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Malawi Country Development Cooperation Strategy (CDCS) Impact Evaluation

Baseline Report

April 2015

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MALAWI COUNTRY DEVELOPMENT COOPERATION STRATEGY (CDCS) IMPACT EVALUATION :

BASELINE REPORT

April 2015

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DISCLAIMER

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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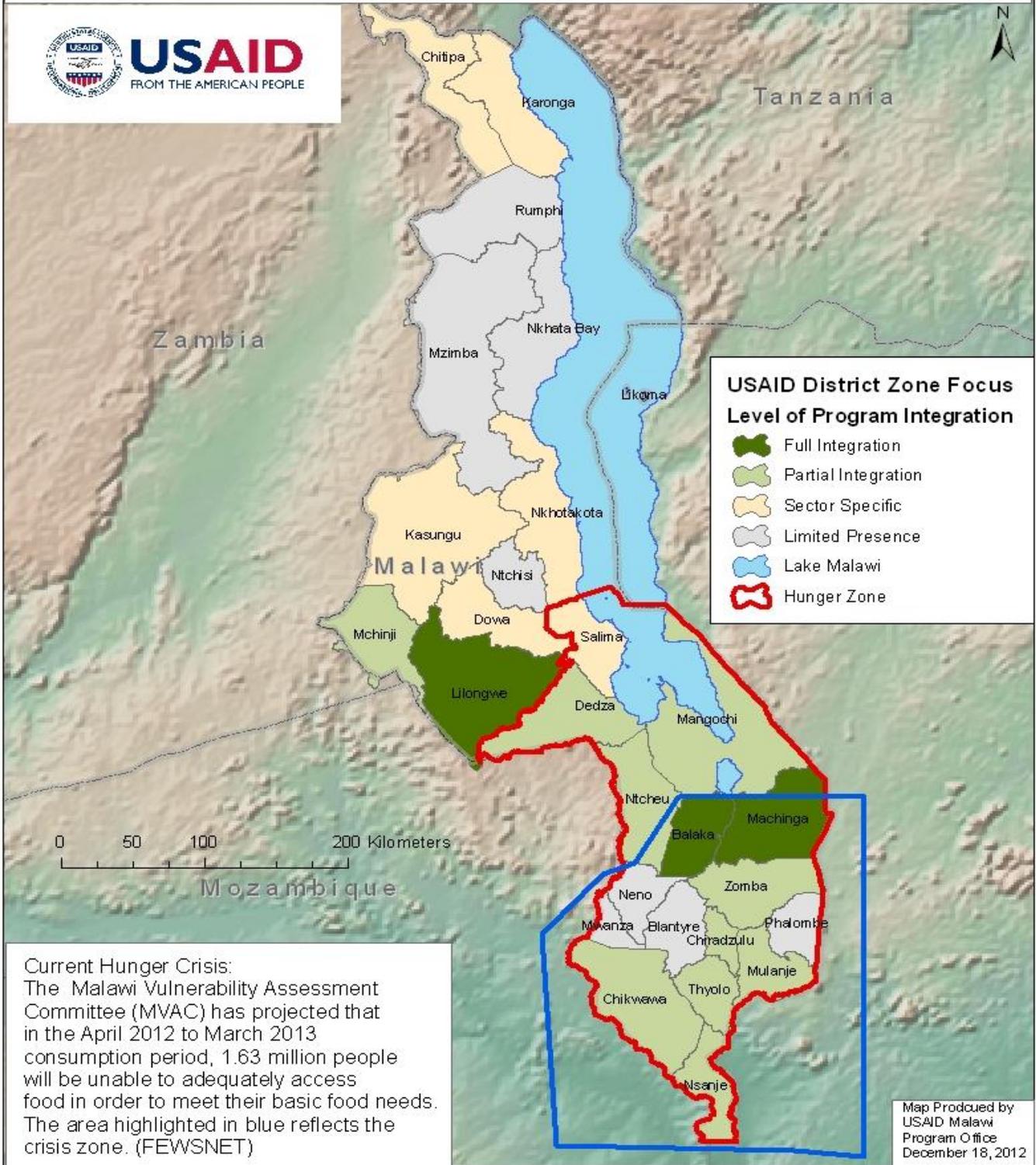
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ACRONYMS

3Cs	Co-location, Coordination and Collaboration
ADC	Area Development Committee
CDCS	Country Development Cooperation Strategy
COR	Contracting Officer's Representative
CPR	Contraceptive Prevalence Rate
CSO	Civil Society Organization
DFAP	Development Food Assistance Program
DG	Democracy and Governance
DHS	Demographic and Health Survey
DO	Development Objective
DP	Donor Programs
EA	Enumeration Area
EGRA	Early Grade Reading Assessment
FFP	Food for Peace
FGD	Focus Group Discussion
FI	Full Integration
FP/RH	Family Planning and Reproductive Health
FSS	Focus States Strategy
FY	Fiscal Year
GDP	Gross Domestic Product
GAO	Government Accountability Office
GoM	Government of Malawi
HFIAS	Household Food Insecurity Access Scale
HSO	Health-Sector Only
IIAT	Implementation and Integration Activity Tracker
IE	Impact Evaluation
IHS	Integrated Household Survey
INVC	Integrating Nutrition in Value Chains
IP	Implementing Partner
IR	Intermediate Result
MVP	Millennium Village Project
NCST	National Commission for Science and Technology
NGO	Non-Governmental Organization
NRM	Natural Resource Management
ODK	Open Data Kits
PAT	Poverty Assessment Tool
PI	Partial Integration

PMP	Performance Management Plan
PPP	Purchase Power Parity
QOL	Quality of Life
RCT	Randomized Control Trial
REACH	Rapid and Effective Action Combating HIV and AIDS
RSC	Rural Score Card
SHA	Stakeholder Analysis
SI	Social Impact
SSDI	Support for Service Delivery Integration
TB	Tuberculosis
USAID	United States Agency for International Development
USD	US Dollars
VDC	Village Development Committee
WALA	Wellness and Agriculture for Life Advancement Project
WEAI	Women's Empowerment in Agriculture Index

USAID Malawi Country Development Cooperation Strategy Geographic Focus



EXECUTIVE SUMMARY

The approved USAID/Malawi Country Development Cooperation Strategy (CDCS) for the period 2013-2018 aims to improve the quality of life of Malawians through three Development Objectives: (i) improvement in social development, (ii) increase in sustainable livelihoods, and (iii) assurance that citizen rights and responsibilities are exercised. To achieve the development objectives, the CDCS focuses its investments and integrates activities within and across all sectors, and places greater emphasis on building host country capacity to lead and manage its own development (USAID/Malawi, CDCS Document, 2013). The Mission hypothesizes that *“if assistance is integrated then development results will be enhanced, more sustainable, and lead to achievements of our CDCS goal: Malawians’ quality of life improved”* (USAID/Malawi, 2013), and *“If a greater emphasis is placed on building the organizational capacity of local CSOs and ministries, then their governance, leadership, financial and program management will improve and subsequently increase the sustainability of programming and improve quality of life outcomes.”*

In May 2014, the USAID mission in Malawi awarded Social Impact (SI) with a five-year contract (2014 – 2018) to evaluate the impact of the CDCS integration approach. The impact evaluation will determine the validity of USAID/Malawi’s CDCS development hypothesis, and will inform USAID/Malawi in further integration efforts and future planning.

In order to measure the impact of CDCS, baseline conditions prior to launch of integration efforts were assessed during November – December 2014 through household surveys, implementation and integration activity mapping and rural scorecards with the community. This baseline report discusses the study background, methodology, sampling, baseline findings, conclusions, and next steps for the impact evaluation. Specifically, this report establishes the baseline quality of life conditions for households and community in areas sampled for the evaluation, and documents baseline activities, integration status and future plans of implementing partners (IPs) in the evaluation areas.

EVALUATION PURPOSE, QUESTIONS AND CORE INDICATORS

The purpose of the evaluation is to determine the validity of USAID/Malawi’s CDCS integration hypothesis, and assist USAID/Malawi in determining if an integrated methodology produces sustainable development results leading to improvement in quality of life of Malawians.

The Mission has identified two evaluation questions that emerge from this integrated approach, including:

1. What impact has the integration of USAID investments through the CDCS Development Objectives had on improving the quality of life for targeted communities?
 - a. Is there a combination of programs or activities that resulted in greater impact on the quality of life of targeted communities?
2. To what extent has USAID-supported capacity building of local institutions resulted in improved community participation, sustainability and ownership of development interventions?

This baseline report addresses Question 1 only. Question 1a could not be fully addressed in this baseline due to a very limited number of projects combinations available, but will be addressed at mid and endline. This baseline report also does not address Question 2 since no specific capacity building activities were planned at the time of the baseline for implementation.

Quality of life (QOL) is defined for the study as a multi-scale, multi-dimensional concept comprising interacting objective elements - consisting of socio-economic indicators to reflect the extent to which human needs are met - and the subjective elements that capture the self-reported levels of happiness, pleasure, and fulfillment and incorporate psychological security.

The QOL definition aligns well with the indicators of intermediate results that capture improvements in access, use and quality of services, poverty levels and participation in civic activities associated with the Mission's three development objectives. Access in this study refers to availability (including geographical proximity), awareness (including knowledge), and available opportunities. Use refers to adoption and actual utilization of the services (including practices) and realization of opportunities. Affordability and quality of services affect use of services. While affordability is primarily related to demand side aspects, and quality of services is primarily a supply side aspect, affordability can affect quality of services.

The core indicators used in this evaluation to measure impacts in terms of various aspects of quality of life include development objectives (DOs) and Intermediate Results (IR) indicators within the Malawi Mission's Performance Management Plan. This baseline study either contributes to the indicators directly or provides illustrative support and a sense of change toward its goal of improved quality of life over time. In selecting which indicators to capture, SI first considered the objectives of the CDCS evaluation and related sampling needs as well as survey length and consequent data quality and respondent retention. All core indicators are described in the findings section below.

EVALUATION DESIGN, METHODS AND LIMITATIONS

Evaluation Design: In order to address evaluation questions I and Ia above, the impact evaluation is designed as a quasi-experiment using treatment and comparison zones to assess changes in quantitative quality of life measures of Malawians that can be attributed to CDCS and supplements this with qualitative information to provide a contextual understanding and background on program design and implementation. USAID/Malawi has classified the 28 districts where it is operating according to integration requirements under CDCS. This study, with Malawi CDCS program design in mind, defines fully integrated programs as involving the following components: *more than one implementer, more than one sector, co-located programs*, and implementers must *deliberately link work plan activities*. Partial and non-integrated programs will lack one or more of the above criteria. The impact evaluation utilizes USAID's classification and categorizes the *full integration zone* as the treatment arm and the *partial integration* and *single sector only zones* as two comparison arms. Since *education sector only zones* are already been included in an on-going impact evaluation of USAID-funded primary education projects, and since health-sector activities are generally carried out in all other zones, this study considers three study arms: (i) Full Integration (FI) zone as treatment arm, (ii) Partial Integration (PI) and Health-sector Only (HSO) zones as comparison arms. The impact evaluation will compare incremental and per-unit changes in quality of life metrics between the three study arms to understand impacts. If the integration hypothesis is correct, greater improvements to quality of life indicators over a five-year period in the full integration zone will occur compared to the partial integration and single sector-specific zones. As stated above, quality of life is captured by indicators related to intermediate results under each of the three CDCS development objectives: social development improved, sustainable livelihoods increased, and citizens' rights and responsibilities exercised.

Sampling procedure: A multi-stage sampling approach was used in the evaluation. First, districts were selected within the PI and HSO study arms to match with the three focus FI districts. Implementation of a common project across all three arms – the Support for Service Delivery Integration (SSDI) project within the USAID's health-sector portfolio - and select characteristics such as population and poverty were used to match districts in PI and HSO with FI districts. Second, in each of the districts chosen in the FI, PI and HSO zones, catchment areas covering an 8km radius around each SSDI facility were mapped.

Then, within these catchment areas, enumeration areas (EAs) were randomly selected, and villages were sampled within the each selected EA. Households were then systematically selected to participate in the evaluation for surveys. Communities were purposively selected for focus group discussions (FGDs).

Sample: Eight districts were chosen for the evaluation – Rural Lilongwe, Balaka and Machinga in the FI zone, Rural Zomba, Mangochi and Nsanje in the PI zone, and Karonga and Nkhotakota in the HSO zone formed the sample districts. Approximately 38 EAs per district were required for the sample, and within each EA, about 15 households were targeted to achieve required power. A total of 4,743 households were included in the 2014 baseline survey, drawn from 309 EAs across all districts except Nsanje. An additional 571 households in Nsanje will be targeted in 2015 when Development Food Aid Program (DFAP) implementation targeting is established.

Data collection: Data for the impact evaluation is being collected in three phases – (i) at baseline in 2014, prior to implementation of CDCS, (ii) midline in 2016, and (iii) endline in 2018.

Data collection tools: Baseline data were gathered using a quantitative household survey tool, a rural score card (RSC) to conduct FGDs, and an implementation and integration activity tracker (IIAT) to capture the status of integration and implementation of USAID projects in the study areas.

Data analysis: Household survey baseline data were cleaned and analyzed using Stata 13 software. Summary statistics were calculated for each core indicator, and results for households residing in partial and full integration areas were pair-wise tested for differences with health-sector only areas. Disaggregation by female and youth-headed households was conducted, wherever relevant, to identify disparities in quality of life conditions or behaviors. Qualitative data from FGDs were coded in Atlas.ti software and analyzed for cross-cutting themes and common narratives in order to understand the Malawian context and construct local definitions of key indicators.

Limitations of the evaluation design: The above evaluation adheres to rigorous industry standards, is flexible to accommodate USAID’s on-going and future programs that focus on improving QOL, is not intrusive to or limiting of any IP activities, builds in learning and adaptation in the design through adaptive categorization of integration level achieved over time, and could be first of few IEs of such a CDCS approach.

It is to be noted, however, that under the CDCS implementation plans it is not possible for this evaluation to isolate the impacts of each of the three C’s of Mission’s integration plan (co-location, coordination, and collaboration). For example, collaboration between implementers on work plans cannot be separated from the effects of increased investments made in partial and full integration districts and from the capacity building in full, partial and health-sector only study districts. This is because there are no sufficiently comparable groupings in which one aspect of integration occurs without the other. This issue was explored extensively and is described in the full inception report. However, this in no way diminishes the utility of this evaluation. The study adds considerable value since measurement of the impact of increased multi-sector investment in focused areas alongside the integration approach for service delivery and capacity building (i.e., the “full CDCS package”) is an important question of great interest to the development community, that has been explored in smaller-scale programs such as Millennium Villages in a more narrow sense, yet without much rigorous evaluation. The study would help understand the impacts of the full package of the CDCS approach compared to a partial CDCS package.

Another limitation relates to evaluation question 1a. Empirical measurement the impact of various combinations of programs or activities requires a sufficient sample size representing each unique combination of interest. Given the high number of combinations across up to six sectors and three or more levels of activity integration, it will likely not be possible to rigorously and quantitatively compare all

combinations of programs and activities. Rather, SI will disaggregate impact results according to common combination levels, with USAID interests in mind, and provide suggestive evidence of differential impact, supplemented by qualitative data and analysis.

FINDINGS

The baseline conditions, based on household survey data, for the core indicators are presented in Table I. These indicators will be tracked for changes at midline and endline in all three study zones (FI, PI and HSO) and compared for differences to infer impacts.

Table I. Baseline Results by Core Indicators in Study Areas

DO/IR	Results	Indicators	Indicator description (used for baseline)	Total	HSO	PI	FI
CDCS Primary	Improving Quality of Life of all Malawians	Percent living on less than \$1.25/day	Percent of sampled households living under international PPP\$1.25 a day	57%	42%	69%	62%
DO1	Improvement in social development	Fertility	Birth rate (live births per 1000)	29.0	28.0	32.0	27.0
		Under 5 mortality	Percent sample households experienced death of a child under 5 in the past year.	4%	4%	5%	5%
		Percent of students demonstrate reading comprehension at grade level	Percent current 2nd graders (who completed grade 1) who can read Chichewa	7.1%	5.1%	8.8%	7.7%
IR 1.1:	Availability of Essential Social Services Expanded	Number of individuals who receive HIV counseling, testing and results	Percent of individuals in the sample receiving HIV counseling, testing and results in the past 12 months	61%	63%	58%	62%
		Percent of population with access to essential health services	Percent of the sampled households reporting use of public clinics or hospitals in the past 12 months	80%	81%	79%	79%
IR 1.2:	Quality of Essential Social Services Improved	Percent of health facilities with drug stock outs	Percent of sample households reporting any stock outs within 12 months.	66%	61%	62%	72%
DO2	Increase in sustainable livelihoods	Value of production of soybean and groundnuts	Soy: Average value (in USD) of the total amount of soybeans sold by sampled households	\$38.1	\$42.2	\$33.28	\$39.29
			Groundnuts: Average value (in USD) of the total amount of groundnuts sold by sampled households	\$59.8	\$73.2	\$42.9	\$61.7
IR 2.1	Resiliency to Climate Change Strengthened	Number of communities implementing risk reducing practices to improve resiliency to climate change	Percent of sampled households that adopted a measure in past year that may improve resiliency to climate change	34%	32%	32%	38%
IR 2.2	Production of targeted commodities increased	Gross profit margin in soybean, groundnuts and dairy	Soy: Average gross margin (revenue minus inputs (USD) per hectare) for households in the sample, divided by households that cultivate soy	\$202.0	\$281.0	\$206.5	\$194.4

			Groundnuts: Average gross margin (revenue minus inputs (USD) per hectare) for households in the sample, divided by households that cultivate groundnuts	\$291	\$429.2	\$190.6	\$269.9
		Number of hectares under soy or groundnut cultivation	Soy: Average Hectares of soy planted by sampled households in the last production year (among all households in sample).	0.03	0.0	0.0	0.0
			Groundnuts: Average Hectares of groundnuts planted by sampled households in the last production year (among all households in sample).	0.2	0.2	0.2	0.3
IR 2.3	Nutrition for targeted communities improved	Percent of women of reproductive age consuming diverse diet (soy, groundnut or dairy)	Percent of sampled households in which the main woman ate soy in prior 24 hours	6%	8%	4%	6%
			Percent of sampled households in which the main woman ate groundnuts in prior 24 hours	23%	22%	22%	24%
		Percent of children aged 6-23 months consuming a minimum acceptable diet apart from breast milk (continued breast feeding, age appropriate dietary diversity and age appropriate frequency of feeding)	Among <u>breastfed children</u> (calculated per PMP guidance) in percent	12%	19%	10%	6%
			Among <u>non-breastfed children</u> (calculated per PMP guidance) in percent	0%	0%	0%	0%
IR 2.4	Agricultural trade expanded	Volume of soybean, groundnuts produced	Soy: Average yield (KG / ha) in past cropping season among sampled households that cultivate soy	596.4	797.5	454.8	616.5
			Groundnuts: Average yield (KG / ha) in past cropping season among sampled households that cultivate groundnuts	697.9	920.9	629.2	613.0
IR 3.2	Citizens' participation in decision-making strengthened	Percent of households in focus districts that understand roles of districts, ADCs and VDCs	Percent of households that understand the roles of local government	45%	45%	45%	44%

Cross-cutting SIR 2:	<i>Use of technology and innovation increased</i>	Percent of mobile phone users accessing or sending information (prices, health statistics) or reporting on public services (e.g., corruption, teacher attendance) -	Percent of sample with mobile phone access reporting use of mobile public service information, reporting or for business	13%	15%	11%	13%
Cross-cutting SIR 4:	<i>Positive behaviors adopted</i>	CPR (contraceptive prevalence rate) increased	Percent of women of reproductive age in the sampled households reporting current use of a contraceptive method	62%	58%	61%	66%
		Number of farmers applying improved management practices	Percent of sampled households that participate in farming that reported use of improved management practices	34%	32%	32%	38%
		Number of volunteer hours by type of service (e.g., health, reading, NRM protection, HIV/AIDS home care)	Percent of households who volunteered in last 6 months	51%	46%	57%	52%
		Percent of couples receiving HIV counseling, testing and results	Percent of couples in the sample in which both people received HIV counseling, testing, and results in the past 12 months	81%	78%	82%	82%

The qualitative data gathered from focus group discussions using rural scorecards provided a rich context for the indicators above. They showed how community members *perceive* poverty, access and quality of essential services, and well-being. The discussions indicate that poverty is prevalent in all study zones, and affects food insecurity, levels of use of basic services, and quality of services received. Also, gender-specific roles per local beliefs and norms tend to limit the participation of and decision making by women in agriculture.

CONCLUSIONS

Basic awareness about essential services and improved practices existed but was incomplete. Most households were aware of basic services offered at the public clinics and used them when in need of health services. In some focus groups, participants perceived that voluntary counselling and testing for HIV was compulsory, especially if women needed antenatal care and nutritional support; however, there was no evidence that this perception was true. About 70% of the households were aware of village development councils and 73% of respondents were aware of issues that the local councilor promised the community he/she would address if elected. However, most of these households did not know much about the roles and responsibilities of these bodies. Nearly 75% of respondents were familiar

with the idea of climate change and the need to adjust their farming practices to adapt to climate change, but most of them did not know about mitigation measures. Most FGD participants had some understanding of food diversity, nutrition, and the need for breast feeding. Some perceptions expressed during focus group discussions about lower food production in recent years being the cause of poor nutrition rather than lack of knowledge could not be supported by household data.

Availability of basic services was generally good, but room for improvement exists. Geographic proximity to an SSDI-supported health facility within 8km was used as the first criterion to select households surveyed for the baseline, and proximity of EGRA-supported schools was another criterion in certain districts. Therefore, it was not surprising that access to public health clinics and primary schools as measured by geographic proximity was satisfactory in all study areas. Most respondents said they received HIV counselling and testing from public health centers and hospitals. School enrollment was high for children under age 12. Also, FGD participants stated that most households have easy access to a local food market and that diverse foods were available in local markets. In spite of these positive aspects of availability, some areas of deficiency were noted. For example, secondary schools were often not available within close proximity to the surveyed households. People reported low quality of certain aspects of both education and health services. Availability of teaching materials was inadequate, class room space and trained teachers in primary schools were major issues. In health facilities, people reported long waiting time and drug stockouts to be the most common problems at public clinics and hospitals.

Use of many basic services and improved practices was generally limited. The baseline findings showed a high usage of public clinics in that 95% of the households reported taking their children to a hospital or clinic when needed. However, only two thirds of the children under five in sampled households slept under a bed net. While voluntary testing and counselling services were used, a 60% VCT for individuals and contraception prevalence rate of 62% are still below the targets set by many programs for these services. While primary school enrollment was high, most second graders could not read at their grade level in Chichewa. School dropout rates increased as children reached their teenage years, at times due to pregnancy and the need to seek employment. While school fees may not be a major barrier, other expenses such as clothing and books were viewed by some as rendering schooling prohibitive. While diverse foods were available in the market some FGD respondents claimed they could not consume them due to limited affordability. Use of improved agricultural practices, mobile phones for business and reporting, nutrition assistance programs, and agricultural training programs were very low. While 75% of the households surveyed were aware of climate change, only 12% of the households reported adopting practices that might increase farm productivity in the face of climate change. Agricultural training provided by the government was less used by women, possibly due in part to societal beliefs and norms regarding roles for women in agriculture production and decision-making. Participation in government processes was also limited. While 73% of sampled households were aware of issues that the local Councilor promised the community he or she would do if elected, only 27% reported that they met with any civil society groups or local government candidates to express their viewpoint on any issues to a political candidate.

Quality of basic services and affordability limited the effective use of many basic services. It was often stated in focus group discussions that quality of health services was poor due to long wait times and drug stock outs. Low literacy rates among the children may relate to reported poor quality of teaching and overcrowding. Most people were pessimistic in their political perspectives, as only 25% believed that the Councilor would honor pre-election promises, and 29% had confidence in the local government's ability to manage finances. At times, better quality of health services were provided to only those who could afford the medical expenses. While diverse types of foods were available in local markets and people were aware of food diversity, they could not consume them due to limited affordability.

Poverty was prevalent, and self-reported well-being showed most households as poor. More than half of the sampled households lived below PPP\$1.25 a day per capita. The well-being assessment scores were the lowest among female-headed households relative to male-headed households, especially for health conditions.

Some baseline conditions differed significantly among the three study arms.

- The core CDCS indicator of poverty rate in HSO was the lowest, with poverty being more prevalent in FI and PI districts by at least 20 percentage points FI districts.
- In education, all three study arms were similar, although primary school aged students' ability to read was higher in FI compared to HSO, but less than in PI.
- The availability of essential social services for health facilities were similar across all study zones, but the quality of health services differed with HSO reporting less drug stock outs compared to FI.
- The indicators of sustainable livelihoods in terms of value of production, volume of production and gross profit margin of soybeans and groundnut showed that FI performed significantly lower compared to HSO.
- Nutrition among children of age 6-23 months was worse in FI relative to HSO and PI.
- Positive behaviors in terms of use of contraceptives, use of improved farming practices, and couples receiving counseling and testing for HIV were the highest in FI among the three zones.

Integration among IPs, especially across sectors, was very limited. CDCS has prompted discussions among the IPs, and many have identified co-located projects or overlapping goals in projects for potential integration. However, many of the planned collaboration activities appear to be within the health-sector IPs and therefore may not essentially meet the CDCS integration definition/goal that envisions integration across IPs and across sectors.

BACKGROUND

The approved USAID/Malawi Country Development Cooperation Strategy (CDCS) for the period 2013-2018 aims to improve the quality of life of Malawians through three Development Objectives (DOs): (i) improvement in social development, (ii) increase in sustainable livelihoods, and (iii) assurance that citizen rights and responsibilities are exercised. To achieve the development objectives, the CDCS focuses its investments and integrates activities within and across all sectors, and places greater emphasis on building host country capacity to lead and manage its own development (USAID/Malawi, CDCS Document, 2013).¹ The Mission hypothesizes that “if assistance is integrated then development results will be enhanced, more sustainable, and lead to achievements of our CDCS goal: Malawians’ quality of life improved”, and “If a greater emphasis is placed on building the organizational capacity of local civil society organizations and ministries, then their governance, leadership, financial and program management will improve and subsequently increase the sustainability of programming and improve quality of life outcomes.”

In May 2014, the USAID mission in Malawi awarded Social Impact (SI) with a five-year contract (2014 – 2018) to evaluate the impact of the Country Development Cooperation Strategy on the quality of life of Malawians. The impact evaluation will determine the validity of USAID/Malawi’s CDCS development hypothesis, and will inform USAID/Malawi in further integration efforts and future planning.

In order to test the CDCS hypotheses, baseline conditions prior to launch of integration efforts were assessed during November – December 2014 using household surveys, implementation and integration activity tracker (IITA) and rural score cards (RSCs) with the community. This report discusses the study background, methodology, sampling, baseline findings, conclusions and next steps for the impact evaluation. Specifically, this report establishes the baseline quality of life conditions for households and community in areas sampled for the evaluation, and documents baseline activities, integration status and future plans of implementing partners (IPs) in the evaluation areas.

USAID/MALAWI CDCS STRATEGIC APPROACH

In order to achieve greater integration, efficiencies and synergies across sectors, following the launch of its CDCS in 2014, USAID/Malawi is focusing and concentrating investments geographically in selected districts (see map). A **3-C approach** is being used that aims to foster (1) **co-location** of interventions (2) **coordination** within USAID and with other donor initiatives, and (3) **collaboration** among implementing and donor partners. To that end, the Mission employs a few key operational practices in three focus districts -- *Balaka, Lilongwe Rural, and Machinga* -- that might lead to improved quality of life over and above the other 25 districts in Malawi where USAID is operating. First, these focus districts will receive increased investment across all sectors (education, health, nutrition, agriculture, economic growth, food security, and democracy and governance (DG)) through co-located projects. Second, the implementing partners must collaborate and coordinate on the integration of their work plans such that activities across sectors would deliberately work together to collectively boost development outcomes of various sectors.

The Mission also aims to increase investment and build Malawian capacity to lead and manage its own

¹ USAID/Malawi. March 19, 2013. “Country Development Cooperation Strategy Public Version, 2013-2018”. <http://www.usaid.gov/malawi/cdcs>

development by building capacity of the Government of Malawi (GoM) to manage, implement and sustain development programs; empowering citizens to become more involved and informed in order to exercise their rights and responsibilities; and by increasing the share of Mission programming through local civil society organizations (CSOs, for-profit and not-for-profit). Given the widespread capacity issues, USAID intends to strengthen all aspects of implementing partners' organizational capacity, including both that of public and non-governmental institutions, to create a more capable cadre of local implementers. Together, these initiatives aim to improve the quality of life for Malawians by increasing the government's capacity to provide services, and positively impacting people's health, economic prospects, and ability to demand services and participate in the decision-making process.

EVALUATION PURPOSE

To test the integration hypothesis, USAID/Malawi has concentrated the majority of its resources and programming in three of Malawi's 28 districts. The Mission's theory of change suggests that through co-location, coordination and collaboration, synergies will develop among USAID projects and activities. These synergies will increase the likelihood and magnitude of impacts in other activities, having a reinforcing effect on all programming efforts.

The purpose of the evaluation is to determine the validity of USAID/Malawi's CDCS integration hypothesis, and assist USAID/Malawi in determining if an integrated programming approach produces sustainable development results leading to improvement in quality of life of Malawians.

As of March 2014, a CDCS has been approved for 23 USAID Missions across the Middle East, Latin America, and Africa, 15 of which are located in Africa.² While some performance evaluations have been carried out, no impact evaluation had previously been designed to test the effectiveness of a CDCS approach, making this Malawi CDCS evaluation a unique opportunity for USAID to evaluate a broad country-wide strategy using rigorous methods.

This evaluation is expected to inform strategic implementation, inform the Malawi Mission's learning and assist in adapting the Mission Results Framework. As USAID/Malawi learns (through the evaluation) if and how the integration is successful in achieving desired outcomes, the Mission will have the opportunity to adjust and adapt the CDCS approach throughout the implementation. Evaluation results will be shared with USAID/Malawi staff, the larger Agency, implementing partners, sub partners, government counterparts and external stakeholders. Results will also inform other USAID Missions on the validity of the integration hypothesis and how the overall process of synthesizing complementary sector activities in select areas can be strengthened to obtain better development results.

EVALUATION QUESTIONS

The Mission has identified two evaluation questions that emerge from this integrated approach, including:

- I. What impact has the integration of USAID investments through the CDCS Development Objectives had on improving the quality of life for targeted communities?
 - a. Is there a combination of programs or activities that resulted in greater impact on the quality of life of targeted communities?

² See <http://www.usaid.gov/results-and-data/planning/country-strategies-cdcs>

2. To what extent has USAID-supported capacity building of local institutions resulted in improved community participation, sustainability and ownership of development interventions?

This baseline report addresses Question 1 only.

Question 1a could not be fully addressed in this baseline due to a very limited number of projects combinations available, but will be addressed at mid and end-line. This baseline report also does not address Question 2 since no specific capacity building activities were planned at the time of the baseline for implementation.

CORE INDICATORS AT BASELINE

Defining Quality of Life

The primary goal of the Malawi CDCS approach is improvement in quality of life (QOL) of Malawians. The QOL measures are designed to capture interrelationships between economic, social and environmental aspects of life to estimate societal welfare. This definition of quality of life goes beyond conventional economic measures such as Gross Domestic Product (GDP)/capita (Hall, 2009). USAID/Malawi's definition of QOL relates to the opportunities citizens are afforded to meet human needs built in the forms of human, social and natural capital, and the policy options that are available to enhance these opportunities (Costanza et al., 2007).³ Recent research on QOL measurement falls into two categories. The first method utilizes objective measures of quantifiable social or economic indicators to reflect the extent to which human needs are met. This measure is assessed through social, economic, and health indicators to estimate the extent to which basic needs for subsistence, reproduction, security, and affection are fulfilled. The second method utilizes self-reported levels of happiness, pleasure, and fulfillment-- subjective well-being -- and attempts to incorporate psychological security. This dimension is assessed through questions about happiness, life satisfaction, utility, and welfare (Costanza et al., 2007). These subjective measures can provide a much broader view of the quality and consequences of development than objective measures alone (Hagerty, 2001).

For this evaluation, we consider QOL as a multi-scale, multi-dimensional concept composed of interacting objective and subjective elements to estimate a combined set of QOL measures that falls into the following categories developed by Hall, 2009: (i) Human well-being — health, knowledge and understanding, freedom and security, relationships, work and play, and subjective well-being, and (ii) Economy, governance, and culture — income and wealth, democratic participation, access to services, order and safety, political rights, responsiveness, and transparency.

At the inception phase, Social Impact identified key Development Objectives (DO) and Intermediate Results (IR) indicators that the baseline survey could either capture directly or could contribute illustrative supporting data, to provide the Mission a sense of change in QOL to achieve its goals over time. In selecting which indicators to capture, SI first considered the objectives of the CDCS evaluation and related sampling needs as well as survey length and consequent data quality and respondent retention.

In line with USAID/Malawi mission's DOs and evaluation questions, core evaluation indicators for the

³ Several QOL measures that are development oriented have been often used to compare QOL across countries and regions (e.g., HDI; the World Bank includes social and environmental aspects when assessing the wealth of nations.) In addition, many countries and regions have developed their own methodologies for measuring and tracking QOL within their areas.

impact evaluation focus on outcomes that can be directly affected by integration efforts.⁴ Therefore, the evaluation indicators capture Malawians' access to and quality of health and education services; changes in their economic security through household welfare and food security through nutrition status; and ability to exercise their civil rights through participation and actions. These are also identified by the Mission as intermediate results to achieve the DOs.⁵

Definitions for access and use differ considerably in literature. Many studies define access as just physical proximity and number of service points, and use as actual reporting of use of services. Several studies, especially related to health services, consider data on use to also capture access (Allin, 2007; Higgs, 2004; Gulliford et al, 2002). Studies related to financial services define use as a subset of access since those who could access be nonusers by choice and those who would prefer to use may not have access (Porteous, 2005, to mention a few).⁶ This study, since it examines various services, defines access and use of services based on the literature and core study indicators. Therefore, access refers to availability (including geographical proximity) and awareness (including knowledge). Use refers to adoption and actual utilization of the services (including practices). Affordability and quality of services affect use of services. While affordability is primarily related to demand side aspects, and quality of services is primarily a supply side aspect, affordability can affect quality of services.

The indicators, for which SI gathered information from Malawians through household surveys and focus group discussions during this baseline to understand if the development objectives have been met, are shown in Table 2.

⁴ The Mission has repeatedly stated that integration and the 3Cs are a process or way of doing development and not a strict program intervention. Therefore, the effects of integration are well captured by the outcomes it can affect directly.

⁵ In some cases, the Mission's Performance Monitoring / Management Plan (PMP) core indicators could not be measured directly. For example, the indicator "IR 1.1: Percent of population with access to essential health services", defined in the PMP as those living within 8km of a health facility, was impossible to capture based on this evaluation design and since the sampling frame included only households living within 8km of SSDI-supported facilities. Rather, the baseline survey provides a supplementary measure of *usage* of those nearby health facilities, to contribute to USAID's understanding of health access related to this indicator.

⁶ See: Allin, Sara, Cristina Masseria, Corinna Sorenson, Irene Papanicolas and Elias Mossialos. (June 2007), "Measuring inequalities in access to health care. A review of the Indices", Research Note, The London School of Economics and Political Science. <http://ec.europa.eu/social/BlobServlet?docId=3952&langId=en>; Higgs, Gary, (2004). "A Literature Review of the Use of GIS-Based Measures of Access to Health Care Services", Journal of Health Services & Outcomes Research Methodology, Volume 5, Pp. 119-139, Springer Science Publication. http://www.unm.edu/~lspear/geog525/fulltext_Higgs.pdf; Gulliford, M., J. Figueroa-Munoz, et al. (2002). "What does 'access to health care' mean?" Journal of Health Services Research and Policy, Volume 7, Number 3, Pp186-188.; Porteous, D. (2005). *The Access Frontier as an Approach and Tool in Making Markets Work for the Poor*. Somerville, MA: Bankable Frontier Associates. <http://bankablefrontier.com/wp-content/uploads/documents/access-frontier-as-tool.pdf>

Table 2. Core Impact Indicators at Baseline

DO/IR	Results	Indicators	Indicator description (used for baseline)
CDCS Primary	Improving Quality of Life of all Malawians	Percent living on less than \$1.25/day	Percent of sampled households living under international PPP\$1.25 a day
DOI	Improvement in social development	Fertility	Birth rate (live births per 1000)
		Under 5 mortality	Percent sample households experienced death of a child under 5 in the past year.
		Percent of students demonstrate reading comprehension at grade level	Percent current 2nd graders (who completed grade 1) who can read Chichewa
IR 1.1:	Availability of Essential Social Services Expanded	Number of individuals who receive HIV counseling, testing and results	Percent of individuals in the sample receiving HIV counseling, testing and results in the past 12 months
		Percent of population with access to essential health services	Percent of the sampled households reporting use of public clinics or hospitals in the past 12 months
IR 1.2:	Quality of Essential Social Services Improved	Percent of health facilities with drug stock outs	Percent of sample households reporting any stock outs within 12 months.
DO2	Increase in sustainable livelihoods	Value of production of soybean and groundnuts	Soy: Average value (in USD) of the total amount of soybeans sold by sampled households
			Groundnuts: Average value (in USD) of the total amount of groundnuts sold by sampled households
IR 2.1	Resiliency to Climate Change Strengthened	Number of communities implementing risk reducing practices to improve resiliency to climate change	Percent of sampled households that adopted a measure in past year that may improve resiliency to climate change
IR 2.2	Production of targeted commodities increased	Gross profit margin in soybean, groundnuts and dairy	Soy: Average gross margin (revenue minus inputs (USD) per hectare) for households in the sample, divided by households that cultivate soy
			Groundnuts: Average gross margin (revenue minus inputs (USD) per hectare) for households in the sample, divided by households that cultivate groundnuts
		Number of hectares under soy or groundnut cultivation	Soy: Average Hectares of soy planted by sampled households in the last production year (among all households in sample).

			Groundnuts: Average Hectares of groundnuts planted by sampled households in the last production year (among all households in sample).
IR 2.3	Nutrition for targeted communities improved	Percent of women of reproductive age consuming diverse diet (soy, groundnut or dairy)	Percent of sampled households in which the main woman ate soy in prior 24 hours
			Percent of sampled households in which the main woman ate groundnuts in prior 24 hours
		Percent of children aged 6-23 months consuming a minimum acceptable diet apart from breast milk (continued breast feeding, age appropriate dietary diversity and age appropriate frequency of feeding)	Among <u>breastfed children</u> (calculated per PMP guidance) in percent
			Among <u>non-breastfed children</u> (calculated per PMP guidance) in percent
IR 2.4	Agricultural trade expanded	Volume of soybean, groundnuts produced	Soy: Average yield (KG / ha) in past cropping season among sampled households that cultivate soy
			Groundnuts: Average yield (KG / ha) in past cropping season among sampled households that cultivate groundnuts
DO3 - IR 3.2	Citizens' participation in decision-making strengthened	Percent of households in focus districts that understand roles of districts, ADCs and VDCs	Percent of households that understand the roles of local government
Cross-cutting SIR 2:	<i>Use of technology and innovation increased</i>	Percent of mobile phone users accessing or sending information (prices, health statistics) or reporting on public services (e.g., corruption, teacher attendance) -	Percent of sample with mobile phone access reporting use of mobile public service information, reporting or for business
Cross-cutting SIR 4:	<i>Positive behaviors adopted</i>	CPR (contraceptive prevalence rate) increased	Percent of women of reproductive age in the sampled households reporting current use of a contraceptive method
		Number of farmers applying improved management practices	Percent of sampled households that participate in farming that reported use of improved management practices
		Number of volunteer hours by type of service (e.g., health, reading, NRM protection, HIV/AIDS home care)	Percent of households who volunteered in last 6 months
		Percent of couples receiving HIV counseling, testing and results	Percent of couples in the sample in which both people received HIV counseling, testing, and results in the past 12 months

It is important to note that several indicators contribute to the measurement of quality of life (QOL). These component indicators have been examined separately, since aggregating all measures into one index could complicate interpretation of results (for example, assigning attribution and determining which components are behind the changes in the overall index); a composite index alone would serve to oversimplify a complex system and give potentially misleading signals.⁷

QOL measures have been disaggregated to study subpopulations and to examine elements such as social progress and well-being across populations (e.g., gender, age, especially those considered as youth).

The primary data sources are supplemented with secondary data from other on-going evaluations⁸ and studies, to the extent possible, in order to understand whether the DOs are achieved to collectively improve QOL of Malawians. It is important to note that most secondary data will not be aligned with the timing or with all locations of this impact evaluation; therefore, many secondary data sources will only provide illustrative supplemental evidence at midline or other times within the evaluation timeline and context to better explain our results.

While the above indicators are based on the literature, validated through years of research and evaluations, and highly relevant for assessing impact over time in the Malawian context, the SI evaluation team recognizes that there is some level of subjectivity to individuals' perceived experiences when it comes to quality of life. Therefore, while the primary focus of this report is on capturing QOL using quantitative measures / indicators, the team also gathered qualitative data on individuals' perceptions of quality of life as it pertains to poverty, food security, access to health care and education, and participation in local governance. Since the qualitative data reflect lived experience and perceptions of people which is highly subjective and varies from one individual to the next, they could at times conflict with quantitative data gathered in this study or with trends identified in previous studies.. Furthermore, the team worked with a small qualitative sample. Therefore, findings drawn from the qualitative data may not be representative of the population of individuals and households that participated in the household survey.

⁷ In addition, philosophical problems in combining disparate domains of life into QOL are considerable, weights for combining components vary greatly, and most public policy interventions are best informed through tracking of the QOL components (Hagerty, 2001). A composite index requires some judgment regarding the relative weights to be applied to the components, While weighing of components to create a composite QOL index could employ several methodologies (e.g. default or equal weighting, respondent ranking, two-stage factor analysis, or conjoint analysis), each approach has its own limitations and would yield different aggregate results. Analysis of the individual components, on the other hand, allows the examination of each dimension of QOL in a much finer-grained way.

⁸ Information from other impact evaluations, such as USAID/Malawi's EGRA, FTF impact evaluation, and USAID's health and economic growth sector activities, Demographic and Health Survey (DHS) and Integrated Household Survey (IHS-3) surveys will be used wherever technically and logistically feasible and economical, to provide indicators that can be combined with our indicators measured from household surveys to understand QOL changes.

LITERATURE REVIEW OF INTEGRATED APPROACHES

Defining Integration

There is no concise and universally accepted definition of integration. The US Government Accountability Office (GAO) (2011) provides a working definition of collaboration by stating that it is “any joint activity by two or more organizations that is intended to produce more public value than could be produced when the organizations act alone.” The GAO also distinguishes collaboration from coordination and integration. While collaboration is an arrangement which relies, to a substantial degree, on voluntary or discretionary participation among the members, who are relatively equal or at least have parity in such an activity and arrangement, coordination is an arrangement in which a lead agency or officer directs an operation, project, or program among one or more other agencies,⁹ and integration is an arrangement which brings together relevant parts of agencies on either a long-term or a temporary ad hoc basis, to carry out a particular operation, project, program, or policy and may involve non-permanent transfers of personnel, resources, or authority among relevant agencies. They may coexist in the same organization and may overlap without any distinctions, elaboration, or specification thus resulting in hybrid structures.

For this evaluation, we define integration as co-location, coordination and collaboration (3Cs) of programs and activities across various sectors and multiple implementing partners. Coordination is defined as harmonious functioning of various agents for effective results and mutual assistance. These activities could include sharing information, making referrals, coordinating schedules, listing each other’s events in newsletters, and making some initial compromises. Collaboration involves working jointly with others on a common goal that is beyond what any one person / group can accomplish alone. These activities could include planning jointly, leveraging resources, and evaluating outcomes together. Integration involves several implementing partners working together to develop complementarity across different sectors’ activities. Co-location is necessary, but coordination and collaboration across various sectors are essential and sufficient conditions for integration. With these definitions and Malawi CDCS program design in mind, fully integrated programs would therefore involve: more than one implementer, more than one sector, co-located programs, and implementers must deliberately link work plan activities. Partial and non-integrated programs will lack one or more of the above criteria.

Evaluations of Integrated Programs

The literature on evaluations conducted to assess impacts of integrated programs is sparse. The CDCS integration approach is, nonetheless, of growing interest at USAID, as evidenced by similar integration approaches included in CDCSs in Nigeria, Guatemala, and Uganda. USAID/Nigeria conducted a performance evaluation of its Focus States Strategy (FSS) (2010-2013) that examined the effectiveness of concentrated cross-cutting programs such as education, health and empowerment in several program states, which aimed to enhance results such that they exceed the sum of the parts. A process evaluation of the USAID/Guatemala’s examined the integrated approach in the western highlands, the area most vulnerable to food insecurity. Lessons from these evaluations have been helpful; however, this Malawi CDCS evaluation will serve to provide a more robust evidence base for the effectiveness and potential limitations of an integrated development approach.

Impact evaluations of integrated development approaches in the past, as discussed in Annex I are few and dated. Historically, researchers have been hesitant to test the impact of integration because it is difficult

⁹ In collaborative arrangements, the member organizations may participate at various levels, based on their own determinations and agreements and not on directives from a lead authority or formalized authority. Therefore, some members might not participate adequately or at all, even to the point of jeopardizing the interagency enterprise.

to ensure comparability among treatment and control areas, and hold additional external factors constant (Clemens & Demombynes, 2013). Some recent evaluations of integrated development interventions include a project combining health services with microfinance (Kim, Ferrari, Pronyk, 2009), and several summative evaluations of the Millennium Villages Projects (Wanjala & Muradian, 2013). The two recent evaluations of USAID-funded programs in Malawi, presented in USAID Malawi's Country Development Cooperation Strategy (CDCS) 2013-2018 (2013) are both performance evaluations: 1) the Rapid and Effective Action Combating HIV and AIDS (REACH) program that demonstrated the benefits of geographically concentrating resources for the same sector, and 2) the mid-term evaluation of the Wellness and Agriculture for Life Advancement (WALA), a multi-sector program focusing on health, nutrition, agriculture, natural resources management, and disaster risk reduction.

Of the integrated interventions that were evaluated in the past, many results are likely to be biased (Clemens & Demombynes, 2013). Major challenges in conducting impact studies of integrated programs are identifying appropriate counterfactual sites and accurate measurements of outcomes; if these concerns are not sufficiently addressed, the studies could overstate the program impacts. For example, a recent study of the impact of the Millennium Villages Project (MVP) on child survival in rural areas in sub-Saharan Africa (Remans et al, 2011) was fraught with methodological problems, including: failing to use identical durations of baseline and endline periods, not accounting for spillover effects between comparison and treatment areas, and incorrectly calculating the change in mortality rates in the comparison villages (Pronyk, 2012).

METHODOLOGY

EVALUATION DESIGN

This impact evaluation is designed as a quasi-experiment using treatment and comparison zones to assess changes in quantitative indicators of quality of life of Malawians that can be attributed to the CDCS integration approach. The impact evaluation is supplemented with qualitative data analysis to provide a contextual understanding and background on program design and implementation in which overarching impacts are couched.¹⁰

i. Identifying Treatment and Comparison Zones

USAID/Malawi has classified 28 districts where it is operating according to integration requirements under CDCS, as shown in Table 3. This study, with Malawi CDCS program design in mind, defines fully integrated programs as follows: more than one implementer, more than one sector, co-located programs, and implementers must deliberately link work plan activities. Partial and non-integrated programs are defined as lacking one or more of the above criteria.

The impact evaluation utilizes USAID's classification and the above definition of integration to categorize the full integration zone as the study arm and the partial integration and single sector only zones as two comparison arms. Because education-sector-only zones are already included in an on-going impact evaluation of USAID-funded primary education projects, and since health-sector activities are generally carried out in all zones, this study selected the three study arms as follows: (i) Full integration zone as study arm, (ii) Partial and health only zones as comparison arms.

The impact evaluation will compare incremental and per-unit changes in quality of life metrics between the three study arms to understand impacts. If the integration hypothesis is correct, greater improvements to quality of life indicators over a five-year period in the full integration zone will occur compared to the partial integration and single sector-specific zones. As stated above, quality of life is captured by indicators related to intermediate results under each of the three CDCS development objectives: social development improved, sustainable livelihoods increased, and citizens' rights and responsibilities exercised.

¹⁰ If the integration levels above were allocated randomly across similar districts or similar pockets within districts based on quality of life indicators in Malawi, an experimental randomized control trial (RCT) design could be used. However, SI found out during the feasibility study phase that the main component of the CDCS integration approach consists of focused funding in an integrated fashion in a few purposively selected districts chosen to improve quality of life. USAID/Malawi has already selected Machinga, Balaka and Rural Lilongwe as the focus districts and has already started some initial planning in April 2014 with integration activities such as identifying areas of collaboration and preparing draft joint work plans among various implementing partners across sectors. Since all IPs are required to fully integrate within the focus districts, it is also not feasible to randomly assign integration activities among sub-district pockets within a focus district such that integration and non-integration areas could be compared within the same district. Therefore, random placement of various integration approaches among similar districts across Malawi and within the districts is not feasible. Thus, the next best alternative - quasi-experimental impact evaluation - was chosen. A quasi-experimental impact evaluation is feasible provided that (i) integration – i.e. treatment in this case – could be well defined; (ii) suitable counterfactuals to treatment could be identified in terms of control/comparison study arms that are distinctly different in terms of levels of integration; (iii) indicators to capture changes in quality of life could be identified; and (iv) an appropriate and adequate sample of communities and households could be selected to track changes in their quality of life in a timely manner.

Table 3. USAID Levels of Integration

Level	USAID Program Area	Focus Districts
Full Mission integration	Economic Growth, Education, Health, Food for Peace, Democracy and Governance/Local Capacity Development	Lilongwe Rural (except FFP), Balaka, Machinga
Partial integration	Health, Education, and/or Economic Growth	Mangochi, Thyolo, Mulanje, Chikwawa, Nsanje, Zomba Mchinji, Dedza, Chiradzulu, Ntcheu, Salima
Sector Specific only	Health	Chitipa, Dowa, Karonga, Kasungu, Nkhotakota, Likoma, Phalombe
Sector Specific only	Education	Ntchisi, Blantyre Rural, Mzimba North
Limited presence	Health	All other districts

Source: Terms of Reference from USAID to SI, 2014

The quasi-experiment design makes the following assumptions: (i) the three integration levels – full, partial and low/none in health only districts – would remain largely unchanged over the next five years, even with the end of the existing programs and start of new programs supported by USAID and other donors; (ii) the new programs will have similar objectives as the existing programs and will utilize the same structures and processes to engage in integrated activities; (iii) sampled areas at baseline where projects are slated to end prior to endline data collection could be targeted for continuation of projects with similar sectoral activities, as anticipated by the Mission; (iv) the intensity and type of basic intervention activities undertaken under the same project umbrellas (e.g., INVC, EGRA, SSDI) will be reasonably similar across areas in partial integration, single sector, and full integration zones; (v) the IPs will adhere to the integration requirements explained to them by USAID at the partners meeting in April 2014 and in September 2014; and (vi) inherent differences in QOL in each integration level area is low or can be matched.

ii. Matching Treatment and Comparison Districts

USAID has purposively chosen three districts as focus areas for full integration of activities. In order to compare results from full integration districts with results from districts within partial and health-sector only zones, it is important to match districts within these zones with districts in the full integration zone. As seen in Table 3, 11 districts fall under partial integration, and 7 under health-sector only category. In order to select a comparable set of districts to the three districts under full integration, the following criteria were used:

Common program across the districts: Several USAID sectors (e.g., health, education, sustainable economic growth, democracy and governance) and projects under each sector are currently in operation in all three study arms—**Full Integration (FI)**, **Partial Integration (PI)** and **Health-sector Only (HSO)**. A common sector/program across the districts within these zones will help ensure a point of consistent comparison such that any potential marginal impacts within those sector indicators could be compared as the level of integration with other sectors and implementers increases. To this end, the Support for Service

Delivery Integration (SSDI) project under the health-sector was selected as a common program to match the districts.¹¹

Comparable characteristics: The study used data from 2011 Integrated Household Survey (IHS) population data, constructed based on a sample size of more than 13,000 respondents drawn as representative samples from each of the country’s districts; and CDCS key QOL indicators, such as poverty, based on poverty headcount and annual consumption expenditures, adult literacy rates, HIV prevalence rates, and fertility rates to match FI districts with districts in PI and HSO. This approach helps ensure greater comparability between the districts chosen for comparison to FI districts.

Based on the criteria above, five districts were chosen purposively that match three districts in FI on selected characteristics, which implement SSDI activities. Table 4 shows the sample districts.

Table 4. Sample Districts Included in the Impact Evaluation

Full Integration (FI)	Partial Integration (PI)	Health-Sector Only (HSO)
1. Rural Lilongwe	1. Mangochi	1. Karonga
2. Balaka	2. Rural Zomba	2. Nkhotakota
3. Machinga	3. Nsanje	

The above approach ensures greater comparability between the districts chosen for comparison with FI districts.

iii. Matching Treatment and Comparison Households

Since the three districts to receive FI were selected purposively, the effects of selection bias must be accounted for in analysis of household-level QOL measures across the three study arms. This requires matching at the household level across all three arms. Therefore, following the next data collection at midline, households from the chosen study districts will be matched using a propensity score matching (PSM) methodology. Households will be matched using baseline values of select quality of life indicators (e.g., income, education, number of adults in the household). Using this approach, households within the full integration zone will be compared to similar households in partial or single sector zones. Matching at household level will also account for baseline differences among the three study arms.

iv. Design Flexibility to Suit Programmatic Changes in Next Five Years

Discussions held with the Mission during the scoping trips in 2014 indicated that several new projects are in the pipeline to start soon, several existing projects may end soon, and that the three existing integration levels may change over the next five years in the eight study districts as a result of USAID’s internal sector-specific requirements, external pressure from the education, agriculture and health ministries, and local governments in Malawi, and the start-up of new programs with similar objectives by other donors that could alter the current landscape. The Mission stated that it is highly unlikely to restrict entry of new programs and/or restrict their collaboration efforts in the study areas, and SI should evaluate the totality

¹¹ SSDI is most widespread across Malawi and reflects the greater size of USAID’s health portfolio in Malawi vis-a-vis other sectors. In light of the range of DO health indicators touching on fertility, HIV, and under-five mortality, SSDI is also better positioned among the health projects to support all of these objectives. Although SSDI is slated to end in 2016, USAID has informed SI that similar activities are likely to continue at the same sites, perhaps with a different implementer, throughout the remainder of the five-year evaluation timeline. Districts with additional HIV, tuberculosis (TB), and family planning and reproductive health (FP/RH) programs are allowable in these SSDI targeted areas.

of USAID investments, existing and future. Therefore, in the event of such developments, the evaluation design would need to accommodate them to adequately account for the changes. Therefore, SI added some additional elements to the design as discussed below.

First, the impact evaluation will utilize the annual stakeholder analysis (SHA) planned every year, starting in August 2015, as part of this task order to gather additional data as explained below. Second, SI has constructed an implementation and integration activity tracker (ITA) with sector, objectives, areas of operation, timelines, collaboration activities, and implementer details for each of the sample districts and will regularly update it after verifying with the Contract Officer's Representative (COR) (updated by SI's local staff and during each trip undertaken by SI headquarter staff to implement the evaluation). During the data collection for the SHA, interviews with IPs will be conducted using a collaboration assessment tool to understand integration levels and if there are changes in the levels of integration in the eight study districts. If variations exist, then the three study arms based on integration will be reclassified at or after midline to accommodate them. For example, if more sectors, such as education sector programs, enter the health-only study districts, they could begin to mimic partial integration districts, even if they do not co-locate or only co-locate but do not coordinate and collaborate. In areas where such changes occur, we would assess whether that area meets criteria for inclusion in a different study arm. It is expected that most re-categorizations would occur within the first two years of the project as implementers finalize plans and begin to take hold of the CDCS integration approach and as new programs come online. This re-categorization would be used to conduct analysis at midline and endline. This approach assumes that (i) level of integration observed at each implementation site would remain relatively constant from pre-midline through the final evaluation, and (ii) some non-integrated implementation sites would still remain within the health-sector only districts.

Third, new USAID programs could enter the sampled districts and adhere to integration definitions used in the study but operate outside of the clusters that were sampled at baseline. In order to accommodate such a scenario, subsequent data collection and analysis efforts during the midline are planned to be carried out under the modified integration classification and new program areas. In this way, the broader spectrum of USAID activities under the CDCS could be evaluated. Depending on how the integration levels and new programs evolve in the next few years, some panel households and EAs at baseline will need to be dropped and/or additional households from additional EAs need to be identified for surveys and included during these periods through a "top-up" method. If additional households from additional EAs through a top-up approach could not be surveyed due to the unavailability of an adequate and suitable sample, budget, or logistical reasons, SI could, budget permitting, conduct some qualitative focus groups in sampled communities to gauge their perceptions and satisfaction with their quality of life during to supplement quantitative panel data obtained from household surveys. These focus group discussions could occur in broad catchment areas within the eight districts to capture information on QOL from households that are not part of the panel but may become eligible in due course because of the entry of new programs and developments in integration levels. If needed, a mini survey could be administered to the focus group discussion participants to gather some quantitative data on a few important QOL indicators. It is to be noted, however, that the information gained through these discussions is mainly based on perception rather than direct measurement of QOL indicators and do not lend much for statistical analysis. .

Fourth, the household survey undertaken to measure quality of life indicators will gather information on all developmental programs from which the household might benefit, and will include indicators relevant for all USAID focus sectors and activities, regardless of whether the activities have begun yet. This includes questions addressing the environment and citizen participation. Key indicators for various sectors, drawn from the PMP definitions as feasible, will be reported.

Fifth, in order to keep the sample traceable to understand impacts that can only be attributed to USAID, SI needs to identify sample locations at baseline with no or minimal activities with similar objectives supported by other donor programs (DPs). However, new projects by other DPs may start after the baseline. Therefore, SI will investigate and continuously document any new project that is similar to existing and new USAID activities in the evaluation sample areas. Then, SI will assess on a case-by-case basis whether the other DP's new activity could contaminate our sample, requiring it to be dropped and replaced if feasible. Given that SI's sampling strategy targets only USAID intervention areas/clusters within each district rather than the whole district (i.e., 8 km radius around an SSDI health facility, with or without overlapping interventions from INVC and/or EGRA), the likelihood of another DP implementing within these discrete areas is low. SI will rely on USAID's continued efforts to coordinate with other DPs at the strategy level and hope that it will also extend to activity levels. This will help to ensure other DPs are not duplicating USAID's efforts but only coordinating their efforts in a complementary manner in the same sub-district locations. These efforts will allow SI to account for other DP activities in the evaluation.

v. Gender Integration

Even if the evaluation demonstrates a positive change in the quality of life attributable to the CDCS, the program would not be fully successful if benefits are not realized equally by all Malawians. Specifically, it is important to examine whether both men and women benefitted equally, as women have historically been left out of certain development processes, or conversely, have been exclusively targeted for some types of development interventions without including men. SI will examine gender disparities in a variety of ways throughout the five-year evaluation process.

As a first step, this baseline evaluation identifies female-headed households and examines disaggregated key quality of life indicators such as health, economic status, perceived well-being, education, empowerment in demanding services from local government, and participating in the development processes. The study also examines the levels of female participation in agriculture and decisions to access credit, both components of the Women's Empowerment in Agriculture Index. Additional questions focus on the division of decision-making power and labor between men and women in the household, and women's participation in government accountability. Though USAID projects are not directly targeted towards these indicators, this analysis may illuminate household dynamics that would affect the success of current project and outreach strategies.

SAMPLING

Following selection of districts, eligible areas expected to receive varying levels of integration treatment after baseline were identified using mapping data provided by USAID. SI created maps with 8km buffers around each SSDI-supported health facility. In full and partial integration districts, buffer areas were created if they had visible co-location with USAID flagship projects INVC (either supported extension planning areas or nearby supported group village head activities) or EGRA (nearby schools designated by the separate EGRA impact evaluation as treatment "year 1" or "neutral"). Census enumeration areas (EAs) and villages were delineated inside the buffers using 2008 Malawi census data, and EAs containing EGRA control schools were excluded from the sampling frame, as they will not receive USAID support until a later time. All EAs within all SSDI buffers were eligible in health-only study arm - Nkhotakota and Karonga - as no co-location or integration has been identified for these comparison districts at the time of the baseline. An example of the sampling process is shown in Figure 1.

A random sample was then drawn using Stata 13 software from all eligible pooled EAs.

Table 5 shows the intended and achieved sample size by district. Random selection of households from sampled EAs was not feasible, as comprehensive lists are unavailable. Therefore, households were chosen using systematic random walk sampling at the village level. Two villages per EA were selected randomly, provided that they were located within the SSDI buffer. At the village level, complete household listings were not available, so households were selected systematically using a random start and skip pattern proportional to the community size.

This sampling strategy was designed to capture only areas targeted by USAID interventions, in line with the evaluation design. Therefore, all evaluation results presented in this report are representative only of areas benefitting from SSDI, INVC, and EGRA (non-control school) interventions and not the full district. At the time of the baseline, USAID’s Development Food Aid Program (DFAP) intervention had only recently been awarded for implementation in Balaka, Machinga, and Nsanje, in addition to other districts not included in the evaluation. Because sub-district implementation locations had not yet been selected at the time of the baseline, Nsanje District was not included in the 2014 baseline household survey sample. Rather, a similar baseline process will be used in Nsanje in 2015 to capture targeted areas to be determined in early 2015. In order to obtain a preliminary sense of community perceptions of quality of life at the same timeframe as other districts, SI conducted two focus group discussions in Nsanje.

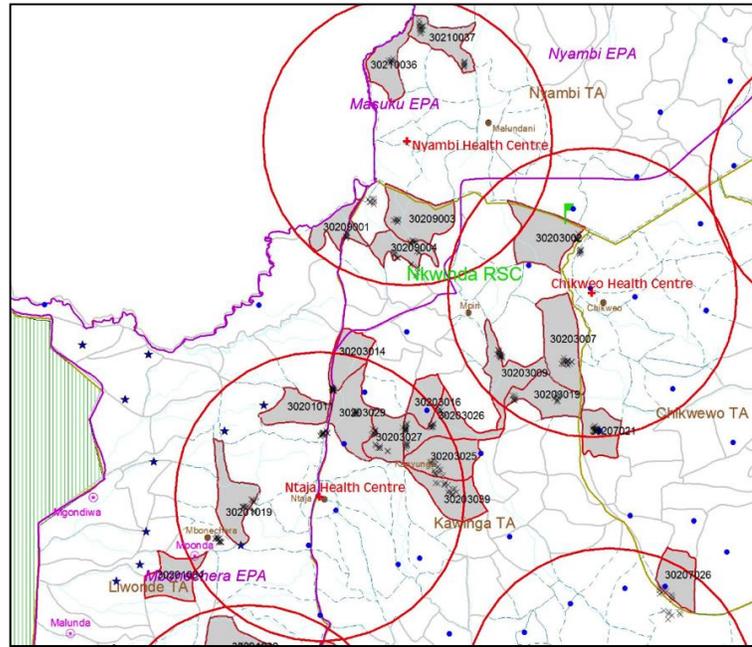


Figure 1. Zoomed section of Machinga map demonstrating sample selection process.

Full maps and legend descriptions are available in Annex 2.

For focus group discussions using RSCs, two village locations per district (including in Nsanje) were selected purposively through visually review of maps to ensure an RSC would be completed within an SSDI buffer sampled for household data collection but not within the same village, to prevent survey exhaustion and to obtain views from residents of other parts of the district. Efforts were made to capture a variety of villages exposed to different types of USAID interventions, including areas near forests or lakes that might be more sensitive to climate change.

Table 5. Household survey sample size targeted and actual sample size obtained

District	Sample expected		Valid sample collected	
	# EAs	# households	# EAs	# households
Balaka	38	571	38	571
Lilongwe Rural	39	586	39	586
Machinga	38	571	39	571
Mangochi	39	586	39	587
Zomba	38	571	38	695
Karonga	57	857	58	866
Nkhotakota	58	871	58	867
Total at baseline 2014	307	4613	309	4743
Nsanje (to be added in 2015)	38	571		
Total expected including Nsanje	345	5184		

District sampling maps including GPS points at each surveyed household and rural score card location are included in Annex 2. It is evident from these maps that household surveys were largely on target within sampled EAs and SSDI buffers. However, there are some cases in which sampled villages fell outside the EA boundary. This was largely due to limitations of the census database, which had several incorrect or outdated village names, making it difficult for enumeration teams to find the intended location. Some villages near the Mozambique or Tanzania border had to be replaced due to enumerators' inability to communicate in the local language.

DATA COLLECTION

Household survey data were collected using Android tablets. SI and IKI staff collaboratively programmed the electronic survey using the Survey CTO application of Open Data Kits (ODK) software. Rural Score Card group interviews were tape recorded and transcribed verbatim. SI led a five-day enumerator training in Zomba November 3-7, 2014 with IKI supervisors, enumerators, and management staff. All data collection instruments were piloted by supervisors in early October and by enumerators at the conclusion of training. Data collection instruments were modified following each of the four days of piloting to improve question clarity and format on the mobile platform.

Data were collected from November 10-December 6, 2014. Enumerators were men and women from various parts of Malawi, half with extensive prior data collection experience and half being recent college graduates interested in starting careers in data collection. The household survey was available on the tablet in English, Chichewa, Ciyawo, Cisená, and Citumbuka languages. Interviews were typically conducted in Chichewa or in an alternative language according to the preference of the respondent. Enumerators collecting data in minority language areas were fluent in these local languages.

The preferred respondent for the household survey was the adult woman most responsible for care of the household, since she would be best positioned to answer all sections of the survey and most likely to be available to respond to the survey, as confirmed during enumerator training. The second preferred

respondent was the male most responsible for the household. Other knowledgeable adults were also accepted as a third choice interview if neither of the first two options was feasible. To allow disaggregation of responses by gender of questions related to personal opinion and experience in community participation and governance, enumerators requested that the main male in the household respond to that specific section at every other randomly selected household, if it was possible to locate him.

The data collection protocol and instruments were approved by the Malawi National Commission for Science and Technology (NCST) and by the SI's internal Institutional Review Board (IRB) prior to data collection. All enumerators were trained to protect the rights of research participants, including appropriate informed consent procedures and protection of confidentiality. All survey and FGD respondents provided informed oral consent to participate in the study.

Data Collection Instruments

Three quantitative and qualitative tools were used for this baseline to measure quality of life and associations with the CDCS integration strategy. They include: (i) Household Survey, (ii) Project Activity Tracker, and (iii) qualitative Rural Score Cards with community. Annexes 3-5 contain each of these tools.

1. The **household survey instrument** was designed by SI to quantify quality of life indicators (outcome measure) and other household characteristics that will allow for matching households across the three integration zones, description of community characteristics, and disaggregation by head of household gender and other indicators of vulnerability. Some parts of the survey were modeled after other standard tools including the Poverty Assessment Tool, Malawi Demographic and Health Survey (DHS), the Women's Empowerment section in Agriculture Index (WEAI), and the World Values Survey. The SI survey tool included questions to measure changes in all major PMP indicators that capture outcomes such as access to and quality of services (including local governments), food security and poverty status in all USAID-focused sectors.
2. SI's **Implementation and Integration Activity Tracker (IIAT)** captured locations, timing, and content of projects and integration planned or ongoing at each site, as reported by IPs, the Mission, and other donors active in sampled areas.
3. **Qualitative Rural Score Cards (RSCs)** guided focus group discussions with community stakeholders to capture perceptions of local changes in quality of life.

BASELINE DATA ANALYSIS METHODS

Household Survey

Household survey baseline data were cleaned and analyzed using Stata 13 software. Potential outliers or illogical values were identified and investigated by the data collection firm, and some corrections to the data were made after follow-up contact with respondent households. Frequencies, means, and standard deviations were calculated for each variable, and Student's t-tests were used to compare values across study arms: full integration to health-sector-only districts and partial integration to health-sector-only districts. Disaggregation of various indicators female-headed household, poverty status, and other characteristics were conducted to identify disparities in quality of life conditions or behaviors.

Rural Score Cards

The primary goal of the RSCs was to bring a group of individuals together from the community to discuss a set of topics including: poverty, food security, gender equality and equity, access to quality health care services, access to quality schooling, governance, and overall quality of life. Those individuals who participated in the conversation were told that they would be voting on whether or not there were positive or negative changes in their community related to each of the topic areas. For example, they were asked whether or not the access to health care had changed over time and if their access was distinct from access in other communities. They were asked to speak on behalf of the community, but also would comment on their own individual experiences. Participants were not only asked to vote, but also to explain why they had voted the way they did and encouraged to converse with one another and debate amongst themselves regarding the various issues.

Each of these Focus Group Discussions (FGDs) were digitally recorded and then transcribed from local languages to English. A qualitative specialist from Social Impact then coded each of the FGD transcripts in Atlas.ti. A preliminary code list was drawn from the primary research questions and a review of a subset of transcripts. These codes were then supplemented with free codes developed during coding of each document. As new issues arose, "auto-coding" option in Atlas was used to revisit documents that had previously been coded but did not include the newly formed codes. (A full list of codes can be found in Annex 6). This approach allowed for a certain level of inductive analysis, which is crucial in working with qualitative data, while simultaneously maintaining structures that would allow the analysis to be tailored to specific evaluation questions.

The qualitative analysis used three primary approaches to analyze the data throughout the coding and re-coding process. These approaches included: theme analysis, taxonomic and componential analysis, and narrative analysis. Theme analysis involves organizing data into categories by identifying recurring themes in the data and creating labels under different categories.¹² Once themes/categories are identified, taxonomic analysis was utilized¹³ to examine the relationships between codes. Several methods are available for this type of analysis in Atlas.ti. One of the most effective method is to search for co-

¹² For a further discussion on theme analysis see: Miles, Matthew and A. Michael Huberman. 1994 *Qualitative Data Analysis*, 2d ed. Thousand Oaks, CA: Sage Publications. And, Michael Q. Patton. 1990 *Qualitative Evaluation and Research Methods*. Thousand Oaks, CA: Sage Publication.

¹³ Taxonomic analysis grow out of theme analysis, or what Spradley (1980) refers to as domain analysis. Taxonomic analysis examines how themes (domains) are related to one another. Spradley, James. 1979. *The Ethnographic Interview*. New York: Holt, Rinehart and Winston.

occurrences amongst codes. By locating places in the data where particular codes/themes/domains co-occur, the relationship amongst these concepts is elucidated and the intersections can be probed further. The third approach, narrative analysis, has its grounding in the notion of meaning.¹⁴ It allows themes from the data to be drawn to help construct a narrative to derive the meaning behind particular phenomena, facilitating a deeper understanding of how individuals and groups of individuals perceive particular events and make sense of their social world.

¹⁴ Bruner, Jerome S. 1990. *Acts of Meaning*. Cambridge: Harvard University Press.

RESULTS

ROAD MAP FOR THE SECTION

This section details results for selected key indicators and full analytical tables containing several additional analyses are presented by study arm and by district in Annex 7. Results are organized by subject area and contain analysis of data from the household survey and the Rural Score Cards for each topic, as each method complements the other to allow a deeper understanding of the baseline QOL through both quantitative measures and perceptions of community members. Discussion of results is reserved for the conclusion section of the report.

Variation among study arms were tested for statistical significance using t-tests for several indicators that used quantitative data and are presented as *p* values wherever relevant. Pairwise comparisons between certain indicator values - PI to HSO and FI to HSO - were conducted and tested for statistical significance. Differences between groups that are statistically significant are indicated by a *p* value less than 0.1 and are marked in bold font. Significant differences at baseline signify inherent differences between these districts, and reflect in part USAID's need-based targeting for its activities and the non-random selection of districts to receive integrated development. Relevant significant characteristics at baseline could be considered for matching households from treatment with comparison arms at midline, to adjust for this bias.

ACTIVITIES AND INTEGRATION IN STUDY AREAS

To establish baseline status for the level of integration currently underway with USAID's key activity implementing partners, Social Impact conducted interviews with selected implementers guided by the implementation and integration activity tracker (ITA) tool. This tool was designed to guide structured interviews with implementing partners. Interviews were conducted by SI between November 2014-January 2015 with IP representatives knowledgeable of program activities, integration plans, and location targeting. A summary of these discussions presents a holistic picture of the current state of integrated activities in the study districts as well as likely areas of integration in the impact evaluation districts in the future. This information will be updated and used by the evaluators over time to ensure the intended levels of integration in the three study arms are retained through the final evaluation. A complete compendium of current and planned integrated activities as described at the time of interviews are included in Annex 8 and briefly summarized in this section. For reference, a table depicting key activities and implementers of each are shown in Table 6.

The majority of at least partially integrated activities in the study districts are being conducted by SSDI (health-sector) or by INVC (sustainable economic growth sector). They work in conjunction with another implementing partner from the same or another sector. Otherwise, very little coordination or collaboration is underway across sectors or implementing partners.

However, interviews with the IPs revealed that the CDCS has prompted discussions among IPs from various sectors, and many have identified co-located projects or overlapping goals in projects that are ripe for coordination and collaboration. Identified potential opportunities include INVC (sustainable economic growth sector) and Bridge II (health-sector) integrating HIV information into care self-help groups formed by INVC; EGRA (education sector) and ASPIRE (education and health) collaborating on the transition between their respective reading levels or incorporating ASPIRE's themes of gender and health into EGRA reading materials; and SSDI Services (health) integrating with Partners in Hope (health) for HIV treatment.

Planning for these and other projects to date has been tentative and remains in the very early stages, with most IPs having conducted only a few meetings.

Current collaboration or integration activities can be disaggregated by three levels of reach: (i) all study districts (Lilongwe rural, Balaka, and Machinga, Mangochi, Rural Zomba, Nsanje, Karonga and Nkhonkhotakota), (ii) all CDCS focus districts (Lilongwe rural, Balaka, and Machinga), and (iii) Lilongwe Rural, as discussed below.

All Study Districts

While most collaborations are currently being conducted in a limited scope, there are several projects that are operating in all study districts. SSDI Communications and EGRA recently collaborated on the development of a comic book featuring malaria, which is soon to be distributed in reading centers and schools across all study districts. SSDI Services and Deliver (health-sector) are also operating in all 8 study districts, with an integrated work plan that allows for a division of labor in logistics management and the distribution of health equipment to local clinics and district hospitals.

However, many collaborations among SSDI Services, Systems, and Communications are widespread and conducted at a higher level. Integrated activities tend to occur in only a subset of the study districts, but an institutionalized system of coordination operates among the three IPs, allowing the partners to review and collaborate on all activities during the planning phase and identify opportunities for integration or potential overlap in new projects. Several such collaborations are also planned among these health-sector IPs in the future. It is to be noted that these IPs are all from the same sector (health) and integration is expected as part of their scope of the project. The planned collaboration for the future is health-health and therefore would not essentially meet the CDCS integration definition/goal that envisions integration among IPs across sectors.

All Focus Districts

The majority of integration or collaboration currently underway in the FI districts occurs in all three districts—Lilongwe Rural, Balaka, and Machinga. SSDI Services and SHOPS (health-sector) have numerous integrated initiatives and trainings underway, including Emergency Triage Assessment and Treatment (ETAT), Integrated Management of Child Illnesses (IMCI), and child/neonatal mortality. While these two partners have been collaborating for some time to establish the health needs of districts, the CDCS spurred the development of an integrated work plan between the two implementers that has been operational since FY 2014.

Work plans have not yet been developed, but RTI (the education IP) also has plans for integration with partners in the three focus districts through EGRA. RTI invited USAID partners to a curriculum workshop held in January 2015 in an effort to incorporate themes from other projects (health, nutrition, sanitation, etc.) into EGRA's reading materials and curriculum for Standard 3. While the locations are not yet finalized, RTI also hopes to integrate with MMAP (SEG) in sending funds for teacher trainings through Mobile Money, a task that is currently conducted via hand-to-hand cash transfers, making it treacherous and laborious for more remote zones. A collaboration with NDI (Democracy and Governance IP) is also in the planning phase that would allow EGRA to build support for its programming in the district governments, as they hope to develop orientation materials for new district councilors pertaining to EGRA which would identify opportunities for district councilors to support the project. Additionally, this collaboration would involve encouraging the use of the district's unspent professional development funds and routinizing site visits for district councilors to EGRA schools.

Lilongwe Rural

SSDI Services and Feed the Children are currently developing an integrated work plan for HIV prevention and supplementary feeding activities in Masula and Kabulula TAs. A tag-team approach would be implemented, with Feed the Children conducting trainings for community care groups followed by SSDI Services introducing essential health packages. MMAP is also in the process of finalizing an integrated approach to two projects in Lilongwe Rural for the 2015 produce marketing season. Separate integrated work plans have been developed with NASFAM and ACE for projects aiming to increase Mobile Money usage among farmers.

Several conglomerations of IPs have already been collaborating in Lilongwe Rural. INVC (led by DAI), ACE, Nkhoma Hospitals, and Pakachere are integrating in the Chiwamba EPA of Lilongwe North and the Malingunde EPA of Lilongwe South for various activities aimed to encourage collective marketing among farmers. INVC, NASFAM, Nkhoma, and FUM are also collaborating in the same EPAs to deliver messaging through clubs and clusters on a variety of issues, including nutrition, agriculture, and sanitation. A work plan is currently in development that would escalate this conglomeration from collaboration to integration, though it will be same-sector integration as all are considered SEG projects.

Table 6. Key USAID/Malawi Mission Activities and Implementing Partners Operating in Study Districts

Key Activity Name	Implementing Partner	USAID Sector Affiliation	Study Districts Affected
SHOPS (Strengthening Health Outcomes through the Private Sector)	Abt Associates	Health	Lilongwe Rural, Karonga, Machinga, Mangochi, Nsanje, Nkhonkhotakota
Support for Service Delivery Integration (SSDI) Systems	Abt Associates	Health	All study districts
SSDI Services	JHPIEGO	Health	All study districts
SSDI Communications	JHUCCP	Health	All study districts
Tiwalere	Feed the Children	Health	Lilongwe Rural, Nkhonkhotakota
Tinganthe	Baylor College of Medicine	Health	Lilongwe Rural
Bridge II	URC	Health	Zomba, Nsanje, Machinga
TB Care	URC	Health	Mangochi, Machinga, Nsanje, Balaka, Lilongwe, Zomba, Nkhonkhotakota
INVC (Integrating Nutrition in Value Chains)	DAI	SEG (agriculture/nutrition)	Balaka, Lilongwe Rural, Machinga, Mangochi
	NASFAM	SEG (agriculture/nutrition)	Balaka, Lilongwe Rural, Machinga, Mangochi
	Nkhoma Hospital	SEG (agriculture/nutrition)	Lilongwe Rural
	Farmers Union of Malawi	SEG (agriculture/nutrition)	Lilongwe Rural

DFAP (Development Food Assistance Program)	Project Concern International (PCI)	SEG (agriculture/nutrition)	Balaka, Machinga
	Catholic Relief Services (CRS)	SEG (agriculture/nutrition)	Nsanje
FISH	PACT	SEG (environment)	Balaka, Machinga, Mangochi, Zomba
PERFORM	Tetra Tech	SEG (environment)	TBD
MMAP (Mobile Money Accelerator Program)	FHI 360	SEG (technology)	Lilongwe Rural, Balaka, Machinga, Mangochi
ACE (Agricultural Commodity Exchange)		SEG (agriculture)	Operates nationally
EGRA (Early Grade Reading Activity)	RTI	Education	Balaka, Lilongwe Rural, Machinga, Zomba
MEDA (Malawi Electoral and Decentralization Activity)	National Democratic Institute (NDI)	D&G	Lilongwe Rural, Balaka, Machinga

STUDY AREA DESCRIPTION

Basic household demographic characteristics of the household survey sample are reported in

Table 7. The household survey sample included only rural areas, where over 95% of households participate in agriculture. Most respondents were female. Households consisted of approximately 5 members, with more than half having a child under 5 years old. The majority of heads of household (as self-determined by respondents) were predominantly married males with some education. Households headed by females ranged from 16% of HSO district sample to 20% and 21% in PI and FI. Female-headed households with no adult male present at all comprised 9-15% across the three study arms, and these households that could be classified as more vulnerable. Youth (age 17-29) were heading households in similar proportions across the three study arms. While USAID defines youth as those between ages 10-29 years, respondents were required to be at least 17 years of age by protocol design to comply with human subjects protection guidelines. Approximately 15% of households reported having a member with a physical or mental disability, representing another potentially vulnerable group.

Table 7. Demographic Characteristics of Sampled Households

	Health sector only (comparison)			Partial integration			Full integration		
	n	Mean	Std.Dev.	n	Mean	Std.Dev.	n	Mean	Std.Dev.
Size of household (people)	1733	5.6	2.4	1282	5.1	2.0	1728	5.1	2.0
Total adults >18 in household	1733	2.5	1.1	1282	2.2	0.9	1728	2.2	0.9
Has a child under 5 years old	1733	60%	0.5	1282	63%	0.5	1728	61%	0.5
Female-headed household (reported no male HoH)	1733	16%	0.4	1282	20%	0.4	1728	21%	0.4
No adult male >17 lives in household	1733	9%	0.3	1282	14%	0.4	1728	15%	0.4
Age of head of household	1677	44.8	15.9	1235	44.7	16.6	1684	43.3	16.3
Youth-headed household (age 17-29)	1733	17%	0.4	1282	21%	0.4	1728	21%	0.4
Head of household is married	1733	81%	0.4	1282	76%	0.4	1728	76%	0.4
Head of HH has no education	1718	13%	0.3	1258	22%	0.4	1707	18%	0.4
% of HH members (excluding head of HH) with no education	1691	8%	0.2	1232	11%	0.2	1681	11%	0.2
Percentage of adult HH members who can read in Chichewa	1731	67%	0.4	1275	60%	0.4	1727	62%	0.4
Primary respondent is female	1733	69%	0.5	1282	71%	0.5	1728	72%	0.5
Member of HH has disability (physical or mental)	1730	16%	0.4	1281	13%	0.3	1727	15%	0.4

Birth Rate

The birth rate observed using the household survey population sample was lower than the rate previously reported for Malawi, and varied by region. However, the calculated birth rate from survey rosters would likely underestimate the number of births as it only includes children that live within the household. Table 8 shows the within-sample birth rate per 1000 people, as calculated from the sub-samples for each study arm and district. The highest birth rate was 35, observed in the Mangochi district, and the lowest was 23 in Lilongwe, with an average birth rate of 29 across the sample.

Table 8. Birth Rate Calculated from Household Survey Sample, by District

District	Number of live births in past year	Population	Calculated live birth rate per 1000 people
Balaka	86	2,870	30
Karonga	124	4,689	26
Lilongwe	65	2,806	23
Machinga	88	3,034	29
Mangochi	112	3,165	35
Nkhotakota	144	5,029	29
Zomba	95	3,353	28
Study arm			
Health-sector only	268	9,718	28
Partial integration	207	6,518	32
Full integration	239	8,710	27
Total	714	24,946	29

QUALITY OF LIFE IN STUDY AREAS

Education Services: Access and Use

The household survey's roster module collected education information for each member of the household including ability to read and write in English and Chichewa, highest level of education attained, current and previous enrollment in school. The complete tables, disaggregated by district and study arm, as well as by household poverty status and gender of household head, are presented in Annex 7.

Literacy of adults per district and study arm is shown in Figure 2, with literacy defined as ability to read Chichewa. A higher fraction of population is able to read Chichewa (approximately 69% of household heads) compared to English (only 33% of household heads), and 66% and 28% of household heads were able to write in English and Chichewa, respectively. Large differences by gender were observed, with women's literacy rates (56%) far lower than men's (79%), and were found to be far more variable across districts than men's literacy rates (shown in Figure 3). The highest educational attainment of sampled adults mirrored that pattern, with men achieving more years of education, on average, than women. However, the differences were less stark than those for literacy, with women following relatively close behind men with approximately one year less of schooling (6.4 versus 7.5 years of education, respectively).

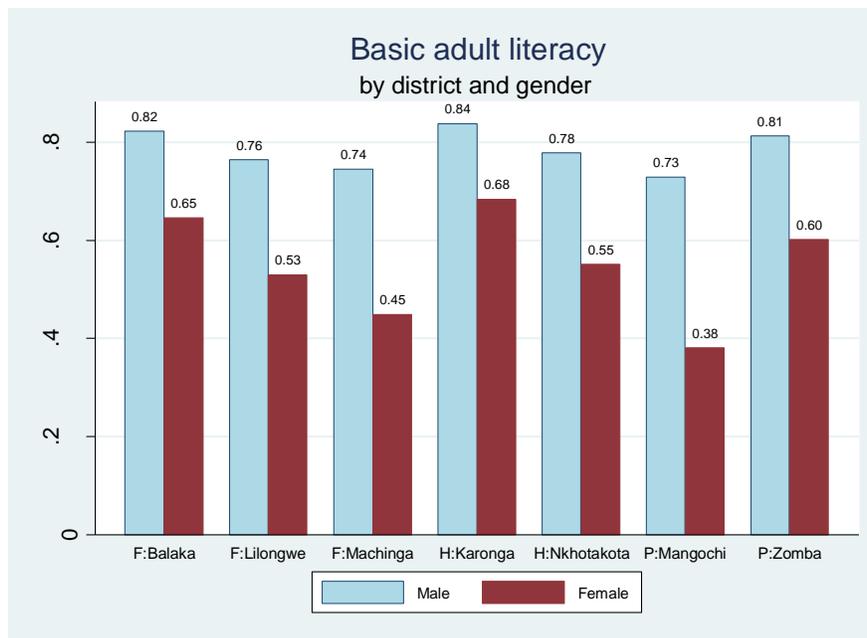


Figure 2. Proportion of sampled adults with basic literacy, by gender and district

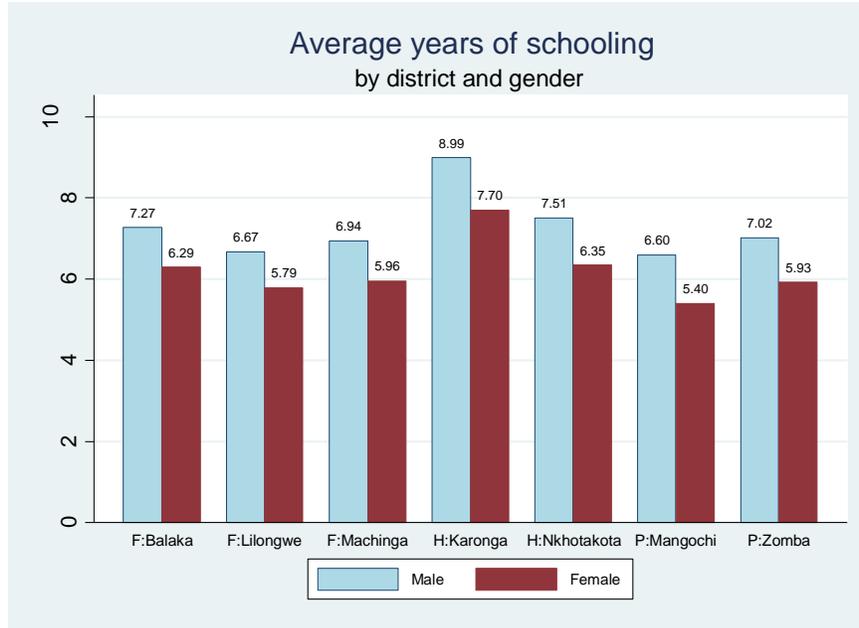


Figure 3. Highest educational attainment, by gender and district (years of schooling)

The data on children’s education and literacy shows that the proportion of children in sampled households currently enrolled in school is quite high (Figure 4), with almost all young children currently enrolled in primary school. Data show that girls’ enrollment is increasing. It should be noted, however, that the survey did not explore attendance, retention and dropout rates, which were raised as important factors during FGDs as affecting schooling. Until age 12, enrollment of children in school is above 96%, but later begins to drop, with the largest decreases in enrollment when youth reach 15 and 17 years of age. The rate at which females of 15-17 years of age are enrolled in school is lower than for males, the reasons for which were explored in the FGDs and are presented in the following section.

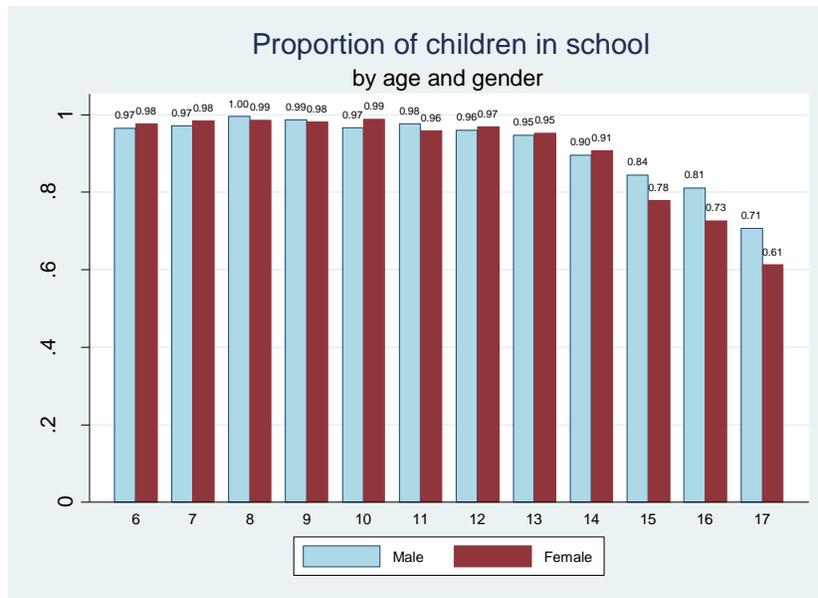


Figure 4. Proportion of children attending school, by gender and age

The literacy rates of second graders are presented in Figure 5, which shows the proportion of second graders in the sampled households who are able to read. The literacy rates for this group vary widely across the districts, with the highest literacy rate at 15% in Zomba, and the lowest in Mangochi of only 3%.¹⁵

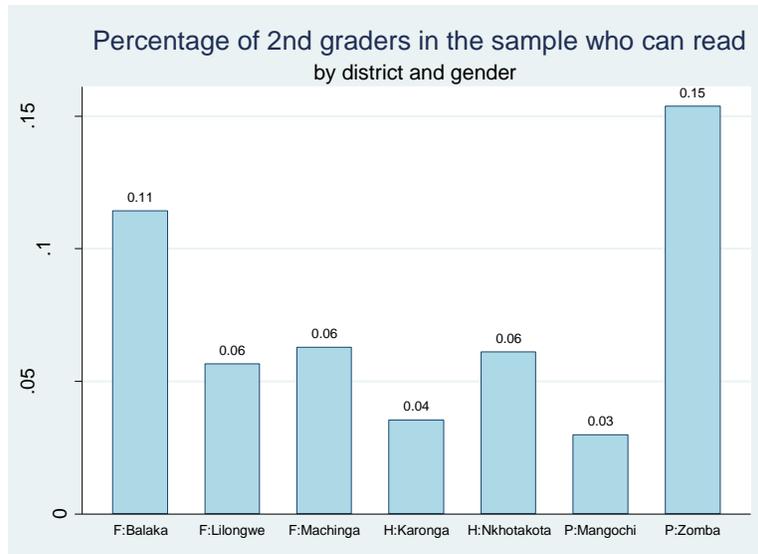


Figure 5. Proportion of second graders with basic literacy, by district

A number of factors that impact literacy were also explored, such as reading practices in the household, school access, and quality of schooling. Annex 7 presents these results, disaggregated by district and study arm. Overall, only 7% of households reported any household members going to a community center to read, 21% reported that someone in the household reads every day, 33% of households had reading materials for adults to read at home, and 26% had materials for children to read in the home.

With respect to access to education, the nearest public primary school was approximately 20 to 27 minutes away, on average (median and mean, respectively). Respondents were also asked to describe the quality of service at the local public school (if applicable), and rated the school’s performance in a variety of areas, including overcrowding, availability of textbooks/supplies, teaching quality, infrastructure and cost (Figure 6). The main problem identified by the majority of the households was overcrowding: 65% of respondents said this is a problem, and 47% stated that they often encounter overcrowded classrooms. Close behind was a lack of resources: 37% of households reported a lack of textbooks or supplies happens often, and only 37% said this never happens. On the other hand, 68% of households said they do not view cost of schooling as too expensive, and only 12% reported that the cost often posed a problem for them.

¹⁵ The EGRA impact evaluation baseline conducted for USAID/Malawi by SI in 2013 in Malawi in 10 districts (including the 3 focus districts), using a Early Grade Reading Assessment test found that only 3.4% of 2nd graders could reach the EGRA established benchmark for reading skills. The results above in this baseline is based on what sampled caretakers or household heads reported about reading skills of their 2nd graders. It is likely that the households report the child to be fluent in reading based on the ability to just read a passage or some words and not by the required speed to read it and comprehend it.

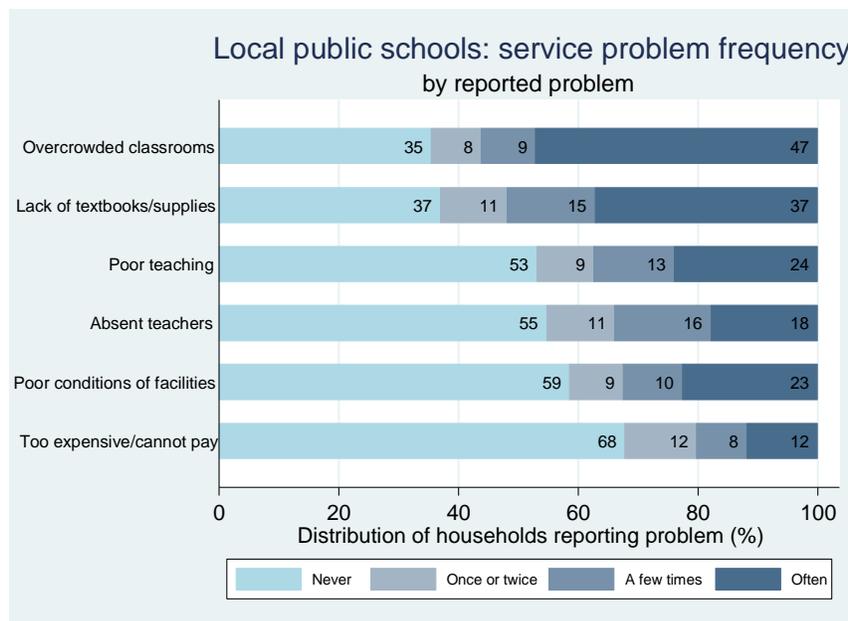


Figure 6. Satisfaction with local public schools – frequency of service problems

Rural Score Card Focus Group Findings on Education

Data collected during the FGDs largely corroborate the household survey findings above however there were some contradictions. . Most FGD participants believed that a substantial portion of children and youth are attending school. When asked about whether boys and girls are equally enrolled in school, the answer was overwhelming “yes.” Most stated that this was a change that had come about in the recent years, as a greater emphasis has been placed on girls’ education. Even though the majority of participants and FGD groups stated that school enrollment was up, of the small percentage that were not enrolled, there was disagreement as to whether boys or girls were less likely to enroll stay enrolled.

According to some participants, girls were much more likely to enroll, but also had a tendency to drop out from school in order to marry or to have a child.¹⁶ FGD participants also stated that girls were permitted to re-enroll after giving birth. However, FGD participants identified several factors that they felt determined whether or not a female student would re-enroll including age and family circumstances. Some argued that the pressures of motherhood or responsibilities of being a wife could prevent them from continuing their education. These challenges are highlighted by a FGD participant in Lilongwe:

This [the girl returning to school] is happening depending on the level of education from which she dropped out. If she becomes pregnant while in secondary, it is easy for her to go back to school. But if she was in standard 7, if she go back to school the children laugh at her saying “mother....mother...mother” therefore she gets frustrated and dropout again. But if she was in secondary it is possible but not in primary school because the standard 1 pupils laugh at her.

¹⁶ The term “dropout” is described as “leaving school” according to FGD participants. Therefore, the usage does not necessarily align with UNESCO and USAID definitions of Dropout, “Proportion of students from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the following school year.” http://schooldropoutprevention.com/wp-content/files/reports/Trend_Analysis_Cambodia_English.pdf

In addition to early marriages and motherhood, some participants said that girls may end up dropping out due to sexual harassment and abuse on the part of teachers. One participant stated:

Education has gotten worse. In this school if the teacher see a pupil is older, if they don't sleep with that girl she will not pass therefore she has to sleep with the teacher for her to pass as a result many students are becoming pregnant at this school, the teachers we have here are eagles, they are just having sex with older girls and if they refused they fail and fail exams they will remain in standard 1.

Just as some participants argued that young women were more likely to enroll and to drop-out, other participants argued that young men were less likely to enroll in school in the first place (a claim that was not substantiated by the quantitative data), and just as likely to drop out of school. Some participants suggested boys, just like girls, drop out of school due to early marriage and becoming a parent, and are less likely to return to school than girls. Participants reported that while girls were encouraged to return to school by family members, this wasn't the case for boys:

Another problem in this area is the issue of early marriages. You will find that most young boys and girls are living together and they say they are married. And it happens that when a girl get pregnant, we, parents encourage the girl to go back to school after she delivers but most of the boys don't go back to school.

During the FGDs, participants also spoke of the influence of poverty on school attendance of both boys and girls. Participants across groups stated that a lack of economic resources prevented them from purchasing school supplies and clothing for students. So while school fees may not have been required, other expenses can make schooling prohibitive.

The issue of education is really a problem in this area because the parents have no money. And if they fail to pay the school fees for the child, and that child happens to be a girl, they just tell her to get married.

Focus Group Participant, Zomba

Through the FGDs, several themes emerged that identified challenges related to access education that were unique from those identified in survey responses. A number of participants reported that they did not have secondary schools in their local communities, which meant students had to apply to secondary institutions outside of their home communities. This option is one that carries an expense that not all families can manage. As one participant described:

In terms of education we are not satisfied because we don't have a secondary school in this community. Few children are selected to secondary school because we don't have a secondary school. And, the only secondary school we have is the one which is at Utale 2. If the child is selected to that secondary, we as parents, who really want our child to get educated, we send the child there

Some FGD participants said that although boys and girls were equally enrolled in primary school, they were not equally enrolled in secondary schools, sharing their perception that there was a greater percentage of females who were accepted to and attended private secondary schools outside of their home community. Perceptions of the FGD participants did not align with general trends that show that there is a higher percentage of males attending secondary school than females. However, during several focus groups, participants expressed that a large emphasis and numerous interventions were being put in place to increase the enrollment and attendance of female students. There were some who argued that the same efforts were not being put towards boys' education and that now girls were more likely to attend school than boys. While this does not accurately reflect trends and enrollment and attendance, it may reflect their experiences of education programming in their respective communities. This conclusion is speculative on our part, and warrants further examination to understand the source of FGD participants'

perceptions. However, perceptions can be important information for donors and implementing partners as they consider what type of programming is undertaken and how it is messaged.

The survey data indicated that schools in the study areas faced problems with the quality of teachers as well as teacher absenteeism. This may, in part, be explained by information from FGDs which indicated that several communities found it challenging to recruit and retain high quality teachers. FGD participants argued that a lack of appropriate housing as well as a lack of infrastructure developments discouraged teachers from coming to and staying in their communities, as can be seen in this excerpt from a participant in Balaka:

In schools we find that there are few teachers because teachers' houses have no electricity. While this is a town, teachers don't stay long because of the poor housing facility at schools. No one want to stay in the house where there is no electricity, some has come from towns like Lilongwe, Blantyre, that is what making teachers to run away.

Confirming household survey responses in this study, FGD participants stated that when communities were able to attract some teachers, they were not viewed as being highly competent and did not have the necessary materials to teach. Some speculated that poor resources of schools and low quality of teaching had an impact on literacy rates.

Overall, participants perceive education to be improving. From their point of view, children have greater access to primary school and the ratio of female to male students is beginning to equalize. And while most FGD participants identified barriers, such as a lack of appropriate infrastructure and school materials, a need to recruit and retain high quality teachers, and greater access for all students for opportunities to attend secondary school, an underlying narrative emerged from the data: community members recognize the importance of education and have a strong desire to ensure children and youth have access to schools. Furthermore, they appreciated the ground that has been gained in recent years:

In short we should say as you know here in Malawi it was very had in the past for a person to get money to pay for primary education but nowadays we have free primary education therefore many people nowadays are able to read and are able to know the importance of school. In short we should say things are going well in terms of education.

Health Services: Access and Use

In order to examine access to and use of health care as key indicators of quality of life, the evaluation team examined the following metrics: mortality rates of children under five, usage of bed nets, usage of health care services, distances to health care facilities, wait times at health care facilities, and the percentage of individuals who sought medical treatment when a child needed medical care. A summary of these metrics are shown in Table 9 below.

The national Demographic and Health Survey (DHS) is the primary source of the indicator of mortality for children under five, given its more thorough measurement of every individual birth and death per household. This level of detail was not possible in the present evaluation due to the length it would have added to the survey. However, as determined at the inception phase, the household survey provides supplementary information to this outcome by measuring the percentage of households that reported having lost a child under five in the past year. 4.5% of households in the sample reported losing a young child, and this rate was similar across study arms.

Bed nets, which have been supported by USAID for malaria prevention, were reportedly used by 68% of households for all children under five. Bed net usage was lowest in Mangochi District (54%) and highest in Karonga (80%) (all district-level information is shown in Annex 7).

All households in the sample were expected to have access to health care, as the evaluation sampling frame was restricted to those residing within an 8km radius of an SSDI-supported facility.¹⁷ Therefore, the baseline survey provides supplementary information about usage of services at these facilities. In the full sample, 80% reported that a household member had visited a public clinic or hospital, and 95% said they usually take a child to the hospital, health center, or clinic if medical care is needed. Median reported waiting times at health facilities in PI and FI areas were double that of HSO areas (two hours versus one).

Table 9. Basic Health Related Status and Health Access and Use

	Health sector only			Partial integration				Full integration			
	n	Mean*	SD	n	Mean*	SD	p	n	Mean*	SD	p
Child <5 in HH died in past 12 months	1732	4%	0.2	1281	5%	0.2	0.102	1726	5%	0.2	0.036
Reported all children <5 sleep under bednets	1100	72%	0.4	841	61%	0.5	0.000	1101	69%	0.5	0.105
Household member used public clinic or hospital in past 12 months	1733	81%	0.4	1282	79%	0.4	0.280	1728	79%	0.4	0.372
Reported travel time to closest clinic (minutes) *median	1716	90.0	74.9	1267	120.0	68.7	0.003	1717	60.0	66.8	0.000
Reported waiting time at health center/hospital at last visit (minutes) *median	1388	60.0	101.2	1008	120.0	113.8	0.000	1370	120.0	99.6	0.001
Takes child to hospital, health center, or clinic if child needs medical care	1609	95%	0.2	1204	95%	0.2	0.644	1615	94%	0.2	0.059

*Means reported unless otherwise noted

Households were asked to assess the quality of service provided by public hospitals and clinics by reporting on the frequency of problems associated with waiting times, lack of medicine or supplies, lack of attention or respect from staff, doctor absences and cost (Figure 7). The main concern was the long waiting time – 41% of households reported this is often a problem, and 33% responded that this is occasionally a problem; only 26% stated long waiting times are not a problem. The second main barrier to service provision was reported to be a lack of medicine or medical supplies; 66% reported this is a problem. Figure 8 presents the district-level frequency of stock outs, defined as a lack of medicine or other supplies, as reported by households utilizing public hospitals or clinics. There is some variation across the districts, with Lilongwe households reporting the highest rates of stock outs (40% of households stating this happens often, and only 25% stating this never happens).

¹⁷ Data on access to health facilities, gathered as part of the EGRA impact evaluation baseline household surveys among 8,700 households in ten districts in Malawi, conducted for USAID/Malawi by SI, showed the following: 72.3% of household respondents indicated that they walked to nearby public health facility, 23.1% traveled by bicycle, and 3.9% took some type of public transportation. Using those means of transportation, the average amount of time required to reach the closest clinic was 1.9 hours,

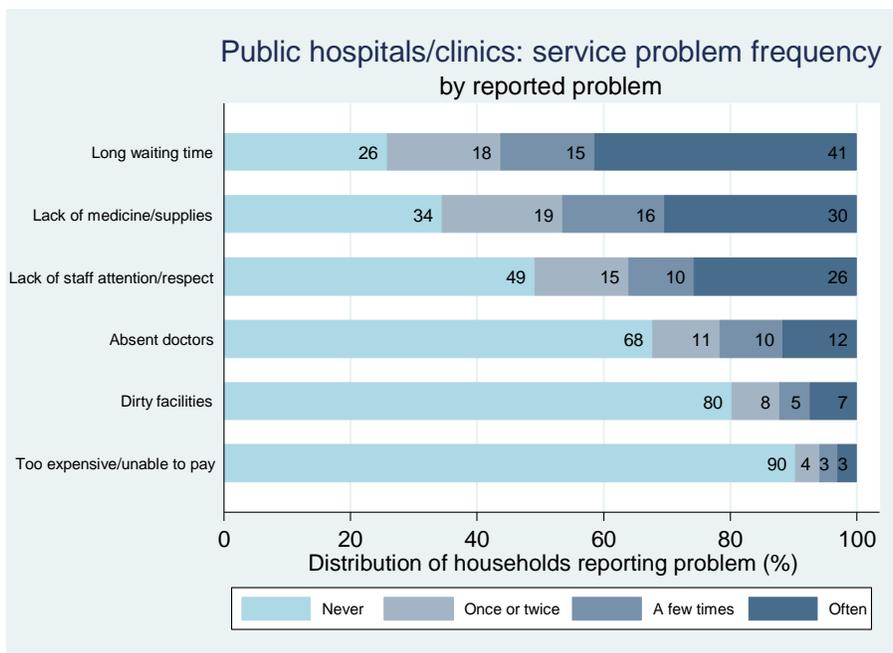


Figure 7. Satisfaction with local public hospitals/clinics – frequency of service problems

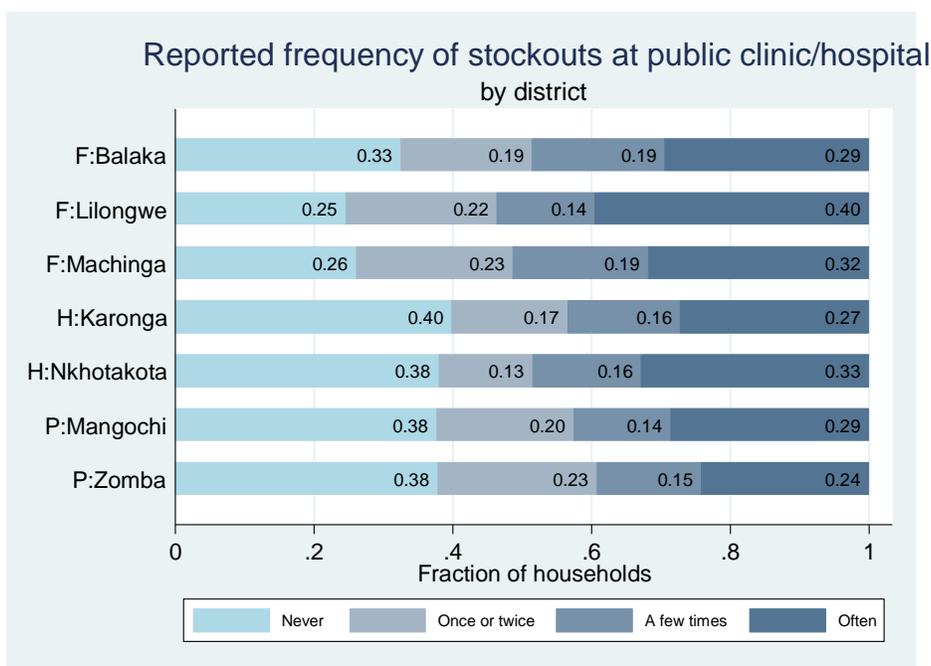


Figure 8. Frequency of Stock Outs at Public Clinic/Hospital, as Reported by Households

Reproductive Health

Usage of reproductive health services are reported in Table 10. 61% of the overall sample reported undergoing HIV testing and counseling (not shown in table). The rate was lowest in Mangochi (51%), which correlated to significantly lower rates of HIV counseling in PI versus HSO districts (district-level results

shown in annex). HIV counseling and testing was slightly lower for male respondents than female respondents in all locations, with the largest gender divide in Mangochi, where 46% of males versus 53% of females received this service. Among couples, rates of both individuals receiving HIV counseling and testing were higher, reaching 82% in FI and PI districts. This high prevalence might reflect over-reporting of positive behaviors, as these findings were contradicted by anecdotes shared in the FGDs, as described below. The majority of respondents reported receiving HIV counseling and testing from public health centers, followed by hospitals, suggesting these households were benefitting from the nearby SSDI-supported health facilities.

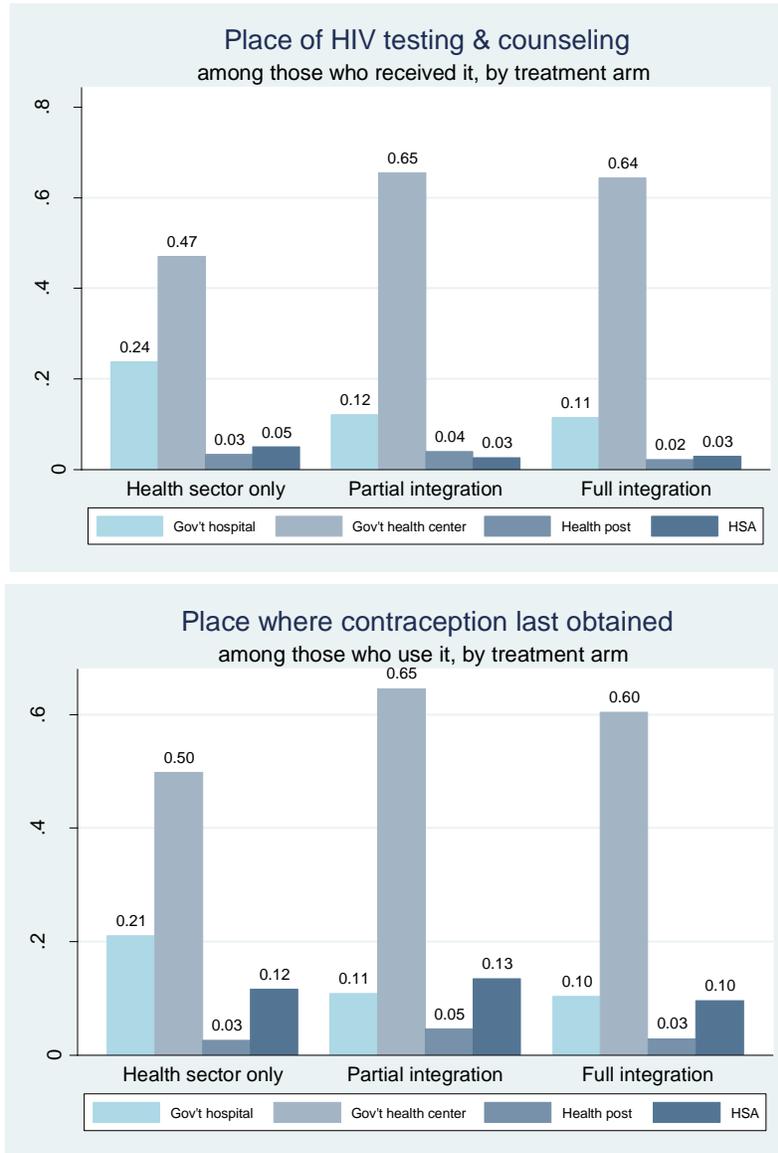


Figure 9. Locations where HIV testing and counseling and contraception were obtained

The contraceptive prevalence rate in the sample was highest in FI districts (66% of women of reproductive age) and lowest in HSO districts (58%). Nearly all reported using modern contraceptives, with injectables being the most common method of contraception. Prevalence of contraception use among married women was approximately 27% higher than unmarried women. As with HIV counseling and testing, women most commonly reported having last obtained their contraception at public health centers.

Table 10. Reproductive Health Services Received

	Health sector only			Partial integration				Full integration			
	n	Mean	SD	n	Mean	SD	p	n	Mean	SD	p
Respondent received VCT in past 12 months	1728	63%	0.5	1282	58%	0.5	0.005	1728	62%	0.5	0.699
Female respondent received VCT in past 12 months	1189	64%	0.5	905	60%	0.5	0.047	1235	63%	0.5	0.637
Male respondent received VCT in past 12 months	539	61%	0.5	377	53%	0.5	0.027	493	60%	0.5	0.942
Both partners received VCT in past 12 months (of couples)	928	78%	0.4	606	82%	0.4	0.067	895	82%	0.4	0.086
Woman age 15-49 currently uses contraceptives	1155	58%	0.5	838	61%	0.5	0.212	1207	66%	0.5	0.000
Woman age 15-49 currently uses traditional contraceptive (withdrawal, periodic abstinence)	1153	1%	0.1	834	1%	0.1	0.634	1204	1%	0.1	0.927
Woman age 15-49 currently uses modern contraceptives	1153	57%	0.5	834	59%	0.5	0.324	1204	65%	0.5	0.000
Woman age 15-49 currently uses contraceptive (among married)	1069	60%	0.5	736	64%	0.5	0.091	1036	70%	0.5	0.000
Woman age 15-49 currently uses contraceptive (among non-married)	82	32%	0.5	100	37%	0.5	0.458	169	44%	0.5	0.067

Rural Score Card Focus Group Discussion Findings on Health Access and Use

Most participants in the FGDs said that they have access to at least some form of health care, either through an HSA, community health center, or hospital. This may explain the high percentage of survey respondents who reported seeking medical care for their children, despite a substantial waiting time for services at the health care centers. The survey focused on the health care of women and children, as they are the primary beneficiaries of USAID program funds.

During FGDs participants were asked about their usage of health care services. Narratives constructed by the participants indicated that women have better and more frequent access to health care than men. Participants explained this is because over time women have been encouraged to go to health care centers for antenatal care. Antenatal visits provide several layers of care for women.

First, focus group participants explained that when women go for their antenatal appointment, they are asked to take HIV/AIDS test.¹⁸ When facilitators explored this further, participants explained that there were rare occasions during which men and women would seek HIV-testing as a couple. As one participant explained when asked if men and women seek testing:

...those who received this information and accepted are the women. Men are not many. If he accept to go for HIV testing, it means they have seen that something is wrong in his body. But if you tell him about going for HIV testing while he is healthy he cannot accept he says “you can go for HIV testing but for me I am okay. I will go when I get sick” which is not one to go for testing when you are sick.

In addition to HIV testing, according to participants, those women who sought out antenatal care were also provided with supplemental sources of food and provided with nutritional counseling. There was some indication that this was the outcome of USAID programming such as WALA and SSDI. While the nutritional counseling may indirectly benefit those men whose wives became mothers during these programs, it is unclear how either the supplemental food or nutritional counseling could be accessed by women who are not of childbearing age, their husbands or single men.

When asked about the quality of care, the majority of groups reported an overall improvement. However they also identified three primary weaknesses in the health care system: long wait times, unsanitary conditions, and lack of sufficient medication. Confirming the findings from the survey, FGD participants reported extraordinarily long wait times to see a doctor or nurse at the health centers where they were

¹⁸ Some of the data suggested that the testing is not only compulsory for women, but also for their partner to be tested. However, while it is compulsory for both, it seems that the women are in a situation where they must comply because they are seeking antenatal care. Men were not sought out, and testing occurred at the health care centers, not within the community.

seeking treatment. In fact, the quantitative data may conceal additional challenges faced by those seeking health care: a number of FGD participants reported waiting for long periods of time, only to end up not being seen at all. If patients were able to get in to see a health care provider, there were many times that the appropriate medicines prescribed for treatment were not available. Participants reported being sent to private pharmacies or private medical facilities to seek additional treatment or prescriptions.

Finally, a small percentage of respondents described a lack of sanitary conditions in the facilities they visited. Participants in Nkhotakota voiced concern about the treatment pregnant women received:

Pregnant women sleep on bad places and they can easily get some infections. The health facility is supposed to be hygienic. Sometimes they make unnecessary referrals of pregnant women to Nkhotakota and yet we do not easily get money to support them there. The workers are just afraid of cases that they would handle themselves. In addition, they should assist us especially on where guardians and expectant mothers should be sleeping.

Linkage between Poverty and Quality of Care

Some participants said that the care that one received was related to whether or not an individual was poor. As one respondent from Nsanje succinctly put it, “When a well to do patient comes to the hospital they welcome them nicely but when a poor person comes to the hospital they do not welcome you.”

It pains us when we go there (health facility). And we tend to think that hadn't been for poverty, we would have been treated by them and they would welcome us warmly. But most of the times, they tell us that we should wait and they would come back. So they would be doing what they want to do and you would realize that you are not being assisted.

Focus Group Participant, Balaka

Impoverished communities reported further barriers to health care availability in their inability to pay for housing for HSA and other health care workers, or to pay for boreholes. FGD participants reported going to council members to request a community health worker or HSA, but being told that they did not have money available to provide housing for potential candidates. This led them to travel greater distances to seek care. Participants also reported that the lack of boreholes was problematic as they had to rely on other, less sanitary, options for drinking water.

Food Security – Food Access and Use

Quality of life is affected by one’s level of food security, especially in communities where most individuals rely on the production of food as a primary source of income. Food insecurity in this study was measured using a modified version of the standard Household Food Insecurity Access Scale (HFIAS) questionnaire, which identifies the frequency with which a household recently ate undesirable food or insufficient food due to lack of resources. Respondents were asked whether a particular negative condition occurred in the past 30 days, and if so, whether it happened rarely, sometimes, or often. Each question was assigned a score of 0 (did not happen) to 3 (happened often), the question scores were then added to calculate an overall estimate of food insecurity.¹⁹

¹⁹ While standard HFIAS contains nine sets of questions, this baseline survey captured six of these due to a clerical oversight. A previous impact study conducted in similar study areas, based on field testing of standard HFIAS questionnaire, excluded two questions from a total of nine questions. This study used the tool from this impact study. In addition, by clerical mistake SI deleted one additional question resulting in only six of the nine standard questions included in this baseline. The resulting scale, though

Table 11 displays food security and nutrition indicators. On a scale of zero to 18, average food insecurity scores were 7.1 and 7.5 in PI and FI districts, respectively, compared to 5 for HSO. These differences were significant. The Machinga district experienced the greatest food insecurity, with a score of 8.7, whereas Karonga was best off at 4.1. Households headed by females had higher food insecurity levels than those headed by males (Figure 10).

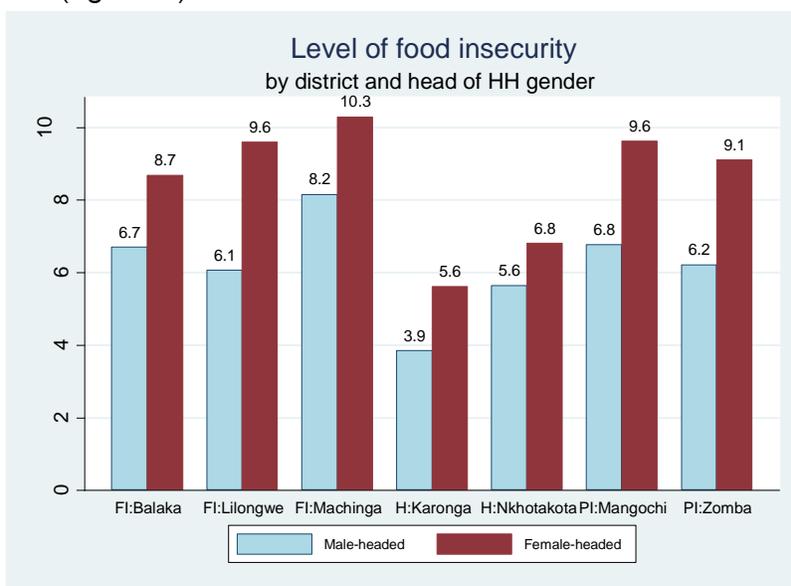


Figure 10. Level of food insecurity by district and gender of household head

based on smaller number of questions, is still able to provide a comparative measure of food insecurity across treatment zones. The full nine-question questionnaire will be used in subsequent data collection rounds, with comparisons made on both the full and baseline set of questions. First, one indicator at midline and endline to a score based on the same 6 questions used at baseline, as an “apples to apples” comparison. The secondary measure will compare the 6-question baseline score to the 9-question midline and endline scores. We expect this to be feasible because there is likely to be high collinearity between baseline questions and the three omitted questions. In other words, the experience of the three missing food insecurity conditions are likely already well represented by the other responses. SI will conduct sensitivity analysis on the midline and endline datasets to test this assumption prior to doing the comparison of the 6-question to 9-question scores. Furthermore, this imbalanced comparison should not affect the validity of relative comparisons between study arms, which is the ultimate purpose of the analysis for this evaluation.

Table I I. Food Security and Nutrition

	Health sector only			Partial integration				Full integration			
	n	Mean	SD	n	Mean	SD	p	n	Mean	SD	p
Degree of food insecurity (scale of 0-18)	1733	5.0	4.9	1282	7.1	5.2	0.000	1728	7.5	5.1	0.000
Child 0-5 mo is exclusively breast fed	124	77%	0.4	100	93%	0.3	0.001	112	84%	0.4	0.209
Main woman in HH dietary diversity: ate soy yesterday	1704	8%	0.3	1269	4%	0.2	0.000	1715	6%	0.2	0.002
Main woman in HH dietary diversity: ate groundnuts yesterday	1699	22%	0.4	1268	22%	0.4	0.668	1715	24%	0.4	0.363
Nutrition status of child 6-23 months:											
Child 6-23 months is breast fed	329	91%	0.3	254	96%	0.2	0.018	325	93%	0.3	0.214
Meets min. acceptable diet for breastfed child 6-23 months	265	19%	0.4	210	10%	0.3	0.007	283	6%	0.2	0.000
Meets min. acceptable diet for non-breastfed child 6-23 months	25	0%	0.0	9	0%	0.0		20	0%	0.0	.
Number of food groups consumed yesterday	368	2.7	1.6	272	2.4	1.3	0.019	337	2.4	1.2	0.002
Ate grains/roots/tubers yesterday	368	73%	0.4	272	75%	0.4	0.589	337	78%	0.4	0.153
Ate legumes yesterday	327	24%	0.4	254	29%	0.5	0.151	323	26%	0.4	0.470
Ate dairy yesterday	328	3%	0.2	254	1%	0.1	0.057	325	1%	0.1	0.021
Ate meats/flesh foods yesterday	368	58%	0.5	272	39%	0.5	0.000	337	36%	0.5	0.000
Ate egg yesterday	328	13%	0.3	254	6%	0.2	0.009	324	6%	0.2	0.001
Ate vitamin A-rich foods (e.g. leafy greens, orange fruits/vegetables) yesterday	368	79%	0.4	272	81%	0.4	0.597	337	82%	0.4	0.303
Ate other fruits or vegetables yesterday	327	28%	0.5	254	15%	0.4	0.000	324	11%	0.3	0.000
Number of feedings of solid or semi-solid food	333	2.5	1.5	254	2.3	1.6	0.045	325	1.9	1.2	0.000
Number of feedings of formula or milk (non-breastmilk) among non-breastfed child	6	2.0	2.4	2	5.0	2.8	0.195	1	3.0	.	.
Number of feedings of formula or milk (non-breastmilk) among breastfed children	31	2.0	1.1	8	2.5	1.7	0.340	10	2.2	2.0	0.734

Nutrition

Nutrition indicators were captured for household members of various age groups through the household survey. This included the prevalence of exclusive breastfeeding of children under six months of age, captured through a series of questions about the types of food or liquids given to a child in this age group. Exclusive breastfeeding of children under 6 months of age was reported by 93% of respondents in PI districts, significantly more than the 77% of respondents reporting exclusive breastfeeding in HSO districts. Exclusive breastfeeding was also common in FI districts (84%), though this was not significantly different from HSO.

Among women, consumption of USAID-supported commodities - soybeans and groundnuts - was measured to identify the extent to which the increased availability of these foods has resulted in more diversified diets. Very few women ate soy foods on the prior day, as shown in

Table I I; however, groundnuts were eaten by 22%.

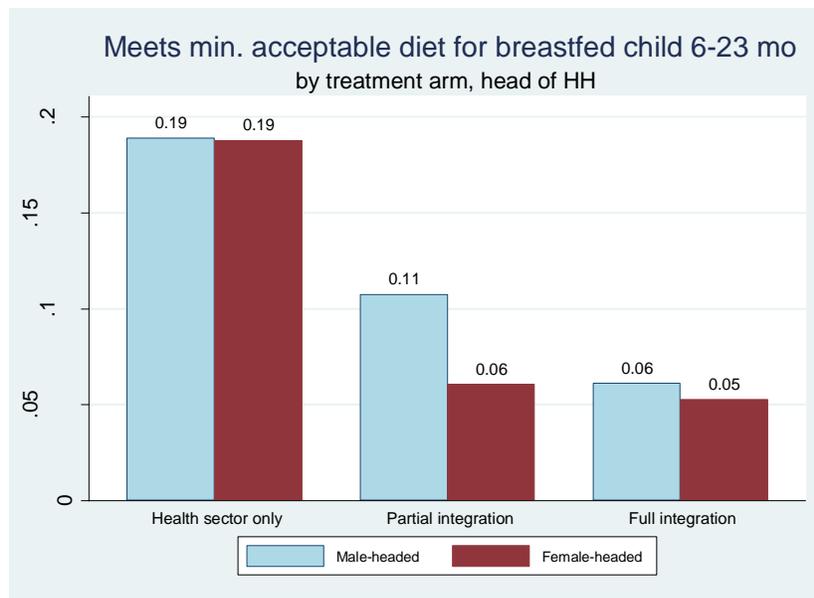


Figure 11. Breastfed children 6-23 months receiving minimum acceptable diet, by study arm and gender of household head

The baseline survey captured dietary diversity and frequency of meals for children 6-23 months in order to measure the proportion of the sample having a minimum acceptable diet (MAD) in the previous day for this age group. This was calculated according to standard international guidelines adopted by USAID in its PMP²⁰. Only one child 6-23 months per household was included in this metric. Breastfed children in this age group are to have a) consumed at least four of seven food groups; and b) receive two or more feedings of solid or semi-solid foods among children 6-8 months, and three or more solid or semi-solid feedings for 9-23 months. Non-breastfed children are to have received the first two components above, with the modification of having at least four out of six food groups (excludes dairy); and the addition of at least two milk feeds daily (formula or other).

As shown in

Table 11, the majority of children in this age group were breastfed. Very few breastfed children across the sample were receiving the minimum acceptable diet. This was lowest in the FI study arm at 6% and highest in HSO at 19%. Both FI and PI districts were significantly different from HSO. Children in FI and PI areas consumed slightly fewer food groups on average and had fewer complementary feedings. Vitamin A rich foods (especially orange colored fruit) were most commonly given. This was likely linked to data collection coinciding with mango season. The prevalence of meeting the MAD was similar among male and female-headed households, although slightly fewer female-headed households met the MAD standard in the PI zone (Figure 11).

²⁰ Indicators for assessing infant and young child feeding practices can be found in: http://whqlibdoc.who.int/publications/2010/9789241599290_eng.pdf

The small number of non-breastfed children rendered statistical comparisons between groups highly unreliable for indicators related to non-breastfed children. However, notably, no non-breastfed children 6-23 months were receiving the minimum acceptable diet. This was driven largely by the finding that 87% of children in this group did not receive any milk feedings. In addition, 63% did not receive at least four food groups, and 14% did not have at least two solid food feedings (data not shown in table).

Rural Score Card Focus Group Discussion Findings on Food Security and Nutrition

During the focus group discussions on food insecurity, FGD participants were asked what it meant to have a diverse diet. Most had some level of understanding of this concept. They cited different food groups and types of food, stating that they needed to vary the food they ate. Some said that, ideally, one would vary the foods they consume throughout the day, while others stated that they varied food by day.

“In Malawi the first problem is money and second is food.”

Focus Group Participant, Balaka

Participants stated that while meat protein may not be available there were other sources of protein including fish, legumes and crickets. Statement from an FGD participant in Zomba:

On the issue of balanced diet food in this area, I can say it is ok. As I said earlier on, different organisations came here to encourage us on this and we were told that even though we are poor but there are some locally found food which can make a balanced diet; vegetables, beans, meat, grasshopper. Most of which are found locally. Crabs in these rivers, because we cannot just depend on the meat we buy in town, no. They encourage us to take local things which can be found and they encourage us to raise chickens so that someday we will be able to use either the eggs or the chicken when necessary.

While community members understand the meaning of and need for a diverse diet and some were eating a variety of foods, most said that they mainly ate staple foods such as Nsima (a porridge made from Maize flour) and that there was persistent hunger/famine in the community.

Respondents and interviewers alike used the terms hunger and famine synonymously. This is not surprising given that the word for hunger and the word for famine is the same word in many local languages. In at least one community, FGD participants differentiated between two types of hunger/famine. There was “food hunger/famine” and “poverty hunger/famine”. According to participants, “food hunger/famine” occurred when one had money and went to the local market, but there was no food available for purchase or there had not been a good yield that season. This refers to access issues. “Poverty hunger/famine” on the other hand, occurred when there was food available for purchase, but individuals did not have money to purchase the food either due to the fact that the price of food had increased, or they had not earned sufficient income for purchase. This refers to affordability that can affect use.

Participants’ choices regarding the types of food they eat were examined during the FGDs. When asked how they selected the food they ate or why they did not eat a variety of foods, FGD participants provided a wide range of responses and named two main ways that one may obtain food - through purchase (buying foods from the local markets) and through production (growing or raising one’s own). Therefore, if they were not eating a diet with a variety of food types, it was driven either by a lack of financial resources to purchase diverse foods or by not producing a variety of foods. It should be noted,

“On the issue of food, for someone who is in poverty, it might happen that the person has a very large field for cultivation but because of having no money to buy fertilizer, the yield is just very little. Very poor harvest.”

Focus Group Participant, Zomba

however, that participants did not explain why they did not produce a variety of foods.

According to responses from FGD participants, most have access to a local food market. During the FGDs, the facilitators read a list of foods and asked whether or not those foods were available in their community. In most cases, participants said that the foods were available. Only in a few cases did they state that there was overall very little food in the community. Though FGD participants said that these foods were available at the local markets, many were quick to say that they were really only available to those who had money to purchase them. In the words of one FGD participant from Nkhotakota in response to whether or not people eat meat, “Yes they do eat. Those who have money, if you have money you can buy.” While this is an important theme from the FGDs, it should be examined with caution, as the availability of food was not systematically examined nor was the sample large enough to say with certainty that most community members knew what to eat in order to maintain a nutritious and diverse diet.²¹

Overall, it does seem that participants believed that food production is down and it is influencing individuals’ decision-making around the types of food they consume. It should be noted, however, that there was some lack of clarity during the FGDs as to the period of time that was being referenced. There were frequently clarifying questions asked by participants about what time period the moderator was referencing.

Some of the major factors stated by FGD participants that they believed influence their ability to produce included: the quality of the soil, access to fertilizer, environmental/climate changes, and the decreased size of their plots of land. Participants believed that the quality of soil had declined because they had farmed the location repeatedly, due to flooding that washed away the most fertile soil, and because they had used fertilizer in the past that they no longer had access to. In fact, in all districts visited, participants brought up fertilizer in conversations related to poverty as well as food production, stating that the lack of fertilizer had a direct negative impact on their agricultural yields. Participants in some districts said that the price of fertilizer was high and that they could not afford it based on their income. In Lilongwe, participants described a program which provided them with coupons to purchase fertilizer. They said, however, that when the fertilizer program was introduced, the Government of Malawi eliminated a program that allowed them to secure microloans to buy fertilizers.

“On the issue of food, for someone who is in poverty, it might happen that the person has a very large field for cultivation but because of having no money to buy fertilizer, the yield is just very little. Very poor harvest.”

Focus Group Participant, Zomba

Some participants also stated that changes in the climate had also led to lower yields. Climate changes included flooding, drought, changes in the timing of rains, decreased water in rivers and lakes, as well as decreased fish in lakes, which had served as a source of protein.

²¹ At this point, our FGD findings are drawn from a small sample, and only preliminary, and do not necessarily represent the broader population of beneficiaries. Therefore, while it may seem that the Mission could focus less attention on messaging and redirect funding to economic growth, this warrants further investigation. Perhaps through the upcoming FFP Title II study, the Mission could examine food selection, as that is a standard question part of the FFP baseline surveys. The Mission might also consider supplementing information about the types of food they choose, with qualitative questions around how beneficiaries choose the food they do and about their knowledge/awareness around dietary diversity. If these data are collected as a part of the FFP Title II Baseline study, SI could use those findings in the areas that overlap with this study to get a better sense of decision-making and drivers.

Rarely was it the case that individuals were completely without food, but rather, they were limited in terms of the type of food, frequency with which they ate certain foods, the amount they ate. FGDs indicated that vast majority of respondents and their community members (men, women and children) are not meeting the threshold of a minimal acceptable diet. However, in communities sampled for qualitative data collection, there are individuals who have the knowledge and awareness needed to make good food choices. They understood the meaning of dietary diversity and food variety. While they were able to understand the concepts, most said they were either unable to purchase or produce the foods they needed in order to maintain a well-balanced diet.

FGDs suggested a strong relationship between the levels of poverty and food insecurity. Specifically, participants described that one of the biggest reasons of poverty was an inability to generate income, and this inability to generate income was driven by a decrease in food production due to the fact that most income is generated through the agricultural sector.

Agriculture Services: Access and Use

Farming of USAID-supported commodities - soybeans, groundnuts, and orange fresh sweet potatoes - varied by district (Figure 12). Both soy and groundnuts were grown by more farmers in Lilongwe Rural than in any other district, where 65% and 49% of households cultivated groundnuts and soy, respectively.

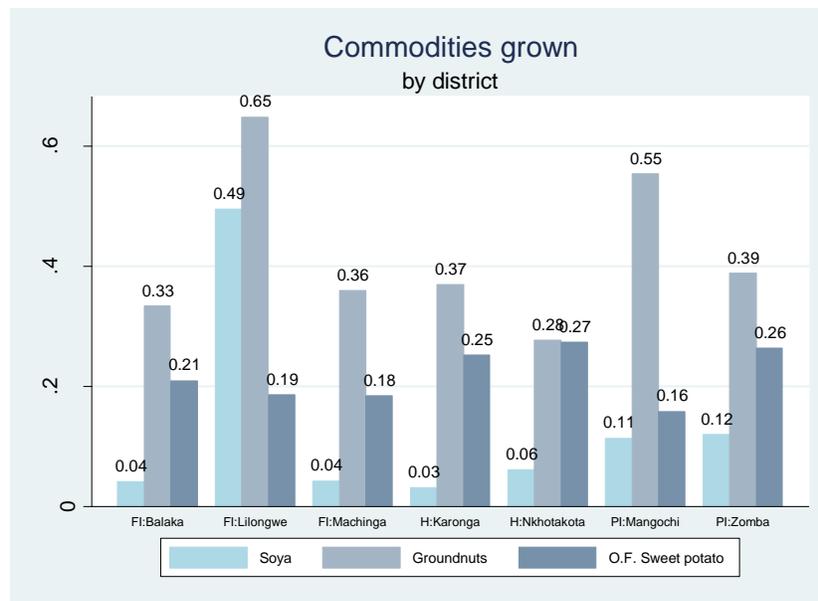


Figure 12. USAID-supported commodities grown, by district

Table 12 demonstrates the volume and value of each commodity in total and per unit. There was extremely high variability in most of the agricultural production characteristics described by respondents, suggesting there may have been poor knowledge or recall of the size of crop fields, yields, inputs, or monies received for commodity sales. Extensive efforts were made to identify and remove potential outliers; however, some inaccurate values may remain undetected. Therefore, data here present medians in addition to means and standard deviations to provide additional context.

Median yields of soybeans per hectare were highest in full integration districts (388.4 kg) whereas groundnut yields per hectare were highest in HSO districts (494.2 kg). Median prices earned per kg of each commodity were consistent across all study arms for groundnuts, though in HSO districts soya sold at US\$0.20 higher per kg than in other areas. After accounting for the cost of inputs, the gross margin for

each commodity was highest in the HSO study arm. The average number of days it took to sell soybeans or groundnuts was also lowest in the HSO area.

Table 12. Agricultural production characteristics for soybeans and groundnuts

Soya production	Health sector only				Partial integration				Full integration			
	n	Mean	Median	SD	n	Mean	Median	SD	n	Mean	Median	SD
Household grows soya	1727	0.05	n/a	0.2	1260	0.1	n/a	0.3	1709	0.2	n/a	0.4
Hectares under soya cultivation (among full sample)	1731	0.01	0.0	0.05	1277	0.03	0.0	0.1	1720	0.05	0.0	0.1
Hectares under soya cultivation (among soya farmers)	65	0.2	0.1	0.2	129	0.3	0.2	0.3	306	0.3	0.2	0.3
Yield of soy last season in KG (among those who grew soy)	76	71.7	29.2	110.4	146	88.4	30.0	141.2	325	129.6	59.0	210.5
Soy yield per hectare	61	797.5	289.1	1317.0	129	454.8	148.3	723.5	299	616.5	388.4	765.6
Kg of soy sold last season(among those who grew soy)	77	31.6	0.0	80.8	145	56.7	10.0	115.9	318	99.7	40.0	194.9
Value of total soya sold (USD)	22	42.2	23.1	44.2	77	33.3	12.5	58.0	232	39.3	20.0	56.2
Soya price earned per kg (USD)	22	0.7	0.5	0.5	76	0.4	0.3	0.5	228	0.4	0.3	0.4
Total value of inputs to soy production (USD)	80	3.9	0.0	13.4	147	2.4	0.0	5.8	332	5.2	0.8	13.1
Individual level gross margin for soya (USD per Ha)	17	281.0	259.5	256.1	67	206.5	103.8	345.9	217	194.4	129.7	198.1
Number of days it took to sell soya harvest	24	7.8	1.5	14.0	88	21.6	2.0	42.8	251	10.5	3.0	21.2
Groundnut production	Health sector only				Partial integration				Full integration			
	n	Mean	Median	SD	n	Mean	Median	SD	n	Mean	Median	SD
Household grows groundnuts	1727	0.3	n/a	0.5	1275	0.5	n/a	0.5	1717	0.4	n/a	0.5
Hectares under groundnut cultivation (among full sample)	1702	0.2	0.0	2.4	1264	0.2	0.0	1.8	1717	0.3	0.0	2.1
Hectares under groundnut cultivation (among groundnut farmers)	481	0.4	0.2	1.0	528	0.4	0.2	1.2	733	0.5	0.2	1.5
Yield of groundnuts last season in KG (among those who grew it)	493	210.2	84.2	428.3	567	139.1	70.0	214.6	746	163.9	84.0	256.4
Groundnut yield per hectare	429	920.9	494.2	1343.0	509	629.2	321.2	1061.0	714	613.0	391.1	781.0
Kg of groundnuts sold last season(among those who grew it)	506	4408.0	28.0	96421.0	567	72.8	0.0	175.9	738	96.2	26.5	203.5
Value of total groundnuts sold (USD)	296	73.2	33.8	187.7	277	42.9	18.8	76.5	404	61.7	30.0	136.6
Groundnuts price earned per kg (USD)	269	0.5	0.3	0.7	268	0.4	0.3	0.6	393	0.5	0.3	1.1
Total value of inputs to groundnuts production (USD)	559	8.8	3.8	18.9	593	5.4	2.0	12.0	769	7.9	2.5	20.2
Individual level gross margin for groundnuts (USD per Ha)	238	429.2	208.0	1162.0	248	190.6	122.3	269.5	383	269.9	155.8	522.0
Number of days it took to sell groundnut harvest	314	14.8	2.0	29.0	292	23.4	5.0	39.6	423	22.4	5.0	33.9

In the full sample (data shown in executive summary table), the average number of hectares under soy cultivation was 0.03, and that for groundnuts was 0.2 ha. Average yields of each commodity were 596.4 kg/ha and 697.9 kg/ha for soy and groundnuts, respectively, during the last cropping season.²² The average value of soybeans sold per household in the last cropping season was \$38.10 while groundnut harvests brought \$59.80 in average revenue. After removing the total cost of inputs, the average gross margin for individual farmers was \$202 for soy and \$291 for groundnuts. Orange fresh sweet potato harvest information, as well as other commodity values, are provided in Annex 7.

General farming practices, regardless of commodity grown, are reported in

²² These yield data are in line with data reported in other studies conducted in Malawi. See <http://www.icrisat.org/tropicallegumesll/pdfs/November-2013.pdf>

Table 13. Farmers' clubs are one activity supported by the INVC project. In the study area, 27% of households reported participating in a farmers' club. More males than females reported participating in farmers' clubs. Few had used a mobile phone to conduct farming business in the past year, and few had sold their crops through a warehouse.

Table 13. Agricultural practices

	Health sector only (comparison)			Partial integration				Full integration			
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>p</i>	<i>n</i>	Mean	SD	<i>p</i>
Household members have participated in farmers' club	1733	24%	0.4	1282	28%	0.4	0.033	1728	29%	0.5	0.005
Male in household participates in farmers' club	1733	16%	0.4	1282	18%	0.4	0.255	1728	18%	0.4	0.280
Female in household participates in farmers' club	1733	13%	0.3	1282	14%	0.3	0.282	1728	16%	0.4	0.012
Used mobile phone for business in past year (e.g. check crop prices)	1733	8%	0.3	1282	3%	0.2	0.000	1728	5%	0.2	0.000
Sold last harvest through trader at home	1110	68%	0.5	743	40%	0.5	0.000	1069	42%	0.5	0.000
Sold last harvest at market	1110	30%	0.5	743	57%	0.5	0.000	1069	56%	0.5	0.000
Sold last harvest through warehouse	1110	3%	0.2	743	3%	0.2	0.481	1069	2%	0.2	0.598
Type of crop grown changed in recent years	1643	23%	0.4	1240	26%	0.4	0.091	1676	26%	0.4	0.027

Women's Role in Agriculture

Throughout the analysis of baseline data collected via the household survey, gender plays a pivotal role, with relevant outcomes and indicators disaggregated by gender of household head, sex of the household member, and with special considerations to concerns that predominantly affect women (e.g., childcare, birth rates). In addition, one section of the survey was entirely devoted to measuring aspects of women's empowerment in agriculture, with a focus on decision making related to production, resources and income. This section was based on modules in the Women's Empowerment in Agriculture Index (WEAI). Although the team would have preferred to utilize the full instrument, this was not feasible due to time and other constraints, so a complete WEAI could not be calculated. For example, the gender parity module (that reflects the inequality between the primary adult male and female), and that is usually administered to both the male and the female in the household (households without a male head not eligible), was excluded. Instead, the baseline survey focused on the participation of women in making household decisions related to the following topics:

- Agriculture (inputs for agricultural production, types of crops to grow, when/who would take crops to market)
- Family life (family planning, schooling and health care for boys and girls)
- Community participation (whether and how to participate in community activities or decision making)
- Production/income generating activities, by sector (food crop farming, livestock raising, non-farm economic activities, wage/salary employment, fishing)
- Use of income generated by activities, by sector (food crop farming, livestock raising, non-farm economic activities, wage/salary employment, fishing)
- Loans and borrowing decisions (for agricultural production, NGOs, informal lenders, formal lenders such as banks or financial institutions, friends or relatives, group-based microfinance)

Women were asked to rank the level of their participation in making decisions related to production and the use of generated income for each type of activity, specifying whether they had no input into decisions, input into very few decisions, some decisions, most decisions, or made all decisions. For the other categories, including credit and main household decisions, the respondent was asked to specify the person(s) typically making decisions on each issue. If at least one female in the household was listed, the household was coded as having female participation in decision making in that domain. The FGDs explored the nuances of decision making within households and the main themes are presented in the following sections.

Figure 13 presents the frequencies of the reported answers for decisions related to productive activities and decisions related to the use of income generated, by sector. Of all sectors, women have the fewest

decision making powers in fishing, likely because participation in this sector is quite gendered, and the sample size in this category was quite small, with few households engaging in this activity. Food crop farming is second from the bottom, with about 55% of households reporting that women participate in most or all decisions. Women fared better in the other categories, with 32% and 62% of households reporting female participation in all and most or all decisions, respectively.

The figures show that women have far more input into the production decisions than the use/spending of income, with one exception being fishing, for which women have more input into spending decisions than production decisions. Of the other categories, women have the least input into livestock raising and cash crop farming, with approximately half of the households reporting that women participate in most or all decisions on these topics.

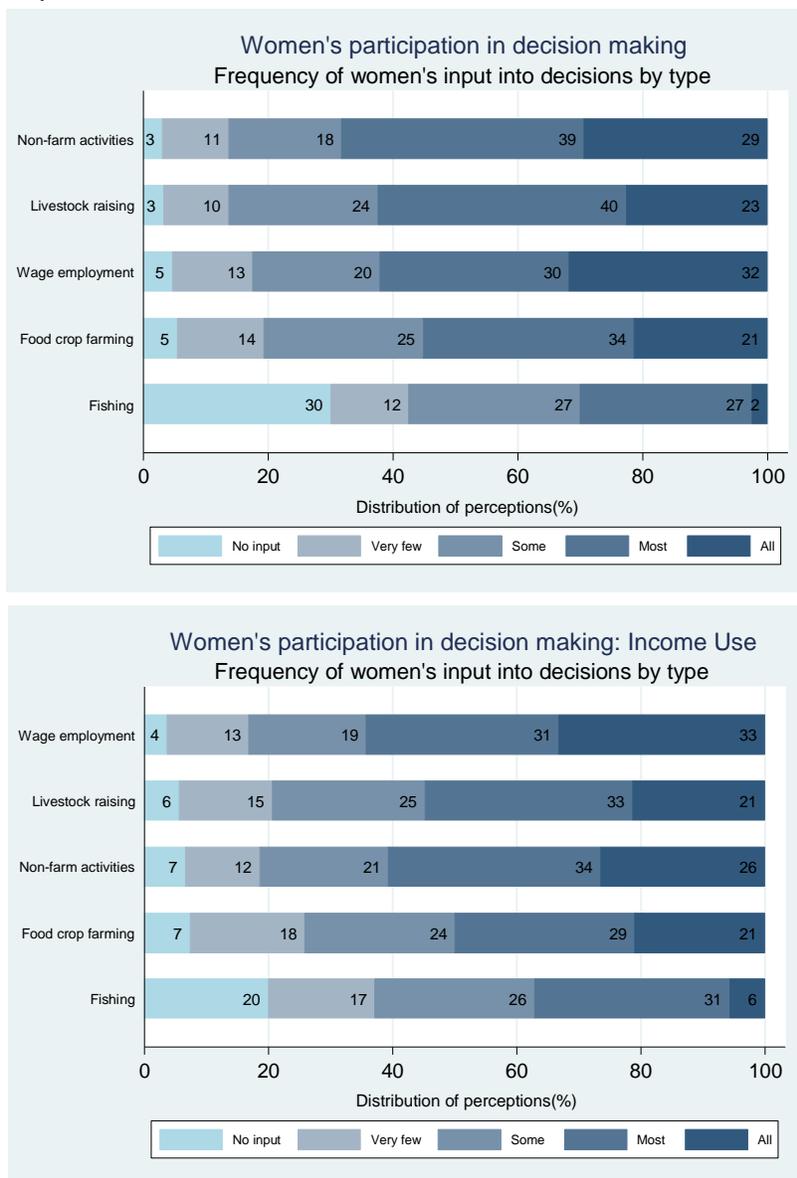


Figure 13. Frequency of women's participation in decisions, by activity

Table 14 presents the proportion of households in which women typically participate in making various types of decisions on family matters and credit, disaggregated by poverty status. Women have the least input into taking loans (in 38% of households), and the most into own health care (74%), as well as substantial input into health care of girl children (68%) and boy children (63%). Within households that had loans, women were reported to participate in loan taking decisions in 45-68% of decisions, with the participation rates varying highly by source of loan. Women had relatively little input into agricultural loans (45%), but many had input into microfinance or group loans (68%) or loans from NGOs (63%). This result could be driven in part by the fact that most microcredit programs exclusively target women.

Within general household decisions, few differences are observed by poverty status for the majority of the categories, with the main exceptions being schooling and healthcare of children, with women participating substantially more in decision making within the poor households. The largest difference among households in different poverty groups emerge for schooling of girls: for households above poverty line, 50% have women participation, compared to 65% in households below poverty line. However, with credit decisions, a striking result was that in one credit category – formal lending - the differences between poor and non-poor households was especially pronounced, with only 36% of women in households below poverty line having input into borrowing from a formal lender like bank or financial institution, compared to 63% of those above the poverty line. The results should be interpreted with caution since the majority of female headed households were below poverty line. Also, use of formal loans among households below poverty line is very low due in part to many reasons including collateral requirements.

Table 14. Percentage of households with women participating in decisions, by type

Household decisions:	Overall	Below poverty line (\$1.25)	
		No	Yes
Inputs for agriculture	46%	44%	47%
Types of crops to grow	57%	57%	57%
Taking crops to market	51%	53%	50%
Family planning	52%	52%	53%
Participation in community decisions/activities	53%	52%	53%
Taking loans	38%	38%	37%
Participation in groups/committees	51%	51%	51%
Schooling of boy child	51%	46%	57%
Schooling of girl child	58%	50%	65%
Health care of boy child	63%	60%	67%
Health care of girl child	68%	62%	74%
Health care	74%	74%	74%
Credit decisions:			
Credit for agriculture	45%	45%	46%
Credit from NGO	63%	64%	64%
Credit from informal lender	48%	51%	45%
Credit from formal lender	55%	63%	36%
Credit from friends/relatives	56%	57%	54%
Credit from microfinance	68%	69%	66%

Rural Score Card Focus Group Discussion Findings on Role of Women in Agriculture

During the FGDs, participants discussed the role of women in agriculture in terms of decision-making and division of labor. Overall, there was a lack of agreement about the degree to which women participated in each of these activities. This disagreement occurred not only across communities, but also within the discussion groups. That is, individuals even within a single community did not agree on the level of gender equity in decision-making and in the division of labor.²³ The main narratives that emerged from the conversations that can be broadly categorized into decision making and division of labor, and these findings are summarized below.

If we talk about gender [equity] in our community, it is practiced on other things, not on money. The woman don't play that ball. Only men are the ones who know how to spend the money. It is possible for the man to finish all the money without buying you a wrapper [chitenje]. Gender [equity] is practiced when you are working.

-FGD participant, Lilongwe

Decision Making: Most respondents said that the husband and wife usually make decisions collaboratively about which types of crops would be planted and by whom, although there were some cases to the contrary. One respondent in Balaka ventured:

²³ It should be noted that FGD groups included both men and women, so it was not feasible to identify differences of opinion between men and women..

[Those] who do separate things from what their husbands do are very few, [P: Exactly] but most of the couples do work together. For instance, they agree that this year we should grow tobacco, or they would grow little tobacco and some soya; all that comes from the agreement between the wife and husband.

The process of decision-making with regard to the use of generated income appeared to have more variation across households, with the focus groups discussions revealing multiple perspectives. Several participants stated that the men made decisions about how the income earned through food production would be spent, while others argued women either weighed in or made the decision themselves.

There were two primary subtexts that evolved during discussion of this topic. The first is that both men and women saw the other gender's preferred purchases as frivolous. Women argued that men often spent the money on drinking alcohol or other non-essential expenditures, and therefore could not be trusted to make sound spending decisions of the earned money. Likewise, men argued that women wanted to spend the earnings on frivolous items such as clothing.

The second subtext related to the consequences of these different priorities in spending decisions. Women indicated that disagreements over the use of money could lead to domestic violence, and men indicated the disagreements could lead to the dissolution of a marriage. One woman recounted that when she would inquire about where the money had gone: *"They pretend to have been robbed of the money when they were coming from the bank to withdraw, yet he is lying and when you ask further they beat us."* Another explained the beating was justified because the woman had not brought inherent value to the marriage in the form of resources such as land or a garden. When these examples were presented to men in their focus group, one man responded:

Of course it is true what [she] has said. But this is so because of other behaviors of women; when we give them a chance to have a say on the money, they become more demanding. They say, "I want a wrapper. I want this. Oh, I want that." And because of this, a man is forced to go out with the money and marry other women.

Division of Labor: According to FGD participants across communities, men and women did share some of the roles and responsibilities related to farming. In fact, many spoke about the division of the land managed by the household, with women tending to one part and men tending to the other. While FGD participants acknowledged that the labor was divided, there was an indication that roles were gendered. That is, certain roles were ones that were meant for men to assume while others were assigned to women. As demonstrated in this quote from a participant in Nkhotakota, these roles were often complimentary:

The problem is that the woman cannot go fishing in the lake. I cannot even prepare maize for flour while the wife is here. Of course, there are some tasks at the household that as a man I can do. Sometimes, after coming from the garden together, while my wife is cooking, I can be splitting the pieces of firewood so that the food should be prepared faster. We have assisted each other there.

For the most part, taking on the roles of individuals of the opposite sex was seen as unacceptable. Several respondents said that as women did the work of men, they would "take the trousers" of the house. Likewise, if men took on the roles and responsibilities that are traditionally for women, they would be mocked by others in the community. There were certain times when this trading of roles was seen as acceptable, such as during a woman's illness, birth of a child, etc. For example, if a woman is too pregnant or ill to carry out certain responsibilities or when other duties call. As another example, one man in Nsanje explained that under normal circumstances, it is the woman's responsibility to tend to the cooking fire and to fetch water. However, if she needs to fetch water while the fire is going, the man may assume the responsibility of attending to the fire.

Resiliency to Climate Change

Nearly 75% of respondents were familiar with the idea of climate change; however, more than 30% were unaware of any actions they could take to prepare for and respond to it. Planting trees was the most common action suggested. Table 15 demonstrates activities related to climate change vulnerability and resiliency.

Table 15. Climate Change Vulnerability and Resiliency

	Health sector only			Partial integration				Full integration			
	n	Mean	SD	n	Mean	SD	p	n	Mean	SD	p
Has heard of climate change	1733	73%	0.4	1282	72%	0.4	0.506	1728	76%	0.4	0.081
Don't know how to prepare for climate change	1730	38%	0.5	1281	35%	0.5	0.113	1728	34%	0.5	0.023
Household gathers materials from forest (e.g. wood, fruit)	1733	63%	0.5	1282	70%	0.5	0.000	1728	62%	0.5	0.235
Wood/timber is important source of income	1733	8%	0.3	1282	6%	0.2	0.047	1728	8%	0.3	0.780
Household member fishes regularly	1733	15%	0.4	1282	4%	0.2	0.000	1728	5%	0.2	0.000
Number of fish meals in past week (among households that regularly fish)	256	5.3	3.8	46	3.8	3.5	0.018	87	3.4	3.1	0.000
Experienced loss or severe reduction of arable land due to erosion in past year	1733	43%	0.5	1282	37%	0.5	0.000	1728	38%	0.5	0.001
Respondent saw demonstrations in the past year related to planting or preserving	1733	28%	0.4	1282	26%	0.4	0.274	1728	38%	0.5	0.000
Planted trees in past year	1733	24%	0.4	1282	25%	0.4	0.595	1728	33%	0.5	0.000
Changed ag. practice in past year that may improve resiliency to climate change	1733	12%	0.3	1282	12%	0.3	0.521	1728	12%	0.3	0.699
Changed water use in past year that may improve resiliency to climate change	1733	2%	0.1	1282	3%	0.2	0.024	1728	3%	0.2	0.126
HH adopted measure in past year that may improve resiliency to climate change	1733	32%	0.5	1282	32%	0.5	0.886	1728	38%	0.5	0.000

The survey examined potential areas of vulnerability by inquiring about dependence on forests and water bodies for livelihoods. Many reported gathering materials from the forest, which was mostly wood for household use. Forest materials were not important income sources in many households. As expected, communities near Lake Malawi or other water bodies practiced fishing regularly. This was true especially in the HSO districts, both of which are situated along Lake Malawi. Fish were important parts of the diet of households that participated in fishing, making up three to five meals weekly. Food from the lake was a common part of the diet of children 6-23 months, as fish or other food from the lake were fed to children in 40% of the surveyed households. This suggests environmental changes that would impact fish availability might negatively impact diet diversity.

The predominance of farming by nearly all baseline households reveals that livelihoods are vulnerable to the effects of climate change and require improved management practices to mitigate impacts. At baseline many reported having experienced severe reduction of arable land due to erosion (37% in PI to 43% in HSO districts). The survey inquired about changes to agricultural practices in the past year to identify activities that might contribute to resource preservation and climate change resiliency. Twelve percent of households across all study arms reported adopting practices that might increase predictability and/or productivity of agriculture in the face of climate change. This indicator was calculated using households who reported adopting practices related to fertilizers, earthworms, changing the crop grown, mixed cropping, crop rotation, irrigation, or improved seeds. Measures that might improve water quality, supply, and efficient use was less common, reported by only 2-3% of farmers. This indicator included those who began using less water, organic fertilizer (which might be less polluting), or irrigation.

In spite of the low levels of improved agricultural practices, the proportion of households who planted trees in the past year ranged from 24% in HSO to 33% in the FI study arm. Similar proportions of people reported having seen demonstrations about tree planting or preservation. This practice, when combined with other improved agricultural or water management practices, resulted in 32-38% of communities adopting risk reducing practices to improve resiliency to climate change.

Local Government: Participation in, and Access and Use of Services

The household survey included a set of detailed questions to assess political and community participation, awareness of the roles played by local government and village development committees (VDCs), and utilization of public services.

Table 16 presents summary statistics for the sample on political participation, political perspective and community group membership. In general, the majority of households participated in politics, with 96% of respondents registered to vote, and 95% having voted in the most recent national election in 2014. 73% of respondents were aware of issues that the local Councilor promised the community he or she would do if elected, but only 27% reported that they met with any civil society groups or local government candidates to express their viewpoint on any issues to a political candidate. 69% attended public meetings held by district government, VDC or town councils. However, the citizens' political perspectives were rather pessimistic, as only 25% and 29% believed that the Councilor is working to honor pre-election promises and have confidence in the local government's ability to manage finances, respectively.

Almost half of the respondents (46%) overall reported belonging to at least one group, organization or association. Table 16 presents membership in each type of group among the sub-set of respondents who answered that they belong to at least one group. The most popular group was a farmer or fisherman's group, with 51% of this subset belonging to these types of groups. Also popular were the VDC and area development committee (ADC), as well as village savings and loan and credit groups. Group participation is overall slightly lower for women (44% versus 49% of men), and nearly every type of group had a slightly higher percentage of male respondents reporting membership, with the exception of savings groups and trade, professional, and neighborhood associations. 44% of women group members reported belonging to a savings group, compared to 21% of men.

Respondents were also asked whether they have volunteered their time for any activity within their community within the past six months, such as serving on committees, providing labor for public works, reading, education, health activities, and others. Approximately half of the survey respondents reported that they have volunteered in the past six months, with pronounced differences by gender (Figure 14). Men had higher rates of volunteerism, with 61% of sampled male respondents, compared to 47% of women. This difference across genders was persistent in each district, with females in Nkhotakota reporting the lowest rates of volunteerism at 36%. Volunteerism rates also varied by district, with residents of Zomba reporting the highest volunteering rates both each gender, at 69% for men and 56% for women. Volunteerism was lowest in Nkhotakota and highest in Zomba, though not by a large margin. In all districts, fewer females volunteered than males.

Table 16. Community and political participation/perspective (percent of respondents)

Group membership:	Overall (%)	Male (%)	Female (%)
<i>Any group</i>	46%	49%	44%
<i>Of respondents who participate in groups, membership among groups was as follows:</i>			
Farmers/Fishermen's group	51%	58%	45%
Village development committee (VDC) or ADC	29%	32%	25%
Village Savings and Loan; credit/finance group	32%	21%	44%
Traders' Association/business group	1%	1%	1%
Care group	5%	6%	5%
School/education related	10%	12%	9%
Health/nutrition related	11%	13%	10%
Environment related	6%	7%	4%
Community works related (water, waste, roads)	6%	7%	5%
Religious group	16%	18%	15%
Professional Association	1%	1%	1%
Neighborhood/village association	18%	18%	19%
Political participation and perspective	Overall (%)	Male (%)	Female (%)
Attended public meetings	69%	73%	65%
Registered to vote	96%	97%	96%
Voted in recent election	95%	96%	94%
Expressed viewpoint to politicians pre-election	27%	33%	23%
Aware of campaign promises pre-election	73%	79%	68%
Believes Councilor is working to honor promises	25%	27%	23%
Confident in local government's ability to manage finances	29%	29%	28%
<i>N</i>	4,743	2,221	2,522

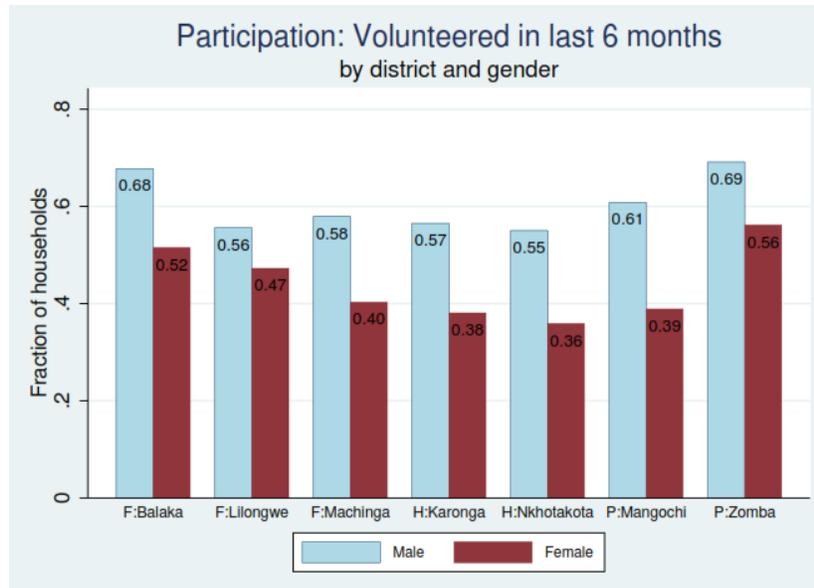


Figure 14. Community participation – fraction of respondents that volunteered in last 6 months, by district and gender

Figure 15 shows the awareness of VDC, participation and knowledge of VDC and local government roles, by study arm. The majority of households reported that they are aware of VDCs (about 70%), although far fewer knew what VDCs did (45-49%). However, this number was comparable to those knowledgeable about local government roles: approximately 45% across study arms. 32%-42% reported that they participated in the activities or attended meetings of a VDC or ADC, with respondents in PI areas having the highest rate of participation (43%), while respondents in the FI areas had the highest rate of knowledge of VDC's roles (49%); individuals in the HSO arm were the least likely to know what VDCs do and participate in their meetings and activities.

Table 17 lists the roles and responsibilities that the respondents believed the local government and the VDC had, presenting the percentage of households naming each responsibility. The majority believed that the role of VDCs is to consult the community about local development projects (32%), and to a much lesser extent represent local interests (13%); the main roles of local governments were to facilitate development (29%) and fund local development initiatives (22%), according to perceptions of respondents within the sample.

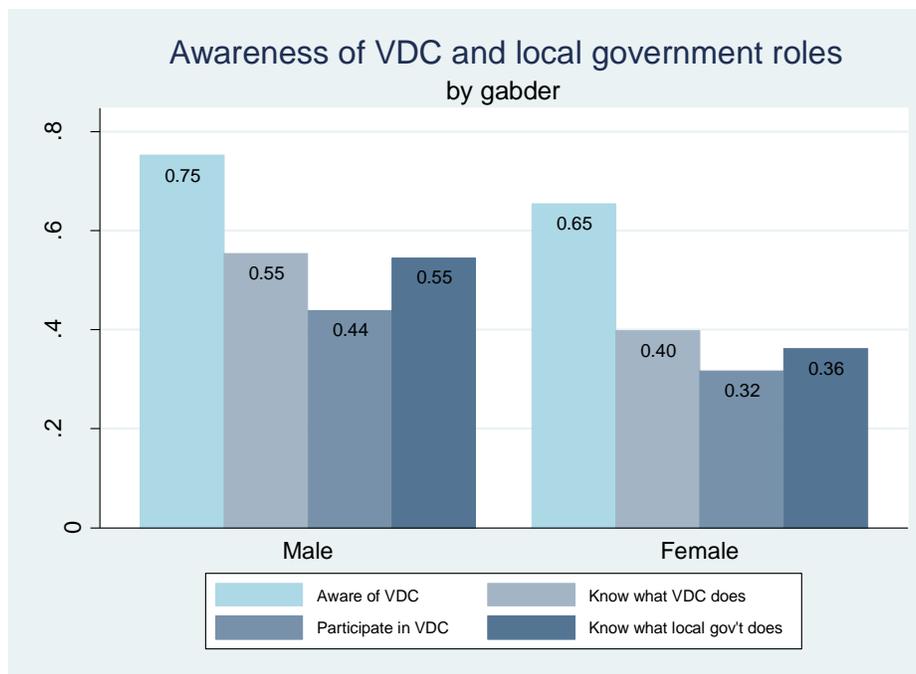


Figure 15. Reported knowledge of VDC and local government roles, by gender

Table 17. Perception of the roles and responsibilities of local government and VDCs (percentage of households listing role)

Roles of local government:		Role of VDC:	
Facilitate development	29%	Consult community about local development projects	32%
Fund local development initiatives	22%	Represent local interests	13%
Provide tech expertise on development projects	4%	Identify beneficiaries for PWP	11%
Link VDCs, ADCs with funding agencies	2%	Identify beneficiaries for agricultural coupons	7%
Maintain roads or market places	0%	Other	6%
Provide water, sanitation, or electricity	0%		
Local policing	0%		
Managing land use	0%		
Other	4%		

Respondents' satisfaction with various government services was also measured as part of the baseline survey, and a summary of results is presented in Figure 16. Overall, the citizens were most satisfied with road maintenance, and least satisfied with corruption and the degree to which government consults citizens before making decisions.

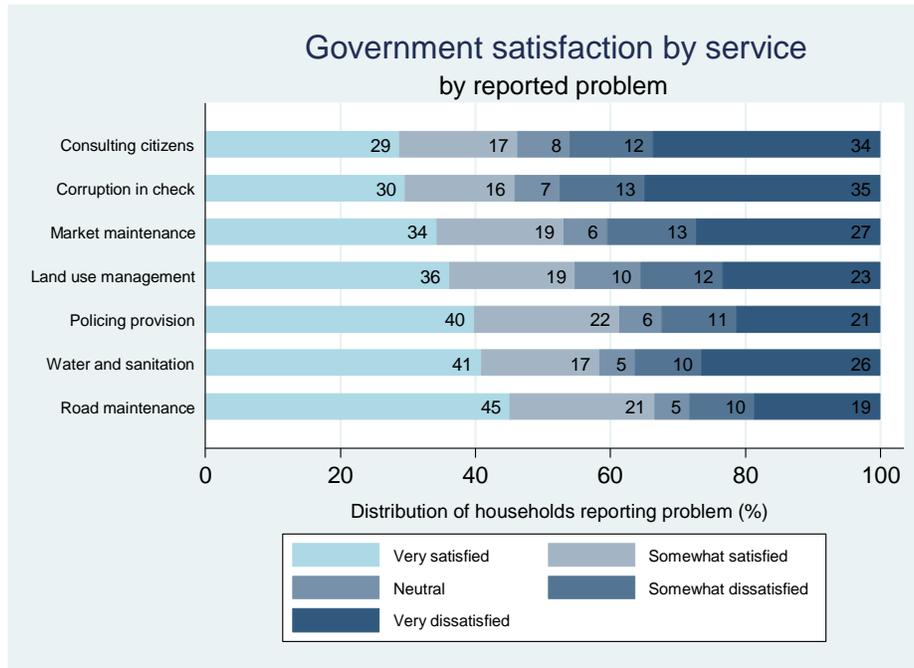


Figure 16. Satisfaction with government services

Figure 17 shows utilization of public services by type within the last 12 months, disaggregated by gender of household head. Public schools and public hospitals and clinics are the services most utilized – with utilization reaching 80% for some sub-groups; nutrition assistance, school feeding programs and agriculture training were utilized by relatively small segments of the survey population, with the lowest being nutrition assistance utilized by only 6% of households. There are some differences between utilization of different programs by gender of head. Female-headed households are more likely to use public schooling (76% versus 69%, respectively), but slightly less likely to participate in school feeding program (13% versus 10%, respectively). There are also pronounced differences in the use of agricultural training across socio-economic class and gender of household head. Figure 18 shows the proportion of households that utilized government training related to agriculture within the last twelve months by poverty status and gender of head. The highest rate of utilization is by male-headed households above the poverty line (19%); the lowest by poor households (9%).

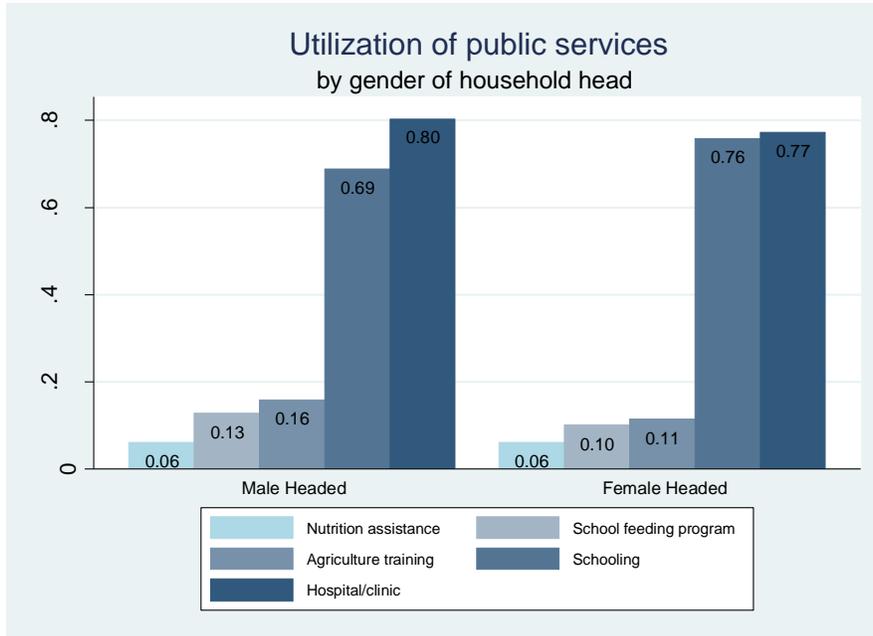


Figure 17. Utilization of public services in last 12 months

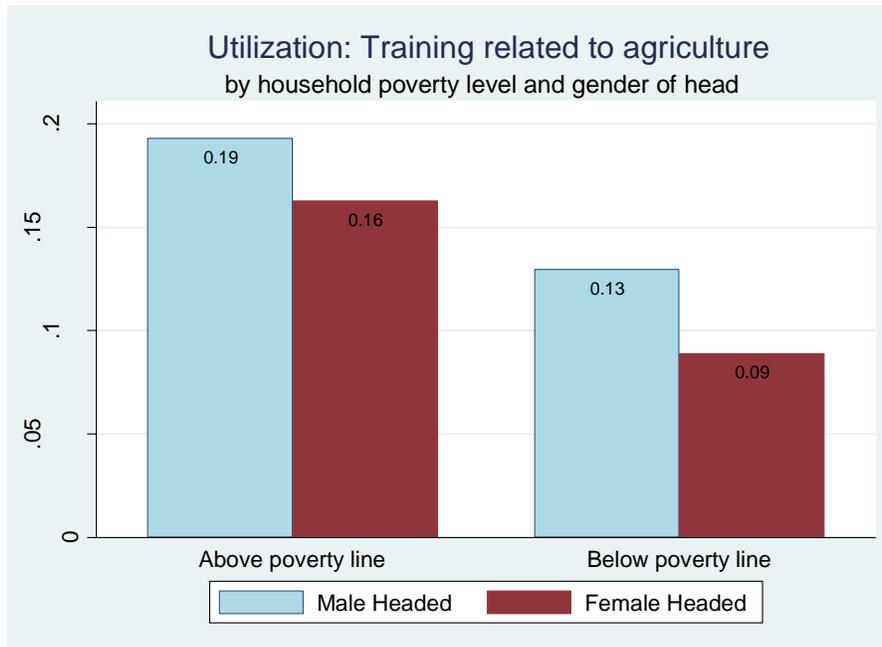


Figure 18. Utilization of government training related to agriculture (last 12 months)

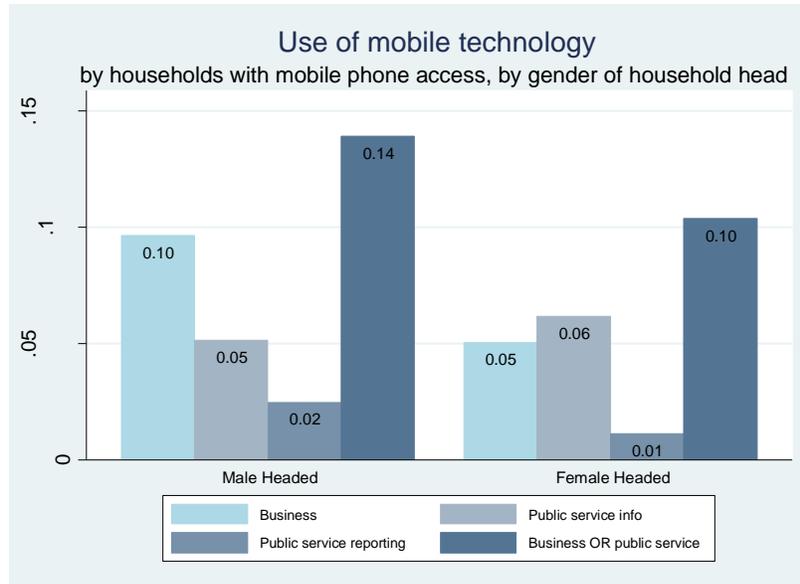


Figure 19. Use of mobile technology

Households were also surveyed about their use of mobile technology to access information and to report public service feedback. Figure 19 displays the technology utilization rates for households with mobile phone access, disaggregated by use and by gender of household head.

Overall, men were more likely to use mobile phone technology, with 14% of male-headed households utilizing mobile technology for these activities, and 10% of female-headed households. The biggest difference is in the use of mobile phone technology for business (such as to check crop prices), with 10% and 5% of male and female households utilizing phones for this purpose, respectively.

Welfare: Poverty Status

Malawi is one of the poorest countries in the world, ranking 174 out of 187 on the Human Development Index in 2013. Its estimated GDP per capita in 2013 was \$760 on Purchase Power Parity (PPP) basis (UNDP, Human Development Report, 2013).

Using various poverty thresholds, there are multiple ways to measure poverty. In 2013, by the international poverty line established at purchase power parity (PPP) \$1.25 per capita per day, 62% of Malawians lived below the poverty line. But, 66.2% were estimated to live below UNDP's multi-dimensional poverty line threshold (UNDP, Human Development Reports, 2013)²⁴. According to national poverty lines, the national wide integrated household survey, round 3 (IHS3) conducted among 4,000 panel households in Malawi in 2011 found that 50.7% of the population in Malawi lived below the national poverty line (56.6% in rural areas), while 24% of the population was considered ultra-poor, with incomes below that necessary for adequate food consumption. Rural areas in the Southern region recorded the highest poverty rate at 63.3% of population living under the national poverty line. Among the eight study districts for this evaluation, Machinga had the highest poverty rate at 75% followed by Mangochi at 73.2%.

²⁴ <http://hdr.undp.org/en/countries/profiles/MWI>; <http://hdr.undp.org/en/data>; <http://hdr.undp.org/en/content/table-6-multidimensional-poverty-index-mpi>

Balaka at 67.7%, Karonga at 61.7%, and Rural Lilongwe and Rural Zomba each at 56.6% - all above the national poverty rate at 50.7%. Only Nkhonkhotakota (32.1%) had lower poverty rate compared to national levels (Statistical Year Book, 2012, NSO, Malawi).²⁵

USAID follows the poverty threshold of PPP\$1.25 and measures poverty by the percentage of population living below the PPP\$1.25 a day per capita. This evaluation follows USAID threshold. Using the 2005 consumer price index and PPP conversion factor, the PPP\$1.25 corresponds to MWK 1,910 per month, and is used in this evaluation to classify the households as poor and non-poor.

The Malawi-specific Poverty Assessment Tool (PAT)²⁶, developed by USAID, was used to calculate the poverty status of the sampled households, to allow analysis of impact on the poverty status of beneficiaries and to track progress over time. The Malawi PAT is a short survey that includes measurements of indicators that have been identified as the best predictors of whether a given set of households is poor or non-poor.²⁷ The poverty assessment questions were incorporated into the baseline survey instrument and were used to predict the share of respondent households living below PPP\$1.25 a day per capita (based on 2005 prices) in the sample. The PAT provides a statistic that indicates the poverty rate for a sample or sub-sample / segment of the population with high level of confidence. The tool, however, does not yield individual expenditure levels for each household but rather is designed to accurately predict overall poverty rates within a sample or a sub-sample, even if the individual household predictions may be less robust.²⁸

Table 18. Percentage of Households below Poverty Line (PPP\$1.25/day) in Full, Partial and Health-sector Zones

Items	All			HSO			PI			FI		
	n	%	SD	n	%	SD	n	%	SD	n	%	SD
All Households	4450	57%	0.5	1625	42%	0.5	1188	69%	0.5***	1637	62%	0.5***
Male HH only	3615	55%	0.5	1373	41%	0.5	947	68%	0.5	1295	59%	0.5
Female HH only	835	65%	0.5	252	49%	0.5	241	69%	0.5	342	74%	0.4
Youth headed HH only	911	43%	0.5	297	25%	0.4	251	57%	0.5	363	47%	0.5
Non-youth headed HH only	3539	60%	0.5	1328	46%	0.5	937	72%	0.4	1274	66%	0.5

Note: *** represent statistical significance at 1% level, based on p-values. Poverty rates in PI and FI were each compared to the rate in HSO zone. Statistical comparisons were not performed on subgroupings.

The data shown in Table 18 indicate that more than half the sampled population were living below the poverty line of PPP\$1.25 per capita per day. 57% of all sampled households were estimated to live under

²⁵ http://www.nsomalawi.mw/images/stories/data_on_line/general/yearbook/2012%20Statistical%20Yearbook.pdf

²⁶ For more information see, <http://www.povertytools.org>

²⁷ To determine the best indicators of poverty in Malawi, PAT used the data gathered in Malawi in the 2004-05 Second Integrated Household Survey (IHS-2), based on the World Bank's Living Standards Measurement Survey (LSMS). It analyzed the data using multiple statistical methods to identify a set of potential indicators to predict the poverty levels of a population. The indicators were then developed into a 34 question survey. These questions are designed to gather information on individual household members (e.g., level of education, health status), characteristics of the household's dwelling (roofing material, source of drinking water), household possessions (radio, car) and the behavior of household members (business ownership). See <http://www.povertytools.org/countries/Malawi/Malawi.html> for more details.

²⁸ For more information on why aggregate results are more accurate than individual household estimates, refer to [methodological documentation on accuracy](http://www.povertytools.org) at <http://www.povertytools.org> that explains the definition of accuracy, gives a conceptual overview of the tool, and provides simple numerical examples.

PPP\$1.25 a day per capita. Only 42% of sampled households in the HSO were poor, compared to the proportion of households classified as poor in PI (69%) and FI study areas (62%). The differences in poverty rates between HSO and FI and HSO and PI zones were statistically significant.

Overall, more female-headed households (65%) were living below PPP\$1.25 a day than male-headed households (55%). The pattern was similar among the three study arms; poverty among female-headed households was the highest in the FI zone at 74% and lowest in the HSO zone (49%).

Poverty was lower among the households headed by youths between ages 17 – 29 (43%) compared to households headed by non-youths (60%). The pattern was similar among the three study arms also. The difference in poverty rate was about 20 percentage points between youth and non-youth-headed households and was statistically significant in all three study arms.

Table 19. Percent of Sample Households below Poverty Line (PPP\$1.25/day) in Full Integration Districts (CDCS Focus Districts)

Items	Rural Lilongwe			Machinga			Balaka		
	<i>n</i>	%	SD	<i>n</i>	%	SD	<i>n</i>	%	SD
All Households	553	42%	0.5	548	77%	0.4	536	67%	0.5
Male HH only	486	40%	0.5	415	74%	0.4	394	66%	0.5
Female HH only	67	60%	0.5	133	84%	0.4	142	71%	0.5
Youth headed HH only	130	21%	0.4	122	62%	0.5	111	60%	0.5
Non-youth headed HH only	423	49%	0.5	426	81%	0.4	425	69%	0.5
% population below national poverty line (Malawi Stat. Year Book, 2012; IHS3)	56.6%			75%			67.7%		

A closer look at the data presented in Table 19 for the three FI districts, also called CDCS focus districts—Rural Lilongwe, Machinga, and Balaka—shows that the poverty rate was the highest in Machinga and the lowest in Rural Lilongwe. In all three districts, female-headed households were poorer than male-headed households, and poverty was higher for households with older household heads.

The poverty rates among sampled households in the focus districts were similar to poverty rates estimated by IHS3 using national poverty line. The poverty rate in the sample was the highest with 77% in Machinga followed by Balaka with 67% and Rural Lilongwe at 42%. The patterns were similar to poverty rates estimated using the national poverty line, IHS3 (Machinga had the highest poverty rate at 75% followed by Balaka at 67.7% and Rural Lilongwe at 56.6%).²⁹

Rural Score Card FGD Findings on Poverty

Qualitative data was utilized to further understand how individuals in the study areas perceive poverty: its definition, causes, and changes in poverty levels within their communities over time. Findings show that definitions and indicators of poverty differ at household and community levels as exemplified in the quote below:

²⁹ http://www.nsomalawi.mw/images/stories/data_on_line/general/yearbook/2012%20Statistical%20Yearbook.pdf

“We know that this one is poor if he/she don’t have food, if he/she don’t have clothes, if there is sickness in that family we know that there is poverty, he/she lacks everything. We know that this one is poor by just seeing the physical appearance of his or her home, children wearing torn clothes, children are not cared maybe their clothes are dirty, or maybe children are just moving door to door [looking for food] so we just know that there is poverty in that family because there is something lacking for those children to be settled”.

Another FGD participant made a distinction between the *need* and the *item in need* – “Because here, drought is a very big problem. So we have food poverty.” Poverty here is perceived as need and food is the item of need.

The participants defined poverty at the community level as need. Indicators for an impoverished community included a lack of access to water, schools, health care, and infrastructure such as roads as highlighted by this quote:

“Another thing is also about our community. We do not have enough water resources. Another thing is about transport. For us to go to health clinic for maternity, our friends over there, the other villages on that side, they depend also on this health center. They have difficulties when rain starts. We do not have a bridge across the river. This makes some of them to die, maternal death. This is also poverty”.

This is in contrast to the individual indicators of poverty that included lack of sufficient or adequate money, food, shelter, household goods, and clothes. The FGD participants also stated that if a community as a whole makes a good living, then poorer individuals are less likely to suffer.

Identifying potential causes of poverty was challenging since participants could not clearly distinguish the causes from the drivers of poverty. Generally, drivers refer to the dynamic process and factors that contribute to poverty, while causes of poverty refer to fundamental reasons or motives for the result. The entanglement of the causes and drivers was discussed in a specific context of alcohol consumption. Many youth do drink and at the same time may leave school to seek employment; yet when they are unable to gain employment the cycle is reinforced as they increase their alcohol consumption.

The causes identified by respondents were fairly broad. However, three main sets of causes emerged from the discussion: the inability to generate incomes, individual choices and gender inequality.

The most commonly identified cause of poverty was an inability to generate income. Participants linked income to employment or aspects of food insecurity. The response patterns showed that an individual or family’s lack of money or income is caused both by individual choice/behaviors as well as external limitations. The external limitations leading to lack of money or income included food insecurity, lack of employment opportunities, lack of a local market or a great distance to the closest market, lack of access to credit, market fluctuations, need for infrastructure development such as roads and boreholes, environmental damage such as deforestation and poor quality soil, and gender inequality. Lack of employment was also related to quality of life, such as crime. As one participant related:

“Poverty is worse nowadays because in the past, those who were educated could easily get a job. But the case is really different nowadays, one can go to school, get some qualifications, but getting a job is really a problem. Most of those who finished school are just staying at home; there is shortage of job opportunities in our country. As a result most young men indulge themselves in bad activities like stealing, to get what they want in life”.

Individual level choices were also occasionally identified as causes of poverty. These included illness, alcoholism and drug use, laziness, money mismanagement, and lack of family planning. One of the participants talked about how child bearing and the use of drugs and alcohol contribute to poverty.

“I see the poverty is increasing in this area because of lack of maternal health, young people start bearing children at tender age before 22 years when they are not mature enough, and these youths are failing to provide the needs and necessities to their children so when the children grow up they take the same pattern of their parents for there is no good source of advice. In addition the youth of today are taking riders [spirit type of alcohol well known now among the youths in Malawi and Indian hemp too] so when they marry they depend on you the parent... So when you get Mk 2,000 you get to share it with the daughter in law so that you take away the shame that your child not providing for his family. This has increased the poverty this area”.

Gender roles were linked to limiting women’s ability to generate incomes. FGD participants identified cultural factors such as sexist beliefs that drove roles and responsibilities in the household as a cause of inability to generate incomes. One female FGD participant explained how these beliefs could have a negative impact on a household’s financial status, and therefore cause poverty:

“Some men let the women do anything with what they have harvested if the results will benefit the whole family but some men are not like that, they tell their wives not to do anything with what they have harvested, they say the harvest is all the result of the works of their hands and they will sell all that has been harvested. But the result of such kind of actions from men is poverty on the household. And some of us women do piece works with the aim of helping our husbands to get money to be used in the family”.

The degree to which this system of beliefs is generalizable is unclear from the qualitative data. Therefore, it is not possible to know if this woman is referencing her own particular experience or if this is finding is more cross-cutting.

Self-Reported Well-Being

In order to measure self-reported well-being, the household survey included a module with questions that elicit self-assessments across several domains of well-being, including financial situation, health status and overall satisfaction. . Questions in each domain included the following:

- Overall: satisfaction with life as a whole, belief that can control improvement in well- being (locus of control), satisfaction with the way democracy works in Malawi,
- Financial: satisfaction with financial situation, prediction of financial situation in a year, sufficiency of current income for expenditures and ability to save, adequacy of finances for food consumption, steps ranking of economic status today and last year, having someone to turn to in case of unexpected expense or loss of income,
- Health: rating of general health; number of days when poor health kept respondent from usual activities (in last 30 days).

Each of these questions allowed the respondent to choose among various response options, which differed slightly across questions.

Table 20 presents the findings disaggregated by poverty status and gender of head of household. For every measure, households above the poverty line reported higher levels of well-being and satisfaction than those below the poverty line. Similarly, for every single measure, female-headed households reported lower levels of well-being, with even a greater spread per measure by gender of head, compared to poverty status.

To aggregate the various measures of well-being, a factor score for financial well-being and overall well-being were constructed for each household, and are also presented in

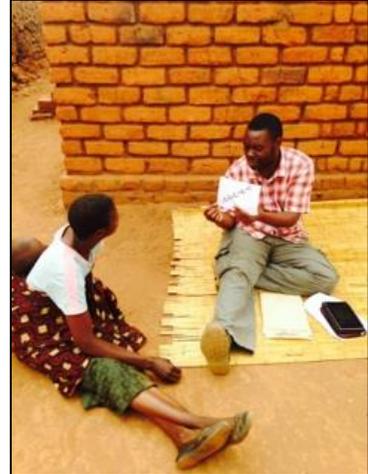
Table 20. The overall patterns of the mean scores of the sub-populations follow that of the findings reported above with female-headed and poor households garnering the lowest relative scores.

Table 20. Self-reported well-being, by poverty status and gender*

Domain	Well-Being Measure	Below poverty line (\$1.25/day)						Household head gender			
		Total		No		Yes		Male		Female	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Overall	Life satisfaction	3.19	1.4	3.37	1.3	3.06	1.4	3.26	1.3	2.85	1.4
Overall	Worry about security	2.08	0.9	2.05	0.9	2.1	0.9	2.07	0.9	2.11	0.9
Overall	Locus of control	0.7	0.5	0.76	0.4	0.66	0.5	0.72	0.5	0.61	0.5
Overall	Democracy	2.2	1.1	3.05	1.4	3.02	1.4	3.05	1.4	2.92	1.4
Financial	Expects financial improvement	2.4	0.7	2.56	0.7	2.28	0.7	2.47	0.7	2.12	0.8
Financial	Insufficiency of current income	3.6	1.2	3.51	1.2	3.69	1.1	3.58	1.2	3.68	1.1
Financial	Finances adequate for food	1.37	0.5	1.48	0.5	1.28	0.5	1.39	0.5	1.29	0.5
Financial	Self-ranking: today	2.27	1.0	2.61	1.0	2.01	0.9	2.35	1.0	1.93	0.9
Financial	Self-ranking: yesterday	2.03	1.0	2.28	1.0	1.85	0.9	2.07	1.0	1.9	0.9
Financial	Ranking others: today	2.54	1.3	2.58	1.2	2.51	1.3	2.5	1.2	2.73	1.4
Financial	Financial support	0.27	0.5	0.36	0.5	0.2	0.4	0.28	0.5	0.25	0.4
Financial	Satisfaction with finances	2.64	1.4	2.91	1.4	2.45	1.4	2.72	1.4	2.33	1.4
Health	Self-Assessed health quality	2.22	1.1	2.43	1.1	2.07	1.1	2.32	1.1	1.79	1.0
Health	Sick days in last month	3.68	6.1	3.32	5.8	3.9	6.2	3.47	5.9	4.55	7.0
Overall	Factor Score: Financial WB	2.22	0.8	2.52	0.8	1.98	0.7	2.27	0.8	1.96	0.8
Overall	Factor score: Overall WB	2.64	0.9	2.96	0.9	2.4	0.8	2.72	0.9	2.27	0.9

*Note: Each measure had a set of multiple choice options, with the lowest score being the worst/poorest, and higher numbers indicating better outcomes. All measures had a scale of 1 to 5, except: a) financial rankings (1-6), b) locus of control and financial support (0-1), c) sick days (open), d) expects financial improvement (1-3), e) insufficiency of current income (1=allows building of savings to 5=insufficient/need to borrow).

Using steps ranking methodology, respondents were asked to rate their current financial status from step 1 to step 6, where on the bottom (the first step) stand the poorest people in their village and nearby villages, and on the highest step, the sixth, stand the rich. They were also asked to evaluate their financial status in the previous year, and the status of most others in the village today. Figure 20 shows the distribution of responses within the sample. Most households assess themselves as very poor or poor (63%), although many report that their financial status was worse last year (72% reported being poor or very poor). Most respondents perceived others in the village to be richer than themselves.



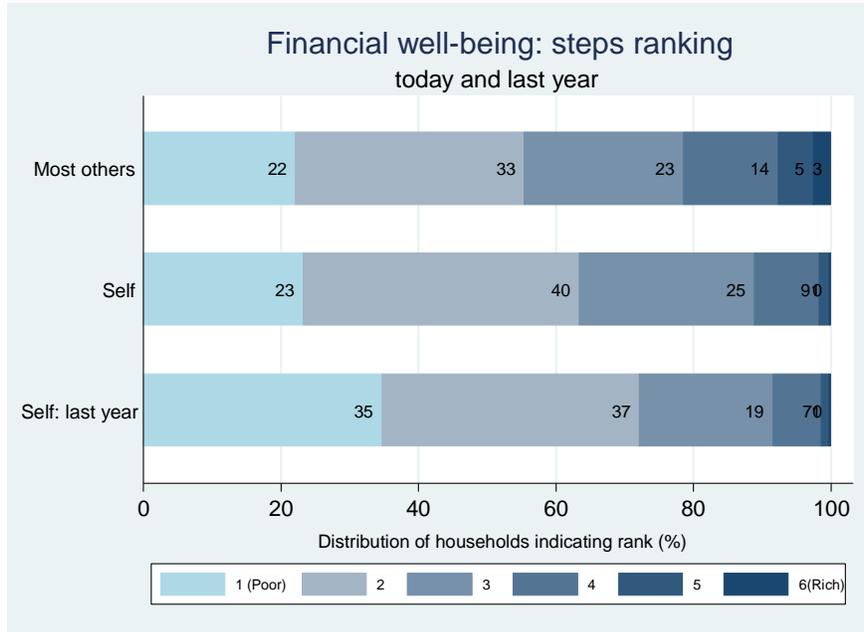


Figure 20. Self-reported financial well-being today and last year

Respondents were also asked to rank their satisfaction with their financial situation on a scale of 1 (not at all satisfied) to 5 (very satisfied), and to rank their satisfaction with their health, life overall, and democracy as it is implemented in Malawi. The distribution of responses is presented in Figure 21, by gender of household head. Women systematically gave lower assessments in each category. The median response for overall well-being and assessment of democracy was “mostly” satisfied, and the democracy measure boasted minimal differences between male and households. On the other hand, for self-health satisfaction, women were much more likely to be “unsatisfied”, with 56% of households ranking their health at 1 out of 5 (not at all satisfied), compared to 31% of male-headed households. Similarly, female-headed households reported far lower rates of satisfaction with financial situation, of 43% compared to male-headed households (29%).

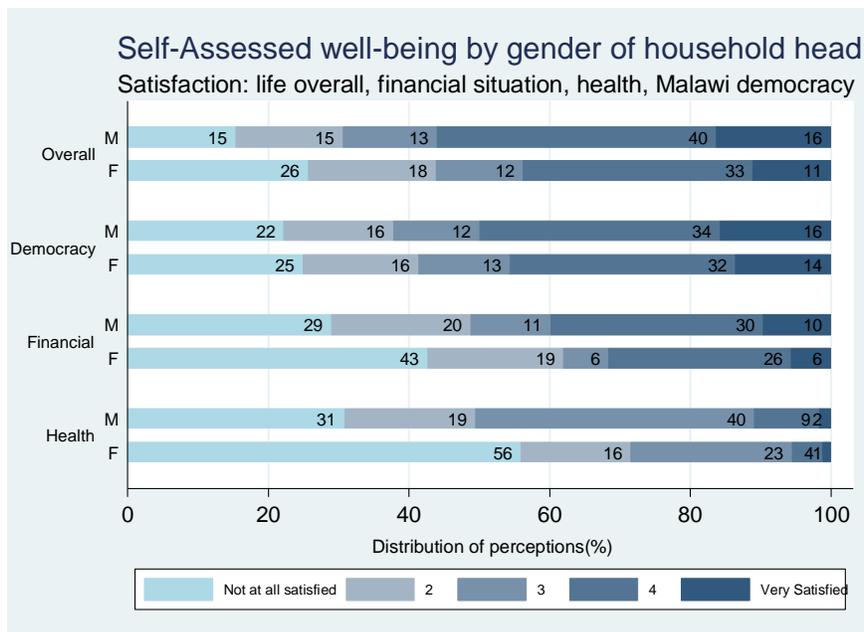


Figure 21. Self-assessed well-being – satisfaction with current situation by domain

Figure 22 adds an additional disaggregation – poverty level – and presents the average ratings of respondents in the overall, financial and health categories. Again both the gender of household head and poverty are strongly correlated with well-being, with women headed households and those below poverty line reporting much lower well-being. This result was especially pronounced for health self-assessments, where households reported substantially lower scores (2.51 versus 1.97, and 2.17 versus 1.68 mean ratings of non-poor and poor households, respectively).

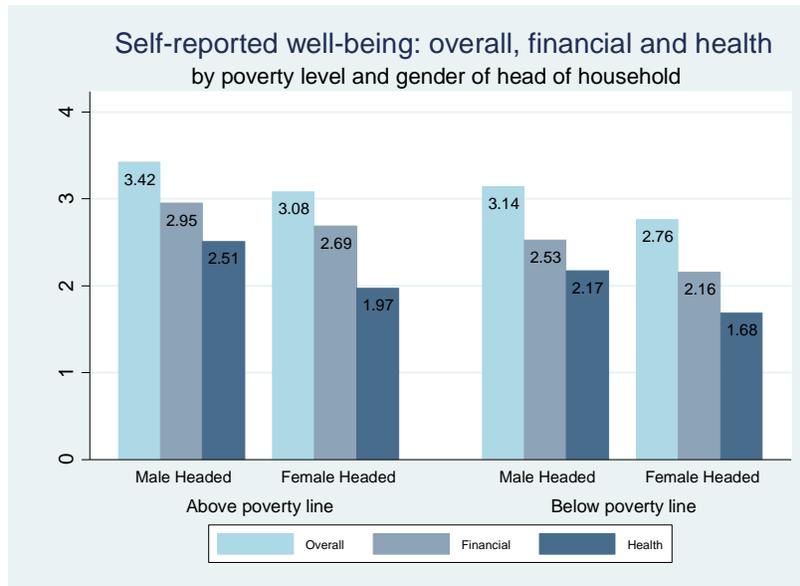


Figure 22. Self-reported well-being by domain, by gender and poverty

SUMMARY AND CONCLUSIONS

SUMMARY OF FINDINGS

I. Status of Integration Activities at Baseline

- Mapping of implementing partner activities shows that the planning for integration activities across IPs and sectors to date has been tentative and remains in the very early stages, with most IPs having conducted only a few meetings on the subject.
- Most of the current collaboration and planned collaboration involve IPs within the same sector, most frequently within the health-sector, and where integration is expected as part of their scope of the project.
- The majority of integrated activities to date in the study districts are being conducted by projects supported by the health and sustainable economic growth sectors at USAID. The projects include SSDI (health-sector) and INVC (sustainable economic growth sector) and they work in conjunction with another implementing partner from the same or at times with an IP from another sector. Otherwise, very little coordination and/or collaboration is underway across sectors or implementing partners.

II. Demographic Characteristics of Survey Sample Households

The households sampled from the districts of rural Lilongwe, Balaka, Machinga, Mongochi, rural Zomba, Karonga and Nkhosachota for household surveys were all located in rural areas.

- The majority of households were headed primarily by married men with some education; about one fifth of the sampled households were headed by women.
- By age, youth-headed households (age 17-29) comprised one fifth of the sample.
- About 15% of households reported having a member with a physical or mental disability.
- 95% of sampled households were engaged in farming as their main occupation.
- The average household size was five; more than half the households had a child under 5.
- Birth rate was 29 births per 1,000 people in the sample

III. Quality of Life in Study Areas

Education Services: Access and Use

- About 69% of household heads were able to read Chichewa; only 33% of household heads could read English.
- The literacy rate among adults was 56% for women and 79% for men. The women's literacy rates varied more widely across districts.
- Men tended to have completed more schooling, with women having 6.4 years of schooling, on average, and men 7.5 years.
- Literacy rates of second graders varied widely across the districts, with the highest literacy rate at 15% in Zomba, and the lowest in Mangochi of only 3%.
- Until age 12, enrollment in schools was above 96%, but begins to drop after that age, with the largest decreases in enrollment for ages between 15 -17. The rate at which girls drop out between 15-17 years of age was higher compared to boys.

- Both household survey respondents and FGD respondents indicated that there is good access to basic primary education. But, access to secondary schools and above was difficult.
- The nearest public primary school was, on average about 20 (median was 27) minutes away.
- The main problem with local public schools was reported to be overcrowding (65%) and lack of resources such as textbooks or supplies (37%). While 68% of households did not view the cost of schooling as too expensive, about 12% said the cost often posed a problem. FGD participants stated that a lack of economic resources prevented them from purchasing school supplies and clothing for students. FGD participants also identified challenges in recruiting and retaining high quality teachers in local public schools.

Health Services: Access and Use

- 80% of sampled households reported that a household member had visited a public clinic or hospital, and 95% usually took a child to the hospital, health center, or clinic if medical care was needed.
- Median reported waiting times at health facilities in PI and FI areas were double that of HSO areas (two hours versus one).
- The main concerns about health facilities were (i) long waiting time – 41% of households reported this is often a problem, and 33% responded that this is occasionally a problem, and (ii) lack of medicine or medical supplies - 66% reported this is a problem. Lilongwe households reported the highest rates of stock outs (40% of households stating this happens often).
- Only 10% of households reported lack of funds as a concern limiting their use of public health facilities. Also, only 32% and 20% of households, respectively, reported doctor absenteeism and dirty facilities as major concerns with public health facilities.
- FGDs also identified three primary weaknesses with health facilities: (i) long wait times that sometimes resulted in not being seen at all, (ii) unsanitary conditions, and (iii) lack of sufficient medication. Some mentioned that poor people are less able to pay for health services, and impoverished communities cannot pay for health workers.
- 61% of surveyed households reported undergoing HIV testing and counseling in the past year was reported. The rate was lowest in PI versus HSO districts.
- HIV counseling and testing was slightly lower for male respondents than female respondents in all locations, with the largest gender divide in Mangochi, where 46% of males and 53% of females received this service.
- FGD participants revealed that women have better and more frequent access to health care than men.
- Among couples, rates of both individuals receiving HIV counseling and testing were higher, reaching 82% in FI and PI districts.
- Most received HIV counseling and testing from public health centers, followed by hospitals.
- The contraceptive prevalence rate in the sample was highest in FI districts (66% of women of reproductive age) and lowest in HSO districts (58%). Of those who used contraceptives, nearly all reported using modern contraceptives, with injectables being the most common method.
- Prevalence of contraception use among married women was approximately 27 percentage points higher than unmarried women. As with HIV counseling and testing, women most commonly reported having last obtained their contraception at public health centers.

Food Security: Food Access and Use

- On a scale of 0-18, the average food insecurity scores were 7.1 and 7.5 in PI and FI districts, respectively, compared to 5 for HSO (differences across arms were significant.)

- Households headed by females were more likely to report being food insecure than those headed by males.
- Exclusive breastfeeding of children under six months of age was reported by 93% of respondents in PI districts, significantly more than the 77% in HSO districts. Exclusive breastfeeding was also common in FI districts (84%), though this was not significantly different from HSO.
- Very few women ate soy foods on the prior day but 22% had eaten groundnuts.
- Among children aged 6-23 months, few breastfed children received a minimum acceptable diet; the lowest at 6% in FI and the highest in HSO at 19%. Both FI and PI districts were significantly different from HSO. No non-breastfed children 6-23 months were receiving the minimum acceptable diet.
- Most FGD participants had some understanding of food diversity; but most reported consuming mainly staple foods.
- FGD participants stated that most households have access to a local food market and that foods were available in local markets. Few participants implied that certain foods were only truly available to those who had money to purchase them.

Agriculture – Production and Gross Margin of Soy and Groundnut

- Farming of USAID-supported commodities soybeans, groundnuts, and orange-fleshed sweet potatoes varied by district. Both soy and groundnuts were grown by more farmers in Lilongwe Rural than in any other district, where 65% and 49% of households cultivated groundnuts and soy, respectively.
- The average number of hectares under soy cultivation was 0.03, and 0.2 ha for groundnuts. Average yields of each commodity were 596.4 kg/ha and 697.9 kg/ha for soy and groundnuts, respectively, during the last cropping season.
- The average value of soybeans sold per household in the last cropping season was \$38.10 while groundnut harvests brought \$59.80 in average revenue. After removing the total cost of inputs, the average gross margin for individual farmers was \$202 for soy and \$291 for groundnuts.
- Women have far more input into the agricultural production decisions, except in fishing activity, relative to the use/spending of income. Of the other categories, women have the least input into livestock raising and cash crop farming, with only approximately half of the households reporting that women participate in most or all decisions on these topics.
- Most FGD respondents said that the husband and wife usually make decisions collaboratively about which types of crops would be planted and by whom, although there were some cases to the contrary.
- FGDs showed that the process of decision-making with regard to the use of generated income appeared to have more variation, with several participants stating that the men made decisions about how the income earned through food production would be spent, while others argued women either weighed in or made the decision themselves.

Climate Change and Resilience

- Nearly 75% of respondents were familiar with the idea of climate change.
- Many reported having experienced severe reduction of arable land due to erosion (37% in PI and 38% in FI, up to 43% in HSO districts).
- However, more than 30% were unaware of any actions they could take to prepare for and respond to climate change. Only 12% reported adopting practices that might increase predictability and/or productivity of agriculture in the face of climate change.
- Planting trees was the most common action suggested to mitigate climate change. The proportion

of households who planted trees in the past year ranged from 24% in HSO to 33% in the FI study arm. Similar proportions of people reported having seen demonstrations about tree planting or preservation. This practice, when combined with other improved agricultural or water management practices, resulted in 32-38% of communities recently adopting risk reducing practices to improve resiliency to climate change.

Democracy and Governance

- 96% of respondents were registered to vote, and 95% reported voting in the most recent national election in 2014.
- 73% of respondents were aware of issues that the local councilor promised the community he or she would address if elected, but only 27% reported that they met with any civil society groups or local government candidates to express their viewpoint on any issues to a political candidate.
- 69% attended public meetings held by district government, VDC or town councils. However, the citizens' political perspectives were rather pessimistic, as only 25% and 29% believed that the Councilor is working to honor pre-election promises and have confidence in the local government's ability to manage finances, respectively.
- Approximately half of respondents volunteered in the past 6 months, with some variation by district, with residents of Zomba and Balaka boasting the highest volunteering rates.
- Almost half of the respondents reported belonging to at least one group, organization or association. Within the sample, the most popular group was a farmers or fisherman's group, with 24% of surveyed households belonging to these types of groups. Also popular were the VDC and ADC, as well as village savings and loan groups, with about 13% and 15% of respondents reporting participation in these types of groups, respectively.
- The majority of households reported that they are aware of VDCs (about 70%), although far fewer knew what VDCs did (45-49%).
- 32%-42% reported that they participated in the activities or attended meetings of a VDC or ADC, with respondents in PI areas having the highest rate of participation (43%), while respondents in the FI areas had the highest rate of knowledge of VDC's roles (49%); individuals in the HSO arm were the least likely to know what VDCs do and participate in their meetings and activities.

Welfare - Poverty Status

- More than half of households were classified as living below the poverty line of PPP\$1.25 per capita per day. By study arms, and all types of households, those sampled in HSO (42%) were less poor compared to households sampled in PI (69%) and FI (62%). The differences in poverty rates between HSO and FI and HSO and PI zones were statistically significant.
- Poverty rates were higher among the female-headed (65%) compared to male-headed households (55%). Poverty among the female-headed households was the highest in FI at 74% and lowest in HSO zone (49%).
- Poverty rates were lower among the households headed by youth aged between 17 – 29 years of age (43%) compared to households headed by people older than 29 years of age (60%). The difference in poverty rate was about 20 percentage points between youth and non-youth headed households and was statistically significant in all three study zones.
- Within the FI districts, the poverty rate was the highest in Machinga and the lowest in Rural Lilongwe. The poverty rates followed the same order for all types of households, based on gender and age of the household head. In all three districts, female-headed households were poorer than male-headed households, and poverty rates were higher among the households with older household heads.

- FGDs indicated that people perceive the definitions and indicators of poverty differently at household and community levels. Most participants defined poverty at household level in terms of a lack of access or need and used them as an indicator for poverty. However, they defined poverty at community level as only a need. Indicators for an impoverished community included a lack of access to water, schools, health care, and infrastructure such as roads.
- FGD participants were unable to clearly identify the potential causes of poverty. Most commonly identified causes of poverty included an inability to generate incomes and individual level choices made. They also identified cultural factors such as sexist beliefs that drove roles and responsibilities for women in the household as a cause of inability for women to generate incomes.

Role of Women in Decision Making

- Within the sampled households, women were found to have the least input into taking loans (in 38% of households), and the most into own health care (74%), as well as substantial input into health care of girl children (68%) and boy children (63%). Within households that had loans, 45-68% of women were reported to participate in loan taking decisions, with the participation rates varying highly by source of loan. Women had relatively little input into agricultural loans (45%), but many had input into microcredit or group loans (68%) or loans from NGOs (63%).
- Within general household decisions, few differences were observed by poverty status for the majority of the categories, with the main exceptions being schooling and healthcare of children, with women participating substantially more in decision making within the poor households. The largest difference among households in different poverty groups emerge for schooling of girls: for households above poverty line, 50% have women participation, compared to 65% in households below poverty line.
- With credit decisions, the differences between poor and non-poor households were especially pronounced in formal lending, with only 36% of women in households below poverty line having input into borrowing from a formal lender like bank or financial institution, compared to 63% of those above the poverty line.

Utilization of Public Services

- Utilization of public schools and public hospital and clinics reached 80%; nutrition assistance, school feeding programs and agriculture training were, however, reported to be utilized by relatively small percentage of the surveyed households., with the lowest being nutrition assistance utilized by only 6% of households.
- Female-headed households are more likely to use public schooling (76%) relative to male headed households (69%), but slightly less likely to participate in school feeding program (13% versus 10%, respectively, by female and male headed households).
- Utilization of government training related to agriculture within the last twelve months by poverty status and gender of head showed that the highest rate of utilization was by male-headed households above the poverty line (19%); the lowest by poor households (9%).
- Men were more likely to use mobile phones for checking crop prices - with 10% and 5% of male and female-headed households utilizing phones for this purpose, respectively.

Self-reported Well-Being

- Most respondents perceived others in the village to be richer than themselves.
- Most households assessed themselves as very poor or poor (63%), although many reported that their financial status was worse last year (72% reported being poor or very poor).
- For satisfaction with the way democracy works, the median response by both men and women

household heads was in 'mostly satisfied' range.

- For self-health satisfaction assessment, 56% of female-headed households ranked their health as unsatisfactory compared to 31% of male-headed households.
- 43% of female-headed households reported that their financial situation was unsatisfactory compared to 29% among male-headed households
- Household below the PPP\$1.25 poverty line reported much lower well-being relative to those above the poverty line. This result was especially pronounced for health self-assessments, where the mean score among poor female-headed households was 2.51 relative to 1.97 among poor male-headed households, and 2.17 for non-poor female-headed households compared to 1.68 for non-poor male-headed households.

CONCLUSIONS

Basic awareness about essential services and improved practices existed but was incomplete. Most households were aware of basic services offered at the public clinics and used them when in need of health services. In some focus groups, participants perceived that voluntary counselling and testing for HIV was compulsory, especially if women needed antenatal care and nutritional support; however, there was no evidence that this perception was true. About 70% of the households were aware of village development councils and 73% of respondents were aware of issues that the local councilor promised the community he/she would address if elected. However, most of these households did not know much about the roles and responsibilities of these bodies. Nearly 75% of respondents were familiar with the idea of climate change and the need to adjust their farming practices to adapt to climate change, but most of them did not know about mitigation measures. Most FGD participants had some understanding of food diversity, nutrition, and the need for breast feeding. Some perceptions expressed during focus group discussions about lower food production in recent years being the cause of poor nutrition rather than lack of knowledge could not be supported by household data.

Availability of basic services was generally good, but room for improvement exists. Geographic proximity to an SSDI-supported health facility within 8km was used as the first criterion to select households surveyed for the baseline, and proximity of EGRA-supported schools was another criterion in certain districts. Therefore, it was not surprising that access to public health clinics and primary schools as measured by geographic proximity was satisfactory in all study areas. Most respondents said they received HIV counselling and testing from public health centers and hospitals. School enrollment was high for children under age 12. Also, FGD participants stated that most households have easy access to a local food market and that diverse foods were available in local markets. In spite of these positive aspects of availability, some areas of deficiency were noted. For example, secondary schools were often not available within close proximity to the surveyed households. People reported low quality of certain aspects of both education and health services. Availability of teaching materials was inadequate, class room space and trained teachers in primary schools were major issues. In health facilities, people reported long waiting time and drug stockouts to be the most common problems at public clinics and hospitals.

Use of many basic services and improved practices was generally limited. The baseline findings showed a high usage of public clinics in that 95% of the households reported taking their children to a hospital or clinic when needed. However, only two thirds of the children under five in sampled households slept under a bed net. While voluntary testing and counselling services were used, a 60% VCT for individuals and contraception prevalence rate of 62% are still below the targets set by many programs for these services. While primary school enrollment was high, most second graders could not read at their grade level in Chichewa. School dropout rates increased as children reached their teenage years, at times due to pregnancy and the need to seek employment. While school fees may not be a major barrier, other expenses such as clothing and books were viewed by some as rendering schooling prohibitive. While

diverse foods were available in the market some FGD respondents claimed they could not consume them due to limited affordability. Use of improved agricultural practices, mobile phones for business and reporting, nutrition assistance programs, and agricultural training programs were very low. While 75% of the households surveyed were aware of climate change, only 12% of the households reported adopting practices that might increase farm productivity in the face of climate change. Agricultural training provided by the government was less used by women, possibly due in part to societal beliefs and norms regarding roles for women in agriculture production and decision-making. Participation in government processes was also limited. While 73% of sampled households were aware of issues that the local Councilor promised the community he or she would do if elected, only 27% reported that they met with any civil society groups or local government candidates to express their viewpoint on any issues to a political candidate.

Quality of basic services and affordability limited the effective use of many basic services. It was often stated in focus group discussions that quality of health services was poor due to long wait times and drug stock outs. Low literacy rates among the children may relate to reported poor quality of teaching and overcrowding. Most people were pessimistic in their political perspectives, as only 25% believed that the Councilor would honor pre-election promises, and 29% had confidence in the local government's ability to manage finances. At times, better quality of health services were provided to only those who could afford the medical expenses. While diverse types of foods were available in local markets and people were aware of food diversity, they could not consume them due to limited affordability.

Poverty was prevalent, and self-reported well-being showed most households as poor. More than half of the sampled households lived below PPP\$1.25 a day per capita. The well-being assessment scores were the lowest among female-headed households relative to male-headed households, especially for health conditions.

Some baseline conditions differed significantly among the three study arms.

- The core CDCS indicator of poverty rate in HSO was the lowest, with poverty being more prevalent in FI and PI districts by at least 20 percentage points FI districts.
- In education, all three study arms were similar, although primary school aged students' ability to read was higher in FI compared to HSO, but less than in PI.
- The availability of essential social services for health facilities were similar across all study zones, but the quality of health services differed with HSO reporting less drug stock outs compared to FI.
- The indicators of sustainable livelihoods in terms of value of production, volume of production and gross profit margin of soybeans and groundnut showed that FI performed significantly lower compared to HSO.
- Nutrition among children of age 6-23 months was worse in FI relative to HSO and PI.
- Positive behaviors in terms of use of contraceptives, use of improved farming practices, and couples receiving counseling and testing for HIV were the highest in FI among the three zones.

Integration among IPs, especially across sectors, was very limited. CDCS has prompted discussions among the IPs, and many have identified co-located projects or overlapping goals in projects for potential integration. However, many of the planned collaboration activities appear to be within the health-sector IPs and therefore may not essentially meet the CDCS integration definition/goal that envisions integration across IPs and across sectors.

LIMITATIONS OF THE EVALUATION

The above impact evaluation adheres to rigorous industry standards, is flexible to accommodate USAID's on-going and future programs that focus on improving QOL, is not intrusive to or limiting of any IP activities, builds in learning and adaptation in the design through adaptive categorization of integration level achieved over time, and could be first of few impact evaluations (IEs) of such a CDCS approach. However, the evaluation design has a few limitations as discussed below:

Inability to disentangle the effect of coordination/collaboration from increased investment across sectors: Differences in outcomes between FI, PI, and HSO districts cannot be attributed to coordination/collaboration alone, as these three types of districts also differ in the amount of investment made, with full integration districts having the highest investments across more than four sectors in most areas. Observed differences might in fact be caused by the increased cross-sectoral investment rather than coordination/collaboration, or might be attributable to the combination of both. Because it is not feasible to identify a sufficient number of comparable locations that will receive one without the other, the impact evaluation can only examine both aspects of the CDCS together.

Insufficient power to identify combinations of projects that result in greater quality of life benefits: Responding to evaluation question 1a, to empirically measure the impact of various combinations of programs or activities, requires a sufficient sample size representing each unique combination of interest. Given the very high number of combinations across up to 6 sectors and 3 or more levels of activity integration and high costs incurred in gathering data from a large sample to represent each combination, it is not feasible to measure each combination with sufficient statistical power.

Near ubiquity of capacity development limits external validity: Due to the near ubiquity of capacity development activities to improve implementers' and CSO's ability to carry out and sustain projects, the external generalizability of impact results will be slightly limited. This means the degree to which measured impacts in Malawi might also be achieved in other settings might depend on implementers, CSOs, and government partners having a similar level of capacity as those in Malawi.

Lack of stability in program and integration rollout: It is important to ensure sampled locations within FI districts have similar types of projects as those within PI and HSO districts so that QOL differences observed between the study arms can be linked to the CDCS strategy rather than to a specific project in a particular study arm that was especially successful. To mitigate this threat, at baseline, our evaluation site selection criteria included creating consistency in types of projects, with SSDI being a common thread through all three study arms and EGRA and INVC being common project approaches through the full and partial integration study arms. However, to prevent "contamination" over time of comparison areas within the evaluation (PI and HSO districts), it is important to ensure the program intensity, types, and integration levels remain relatively constant. It does not appear to be likely that the Mission will be able to fully control this without substantial program planning shifts that are not in its interest. Discussions with USAID sectoral teams and implementing partners revealed a number of activities in the planning or procurement stage for which locations will not be identified before the baseline, making it highly challenging to pinpoint or hold constant the intensity and types of investment or the timing or nature of integration within a given district throughout the five-year timeline of the CDCS, as would be ideal for an IE design. The intensity of programmatic approaches and focus of different implementers may also differ across sampled areas. Furthermore, some programs (and consequently the local presence of an IP) are expected to end at varying times prior to the final evaluation of the CDCS, causing more instability.

Additionally, while the CDCS targets the three focus districts in particular, there are several indications that integration will become increasingly common throughout other partial and perhaps even HSO districts. For example, the EGRA project implementers plan to integrate work plans across all districts, and in a recent FFP request for assistance, implementers have been encouraged to integrate programming

regardless of district. While USAID Mission representatives of these portfolios suggested that intentional non-integration could potentially be arranged in select locations, these are not likely to be sufficient for the evaluation sample.

Furthermore, several additional planned activities involving some form of integration (e.g., water, sanitation, and hygiene in schools through ASPIRE) were mentioned by several other Mission representatives without a clear location selected, making it difficult to know whether selected partial integration districts will continue to have the same combination of sectors and integration into the future. It does not appear to be feasible or desirable for USAID to withdraw existing integration plans in partial or HSO districts. All of these limitations pose challenges to completing this type of evaluation.

Other donor initiatives: Malawi is somewhat saturated with a number of initiatives from external donors. While national-level activities are not of concern, as all Malawians would theoretically be equally exposed, programs that target specific districts or sub-district locations could “contaminate” the evaluation’s ability to attribute effects to USAID programming. This is a common issue for development evaluation. Most high-cost donor initiatives appear to be nationally focused, and limited information is available regarding the specific sub-district locations of other smaller programs.

Inability to generalize findings to district level: Given the purposive restriction of data collection to implementation areas meeting our criteria for non, partial, and full integration, it is worth noting that results will only be representative of these sampled areas and cannot be generalized to represent an entire district or Malawi as a whole. This approach is necessary and in line with the evaluation questions, which require that both treatment and comparison groups must be USAID intervention areas.

Changes in Malawi Government level of cooperation: The recent change of power in the Malawi elections leaves some uncertainty about the potential for shifting government priorities or level of cooperation with respect to USAID programming. We expect any disruptions to be minimal, if any.

Limited ability to directly measure DO and IR indicators: Any endeavor to capture outcomes across all Mission DO indicators will certainly be limited. PMP guidance for some indicators required extensive survey modules that would have lengthened the survey beyond reason. In such cases, SI opted to remove or alter the type of indicator collected. SI strived to balance the need to include core indicators with appropriate survey length and content that would ensure truthful responses and respondent retention across multiple data collection rounds.

Standard limitations of survey methods and self-report: Survey methods used for this evaluation rely on accurate and truthful reporting of household characteristics. Commodity yields and sales might have been a challenge for respondents to recall from the prior cropping season, and some positive behaviors may have been over-reported. While these issues are common in survey methods and expected to some degree, SI will work to improve survey techniques to improve recall and truthful reporting to the extent possible. It is not expected that inaccuracies would differ significantly by study arm, and therefore, may not pose a large problem.

Limited disaggregation of qualitative information in the study: Focus groups using rural score cards were conducted with an established protocol and highly skilled moderators and in local languages. However, the large number of topics to be discussed and resource constraints limited the time spent in exploring each topic in-depth and number of focus groups. Also, a disaggregated reporting based on gender and geographic regions could not be done due to mixed gender groups and small number of focus groups conducted for the baseline. Nonetheless, the focus group discussions helped identify key themes that supplement the quantitative survey findings of this study, and themes that could be investigated in detail

in later assessments.

While the evaluation design has limitations, they do not diminish the utility of this evaluation. The study adds considerable value in that determining the impact of increased multi-sector investment in focused areas alongside the integration approach for service delivery and capacity building (i.e., the “full CDCS package”) is an important question of great interest to the development community and something that smaller-scale programs such as Millennium Villages has explored in a more narrow sense, yet without much rigorous evaluation. The study would help understand the impacts of the full package of the 3C based CDCS approach compared to a partial CDCS package.

ANNEXES

ANNEX 1. INTEGRATION: DEFINITIONS AND LITERATURE REVIEW ON EFFECTS

USAID projects implemented under the integrated rural development programs in the eighties were characterized by the following: focus on a limited, specific geographical area; are multi-sectoral, with multicomponents; attempt to coordinate the supply of goods and services to the local population; and provide for some kind of beneficiary participation (Kumar, 1987).

CDCS of Guatemala consisted of a single Development Objective that combines the work of the Health and Education, Economic Growth and Title II program activities, and integration approach goes far beyond simple “co-location of projects” (USAID/Guatemala, 2013). By this approach, USAID plans, communicates and coordinates activities within the Mission and with USAID-funded partners to effect the best integration of resources possible for the collaborative implementation of US Government (USG)-funded activities. The approach is now being evaluated through a quasi-experiment and baseline of the households was recently completed. The Mission expects to measure the success of the integration of efforts through the following: extent of USAID partners annual work plans and budgets reflecting integration (or cross referencing) among projects, the continuation of Core Technical Working Group, efficiency as measured by some qualitative measures, collaboration with partners in various sectors to achieve a “one voice” approach to the development challenges faced, and evidence of a “one voice” approach to interactions with local officials.

Focus States Approach of USAID/Nigeria (2012) considered the following engagement levels to describe its approach of linkages to achieve integration:

- Lowest level: Field collaboration of geographically co-located activities
- Intermediate level: Co-programming of functionally relevant activities
- Impact level: Co-funding of joint or disparate activities to build and expand impact across sectors and functional areas

The life cycle of collaboration, developed by Gadja (2004)¹ and Frey (2006)², involves six steps: co-existence, networking, cooperation, coordination, coalition and collaboration (see Figure 23).

Lifecycle of Collaboration –Rosetta Stone

(Gajda, 2004 & Frey, B, al., 2006)

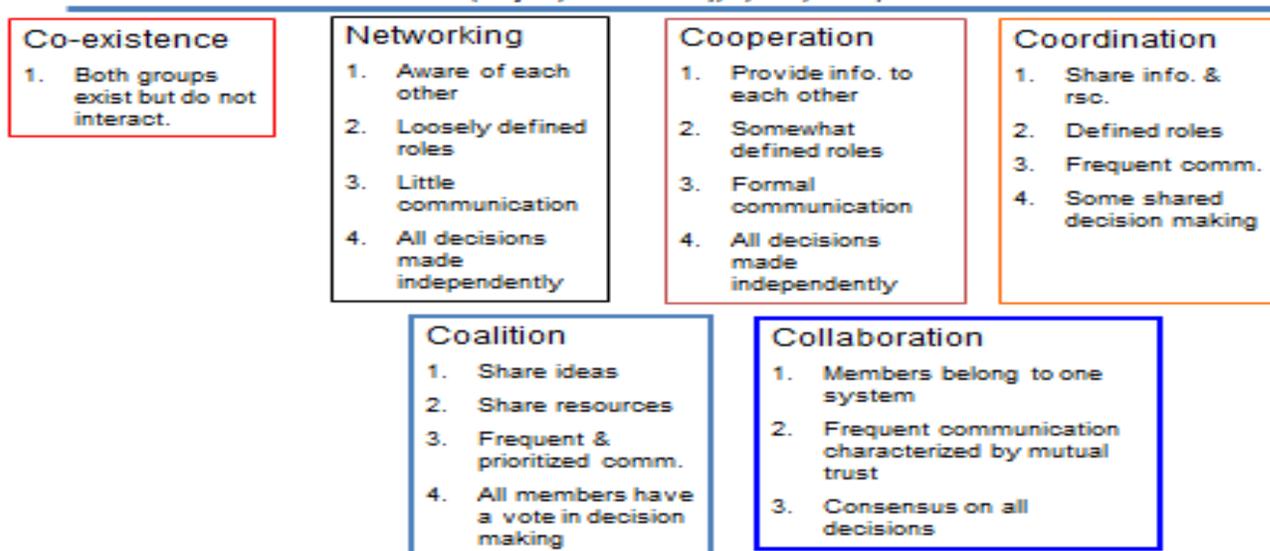


Figure 23. Lifecycle of collaboration

“Collaboration is a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals. The relationship includes a commitment to mutual relationships and goals; a jointly developed structure and shared responsibility; mutual authority and accountability for success; and sharing of resources and rewards” (Mattessich et al., 2001).

A multi-sectoral approach involving diverse stakeholders is needed to appropriately address the complex needs of any community. However, building effective collaborative partnerships can be difficult, as it requires changes in relationships, procedures, and structures, as well as substantial investments of time and organizational resources (Lasaker, Weiss, and Miller, 2001).

The literature on community coalitions and collaborative efforts has identified seven stages of development: initial mobilization, establishing organizational structure, building capacity for action, planning for action, implementation, refinement, and institutionalization (Florin et al., 1993).

The GAO in 2011 recognized that a commonly accepted definition of collaboration does not exist. The broad concept of interagency collaboration contains at least six types of various activities and arrangements: collaboration (an exchange among relatively equal entities or peers, separate from collaboration’s broad use), coordination, mergers, integration, networks, and partnerships. These categories often overlap with, supplement or reinforce one another; several different types may occur in the same organizational structure and endeavor and is used interchangeably (Kaiser, 2011).

GAO provides a working definition of collaboration by stating that it is any joint activity by two or more organizations that is intended to produce more public value than could be produced when the organizations act alone. GAO also distinguishes collaboration from coordination and integration. While collaboration is an arrangement which relies, to a substantial degree, on voluntary or discretionary participation among the members, who are relatively equal or at least have parity in such an activity and arrangement, coordination is an arrangement in which a lead agency or officer directs an operation,

project, or program among one or more other agencies,³⁰ and integration is an arrangement which brings together relevant parts of agencies on either a long-term or a temporary ad hoc basis, to carry out a particular operation, project, program, or policy and may involve non-permanent transfers of personnel, resources, or authority among relevant agencies. They may coexist in the same organization, may overlap without any distinctions, elaboration, or specification thus resulting in hybrids structures.

Forest, (2003) defines coordination as a harmonious functioning of various parts for effective results and helping each other but not changing the basic way of doing business. They could include sharing information, making referrals, coordinating schedules, listing each other's events in newsletters, and make some initial compromises. But, collaboration involves working jointly with others on a common goal that is beyond what any one person or group can accomplish alone. They could include planning jointly, pooling resources, and evaluating outcomes together.

From the above, co-location can be considered as the basic building block for integration and the next levels of integration can vary by an array of linkages among the co-located projects that range from simple coordination/collaboration to complex/intricate linkages among various projects under the same or different sectors to achieve a common goal.

Effects of Integrated Projects

Historically, researchers have been hesitant to test the impact of integration because it is very difficult to ensure comparability among treatment and control areas, and hold additional external factors constant. Of the integrated interventions that have been evaluated, many of the results contain bias (Clemens & Demombynes, 2013).

A report accumulating the results of impact evaluations of eleven integration projects implemented between 1983 and 1987 in various countries highlights many important lessons for future integration projects. In the 1970s, USAID embraced integrated rural development, but results were not consistent. Asia and South America experienced an increase in income and agricultural production and productivity. However, these results were not seen in Africa. Nevertheless, the achievements seen were only moderately successful in attaining national-level objectives in food self-sufficiency, gross national product, or national security. Within countries, benefits were not equitably distributed as people of higher socioeconomic class, with their physical and technical resources, were better able to take advantage of the projects compared to female farmers, the landless, farmers without access to irrigation facilities, and those with less labor resources. The latter benefited more from integrated services in health care, housing, education, and drinking water, which often faced cutbacks when projects underwent financial and administrative problems.

Issues of autonomy, lack of coordination, effectiveness, and sustainability rose within the organizational units responsible for implementing integrated rural development projects and led to failure of many integrated projects. Without sufficient resources or capabilities, the project management unit, though effective in reducing bureaucratic delays, became dependent on other units and projects often could not sustain their activities. Many organizations were not able to allocate their responsibilities efficiently due to the bureaucratic procedural restrictions and a lack of managerial and fiscal leadership. Due to limited

³⁰ In collaborative arrangements, the member organizations may participate at various levels, based on their own determinations and agreements and not on directives from a lead authority or formalized authority. Therefore, some members might not participate adequately or at all, even to the point of jeopardizing the interagency enterprise.

administrative and technical capabilities, the subnational units experienced implementation delays despite strengthening local institutions by giving them a sense of ownership over the projects. Equipped with more qualified personnel and the power to acquire resources from their own budgets, the national ministry improved the likelihood of the institutionalization of the integrated rural development projects. Nevertheless, their priorities did not match that of the national government and centralization did not lead to effective implementation at the grassroots level. Despite the innovativeness of private voluntary organizations (PVOs) and their success in inciting the participation of beneficiaries, they lacked power compared to the national power structure and could not assist in institutionalizing the projects.

Lack of coordination in allocating responsibilities and decision-making affected project management. Centralized funds prevented timely distribution to activity implementers. Staff were often assigned to different agencies and their divided loyalties precluded effective coordination and their small salaries, insufficient benefits, and lack of opportunities for career growth did not attract the best workers.

Other concerns that arose during project implementation included the political will and economic resources of host countries to continue providing these services and the policy environment in agricultural commodities, economic organizations, and land tenure. Also, implementers were not given power to make the projects relevant in the field. Long gaps between identifying and beginning a project, underestimation of the amount of time necessary to complete a project, and unsuitable ending of activities plagued the implementation process.

There are very few recent rigorous impact evaluations of integrated development interventions.

One recent evaluation that shows the positive effects of integration is one that examines a program that combines gender and HIV training with microfinance (Kim, Ferrari, Pronyk, 2009). The participants experienced greater economic gains than individuals not enrolled in the program. Furthermore, it showed that participants had greater improvements in women's empowerment, intimate partner violence, and HIV risk behavior than those who participated in the microfinance program and did not receive gender and HIV training, as well as those who did not participate in the microfinance program or the gender and HIV training.

An impact evaluation of the Millennium Villages Project in Sauri, Kenya on agricultural productivity showed that in comparison to farmers in control villages, farmers that participated in the program experienced greater gains in agricultural production margins, as well as self-consumption and total income (Wanjala & Muradian, 2013).

Two recent evaluations of USAID funded programs in Malawi, presented in USAID Malawi's Country Development Cooperation Strategy (CDCS) 2013-2018 (2013), also illustrate the positive effects of integration. The first evaluation, the Rapid and Effective Action Combating HIV and AIDS (REACH) program, demonstrated the benefits of geographically concentrating resources. The evaluation showed that programs for local partners that combined organizational capacity development with grant making and technical support helped local partners engage in collaborative, coordinated, and efficient activities. The second, the mid-term evaluation of the Wellness and Agriculture for Life Advancement (WALA), a multi-sector program focusing on health, nutrition, agriculture, natural resources management, and disaster risk reduction, showed that integrating community members into the planning and the evaluation of the WALA intervention played a role in increasing the sustainability of the intervention.

USAID Nigeria's Focus States Strategy (FSS) (2010-2013) demonstrated the ability of concentrated cross-cutting programs to enhance results such that they exceed the sum of the parts. Education, health, and empowerment initiatives were incorporated into the FSS program to create an effective governance

model. The two focus states, Bauchi and Sokoto, to which most resources and activities were allocated, experienced an improvement in state policies and service delivery at the local level, as well as citizen awareness and participation in governance. Collaboration among implementing partners (IPs) saved resources, increased efficiency, and improved the delivery of integrated services while successfully allowing each IP to advance its own objectives.

In an effort to reduce poverty and chronic malnutrition, USAID/Guatemala is in the process of applying an integrated approach in the western highlands, the area most vulnerable to food insecurity. The initiative emphasizes cooperation among sectors as opposed to simply co-location of programs. The involved sectors therefore extend beyond nutrition and health to include cooperation among programs in local governance, private sector inclusion, and agricultural value chains in hopes of creating a sustainable solution to the poverty and malnutrition problems which plague the western highlands area.

A major issue in impact studies of integrated programs involves faulty measurements of outcomes leading to overstatement of the results. For example, a study that examined the impact of the Millennium Villages Project (MVP) on child survival in rural areas in sub-Saharan Africa (Remans et al, 2011) inaccurately calculated the decline in child mortality in the treatment villages by failing to use identical durations of baseline and end line periods. Additionally, the evaluation erroneously calculated the change in mortality rates in the comparison villages. The failure to accurately determine child mortality rates in both the treatment and control groups caused the evaluation to dramatically overstate the positive effects of integration on child mortality (Pronyk, 2012).

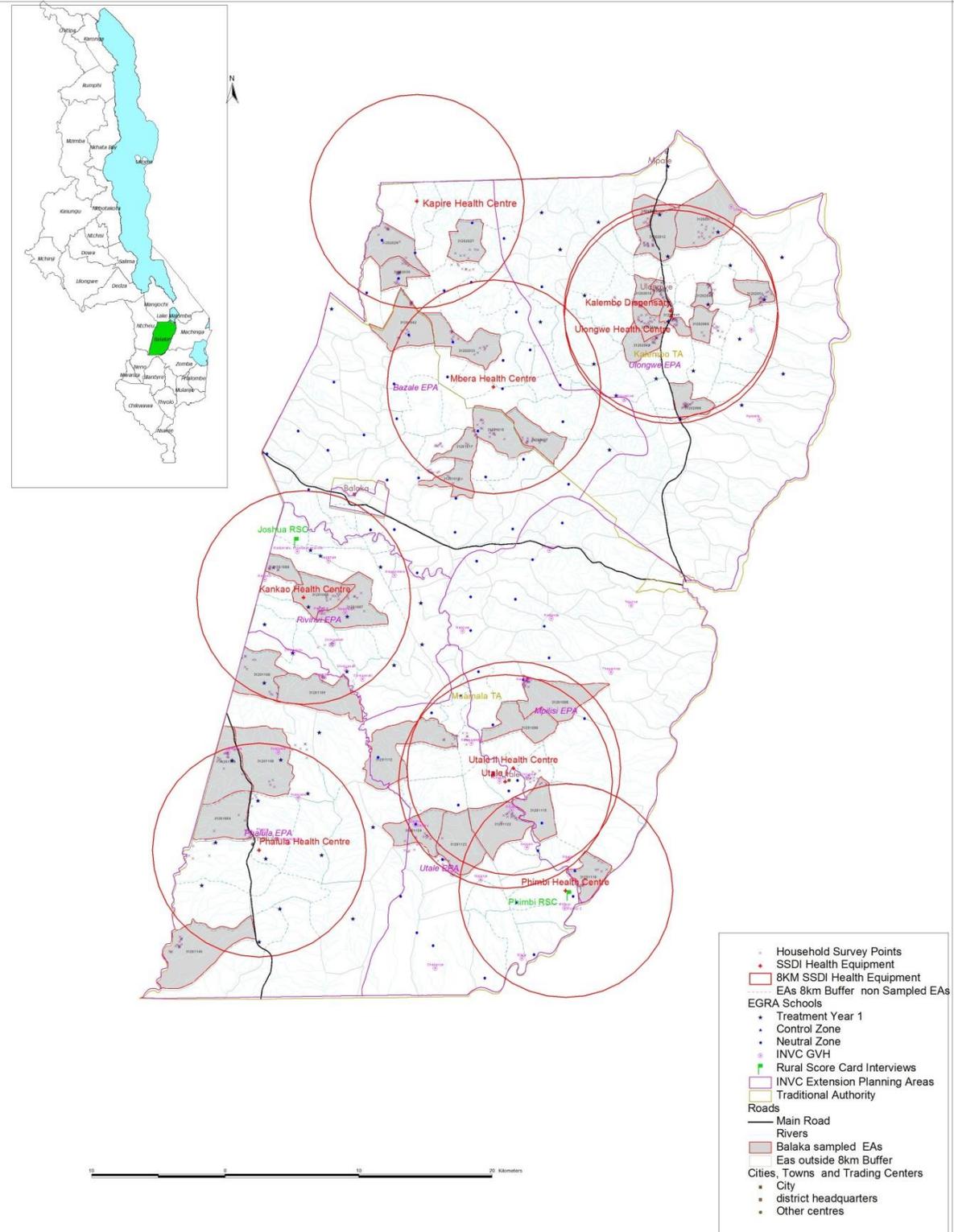
The MVP demonstrates some key lessons in conducting impact studies: (i) collect data on shocks experienced by treatment and control areas (ii) account for spillover effects in comparison groups, and (iii) account for bias due to seasonality (de Hoop, 2013). Additionally, MVP evaluations show that in the absence of randomization, using propensity score matching combined with difference in difference can be a good tool for ensuring comparability among treatment and control groups (Masset et al, 2013).

ANNEX 2. SAMPLING MAPS FOR STUDY DISTRICTS

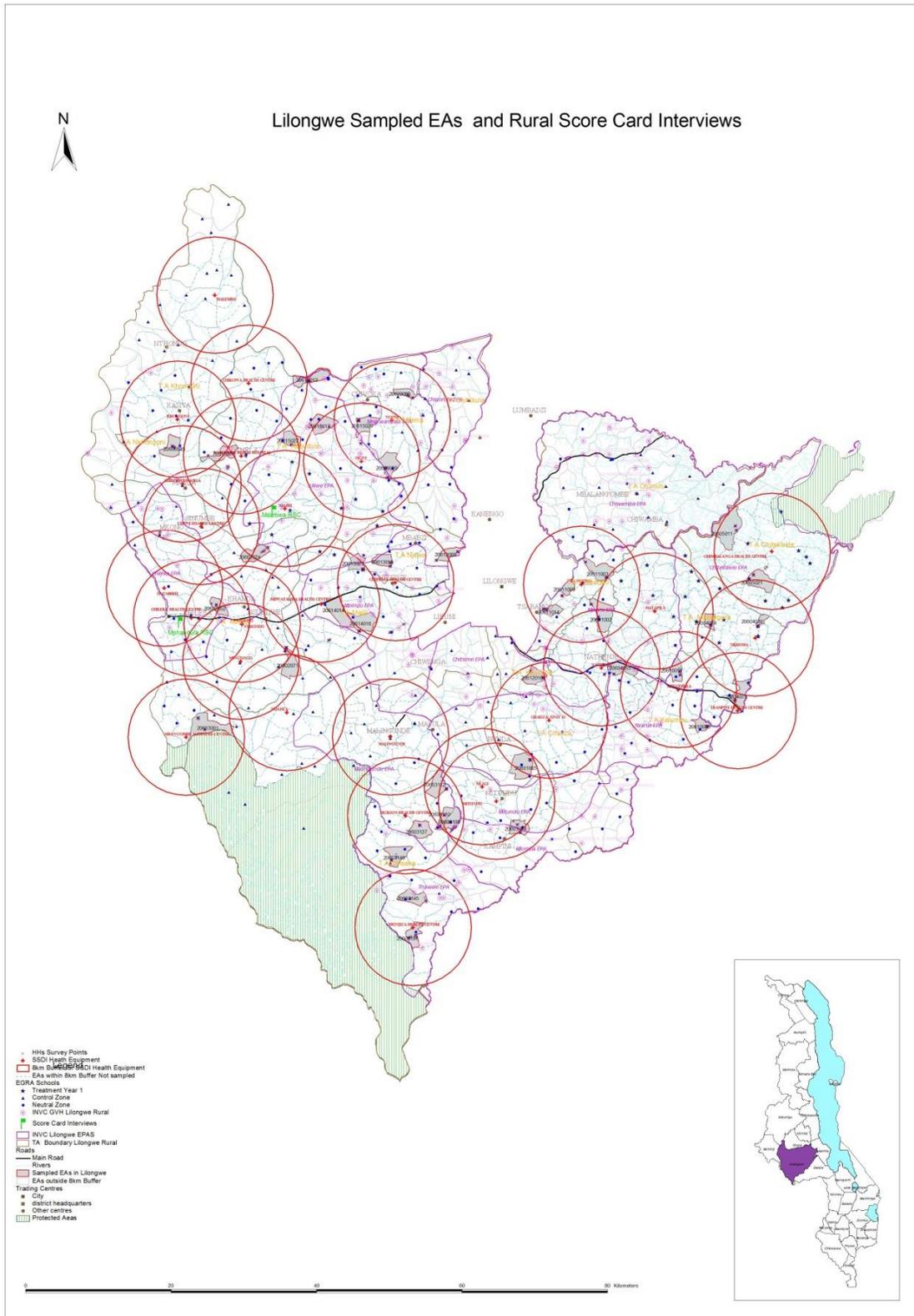
This annex to the USAID/Malawi CDCS impact evaluation Baseline Report includes maps demonstrating locations of sampled households surveyed at baseline as well as the locations of Rural Score Card focus group discussions. Detailed sampling procedures are described in the main report. Red circles represent an 8km beneficiary access radius around SSDI-supported health facilities. Other symbols represent USAID’s other flagship projects EGRA and INVC locations, which were used to visually identify areas of co-location. Malawi census enumeration areas (EAs) shaded in gray represent randomly selected areas from those SSDI buffers, within which villages were randomly selected. Each black “x” symbol represents the location of a household survey. These same households will be visited at midline and endline.

Balaka Data Collection Locations

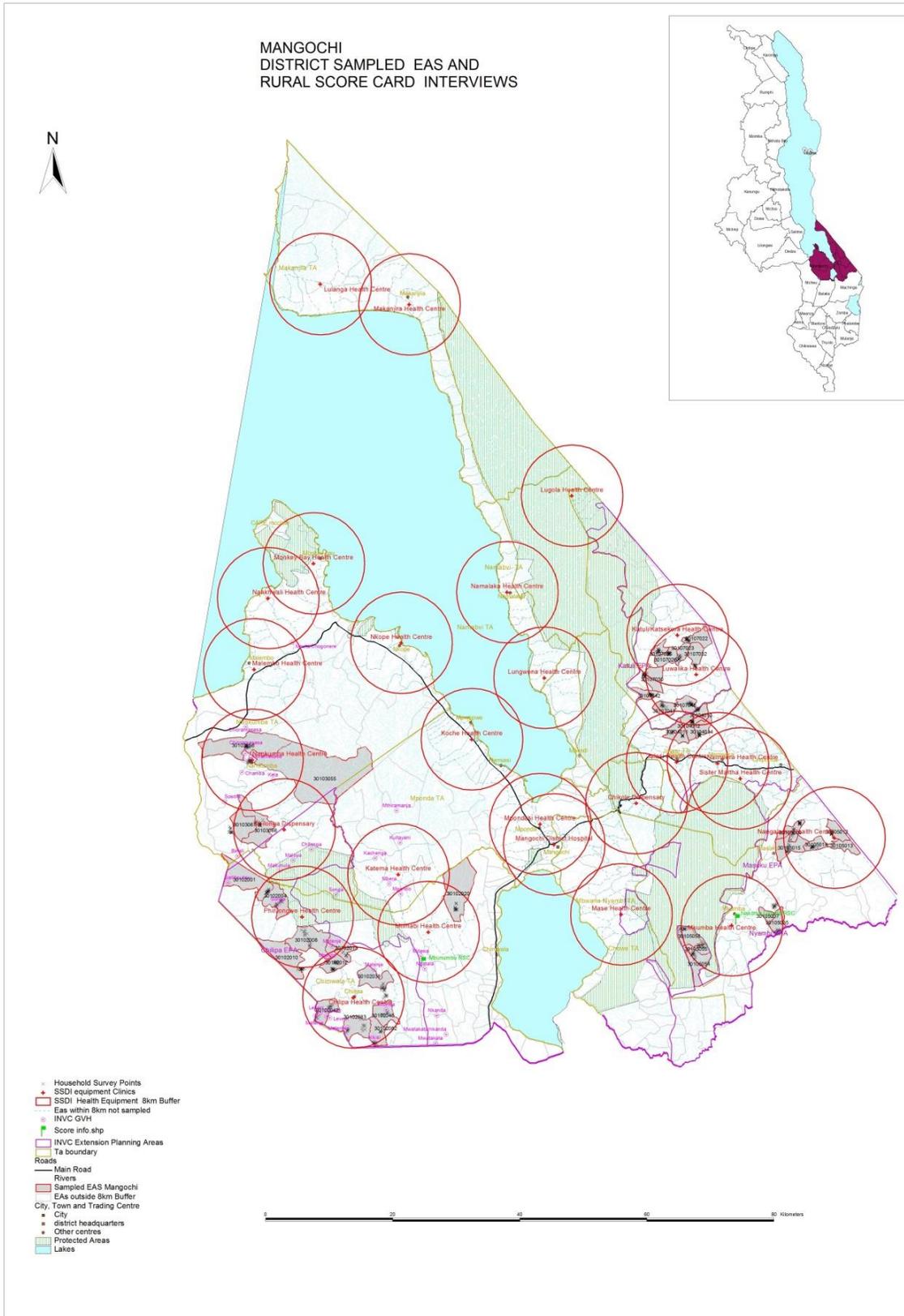
BALAKA DISTRICT SAMPLED EAS AND RURAL SCORE CARD INTERVIEWS



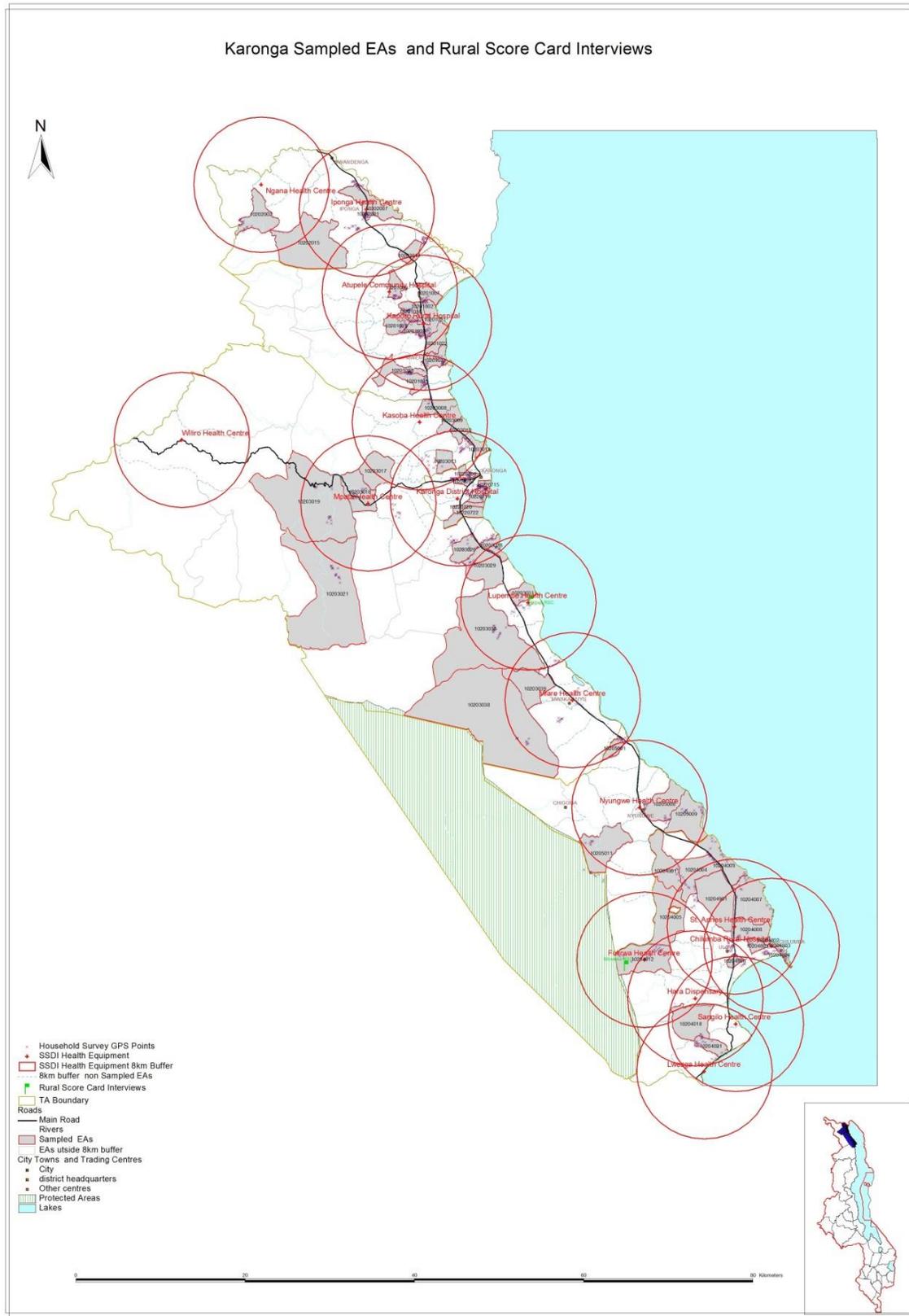
Lilongwe Rural Data Collection Locations



Mangochi Data Collection Locations



Karonga Data Collection Locations



ANNEX 3. HOUSEHOLD SURVEY

USAID/MALAWI - COUNTRY DEVELOPMENT COOPERATION STRATEGY - HOUSEHOLD SURVEY 2014		
Question		
USAID/MALAWI - COUNTRY DEVELOPMENT COOPERATION STRATEGY - HOUSEHOLD SURVEY 2014		
Prior to arriving at the house, fill the following:		
a1: DISTRICT NAME and CODE:	1	Lilongwe Rural
<i>Question relevant when: true ()</i>	2	Balaka
	3	Machinga
	4	Mangochi
	5	Mulanje
	6	Karonga
	7	Nkhotakota
	8	Zomba
a2: TRADITIONAL AUTHORITY NAME:		
<i>Question relevant when: true ()</i>		
a3: EA CODE		
<i>3 digits</i>		
<i>Question relevant when: true ()</i>		
a4: VILLAGE NAME		
<i>Question relevant when: true ()</i>		
a6: Enumerator name		
<i>Question relevant when: true ()</i>		
a7: Enumerator code		
<i>3 digits</i>		
<i>Question relevant when: true ()</i>		
a5: HOUSEHOLD ID		
<i>2 digits</i>		
<i>Question relevant when: true ()</i>		
This Questionnaire ID is: ---		
a9: Which attempted visit is this?	1	First visit
<i>(verify with log form and record)</i>	2	Second visit
<i>Question relevant when: true ()</i>	3	Third visit
a10: Is any person at this sampled house so you can invite the household to participate?	1	Yes
<i>Question relevant when: true ()</i>	0	No
a11: Are you able to communicate in the same language as someone in the household?	1	Yes
<i>Question relevant when: true ()</i>	0	No

Read the consent script: Hello. I am working with IKI and Social Impact. We are conducting a study to assess the impact of the USAID/Malawi Country Development Cooperation Strategy. USAID is doing some activities in this area. The results of this study may help to improve the programs offered in Malawi in the future. This household has been randomly selected to participate in this study if you choose to. If you agree to participate in this study, we would like to ask some survey questions. This interview will take about 1 hour and 30 minutes. You will be asked a few questions about yourself and family members, about the work that supports this family, about household goods, your activities in the community, your opinions about local services, your outlook on life, and information about the household's food consumption and health care. For most of the questions we prefer to talk to the main woman of the household, but if there is another person who knows more about certain topics such as agricultural activities of this household, we would like to invite them to respond to those parts of the survey. Then we will need to come back to ask you these same questions two more times: in about two years (in 2016), and again two years from that time (in 2018). It may be possible we would come 1 or 2 other times in addition to that, but it is not likely. I know this sounds like a long time now, but it is important for us to understand whether there are any changes in the life of this community. Your participation is completely voluntary. You can choose not to participate now, or at any time between now and the end in 2018. All information collected in this study is confidential. Your answers will be grouped with the answers of other people like you and your name will not be used or shared with anyone outside of this study. There are no known risks of participating in this research project other than losing an hour and 30 minutes of productive time. There are also no direct benefits to you if you participate other than knowing your information will help USAID understand whether its programs are working or whether they need to improve. Should you feel uncomfortable with any question(s), you may refuse to answer it and I will move on to the next question. If you have any questions or concerns now or in the future, you may contact James Mkandawire at 0999-412-756 james.mkandawire@investinknowledge.org. Or you can contact James Fremming at the Social Impact Institutional Review Board: +1-703-465-1884 extension 208 jfremming@socialimpact.com. Do you have any questions?

Question relevant when: $\{a1\} = 1$

a12: Do you agree to participate in this study?	1	Yes
<i>Question relevant when: true ()</i>	0	No
a13: How long have you been living in your current village?	1	less than 2 years
<i>mark no interview due to not living here 2 years and end survey</i>	2	2 years or more
<i>Question relevant when: true ()</i>		
a14: Record reason for no interview	1	No interview- Not living here for at least 2 years
<i>Question relevant when: true ()</i>	2	No interview- No male or female head of household at home
	3	No interview- Adult requested reschedule
	4	No interview - other reason
	5	No Interview -Adults not able to interview (illness/infirmity/mental capacity)
	6	Refusal- Adults say reschedule is not possible
	7	Refusal - Direct refusal
	8	Refusal- other reason
Thank you for your time. Unfortunately, you do not meet the criteria for the survey. Have a nice day.		
<i>Question relevant when: \${a13} =1</i>		
-		
<i>Group relevant when: \${a12} =1 and \${a13} !=1</i>		
Section A: Background		
<i>Ensure you are talking to the preferred respondent (The main female in the house is first choice. If not, the head of household. If not, another adult able to speak about the topics.)</i>		
a15_1 What is head of household's surname?		
a16_1 What is the head of household's given name?		
a17_1 What is the sex of head of household?	0	Male
	1	Female
a18 What is the primary respondent's relationship to the head of the household?	1	Self
<i>Question relevant when: true ()</i>	2	Spouse of head of household
	3	Other adult in household

a15 What is main respondent's surname?		
<i>Question relevant when: true ()</i>		
a16 What is main respondent's first name?		
<i>Question relevant when: true ()</i>		
a17 What is the main respondent's sex?	0	Male
<i>(Observe)</i>	1	Female
<i>Question relevant when: true ()</i>		
Section B: Household Members		
a30: INTERVIEWER: List the language option you are going to use on the tablet for this interview.	1	Chichewa
	2	Citumbuka
	3	Ciyawo
	4	Cisena
	5	English
	-88	Refuse to respond
b11: Which languages are spoken regularly in your household?	1	Chichewa
<i>Question relevant when: true ()</i>	2	Citumbuka
	3	Ciyawo
	4	Cisena
	5	English
	-88	Refuse to respond
	othe r	Other
Specify other.		
<i>Question relevant when: selected(#{b11}, 'other')</i>		
B0 How many people do you have in your household? Please include only the people who usually live and eat here and not temporary visitors. Also, include the household head even if he or she has not lived in the household for the past 6 months, as long as he/she is still living and supporting this household. Please do not include children who have already moved out or gotten married.		
<i>Response constrained to: .>0</i>		
Now I would like to make a list of the people starting with the head of household.		
B01 First Name of household member		
<i>Question relevant when: true ()</i>		

Please answer the following questions for [mem_nm]		
B02: Relationship of [mem_nm] to HH head	1	HOUSEHOLD HEAD
<i>Question relevant when: true ()</i>	2	SPOUSE
	3	SON/DAUGHTER
	4	PARENT
	5	SIBLING
	6	GRANDCHILD
	7	GRANDPARENT
	8	FOSTER CHILD
	9	OTHER RELATIVE
	10	NON-RELATIVE
B03: Age of [mem_nm] in completed years		
<i>Report children under the age of one as zero</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: .<151</i>		
B03_1: How many months old is the child?		
<i>Question relevant when: \${b03} =0</i>		
B04: Gender of [mem_nm]	0	Male
<i>Question relevant when: true ()</i>	1	Female
B05: What is [mem_nm] 's present marital status?	1	MARRIED
<i>Question relevant when: true ()</i>	2	SINGLE
	3	WIDOWED
	4	DIVORCED OR SEPARATED
	5	N/A (Child)
B07: What is [mem_nm] main occupation?	1	FARMING
<i>Question relevant when: true ()</i>	2	HOUSEWIFE
	3	HOUSEHOLD BUSINESS
	4	SALARIED PROFESSION
	5	WAGE LABOR
	6	STUDENT
	7	FISHER
	8	NONE
	othe r	Other
Specify other.		
<i>Question relevant when: selected(\${b07}, 'other')</i>		

Education Questions about [mem_nm]		
	1	Yes
	0	No
	-99	Don't Know
	-88	Refused to Answer
C7: Can [mem_nm] read a one-page letter in Chichewa?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
C8: Can [mem_nm] write a one-page letter in Chichewa?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
C9: Can [mem_nm] read a one-page letter in English?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
C10: Can [mem_nm] write a one-page letter in English?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
C11: Has [mem_nm] ever attended school?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
C12: Does [mem_nm] currently attend school?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
C1_12b What is the name of the school [mem_nm] attends?		

<i>Question relevant when: $\{c1_12\} = 1$</i>		
C13: What is the highest educational qualification [mem_nm] has completed?	0	NONE
<i>Question relevant when: true ()</i>	1	NURSERY/PRESCHOOL
	2	STANDARD 1
	3	STANDARD 2
	4	STANDARD 3
	5	STANDARD 4
	6	STANDARD 5
	7	STANDARD 6
	8	STANDARD 7
	9	STANDARD 8
	10	JUNIOR FORM 1
	11	JUNIOR FORM 2
	12	SENIOR FORM 3
	13	SENIOR FORM 4
	14	VOCATIONAL TRAINING
	15	DIPLOMA/CERTIFICATE
	16	UNIVERSITY UNDERGRADUATE
	17	UNIVERSITY GRADUATE/POST-GRADUATE
	18	Adult literacy program
	-77	OTHER
	-99	Don't know
b9_0: Is there any household member with a mental or physical disability?	1	Yes
	0	No
	-88	Refused to Answer
b9: Have you experienced the death of any member of the household in the past 12 months?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-88	Refused to Answer
b10: Was this person aged 5 or younger?	1	Yes
<i>Question relevant when: $\{b9\} = 1$</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
Section C: Education		
<i>Now I have a few general questions about reading.</i>		
c14: How many minutes does it take to reach the nearest public primary school?		
<i>Question relevant when: true ()</i>		
c15: Are there any books, magazines, etc. that children can read at home?	0	No
<i>Question relevant when: true ()</i>	1	Yes

	-66	N/A (don't have children)
	-88	Refused
	-99	Don't Know
c16: Are there any books, magazines, etc. that adults can read at home?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
c16_1: Does any member of this household ever go to a community reading center to read?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
c17: Does anyone in the household read books, magazines, newspapers, or any materials every day?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
c18: Who reads every day?	1	Adult male(s)
<i>Question relevant when: true ()</i>	2	Adult female(s)
	3	Boy child(ren)
	4	Girl child(ren)
c20: Do you ever use child care services to tend to your child while you are busy with other things?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-66	N/A. Do not have children
	-99	Don't know
Section D: Well-Being		
<i>Now I would like to ask you about your views on your well-being</i>		
d5: Would you say that in general the health of your household members is excellent, very good, good, fair, or poor?	1	Poor
<i>Question relevant when: true ()</i>	2	Fair
	3	Good
	4	Very good
	5	Excellent
	-88	Refused
d8: During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 30</i>		
d2: How satisfied are you with the financial situation of your household?	1	Not at all satisfied
<i>read options</i>	2	Somewhat dissatisfied
<i>Question relevant when: true ()</i>	3	Neutral

	4	Somewhat satisfied
	5	Very satisfied
	-99	Don't know
	-88	Refused
d10: Now looking ahead – do you think that a year from now you (and your family living there) will be better off financially, or worse off, or just about the same as now?	1	Worse off
<i>Question relevant when: true ()</i>	2	Same
	3	Better off
	-88	Refused
d22: Which of the following is true? Your current income...	1	Allows you to build your savings?
<i>read options</i>	2	Allows you to save just a little?
<i>Question relevant when: true ()</i>	3	Only just meets your expenses?
	4	Is not sufficient, so you need to use your savings to meet expenses?
	5	Is really not sufficient, so you need to borrow to meet expenses?
	-88	Refused
d15: Concerning your household's food consumption over the past one month, which of the following is true?	1	It was less than adequate for household needs
<i>read options</i>	2	It was adequate for household needs
<i>Question relevant when: true ()</i>	-88	Refused
Imagine six steps, where on the bottom, the first step, stand the poorest people within your village and nearby villages, and on the highest step, the sixth, stand the rich. SHOW THE PICTURE OF THE STEPS		
d19: On which step are you today?	1	Step 1
<i>Question relevant when: true ()</i>	2	Step 2
	3	Step 3
	4	Step 4
	5	Step 5
	6	Step 6
	-88	Refused
d21: On which step were you last year?	1	Step 1
<i>Question relevant when: true ()</i>	2	Step 2
	3	Step 3
	4	Step 4
	5	Step 5
	6	Step 6
	-88	Refused
d20: On which step are most others in this village today?	1	Step 1
<i>Question relevant when: true ()</i>	2	Step 2

	3	Step 3
	4	Step 4
	5	Step 5
	6	Step 6
	-88	Refused
d23: Suppose your household had something unfortunate happen to you, such as an unexpected loss of income or unexpected expense. Do you have someone you could turn to for help?	1	Yes
<i>Question relevant when: true ()</i>	0	No
d26: When you need to leave your home for several hours do you worry about the security of your things?	1	Worry a lot
<i>Question relevant when: true ()</i>	2	Worry some
	3	Do not worry
	-88	Refused
d4: On the whole, are you very satisfied, fairly satisfied, neutral, not very satisfied, or not at all satisfied with the way democracy works in Malawi?	1	Not at all satisfied
<i>Question relevant when: true ()</i>	2	Somewhat dissatisfied
	3	Neutral
	4	Somewhat satisfied
	5	Very satisfied
	-99	Don't know
	-88	Refused
d14: Do you believe you are personally able to control whether there can be improvements to your well-being in life?	1	Yes
<i>Question relevant when: true ()</i>	0	No
d1: All things considered, how satisfied are you with your life as a whole these days?	1	Not at all satisfied
<i>Question relevant when: true ()</i>	2	Somewhat dissatisfied
	3	Neutral
	4	Somewhat satisfied
	5	Very satisfied
	-99	Don't know
	-88	Refused
E. Household Features		
e13: INTERVIEWER: The outer walls of the main dwelling of the household are prodominantly made of what material?	1	GRASS
<i>Prompt</i>	2	MUD (YOMATA)
<i>Question relevant when: true ()</i>	3	COMPACTED EARTH (YAMDINDO)
	4	MUD BRICK (UNFIRED)
	5	BURNT BRICKS
	6	CONCRETE
	7	WOOD

	8	IRON SHEETS
	-77	OTHER
e14a: The floor of the main dwelling is predominantly made of what material?	1	SAND
<i>Question relevant when: true ()</i>	2	SMOOTHED MUD
	3	SMOOTHED CEMENT
	4	WOOD
	5	TILE
	-77	OTHER
e14b: Do you have electricity working in your dwelling?	1	Yes
<i>Question relevant when: true ()</i>	0	No
e15: How many separate rooms do the members of your household occupy?		
<i>(DO NOT COUNT BATHROOMS, TOILETS, STOREROOMS, OR GARAGE)</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . > 0 and . < 20</i>		
e16: What is your main source of lighting?	1	Collected firewood
<i>Question relevant when: true ()</i>	2	Purchased firewood
	3	Battery/dry cell (torch)
	4	Straw/shrub/grass
	5	Paraffin/Kerosene
	6	Electricity
	7	LPG
	8	Natural gas
	9	Biogas
	10	Candles
	othe r	Other
Specify other.		
<i>Question relevant when: selected({e16}, 'other')</i>		
e17: What is your main source of cooking fuel?	1	Collected firewood
<i>Question relevant when: true ()</i>	2	Purchased firewood
	3	Straw/shrub/grass
	4	Paraffin/Kerosene
	5	Electricity
	6	LPG
	7	Natural gas
	8	Biogas
	9	Coal, Lignite
	10	Charcoal
	11	Agricultural crop
	12	Animal dung
	-66	N/A. No food cooked in household
	othe r	Other

Specify other.		
<i>Question relevant when: selected(#{e17}, 'other')</i>		
e18: Does someone in the house own a cellular telephone (cell phone) in working condition?	1	Yes
<i>Question relevant when: true ()</i>	0	No
e19a: What kind of toilet facility does your household use?	1	Flush toilet
<i>Question relevant when: true ()</i>	2	VIP latrine
	3	traditional latrine with roof
	4	Traditional latrine without roof
	5	None/Bush
	-77	Other
e20: Do the children under 5 in the household sleep under a bed net at those times of the year when there are mosquitoes present?	1	YES, for all children under 5
<i>Only ask if there are children under 5</i>	2	YES, for some children under 5
<i>Question relevant when: true ()</i>	3	NO, none of the children under 5
	-66	N/A (does not have children under 5)
e21: Have you or anyone in your household grow any kind of tobacco in the past 5 cropping seasons?	1	Yes
<i>Question relevant when: true ()</i>	0	No
e22: Did anyone of your household cultivate a Dimba garden in (last completed dry season)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
e24: Over the past five years, was your household severely affected negatively by the following event: livestock died or were stolen?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-66	N/A (Never had livestock in past 5 years)
	-99	Don't Know
e25a: Over the past one month, did you purchase or pay for any bar soap (body or clothes soap)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
e25b: Over the past one month, did you purchase or pay for any clothes soap (powder)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
e26: What is the main source of drinking water for members of your household in the past month?	1	PIPED WATER INTO DWELLING
<i>Question relevant when: true ()</i>	2	PIPED TO YARD/PLOT
	3	BOREHOLE
	4	PUBLIC TAP/STANDPIPE
	5	PROTECTED WELL
	6	UNPROTECTED WELL
	7	PROTECTED SPRING
	8	UNPROTECTED SPRING
	9	RAINWATER

	10	TANKER TRUCK/ WATER VENDOR
	11	CART WITH SMALL TANK
	12	SURFACE WATER (RIVER/DAM/LAKE/POND/STREAM/CANAL/IRRIGATION DITCH)
	13	BOTTLED WATER
	other	Other
Specify other.		
<i>Question relevant when: selected(#{e26}, 'other')</i>		
e27_num: How long does it take to go there, get water, and come back?		
<i>Question relevant when: true ()</i>		
e27_unit: what is the unit?	1	minutes
RECORD IN UNIT	2	Hours
<i>Question relevant when: true ()</i>	-99	Don't know
e28: Do you usually do anything to the water to make it safer to drink?	0	No
<i>Question relevant when: true ()</i>	1	Yes
	-99	Don't know
e29: What do you usually do to make the water safer to drink?	1	BOIL
<i>Question relevant when: true ()</i>	2	ADD BLEACH/CHLORINE PRODUCT
	3	USE WATER FILTER (CERAMIC/SAND/COMPOSITE)
	4	STRAIN THROUGH A CLOTH
	5	SOLAR DISINFECTION
	6	LET IT STAND AND SETTLE
	-99	Don't know
	-77	OTHER
e30: Is the cooking usually done in the house, in a separate building, or outdoors?	1	IN THE HOUSE
<i>Question relevant when: true ()</i>	2	IN A SEPARATE BUILDING
	3	OUTDOORS
	-77	OTHER
e31: How long does it take to reach the nearest market?		
RECORD IN UNIT		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . > 0</i>		
e31a: what is the unit?	1	minutes
<i>Question relevant when: true ()</i>	2	Hours

	-99	Don't know
F. Assets		
fa2: How many [OXEN] do you own?		
<i>Count baby animals as whole animal ; Write "999" for "don't know/refuse"</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 500 or .=999</i>		
fb2: How many [CATTLE(COWS/BULLS)] do you own?		
<i>Count baby animals as whole animal ; Write "999" for "don't know/refuse"</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 500 or .=999</i>		
fc2: How many [SHEEP] do you own?		
<i>Count baby animals as whole animal ; Write "999" for "don't know/refuse"</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 500 or .=999</i>		
fd2: How many [GOATS] do you own?		
<i>Count baby animals as whole animal ; Write "999" for "don't know/refuse"</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 500 or .=999</i>		
fe2: How many [PIGS] do you own?		
<i>Count baby animals as whole animal ; Write "999" for "don't know/refuse"</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 300 or .=999</i>		
ff2: How many [CHICKEN] do you own?		
<i>Count baby animals as whole animal ; Write "999" for "don't know/refuse"</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 300 or .=999</i>		
fg2: How many [OTHER POULTRY] do you own?		
<i>Count any baby animal as whole animal</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 300 or .=999</i>		
fh2: How many [BED] do you own?		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 10</i>		
fj2: How many [IRON] do you own?		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>		

fk2: How many [TAPE OR CD PLAYER; HIFI] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fl2: How many [BICYCLE] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fm2: How many [CHAIR OR SOFA] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 30 or .=999</i>	
fo2: How many [REFRIGERATOR] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
ft2: How many [RADIO (WIRELESS)] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fv2: How many [WATCH] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fx2: How many [BEER BREWING DRUM] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fy2: How many [CAR OR TRUCK] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fz2: How many [MOTORCYCLE OR MOTOR SCOOTER] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
faa2: How many [BOAT/CANOE/RAFT] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fee2: How many [PANGA] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fgg2: How many [AXE] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	
fhh2: How many [SICKLE] do you own?	
<i>Question relevant when: true ()</i>	
<i>Response constrained to: . >= 0 and . <= 10 or .=999</i>	

G. Credit		
Now I'm going to ask you about your involvement in banks or credit		
g1: Does any member of this household have a bank account?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
	-88	Refused to answer
g1.5: Has anyone in this household received any loan, whether formal or informal, in any form over the last 12 months?	1	Yes
	0	No
g2: Has anyone in this household received a loan to support agricultural activities in the last 12 months?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
	-88	Refused to answer
g2_1: What form did the loan take?	1	Cash
<i>Question relevant when: true ()</i>	2	Voucher
	3	Materials provided
	4	Assistance provided
	-99	Don't know
	-88	Refused to answer
g3: Who provided that loan?	1	Non-governmental organization
<i>Question relevant when: true ()</i>	2	Formal lender (Bank/financial institution)
	3	Informal lender (friends/relatives)
	4	VSLAs / SACCOs/ merry-go-rounds
	5	Microfinance
	-77	Other
	-99	Don't know
g4: What was the amount borrowed in the last 12 months this source? (in MWK)		
<i>If don't know, mark 999</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 500000</i>		
g5: Who made the decision to borrow from [SOURCE]?	1	Main woman
<i>Question relevant when: true ()</i>	2	Main man
	3	Other household member
	4	Someone (or group of people) outside the household

	-99	Don't know
g6a4: Has anyone in your household taken any other loans or borrowed cash/in-kind from [Non-governmental organization] in the past 12 months?	1	Yes, cash
<i>Question relevant when: true ()</i>	2	Yes, in-kind
	3	Yes, cash and in-kind
	4	No
	-99	Don't know
g6b4: Has anyone in your household taken any other loans or borrowed cash/in-kind from [Informal Lender] in the past 12 months?	1	Yes, cash
<i>Question relevant when: true ()</i>	2	Yes, in-kind
	3	Yes, cash and in-kind
	4	No
	-99	Don't know
g6c4: Has anyone in your household taken any other loans or borrowed cash/in-kind from [Formal lender (bank/financial institution)] in the past 12 months?	1	Yes, cash
<i>Question relevant when: true ()</i>	2	Yes, in-kind
	3	Yes, cash and in-kind
	4	No
	-99	Don't know
g6d4: Has anyone in your household taken any other loans or borrowed cash/in-kind from [Friends or relatives] in the past 12 months?	1	Yes, cash
<i>Question relevant when: true ()</i>	2	Yes, in-kind
	3	Yes, cash and in-kind
	4	No
	-99	Don't know
g6e4: Has anyone in your household taken any other loans or borrowed cash/in-kind [Group based micro-finance or lending including VSLAs / SACCOs/ merry-go-rounds] in the past 12 months?	1	Yes, cash
<i>Question relevant when: true ()</i>	2	Yes, in-kind
	3	Yes, cash and in-kind
	4	No
	-99	Don't know
g6a6: Who made the decision to borrow from [Non-governmental organization]?	1	Main woman
<i>Question relevant when: true ()</i>	2	Main man

	3	Other household member
	4	Someone (or group of people) outside the household
	-99	Don't know
g6b6: Who made the decision to borrow from [Informal Lender]?	1	Main woman
<i>Question relevant when: true ()</i>	2	Main man
	3	Other household member
	4	Someone (or group of people) outside the household
	-99	Don't know
g6c6: Who made the decision to borrow from [Formal lender (bank/financial institution)]?	1	Main woman
<i>Question relevant when: true ()</i>	2	Main man
	3	Other household member
	4	Someone (or group of people) outside the household
	-99	Don't know
g6d6: Who made the decision to borrow fro [Friends or relatives]?	1	Main woman
<i>Question relevant when: true ()</i>	2	Main man
	3	Other household member
	4	Someone (or group of people) outside the household
	-99	Don't know
g6e6: Who made the decision to borrow [Group based micro-finance or lending including VSLAs / SACCOs/ merry-go-rounds]?	1	Main woman
<i>Question relevant when: true ()</i>	2	Main man
	3	Other household member
	4	Someone (or group of people) outside the household
	-99	Don't know

n02: Have you used a mobile phone in the past 12 months to send or receive money or pay a bill?	1	Yes
<i>Question relevant when: true ()</i>	0	No
i. Food Security [Food Insufficiency]		
READ: Now I would like to ask you about access to food over the past month (30 days)		
i1: In the past month (30 days), did you or any household member have to eat a limited variety of foods due to a lack of resources?	1	Yes
<i>When we say lack of resources, we mean not having means to get food either through growing it, purchasing it or trading for it. Preferred foods might include chicken or rice, nsima, beef, fish</i>	0	No
<i>Question relevant when: true ()</i>		
i2: How often did this happen?	1	RARELY (ONCE OR TWICE IN THE PAST MONTH)
<i>Question relevant when: true ()</i>	2	SOMETIMES (THREE TO TEN TIMES IN THE PAST MONTH)
	3	OFTEN (MORE THAN TEN TIMES IN THE PAST MONTH)
i3: In the past month (30 days), did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	1	Yes
<i>"A limited variety of foods" might be nsima and salt or beans only</i>	0	No
<i>Question relevant when: true ()</i>		
i4: How often did this happen?	1	RARELY (ONCE OR TWICE IN THE PAST MONTH)
<i>Question relevant when: true ()</i>	2	SOMETIMES (THREE TO TEN TIMES IN THE PAST MONTH)
	3	OFTEN (MORE THAN TEN TIMES IN THE PAST MONTH)
i5: In the past month (30 days), did you or any household member eat less in either the morning or the evening meal than you felt you needed because there was not enough food?	1	Yes
<i>Question relevant when: true ()</i>	0	No
i6: How often did this happen?	1	RARELY (ONCE OR TWICE IN THE PAST MONTH)
<i>Question relevant when: true ()</i>	2	SOMETIMES (THREE TO TEN TIMES IN THE PAST MONTH)
	3	OFTEN (MORE THAN TEN TIMES IN THE PAST MONTH)
i7: In the past month (30 days), did you or any other household member have to eat fewer than your normal number of meals in a day because there was not enough food?	1	Yes

A food you really did not want to eat might include amaranthus	0	No
<i>Question relevant when: true ()</i>		
i8: How often did this happen?	1	RARELY (ONCE OR TWICE IN THE PAST MONTH)
<i>Question relevant when: true ()</i>	2	SOMETIMES (THREE TO TEN TIMES IN THE PAST MONTH)
	3	OFTEN (MORE THAN TEN TIMES IN THE PAST MONTH)
i9: In the past month (30 days), did you or any household member go to sleep at night hungry because there was not enough food?	1	Yes
<i>Question relevant when: true ()</i>	0	No
i10: How often did this happen?	1	RARELY (ONCE OR TWICE IN THE PAST MONTH)
<i>Question relevant when: true ()</i>	2	SOMETIMES (THREE TO TEN TIMES IN THE PAST MONTH)
	3	OFTEN (MORE THAN TEN TIMES IN THE PAST MONTH)
i11: In the past month (30 days), did you or any household member go a whole day and night without eating anything because there was not enough food?	1	Yes
<i>Question relevant when: true ()</i>	0	No
i12: How often did this happen?	1	RARELY (ONCE OR TWICE IN THE PAST MONTH)
<i>Question relevant when: true ()</i>	2	SOMETIMES (THREE TO TEN TIMES IN THE PAST MONTH)
	3	OFTEN (MORE THAN TEN TIMES IN THE PAST MONTH)
i15: In the past 30 days, did anyone in this household eat ground nuts?	1	Yes
<i>This could be any form</i>	0	No
<i>Question relevant when: true ()</i>		
i16: In the past 30 days, did anyone in this household eat soy beans?	1	Yes
<i>This could be any form</i>	0	No
<i>Question relevant when: true ()</i>		
J. Environment		
j3: Does anyone in this household gather materials from the forest either to sell or use at home?	1	Yes
<i>Question relevant when: true ()</i>	0	No

j4aa: Do they gather wood or timber?	1	Yes
	0	No
j4a: What do they use wood/timber for? (read response options)	1	Use in household only
<i>Question relevant when: $\{j4aa\} = 1$</i>	2	Sell it all
	3	Both use in household and sell
j5: How important is this as a source of income? Not very important, a little, or very important?	1	Not important
<i>Question relevant when: true ()</i>	2	A little bit
	3	A lot
	-99	Don't know
j4ca: Do they gather other materials from the forest such as fruit, leaves, or bark?	1	Yes
	0	No
j4b: What do they use these materials for? (read response options)	1	Use in household only
<i>Question relevant when: $\{j4ca\} = 1$</i>	2	Sell it all
	3	Both use in household and sell
j5: How important are these materials as a source of income? Not very important, a little, or very important?	1	Not important
<i>Question relevant when: true ()</i>	2	A little bit
	3	A lot
	-99	Don't know
j6: Does anyone in this household practice fishing regularly?	1	Yes
<i>Question relevant when: true ()</i>	0	No
j7: For how many days in the past month has someone in this household fished?		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . ≥ 0 and . ≤ 31</i>		
j8: How many/much fish would you say are caught in an average day of fishing?		
<i>Help them estimate. Don't know is 999</i>		
<i>Question relevant when: true ()</i>		
j8b: Units for fish	1	Number of fish
<i>Question relevant when: $\{j8\} > 0$</i>	2	Number of kilos
j10_1: Do you sell the fish?	1	Yes
	0	No
j10_2: Can you please estimate the amount of income your household made from selling fish in the past month?		
<i>Question relevant when: $\{j10_1\} = 1$</i>		

j11: In the past week how many times (# meals) was fish eaten in this household?		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 30</i>		
j17: In the past 12 months, has this household experienced any loss or severe reduction of arable land due to erosion?	1	Yes
<i>Question relevant when: true ()</i>	0	No
j18: Have you seen any demonstrations in the past year related to planting or preserving trees?	1	Yes
<i>Question relevant when: true ()</i>	0	No
j19: Has anyone in this household planted trees in the past year?	1	Yes
<i>Question relevant when: true ()</i>	0	No
j20: What kinds of trees were planted?	1	Fruit/nut/agriculture trees
<i>Question relevant when: true ()</i>	2	Other trees
	-99	Don't know
	other	Other
Specify other.		
<i>Question relevant when: selected({j20}, 'other')</i>		
j21: Have you ever heard of climate change?	1	Yes
<i>Like long-term changes in weather patterns like timing of rains or average temperatures</i>	0	No
<i>Question relevant when: true ()</i>		
j22: What kinds of things do you think you can do to prepare for and respond to changes in weather like floods or drought?	1	Planting trees
<i>Question relevant when: true ()</i>	2	Use less trees/wood
	3	Use improved cookstove
	4	Use community woodlot
	5	Better forest management
	6	Conserve water
	-77	Other
	-99	Don't know what to do
	other	Other
Specify other.		
<i>Question relevant when: selected({j22}, 'other')</i>		
K. Health		
k02: How long does it take for you to get to the closest clinic?		
<i>This should be amount of time, not distance</i>		
<i>Question relevant when: true ()</i>		

K03: What are the units for closest clinic	1	minutes
	2	Hours
	-99	Don't know
k04: When a child in your household needs medical care, what do you typically do	1	Go to the hospital or health center
<i>Question relevant when: true ()</i>	2	Go to a clinic
	3	Take care of him/her at home
	4	Go to a traditional village healer
	5	Other, please specify
	-99	Don't know
	-88	Refuse to respond
	-77	N/A (No Children)
	othe r	Other
Specify other.		
<i>Question relevant when: selected(#{k04}, 'other')</i>		
k06: Why do you not go to a clinic or hospital when a child is sick?	1	Can't afford the clinic fees
<i>Question relevant when: true ()</i>	2	Can't afford the transportation
	3	It is too far
	4	It is difficult to get there
	5	Traditional healing/at home care is just as good or better than going to a clinic/hospital
	6	Religious beliefs
	-77	Other
	-99	Don't know
	-88	Refuse to respond
k08: What is the name of the clinic/hospital you use most often when it is needed?		
<i>Question relevant when: true ()</i>		
k10: What is your most common source of advice about or treatment for illnesses?	1	GOVERNMENT HOSPITAL
<i>Question relevant when: true ()</i>	2	GOVERNMENT HEALTH CENTER
	3	GOVERNMENT HEALTH POST/OUTREACH
	4	HOSPITAL (don't know if government or private)
	5	HEALTH CENTER (don't know if government or private)
	6	MOBILE CLINIC
	7	HSA
	8	CBDA/DOOR TO DOOR / Community Health Worker
	9	CHAM
	10	PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR

	11	PHARMACY
	12	BLM
	13	MACRO
	14	YOUTH DROP IN CENTRE
	15	SHOP
	16	CHURCH
	17	FRIEND/RELATIVE
	18	WOMEN'S GROUP
	19	CARE GROUP
	-77	OTHER
	-88	REFUSED
	-99	N/A
k12: Have you heard of any ways or methods that women or men can use to avoid pregnancy?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-88	Refused to Answer
k14: Are you currently doing something or using any method to delay or avoid getting pregnant or getting a woman pregnant?	1	Yes
<i>Ask if between 15-50 years old</i>	0	No
<i>Question relevant when: true ()</i>	-99	Don't Know
	-88	Refused to Answer
	-66	N/A (Respondent over 50 years of age)
k16: Which methods are you using?	1	FEMALE STERILIZATION
<i>Question relevant when: true ()</i>	2	MALE STERILIZATION
	3	PILL
	4	Loop / IUD (Intra-Uterine Device)
	5	INJECTABLES
	6	IMPLANTS / NORPLANTS
	7	MALE CONDOM
	8	FEMALE CONDOM
	9	PERIODIC ABSTINENCE
	10	WITHDRAWAL
	-99	Don't know
	-88	Refused to answer
	othe r	Other
Specify other.		
<i>Question relevant when: selected(#{k16}, 'other')</i>		
k18: Where did you obtain (CURRENT METHOD) the last time?	1	GOVERNMENT HOSPITAL
<i>Question relevant when: true ()</i>	2	GOVERNMENT HEALTH CENTER
	3	GOVERNMENT HEALTH POST/OUTREACH

	4	HOSPITAL (don't know if government or private)
	5	HEALTH CENTER (don't know if government or private)
	6	MOBILE CLINIC
	7	HSA
	8	CBDA/DOOR TO DOOR / Community Health Worker
	9	CHAM
	10	PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR
	11	PHARMACY
	12	BLM
	13	MACRO
	14	YOUTH DROP IN CENTRE
	15	SHOP
	16	CHURCH
	17	FRIEND/RELATIVE
	18	WOMEN'S GROUP
	19	CARE GROUP
	-77	OTHER
	-88	REFUSED
	-99	N/A
k20: I don't want to know the results, but have you received HIV counseling, testing and results within the last 12 months?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
k22: INTERVIEWER: If respondent is part of a couple (whether married or not), ASK: Did your spouse also receive HIV counseling, testing and results around the same time?	1	Yes
<i>Ask only if respondent is part of a couple</i>	0	No
<i>Question relevant when: true ()</i>	-66	N/A (no spouse)
	-99	Don't Know
	-88	Refused to Answer
k24: Where did you receive these services?	1	GOVERNMENT HOSPITAL
<i>Question relevant when: true ()</i>	2	GOVERNMENT HEALTH CENTER
	3	GOVERNMENT HEALTH POST/OUTREACH
	4	HOSPITAL (don't know if government or private)
	5	HEALTH CENTER (don't know if government or private)
	6	MOBILE CLINIC
	7	HSA

	8	CBDA/DOOR TO DOOR / Community Health Worker
	9	CHAM
	10	PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR
	11	PHARMACY
	12	BLM
	13	MACRO
	14	YOUTH DROP IN CENTRE
	15	SHOP
	16	CHURCH
	17	FRIEND/RELATIVE
	18	WOMEN'S GROUP
	19	CARE GROUP
	-77	OTHER
	-88	REFUSED
	-99	N/A
k25: INTERVIEWER: Was there a child under 6 months old reported in the roster?	1	Yes
	0	No
k25_1 What is the main type of liquid or food that you feed to this child?	1	Breast milk
	2	Commercially produced infant formula
	3	Mentioned anything other than breast milk or commercial formula (e.g. water, other liquids, semi-solid, or solid foods)
	-99	Don't know
k25_2 Are there any other types of food or liquid that you use sometimes to feed to this child? If so, what else do you feed to the child?	1	Breast milk
	2	Commercially produced infant formula
	3	Mentioned anything other than breast milk or commercial formula (e.g. water, other liquids, semi-solid, or solid foods)
	-99	Don't know
k26: INTERVIEWER: Is there a child between ages of 6 and 23 months in this household?	1	Yes
	0	No

Please remind me the name of a child (or the next child) between the ages of 6 and 23 months		
Now I would like to ask you about liquids or foods [k26_name] had yesterday during the day or at night. (age 6-23 months)		
(AUTONAME FROM ROSTER YOUNGEST CHILD AGED 6-23 MONTHS)		
k26a: Plain water	1	Yes
Question relevant when: true ()	0	No
	-99	Don't know
k26b: Breast milk	1	Yes
Question relevant when: true ()	0	No
	-99	Don't know
k26ba: How many times did [k26_name] drink breast milk?		
IF 7 OR MORE TIMES, RECORD '7'.		
Question relevant when: true ()		
Response constrained to: . >= 0 and . <= 7		
k26c: Commercially produced infant formula?	1	Yes
Question relevant when: true ()	0	No
	-99	Don't know
k26ca: How many times did [k26_name] drink infant formula?		
IF 7 OR MORE TIMES, RECORD '7'.		
Question relevant when: true ()		
Response constrained to: . >= 0 and . <= 7		
k26d: Milk such as tinned, powdered, or fresh animal milk?	1	Yes
Question relevant when: true ()	0	No
	-99	Don't know
k26da: How many times did [k26_name] drink milk?		
IF 7 OR MORE TIMES, RECORD '7'.		

<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 7</i>		
k26e: Yogurt	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26ea: How many times did [k26_name] drink/eat yogurt?		
<i>IF 7 OR MORE TIMES, RECORD '7'.</i>		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 7</i>		
k26f: Juice or juice drinks?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26g: Tea or coffee?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26h: Soft drink?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26i: Soup or broth?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know

k26j: Any Cerelac (Likuni Phala, Nestum, Purity, Sibusiso)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26k: Any thin porridge?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26l: Thobwa (fermented porridge)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26m: ORS (oral rehydration solution)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26n: Vitamin or mineral supplements?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k26o: Any other liquids?	1	Yes

<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
Now I would like to ask you about solid or semi-solid (mushy) foods that [k26_name] may have had yesterday during the day or at night. I am interested in whether your child had the item even if it was combined with other foods.		
Now I would like to ask you about solid and semi-solid (mushy) foods that [k26_name] may have had yesterday during the day or at night. I am interested in whether your child had the item even if it was combined with other foods.		
k28a: Bread, scone, maize meal (ngaiwa), maize flour (ufawoyera), millet, rice, sorghum, or any other food made from grains?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28b: Pumpkin, carrots, squash or yams or sweet potatoes that are yellow or orange inside?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28c: Cocoyams, irish potatoes, white sweet potatoes, white yams, cassava, or other local roots or tubers?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28d: Any dark green, leafy vegetables such as amaranth, bonongwe, pumpkin leaves, chinese cabbage, greens, kale, cassava leaves, beans, cow peas or sweet potato leaves that are fresh?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28e: Dried pumpkin leaves, beans leaves, cow peas or sweet-potato leaves	1	Yes
	0	No
	-99	Don't know

k28f: Ripe mangoes, papayas, guava?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28g: Any other fruits or vegetables (for example, bananas, apples, green beans, avocados, tomatoes, okra)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28h: Liver, kidney, heart or other organ meats?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know

k28i: Any meat, such as beef, pork, lamb, goat, chicken, duck, rabbit or rodents (such as mice, moles, etc.)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28j: Grubs, snails or insects?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28k: Eggs?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28l: Fresh or dried fish, nkhanu, crabs or other seafood?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know

k28m: Any foods made from beans, soybeans, nuts, lentils, pigeon peas, cow peas or ground nut powder (nsinjiro)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28n: Cheese or other products made from milk?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know

k280: Any oil, fats, or butter, or foods made with any of these?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28p: Any sugary foods such as chocolates, sweets, candies, sugar cane, honey, pastries, cakes, or biscuits?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k28q: Any other solid or semi-solid food?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
k30: How many times did [k26_name] eat solid, semi-solid, or soft foods yesterday during the day or at night?		
<i>Question relevant when: true ()</i>		
<i>Response constrained to: . >= 0 and . <= 50</i>		
Yesterday during the day or at night, did [MAIN WOMAN] eat any of the following foods:		
<i>Consider MAIN WOMAN</i>		
k32a: Groundnuts?	1	Yes
<i>This includes anything made from this</i>	0	No
<i>Question relevant when: true ()</i>	-99	Don't know
k32b: Soya?	1	Yes
<i>This includes anything made from this</i>	0	No
<i>Question relevant when: true ()</i>	-99	Don't know
L. Household Decision Making		

102a: Getting inputs for agricultural production	1	Main male or husband
<i>select all that apply</i>	2	Main female or wife
<i>Question relevant when: true ()</i>	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102b: The types of crops to grow for agricultural production	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102c: When or who would take crops to the market (or not)	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102h: Whether or not to use family planning to space or limit births?	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102i: Whether or how to participate in community decision making or activities	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102j: Taking loans	1	Main male or husband

<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102k: Whether or how to participate in groups or committees	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102l: Decisions about schooling of a boy child	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102m: Decisions about schooling of a girl child	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102n: Deciding whether to take a boy child to a health center or hospital	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102o: Deciding whether to take a girl child to a health center or hospital	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
102p: Deciding whether to go to health center or hospital for personal illness	1	Main male or husband
<i>Question relevant when: true ()</i>	2	Main female or wife
	3	Another male in the household
	4	Another female in the household
	5	Someone outside the household/other
	-66	N/A. Activity not applicable
INTERVIEWER: Is there a main woman in the house to answer the following questions?	0	No main woman exist in the household

	1	Yes, there is a main woman and is available for interview
	2	Yes, there is a main woman but she is not available for interview
Now I would like to know about the agriculture activities of the MAIN WOMAN in the household only		
106: Did this household participate in [Food crop farming: crops that are grown primarily for household food consumption] in the past 12 months (that is during the last cropping seasons)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
106a: How much input did [main woman] have in making decisions about [Food crop farming] in the past 12 months (that is during the last cropping season)?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
106b: How much input did [main woman] have in decisions on the use of income generated from [Food crop farming]?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
108: Did [main woman] participate in [livestock raising] in the past 12 months (that is during the last cropping season)?	1	Yes
<i>Question relevant when: true ()</i>	0	No

108a: How much input did [main woman] have in making decisions about [livestock raising] in the past 12 months (that is during the last cropping season)?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
108b: How much input did [main woman] have in decisions on the use of income generated from [livestock raising]?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
110: Did [main woman] participate in [Non-farm economic activities: Small business, self-employment, buy-and-sell] in the past 12 months (that is during the last cropping season)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
110a: How much input did [main woman] have in making decisions about [Non-farm economic activities] in the past 12 months (that is during the last cropping season)?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
110b: How much input did [main woman] have in decisions on the use of income generated from [Non-farm economic activities]?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions

	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
I12: Did [main woman] participate in [Wage and salary employment: in-kind or monetary work both agriculture and other wage work] in the past 12 months (that is during the last cropping season)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
I12a: How much input did [main woman] have in making decisions about [Wage and salary employment] in the past 12 months (that is during the last cropping season)?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
I12b: How much input did [main woman] have in decisions on the use of income generated from [Wage and salary employment]?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
I14: Did [main woman] participate in [Fishing or fishpond culture] in the past 12 months (that is during the last cropping season)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
I14a: How much input did [main woman] have in making decisions about [Fishing or fishpond culture] in the past 12 months (that is during the last cropping season)?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions

	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
l14b: How much input did [main woman] have in decisions on the use of income generated from [Fishing or fishpond culture]?	1	No input
<i>Question relevant when: true ()</i>	2	Input into very few decisions
	3	Input into some decisions
	4	Input into most decisions
	5	Input into all decisions
	-66	N/A: Activity not applicable or No decision made
M. Participation and Governance		
m00: ENUMERATOR: Indicate whether this section is being answered by the same respondent or a different one (for gender balance). Consult guidance given by your supervisor to learn whether a different respondent should be requested for this section.	1	Same respondent listed at beginning of survey
<i>Question relevant when: true ()</i>	2	Different respondent: main male in household
	3	Different respondent: other male
	4	Different respondent: other female
	5	Different respondent: main female in household
m02: Do you participate in any groups, organizations, or associations?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m04: Which types of groups, organizations, or associations do you participate in?	1	Farmers/Fishermen's group
<i>Question relevant when: true ()</i>	2	Village development committee (VDC) or ADC
	3	Village Savings and Loan; credit/finance group
	4	Traders' Association/business group
	5	Care group
	6	School/education related
	7	Health/nutrition related
	8	Environment related
	9	Community works related (water, waste, roads, etc.)
	10	Religious group
	11	Professional Association
	12	Neighborhood/village association
	-88	Refused

	other	Other
Specify other.		
<i>Question relevant when: selected({m04}, 'other')</i>		
m22: Have you volunteered your time for an activity in your community in the past 6 months, such as serving on committees, labor for public works, reading, education, health activities, or any other thing?	1	Yes
<i>such as for health, hiv/aids, education help, construction of public works, serving on committees</i>	0	No
<i>Question relevant when: true ()</i>		
m34: Are you aware of whether there is a Village Development Committee (VDC) for this community?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m36: Do you know what a Village Development Committee does?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m38: What is their role?	1	Consult community about development projects to do in the local area
<i>Question relevant when: {m36} = 1</i>	2	Represent local interests at district planning meetings
	3	Identify beneficiaries for PWPs (works participation)
	4	Identification of beneficiaries for agriculture input subsidy coupons
	-99	Don't really know
	other	Other
Specify other.		
<i>Question relevant when: selected({m38}, 'other')</i>		
m40: Have you ever participated in the activities or attended meetings of a VDC or Area development Committee (ADC)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m42: What about local government? I do not mean the national government. I mean your local or district government or district councillor. Do you know what roles your local government plays?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m44: What types of things do you think your local government is responsible for?	1	Consult community about development projects to do in the local area
<i>Question relevant when: true ()</i>	2	Represent local interests at district planning meetings
	3	Identify beneficiaries for PWPs (works participation)
	4	Identification of beneficiaries for agriculture input subsidy coupons

	-99	Don't really know
	other	Other
Specify other.		
<i>Question relevant when: selected({m44}, 'other')</i>		
Satisfaction with government		
<i>Read Responses</i>		
How satisfied are you with how the District Government is:		
	1	Very satisfied
	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m46: MAINTAINING LOCAL ROADS	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m48: PROVIDING LOCAL POLICING	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m50: PROVIDING WATER AND SANITATION SERVICES	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m52: MAINTAINING of LOCAL MARKET PLACES	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied

	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
<i>Read Responses</i>		
How satisfied are you with how the District Government is:		
	1	Very satisfied
	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m54: CONSULTING CITIZENS LIKE YOURSELF BEFORE MAKING DECISIONS	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m56: KEEPING CORRUPTION IN CHECK	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A
m58: MANAGING THE USE OF LAND	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Somewhat satisfied
	3	Neutral
	4	Somewhat dissatisfied
	5	Very dissatisfied
	-99	Don't know
	-88	Refused to answer
	-66	N/A

m64: Within the past 12 months, did anyone in your household utilize nutrition assistance from the government?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m64d: How satisfied were you with the quality of service provided?	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Satisfied
	3	Not satisfied
	4	Very dissatisfied
	-88	Refused
m66: Within the past 12 months, did anyone in your household utilize training related to agriculture from the government?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m66d: How satisfied were you with the quality of service provided?	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Satisfied
	3	Not satisfied
	4	Very dissatisfied
	-88	Refused
m62: Within the past 12 months, did anyone in your household utilize a public school?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m62d: How satisfied were you with the quality of service provided?	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Satisfied
	3	Not satisfied
	4	Very dissatisfied
	-88	Refused
How often have you encountered any of these problems with your local public schools during the past 12 months?		
	0	Never
	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m68a: Services are too expensive/unable to pay	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times

	3	Often
	-88	Refused
m68b: Lack of textbooks or other supplies	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m86c: Poor teaching	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
How often have you encountered any of these problems with your local public schools during the past 12 months?		
	0	Never
	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m68d: Absent teachers	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m68e: Overcrowded classrooms	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m68f: Poor conditions of facilities	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m60: Within the past 12 months, did anyone in your household utilize a public clinic or hospital?	1	Yes
<i>Question relevant when: true ()</i>	0	No

m60d: How satisfied were you with the quality of service provided?	1	Very satisfied
<i>Question relevant when: true ()</i>	2	Satisfied
	3	Not satisfied
	4	Very dissatisfied
	-88	Refused
noted705: How often have you encountered any of these problems with your local public clinic or hospital during the past 12 months?		
m70a: Services are too expensive/unable to pay	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m70b: Lack of medicine or other supplies	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m70c: Lack of attention or respect from staff	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
noted705: How often have you encountered any of these problems with your local public clinic or hospital during the past 12 months?		
	0	Never
	1	Once or twice
	2	A few times
	3	Often
	-88	Refused

m70d: Absent doctors	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m70e: Long waiting time	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m70f: Dirty facilities	0	Never
<i>Question relevant when: true ()</i>	1	Once or twice
	2	A few times
	3	Often
	-88	Refused
m72: How long did you wait at your last visit to the health center or hospital?		
<i>Question relevant when: true ()</i>		
Units	1	minutes
	2	Hours
	-99	Don't know
m76: Do you or anyone in this household receive food for children from a government-run school feeding program?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m78: Are you registered to vote?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m80: Did you vote in the recent national election in 2014?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m80_1: Before the recent national election, did you meet with any civil society groups or local government candidates to express your viewpoint on any issues to a political candidate?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
m80_2: Before the election, were you aware of any things that your local Councilor promised this community he/she would do if elected?	1	Yes

<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
n80_3: Do you believe the Councilor is working to honor those promises?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't Know
	-88	Refused to Answer
m88: Does your district government, VDC, or town council ever hold public meetings to establish development priorities?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
m90: Have you ever attended such a meeting?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m92: How much influence do you think the people in this village/town community/neighborhood can have over decisions the local government makes about development projects, such as school buildings, health clinics, irrigation ditches, or roads?	1	A lot
<i>Question relevant when: true ()</i>	2	Some
	3	A little
	4	None
	-99	Don't Know
	-88	Refused to answer
m94: When you think of development projects in your district (such as schools, health clinics, electrification, and markets), how much do you think the needs of the community influence where those development projects are located?	1	A lot
<i>Question relevant when: true ()</i>	2	Some
	3	A little
	4	None
	-99	Don't Know
	-88	Refused to answer
m110: Do you have confidence in your local government's ability to manage finances?	1	Yes
<i>Question relevant when: true ()</i>	0	No
m118: Have you ever used a mobile phone to access information about public services provided by the government?	1	Yes
<i>PROBE: Such as commodity prices, health statistics, school information</i>	0	No

<i>Question relevant when: true ()</i>		
m120: Have you ever used a mobile phone to report information about public services provided by the government?	1	Yes
<i>PROBE: Such as corruption, teacher absence, drug shortage</i>	0	No
<i>Question relevant when: true ()</i>		
H. Farming		
<i>Now I would like to ask you about farming last growing season</i>		
h1: During the 2013-2014 growing season, did anyone in your household grow any soybeans, groundnuts, orange fresh sweet potatoes, or tree crops either to sell or for personal consumption?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	1	Yes
	0	No
	-99	Don't know
Did you grow Soyabeans last season?	1	Yes
	0	No
	-99	Don't know
Groundnuts?	1	Yes
	0	No
	-99	Don't know
Orange fresh sweet potatoes?	1	Yes
	0	No
	-99	Don't know
Any tree crops such as mangos, mapapaya, apples, macedemia nuts, banana, or any other?	1	Yes
	0	No
	-99	Don't know

h3: On how much land did you grow Soyabeans last season?		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h3b: Units	1	HECTARES
<i>RECORD IN UNIT</i>	2	ACRES
<i>Question relevant when: true ()</i>	3	SQMETERS
	4	FOOTBALL PITCHES
h_soytype: What type of soyabean seeds did you use?	1	Serenade
	2	Tikolore
	3	Makwacha
	-99	Don't know
	othe r	Other
Specify other.		
<i>Question relevant when: selected(\${h_soytype}, 'other')</i>		
h4aa: How many kilograms of this Soyabeans did your household produce (yield) last season? Please include the total amount all harvests of this crop.		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h6a: How many kilograms of Soyabeans did you keep for your household's own consumption?		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		

h4ba: How many kilograms of this Soyabeans did your household sell last season? Please include the total amount all harvests of this crop.		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h5: How much did you receive in total for all of Soyabeans sold last season?		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h6b: How long did it take you to sell the Soyabeans harvest? (Days)		
<i>Question relevant when: true ()</i>		
7a: Did you use Fertilizer on this Soyabeans crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
7a8c: How much did you spend on [Fertilizer] for this Soyabeans? Please do not include the cost of fertilizer still in stock or paid for but not yet used.		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
7a9c: How much [Fertilizer] did you "use" on this Soyabeans (record in KG)		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
7ba: Did you use Manure on this Soyabeans?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know

7b8a: How much did you spend on [Manure] for this Soyabeans? Please do not include the cost of manure still in stock or paid for but not yet used. (record in MK)		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
7b9a: How much [Manure] did you "use" on this Soyabeans (record in KG)		
RECORD IN KGs		
<i>Question relevant when: true ()</i>		
h7cc: Did you use Seeds/seedings on this Soyabeans?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7c8c: How much did you spend on [Seeds/seedings] for this Soyabeans? Please do not include the cost of seeds still in stock or paid for but not yet used. (record in MK)		
<i>Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h7c9c: How much [Seeds/seedings] did you "use" on this Soyabeans		
RECORD IN KGs or SEEDINGS		
<i>Question relevant when: true ()</i>		
Record unit of seedlings	1	KG
<i>Question relevant when: $\{h7ca\} = 1$</i>	2	Seedlings
	-99	don't know
h7da: Did you use Non-household paid labor for planting, weeding, harvesting, cleaning on this Soyabeans	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7d8a: How much did you spend on [Non-household paid labor for planting, weeding, harvesting, cleaning] for this Soyabeans?		
RECORD IN MK. Write "-77" if Don't Know or Refused to answer.		
<i>Question relevant when: true ()</i>		
h7d9a: How much [Non-household paid labor for planting, weeding, harvesting, cleaning] did you "use" on this Soyabeans?		
RECORD IN HOURS.. Write "-77" if Don't Know or Refused to answer.		

<i>Question relevant when: true ()</i>		
h7ea: Did you use Equipment rentals on this Soyabeans?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7e8a: How much did you spend on [Equipment rentals] for this Soyabeans?		
<i>RECORD IN MK</i>		
<i>Question relevant when: true ()</i>		
h3b: On how much land did you grow this last season?		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h3_unhtb: Units	1	HECTARES
<i>RECORD IN UNIT</i>	2	ACRES
<i>Question relevant when: true ()</i>	3	SQMETERS
	4	FOOTBALL PITCHES
h_gntype: What type of groundnut seeds did you use?	1	CG7
	2	Chalimbana
	3	Chalimbana 2000
	-99	Don't know
	other	Other
Specify other.		
<i>Question relevant when: selected(#{h_gntype}, 'other')</i>		
h4ab: How many kilograms of this crop did your household produce (yield) last season? Please include the total amount all harvests of this crop.		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h6ab: How many kilograms of this did you keep for your household's own consumption?		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h4bb: How many kilograms of this crop did your household sell last season? Please include the total amount all harvests of this crop.		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		

h5b: How much did you receive in total for all of this sold last season?		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h6bb: How long did it take you to sell the harvest? (Days)		
<i>Question relevant when: true ()</i>		
h7ab: Did you use Fertilizer on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7a8c: How much did you spend on [Fertilizer] for this crop? Please do not include the cost of fertilizer still in stock or paid for but not yet used.		
<i>RECORD IN MK</i>		
<i>Question relevant when: true ()</i>		
h7a9c: How much [Fertilizer] did you "use" on this crop		
<i>RECORD IN KGs</i>		
<i>Question relevant when: true ()</i>		
h7bb: Did you use Manure on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7b8b: How much did you spend on [Manure] for this crop? Please do not include the cost of manure still in stock or paid for but not yet used.		
<i>RECORD IN MK .Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h7b9b: How much [Manure] did you "use" on this crop		
<i>RECORD IN KGs</i>		
<i>Question relevant when: true ()</i>		
h7cb: Did you use Seeds/seedings on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7c8c: How much did you spend on [Seeds/seedings] for this crop? Please do not include the cost of seeds still in stock or paid for but not yet used.		

<i>RECORD IN MK. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h7c9b: How much [Seeds/seedlings] did you "use" on this crop		
<i>RECORD IN KGs or SEEDINGS. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
Record unit of seedlings	1	KG
<i>Question relevant when: \${h7cb} =1</i>	2	Seedlings
	-99	don't know
h7da: Did you use Non-household paid labor for planting, weeding, harvesting, cleaning on this crop	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7d8a: How much did you spend on [Non-household paid labor for planting, weeding, harvesting, cleaning] for this crop?		
<i>RECORD IN MK. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h7d9a: How much [Non-household paid labor for planting, weeding, harvesting, cleaning] did you "use" on this crop?		
<i>RECORD IN HOURS. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h7ea: Did you use Equipment rentals on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7e8a: How much did you spend on [Equipment rentals] for this crop?		
<i>RECORD IN MK. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		

h3: On how much land did you grow this last season? . Write "-77" if Don't Know or Refused to answer. <i>Question relevant when: true ()</i>		
h3b: Units	1	HECTARES
RECORD IN UNIT	2	ACRES
<i>Question relevant when: true ()</i>	3	SQMETERS
	4	FOOTBALL PITCHES
h4a: How many kilograms of this crop did your household produce (yield) last season? Please include the total amount all harvests of this crop. . Write "-77" if Don't Know or Refused to answer. <i>Question relevant when: true ()</i>		
h4b: How many kilograms of this crop did your household sell last season? Please include the total amount all harvests of this crop. . Write "-77" if Don't Know or Refused to answer. <i>Question relevant when: true ()</i>		
h5: How much did you receive in total for all of this sold last season? . Write "-77" if Don't Know or Refused to answer. <i>Question relevant when: true ()</i>		
h6a: How many kilograms of this did you keep for your household's own consumption? . Write "-77" if Don't Know or Refused to answer. <i>Question relevant when: true ()</i>		
h6b: How long did it take you to sell the harvest? (Days) <i>Question relevant when: true ()</i>		

7a: Did you use Fertilizer on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
7a8c: How much did you spend on [Fertilizer] for this crop? Please do not include the cost of fertilizer still in stock or paid for but not yet used.		
<i>RECORD IN MK. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
7a9c: How much [Fertilizer] did you "use" on this crop		
<i>RECORD IN KGs. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
7ba: Did you use Manure on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
7b8a: How much did you spend on [Manure] for this crop? Please do not include the cost of manure still in stock or paid for but not yet used.		
<i>RECORD IN MK. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
7b9a: How much [Manure] did you "use" on this crop		
<i>RECORD IN KGs. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h7cc: Did you use Seeds/seedings on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7c8c: How much did you spend on [Seeds/seedings] for this crop? Please do not include the cost of seeds still in stock or paid for but not yet used.		
<i>RECORD IN MK. Write "-77" if Don't Know or Refused to answer.</i>		

<i>Question relevant when: true ()</i>		
h7c9c: How much [Seeds/seedlings] did you "use" on this crop		
<i>RECORD IN KGs or SEEDINGS. Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
Record unit of seedlings	1	KG
<i>Question relevant when: \${h7cf} = 1</i>	2	Seedlings
	-99	don't know
h7da: Did you use Non-household paid labor for planting, weeding, harvesting, cleaning on this crop	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7d8a: How much did you spend on [Non-household paid labor for planting, weeding, harvesting, cleaning] for this crop?		
<i>RECORD IN MK</i>		
<i>Question relevant when: true ()</i>		
h7d9a: How much [Non-household paid labor for planting, weeding, harvesting, cleaning] did you "use" on this crop?		
<i>RECORD IN HOURS</i>		
<i>Question relevant when: true ()</i>		
h7ea: Did you use Equipment rentals on this crop?	1	Yes
<i>Question relevant when: true ()</i>	0	No
	-99	Don't know
h7e8a: How much did you spend on [Equipment rentals] for this crop?		
<i>RECORD IN MK</i>		
<i>Question relevant when: true ()</i>		

h3: On how much land did you grow all tree crops combined in the last year?		
<i>Question relevant when: true ()</i>		
h3b: Units	1	HECTARES
<i>RECORD IN UNIT</i>	2	ACRES
<i>Question relevant when: true ()</i>	3	SQMETERS
	4	FOOTBALL PITCHES
h4a: How many kilograms of this crop did your household produce (TREE CROPS) last year? Please include the total amount all harvests of this TREE CROPS.		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h4b: How many kilograms of this crop did your household sell last year? Please include the total amount all harvests of this TREE CROPS.		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h5: How much did you receive in total for all of TREE CROPS sold last year?		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h6a: How many kilograms of TREE CROPS did you keep for your household's own consumption?		
<i>.Write "-77" if Don't Know or Refused to answer.</i>		
<i>Question relevant when: true ()</i>		
h27: Has anyone in your household participated in any Farmers' Clubs/Groups?	1	Yes
<i>Question relevant when: true ()</i>	0	No
h28: Which household members have participated?	1	Main female or wife
<i>Question relevant when: true ()</i>	2	Main male or husband
	3	Other male in household
	4	Other female in household
n04: Have you used a mobile phone in the past 12 months for business (such as to check crop prices)?	1	Yes
<i>Question relevant when: true ()</i>	0	No
h30: Where/how did you sell your last harvest?	1	trader comes to door
<i>Question relevant when: true ()</i>	2	go to market
	3	through warehouse
	4	through ACE (internet-based commodity exchange)
	-77	other
	-99	don't know

	-66	N/A
h31: Have you changed your agricultural practices in the past 12 months?	1	Yes
<i>Question relevant when: true ()</i>	0	No
h32: Which agricultural practices have you adopted?	1	Using less water
<i>Question relevant when: true ()</i>	2	Using organic fertilizer
	3	Earthworm
	4	Different type of crop
	5	Mixed Cropping
	6	Crop Rotation
	7	Using Irrigation
	8	Improved Seeds
	9	Using non-organic fertilizer
	-77	other
	-99	Don't know
	othe r	Other
Specify other.		
<i>Question relevant when: selected(#{h32}, 'other')</i>		
h33: Has the type of crops that your family grows changed in recent years?	1	Yes
<i>Question relevant when: true ()</i>	0	No
h34: Why has the type of crops your family grows changed?	1	A NGO offered us new seed/told us to change crops
<i>Question relevant when: true ()</i>	2	A certain type of seed became easier/cheaper to access
	3	We gained access to additional land
	4	We gained access to a loan and were able to buy new seeds
	5	We were trained on the importance of crop diversification
	6	We wanted to add a new crop to the farm
	7	Rainfall patterns changed
	-99	Don't know
o25: INTERVIEWER: Was there a secondary respondent who assisted with any parts of the survey?	1	Yes
<i>Do not ask</i>	0	No
a20 What is secondary respondent's family name?		
<i>Question relevant when: true ()</i>		
a21 What is secondary respondent's given name?		

<i>Question relevant when: true ()</i>		
a22 INTERVIEWER: What is the secondary respondent's sex?	0	Male
<i>(observe)</i>	1	Female
<i>Question relevant when: true ()</i>		
a23 What is the secondary respondent's role in this household?	1	Self
<i>Question relevant when: true ()</i>	2	Spouse of head of household
	3	Other adult in household
a24 which sections did the person help with?	A	Background
	B	Household members roster
	C	Education
	D	Well-being
	E	Household features
	F	Assets
	G	Credit/loans
	H	Farming
	I	Food security
	J	Environment
	K	Health
	L	Household decision-making
	M	Participation and governance
	O	GPS, Recontact, Notes
O. Recontact Information		
o02: Thank you for your time helping this research. We would like to talk to you again in a two years' time. It may be myself or another interviewer from my team. Is that acceptable?	1	Yes
<i>Question relevant when: true ()</i>	0	No
o04: Best mobile number to use to reach household		
<i>Include 9 digits only with no zero in front and no dashes or spaces</i>		
<i>Question relevant when: \${o02} = 1</i>		
o06: Alternative mobile number in household		
<i>Include 9 digits only with no zero in front and no dashes or spaces</i>		
<i>Question relevant when: \${o02} = 1</i>		
o08: Is there any neighbor or other person we could contact if we cannot contact you directly in order to set up an appointment to come back next time?	1	Yes
<i>Question relevant when: true ()</i>	0	No
o10: If yes, please give their name		
<i>Question relevant when: true ()</i>		
o12: What is their relationship to this household?	1	Neighbor
<i>Question relevant when: true ()</i>	2	Family or friend in same village
	3	Family or friend in different village
	4	Village head or community leader

	other	Other
Specify other.		
<i>Question relevant when: selected({o12}, 'other')</i>		
o14: What is the mobile number for this person?		
<i>Include 9 digits only with no zero in front and no dashes or spaces</i>		
<i>Question relevant when: {o08} =1</i>		
o16: If you move, is it acceptable to ask your neighbors or someone else where you have moved to?	1	Yes, can ask neighbors
<i>Question relevant when: {o02} =1</i>	2	Yes, can ask neighbors or other person listed as alternative contact above
	3	No, should only ask alternative contact given above.
	4	No, do not ask anyone
o22: Location Notes: Please provide descriptive location of household. (example: near primary school, off main road, etc)		
<i>Question relevant when: {o02} =1</i>		
o24: Interview Notes: (Please make notes on responsiveness of household, difficulties encountered during interview, etc.)		
<i>Question relevant when: {o02} =1</i>		
GENERAL COMMENTS ON THE INTERVIEW		
<i>Only Relevant comments are encouraged</i>		
o18: GPS Reading.		
<i>Wait until accuract is less than 10 meters if possible</i>		

ANNEX 4. RURAL SCORE CARD

Rural Score Card

CONSENT SCRIPT

Thank you very much for coming today. I am working with Invest in Knowledge and Social Impact. We are conducting a study to assess the impact of the USAID/Malawi Country Development Cooperation Strategy. USAID has been doing some programs in this area, and the results of this study will help to inform them on whether their approach is worthwhile or if there are needed improvements. . You have been invited to participate in this group discussion because you may be able to provide information about changes in this community in the past year.

If you agree to participate in this study, we would like to ask some general questions about changes you've noticed in this community in the past year. We are seeking your honest opinions and observations from everyone in the group. This interview will take about 1 hour and 30 minutes.

Your participation is completely voluntary. You can choose not to participate now, or at any time between now and the end of the discussion you can leave. There is no penalty or problem if you choose not to participate. Should you feel uncomfortable with any question, you may refuse to answer it.

There are no known risks of participating in this activity other than losing an hour and a half of productive time. Although we will not really talk about sensitive topics, in order to make you feel free to speak freely, I encourage everyone who chooses to participate to keep the conversation confidential out of respect for your neighbors here just in case. But know that when we analyze the information you share, your name or position in this community will never be referenced, so your answers will be anonymous to outsiders.

You will not be paid to participate, and there are no direct benefits to you other than knowing your information may help USAID improve its services in Malawi. We are providing these modest refreshments as a way to thank you for your time to come here. I also request your permission to record our conversation so that I can remember what was said.

If you have any questions or concerns now or in the future, you may contact James Mkandawire at 0999-412-756 james.mkandawire@investinknowledge.org.

In case you have any compliant with regards to your rights as a study participant you can contact James Fremming at the Social Impact Institutional Review Board: +1-703-465-1884 extension 208 jfremming@socialimpact.com.

Or you can contact the Research in the Social Sciences and Humanities in Malawi committee of the National Commission for Sciences and Technology on the following address:

NCST
1st Floor Lingadzi House
Robert Mugabe Crescent
Private Bag B303
Lilongwe 3
Malawi.
Email: directorgeneral@ncst.mw
Phone: +265 1 771 550

Do you have any questions?

Do you agree to participate in the study? Yes No (if any say no, allow them to leave before proceeding)

Do you agree to let me record our conversation? Yes No (if any say no, allow them to leave, or do not record if large consensus to not record)

INTERVIEWER GUIDE

Preparation: Draw a matrix that looks like this:

	Worse	Same	Better
Poverty			
Food security			
Health services/quality			
Government capacity			
Gender equality			
Education			
- Girls enrollment			
- Boys enrollment			

Introductions: First let's get to know each other... [*facilitate group greetings, including name, number of years living in community, and any leadership positions held*]

Instructions: For this discussion, I would like to learn about any changes that have occurred in this community over the past 12 months. I am going to ask about certain topics, and for each one, please tell me whether you feel the situation has gotten worse, gotten better, or stayed almost the same in the past year. I expect that some of you may not fully agree on each thing, and that is OK. I look forward to hearing you discuss with each other about your views. These questions ask for your own perceptions, and there are no right or wrong answers. Each person's perspective is valuable to us, so please feel free to speak your mind.

Helpful probes to promote general discussion:

- Do you agree with this view?
- Why do you think so?
- Can you give an example of why you think this?
- Is there any part that has *improved*?

Ending question for each section should ask:

- Is there consensus on which category I should use? *Mark the number of votes for each topic on the flipchart.*

1. Let's start by talking about **POVERTY** in this community. Do you feel the level of poverty has gotten worse, gotten better, or stayed almost the same?

Possible ways to prompt discussion:

- a. What are some examples of things you see that make you believe someone is poor/less poor?

- b. Do you think your community has done better than neighboring communities? Why?
- 2. What about **FOOD SECURITY**, or sufficiency of food in this community. In the past year, do you think food security has gotten worse, better, or is the same?

Possible ways to prompt discussion:

 - a. How are crop yields in the past 12 months compared to before?
 - b. What about hunger?
 - c. Do people eat more or less animal protein compared to last year?
 - d. Do people eat more diversity of foods or less
- 3. What about access to **QUALITY HEALTH SERVICES and HEALTH INFORMATION?** Has it gotten worse, better, or stayed the same?
 - a. Are people aware of when they should go to a health center?
 - b. Are people able to get to the hospital or health center when needed?
 - c. Are local health facilities able to meet the needs of this community? What about community health workers?
 - d. Is it normal for couples to get voluntary counseling and testing for HIV? Are people able to get HIV care? Is this service accessible?
 - e. Are people learning about better nutrition practices?
- 4. Have there been any changes in the **CAPACITY OF DISTRICT GOVERNMENT** to provide services to this community? Are they better able to meet your needs, less able, or is it the same?
 - a. Are people in this community generally satisfied or dissatisfied with schools and public health facilities?
 - b. Does this community have development priorities? Do you know how to get them accomplished with the help of local governance structures?
 - c. Are district government representatives responsive to requests for assistance or complaints?
 - d. Do they have enough manpower and financial resources?
- 5. Now I would like to learn about the **EQUALITY OF opportunities for WOMEN and MEN.** Have things become more equal, less equal, or have they stayed about the same?
 - a. Do men and women have equal access to productive resources (like seeds, fertilizers)? Why?
 - b. Is there equal access to technology and support services in agriculture?
 - c. What is the woman's role in decision making in family and farming activities?
 - d. Have there been any changes in women's control over income and other household resources?
 - e. Do women and men participate equally in community development decision making?
- 6. Tell me about access to **EDUCATION** in this community. Has it gotten worse, better, or is the same?
 - a. *Must ask:* Has school enrollment for **GIRLS** gone up or down or stayed the same?

Why?

- b. *Must ask:* Has school enrollment for BOYS gone up or down or stayed the same?
- c. What about ability to read, for boys, girls, men, or women? Any changes?
- d. Have men and women had access to trainings to improve their lives?

Other questions

- 7. Would you say that people in this community are generally happy?
- 8. What do you think is the greatest barrier to improving quality of life in this community?
- 9. Are you aware of any projects supported by USAID in this community? Which ones?
- 10. What type of interaction do you or other community members have with those implementing these USAID projects?
- 11. Can you tell me about how the interaction has been? Has it been positive, negative, or neutral? Why?
- 12. Have there been any challenges from your perspective related to the development projects ongoing in this community?

ANNEX 5. PROJECT ACTIVITY TRACKER

Name of the organization: _____

Date: (dd/mm/yyyy) ___ / ___ / _____

Preferred respondent: Organization representative(s) most familiar with the types and locations of activities on the ground as well as the integrated activities with other implementers. It may be best to encourage more than one person to attend to ensure the best ability to answer questions.

What to bring:

- Photocopies of all districts showing program sites
- Copies of integration workplans (become familiar before arriving)
- Pencil with eraser to mark up the maps
- Enough photocopies of the PAT questions to cover each district the org. is working in.
- Pen to mark responses. (can alternatively be typed directly into a computer)

Read informed consent: “As a part of your programming over the next five years, USAID/Malawi has asked that implementing partners undertake integrated programming as part of its Country Development Cooperation Strategy (CDCS). USAID has contracted Social Impact, Inc., a consulting firm located in Virginia, USA to conduct an evaluation of the impacts of CDCS integrated programming. You are identified as a major implementing partner of USAID programs in Malawi. Therefore, we would like to verify the locations and types of program activities you and other groups are doing in the same areas, and the types of integrated activities you are doing. This should take about 1 hour. Your responses about the concrete program details will possibly be available for USAID, but any opinions you share in the course of our conversation will be kept confidential.”

Name, title, contact of respondent(s):

- | | | | |
|----|--------|---------|-----------|
| 1. | _____ | _____ | _____ |
| | (name) | (title) | (contact) |
| 2. | _____ | _____ | _____ |
| 3. | _____ | _____ | _____ |

Name and describe all projects being implemented by this IP. Include basic activity descriptions (e.g. training of XXX, BCC materials, capacity building of XXX, construction of XXX, provision of XX equipment to XX...):

Timeline:

Which districts are they working in? (list and circle if they list any of the following: Rural Lilongwe, Balaka, Machinga, Mangochi, Zomba Rural, Nsanje, Karonga, Nkhotakota):

Describe **expected geographic reach of project activities** (e.g. village level reach, GVH coverage, TA coverage, etc.):

INSTRUCTION: For each circled district above, fill in the information below, one section for each district

District: _____

(Note to Interviewer: Next 2 pages must be filled for each of their Districts of Operation that falls under the Evaluation): Rural Lilongwe, Balaka, Machinga, Mangochi, Mulanje, Nsanje, Karonga, Nkhotakota

Tracking co-location of projects

Project name(s) in district: _____

******(if >1 project, distinguish by project name for all questions below)******

Describe sub-district locations of target beneficiaries in district (e.g. list or describe TAs, villages, GVHs, EPAs where beneficiaries are targeted):

If not known yet, when will sites be known?

How will sites be selected? Need-based?

List all SSDI radius co-location sites using map and mark on the map:

Other USAID implementers with co-located projects in same or nearby sites (org name and project name):

Other known non-USAID implementers co-located in same sites (org name and basic activity description)

Integration activities in district

Activity 1. Integration partner: _____ Partner's project: _____

Status (*circle*): completed / ongoing / planned for future (date of start: _____)

Description of integration activity (*e.g. coordination to ensure no overlap of activities with other IPs; joint trainings of xxx persons, individual org trainings of other's beneficiaries, provision of BCC materials to xxx, etc*):

Describe sub-district locations where integration will occur (*e.g. list or describe towns, villages, GVHs, EPAs where beneficiaries are targeted*):

List all SSDI radius sites affected by integrated activities, using map, and mark on map:

Have you done coordination or collaboration on work plans to achieve this? Yes / No

Describe what you've done:

Estimated person-hours spent planning integration activity: _____

Activity 2. Integration partner: _____ Partner's project: _____

Status (*circle*): completed / ongoing / planned for future (date of start: _____)

Description of integration activity (*e.g. joint trainings of xxx persons, individual org trainings of other's beneficiaries, provision of BCC materials to xxx, etc*):

Describe sub-district locations where integration will occur (*e.g. list or describe towns, villages, GVHs, EPAs where beneficiaries are targeted*):

List all SSDI radius sites affected by integrated activities, using map, and mark on map:

Have you done coordination or collaboration on work plans to achieve this? Yes / No

Describe what you've done:

Estimated person-hours spent planning integration activity: _____

Activity 3. Integration partner: _____ Partner's project: _____

Status (*circle*): completed / ongoing / planned for future (date of start: _____)

Description of integration activity (e.g. joint trainings of xxx persons, individual org trainings of other's beneficiaries, provision of BCC materials to xxx, etc):

Describe sub-district locations where integration will occur (e.g. list or describe towns, villages, GVHs, EPAs where beneficiaries are targeted):

List all SSDI radius sites affected by integrated activities, using map, and mark on map:

Have you done coordination or collaboration on work plans to achieve this? Yes / No

Describe what you've done:

Estimated person-hours spent planning integration activity: _____

ANNEX 6. QUALITATIVE CODE LIST

- 1.0 Good Quote
- 2.0 Infrastructure development
- 3.0 Food Security
 - 3.1 Food Production
 - 3.2 Food Access
 - 3.3 Causes of Food Insecurity
 - 3.4 Use of Food
 - 3.5 Outcomes of Food Insecurity
 - 3.6 Consumption
 - 3.6.1 Types of Food Consumed
 - 3.6.2 Dietary Diversity
 - 3.6.3 Drivers of Foods Consumed
 - 3.6.4 Hunger
 - 3.6.5 Famine
 - 3.7 Types of food produced for sale
 - 3.8 Solutions to Food Insecurity
- 4.0 Poverty status
 - 4.1 Definition of Poverty
 - 4.2 Causes of Poverty
 - 4.3 Indicators of Poverty
 - 4.4 Solutions to Poverty
 - 4.5 Livelihood
 - 4.5.1 Income Equality
 - 4.6 Outcomes of Poverty
 - 4.7 Expenses
 - 4.8 Money either income or wealth
 - 4.9 Access to housing
 - 4.10 Access to Clothes
- 5.0 Health Care/Services
 - 5.1 Health Care Access
 - 5.1.1 Drivers for Health Care Access
 - 5.2 Health Care Use
 - 5.3 Health Care Quality
 - 5.3.1 Drivers for Health Care Quality
 - 5.4 Types of Illness
 - 5.4.1 HIV AIDS
 - 5.5 Causes of Illness or Good Health
 - 5.5.1 Access to water
 - 5.5.2 Good Nutrition
 - 5.5.3 Mosquito nets
 - 5.5.4 Sanitation and Hygiene
 - 5.6 Indicators of Good Health or Poor Health
 - 5.7 Definition of Health

- 6.0 Education
 - 6.1 Education Access
 - 6.1.1 Drivers for Access and Attendance
 - 6.2 Education Use
 - 6.3 Education Quality
 - 6.4 Education Outcomes
 - 6.4.1 Enrollment
 - 6.4.2 Attendance
 - 6.4.3 Learning
- 7.0 Distributed Leadership
- 8.0 Definition of Gender Equity or Equality
 - 8.1 Indicators of Gender Equality
 - 8.2 Treatment of Women
 - 8.3 Roles and Responsibilities for Men
 - 8.4 Roles and Responsibilities for Women
 - 8.5 GBV
 - 8.6 Gender Difference Identified
 - 8.7 Equal Opportunities
- 9.0 Decision-Making
 - 9.1 Process for Decision-Making
 - 9.2 Decision-Maker
 - 9.3 Outcome of Decisions
- 10.0 Emotion Terms
 - 10.1 Happiness
 - 10.2 Sadness
 - 10.3 Other Emotions
- 11.0 Project Integration
 - 11.1 Project Activities
 - 11.2 Project Outcomes
 - 11.3 Access to Programs
- 12.0 Community Engagement
 - 12.1 With IPs and NGOs
 - 12.2 With USAID
 - 12.3 With Local Government
 - 12.4 With District Government
 - 12.5 With National Government
- 13.0 Local Governance/Town Council
 - 13.1 Role of Local Chairman or Village Head
 - 13.2 Interaction with Local Council
 - 13.3 Access to Local Council or Chairman
 - 13.4 Role of town council

14.0 District Council
14.2 Role of District Council
14.3 Access to District Council

15.0 Success

16.0 Challenge

17.0 Satisfaction

18.0 Change over time

19.0 Comparison to others

20.0 Culture Practice/Belief

ANNEX 7. COMPLETE DATA TABLES

DISTRICT-LEVEL DATA: FULL INTEGRATION DISTRICTS

Household member characteristics

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Size of household (people)	586	4.8	1.8	571	5.3	2.2	571	5.0	2.0
Total adults >18 in household	586	2.3	0.8	571	2.2	0.9	571	2.2	0.9
Has a child under 5 years old	586	58%	0.5	571	67%	0.5	571	59%	0.5
Number of children under 5 years old	586	0.7	0.7	571	1.0	0.9	571	0.8	0.8
Female-headed household (reported no male HoH)	586	12%	0.3	571	24%	0.4	571	27%	0.4
No adult male >17 lives in household	586	9%	0.3	571	17%	0.4	571	19%	0.4
Age of head of household	566	42.8	16.5	562	43.1	16.3	556	44.0	16.3
Youth-headed household (age 17-29)	586	22%	0.4	571	22%	0.4	571	20%	0.4
Head of household is married	586	84%	0.4	571	73%	0.4	571	72%	0.5
Head of HH has no education	581	12%	0.3	561	26%	0.4	565	16%	0.4
% of HH members (minus HoH) with no education	576	11%	0.2	555	13%	0.2	550	8%	0.2
Percentage of adult HH members who can read in Chichewa	586	62%	0.4	571	55%	0.4	570	69%	0.4
Primary respondent is female	586	67%	0.5	571	74%	0.4	571	74%	0.4
Member of HH has disability (physical or mental)	585	14%	0.3	571	15%	0.4	571	15%	0.4
Household participates in farming	586	97%	0.2	571	97%	0.2	571	97%	0.2
Chichewa is spoken regularly at home	586	100%	0.0	571	66%	0.5	571	91%	0.3
Citumbuka is spoken regularly at home	586	0%	0.0	571	0%	0.0	571	0%	0.1
Ciyawo is spoken regularly at home	586	0%	0.0	571	62%	0.5	571	27%	0.4
Cisena is spoken regularly at home	586	0%	0.0	571	0%	0.0	571	1%	0.1
English is spoken regularly at home	586	0%	0.0	571	1%	0.1	571	0%	0.0
Total water collection time (minutes)	584	28.4	52.2	570	36.6	46.0	569	40.3	51.4
Time to nearest market (minutes)	586	63.4	55.5	564	50.7	49.7	564	60.7	55.1

Head of HH literacy:

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Education Level (years)	476	6.1	3.2	391	6.4	3.5	449	6.5	3.4
Reads English	545	0.3	0.5	535	0.3	0.4	536	0.3	0.5
Writes English	538	0.2	0.4	534	0.2	0.4	535	0.3	0.5
Writes Chichewa	565	0.7	0.5	555	0.6	0.5	546	0.7	0.5
Reads Chichewa	565	0.7	0.5	556	0.6	0.5	546	0.7	0.5

Poverty, other household characteristics

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Household is below poverty line (\$1.25/day)	553	42%	0.5	548	77%	0.4	536	67%	0.5
Number of rooms in house	586	211%	0.9	571	263%	1.1	571	279%	1.1
House has smooth cement floors	584	8%	0.3	570	8%	0.3	571	10%	0.3
House has electricity	586	2%	0.1	571	2%	0.1	571	3%	0.2
Household grows tobacco	586	38%	0.5	571	20%	0.4	571	8%	0.3

Literacy

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Reading materials kids can read at home	552	0.3	0.5	548	0.2	0.4	544	0.2	0.4
Reading materials adults can read at home	585	0.3	0.5	568	0.2	0.4	568	0.4	0.5
Family member(s) go to community center to read	585	0.1	0.2	570	0.1	0.2	571	0.1	0.3
Does anyone read every day	586	0.2	0.4	569	0.2	0.4	570	0.3	0.4
Education access: Distance to public primary school (min)	586	26.1	20.7	568	28.0	23.4	571	26.6	25.4

Household assets:

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Asset factor score	586	1.0	0.9	571	0.8	0.8	571	1.0	1.2
Oxen	586	0.1	0.6	571	0.0	0.1	571	0.1	0.9
Cattle	586	0.2	1.0	571	0.1	0.8	571	0.2	1.7
Sheep	586	0.1	0.6	571	0.0	0.5	571	0.0	0.5
Goats	586	1.5	2.6	571	0.6	1.6	571	1.5	3.3
Pigs	586	0.7	1.9	571	0.1	0.7	571	0.2	1.2
Chicken	586	4.0	6.0	571	3.1	5.1	571	3.7	7.6
Other Poultry	586	0.4	2.5	571	1.0	3.5	571	1.6	4.6
Beds	586	0.2	0.6	571	0.4	0.6	571	0.4	0.8
Irons	586	0.1	0.4	571	0.1	0.4	571	0.2	0.4
Tape/CD player	586	0.3	0.5	571	0.2	0.7	571	0.2	0.5
Bicycle	586	0.7	0.7	571	0.7	0.7	571	0.7	0.8
Chair/Sofa	586	1.1	2.1	571	0.6	1.9	571	1.1	2.1
Refrigerator	586	0.0	0.4	571	0.0	0.3	571	0.0	0.3
Radio	586	0.3	0.6	571	0.3	0.5	571	0.3	0.5
Watch	586	0.1	0.4	571	0.0	0.2	571	0.1	0.4
Beer brewing drum	586	0.1	0.5	571	0.1	0.4	571	0.1	0.3
Car/Truck	586	0.0	0.4	571	0.0	0.5	571	0.0	0.1
Motorcycle/motor scooter	586	0.0	0.2	571	0.0	0.1	571	0.0	0.2
Boat/canoe/raft	586	0.0	0.3	571	0.1	0.6	571	0.0	0.4
Panga	586	0.8	0.8	571	0.6	0.7	571	0.8	0.8
Axes	586	0.7	0.7	571	0.5	0.6	571	0.6	0.6
Sickles	586	0.7	0.7	571	0.6	0.7	571	0.7	0.7

Well-Being

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Self-Assessed HH health quality	586	2.2	1.0	569	2.2	1.2	570	2.1	1.1
Satisfaction with HH financial situation	586	2.3	1.4	569	2.6	1.5	571	2.7	1.4
Expectation of financial improvement	577	2.5	0.7	549	2.2	0.8	537	2.4	0.7
Current income sufficiency	582	2.2	1.1	560	2.4	1.1	570	2.3	1.1
Finances adequate for food	586	1.4	0.5	571	1.2	0.4	571	1.3	0.4
Financial self-ranking: today	586	2.2	0.9	571	2.0	1.0	571	2.1	1.0
Financial self-ranking: yesterday	585	2.0	0.9	571	1.9	1.0	568	1.9	0.9
Financial ranking of others in village: today	583	2.2	1.1	549	2.2	1.4	548	2.3	1.3
Financial: Have someone to turn to for financial support	586	0.3	0.5	571	0.2	0.4	571	0.2	0.4
Satisfaction with democracy	563	2.6	1.4	532	3.0	1.5	543	3.2	1.4
Locus of control	586	0.7	0.5	571	0.6	0.5	571	0.7	0.5
Overall life satisfaction	584	3.0	1.4	559	3.1	1.5	564	3.2	1.3
Worry about security	586	2.1	0.8	571	2.1	0.9	570	2.1	0.9
Negative WB: Number of sick days in last month	586	3.6	5.6	571	4.3	6.5	571	4.0	6.2
Self-reported Overall Well Being Score	567	2.5	0.9	509	2.4	0.9	508	2.5	0.9
Self-reported Financial Well Being Score	569	2.1	0.8	519	2.0	0.8	517	2.1	0.8

Soya production

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows soya	576	50%	0.5	569	4%	0.2	564	4%	0.2
Hectares under soya cultivation (among full sample)	579	0.1	0.2	571	0.0	0.1	570	0.0	0.1
Hectares under soya cultivation (among soya farmers)	262	0.3	0.2	23	0.3	0.4	21	0.2	0.2
Yield of soy last season in KG (among those who grew soy)	281	141.8	220.5	21	65.2	134.8	23	39.3	56.5
Soy yield per hectare	258	620.3	617.1	20	310.3	486.5	21	861.0	1860.0
Kg of soy sold last season(among those who grew soy)	273	111.9	205.6	23	37.0	98.4	22	12.7	43.6
Value of total soya sold (USD)	224	39.4	57.0	7	31.6	27.6	1	60.0	.
Soya price earned per kg (USD)	220	0.4	0.4	7	0.6	0.7	1	0.3	.
Total value of inputs to soy production (USD)	285	5.6	13.9	24	3.7	6.7	23	2.0	4.4
Individual level gross margin for soya (USD per Ha)	209	191.3	194.4	7	288.0	302.0	1	180.9	.
Number of days it took to sell soya harvest	240	9.9	20.9	7	27.6	20.8	4	18.3	27.9

Groundnut production

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows groundnuts	577	65%	0.5	571	36%	0.5	569	33%	0.5
Hectares under groundnut cultivation (among full sample)	582	0.3	0.9	566	0.2	1.2	569	0.3	3.2
Hectares under groundnut cultivation (among groundnut farmers)	362	0.4	1.1	198	0.5	2.0	173	0.4	1.4
Yield of groundnuts last season in KG (among those who grew it)	367	236.9	328.2	196	96.7	110.6	183	89.6	135.3
Groundnut yield per hectare	355	737.7	801.6	190	456.0	531.7	169	527.6	921.4
Kg of groundnuts sold last season(among those who grew it)	352	159.6	268.1	204	43.8	90.8	182	32.3	70.5
Value of total groundnuts sold (USD)	260	76.9	165.6	86	29.6	27.8	58	41.4	56.9
Groundnuts price earned per kg (USD)	252	0.4	0.4	86	0.6	1.9	55	0.8	1.6
Total value of inputs to groundnuts production (USD)	374	10.5	26.7	205	5.0	7.3	190	5.8	12.8
Individual level gross margin for groundnuts (USD per Ha)	246	256.0	313.2	85	264.1	790.9	52	345.4	730.0
Number of days it took to sell groundnut harvest	272	19.5	31.9	88	23.7	29.1	63	33.4	45.1

Sweet potato production

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows orange fresh sweet potatoes	550	19%	0.4	570	18%	0.4	564	21%	0.4
Hectares under O.F. sweet potato cultivation (among all farmers)	582	0.0	0.4	563	0.0	0.2	568	0.0	0.1
Hectares under sweet potato cultivation (among sweet potato farmers)	98	0.3	0.8	97	0.2	0.4	115	0.2	0.3
Yield of sweet potato last season in KG (among those who grew it)	93	486.2	843.8	78	167.5	151.0	95	201.7	285.0
Sweet potato yield per hectare	90	31999.0	96997.0	77	6115.0	30032.0	95	4715.0	11259.0
Kg of sweet potato sold last season(among those who grew it)	85	218.5	510.7	89	64.4	114.6	102	118.5	235.9
Value of total sweet potato sold (USD)	49	37.3	45.2	42	22.3	23.7	51	46.9	54.7
Sweet potato price earned per kg (USD)	41	0.2	0.4	32	0.1	0.1	41	0.2	0.3
Total value of inputs to sweet potato production (USD)	102	2.0	5.5	105	1.8	4.9	118	1.9	5.5
Individual level gross margin for sweet potatoes(USD per Ha)	38	783.1	3007.0	30	877.0	3712.0	40	470.0	883.7
Number of days it took to sell sweet potato harvest	93	3.7	8.5	105	6.2	18.0	116	10.0	23.1

Agricultural practices

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Household members have participated in farmers' club	586	28%	0.4	571	16%	0.4	571	42%	0.5
Male in household participates in farmers' club	586	20%	0.4	571	9%	0.3	571	23%	0.4
Female in household participates in farmers' club	586	13%	0.3	571	9%	0.3	571	25%	0.4
Used mobile phone for business in past year (e.g. check crop prices)	586	7%	0.3	571	3%	0.2	571	5%	0.2
Sold last harvest through trader at home	445	40%	0.5	295	53%	0.5	329	34%	0.5
Sold last harvest at market	445	60%	0.5	295	44%	0.5	329	61%	0.5
Sold last harvest through warehouse	445	0%	0.0	295	3%	0.2	329	5%	0.2
Changed agriculture practices in past 12 months	586	16%	0.4	571	13%	0.3	571	24%	0.4
Use less water	569	0%	0.1	551	0%	0.0	556	1%	0.1
Use organic fertilizer	569	1%	0.1	551	2%	0.2	556	3%	0.2
Use earthworms	569	0%	0.0	551	0%	0.0	556	1%	0.1
Use different type of crop	569	2%	0.2	551	1%	0.1	556	4%	0.2
Practice mixed cropping	569	1%	0.1	551	1%	0.1	556	1%	0.1
Practice crop rotation	569	6%	0.2	551	3%	0.2	556	5%	0.2
Use irrigation	569	0%	0.0	551	0%	0.0	556	0%	0.1
Use improved seeds	569	3%	0.2	551	3%	0.2	556	3%	0.2
Use non-organic fertilizer	569	4%	0.2	551	2%	0.1	556	4%	0.2
Type of crop grown changed in recent years	569	25%	0.4	551	22%	0.4	556	32%	0.5
NGO offered new seed/told to change crops	569	3%	0.2	551	2%	0.1	556	5%	0.2
Certain type of seed became easier/cheaper to access	569	2%	0.1	551	2%	0.1	556	5%	0.2
Gained access to additional land	569	2%	0.1	551	0%	0.1	556	0%	0.0
Received loan	569	1%	0.1	551	0%	0.0	556	0%	0.0
Received crop diversification training	569	9%	0.3	551	3%	0.2	556	7%	0.3
Wanted to add new crop	569	5%	0.2	551	10%	0.3	556	10%	0.3
Change in rainfall pattern	569	7%	0.3	551	8%	0.3	556	12%	0.3

Food security

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Degree of food insecurity (scale of 0-18)	586	6.5	5.3	571	8.7	4.9	571	7.2	5.0
Ate limited variety of foods for lack of resources (frequency scale 0-3)	586	1.5	1.3	571	1.7	1.3	571	1.3	1.3
Went a full day without eating for lack of food (frequency scale 0-3)	586	0.4	0.8	571	0.5	0.8	571	0.5	0.9
Ate some undesired foods for lack of resources (frequency scale 0-3)	586	1.5	1.3	571	1.9	1.2	571	1.5	1.2
Ate less than needed for lack of food (frequency scale 0-3)	586	1.3	1.2	571	1.8	1.2	571	1.5	1.2
Ate fewer meals for lack of food (frequency scale 0-3)	586	1.2	1.2	571	1.7	1.1	571	1.5	1.2
Went to sleep hungry for lack of food (frequency scale 0-3)	586	0.6	1.0	571	1.1	1.0	571	0.9	1.0

Health access and care for children

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean*	Std.Dev.	<i>n</i>	Mean*	Std.Dev.	<i>n</i>	Mean*	Std.Dev.
Child <5 in HH died in past 12 months	584	6%	0.2	571	6%	0.2	571	4%	0.2
Reported all children <5 sleep under bed nets	367	65%	0.5	381	65%	0.5	353	77%	0.4
Reported travel time to closest clinic (minutes) *median	586	60.0	66.5	566	60.0	63.7	565	60.0	68.7
Reported waiting time at health center/hospital at last visit (minutes) *median	497	120.0	94.1	450	120.0	99.7	421	90.0	99.8
Takes child to hospital, health center, or clinic if child needs medical care	549	95%	0.2	536	93%	0.3	530	93%	0.3
Don't take child to clinic because can't afford transportation costs	14	29%	0.5	25	12%	0.3	23	4%	0.2
Don't take child to clinic because it's too far	14	79%	0.4	25	76%	0.4	23	35%	0.5
Don't take child to clinic because it's hard to get there	14	7%	0.3	25	0%	0.0	23	0%	0.0
Don't take child to clinic because use traditional healing	14	7%	0.3	25	0%	0.0	23	0%	0.0
Don't take child to clinic because religious reasons	14	7%	0.3	25	4%	0.2	23	4%	0.2
Don't take child to clinic because can't afford clinic fees	14	0%	0.0	25	28%	0.5	23	65%	0.5

*Means reported unless otherwise noted

Nutrition

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Child 0-5 mo is exclusively breast fed	32	78%	0.4	37	81%	0.4	43	91%	0.3
Main woman in HH ate soy yesterday	580	11%	0.3	564	2%	0.2	571	3%	0.2
Main woman in HH ate groundnuts yesterday	581	37%	0.5	564	18%	0.4	570	15%	0.4
Child 6-23 months is breast fed	98	95%	0.2	125	91%	0.3	102	94%	0.2
Meets min. acceptable diet for breastfed child 6-23 months	87	8%	0.3	107	2%	0.1	89	9%	0.3
Meets min. acceptable diet for non-breastfed child 6-23 months	5	0%	0.0	9	0%	0.0	6	0%	0.0
Number of food groups consumed yesterday	101	2.7	1.2	131	2.1	1.2	105	2.5	1.2
Ate grains/roots/tubers yesterday	101	88%	0.3	131	73%	0.4	105	73%	0.4
Ate legumes yesterday	97	42%	0.5	125	11%	0.3	101	30%	0.5
Ate dairy yesterday	98	1%	0.1	125	0%	0.0	102	1%	0.1
Ate meats/flesh foods yesterday	101	38%	0.5	131	34%	0.5	105	37%	0.5
Ate egg yesterday	98	3%	0.2	125	2%	0.2	101	12%	0.3
Ate vitamin A-rich foods (e.g. leafy greens, orange fruits/vegetables) yesterday	101	77%	0.4	131	80%	0.4	105	89%	0.3
Ate other fruits or vegetables yesterday	98	18%	0.4	125	8%	0.3	101	8%	0.3
Number of feedings of solid or semi-solid food	98	1.9	0.8	125	1.9	1.3	102	2.0	1.3
Number of feedings of formula or milk (non-breastmilk) among non-breastfed child	0			1	3.0	.	0		
Number of feedings of formula or milk (non-breastmilk) among breastfed children	7	1.4	0.8	1	1.0	.	2	5.5	2.1

Reproductive health, family planning

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Respondent received VCT in past 12 months	586	63%	0.5	571	63%	0.5	571	61%	0.5
Female respondent received VCT in past 12 months	393	65%	0.5	420	63%	0.5	422	62%	0.5
Male respondent received VCT in past 12 months	193	60%	0.5	151	64%	0.5	149	58%	0.5
Both partners received VCT in past 12 months (of couples)	337	81%	0.4	287	82%	0.4	271	82%	0.4
Received VCT at government hospital	272	12%	0.3	236	11%	0.3	218	12%	0.3
Received VCT at government health center	272	74%	0.4	236	67%	0.5	218	50%	0.5
Received VCT at government health post	272	1%	0.1	236	4%	0.2	218	2%	0.1
Received VCT from HSA	272	1%	0.1	236	3%	0.2	218	5%	0.2
Woman age 15-49 currently uses contraceptives	419	72%	0.4	398	61%	0.5	390	64%	0.5
Woman age 15-49 currently uses traditional contraceptive (withdrawal, periodic abstinence)	419	0%	0.1	397	1%	0.1	388	1%	0.1
Woman age 15-49 currently uses modern contraceptives	419	72%	0.5	397	60%	0.5	388	62%	0.5
Woman age 15-49 currently uses contraceptive (among married)	395	75%	0.4	323	64%	0.5	318	69%	0.5
Woman age 15-49 currently uses contraceptive (among non-married)	24	33%	0.5	75	49%	0.5	70	41%	0.5
Contraceptive = female sterilization	419	15%	0.4	397	4%	0.2	388	5%	0.2
Contraceptive = male sterilization	419	0%	0.0	397	0%	0.0	388	1%	0.1
Contraceptive = birth control pill	419	4%	0.2	397	2%	0.1	388	2%	0.1
Contraceptive = IUD	419	1%	0.1	397	3%	0.2	388	2%	0.1
Contraceptive = injectables	419	36%	0.5	397	42%	0.5	388	42%	0.5
Contraceptive = implants/norplant	419	11%	0.3	397	6%	0.2	388	5%	0.2
Contraceptive = male condom	419	7%	0.3	397	6%	0.2	388	6%	0.2
Contraceptive = female condom	419	1%	0.1	397	2%	0.1	388	1%	0.1
Last obtained contraception at government hospital	301	11%	0.3	244	10%	0.3	247	10%	0.3
Last obtained contraception at government health center	301	73%	0.4	244	66%	0.5	247	39%	0.5
Last obtained contraception at government health post	301	0%	0.1	244	8%	0.3	247	1%	0.1
Last obtained contraception from HSA	301	0%	0.1	244	6%	0.2	247	25%	0.4

Climate change knowledge and vulnerability

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Has heard of climate change	586	86%	0.4	571	64%	0.5	571	77%	0.4
Don't know how to prepare for climate change	586	27%	0.4	571	49%	0.5	571	27%	0.4
Believes planting trees can mitigate effects of climate change	586	63%	0.5	571	43%	0.5	571	62%	0.5
Believes using less trees/wood can mitigate effects of climate change	586	4%	0.2	571	1%	0.1	571	4%	0.2
Believes improved cookstoves can mitigate effects of climate change	586	0%	0.1	571	0%	0.0	571	1%	0.1
Believes community woodlot can mitigate effects of climate change	586	1%	0.1	571	0%	0.1	571	2%	0.1
Believes better forest management can mitigate effects of climate change	586	4%	0.2	571	4%	0.2	571	8%	0.3
Believes water conservation can mitigate effects of climate change	586	5%	0.2	571	4%	0.2	571	7%	0.2
Household gathers materials from forest (e.g. wood, fruit)	586	56%	0.5	571	57%	0.5	571	72%	0.5
Wood/timber is important source of income	586	9%	0.3	571	7%	0.2	571	8%	0.3
Income derived from fish sales last month (among full sample)	586	60.3	952.3	571	544.7	4416.0	571	42.9	857.6
Income derived from fish sales last month (among those who fished)	7	5050.0	7683.0	36	8639.0	15672.0	3	8172.0	10486.0
Experienced loss or severe reduction of arable land due to erosion in past year	586	33%	0.5	571	45%	0.5	571	36%	0.5
Respondent saw demonstrations in the past year related to planting or preserving	586	37%	0.5	571	29%	0.5	571	49%	0.5
Planted trees in past year	586	41%	0.5	571	23%	0.4	571	35%	0.5
HH adopted measure in past year that may improve resiliency to climate change	586	46%	0.5	571	27%	0.4	571	42%	0.5
Changed ag. practice in past year that may improve resiliency to climate change	586	13%	0.3	571	9%	0.3	571	14%	0.3
Changed water use in past year that may improve resiliency to climate change	586	2%	0.1	571	3%	0.2	571	4%	0.2

Technology use:

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Business info accessed by phone	208	0.1	0.3	222	0.1	0.2	267	0.1	0.3
Public service info accessed by phone	208	0.1	0.3	222	0.1	0.2	267	0.0	0.2
Reported public service accessed info by phone	208	0.0	0.1	222	0.0	0.2	267	0.0	0.1
Use of phone for business or service info	208	0.2	0.4	222	0.1	0.3	267	0.1	0.3

Government satisfaction:

Public services	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Local road maintenance	575	2.6	1.6	550	2.4	1.6	557	2.3	1.5
Local policing provision	570	2.9	1.6	540	2.6	1.7	552	2.2	1.5
Water and sanitation	580	2.7	1.8	547	2.9	1.8	557	2.5	1.6
Local market place maintenance	571	2.7	1.6	536	2.8	1.7	548	2.6	1.6
Consulting citizens	544	3.5	1.6	483	3.1	1.8	501	2.7	1.7
Keeping corruption in check	544	3.3	1.7	515	2.9	1.8	527	2.8	1.7
Managing the use of land	536	3.0	1.6	494	2.5	1.7	474	2.5	1.6

Government satisfaction:

Schools	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Services too expensive/unable to pay	362	0.9	1.2	416	0.7	1.1	409	0.5	0.9
Lack of textbooks or other supplies	360	1.3	1.2	411	1.5	1.3	404	1.4	1.3
Poor teaching	361	1.2	1.3	408	0.9	1.2	405	1.0	1.2
Absent teachers	358	1.1	1.2	410	0.9	1.2	403	0.9	1.2
Overcrowded classrooms	360	1.7	1.3	408	1.6	1.4	399	1.7	1.4
Poor conditions of facilities	357	1.0	1.2	408	1.0	1.2	405	1.0	1.3

Government satisfaction:

Health care	Lilongwe			Machinga			Balaka		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Services are too expensive/unable to pay	491	0.3	0.8	453	0.2	0.6	420	0.3	0.8
Lack of medicine or other supplies	496	1.7	1.2	452	1.6	1.2	418	1.5	1.2
Lack of attention or respect from staff	495	1.4	1.3	452	1.2	1.2	421	1.1	1.2
Absent doctors	495	0.9	1.2	452	0.8	1.1	417	0.6	1.0
Long waiting time	497	1.9	1.2	454	1.6	1.2	420	1.7	1.3
Dirty facilities	496	0.5	0.9	454	0.4	0.9	421	0.4	0.9

Local government and community involvement

Local government	Lilongwe			Machinga			Balaka		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Participation: In groups/organizations/associations	586	0.5	0.5	571	0.4	0.5	571	0.6	0.5
Participation: Volunteered in last 6 months	586	0.5	0.5	571	0.5	0.5	571	0.6	0.5
Aware of VDC?	586	0.6	0.5	571	0.6	0.5	571	0.9	0.3
Know what VDC does	586	0.4	0.5	571	0.4	0.5	571	0.7	0.5
Participation: In VDC meetings/activities	586	0.4	0.5	571	0.3	0.5	571	0.5	0.5
Know what local government does	586	0.5	0.5	571	0.4	0.5	571	0.5	0.5

Local government and community involvement

Group membership:	Lilongwe			Machinga			Balaka		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Farmers/Fishermen's group	586	0.2	0.4	571	0.2	0.4	571	0.3	0.5
Village development committee (VDC) or ADC	586	0.3	0.7	571	0.2	0.6	571	0.4	0.8
Village Savings and Loan; credit/finance group	586	0.6	1.2	571	0.4	1.0	571	0.4	1.0
Traders' Association/business group	586	0.0	0.2	571	0.0	0.2	571	0.0	0.4
Care group	586	0.1	0.6	571	0.1	0.7	571	0.1	0.7
School/education related	586	0.1	0.7	571	0.3	1.2	571	0.3	1.4
Health/nutrition related	586	0.2	1.0	571	0.3	1.3	571	0.5	1.9
Environment related	586	0.0	0.5	571	0.4	1.8	571	0.5	1.9
Community works related (water, waste, roads, etc.)	586	0.2	1.2	571	0.2	1.2	571	0.3	1.5
Religious group	586	0.3	1.6	571	0.8	2.8	571	1.2	3.3
Professional Association	586	0.0	0.5	571	0.0	0.5	571	0.1	1.1
Neighborhood/village association	586	1.1	3.5	571	1.1	3.5	571	1.5	4.0

Local government and community involvement

Perceived role of VDC	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Consult community about local development projects	586	0.2	0.4	571	0.2	0.4	571	0.4	0.5
Represent local interests	586	0.2	0.4	571	0.1	0.3	571	0.2	0.4
Identify beneficiaries for PWPs	586	0.1	0.3	571	0.1	0.3	571	0.2	0.4
Identify beneficiaries for agri coupons	586	0.0	0.1	571	0.1	0.3	571	0.2	0.4
Other	586	0.0	0.2	571	0.1	0.2	571	0.1	0.3

Local government and community involvement

Perceived role of local government	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Facilitate development	586	0.3	0.4	571	0.3	0.4	571	0.3	0.5
Fund local development initiatives	586	0.3	0.5	571	0.2	0.4	571	0.3	0.4
Provide tech expertise on development projects	586	0.0	0.2	571	0.0	0.2	571	0.0	0.2
Link VDCs, ADCs with funding agencies	586	0.0	0.1	571	0.0	0.1	571	0.0	0.1
Maintain roads or market places	586	0.0	0.0	571	0.0	0.0	571	0.0	0.0
Provide water, sanitation, or electricity	586	0.0	0.0	571	0.0	0.0	571	0.0	0.0
Local policing	586	0.0	0.0	571	0.0	0.0	571	0.0	0.0
Managing land use	586	0.0	0.0	571	0.0	0.0	571	0.0	0.0
Other	586	0.0	0.2	571	0.0	0.2	571	0.1	0.2
Are public meetings held to determine priorities?	561	0.3	0.5	545	0.4	0.5	550	0.5	0.5

Political participation:

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Attended public meetings	167	0.6	0.5	201	0.8	0.4	256	0.8	0.4
Registered to vote	586	1.0	0.2	571	1.0	0.2	571	1.0	0.2
Voted in recent election	560	0.9	0.3	546	1.0	0.2	550	0.9	0.2
Expressed viewpoint to politicians pre-election	579	0.2	0.4	569	0.2	0.4	570	0.3	0.5
Aware of campaign promises pre-election	566	0.7	0.5	559	0.7	0.5	556	0.8	0.4

Women's participation in decisions

	Lilongwe			Machinga			Balaka		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Inputs for Agriculture	586	0.4	0.5	571	0.4	0.5	571	0.5	0.5
Types of crops to grow	586	0.5	0.5	571	0.5	0.5	571	0.6	0.5
Taking crops to market	586	0.4	0.5	571	0.4	0.5	571	0.6	0.5
Family planning	586	0.6	0.5	571	0.4	0.5	571	0.6	0.5
Participation in community decisions/activities	586	0.5	0.5	571	0.5	0.5	571	0.6	0.5
Taking loans	586	0.4	0.5	571	0.3	0.5	571	0.4	0.5
Participation in groups/committees	586	0.5	0.5	571	0.5	0.5	571	0.6	0.5
Schooling of boy child	586	0.5	0.5	571	0.5	0.5	571	0.6	0.5
Schooling of girl child	586	0.5	0.5	571	0.5	0.5	571	0.6	0.5
Health care of boy child	586	0.6	0.5	571	0.5	0.5	571	0.7	0.5
Health care of girl child	586	0.7	0.5	571	0.6	0.5	571	0.7	0.4
Health care	586	0.7	0.4	571	0.6	0.5	571	0.8	0.4
Credit for agriculture	28	0.3	0.4	24	0.6	0.5	23	0.5	0.5
Credit from NGO	47	0.6	0.5	11	0.7	0.5	24	0.5	0.5
Credit from informal lender	26	0.5	0.5	12	0.3	0.5	35	0.5	0.5
Credit from formal lender	16	0.6	0.5	6	0.5	0.5	7	0.9	0.4
Credit from friends/relatives	49	0.6	0.5	45	0.4	0.5	74	0.6	0.5
Credit from microfinance	95	0.7	0.5	67	0.7	0.5	92	0.7	0.4
Food crop farming	513	0.7	0.4	465	0.8	0.4	481	0.8	0.4
Livestock raising	212	0.8	0.4	155	0.9	0.3	228	0.8	0.4
Non-farm economic activities	143	0.8	0.4	115	0.8	0.4	158	0.9	0.3
Wage employment	138	0.7	0.4	129	0.8	0.4	192	0.9	0.3
Use of income from food crop farming	451	0.7	0.5	378	0.7	0.5	361	0.8	0.4
Use of income livestock raising	175	0.7	0.5	118	0.8	0.4	186	0.8	0.4
Use of income from non-farm economic activities	141	0.7	0.5	109	0.8	0.4	155	0.9	0.3
Use of income from wage employment	144	0.8	0.4	141	0.8	0.4	197	0.9	0.4

DISTRICT-LEVEL DATA: PARTIAL INTEGRATION

Household member characteristics

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Size of household (people)	587	5.5	2.0	695	4.8	2.0
Total adults >18 in household	587	2.3	0.9	695	2.1	0.8
Has a child under 5 years old	587	68%	0.5	695	59%	0.5
Number of children under 5 years old	587	1.0	0.8	695	0.8	0.8
Female-headed household (reported no male HoH)	587	17%	0.4	695	23%	0.4
No adult male >17 lives in household	587	11%	0.3	695	17%	0.4
Age of head of household	575	44.6	16.4	660	44.9	16.8
Youth-headed household (age 17-29)	587	21%	0.4	695	20%	0.4
Head of household is married	587	83%	0.4	695	71%	0.5
Head of HH has no education	567	30%	0.5	691	15%	0.4
% of HH members (minus HoH) with no education	559	16%	0.2	673	7%	0.2
Percentage of adult HH members who can read in Chichewa	581	51%	0.4	694	67%	0.4
Primary respondent is female	587	71%	0.5	695	71%	0.5
Member of HH has disability (physical or mental)	587	14%	0.3	694	12%	0.3
Household participates in farming	587	98%	0.1	693	96%	0.2
Chichewa is spoken regularly at home	587	53%	0.5	695	97%	0.2
Citumbuka is spoken regularly at home	587	0%	0.1	695	0%	0.1
Ciyawo is spoken regularly at home	587	76%	0.4	695	15%	0.4
Cisena is spoken regularly at home	587	1%	0.1	695	0%	0.0
English is spoken regularly at home	587	0%	0.0	695	0%	0.0
Total water collection time (minutes)	581	37.3	51.1	695	35.8	54.4
Time to nearest market (minutes)	575	66.5	56.7	690	67.5	57.9

Head of HH literacy:

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Education Level (years)	366	6.2	3.4	541	6.3	3.3
Reads English	549	0.2	0.4	630	0.3	0.5
Writes English	547	0.2	0.4	625	0.3	0.5
Writes Chichewa	565	0.6	0.5	653	0.7	0.5
Reads Chichewa	567	0.6	0.5	655	0.7	0.5

Poverty, other household characteristics

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Household is below poverty line (\$1.25/day)	552	75%	0.4	636	64%	0.5
Number of rooms in house	587	236%	1.0	695	262%	1.0
House has smooth cement floors	585	7%	0.3	693	8%	0.3
House has electricity	587	2%	0.1	695	2%	0.1
Household grows tobacco	587	24%	0.4	695	31%	0.5

Literacy

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Reading materials kids can read at home	570	0.1	0.3	654	0.3	0.5
Reading materials adults can read at home	587	0.2	0.4	695	0.3	0.5
Family member(s) go to community center to read	587	0.0	0.1	691	0.1	0.3
Does anyone read every day	586	0.1	0.3	693	0.2	0.4
Education access: Distance to public primary school (min)	585	35.1	28.4	692	25.9	20.1

Household assets:

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Asset factor score	587	1.0	0.9	695	1.0	0.9
Oxen	587	0.0	0.8	695	0.1	2.7
Cattle	587	0.0	0.6	695	0.0	0.1
Sheep	587	0.0	0.3	695	0.0	0.5
Goats	587	1.4	2.9	695	0.9	1.9
Pigs	587	0.0	0.4	695	0.1	0.8
Chicken	587	3.0	5.5	695	4.1	6.2
Other Poultry	587	2.0	6.3	695	1.2	4.5
Beds	587	0.7	0.8	695	0.3	0.7
Irons	587	0.1	0.5	695	0.2	0.5
Tape/CD player	587	0.2	0.5	695	0.3	0.5
Bicycle	587	0.7	0.7	695	0.7	0.8
Chair/Sofa	587	0.9	1.7	695	1.0	1.9
Refrigerator	587	0.0	0.1	695	0.0	0.4
Radio	587	0.3	0.7	695	0.4	0.7
Watch	587	0.1	0.4	695	0.1	0.5
Beer brewing drum	587	0.0	0.1	695	0.1	0.3
Car/Truck	587	0.0	0.0	695	0.0	0.3
Motorcycle/motor scooter	587	0.0	0.5	695	0.0	0.1
Boat/canoe/raft	587	0.0	0.0	695	0.0	0.5
Panga	587	0.8	0.7	695	0.7	0.6
Axes	587	0.6	0.6	695	0.6	0.6
Sickles	587	0.7	0.6	695	0.8	0.8

Well-Being

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Self-Assessed HH health quality	587	2.1	1.1	694	2.1	1.1
Satisfaction with HH financial situation	585	2.6	1.4	693	2.7	1.4
Expectation of financial improvement	514	2.4	0.7	673	2.4	0.7
Current income sufficiency	585	2.3	1.1	693	2.4	1.1
Finances adequate for food	586	1.3	0.5	693	1.4	0.5
Financial self-ranking: today	583	2.2	0.8	693	2.2	1.0
Financial self-ranking: yesterday	580	2.0	0.8	693	1.9	0.9
Financial ranking of others in village: today	522	2.3	1.0	663	2.6	1.3
Financial: Have someone to turn to for financial support	587	0.2	0.4	695	0.3	0.4
Satisfaction with democracy	529	3.1	1.4	657	3.2	1.4
Locus of control	587	0.7	0.5	695	0.7	0.4
Overall life satisfaction	581	3.2	1.3	690	3.2	1.4
Worry about security	587	2.1	0.9	695	2.1	0.9
Negative WB: Number of sick days in last month	587	3.5	6.0	695	4.1	6.7
Self-reported Overall Well Being Score	467	2.5	0.8	634	2.6	0.9
Self-reported Financial Well Being Score	468	2.1	0.7	637	2.2	0.8

Soya production

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows soya	574	11%	0.3	686	12%	0.3
Hectares under soya cultivation (among full sample)	587	0.0	0.1	690	0.0	0.2
Hectares under soya cultivation (among soya farmers)	60	0.3	0.2	69	0.3	0.4
Yield of soy last season in KG (among those who grew soy)	65	121.2	163.8	81	62.2	114.5
Soy yield per hectare	60	558.5	714.5	69	364.6	724.3
Kg of soy sold last season(among those who grew soy)	65	72.5	130.2	80	43.9	101.9
Value of total soya sold (USD)	38	35.0	54.9	39	31.6	61.6
Soya price earned per kg (USD)	38	0.4	0.3	38	0.5	0.6
Total value of inputs to soy production (USD)	65	2.0	4.2	82	2.7	6.8
Individual level gross margin for soya (USD per Ha)	34	241.5	359.0	33	170.5	333.4
Number of days it took to sell soya harvest	43	25.7	41.5	45	17.6	44.1

Groundnut production

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows groundnuts	587	55%	0.5	688	39%	0.5
Hectares under groundnut cultivation (among full sample)	586	0.2	1.0	678	0.2	2.2
Hectares under groundnut cultivation (among groundnut farmers)	308	0.5	1.4	220	0.4	1.0
Yield of groundnuts last season in KG (among those who grew it)	312	184.8	252.3	255	83.3	137.6
Groundnut yield per hectare	296	726.4	1097.0	213	494.1	994.4
Kg of groundnuts sold last season(among those who grew it)	314	96.4	204.2	253	43.5	127.0
Value of total groundnuts sold (USD)	181	47.5	66.0	96	34.1	93.0
Groundnuts price earned per kg (USD)	175	0.4	0.6	93	0.4	0.6
Total value of inputs to groundnuts production (USD)	325	6.4	13.3	268	4.3	10.2
Individual level gross margin for groundnuts (USD per Ha)	167	210.7	216.9	81	149.1	352.2
Number of days it took to sell groundnut harvest	182	23.4	37.9	110	23.6	42.5

Sweet potato production

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows orange fresh sweet potatoes	576	16%	0.4	684	26%	0.4
Hectares under O.F. sweet potato cultivation (among all farmers)	586	0.0	0.1	683	0.1	0.4
Hectares under sweet potato cultivation (among sweet potato farmers)	90	0.2	0.2	168	0.3	0.7
Yield of sweet potato last season in KG (among those who grew it)	79	300.3	350.5	138	169.3	194.5
Sweet potato yield per hectare	78	21396.0	46948.0	134	13037.0	37741.0
Kg of sweet potato sold last season(among those who grew it)	82	140.3	283.7	148	69.6	149.0
Value of total sweet potato sold (USD)	43	43.9	79.9	76	13.7	14.4
Sweet potato price earned per kg (USD)	36	0.2	0.2	64	0.1	0.1
Total value of inputs to sweet potato production (USD)	91	0.8	2.6	180	1.0	2.7
Individual level gross margin for sweet potatoes(USD per Ha)	35	1111.0	2963.0	60	1412.0	4007.0
Number of days it took to sell sweet potato harvest	91	11.6	42.8	174	8.293	23.41

Agricultural practices

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Household members have participated in farmers' club	587	25%	0.4	695	30%	0.5
Male in household participates in farmers' club	587	16%	0.4	695	20%	0.4
Female in household participates in farmers' club	587	13%	0.3	695	15%	0.4
Used mobile phone for business in past year (e.g. check crop prices)	587	3%	0.2	695	4%	0.2
Sold last harvest through trader at home	363	57%	0.5	380	23%	0.4
Sold last harvest at market	363	39%	0.5	380	74%	0.4
Sold last harvest through warehouse	363	4%	0.2	380	3%	0.2
Changed agriculture practices in past 12 months	587	14%	0.3	695	20%	0.4
Use less water	575	0%	0.1	664	1%	0.1
Use organic fertilizer	575	2%	0.1	664	3%	0.2
Use earthworms	575	0%	0.1	664	0%	0.1
Use different type of crop	575	2%	0.1	664	3%	0.2
Practice mixed cropping	575	1%	0.1	664	2%	0.1
Practice crop rotation	575	3%	0.2	664	5%	0.2
Use irrigation	575	0%	0.1	664	0%	0.1
Use improved seeds	575	2%	0.1	664	6%	0.2
Use non-organic fertilizer	575	2%	0.1	664	3%	0.2
Type of crop grown changed in recent years	575	19%	0.4	665	31%	0.5
NGO offered new seed/told to change crops	575	1%	0.1	664	4%	0.2
Certain type of seed became easier/cheaper to access	575	5%	0.2	664	5%	0.2
Gained access to additional land	575	0%	0.0	664	1%	0.1
Received loan	575	0%	0.0	664	0%	0.0
Received crop diversification training	575	5%	0.2	664	9%	0.3
Wanted to add new crop	575	10%	0.3	664	10%	0.3

Food security

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Degree of food insecurity (scale of 0-18)	587	7.2	5.0	695	6.9	5.3
Ate limited variety of foods for lack of resources (frequency scale 0-3)	587	1.7	1.3	695	1.4	1.3
Went a full day without eating for lack of food (frequency scale 0-3)	587	0.4	0.8	695	0.4	0.9
Ate some undesired foods for lack of resources (frequency scale 0-3)	587	1.6	1.2	695	1.5	1.3
Ate less than needed for lack of food (frequency scale 0-3)	587	1.5	1.2	695	1.4	1.2
Ate fewer meals for lack of food (frequency scale 0-3)	587	1.4	1.2	695	1.3	1.2
Went to sleep hungry for lack of food (frequency scale 0-3)	587	0.7	1.0	695	0.8	1.0

Health access and care for children

	Mangochi			Zomba		
	<i>n</i>	Mean*	Std.Dev.	<i>n</i>	Mean*	Std.Dev.
Child <5 in HH died in past 12 months	587	3%	0.2	694	6%	0.2
Reported all children <5 sleep under bed nets	414	54%	0.5	427	68%	0.5
Reported travel time to closest clinic (minutes) * <i>median</i>	583	120.0	64.4	684	90.0	69.1
Reported waiting time at health center/hospital at last visit (minutes) * <i>median</i>	449	120.0	108.1	555	120.0	106.3
Takes child to hospital, health center, or clinic if child needs medical care	566	93%	0.3	638	96%	0.2
Don't take child to clinic because can't afford transportation costs	9	11%	0.3	187	56%	0.5
Don't take child to clinic because it's too far	9	89%	0.3	187	2%	0.1
Don't take child to clinic because it's hard to get there	9	0%	0.0	187	0%	0.0
Don't take child to clinic because use traditional healing	9	0%	0.0	187	1%	0.1
Don't take child to clinic because religious reasons	9	0%	0.0	187	0%	0.0
Don't take child to clinic because can't afford clinic fees	9	0%	0.0	187	42%	0.5

*Means reported unless otherwise noted

Nutrition

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Child 0-5 mo is exclusively breast fed	48	92%	0.3	52	94%	0.2
Main woman in HH ate soy yesterday	583	4%	0.2	686	5%	0.2
Main woman in HH ate groundnuts yesterday	582	21%	0.4	686	22%	0.4
Child 6-23 months is breast fed	135	98%	0.1	119	93%	0.3
Meets min. acceptable diet for breastfed child 6-23 months	111	12%	0.3	99	8%	0.3
Meets min. acceptable diet for non-breastfed child 6-23 months	3	0%	0.0	6	0%	0.0
Number of food groups consumed yesterday	139	2.5	1.2	133	2.4	1.5
Ate grains/roots/tubers yesterday	139	78%	0.4	133	72%	0.5
Ate legumes yesterday	135	26%	0.4	119	33%	0.5
Ate dairy yesterday	135	0%	0.0	119	2%	0.1
Ate meats/flesh foods yesterday	139	45%	0.5	133	33%	0.5
Ate egg yesterday	135	4%	0.2	119	8%	0.3
Ate vitamin A-rich foods (e.g. leafy greens, orange fruits/vegetables) yesterday	139	83%	0.4	133	78%	0.4
Ate other fruits or vegetables yesterday	135	13%	0.3	119	17%	0.4
Number of feedings of solid or semi-solid food	135	2.4	1.7	119	2.0	1.6
Number of feedings of formula or milk (non-breastmilk) among non-breastfed child	0			2	5.0	2.8
Number of feedings of formula or milk (non-breastmilk) among breastfed children	3	3.3	2.3	5	2.0	1.2

Reproductive health, family planning

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Respondent received VCT in past 12 months	587	51%	0.5	695	64%	0.5
Female respondent received VCT in past 12 months	415	53%	0.5	490	65%	0.5
Male respondent received VCT in past 12 months	172	46%	0.5	205	60%	0.5
Both partners received VCT in past 12 months (of couples)	257	81%	0.4	349	83%	0.4
Received VCT at government hospital	208	9%	0.3	290	14%	0.3
Received VCT at government health center	208	77%	0.4	290	57%	0.5
Received VCT at government health post	208	3%	0.2	290	5%	0.2
Received VCT from HSA	208	0%	0.0	290	4%	0.2
Woman age 15-49 currently uses contraceptives	406	54%	0.5	432	67%	0.5
Woman age 15-49 currently uses traditional contraceptive (withdrawal, periodic abstinence)	403	1%	0.1	431	0%	0.0
Woman age 15-49 currently uses modern contraceptives	403	52%	0.5	431	66%	0.5
Woman age 15-49 currently uses contraceptive (among married)	367	56%	0.5	369	72%	0.4
Woman age 15-49 currently uses contraceptive (among non-married)	38	40%	0.5	62	36%	0.5
Contraceptive = female sterilization	403	4%	0.2	431	5%	0.2
Contraceptive = male sterilization	403	0%	0.0	431	0%	0.0
Contraceptive = birth control pill	403	1%	0.1	431	3%	0.2
Contraceptive = IUD	403	2%	0.1	431	4%	0.2
Contraceptive = injectables	403	37%	0.5	431	40%	0.5
Contraceptive = implants/norplant	403	6%	0.2	431	8%	0.3
Contraceptive = male condom	403	3%	0.2	431	10%	0.3
Contraceptive = female condom	403	1%	0.1	431	1%	0.1
Last obtained contraception at government hospital	216	11%	0.3	283	11%	0.3
Last obtained contraception at government health center	216	66%	0.5	283	63%	0.5
Last obtained contraception at government health post	216	4%	0.2	283	5%	0.2
Last obtained contraception from HSA	216	14%	0.4	283	13%	0.3

Climate change knowledge and vulnerability

	Mangochi			Zomba		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Has heard of climate change	587	63%	0.5	695	80%	0.4
Don't know how to prepare for climate change	586	42%	0.5	695	29%	0.5
Believes planting trees can mitigate effects of climate change	587	46%	0.5	695	61%	0.5
Believes using less trees/wood can mitigate effects of climate change	587	7%	0.3	695	6%	0.2
Believes improved cookstoves can mitigate effects of climate change	587	1%	0.1	695	2%	0.1
Believes community woodlot can mitigate effects of climate change	587	2%	0.1	695	1%	0.1
Believes better forest management can mitigate effects of climate change	587	4%	0.2	695	12%	0.3
Believes water conservation can mitigate effects of climate change	587	3%	0.2	695	4%	0.2
Household gathers materials from forest (e.g. wood, fruit)	587	88%	0.3	695	56%	0.5
Wood/timber is important source of income	587	6%	0.2	695	5%	0.2
Income derived from fish sales last month (among full sample)	587	60.5	944.8	695	663.6	4786.0
Income derived from fish sales last month (among those who fished)	6	5919.0	7938.0	28	16471.0	17854.0
Experienced loss or severe reduction of arable land due to erosion in past year	587	35%	0.5	695	38%	0.5
Respondent saw demonstrations in the past year related to planting or preserving	587	20%	0.4	695	31%	0.5
Planted trees in past year	587	20%	0.4	695	30%	0.5
HH adopted measure in past year that may improve resiliency to climate change	587	27%	0.4	695	37%	0.5
Changed ag. practice in past year that may improve resiliency to climate change	587	9%	0.3	695	14%	0.3
Changed water use in past year that may improve resiliency to climate change	587	2%	0.2	695	4%	0.2

Technology use:

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Business info accessed by phone	243	0.0	0.2	320	0.1	0.3
Public service info accessed by phone	243	0.0	0.2	320	0.0	0.2
Reported public service accessed info by phone	243	0.0	0.1	320	0.0	0.2
Use of phone for business or service info	243	0.1	0.3	320	0.1	0.3

Government satisfaction:

Public services	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Local road maintenance	560	2.6	1.6	640	1.9	1.3
Local policing provision	551	2.7	1.6	626	2.3	1.5
Water and sanitation	571	2.8	1.7	642	2.2	1.5
Local market place maintenance	545	3.3	1.6	625	2.6	1.6
Consulting citizens	478	3.1	1.6	580	2.7	1.6
Keeping corruption in check	520	3.3	1.7	590	2.7	1.6
Managing the use of land	472	2.8	1.5	564	2.5	1.5

Government satisfaction:

Schools	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Services too expensive/unable to pay	400	0.5	1.0	479	0.7	1.0
Lack of textbooks or other supplies	398	1.6	1.3	471	1.4	1.3
Poor teaching	392	1.1	1.2	474	1.0	1.2
Absent teachers	391	1.0	1.2	480	1.0	1.1
Overcrowded classrooms	382	1.9	1.3	473	1.7	1.3
Poor conditions of facilities	393	0.9	1.2	466	1.0	1.3

Government satisfaction:

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Health care						
Services are too expensive/unable to pay	452	0.1	0.5	547	0.2	0.6
Lack of medicine or other supplies	451	1.3	1.2	558	1.3	1.2
Lack of attention or respect from staff	451	1.1	1.3	557	1.1	1.2
Absent doctors	445	0.7	1.1	551	0.5	1.0
Long waiting time	451	1.8	1.2	558	1.7	1.3
Dirty facilities	451	0.4	0.8	554	0.2	0.7

Local government and community involvement

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Local government						
Participation: In groups/organizations/associations	587	0.4	0.5	695	0.5	0.5
Participation: Volunteered in last 6 months	587	0.5	0.5	695	0.6	0.5
Aware of VDC?	587	0.6	0.5	695	0.8	0.4
Know what VDC does	587	0.4	0.5	695	0.6	0.5
Participation: In VDC meetings/activities	587	0.3	0.5	695	0.5	0.5
Know what local government does	587	0.4	0.5	695	0.5	0.5

Local government and community involvement

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Group membership:						
Farmers/Fishermen's group	587	0.2	0.4	695	0.2	0.4
Village development committee (VDC) or ADC	587	0.2	0.6	695	0.4	0.8
Village Savings and Loan; credit/finance group	587	0.1	0.5	695	0.3	0.9
Traders' Association/business group	587	0.0	0.2	695	0.0	0.3
Care group	587	0.1	0.6	695	0.1	0.7
School/education related	587	0.4	1.5	695	0.6	1.8
Health/nutrition related	587	0.4	1.7	695	0.5	1.7
Environment related	587	0.2	1.2	695	0.2	1.3
Community works related (water, waste, roads, etc.)	587	0.2	1.5	695	0.3	1.7
Religious group	587	0.8	2.6	695	0.8	2.7
Professional Association	587	0.1	1.2	695	0.0	0.6
Neighborhood/village association	587	0.9	3.1	695	1.2	3.6

Local government and community involvement

Perceived role of VDC	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Consult community about local development projects	587	0.2	0.4	695	0.4	0.5
Represent local interests	587	0.1	0.3	695	0.1	0.4
Identify beneficiaries for PWP	587	0.1	0.3	695	0.1	0.4
Identify beneficiaries for agri coupons	587	0.0	0.2	695	0.1	0.3
Other	587	0.1	0.3	695	0.1	0.2

Local government and community involvement

Perceived role of local government	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Facilitate development	587	0.2	0.4	695	0.3	0.5
Fund local development initiatives	587	0.2	0.4	695	0.2	0.4
Provide tech expertise on development projects	587	0.0	0.2	695	0.1	0.3
Link VDCs, ADCs with funding agencies	587	0.0	0.1	695	0.0	0.1
Maintain roads or market places	587	0.0	0.0	695	0.0	0.0
Provide water, sanitation, or electricity	587	0.0	0.0	695	0.0	0.0
Local policing	587	0.0	0.0	695	0.0	0.0
Managing land use	587	0.0	0.0	695	0.0	0.0
Other	587	0.0	0.2	695	0.1	0.2
Are public meetings held to determine priorities?	554	0.3	0.5	626	0.4	0.5

Political participation:

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Attended public meetings	192	0.7	0.5	230	0.7	0.4
Registered to vote	587	1.0	0.2	695	0.9	0.2
Voted in recent election	570	1.0	0.2	659	1.0	0.2
Expressed viewpoint to politicians pre-election	584	0.2	0.4	691	0.3	0.5
Aware of campaign promises pre-election	566	0.7	0.4	667	0.8	0.4

Women's participation in decisions

	Mangochi			Zomba		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Inputs for Agriculture	587	0.4	0.5	695	0.5	0.5
Types of crops to grow	587	0.5	0.5	695	0.6	0.5
Taking crops to market	587	0.5	0.5	695	0.6	0.5
Family planning	587	0.5	0.5	695	0.6	0.5
Participation in community decisions/activities	587	0.5	0.5	695	0.6	0.5
Taking loans	587	0.4	0.5	695	0.4	0.5
Participation in groups/committees	587	0.5	0.5	695	0.5	0.5
Schooling of boy child	587	0.5	0.5	695	0.5	0.5
Schooling of girl child	587	0.5	0.5	695	0.6	0.5
Health care of boy child	587	0.6	0.5	695	0.6	0.5
Health care of girl child	587	0.6	0.5	695	0.7	0.5
Health care	587	0.8	0.4	695	0.7	0.4
Credit for agriculture	35	0.4	0.5	37	0.4	0.5
Credit from NGO	14	0.7	0.5	42	0.6	0.5
Credit from informal lender	9	0.6	0.5	48	0.4	0.5
Credit from formal lender	4	0.3	0.5	15	0.5	0.5
Credit from friends/relatives	79	0.6	0.5	64	0.5	0.5
Credit from microfinance	8	0.5	0.5	77	0.6	0.5
Food crop farming	525	0.8	0.4	560	0.8	0.4
Livestock raising	182	0.9	0.3	285	0.8	0.4
Non-farm economic activities	79	0.8	0.4	184	0.8	0.4
Wage employment	178	0.9	0.4	150	0.8	0.4
Use of income from food crop farming	384	0.7	0.4	460	0.7	0.5
Use of income livestock raising	137	0.8	0.4	229	0.8	0.4
Use of income from non-farm economic activities	76	0.8	0.4	179	0.8	0.4
Use of income from wage employment	181	0.8	0.4	155	0.8	0.4

DISTRICT-LEVEL DATA: HEALTH SECTOR ONLY (HSO)

Household member characteristics

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Size of household (people)	867	5.8	2.5	866	5.4	2.4
Total adults >18 in household	867	2.6	1.1	866	2.5	1.1
Has a child under 5 years old	867	65%	0.5	866	56%	0.5
Number of children under 5 years old	867	0.9	0.8	866	0.8	0.8
Female-headed household (reported no male HoH)	867	18%	0.4	866	14%	0.4
No adult male >17 lives in household	867	10%	0.3	866	8%	0.3
Age of head of household	833	45.6	16.5	844	43.9	15.3
Youth-headed household (age 17-29)	867	17%	0.4	866	18%	0.4
Head of household is married	867	79%	0.4	866	82%	0.4
Head of HH has no education	856	18%	0.4	862	8%	0.3
% of HH members (minus HoH) with no education	843	11%	0.2	848	6%	0.1
Percentage of adult HH members who can read in Chichewa	867	62%	0.4	864	73%	0.3
Primary respondent is female	867	75%	0.4	866	63%	0.5
Member of HH has disability (physical or mental)	867	14%	0.3	863	19%	0.4
Household participates in farming	866	97%	0.2	866	93%	0.3
Chichewa is spoken regularly at home	867	97%	0.2	866	12%	0.3
Citumbuka is spoken regularly at home	867	2%	0.1	866	73%	0.4
Ciyawo is spoken regularly at home	867	1%	0.1	866	0%	0.1
Cisena is spoken regularly at home	867	0%	0.0	866	0%	0.0
English is spoken regularly at home	867	0%	0.0	866	2%	0.1
Total water collection time (minutes)	865	30.8	41.3	861	23.7	37.9
Time to nearest market (minutes)	860	39.7	37.5	863	57.0	63.4

Head of HH literacy:

	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Education Level (years)	667	6.7	3.5	758	8.5	3.3
Reads English	795	0.3	0.5	822	0.5	0.5
Writes English	794	0.3	0.5	815	0.4	0.5
Writes Chichewa	825	0.7	0.5	835	0.7	0.4
Reads Chichewa	827	0.7	0.5	838	0.8	0.4

Poverty, other household characteristics

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Household is below poverty line (\$1.25/day)	803	47%	0.5	822	37%	0.5
Number of rooms in house	867	291%	1.1	866	317%	1.3
House has smooth cement floors	862	12%	0.3	860	25%	0.4
House has electricity	867	4%	0.2	866	8%	0.3
Household grows tobacco	867	3%	0.2	866	6%	0.2

Household assets:

	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Asset factor score	867	1.2	1.1	866	1.8	1.3
Oxen	867	0.0	0.0	866	0.5	1.3
Cattle	867	0.1	1.1	866	1.3	3.4
Sheep	867	0.2	1.1	866	0.1	1.0
Goats	867	1.0	2.2	866	0.8	1.7
Pigs	867	0.2	1.0	866	0.8	1.9
Chicken	867	4.9	7.5	866	6.5	8.0
Other Poultry	867	0.6	2.9	866	2.1	6.0
Beds	867	0.8	1.0	866	1.4	1.2
Irons	867	0.3	0.6	866	0.3	0.6
Tape/CD player	867	0.2	0.5	866	0.3	0.6
Bicycle	867	0.6	0.8	866	0.7	0.8
Chair/Sofa	867	1.6	2.7	866	2.4	3.1
Refrigerator	867	0.1	0.6	866	0.0	0.2
Radio	867	0.4	0.6	866	0.4	0.7
Watch	867	0.1	0.4	866	0.1	0.5
Beer brewing drum	867	0.1	0.4	866	0.2	0.7
Car/Truck	867	0.1	0.6	866	0.0	0.4
Motorcycle/motor scooter	867	0.0	0.4	866	0.0	0.5
Boat/canoe/raft	867	0.1	0.4	866	0.1	0.6
Panga	867	0.9	0.8	866	0.6	0.8
Axes	867	0.8	0.8	866	1.1	1.0
Sickles	867	1.2	1.0	866	1.4	1.4

Well-Being

	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Self-Assessed HH health quality	866	2.3	1.1	864	2.4	1.0
Satisfaction with HH financial situation	866	2.7	1.5	863	2.8	1.3
Expectation of financial improvement	834	2.4	0.7	804	2.5	0.7
Current income sufficiency	863	2.4	1.2	865	2.7	1.2
Finances adequate for food	866	1.5	0.5	860	1.5	0.5
Financial self-ranking: today	864	2.4	1.1	863	2.5	1.0
Financial self-ranking: yesterday	862	2.2	1.0	861	2.2	1.1
Financial ranking of others in village: today	829	2.8	1.3	817	3.0	1.2
Financial: Have someone to turn to for financial support	867	0.3	0.5	866	0.4	0.5
Satisfaction with democracy	820	3.0	1.4	809	3.1	1.3
Locus of control	867	0.6	0.5	866	0.8	0.4
Overall life satisfaction	860	3.3	1.4	860	3.2	1.2
Worry about security	867	2.0	0.9	865	2.1	0.9
Negative WB: Number of sick days in last month	867	3.2	5.7	866	3.3	6.0
Self-reported Overall Well Being Score	789	2.8	1.0	750	2.9	0.8
Self-reported Financial Well Being Score	795	2.4	0.9	755	2.5	0.8

Technology use:

	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Business info accessed by phone	542	0.1	0.3	538	0.1	0.3
Public service info accessed by phone	542	0.0	0.2	538	0.1	0.3
Reported public service accessed info by phone	542	0.0	0.1	538	0.0	0.2
Use of phone for business or service info	542	0.1	0.3	538	0.2	0.4

Soya production

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows soya	864	6%	0.2	863	3%	0.2
Hectares under soya cultivation (among full sample)	866	0.0	0.1	865	0.0	0.0
Hectares under soya cultivation (among soya farmers)	43	0.2	0.2	22	0.2	0.1
Yield of soy last season in KG (among those who grew soy)	52	72.2	118.3	24	70.6	93.5
Soy yield per hectare	42	720.3	1160.0	19	968.2	1635.0
Kg of soy sold last season(among those who grew soy)	50	33.6	88.9	27	28.0	64.5
Value of total soya sold (USD)	14	40.2	52.1	8	45.8	28.2
Soya price earned per kg (USD)	14	0.5	0.3	8	0.9	0.7
Total value of inputs to soy production (USD)	53	4.5	15.6	27	2.8	7.5
Individual level gross margin for soya (USD per Ha)	11	251.7	266.2	6	334.7	250.8
Number of days it took to sell soya harvest	16	1.6	1.5	8	20.1	19.4

Groundnut production

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows groundnuts	864	28%	0.4	863	37%	0.5
Hectares under groundnut cultivation (among full sample)	858	0.2	2.6	844	0.2	2.3
Hectares under groundnut cultivation (among groundnut farmers)	212	0.4	1.3	269	0.3	0.8
Yield of groundnuts last season in KG (among those who grew it)	218	305.1	511.2	275	134.9	331.1
Groundnut yield per hectare	198	1161.0	1524.0	231	714.9	1128.0
Kg of groundnuts sold last season(among those who grew it)	218	10165.0	146893.0	288	50.4	96.8
Value of total groundnuts sold (USD)	135	101.9	260.9	161	49.2	81.7
Groundnuts price earned per kg (USD)	132	0.4	0.9	137	0.6	0.5
Total value of inputs to groundnuts production (USD)	240	10.0	19.0	319	8.0	18.9
Individual level gross margin for groundnuts (USD per Ha)	118	463.8	1381.0	120	395.0	900.2
Number of days it took to sell groundnut harvest	154	18.9	35.6	160	10.8	20.2

Sweet potato production

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Grows orange fresh sweet potatoes	862	27%	0.4	864	25%	0.4
Hectares under O.F. sweet potato cultivation (among all farmers)	837	0.1	0.9	833	0.0	0.2
Hectares under sweet potato cultivation (among sweet potato farmers)	206	0.4	1.8	185	0.2	0.4
Yield of sweet potato last season in KG (among those who grew it)	177	391.5	888.2	148	315.3	563.3
Sweet potato yield per hectare	172	22467.0	69798.0	138	27636.0	119592.0
Kg of sweet potato sold last season(among those who grew it)	205	628.6	6983.0	175	107.6	369.5
Value of total sweet potato sold (USD)	119	42.8	122.8	80	43.2	87.6
Sweet potato price earned per kg (USD)	104	0.2	0.5	56	0.2	0.3
Total value of inputs to sweet potato production (USD)	237	2.4	8.4	218	1.4	4.3
Individual level gross margin for sweet potatoes(USD per Ha)	98	2563.0	9836.0	54	5084.0	14965.0
Number of days it took to sell sweet potato harvest	225	8.8	20.1	216	4.9	11.1

Agricultural practices

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Household members have participated in farmers' club	867	25%	0.4	866	24%	0.4
Male in household participates in farmers' club	867	16%	0.4	866	17%	0.4
Female in household participates in farmers' club	867	14%	0.3	866	12%	0.3
Used mobile phone for business in past year (e.g. check crop prices)	867	8%	0.3	866	8%	0.3
Sold last harvest through trader at home	594	75%	0.4	516	59%	0.5
Sold last harvest at market	594	24%	0.4	516	37%	0.5
Sold last harvest through warehouse	594	1%	0.1	516	5%	0.2
Changed agriculture practices in past 12 months	867	14%	0.3	866	20%	0.4
Use less water	837	0%	0.0	805	0%	0.1
Use organic fertilizer	837	1%	0.1	805	2%	0.1
Use earthworms	837	1%	0.1	805	0%	0.0
Use different type of crop	837	3%	0.2	805	3%	0.2
Practice mixed cropping	837	1%	0.1	805	2%	0.1
Practice crop rotation	837	3%	0.2	805	7%	0.3
Use irrigation	837	0%	0.0	805	0%	0.1
Use improved seeds	837	3%	0.2	805	3%	0.2
Use non-organic fertilizer	837	2%	0.1	805	2%	0.1
Type of crop grown changed in recent years	838	19%	0.4	805	28%	0.4
NGO offered new seed/told to change crops	837	2%	0.1	805	3%	0.2
Certain type of seed became easier/cheaper to access	837	2%	0.1	805	4%	0.2
Gained access to additional land	837	1%	0.1	805	1%	0.1
Received loan	837	0%	0.0	805	0%	0.0
Received crop diversification training	837	7%	0.3	805	9%	0.3
Wanted to add new crop	837	8%	0.3	805	7%	0.3
Change in rainfall pattern	837	3%	0.2	805	9%	0.3

Food security

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Degree of food insecurity (scale of 0-18)	867	5.9	5.1	866	4.1	4.6
Ate limited variety of foods for lack of resources (frequency scale 0-3)	867	1.3	1.3	866	1.0	1.2
Went a full day without eating for lack of food (frequency scale 0-3)	867	0.3	0.7	866	0.2	0.6
Ate some undesired foods for lack of resources (frequency scale 0-3)	867	1.4	1.3	866	1.0	1.2
Ate less than needed for lack of food (frequency scale 0-3)	867	1.3	1.3	866	0.9	1.1
Ate fewer meals for lack of food (frequency scale 0-3)	867	1.1	1.2	866	0.7	1.1
Went to sleep hungry for lack of food (frequency scale 0-3)	867	0.6	0.9	866	0.4	0.8

Health access and care for children

	Nkhotakota			Karonga		
	<i>n</i>	Mean*	Std.Dev.	<i>n</i>	Mean*	Std.Dev.
Child <5 in HH died in past 12 months	866	4%	0.2	866	3%	0.2
Reported all children <5 sleep under bed nets	576	65%	0.5	524	80%	0.4
Reported travel time to closest clinic (minutes) <i>*median</i>	855	90.0	70.7	860	60.0	80.7
Reported waiting time at health center/hospital at last visit (minutes) <i>*median</i>	689	120.0	96.8	697	60.0	102.6
Takes child to hospital, health center, or clinic if child needs medical care	809	95%	0.2	800	96%	0.2
Don't take child to clinic because can't afford transportation costs	16	19%	0.4	16	19%	0.4
Don't take child to clinic because it's too far	16	50%	0.5	16	75%	0.4
Don't take child to clinic because it's hard to get there	16	6%	0.3	16	13%	0.3
Don't take child to clinic because use traditional healing	16	0%	0.0	16	0%	0.0
Don't take child to clinic because religious reasons	16	6%	0.3	16	0%	0.0
Don't take child to clinic because can't afford clinic fees	16	50%	0.5	16	6%	0.3

**Means reported unless otherwise noted*

Nutrition

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Child 0-5 mo is exclusively breast fed	70	74%	0.4	54	82%	0.4
Main woman in HH ate soy yesterday	856	4%	0.2	848	13%	0.3
Main woman in HH ate groundnuts yesterday	856	16%	0.4	843	29%	0.5
Child 6-23 months is breast fed	171	93%	0.3	158	88%	0.3
Meets min. acceptable diet for breastfed child 6-23 months	144	13%	0.3	121	26%	0.4
Meets min. acceptable diet for non-breastfed child 6-23 months	9	0%	0.0	16	0%	0.0
Number of food groups consumed yesterday	192	2.6	1.5	176	2.8	1.6
Ate grains/roots/tubers yesterday	192	73%	0.4	176	73%	0.4
Ate legumes yesterday	171	23%	0.4	156	25%	0.4
Ate dairy yesterday	171	4%	0.2	157	3%	0.2
Ate meats/flesh foods yesterday	192	57%	0.5	176	59%	0.5
Ate egg yesterday	171	11%	0.3	157	15%	0.4
Ate vitamin A-rich foods (e.g. leafy greens, orange fruits/vegetables) yesterday	192	81%	0.4	176	77%	0.4
Ate other fruits or vegetables yesterday	171	23%	0.4	156	33%	0.5
Number of feedings of solid or semi-solid food	173	2.3	1.3	160	2.8	1.7
Number of feedings of formula or milk (non-breastmilk) among non-breastfed child	1	1.0	.	5	2.2	2.7
Number of feedings of formula or milk (non-breastmilk) among breastfed children	10	1.8	1.0	21	2.1	1.1

Reproductive health, family planning

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Respondent received VCT in past 12 months	865	62%	0.5	863	64%	0.5
Female respondent received VCT in past 12 months	645	63%	0.5	544	65%	0.5
Male respondent received VCT in past 12 months	220	58%	0.5	319	63%	0.5
Both partners received VCT in past 12 months (of couples)	450	79%	0.4	478	78%	0.4
Received VCT at government hospital	349	26%	0.4	369	22%	0.4
Received VCT at government health center	349	41%	0.5	369	53%	0.5
Received VCT at government health post	349	3%	0.2	369	4%	0.2
Received VCT from HSA	349	4%	0.2	369	6%	0.2
Woman age 15-49 currently uses contraceptives	578	52%	0.5	577	64%	0.5
Woman age 15-49 currently uses traditional contraceptive (withdrawal, periodic abstinence)	576	1%	0.1	577	1%	0.1
Woman age 15-49 currently uses modern contraceptives	576	51%	0.5	577	62%	0.5
Woman age 15-49 currently uses contraceptive (among married)	530	54%	0.5	539	66%	0.5
Woman age 15-49 currently uses contraceptive (among non-married)	47	34%	0.5	35	29%	0.5
Contraceptive = female sterilization	576	7%	0.3	577	5%	0.2
Contraceptive = male sterilization	576	0%	0.0	577	0%	0.0
Contraceptive = birth control pill	576	1%	0.1	577	2%	0.2
Contraceptive = IUD	576	1%	0.1	577	3%	0.2
Contraceptive = injectables	576	28%	0.4	577	36%	0.5
Contraceptive = implants/norplant	576	12%	0.3	577	9%	0.3
Contraceptive = male condom	576	7%	0.2	577	13%	0.3
Contraceptive = female condom	576	1%	0.1	577	2%	0.2
Last obtained contraception at government hospital	295	19%	0.4	362	23%	0.4
Last obtained contraception at government health center	295	43%	0.5	362	56%	0.5
Last obtained contraception at government health post	295	1%	0.1	362	4%	0.2
Last obtained contraception from HSA	295	17%	0.4	362	7%	0.3

Climate change knowledge and vulnerability

	Nkhotakota			Karonga		
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.
Has heard of climate change	867	68%	0.5	866	78%	0.4
Don't know how to prepare for climate change	865	40%	0.5	865	36%	0.5
Believes planting trees can mitigate effects of climate change	867	50%	0.5	866	44%	0.5
Believes using less trees/wood can mitigate effects of climate change	867	6%	0.2	866	6%	0.2
Believes improved cookstoves can mitigate effects of climate change	867	1%	0.1	866	2%	0.2
Believes community woodlot can mitigate effects of climate change	867	2%	0.2	866	1%	0.1
Believes better forest management can mitigate effects of climate change	867	8%	0.3	866	8%	0.3
Believes water conservation can mitigate effects of climate change	867	4%	0.2	866	6%	0.2
Household gathers materials from forest (e.g. wood, fruit)	867	69%	0.5	866	58%	0.5
Wood/timber is important source of income	867	9%	0.3	866	6%	0.2
Income derived from fish sales last month (among full sample)	867	1767.0	12380.0	866	7275.0	46355.0
Income derived from fish sales last month (among those who fished)	91	16831.0	34904.0	109	57802.0	119427.0
Experienced loss or severe reduction of arable land due to erosion in past year	867	37%	0.5	866	50%	0.5
Respondent saw demonstrations in the past year related to planting or preserving	867	24%	0.4	866	31%	0.5
Planted trees in past year	867	21%	0.4	866	28%	0.4
HH adopted measure in past year that may improve resiliency to climate change	867	28%	0.4	866	37%	0.5
Changed ag. practice in past year that may improve resiliency to climate change	867	9%	0.3	866	15%	0.4
Changed water use in past year that may improve resiliency to climate change	867	1%	0.1	866	2%	0.2

Government satisfaction:

Public services	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Local road maintenance	752	2.3	1.6	750	2.4	1.6
Local policing provision	741	2.6	1.6	737	2.5	1.6
Water and sanitation	749	2.8	1.8	754	2.6	1.6
Local market place maintenance	736	2.8	1.7	723	2.8	1.7
Consulting citizens	628	3.2	1.7	642	3.0	1.7
Keeping corruption in check	689	3.2	1.7	689	3.2	1.6
Managing the use of land	658	2.9	1.6	656	2.6	1.6

Government satisfaction:

Schools	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Services too expensive/unable to pay	636	0.6	1.0	594	0.7	1.1
Lack of textbooks or other supplies	628	1.7	1.3	582	1.6	1.4
Poor teaching	631	1.3	1.4	576	1.0	1.3
Absent teachers	630	1.2	1.3	572	0.8	1.2
Overcrowded classrooms	623	1.6	1.4	578	1.6	1.4
Poor conditions of facilities	620	1.1	1.4	563	0.8	1.2

Government satisfaction:

Health care	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Services are too expensive/unable to pay	679	0.1	0.5	677	0.1	0.6
Lack of medicine or other supplies	682	1.4	1.3	695	1.3	1.2
Lack of attention or respect from staff	682	1.2	1.3	684	0.9	1.2
Absent doctors	672	0.7	1.1	664	0.4	0.9
Long waiting time	687	1.8	1.3	691	1.6	1.2
Dirty facilities	678	0.5	1.0	664	0.3	0.8

Local government and community involvement

Local government	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Participation: In groups/organizations/associations	867	0.4	0.5	866	0.5	0.5
Participation: Volunteered in last 6 months	867	0.4	0.5	866	0.5	0.5
Aware of VDC?	867	0.6	0.5	866	0.8	0.4
Know what VDC does	867	0.3	0.5	866	0.6	0.5
Participation: In VDC meetings/activities	867	0.3	0.4	866	0.4	0.5
Know what local government does	867	0.4	0.5	866	0.5	0.5

Local government and community involvement

Group membership:	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Farmers/Fishermen's group	867	0.3	0.4	866	0.2	0.4
Village development committee (VDC) or ADC	867	0.2	0.6	866	0.2	0.6
Village Savings and Loan; credit/finance group	867	0.4	1.0	866	0.8	1.3
Traders' Association/business group	867	0.0	0.2	866	0.1	0.4
Care group	867	0.1	0.8	866	0.2	1.1
School/education related	867	0.2	1.0	866	0.2	1.2
Health/nutrition related	867	0.5	1.7	866	0.2	1.3
Environment related	867	0.1	1.0	866	0.2	1.1
Community works related (water, waste, roads, etc.)	867	0.3	1.6	866	0.3	1.6
Religious group	867	0.8	2.8	866	0.5	2.2
Professional Association	867	0.1	1.1	866	0.1	0.9
Neighborhood/village association	867	0.7	2.8	866	0.9	3.2

Local government and community involvement

Perceived role of VDC	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Consult community about local development projects	867	0.3	0.4	866	0.4	0.5
Represent local interests	867	0.1	0.2	866	0.1	0.4
Identify beneficiaries for PWPs	867	0.1	0.3	866	0.1	0.3
Identify beneficiaries for agri coupons	867	0.0	0.2	866	0.1	0.3
Other	867	0.0	0.2	866	0.1	0.2

Local government and community involvement

Perceived role of local government	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Facilitate development	867	0.3	0.5	866	0.3	0.5
Fund local development initiatives	867	0.2	0.4	866	0.2	0.4
Provide tech expertise on development projects	867	0.0	0.2	866	0.1	0.2
Link VDCs, ADCs with funding agencies	867	0.0	0.1	866	0.0	0.2
Maintain roads or market places	867	0.0	0.0	866	0.0	0.0
Provide water, sanitation, or electricity	867	0.0	0.0	866	0.0	0.0
Local policing	867	0.0	0.0	866	0.0	0.0
Managing land use	867	0.0	0.0	866	0.0	0.0
Other	867	0.0	0.2	866	0.0	0.2
Are public meetings held to determine priorities?	771	0.2	0.4	796	0.4	0.5

Political participation:

	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Attended public meetings	181	0.6	0.5	312	0.6	0.5
Registered to vote	867	1.0	0.2	866	1.0	0.2
Voted in recent election	841	1.0	0.2	831	1.0	0.2
Expressed viewpoint to politicians pre-election	860	0.2	0.4	848	0.4	0.5
Aware of campaign promises pre-election	797	0.7	0.5	819	0.7	0.4

Women's participation in decisions

	Nkhotakota			Karonga		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Inputs for Agriculture	867	0.5	0.5	866	0.5	0.5
Types of crops to grow	867	0.6	0.5	866	0.7	0.5
Taking crops to market	867	0.5	0.5	866	0.6	0.5
Family planning	867	0.5	0.5	866	0.5	0.5
Participation in community decisions/activities	867	0.5	0.5	866	0.5	0.5
Taking loans	867	0.3	0.5	866	0.4	0.5
Participation in groups/committees	867	0.4	0.5	866	0.6	0.5
Schooling of boy child	867	0.5	0.5	866	0.5	0.5
Schooling of girl child	867	0.6	0.5	866	0.6	0.5
Health care of boy child	867	0.6	0.5	866	0.7	0.5
Health care of girl child	867	0.7	0.5	866	0.7	0.5
Health care	867	0.7	0.5	866	0.8	0.4
Credit for agriculture	32	0.4	0.5	47	0.6	0.5
Credit from NGO	25	0.6	0.5	35	0.7	0.4
Credit from informal lender	44	0.5	0.5	37	0.6	0.5
Credit from formal lender	23	0.5	0.5	29	0.6	0.5
Credit from friends/relatives	45	0.6	0.5	72	0.5	0.5
Credit from microfinance	70	0.7	0.5	135	0.7	0.5
Food crop farming	664	0.8	0.4	617	0.9	0.3
Livestock raising	299	0.9	0.4	400	0.9	0.2
Non-farm economic activities	194	0.9	0.3	301	0.9	0.2
Wage employment	153	0.8	0.4	116	0.9	0.3
Use of income from food crop farming	519	0.7	0.4	393	0.8	0.4
Use of income livestock raising	204	0.8	0.4	292	0.9	0.3
Use of income from non-farm economic activities	179	0.8	0.4	295	0.9	0.3
Use of income from wage employment	163	0.9	0.3	124	0.9	0.3

DATA TABLES BY TREATMENT ARM

Household member characteristics

	Health sector only			Partial integration				Full integration			
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	p	<i>n</i>	Mean	Std.Dev.	p
Size of household (people)	1733	5.6	2.4	1282	5.1	2.0	0.000	1728	5.1	2.0	0.000
Total adults >18 in household	1733	2.5	1.1	1282	2.2	0.9	0.000	1728	2.2	0.9	0.000
Has a child under 5 years old	1733	60%	0.5	1282	63%	0.5	0.137	1728	61%	0.5	0.601
Female-headed household (reported no male HoH)	1733	16%	0.4	1282	20%	0.4	0.005	1728	21%	0.4	0.000
No adult male >17 lives in household	1733	9%	0.3	1282	14%	0.4	0.000	1728	15%	0.4	0.000
Age of head of household	1677	44.8	15.9	1235	44.7	16.6	0.977	1684	43.3	16.3	0.009
Youth-headed household (age 17-29)	1733	17%	0.4	1282	21%	0.4	0.032	1728	21%	0.4	0.005
Head of household is married	1733	81%	0.4	1282	76%	0.4	0.004	1728	76%	0.4	0.003
Head of HH has no education	1718	13%	0.3	1258	22%	0.4	0.000	1707	18%	0.4	0.000
% of HH members (excluding head of HH) with no education	1691	8%	0.2	1232	11%	0.2	0.000	1681	11%	0.2	0.000
Percentage of adult HH members who can read in Chichewa	1731	67%	0.4	1275	60%	0.4	0.000	1727	62%	0.4	0.000
Primary respondent is female	1733	69%	0.5	1282	71%	0.5	0.286	1728	72%	0.5	0.084
Member of HH has disability (physical or mental)	1730	16%	0.4	1281	13%	0.3	0.020	1727	15%	0.4	0.164
Language spoken regularly at home:											
Chichewa	1733	54%	0.5	1282	77%	0.4	0.000	1728	86%	0.3	0.000
Citumbuka	1733	38%	0.5	1282	0.4%	0.1	0.000	1728	0.2%	0.0	0.000
Ciyawo	1733	1%	0.1	1282	43%	0.5	0.000	1728	30%	0.5	0.000
Cisena	1733	0.1%	0.0	1282	0.2%	0.0	0.429	1728	0.3%	0.1	0.255
English	1733	1%	0.1	1282	0.2%	0.0	0.005	1728	0.3%	0.1	0.011

Head of HH literacy:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Education Level (years)	1425	7.6	3.5	907	6.3	3.4	1316	6.3	3.4
Reads English	1617	0.4	0.5	1179	0.3	0.4	1616	0.3	0.5
Writes English	1609	0.4	0.5	1172	0.2	0.4	1607	0.2	0.4
Writes Chichewa	1660	0.7	0.5	1218	0.6	0.5	1666	0.7	0.5
Reads Chichewa	1665	0.7	0.4	1222	0.7	0.5	1667	0.7	0.5

Literacy:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Reading materials kids can read at home	1635	0.3	0.5	1224	0.2	0.4	1644	0.3	0.4
Reading materials adults can read at home	1731	0.4	0.5	1282	0.3	0.5	1721	0.3	0.5
Family member(s) go to community center to read	1727	0.1	0.3	1278	0.1	0.2	1726	0.1	0.2
Does anyone read every day	1731	0.2	0.4	1279	0.2	0.4	1725	0.2	0.4
Education access: Distance to public primary school (min)	1733	24.6	22.0	1277	30.1	24.6	1725	26.9	23.2

Poverty, other household characteristics

	Health sector only (comparison)			Partial integration				Full integration			
	<i>n</i>	Mean	Std.Dev.	<i>n</i>	Mean	Std.Dev.	p	<i>n</i>	Mean	Std.Dev.	p
Household is below poverty line (\$1.25/day)	1625	42%	0.5	1188	69%	0.5	0.000	1637	62%	0.5	0.000
Household participates in farming	1732	95%	0.2	1280	97%	0.2	0.013	1728	97%	0.2	0.001
Household grows tobacco	1733	5%	0.2	1282	28%	0.4	0.000	1728	22%	0.4	0.000
Number of rooms in house	1733	3.0	1.2	1282	2.5	1.0	0.000	1728	2.5	1.0	0.000
House has smooth cement floors	1722	19%	0.4	1278	8%	0.3	0.000	1725	9%	0.3	0.000
House has electricity	1733	6%	0.2	1282	2%	0.1	0.000	1728	2%	0.2	0.000
Total water collection time (minutes)	1726	27.3	39.8	1276	36.5	52.9	0.000	1723	35.1	50.2	0.000
Time to nearest market (minutes)	1723	48.4	52.8	1265	67.0	57.4	0.000	1714	58.3	53.8	0.000

Well-being

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Self-Assessed HH health quality	1730	2.3	1.1	1281	2.1	1.1	1725	2.2	1.1
Satisfaction with HH financial situation	1729	2.8	1.4	1278	2.6	1.4	1726	2.5	1.4
Expectation of financial improvement	1638	2.4	0.7	1187	2.4	0.7	1663	2.4	0.7
Current income sufficiency	1728	2.5	1.2	1278	2.4	1.1	1712	2.3	1.1
Finances adequate for food	1726	1.5	0.5	1279	1.3	0.5	1728	1.3	0.5
Financial self-ranking: today	1727	2.5	1.0	1276	2.2	0.9	1728	2.1	1.0
Financial self-ranking: Yesterday	1723	2.2	1.1	1273	2.0	0.9	1724	1.9	1.0
Financial ranking of others in village: today	1646	2.9	1.3	1185	2.5	1.2	1680	2.3	1.2
Financial: Have someone to turn to for financial support	1733	0.3	0.5	1282	0.2	0.4	1728	0.2	0.4
Satisfaction with democracy	1629	3.1	1.4	1186	3.2	1.4	1638	2.9	1.5
Locus of control	1733	0.7	0.5	1282	0.7	0.5	1728	0.7	0.5
Overall life satisfaction	1720	3.2	1.3	1271	3.2	1.3	1707	3.1	1.4
Worry about security	1732	2.0	0.9	1282	2.1	0.9	1727	2.1	0.9
Negative WB: Number of sick days in last month	1733	3.3	5.9	1282	3.8	6.4	1728	4.0	6.1
Self-reported Overall Well Being Score	1539	2.9	0.9	1101	2.6	0.9	1584	2.5	0.9
Self-reported Financial Well Being Score	1550	2.4	0.8	1105	2.2	0.7	1605	2.1	0.8

Food security

	Health sector only			Partial integration				Full integration			
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>p</i>	<i>n</i>	Mean	SD	<i>p</i>
Degree of food insecurity (scale of 0-18)	1733	5.0	4.9	1282	7.1	5.2	0.000	1728	7.5	5.1	0.000
Ate limited variety of foods for lack of resources (frequency scale 0-3)	1733	1.1	1.3	1282	1.5	1.3	0.000	1728	1.5	1.3	0.000
Ate some undesired foods for lack of resources (frequency scale 0-3)	1733	1.2	1.3	1282	1.6	1.2	0.000	1728	1.6	1.2	0.000
Ate less than needed for lack of food (frequency scale 0-3)	1733	1.1	1.2	1282	1.4	1.2	0.000	1728	1.5	1.2	0.000
Ate fewer meals for lack of food (frequency scale 0-3)	1733	0.9	1.2	1282	1.3	1.2	0.000	1728	1.5	1.2	0.000
Went to sleep hungry for lack of food (frequency scale 0-3)	1733	0.5	0.8	1282	0.8	1.0	0.000	1728	0.9	1.0	0.000
Went a full day without eating for lack of food (frequency scale 0-3)	1733	0.3	0.7	1282	0.4	0.8	0.000	1728	0.5	0.9	0.000

Household assets:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Asset factor score	1733	1.5	1.2	1282	1.0	0.9	1728	1.0	1.0
Oxen	1733	0.2	0.9	1282	0.1	2.0	1728	0.1	0.6
Cattle	1733	0.7	2.6	1282	0.0	0.4	1728	0.1	1.2
Sheep	1733	0.1	1.0	1282	0.0	0.4	1728	0.0	0.5
Goats	1733	0.9	1.9	1282	1.1	2.4	1728	1.2	2.6
Pigs	1733	0.5	1.5	1282	0.1	0.7	1728	0.3	1.4
Chicken	1733	5.7	7.8	1282	3.6	5.9	1728	3.6	6.3
Other Poultry	1733	1.4	4.8	1282	1.6	5.4	1728	1.0	3.7
Beds	1733	1.1	1.1	1282	0.5	0.8	1728	0.3	0.7
Irons	1733	0.3	0.6	1282	0.2	0.5	1728	0.2	0.4
Tape/CD player	1733	0.3	0.6	1282	0.2	0.5	1728	0.2	0.6
Bicycle	1733	0.6	0.8	1282	0.7	0.8	1728	0.7	0.7
Chair/Sofa	1733	2.0	2.9	1282	1.0	1.8	1728	1.0	2.0
Refrigerator	1733	0.0	0.4	1282	0.0	0.3	1728	0.0	0.4
Radio	1733	0.4	0.6	1282	0.3	0.7	1728	0.3	0.5
Watch	1733	0.1	0.5	1282	0.1	0.5	1728	0.1	0.4
Beer brewing drum	1733	0.1	0.6	1282	0.0	0.2	1728	0.1	0.4
Car/Truck	1733	0.0	0.5	1282	0.0	0.2	1728	0.0	0.4
Motorcycle/motor scooter	1733	0.0	0.4	1282	0.0	0.3	1728	0.0	0.1
Boat/canoe/raft	1733	0.1	0.5	1282	0.0	0.3	1728	0.0	0.5
Panga	1733	0.8	0.8	1282	0.8	0.7	1728	0.7	0.7
Axes	1733	0.9	0.9	1282	0.6	0.6	1728	0.6	0.6
Sickles	1733	1.3	1.2	1282	0.7	0.7	1728	0.6	0.7

Nutrition

	Health sector only (comparison)			Partial integration				Full integration			
	n	Mean	SD	n	Mean	SD	p	n	Mean	SD	p
Child 0-5 mo is exclusively breast fed	124	77%	0.4	100	93%	0.3	0.001	112	84%	0.4	0.209
Main woman in HH ate soy yesterday	1704	8%	0.3	1269	4%	0.2	0.000	1715	6%	0.2	0.002
Main woman in HH ate groundnuts yesterday	1699	22%	0.4	1268	22%	0.4	0.668	1715	24%	0.4	0.363

Nutrition status of child 6-23 months:

Child 6-23 months is breast fed	329	91%	0.3	254	96%	0.2	0.018	325	93%	0.3	0.214
Meets min. acceptable diet for breastfed child 6-23 months	265	19%	0.4	210	10%	0.3	0.007	283	6%	0.2	0.000
Meets min. acceptable diet for non-breastfed child 6-23 months	25	0%	0.0	9	0%	0.0		20	0%	0.0	.
Number of food groups consumed yesterday	368	2.7	1.6	272	2.4	1.3	0.019	337	2.4	1.2	0.002
Ate grains/roots/tubers yesterday	368	73%	0.4	272	75%	0.4	0.589	337	78%	0.4	0.153
Ate legumes yesterday	327	24%	0.4	254	29%	0.5	0.151	323	26%	0.4	0.470
Ate dairy yesterday	328	3%	0.2	254	1%	0.1	0.057	325	1%	0.1	0.021
Ate meats/flesh foods yesterday	368	58%	0.5	272	39%	0.5	0.000	337	36%	0.5	0.000
Ate egg yesterday	328	13%	0.3	254	6%	0.2	0.009	324	6%	0.2	0.001
Ate vitamin A-rich foods (e.g. leafy greens, orange fruits/vegetables) yesterday	368	79%	0.4	272	81%	0.4	0.597	337	82%	0.4	0.303
Ate other fruits or vegetables yesterday	327	28%	0.5	254	15%	0.4	0.000	324	11%	0.3	0.000
Number of feedings of solid or semi-solid food	333	2.5	1.5	254	2.3	1.6	0.045	325	1.9	1.2	0.000
Number of feedings of formula or milk (non-breastmilk) among non-breastfed child	6	2.0	2.4	2	5.0	2.8	0.195	1	3.0	.	.
Number of feedings of formula or milk (non-breastmilk) among breastfed children	31	2.0	1.1	8	2.5	1.7	0.340	10	2.2	2.0	0.734

Health access and care for children

	Health sector only			Partial integration				Full integration			
	<i>n</i>	Mean*	SD	<i>n</i>	Mean*	SD	<i>p</i>	<i>n</i>	Mean*	SD	<i>p</i>
Child <5 in HH died in past 12 months	1732	4%	0.2	1281	5%	0.2	0.102	1726	5%	0.2	0.036
Reported all children <5 sleep under bed nets	1100	72%	0.4	841	61%	0.5	0.000	1101	69%	0.5	0.105
Household member used public clinic or hospital in past 12 months	1733	81%	0.4	1282	79%	0.4	0.280	1728	79%	0.4	0.372
Reported travel time to closest clinic (minutes) * <i>median</i>	1716	90.0	74.9	1267	120.0	68.7	0.003	1717	60.0	66.8	0.000
Reported waiting time at health center/hospital at last visit (minutes) * <i>median</i>	1388	60.0	101.2	1008	120.0	113.8	0.000	1370	120.0	99.6	0.001
Takes child to hospital, health center, or clinic if child needs medical care	1609	95%	0.2	1204	95%	0.2	0.644	1615	94%	0.2	0.059
Don't take child to clinic because can't afford transportation costs	29	21%	0.4	18	28%	0.5	0.587	61	13%	0.3	0.360
Don't take child to clinic because it's too far	29	69%	0.5	18	67%	0.5	0.873	61	62%	0.5	0.542
Don't take child to clinic because it's hard to get there	29	10%	0.3	18	0%	0.0	0.165	61	2%	0.1	0.062
Don't take child to clinic because use traditional healing	29	0%	0.0	18	6%	0.2	0.208	61	2%	0.1	0.494
Don't take child to clinic because religious reasons	29	3%	0.2	18	0%	0.0	0.437	61	5%	0.2	0.755
Don't take child to clinic because can't afford clinic fees	29	21%	0.4	18	6%	0.2	0.163	61	34%	0.5	0.188

*Means reported unless otherwise noted

Reproductive health, family planning

	Health sector only (comparison)			Partial integration				Full integration			
	n	Mean	SD	n	Mean	SD	p	n	Mean	SD	p
Respondent received VCT in past 12 months	1728	63%	0.5	1282	58%	0.5	0.005	1728	62%	0.5	0.699
Female respondent received VCT in past 12 months	1189	64%	0.5	905	60%	0.5	0.047	1235	63%	0.5	0.637
Male respondent received VCT in past 12 months	539	61%	0.5	377	53%	0.5	0.027	493	60%	0.5	0.942
Both partners received VCT in past 12 months (of couples)	928	78%	0.4	606	82%	0.4	0.067	895	82%	0.4	0.086
Received VCT at government hospital	718	24%	0.4	498	12%	0.3	0.000	726	11%	0.3	0.000
Received VCT at government health center	718	47%	0.5	498	66%	0.5	0.000	726	64%	0.5	0.000
Received VCT at government health post	718	3%	0.2	498	4%	0.2	0.537	726	2%	0.1	0.188
Received VCT from HSA	718	5%	0.2	498	3%	0.2	0.036	726	3%	0.2	0.039
Woman age 15-49 currently uses contraceptives	1155	58%	0.5	838	61%	0.5	0.212	1207	66%	0.5	0.000
Woman age 15-49 currently uses traditional contraceptive (withdrawal, periodic abstinence)	1153	1%	0.1	834	1%	0.1	0.634	1204	1%	0.1	0.927
Woman age 15-49 currently uses modern contraceptives	1153	57%	0.5	834	59%	0.5	0.324	1204	65%	0.5	0.000
Woman age 15-49 currently uses contraceptive (among married)	1069	60%	0.5	736	64%	0.5	0.091	1036	70%	0.5	0.000
Woman age 15-49 currently uses contraceptive (among non-married)	82	32%	0.5	100	37%	0.5	0.458	169	44%	0.5	0.067
Contraceptive = female sterilization	1153	6%	0.2	834	4%	0.2	0.086	1204	8%	0.3	0.043
Contraceptive = male sterilization	1153	0%	0.0	834	0%	0.0	0.818	1204	0%	0.0	0.338
Contraceptive = birth control pill	1153	2%	0.1	834	2%	0.1	0.651	1204	3%	0.2	0.092
Contraceptive = IUD	1153	2%	0.1	834	3%	0.2	0.302	1204	2%	0.1	0.463
Contraceptive = injectables	1153	32%	0.5	834	39%	0.5	0.001	1204	40%	0.5	0.000
Contraceptive = implants/norplant	1153	10%	0.3	834	7%	0.3	0.017	1204	7%	0.3	0.018
Contraceptive = male condom	1153	10%	0.3	834	6%	0.2	0.004	1204	6%	0.2	0.001
Contraceptive = female condom	1153	2%	0.1	834	1%	0.1	0.191	1204	2%	0.1	0.766
Last obtained contraception at government hospital	657	21%	0.4	499	11%	0.3	0.000	792	10%	0.3	0.000
Last obtained contraception at government health center	657	50%	0.5	499	65%	0.5	0.000	792	60%	0.5	0.000
Last obtained contraception at government health post	657	3%	0.2	499	5%	0.2	0.063	792	3%	0.2	0.715
Last obtained contraception from HSA	657	12%	0.3	499	13%	0.3	0.342	792	10%	0.3	0.223

Soya production	Health sector only (comparison)				Partial integration				Full integration			
	<i>n</i>	Mean	Median	SD	<i>n</i>	Mean	Median	SD	<i>n</i>	Mean	Median	SD
Household grows soya	1727	0.05	n/a	0.2	1260	0.1	n/a	0.3	1709	0.2	n/a	0.4
Hectares under soya cultivation (among full sample)	1731	0.01	0.0	0.05	1277	0.03	0.0	0.1	1720	0.05	0.0	0.1
Hectares under soya cultivation (among soya farmers)	65	0.2	0.1	0.2	129	0.3	0.2	0.3	306	0.3	0.2	0.3
Yield of soy last season in KG (among those who grew soy)	76	71.7	29.2	110.4	146	88.4	30.0	141.2	325	129.6	59.0	210.5
Soy yield per hectare	61	797.5	289.1	1317.0	129	454.8	148.3	723.5	299	616.5	388.4	765.6
Kg of soy sold last season (among those who grew soy)	77	31.6	0.0	80.8	145	56.7	10.0	115.9	318	99.7	40.0	194.9
Value of total soya sold (USD)	22	42.2	23.1	44.2	77	33.3	12.5	58.0	232	39.3	20.0	56.2
Soya price earned per kg (USD)	22	0.7	0.5	0.5	76	0.4	0.3	0.5	228	0.4	0.3	0.4
Total value of inputs to soy production (USD)	80	3.9	0.0	13.4	147	2.4	0.0	5.8	332	5.2	0.8	13.1
Individual level gross margin for soya (USD per Ha)	17	281.0	259.5	256.1	67	206.5	103.8	345.9	217	194.4	129.7	198.1
Number of days it took to sell soya harvest	24	7.8	1.5	14.0	88	21.6	2.0	42.8	251	10.5	3.0	21.2

Groundnut production	Health sector only (comparison)				Partial integration				Full integration			
	<i>n</i>	Mean	Median	SD	<i>n</i>	Mean	Median	SD	<i>n</i>	Mean	Median	SD
Household grows groundnuts	1727	0.3	n/a	0.5	1275	0.5	n/a	0.5	1717	0.4	n/a	0.5
Hectares under groundnut cultivation (among full sample)	1702	0.2	0.0	2.4	1264	0.2	0.0	1.8	1717	0.3	0.0	2.1
Hectares under groundnut cultivation (among groundnut farmers)	481	0.4	0.2	1.0	528	0.4	0.2	1.2	733	0.5	0.2	1.5
Yield of groundnuts last season in KG (among those who grew it)	493	210.2	84.2	428.3	567	139.1	70.0	214.6	746	163.9	84.0	256.4
Groundnut yield per hectare	429	920.9	494.2	1343.0	509	629.2	321.2	1061.0	714	613.0	391.1	781.0
Kg of groundnuts sold last season(among those who grew it)	506	4408.0	28.0	96421.0	567	72.8	0.0	175.9	738	96.2	26.5	203.5
Value of total groundnuts sold (USD)	296	73.2	33.8	187.7	277	42.9	18.8	76.5	404	61.7	30.0	136.6
Groundnuts price earned per kg (USD)	269	0.5	0.3	0.7	268	0.4	0.3	0.6	393	0.5	0.3	1.1
Total value of inputs to groundnuts production (USD)	559	8.8	3.8	18.9	593	5.4	2.0	12.0	769	7.9	2.5	20.2
Individual level gross margin for groundnuts (USD per Ha)	238	429.2	208.0	1162.0	248	190.6	122.3	269.5	383	269.9	155.8	522.0
Number of days it took to sell groundnut harvest	314	14.8	2.0	29.0	292	23.4	5.0	39.6	423	22.4	5.0	33.9

Orange fresh sweet potato production	Health sector only (comparison)				Partial integration				Full integration			
	<i>n</i>	Mean	Median	SD	<i>n</i>	Mean	Median	SD	<i>n</i>	Mean	Median	SD
Household grows orange fresh sweet potatoes	1726	0.3	n/a	0.4	1260	0.2	n/a	0.4	1684	0.2	n/a	0.4
Hectares under O.F. sweet potato cultivation (among all farmers)	1670	0.1	0.0	0.7	1269	0.1	0.0	0.3	1713	0.04	0.0	0.2
Hectares under sweet potato cultivation (among sweet potato farmers)	391	0.3	0.2	1.3	258	0.3	0.2	0.6	310	0.2	0.2	0.5
Yield of sweet potato last season in KG (among those who grew it)	325	356.8	150.0	757.6	217	217.0	125.0	268.9	266	291.1	150.0	550.8
Sweet potato yield per hectare	310	24768.0	1339.0	95099.0	212	16113.0	1384.0	41455.0	262	14499.0	1236.0	60644.0
Kg of sweet potato sold last season(among those who grew it)	380	388.6	0.0	5136.0	230	94.8	0.0	209.4	276	131.9	0.0	328.9
Value of total sweet potato sold (USD)	199	43.0	15.0	109.8	119	24.6	12.5	51.2	142	36.3	18.8	44.9
Sweet potato price earned per kg (USD)	160	0.2	0.1	0.4	100	0.1	0.1	0.2	114	0.2	0.1	0.3
Total value of inputs to sweet potato production (USD)	455	1.9	0.0	6.8	271	0.9	0.0	2.6	325	1.9	0.0	5.3
Individual level gross margin for sweet potatoes (USD per Ha)	152	3459.0	222.4	11926.0	95	1301.0	160.6	3644.0	108	693.2	185.3	2679.0
Number of days it took to sell sweet potato harvest	441	6.9	0.0	16.4	265	9.4	0.0	31.4	314	6.9	0.0	18.2

Agricultural practices

	Health sector only (comparison)			Partial integration				Full integration			
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	p	<i>n</i>	Mean	SD	p
Household members have participated in farmers' club	1733	24%	0.4	1282	28%	0.4	0.033	1728	29%	0.5	0.005
Male in household participates in farmers' club	1733	16%	0.4	1282	18%	0.4	0.255	1728	18%	0.4	0.280
Female in household participates in farmers' club	1733	13%	0.3	1282	14%	0.3	0.282	1728	16%	0.4	0.012
Used mobile phone for business in past year (e.g. check crop prices)	1733	8%	0.3	1282	3%	0.2	0.000	1728	5%	0.2	0.000
Sold last harvest through trader at home	1110	68%	0.5	743	40%	0.5	0.000	1069	42%	0.5	0.000
Sold last harvest at market	1110	30%	0.5	743	57%	0.5	0.000	1069	56%	0.5	0.000
Sold last harvest through warehouse	1110	3%	0.2	743	3%	0.2	0.481	1069	2%	0.2	0.598
Type of crop grown changed in recent years	1643	23%	0.4	1240	26%	0.4	0.091	1676	26%	0.4	0.027

Technology use:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Business info accessed by phone	1080	0.1	0.3	563	0.1	0.2	697	0.1	0.3
Public service info accessed by phone	1080	0.1	0.2	563	0.0	0.2	697	0.1	0.2
Reported public service accessed info by phone	1080	0.0	0.2	563	0.0	0.2	697	0.0	0.1
Use of phone for business or service info	1080	0.1	0.4	563	0.1	0.3	697	0.1	0.3

Climate change knowledge and vulnerability

	Health sector only			Partial integration				Full integration			
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	p	<i>n</i>	Mean	SD	p
Has heard of climate change	1733	73%	0.4	1282	72%	0.4	0.506	1728	76%	0.4	0.081
Don't know how to prepare for climate change	1730	38%	0.5	1281	35%	0.5	0.113	1728	34%	0.5	0.023
Household gathers materials from forest (e.g. wood, fruit)	1733	63%	0.5	1282	70%	0.5	0.000	1728	62%	0.5	0.235
Wood/timber is important source of income	1733	8%	0.3	1282	6%	0.2	0.047	1728	8%	0.3	0.780
Household member fishes regularly	1733	15%	0.4	1282	4%	0.2	0.000	1728	5%	0.2	0.000
Number of fish meals in past week (among households that regularly fish)	256	5.3	3.8	46	3.8	3.5	0.018	87	3.4	3.1	0.000
Experienced loss or severe reduction of arable land due to erosion in past year	1733	43%	0.5	1282	37%	0.5	0.000	1728	38%	0.5	0.001
Respondent saw demonstrations in the past year related to planting or preserving	1733	28%	0.4	1282	26%	0.4	0.274	1728	38%	0.5	0.000
Planted trees in past year	1733	24%	0.4	1282	25%	0.4	0.595	1728	33%	0.5	0.000
Changed ag. practice in past year that may improve resiliency to climate change	1733	12%	0.3	1282	12%	0.3	0.521	1728	12%	0.3	0.699
Changed water use in past year that may improve resiliency to climate change	1733	2%	0.1	1282	3%	0.2	0.024	1728	3%	0.2	0.126
HH adopted measure in past year that may improve resiliency to climate change	1733	32%	0.5	1282	32%	0.5	0.886	1728	38%	0.5	0.000

Government satisfaction:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Public services									
Local road maintenance	1502	2.4	1.6	1200	2.2	1.5	1682	2.4	1.6
Local policing provision	1478	2.5	1.6	1177	2.5	1.6	1662	2.6	1.6
Water and sanitation	1503	2.7	1.7	1213	2.5	1.6	1684	2.7	1.7
Local market place maintenance	1459	2.8	1.7	1170	2.9	1.6	1655	2.7	1.7
Consulting citizens	1270	3.1	1.7	1058	2.9	1.6	1528	3.1	1.7
Keeping corruption in check	1378	3.2	1.7	1110	3.0	1.7	1586	3.0	1.7
Managing the use of land	1314	2.8	1.6	1036	2.6	1.5	1504	2.7	1.6

Government satisfaction:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
School:									
Services too expensive/unable to pay	1230	0.6	1.1	879	0.6	1.0	1187	0.7	1.1
Lack of textbooks or other supplies	1210	1.6	1.4	869	1.5	1.3	1175	1.4	1.3
Poor teaching	1207	1.1	1.3	866	1.0	1.2	1174	1.0	1.2
Absent teachers	1202	1.0	1.2	871	1.0	1.2	1171	1.0	1.2
Overcrowded classrooms	1201	1.6	1.4	855	1.8	1.3	1167	1.7	1.4
Poor conditions of facilities	1183	0.9	1.3	859	1.0	1.2	1170	1.0	1.2

Government satisfaction:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Clinic/hospital:									
Services are too expensive/unable to pay	1356	0.1	0.6	999	0.2	0.6	1364	0.3	0.7
Lack of medicine or other supplies	1377	1.4	1.3	1009	1.3	1.2	1366	1.6	1.2
Lack of attention or respect from staff	1366	1.0	1.3	1008	1.1	1.2	1368	1.2	1.3
Absent doctors	1336	0.6	1.0	996	0.6	1.0	1364	0.8	1.1
Long waiting time	1378	1.7	1.3	1009	1.7	1.2	1371	1.7	1.2
Dirty facilities	1342	0.4	0.9	1005	0.3	0.8	1371	0.4	0.9

Local government and community involvement

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Participation: In groups/organizations/associations	1733	0.5	0.5	1282	0.4	0.5	1728	0.5	0.5
Participation: Volunteered in last 6 months	1733	0.5	0.5	1282	0.6	0.5	1728	0.5	0.5
Aware of VDC?	1733	0.7	0.5	1282	0.7	0.4	1728	0.7	0.5
Know what VDC does	1733	0.4	0.5	1282	0.5	0.5	1728	0.5	0.5
Participation: In VDC meetings/activities	1733	0.3	0.5	1282	0.4	0.5	1728	0.4	0.5
Know what local government does	1733	0.4	0.5	1282	0.5	0.5	1728	0.4	0.5

Group membership:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Farmers/Fishermen's group	1733	0.2	0.4	1282	0.2	0.4	1728	0.2	0.4
Village development committee (VDC) or ADC	1733	0.2	0.6	1282	0.3	0.7	1728	0.3	0.7
Village Savings and Loan; credit/finance group	1733	0.6	1.2	1282	0.2	0.8	1728	0.5	1.1
Traders' Association/business group	1733	0.0	0.4	1282	0.0	0.3	1728	0.0	0.3
Care group	1733	0.2	0.9	1282	0.1	0.7	1728	0.1	0.7
School/education related	1733	0.2	1.1	1282	0.5	1.6	1728	0.2	1.1
Health/nutrition related	1733	0.3	1.5	1282	0.4	1.7	1728	0.3	1.5
Environment related	1733	0.1	1.1	1282	0.2	1.2	1728	0.3	1.5
Community works related (water, waste, roads, etc.)	1733	0.3	1.6	1282	0.3	1.6	1728	0.2	1.3
Religious group	1733	0.7	2.5	1282	0.8	2.7	1728	0.8	2.7
Professional Association	1733	0.1	1.0	1282	0.1	0.9	1728	0.1	0.7
Neighborhood/village association	1733	0.8	3.0	1282	1.0	3.4	1728	1.2	3.7

Perceived role of VDC:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Consult community about local development projects	1733	0.3	0.5	1282	0.3	0.5	1728	0.3	0.5
Represent local interests	1733	0.1	0.3	1282	0.1	0.3	1728	0.2	0.4
Identify beneficiaries for PWP	1733	0.1	0.3	1282	0.1	0.3	1728	0.1	0.3
Identify beneficiaries for agri coupons	1733	0.1	0.2	1282	0.1	0.3	1728	0.1	0.3
Other	1733	0.0	0.2	1282	0.1	0.3	1728	0.1	0.3

Perceived role of local government:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Facilitate development	1733	0.3	0.5	1282	0.3	0.5	1728	0.3	0.4
Fund local development initiatives	1733	0.2	0.4	1282	0.2	0.4	1728	0.2	0.4
Provide tech expertise on development projects	1733	0.0	0.2	1282	0.1	0.2	1728	0.0	0.2
Link VDCs, ADCs with funding agencies	1733	0.0	0.2	1282	0.0	0.1	1728	0.0	0.1
Maintain roads or market places	1733	0.0	0.0	1282	0.0	0.0	1728	0.0	0.0
Provide water, sanitation, or electricity	1733	0.0	0.0	1282	0.0	0.0	1728	0.0	0.0
Local policing	1733	0.0	0.0	1282	0.0	0.0	1728	0.0	0.0
Managing land use	1733	0.0	0.0	1282	0.0	0.0	1728	0.0	0.0
Other	1733	0.0	0.2	1282	0.1	0.2	1728	0.0	0.2

Political participation:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Attended public meetings	493	0.6	0.5	422	0.7	0.5	624	0.7	0.4
Registered to vote	1733	1.0	0.2	1282	1.0	0.2	1728	1.0	0.2
Voted in recent election	1672	1.0	0.2	1229	1.0	0.2	1656	0.9	0.3
Expressed viewpoint to politicians pre-election	1708	0.3	0.5	1275	0.3	0.4	1718	0.3	0.4
Aware of campaign promises pre-election	1616	0.7	0.5	1233	0.8	0.4	1681	0.7	0.4

Political perspective:

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Believes Councilor will honor promises	1077	0.2	0.4	797	0.3	0.4	1133	0.3	0.4
Confidence in local government's ability to manage finances	1733	0.3	0.5	1282	0.3	0.5	1728	0.3	0.4

Women's participation in decision-making

	Health sector only (comparison)			Partial integration			Full integration		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
Inputs for Agriculture	1733	0.5	0.5	1282	0.5	0.5	1728	0.4	0.5
Types of crops to grow	1733	0.6	0.5	1282	0.6	0.5	1728	0.5	0.5
Taking crops to market	1733	0.5	0.5	1282	0.5	0.5	1728	0.5	0.5
Family planning	1733	0.5	0.5	1282	0.5	0.5	1728	0.5	0.5
Participation in community decisions/activities	1733	0.5	0.5	1282	0.6	0.5	1728	0.5	0.5
Taking loans	1733	0.4	0.5	1282	0.4	0.5	1728	0.4	0.5
Participation in groups/committees	1733	0.5	0.5	1282	0.5	0.5	1728	0.5	0.5
Schooling of boy child	1733	0.5	0.5	1282	0.5	0.5	1728	0.5	0.5
Schooling of girl child	1733	0.6	0.5	1282	0.6	0.5	1728	0.6	0.5
Health care of boy child	1733	0.7	0.5	1282	0.6	0.5	1728	0.6	0.5
Health care of girl child	1733	0.7	0.5	1282	0.7	0.5	1728	0.7	0.5
Health care	1733	0.7	0.4	1282	0.8	0.4	1728	0.7	0.5
Credit for agriculture	79	0.5	0.5	72	0.4	0.5	75	0.4	0.5
Credit from NGO	60	0.7	0.5	56	0.6	0.5	82	0.6	0.5
Credit from informal lender	81	0.5	0.5	57	0.4	0.5	73	0.5	0.5
Credit from formal lender	52	0.5	0.5	19	0.4	0.5	29	0.7	0.5
Credit from friends/relatives	117	0.6	0.5	143	0.6	0.5	168	0.5	0.5
Credit from microfinance	205	0.7	0.5	85	0.6	0.5	254	0.7	0.5
Food crop farming	1281	0.8	0.4	1085	0.8	0.4	1459	0.8	0.4
Livestock raising	699	0.9	0.3	467	0.8	0.4	595	0.8	0.4
Non-farm economic activities	495	0.9	0.3	263	0.8	0.4	416	0.8	0.4
Wage employment	269	0.9	0.4	328	0.8	0.4	459	0.8	0.4
Use of income from food crop farming	912	0.8	0.4	844	0.7	0.4	1190	0.7	0.4
Use of income livestock raising	496	0.8	0.4	366	0.8	0.4	479	0.8	0.4
Use of income from non-farm economic activities	474	0.9	0.3	255	0.8	0.4	405	0.8	0.4
Use of income from wage employment	287	0.9	0.3	336	0.8	0.4	482	0.8	0.4

ANNEX 8. IMPLEMENTING PARTNER INTEGRATION ACTIVITY SUMMARY

This annex provides a summary of findings from interviews with key USAID implementing partners during the 2014 Malawi CDCS impact evaluation baseline. These interviews, guided by the implementation and integration activity tracker (IAT), explored activities that are currently collaborative or cooperative between implementers as well as plans for potential future collaborations. Throughout the document the term “integration” is used to indicate some aspect of the three C’s of integration, even though the full aspects of the Mission definition may not be met. The summary below may not capture all plans for collaboration and should be considered a living document, to be updated continuously as information is gathered.

Health	SSDI Services (JHPEIGO)	Tiwalere (Feed the Children)
Stage: Developing integrated workplan		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural		
Iterative training with same community care groups: The integrated activities will include HIV prevention and supplementary feeding to malnourished children. These two projects will also implement a tag-team approach in Lilongwe (TAs Masula and Kabulula), with Feed the Children conducting trainings for community care groups followed by SSDI Services introducing essential health packages (maternal health, family planning, malaria prevention, etc.) to the same groups.		
Health/Education	SSDI Communications (JHUCCP)	EGRA (RTI)
Stage: Collaboration ongoing		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural, Machinga, Balaka	Zomba, Nsanje, Mangochi	Nkhotakota, Karonga
Education materials development and dissemination: Collaborated on the development of a comic book on malaria for primary school children. Distribution is tentatively planned for reading centers and possibly schools in all 15 districts in which SSDI Communications operates.		
Health	SSDI Services (JHPEIGO)	Partners in Hope
Stage: Planning. Several meetings held.		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
		Karonga
HIV treatment: Planning meetings have been conducted since fiscal year 2014 for potential integration in HIV treatment.		
Health	SSDI Services (JHPEIGO)	SHOPS (Abt Associates)
Stage: Integration ongoing		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural, Machinga, Balaka		

Child health and trainings: Integrated a variety of child health initiatives and trainings via the District Health Management Teams. These integrated activities include Emergency Triage Assessment and Treatment (ETAT), Integrated Management of Child Illnesses (IMCI), and child/neonatal mortality.		
Health	SSDI Services (JHPEIGO)	Deliver (JSI)
Stage: Integration ongoing		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural, Machinga, Balaka	Zomba, Nsanje, Mangochi	Nkhotakota, Karonga
Distribution and logistics management: Integrated workplan in 15 districts. SSDI Services facilitates the production and transfer of Logistics Management Information Services (LMIS) reports from the local facilities to the district hospitals. SSDI Services also manages the redistribution of commodities across facilities in the event of shortages or overstock, while Deliver distributes Directly Observed Treatment (DOT) malaria equipment purchased by SSDI Services to antenatal clinics.		
Health	SSDI Services (JHPEIGO), SSDI Systems (Abt Associates), and SSDI Communications (JHUCCP)	
Stage: Collaboration ongoing		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural, Machinga, Balaka	Zomba, Nsanje, Mangochi	Nkhotakota, Karonga
Joint training, supervision, and dissemination: Collaborate across all 15 districts in which they operate. This includes joint supervision of projects, community mobilization for PBI (Performance-Based Incentive) programs, and coordination teams. The coordination teams are established thematically (i.e. SCBB) and consist of technical team representatives from all three IPs who represent the views and technical aspects of their respective IPs. For project design, technical plans are drawn independently for their activities but are reviewed together through presentations and joint planning meetings. SSDI Services and SSDI Communications have developed a community mobilization strategy, jointly conducting training and supervision. SSDI Communication has also developed family planning and IEC materials being distributed by SSDI Services. SSDI Communications leverages the structures established by Services, such as community care groups, to disseminate their mass media messages.		
Finance/Agriculture	MMAP (FHI 360)	NASFAM
Stage: Workplan developed, to be implemented in May/June 2015		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural		
Mobile Money for farmers: NASFAM will be piloting the use of Mobile Money to make payments for produce sales to approximately 1,700 small holder farmers in the Malingunde area of Lilongwe South IPC during the May/June 2015 produce marketing season. This collaboration was only explicitly mentioned by FHI 360.		
Finance/Agriculture	MMAP (FHI 360)	ACE
Stage: Piloting integrated workplan		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural		
Mobile Money for farmers: aims to reduce costs and increase security for 500-2,000 farmers selling their produce using Mobile Money. This collaboration was identified exclusively by FHI 360, as no IAT was conducted with ACE.		

Agriculture	INVC, ACE, Nkhoma Hospitals, Pakachere	
Stage: Integration ongoing, no plans to continue beyond 2015		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural		
Collective marketing: encouraging farmers to form clubs, association, cooperatives, as well as attending trainings and support related to collective marketing. Integration is occurring in the Chiwamba EPA of Lilongwe North and the Malingunde EPA of Lilongwe South.		
Multi-sectoral	INVC, NASFAM, Nkhoma, and FUM	
Stage: Collaboration ongoing, integration workplan in development		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Lilongwe Rural		
Nutrition promotion, health sanitation, growth monitoring, and energy-saving stoves: targeted at the Chiwamba EPA of Lilongwe North and Malingunde EPA of Lilongwe South. Nkhoma Hospital delivers nutrition programming while NASFAM and FUM deliver agriculture messaging through clubs and clusters.		
Education	EGRA (RTI)	ASPIRE
Stage: Conception		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Balaka, Machinga		
Reading programming: moderate coordination may occur, particularly in the early stages of ASPIRE, to manage the transition from early grade reading to upper primary school reading. Additionally, there is the opportunity to coordinate in developing reading materials related to ASPIRE's gender and health agendas. This idea is very much in the early conception phase, as RTI mentioned this during the Project Activity Tracker only when prompted specifically about potential opportunities for collaboration with ASPIRE in the future.		
Education/Governance	EGRA (RTI)	NDI
Stage: Planning		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Machinga, Lilongwe Rural, Balaka		
Supporting education at the district level: planning a collaboration to develop orientation materials for new district councilors pertaining to Early Grade Reading and their role in supporting it. They also have plans to coordinate in encouraging the Ministry of Education at the district level to utilize professional development funds for teachers that are going unspent and routinizing site visits for district councilors to EGRA schools.		
Agriculture/Nutrition	INVC	NASFAM
Stage: Integration ongoing		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Machinga, Balaka, Lilongwe Rural	Mangochi	
NASFAM implements new agricultural activities linking farms to lucrative markets and providing farmer mobilization and capacity building, while INVC implements the nutrition portion directly.		

Finance/Education	EGRA (RTI)	MMAP (FHI 360)
Stage: Planning		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
<p>Sending funds for teacher training through Mobile Money: coordinating to support the banks and telecommunications companies in further developing the Mobile Money system. RTI eventually intends on utilizing Mobile Money to send funds for teacher trainings to the 134 zones in which it currently works. This planned activity was stated solely by RTI. FHI 360 expressed hesitation to integrate with additional IPs beyond current partnerships (NASFAM and ACE), despite high demand, given MMAP's scheduled May 2015 end date.</p>		
Education	EGRA (RTI)	Unidentified USAID partners
Stage: Planning. Workshop held in January 2015 with partners to determine content.		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
Balaka, Lilongwe Rural, Machinga	Zomba	
<p>Integrating content into early grade reading materials: RTI (EGRA) is meeting with other USAID-sponsored activities to discuss the integration of their themes into EGRA's reading materials and curriculum for Standard 3, collaborating to develop and disseminate reading materials for community reading centers.</p>		
Health	INVC (DAI)	Bridge II (URC)
Stage: Planning		
Full Integration Districts	Partial Integration Districts	Health Sector Only Districts
<p>Integrating HIV information into care group activities: Scaling the use of the communication kits to integrate HIV information into care group activities</p>		

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U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523