Myanmar and 3.8% in Cambodia stated that they had not obtained any additional assets since joining the VSLA.

Summary of Household Economic Impact

Savings group membership is clearly related to increased access to savings and credit. Savings groups members rely less on friends and family for credit compared to non-members. This allows members to start and invest in new and current business ventures. Evidence is more mixed for the impacts of savings groups on the household's asset accumulation and ownership. Based on this review, it is not clear which community characteristics and/or mode of program implementation had an impact on asset accumulation and ownership.

In contrast, the IPA (2012) study found that there were no impacts of the savings group program on asset accumulation (Karlan et al. 2012). Livestock ownership did not change significantly as a result of the program. Over the time frame of the study, savings groups did not lead to an improvement in housing quality or estimated poverty levels.

Similarly, an RCT conducted in Northern Uganda found that the savings group component did not lead to an increase in consumption or total assets, but did lead to an expansion in microenterprise activity and some improvements in the standing of women (Sedlmayr, Shah, and Sulaiman 2018). The study involved six cohorts across 69 villages, with one participating household per village, and tested, among other things, the impact of savings groups on microenterprise.

3.2.2 Health and Health-Seeking Behaviors

Health care expenditures

Evaluations and studies of savings group programs that have measured health care expenditures have generally shown that savings group participation helped members meet health care costs.

In an RCT in Zanzibar, Tanzania, men who were savings group members spent approximately 28,000 Tanzanian shillings (Tshs) (at the time of evaluation equivalent to $26) more on health care than non-members (Brannen 2010). Women who were savings group members spent Tsh 21,000 ($19 at the time of the evaluation) more on health expenditures than non-members.

The 2012 IPA three-country impact assessment of savings group programs, comprising RCTs in Ghana, Malawi, and Uganda, identified health as a primary concern for households in the study sample of 15,397 households (at endline) (Karlan et al. 2012). In Malawi and Uganda, almost all households had at least one ill member in the 30 days before the endline survey was conducted. In Ghana, this percentage was closer to two-thirds. The study found evidence of an increased use of financial services offered by the savings groups, particularly loans and the emergency fund, to fund health expenses. This implies a reduction in out-of-pocket expenditure on health problems. The study also identified a small shift in the way households financed health expenditures, with members using savings groups to avoid having to draw down savings. There was also suggestive evidence that members were less likely to sell assets to fund health expenses. However, overall expenditures and use of health services were not affected by the program.

The endline survey on the YSLA project implemented by CARE Uganda from 2013–2015 under Banking on Change (BoC) targeted 606 respondents who participated in the baseline survey in nine districts (Kemigisa 2015). Data were collected using an adjusted BoC baseline household survey tool and FGDs with individuals benefiting from the project. At endline, fewer respondents than at baseline (27% vs. 36%) reported having a household member who was unable to access health care services due to lack of money. More YSLA members at endline compared to at baseline (67% vs. 47%) reported having spent money to meet a household member's health care expenses. There was an increase in the number of households that could afford medical services in the last 6 months at the time of the study from 63.9% at baseline to 73.2% at endline, as members accessed loans for emergency health care.

Maternal and newborn health services

Summary of Health and Health-Seeking Behaviors

Evidence generally suggests a correlation between savings group membership and increased expenditure in health services. There is a decrease in sale of productive assets by savings group members to finance health expenses compared to non-group members. The most obvious link could be the increased access to savings and loans and access to the group social fund, which often stipulates health emergencies as a trigger for the disbursement of grants or no interest loans to group members. Specific focus on maternal and newborn health services requires deliberate layered effort that targets specific health practices that the program aims to achieve, using the savings group setting as a platform, in order to achieve the desired impacts.

CARE's EKATA self-help groups in Bangladesh bring together older women and adolescents in the same group with the aim of improving MCHN. An impact evaluation of the program was conducted in 2015 with a sample of 871 households with children under 2 years (6–23 months) (TANGO International 2015). Membership in an EKATA group was associated with increased antenatal care during pregnancy, increased likelihood that the mother received vitamin A within 6 weeks of delivery, and increased knowledge of the five critical times for hand washing. Membership in a savings group was found to be positively associated with increased household and maternal dietary diversity and reduced household

hunger. With respect to caring practices, the program increased post-delivery vitamin A supplementation for mothers and the safe disposal of children's feces.

A mixed method study was conducted in Mozambique on the Southern African Nutrition Initiative (SANI) program (RADAR 2021). The program used savings groups as a platform to conduct training on nutrition practices and general empowerment for women of reproductive age as well as pregnant and lactating women. The results showed that most beneficiaries correctly recalled messages on types of services a woman receives at antenatal care visits (92%), foods that pregnant women should eat (90%), when a person should wash their hands (88%), and family planning methods (85%). It also found that community health workers made a median of three household counseling visits, and more than half of them reported leading at least one peer support group in the previous 6 months. More than half of peer support group topics included a pregnant woman's diet (84%) and breastfeeding (53%). Most of the topics discussed or demonstrated during counseling sessions were on antenatal care (90%) and father's support during pregnancy (79%).

Food and nutrition outcomes

Household Food Security

Many studies have found that participants in savings groups have improved household food security compared to households of non-participants. In a 2017 review of evidence on the impact of savings groups from 53 studies, more than half of them included data on food security and, of these, most found evidence of increased food expenditures and food security in households where one of the members participated in a savings group (Gash 2017). Two specific examples of savings group programs that increased food security are described here.

Savings groups have been shown to strengthen household food and nutrition security. CARE's Resilience Champions, a 2015 internal qualitative study that was based on both group and individual interviews with 20 rural communities in Niger and Mali, compared households that belong to community saving groups and those that do not (CARE International 2015). The study concluded that while non-savings group households tended to see their vulnerability increase over the years, savings group households enjoyed higher food security. Women who saved could afford to buy more grain, and they reported that their children were better nourished. The interviews showed a reduction in the malnutrition in communities that benefited from the integrated savings group and food security activities.

A study that measured the impact of savings groups on children's nutrition in Sissala, Ghana, found that 43% of savings group participants compared to 22% of non-savings group participants had food throughout the year (Abubakar, Sadik, and Keisan 2014). Participants reported that hunger had been reduced in the Upper West community as a result of being able to take loans from the savings groups.

Dietary Diversity and Meal Frequency

There is evidence that savings group participation can improve dietary intake, both in terms of dietary quality (e.g., dietary diversity) and meal frequency.

In Mozambique, a mixed methods study compared household and child nutrition outcomes between households participating in savings groups and a rotating labor scheme, households participating in savings groups only, and a control group (Brunie et al. 2014). The results

show an overall picture of economic strengthening activities that can lead to moderate improvements in food availability and access, but are insufficient to address gaps in dietary quality. Households in the savings with labor scheme group and those in savings groups only had more months of food sufficiency compared with the control group. Accumulated savings from savings groups were typically shared out in time for the hunger season, when members used them to buy food when they could not rely on their own production. Alongside this seasonal smoothing effect, results around dietary diversity were mixed. The savings group only group experienced increases in child dietary diversity scores as compared to the control, but household dietary diversity increases were highest in the control group. Across all groups, dietary diversity (both individual and household) remained quite low. The qualitative in-depth interviews revealed that participants' funds were still largely insufficient to buy preferred diverse and nutritious foods to accompany their own household food production of staples on a regular basis. While the lump sum payout of savings groups provided a buffer against seasonal shocks, these did not align well with the need to afford nutritious foods on a daily basis. In some cases, setting aside savings for their regular group contributions may have actually been a barrier to investing limited funds in preferred nutritious foods. Finally, the study results pointed to the importance of gendered intrahousehold decision-making dynamics on the link between economic outcomes and child nutrition. While women largely received educational messaging on nutrition alongside the economic strengthening interventions, the local context was one in which men still controlled most household income and expenditures. The findings suggest that programs should "consider ways to increase the engagement not only of caregivers, but also of financial gatekeepers around nutrition change for optimal cash allocation towards nutritional needs" (Brunie et al. 2014, 7). The potential for savings groups to improve food security requires additional considerations of feeding and caregiving practices, access to and use of health services, and environmental factors to improve the likelihood of impact on child nutritional status.

The S4T study in Zambia examined the impact of savings group membership on household dietary diversity (Bwalya and Mabvuto 2021). It should be noted that the food groups used for calculating dietary diversity were not the standard groups recommended by the Food and Agriculture Organization (Food and Agriculture Organization 2011), but rather consumption of 4 or more of 10 food groups (cereals, tubers, potatoes, meat, eggs, fish, legumes, milk and milk products, fats/oils, and sugar) during the last 24 hours. However, a higher percentage of households of savings group members than non-members had sufficient diet diversity (77% vs. 68%, $P<0.05$). Savings groups also had an indirect impact on food security through improved agricultural production and productivity among the members. Most of the respondents attested that, compared to before they joined the groups, they were able to produce more food. This is because most groups timed the share-out period around November when agricultural input purchases are usually made. As such, rather than waiting for subsidized government fertilizer, which is often distributed late, group members simply used the money they got from the share-out to purchase their fertilizer, which when supplemented with Zambia's Farmer Input Support Program (FISP) helped them increase crop yield.

A study in Tanzania showed that for both men and women savings group members simply being a part of the savings program increased the household's number of meals per day by 0.337 (Brannen 2010). The same study showed that men savings group members consumed

0.506 more meals per day than non-members, and women savings group members consumed 0.298 more meals per day than non-members, showing a much smaller, yet significantly important impact on women members. At the start of the savings group program, men ate fewer meals than women, and men's savings group participation brought the meal frequency up to the same level as women. This may suggest that women devoted a greater share of their available resources to nutrition, regardless of their wealth, whereas men spent money on their household's diet only once they had greater available resources, thus confirming the hypothesis that men placed less importance on the diet of their household than did women.

Child Nutrition

CARE's savings group model implemented by PLAN Ghana was shown to improve nutritional status of children under 5 years and to increase exclusive breastfeeding (82% vs, 64%) among children who mothers participated in savings groups versus non-savings group participants (Abubakari, Sadik, and Keisan 2014). Similarly, a program in Madagascar that integrated breastfeeding promotion in savings groups reported a change in exclusive breastfeeding by 5.1 percentage points at program end and a decrease in stunting by 5% and underweight by 8% within a 5-year programming period (Kwilasa 2017).

A cluster-RCT conducted in a microcredit program and layered with behavior change communication promoting breastfeeding in Bauchi State, Nigeria, showed an impact on exclusive breastfeeding and early initiation of breastfeeding (Flax et al. 2014). The results showed that exclusive breastfeeding to 6 months and timely breastfeeding initiation increased in the intervention arm (OR: 2.4; 95% CI: 1.4, 4.0) and (OR: 2.6; 95% CI: 1.6, 4.1) respectively compared to in the control arm, which participated in the microcredit program without breastfeeding promotion.

A study conducted in Malawi that tested behavior change communication interventions to promote infant and young child feeding (IYCF) layered in savings groups found that it was feasible and acceptable to implement a behavior change communication activity related to IYCF in mixed savings groups of HIV-positive and HIV-negative members (Flax et al. 2019). In addition, training

Summary of Food and Nutrition Outcomes

Increased household access to savings and credit carries the potential to influence food security, ensuring that households have adequate access to food through increased food production, investment in businesses or increased ability to purchase food when needed. Evidence shows a correlation between savings group members and increased food availability within the household.

Meal frequency and food sufficiency generally improved among households benefitting from savings group interventions. However, the evidence around child and household dietary diversity is mixed. Some studies suggest that gender has an impact on the dietary diversity dynamics of savings group interventions.

On the impact of group membership on nutrition, evidence shows a less direct pathway. There is no consistent correlation between group membership and nutrition outcomes for children, unless the program is also layered with a deliberate focused activity on nutrition. Therefore, while savings groups have the potential to contribute to nutrition, more deliberate focus on nutrition outcomes, including incorporating nutrition behavior change communication, addressing food proscriptions, choices of crops that households cultivate, and other normative factors may have a stronger influence on the nutrition of the household even when food is plentiful.

pre-test/post-tests for savings group leaders and health surveillance assistants showed that their knowledge of breastfeeding and complementary feeding increased.

Two evaluations of Freedom from Hunger's Credit for Education program where participatory health and nutrition education were added to microcredit showed benefits for child nutrition. The evaluation in Bolivia found that children whose mothers participated in the program were more likely to have received colostrum, started receiving fluids and foods other than breastmilk at around 6 months, and were fed animal source foods (MkNelly and Dunford 1999). The evaluation in Ghana showed similar positive impacts to those found in Bolivia on child feeding practices (MkNelly and Dunford 1998). In addition, children of participants in Ghana were less likely to be stunted than those of non-participants.

CARE's Strengthening Household Ability to Respond to Development Opportunities (SHOUHARDO) program in Bangladesh (Phase 1: 2005–2010, Phase 2: 2011–2015) showed some significant results for child health and other outcomes. Evaluation data from 3,356 households at the end of the first phase of SHOUHARDO found a decline in the prevalence of stunting by 30% and in the prevalence of underweight by 21% (Smith et al. 2011; TANGO International 2009). The evaluation concluded that this impact could be attributed to SHOUHARDO, including the self-help group-based savings and lending activities, as well as food assistance. This decrease occurred during a period when stunting was stagnant in Bangladesh as a whole and even increased for a period because of a particularly steep food price crisis and harmful weather conditions. Even more impressive is that SHOUHARDO's decline of 4.5% per year is nearly double the annual stunting decline achieved by the average similar program. The combination of the direct attention on malnutrition combined with the EKATA group process made the most difference.

3.2.3 Resilience to Shocks

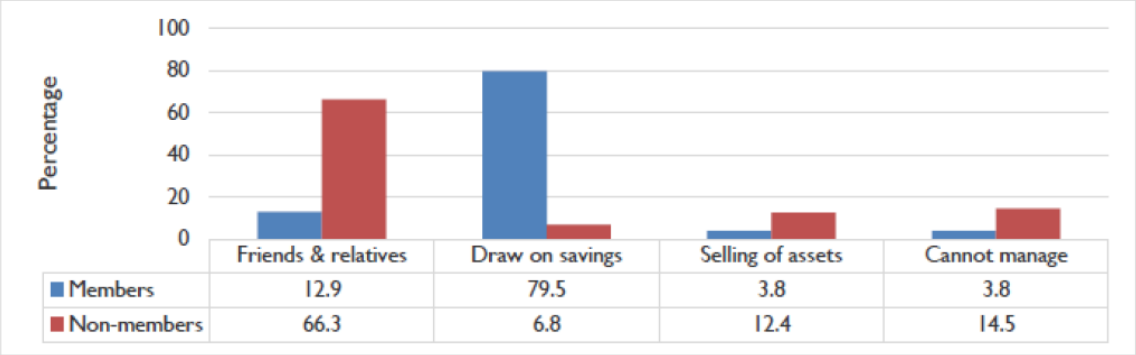
Recovery from weather and non-weather-related shocks

Karlan et al. (2017) showed that by increasing access to credit and social funds, membership in savings groups could enable their members to absorb the impact of weather and non-weather-related shocks using financial tools without having to sell down productive assets. Additionally, over time they show an increase in income and asset accumulation through profitable investments in business and agriculture, which is likely to improve the household's capacity to absorb shocks effectively, compared to non-group households. However, the ability of savings groups to mitigate shocks may be more limited when all group members have similar livelihood activities, such as livestock raising, and the savings groups may not be able to assist all members simultaneously (Gash 2017).

Data from a study involving 1,602 household surveys, along with 99 key informant interviews and FGDs, which were conducted as a part of CARE Ethiopia's GRAD program, showed that participating households improved their resilience and food security, with nearly 80% of chronically food insecure households graduating out of a government food support assistance program (CARE International 2017c). To graduate, households had to show changes across different outcome areas including increased household savings and their ability to use these savings to recover from weather-related shocks. Interviewed participants from the VESAs stated that participating households lost their crops, but they alleviated this loss through savings, access to credit, and diversified livelihoods gained from GRAD.

Additionally, the S4T study in Zambia explored the ability of savings group members vs. non-members to respond to idiosyncratic shocks (Bwalya and Mabvuto 2021). The results showed that savings group membership helped households weather shocks without resorting to extreme measures when they needed money for an emergency. Saving groups members were better able to respond to covariate shocks compared to non-savings group members. Approximately 80% of the savings group members indicated that they would draw on their savings compared to only 7% of the non-savings group members (**Figure 12**). Conversely, the majority (66%) of the respondents who were not members of savings groups indicated that they would have to rely on family and friends, compared to 13% of savings group members. The proportion of non-savings group members who reported that they would resort to detrimental measures such as selling assets was larger (12%) than for savings group members (4%).

Figure 10. Methods That Households Can Use to Raise Funds During Emergencies



	Friends & relatives	Draw on savings	Selling of assets	Cannot manage
Members	12.9	79.5	3.8	3.8
Non-members	66.3	6.8	12.4	14.5

Source: Bwalya and Mabvuto 2021

The respondents were also asked to indicate whether they could access 1,000 kwacha (K) (approximately $100) within a month in an emergency. The proportion of saving group members who indicated that it was very possible for them to raise a K1,000 within a month was much higher (45%) compared to non-saving group members (30%).

Summary of Resilience to Shocks

There is evidence that savings group membership helps participants recover from shocks by using their own savings as opposed to other funding sources, such as borrowing from friends and relatives or the sale of a valuable productive asset. In the event of a crisis, weather-related or otherwise, savings group membership has a restorative effect on households, and helps some participants recover and build back better than before the shock.

In a 2019 assessment of the Kore Lavi Safety Net Beneficiary Resilience program implemented in Haiti, savings group membership was more likely to follow 'more resilient pathways' by a 6-percentage point difference compared to non-savings group membership (Systways 2019). Resilient pathways were defined as the "process followed by individuals, households, communities or higher-level systems in reaction to stressors or shocks, given their access and control to assets, and

the coping actions, adaptive responses and transformative strategies taken [which allows them to] 'bounce back' or bounce back better."

3.3 SAVINGS GROUP MANAGEMENT AND SUSTAINABILITY

This section responds to the question: What are the models for sustaining and continuing to offer support to savings groups beyond the life of sponsoring organizations?

3.3.1 Influence of Gender Composition in Group Performance

Programs are starting to tease out the difference in group management in relation to the gender composition of the group. A few evaluations and studies have shown that groups comprised of women tend to be more functional, and women who participate in savings groups gain greater financial benefits for themselves and their households than men. The World Health Organization (WHO) explored this topic in 2010, while developing community-based rehabilitation (CBR) guidelines (Achu et al. 2010). While the CBR guidelines were specifically targeted at improving the conditions of people living with disabilities, they also reviewed participation of men and women in savings groups. WHO found that women's groups were generally easier to form than groups for men. Women only groups tended to be more collaborative. Mixed groups of men and women required extra effort to ensure that women were represented and their perspectives considered.

A review of CARE's Link Up project, a multi-country initiative in East Africa focused on linking viable savings groups to formal financial sector institutions, found some evidence of a link between the gender composition of a group and the group's performance. The study found that a group with more than 85% women was twice as likely to have an active formal financial account than a group with a lower proportion of women (Datassist 2017). Additionally, groups with more than 85% women had 13% higher bank account balances.

A study of the impact of participation, by gender, in the Grameen Bank and two other group-based microcredit programs in Bangladesh had similar findings showing greater financial benefits for women than men (Pitt and Khandker 1998). The empirical method used a quasi-experimental survey design to correct for the bias from unobserved individual and village-level heterogeneity. The results showed that program credit had a larger effect on the behavior of poor households in Bangladesh when women were the program participants. For example, annual household consumption expenditure increased 18 takas for every 100 additional takas borrowed by women from these credit programs, compared with 11 takas borrowed by men.

3.3.2 Savings Groups Sustainability

Savings groups are relatively self-sustaining, which is often attributed to the self-selection of membership and the financial and economic benefits that group members experience, compared to their options before group participation. Effective leadership, self-management, and the groups' ability to resolve conflict are also core to the ability of groups to outlive program support by implementation structures has ended.

Over time, savings groups can be self-replicating, especially where implementing agencies focus on building community level capacity and systems for the ongoing formation, training, and management of groups by community-based actors. The two main approaches for sustainable replication are (1) 'village agents' and (2) fee-for-service PSP models. These

involve group members contributing to a fund to pay the group leader to continue working with the savings group.

A study of 167 village agents and 2,258 savings groups conducted by CARE Malawi offers perhaps the most detailed glimpse of what happens to savings group activities after implementing agencies leave, with a village agent approach in place (CARE International 2017b).

Positive outcomes and the impact of participating in existing savings groups continued even after project phase out, with increases in savings share value in over half of groups, increased loan fund utilization, and increased share-out value. For every savings group created by CARE, communities created two more of their own, with the majority of groups continuing to adhere to the VSLA methodology. Five to 10 years after project closure, more savings groups struggled to share out properly, 43% of groups increased interest rates, and more members struggled with repayment. Other common challenges arising over time after formal implementing agencies stopped support included members participating in multiple groups, members having multiple loans, and groups lending to non-members (all of which is generally disallowed by VSLA methodology).

CRS's PSP approach has a strict process for transitioning from project-paid Field Agents to certifying high performing agents as PSPs who then charge groups for their services, including routine monitoring and accompaniment, assistance with record keeping, resolving conflicts, and supporting annual share-out. PSPs are in a position to continue to offer services after project closure and beyond savings groups' first cycle of operations, based on a formal, signed service agreement. An evaluation of the PSP approach sustainability in Uganda found PSPs continued to operate without support from CRS or its implementing partners 19 months after project closure (ITAD 2017). Furthermore, PSPs continued to form new savings groups, increasing the overall number of groups by 56% while 5% of groups dissolved.

4. CONCLUSIONS AND RECOMMENDATIONS

This review of selected evidence on savings groups and nutrition illustrates that savings groups:

- Reliably improve members' access to and use of savings and credit;
- Can provide improved asset accumulation, though evidence is mixed;
- Improve members' ability to respond to health and other shocks, and reduce the need to sell productive assets to do so; and
- Often improve food security, especially when share-out of members' accumulated savings coincides with seasonal food shortages or demand for investment in agriculture; but
- Do not consistently improve dietary diversity or child nutrition, unless adapted or integrated with specific activities with such a focus.

One common adaptation with the aim of making savings group activities nutrition-sensitive is using savings groups as a platform for layering health and nutrition messaging or training. Some of the evidence suggests that such layering can be effective under certain conditions.

However, the likelihood that such adaptation will lead to impact on child health and nutrition assumes that (1) the savings group intervention (and any other accompanying livelihood or

market interventions) can adequately overcome the access and availability barriers to adequate health services and a nutritious diet, and (2) with accurate information, resource allocation decisions will automatically favor investment in child health and nutrition instead of competing household priorities.

In the context of Nawiri, neither of these assumptions may be taken as given. The access and availability barriers to both health services and a nutritious diet are significant in the targeted counties, particularly in remote rural communities and for the poor. Savings group interventions combined with nutrition training or messaging alone will not address the supply side challenges. Furthermore, even where complementary market system, health system, and/or other interventions may come together to address such barriers, Nawiri must examine and, if necessary, address the underlying gender and decision-making dynamics to adequately influence investment in child health and nutrition.

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