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Final Report:

Strengthening Communities through Integrated Programming (SCIP)

March 2016

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Sexual and reproductive health
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Strengthening Communities through Integrated Programming



FINAL REPORT: STRENGTHENING COMMUNITIES THROUGH INTEGRATED PROGRAMMING (SCIP)

**IMPLEMENTED IN SELECTED DISTRICTS IN NAMPULA
PROVINCE, MOZAMBIQUE BETWEEN 2009-2015**

March 31, 2016

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COVER PHOTO

This is the Nolocone Community Leaders Council of Angoche District, Nampula Province.

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ACRONYMS

AMJ	April, May, and June
ANC	Antenatal Care
APEs	<i>Agentes Polivalentes Elementares</i> (“Barefoot doctors”)
ART	Anti-Retroviral Therapy
AYSRH	Adolescent and Youth Sexual and Reproductive Health
CBD	Community-Based Distribution
CFIR	Consolidated Framework for Implementation Research
CLC	Community Leadership Council
CL	Community Leader
CLF	Community Leader Facilitator
CLL	<i>Conselho Local da Localidade</i> (Local Leaders’ Council)
CLTS	Community Led Total Sanitation
CLUSA	The Cooperative League of the USA
CMC	Co-Management Committee
COC	Continuum of Care
CYP	Couple Year Protection
DHS	Demographic and Health Survey
	<i>Direcção Provincial das Obras Publicas e Habitação</i> (Provincial Directorate of Public Works & Housing)
DPOPH	
DPS	<i>Direcção Provincial de Saúde</i> (Provincial Directorate of Health)
EmOC	Emergency Obstetric Care
EPI	Expanded Program on Immunization
FP	Family Planning
FY	Fiscal Year
GRM	Government of the Republic of Mozambique
HBC	Home-based care
HF	Health Facility
HIV	Human Immunodeficiency Virus
HTC-C	Community-based HIV Testing and Counseling
ICAP	International Center for AIDS Care and Treatment Programs- Columbia University
IEC	Information, Education, Communication
IR	Intermediate Result
ISS	Integrated Systems Strengthening
IUD	Intrauterine Device
JAS	July, August, and September
JFM	January, February, and March
KP	Key populations (FSW, MSM, IDU)
LTFU	Lost-to Follow Up
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
mCPR	Modern contraceptive prevalence rate
MOH	Ministry of Health
MOU	Memorandum of Understanding
MUAC	Mid-Upper Arm Circumference
NGO	Non-Governmental Organization
OND	October, November and December
OVC	Orphans and Vulnerable Children
OVP	Other Vulnerable Populations also called Priority Populations (mobile populations, OVCs,

	chronically ill, partners and children of chronically ill, partners and children of HIV+ pregnant women)
PACOV	<i>Plano de Acção de Crianças Orfãos Vulneráveis</i> (Action Plan for OVCs)
PEPFAR	President's Emergency Plan for AIDS Relief
PESS	<i>Plano Estratégico do Sector de Saúde</i> (Strategic Plan of the Health Sector)
PLHIV	People living with HIV
PMTCT	Prevention of Mother-to-Child Transmission
PSI	Population Service International
RFA	Request for Applications
RSLG	Rotating Savings and Loans Groups
	<i>Segurança Alimentar através de Nutrição e Agricultura</i> (Food Security through Nutrition and Agriculture)
SANA	
SBCC	Social Behavior Change Communication
SCIP	Strengthening Communities through Integrated Programming
	<i>Serviços Distritais de Saúde, Mulher e Acção Social</i> (District Health, Women and Social Welfare Directorate)
SDSMAS	
SDPI	<i>Serviços Distritais de Planeamento e Infraestruturas</i> (District Public Works Directorate)
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Infections
TA	Technical Assistance
TBA	Traditional Birth Attendant
USAID	United States Agency for International Development
USG	United States Government
WASH	Water, Sanitation, & Hygiene
WRA	Women of Reproductive Age
YFC	Youth Farmer Club

EXECUTIVE SUMMARY

The USAID-funded Strengthening Communities through Integrated Programming (SCIP) consortium was implemented in Nampula Province between August 1, 2009 and December 31, 2016 by five partners: Pathfinder International, World Relief, CARE, Population Services International (PSI), and the Cooperative League of the USA (CLUSA). The project was implemented in 14 districts during the first five years; and in 15 districts during the last 18 months. SCIP successfully strengthened community and health systems to stimulate social behavior change, by reinforcing community and health services, and contributing to improved health outcomes while addressing social determinants of health through the integration of health; HIV & AIDS; water, sanitation, and hygiene (WASH); nutrition; and agriculture.

Three intervention packages were designed according to the realities of each district and complementing existing activities of development partners, avoiding the duplication of efforts. Activities were implemented in close collaboration with locality, administrative post, district, and provincial governmental bodies, building the capacity of key actors throughout the processes, and leveraging their contributions to achieve the best possible results.

SCIP's most strategic achievements took place within the zone of interaction, where community and health systems overlap, through the strengthening of mechanisms and structures through which actors collaborated in order to identify and address challenges, such as low mCPR, poor access to potable water, malnutrition, etc. Over 1,000 communities and nearly 140 health facilities (HFs) were involved in this dynamic.

Over the course of the project, SCIP cultivated an extensive and active community network, through the creation and revitalization of 1,036 community leader councils (CLCs), the recruitment, training, and retaining of 32,634 community activists, and building the capacity of 3,842 community leader facilitators (CLFs). This community network was dedicated to transforming community norms in order to support the adoption of health-seeking behavior, as well as to providing community services, such as supporting orphans and vulnerable children (OVCs) and chronically ill patients, providing group education sessions, facilitating quarterly screenings for acute malnutrition and community nutrition rehabilitation groups, and referring community members to health services, either in the HF or through outreach activities.

It was key to focus on strengthening the health system in order to respond to the demand generated at the community level. SCIP dedicated specific efforts to build the capacity of service providers through trainings (HIV: 708; Family Planning (FP): 726; Child Health: 367; Maternal and Newborn Health: 217) and on-the-job mentoring; rehabilitating and expanding maternal and child health (MCH) services of 37 HFs; supporting decentralized and integrated mobile vaccination brigades (an average of 700 per quarter); reinforcing referrals from the primary to secondary level HF; and improving commodity stock management mainly at the peripheral HF level (i.e. stock out of oral contraceptives decreased from 30% in 2011 to 3% in 2015).

Strong implementation of community and health system strengthening activities contributed to the following achievements:

- Increased mCPR from 7.2% (2010 SCIP baseline) to 17.6% (2014 SCIP endline);
- Improved institutional delivery coverage (58% in 2010 vs. 85% in 2015¹) accompanied by a reduction in the institutional maternal mortality rate from 177 (2009) to 113 (2015) per 100,000 women of reproductive age²;
- Reduction of the low birth weight rate from 13.1% (2009) to 2.8% (2015)³;
- The decline of acute malnutrition rates from 8% in March 2014 to 1.7% in December 2015⁴ in SCIP Nutrition districts; and
- Expanded access to potable water from 32.7% (2010 SCIP baseline) to 61.4% (2014 SCIP endline).

These impressive achievements would not have been possible without the foresight of the USAID Mozambique mission. USAID was both daring and visionary to issue a request for applications (RFA) that integrated various technical components and funding streams, such as Water Supply and Sanitation, Agricultural Sector Capacity, Maternal and Child Health, Family Planning and Reproductive Health, Integrated Health Office, Malaria, Nutrition, etc.

SCIP Nampula took this further. Integration was a principal characteristic throughout the design and implementation of project activities. There were three main ways in which the SCIP project was integrated: horizontal, multi-sectorial integration at the community level; vertical integration by working simultaneously throughout the various levels of community and health system structures; and integration of partners in the project management and administration. In fact, SCIP was continuously adapting the way the leadership and involved actors built and contextualized an adequate response, leveraging the strengths of each partner in order to maximize shared development results.

Fostering sustainability was fundamental throughout all activities of the SCIP project. Changes in community norms resulting from the behavior change dynamic, participation and inclusion of a broad range of actors, strengthening of accountability processes at the community and different government levels, the integration of technical areas and the continuous capacity building of partners, cultivating critical thinking through analysis of data available at each level; all contributed to increase further sustainability of activities and achieved results.

¹ Coverage was estimated using health system data, by dividing the number of institutional deliveries by the number of expected deliveries.

² Ibid.

³ Ibid.

⁴ SCIP programmatic data

COOPERATIVE AGREEMENT BACKGROUND

The USAID Strengthening Communities through Integrated Programming (SCIP) Nampula consortium was led by Pathfinder International, in partnership with World Relief, CARE, PSI, and CLUSA. The partner organizations implemented the activities as one unified team, resulting in economies of scale, reduced duplications of effort and a culture of peer learning based on complementary strengths. The SCIP team focused on strengthening community systems to bring about behavior change and community services to contribute to better health outcomes, while simultaneously addressing social determinants of health. The overall purpose was to integrate health, HIV and AIDS, water and sanitation, together with nutrition and agriculture at the community level.

Nampula Province is the most densely populated area of Mozambique outside of Maputo. It has favorable agro-ecological conditions, with better agricultural potential than much of the country, yet socio-economic indicators assessed prior to the start of the SCIP project showed poverty and poor health were widespread. Nampula's infant mortality rate of 164/1,000 was the second highest in the country; almost half of children under five were stunted; completed immunization rates for children under one were low; and female literacy was only 20%⁵. Contraceptive prevalence was 7.2%⁶ and HIV prevalence was 8.1%. Only a third (32.2%) of the population had access to safe drinking water while about one third of the population had a latrine (DHS 2003).



Figure 1. Map of Nampula Province with SCIP interventions

The SCIP Nampula project developed a strategy that aimed to change the different elements that contribute to health, articulating a theory of change that took into consideration 1) the social determinants of health (such as gender, economic disparities, and power differentials between community members) that affect access to goods and services; 2) the way that norms and traditions affect personal and social behavior; and 3) access to health services (both in the physical sense and in terms of feasibility and access to health-generating services (i.e. potable water, sanitation)).



Figure 2. Adaption of the socioecological model of Dahlgren & Whitehead. University of Coimbra, 1991.

⁵ Mozambique Demographic and Health Survey, 2003

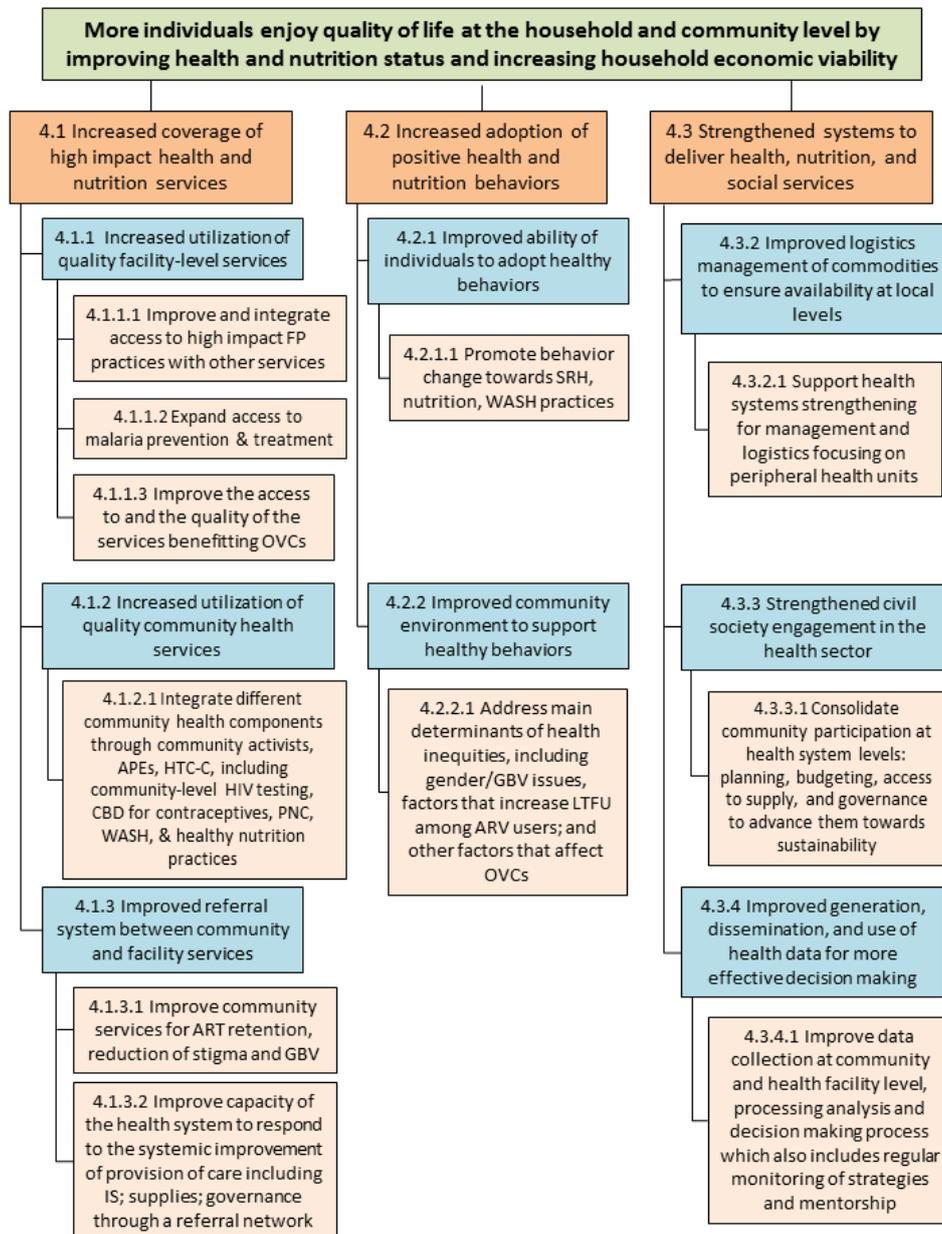
⁶ SCIP Baseline Survey, 2010

that intrinsically determined the health conditions of the population of Nampula. SCIP directed activities to: 1. Develop and capacitate formal and informal community and social structures and networks which link community and health systems, provoking change in the ways that communities are involved in their health issues; 2. Strengthen the link between the health and community systems, recognizing that the two are mutually determinant; and 3. Build linkages among technical areas such as agriculture and WASH that also influence health.

As presented in the socioecological model, SCIP aimed to influence individual, social, cultural, economic, political, and structural factors through a comprehensive approach to integration. Integration was a driving factor in the planning and design of the project, resulting in “horizontal” and multi-sectorial integration across and within diverse technical areas; “vertical” integration through interventions targeting actors at different health and community system levels; integration of project management and administration, and integration with other development partners (other non-governmental organizations (NGOs), *Conselhos Locais Distritais*, district and provincial government structures).

The SCIP project supported efforts to achieve three main intermediate results (IRs): IR 4.1 Increased coverage of high impact health and nutrition services; IR 4.2 Increased adoption of positive health and nutrition behaviors; and IR 4.3 Strengthen systems to deliver health, nutrition, and social services. IRs and sub-IRs are presented in the Results Framework (Figure 3).

Figure 3. SCIP Results Framework



As mentioned earlier, SCIP was set up as a consortium with five implementing partners. Technical advisors of each partner were co-located in one office in Nampula City, reducing costs and increasing opportunities for programmatic integration. SCIP established integrated district teams, locating offices within district government buildings where possible. A district coordinator managed all technical activities of the district team, composed of Youth Farmer Club (YFC) assistants, community theatre groups, community-based lay counselors for HIV Testing and Counseling (HTC-C), water technicians, and community network supervisors, for example.

During the first four years, SCIP Nampula tailored its interventions to meet the varied needs of 14 districts, using a phased approach that targeted some districts with extensive on-going support and others with tapered support as dictated by priority technical areas, already existing partner activities,

and the capacity of community structures within each district. This tailoring resulted in the formulation of three intervention packages:

1. In all 14 districts, SCIP was implementing a “foundation package” designed to strengthen health systems by:
 - a. Improving the quality of health care offered at peripheral HFs;
 - b. Strengthening the linkages between District Services for Health, Women and Social Welfare (SDSMAS) and peripheral HF;
 - c. Strengthening the linkages between the health units and the communities, through peripheral HF committees;
 - d. Working with a variety of community health workers to disseminate health education and change hygiene behavior;
 - e. Implementing an HIV prevention program involving community counseling and testing;
 - f. Building a program dedicated to OVCs.

2. The “complementary package” of interventions was implemented in nine districts (Angoche, Eráti, Meconta, Memba, Mogovolas, Monapo, Moma, Nacala-Porto, and Nacala-Velha) where Title II⁷ programs (e.g. the Food Security through Agriculture and Nutrition (SANA) project) were ongoing through March 2013. Among the nine districts, five of them (Eráti, Memba, Monapo, Nacala Velha, and Nacala Porto) also benefitted from WASH interventions, including increased access to potable water and latrine use. Building on and working in close collaboration with Title II, SCIP trained the SANA community volunteers to provide FP counseling and referrals linked to HFs. In addition, SCIP trained local animadoras in the areas of prevention of mother-to-child transmission (PMTCT), OVCs, and home-based care (HBC) for chronically ill patients in the framework of the continuum of care (COC).

3. The “intensive package” was implemented in four districts (Ribáuè, Nampula Rapale, Mecubúri, and Malema) and two areas of Nampula City (Namutequelua and Mutauanha) that did not have Title II activities. These districts benefitted from a more extensive package of interventions achieving 100% coverage.

In response to changing programmatic priorities of both the United States Government (USG) and the Government of the Republic of Mozambique (GRM), SCIP added a 15th district (Murrupula) in mid-fiscal year 14 (FY 14) and designed enhanced technical assistance aimed at improving malnutrition and strengthening linkages for people living with HIV (PLHIV) to sustained treatment.

⁷ Title II is the USG-funded Food for Peace Multi-Year Assistance Program (MYAP).

Table 1. SCIP interventions by district

	Nutrition	WASH	ART retention*	MCH, FP & HIV Prevention	Malaria	OVC Economic Strengthening
Angoche	X	X	X (2014)	X	X	X
Eráti			X (2014)	X	X	X
Malema			X (2015)	X	X	X
Meconta	X	X		X	X	X
Mecubúri				X	X	X
Memba			X (2015)	X	X	X
Mogovolas	X	X	X (2015)	X	X	X
Monapo	X	X	X (2015)	X	X	X
Moma	X	X	X (2014)	X	X	X
Murrupula	X	X	X (2015)	X	X	
Nacala Porto				X	X	X
Nacala Velha				X	X	X
Nampula City			X (2013)	X	X	X
Rapale				X	X	X
Ribáuè				X	X	X

*According to the MoH ART Acceleration Plan for 2013-2015.

SCIP designed an integrated Monitoring and Evaluation system in order to generate valid, reliable, and timely information to assess and improve performance. The project developed a Performance Monitoring Plan (PMP) with indicators and targets agreed upon with USAID (including requirements of the President's Emergency Plan for AIDS Relief (PEPFAR)), according to the six original results up to September 2014, transitioning to three intermediate results from October 2014 – December 2015. The PMP was comprised of a combination of process, input, output, and outcome indicators, integrating some indicators of the Ministry of Health, as required by USAID/PEPFAR. In addition to the routine quarterly monitoring and evaluation data collected, comprehensive evaluation was undertaken for the SCIP project, including:

- the population-based SCIP Baseline (October 2010) and SCIP Endline (August 2014) surveys;
- the mid-term review (August 2013);
- the YFC baseline (October 2012);
- the two mapping exercises (July 2012, July 2015);
- the study evaluating the coverage and cost of CHWs (October 2012);
- the evaluation about latrine use, sanitation behavior, norms, and participation in Community-Led Total Sanitation (CLTS) (July 2015); and
- the in-depth analysis of monitoring data to better understand project successes (institutional deliveries).

Data Quality Audit evaluations in March 2011 and August 2015 and Routine DQAs (2013, 2014) contributed to improving integrated data collection and reporting at district and community level. SCIP began to use mHealth technology for data collection starting with the first mapping exercise in July 2012. The project made a concerted effort to go beyond standard reporting requirements in order to do interesting, meaningful analyses to better understand achievements.

NARRATIVE BY PROGRAM AREA

The next sections describe SCIP activities from FY10 through FY15 under the following programmatic areas: Integrated Systems Strengthening, Family Planning, Malaria, Nutrition, HIV, OVCs and YFCs, and WASH.

PROGRAMMATIC AREA: INTEGRATED SYSTEMS STRENGTHENING

Pathfinder's Integrated Systems Strengthening (ISS) Framework focuses on the area where community and health systems overlap. SCIP's most important and sustainable achievements took place within this 'zone of interaction' between community systems and health systems, and the project worked to strengthen the mechanisms and structures through which actors in both the community and health systems collaborated to develop responses to the challenges affecting both



Figure 4. Pathfinder's Integrated Systems Strengthening Model

sides of the systems equation. ISS-based activities promote the tangible experience of integration, creating opportunities for community members to participate in the services their local facilities provide, while also expanding the reach of the facilities into the communities themselves. Under SCIP, ISS assisted both users and providers of health services to understand that sanitation, FP, MCH, malaria prevention, immunization, and nutrition are all different faces of the same overarching goal: their health and that of their family. All SCIP activities were oriented towards a holistic view of health, maximizing integration of service provision wherever possible.

SCIP worked on both sides of the ISS equation to improve health outcomes, with impressive achievements in expanding access to and uptake of contraceptives (modern CPR increased from 7.2% at SCIP baseline (2010) to 17.6% at SCIP endline(2014)), and in improving institutional deliveries, with coverage increasing from 58% in 2010 to 85% in 2015⁸.

Community Involvement (IR 4.1/4.2/4.3)

SCIP had tremendous success in cultivating an extensive and active community base, through the creation and revitalization of 1,036 Community Leader Councils (CLCs), the recruitment, training, and retaining of a volunteer network of 32,634 community activists, building the capacity of 3,842 community leaders to serve as facilitators and focal points in their communities, supporting *Conselho Local da Localidade* (CLL) meetings and activities, and reinforcing HF Co-Management Committee (CMC) initiatives.

The first years of the SCIP project focused on strengthening community structures, especially CLCs, who had been largely inactive prior to the project. Community leaders of CLLs and CLCs participated in workshops on community mobilization and involvement, mapping their respective communities and resources, and identifying their main health, WASH, and agriculture-related

⁸ Institutional delivery coverage was calculated by dividing the number of institutional deliveries (using health system data) by the number of expected deliveries.

problems and their root causes. Participants worked to articulate strategies that could be implemented by communities with little external support.

Community group	FY10	FY11	FY12	FY13	FY14	FY15
CLCs	107	142	652	744	904	1,036
YFCs	164	521	698	826	830	830
Water Committees	40	109	217	253	385	447
Total	311	772	1,567	1,823	2,119	2,266

Table 2. SCIP-supported Community Groups

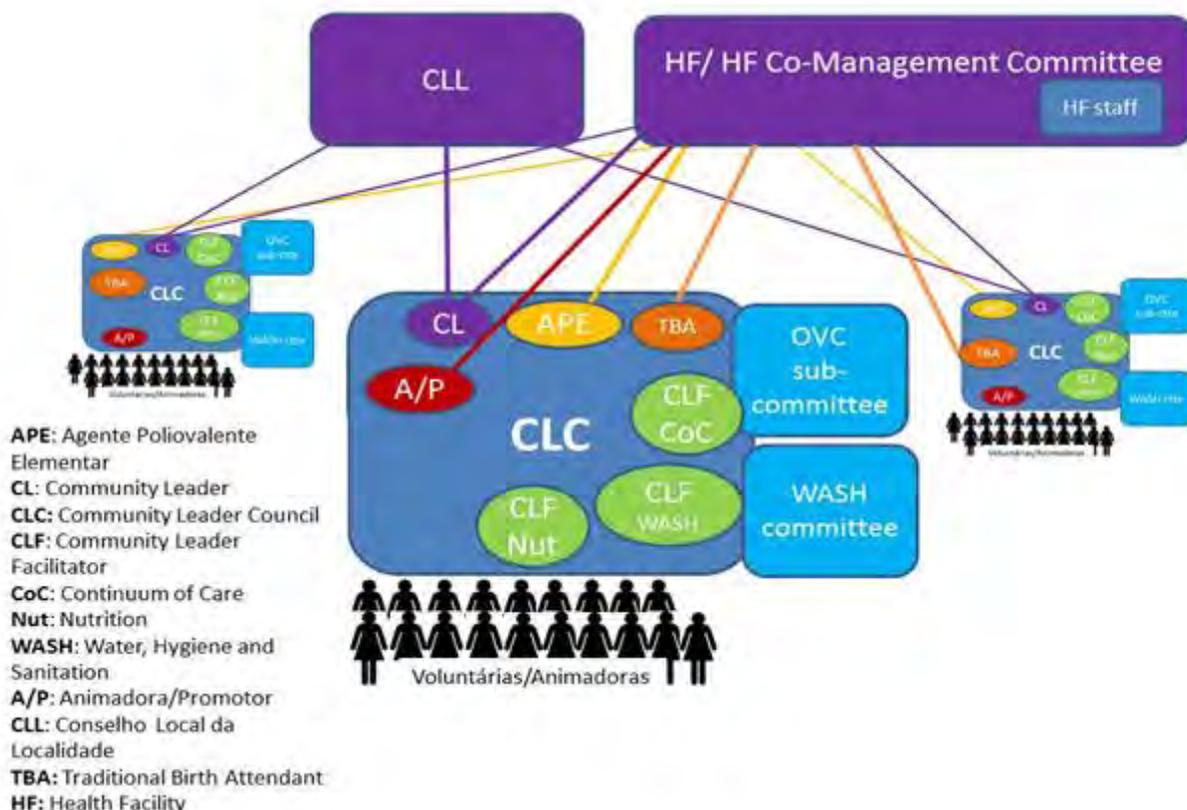
Community discussions in Hot Topics in sexual and reproductive health (SRH) were a main strategy to improve under-achieving health indicators, such as the number of pregnant women delivering at the HF, the number of users of family planning, the number of individuals sleeping under mosquito nets, the number of users of improved sanitation facilities, etc. Taking place in the community, these discussions were facilitated by trained MCH nurses over the course of five afternoons and addressed a range of topics (i.e. FP/SRH, newborn health, institutional deliveries, HIV/AIDS), using the Pathways to Change board game to identify facilitators and barriers to desired behavior change objectives. 31,196 CLC members participated in Hot Topics in SRH discussions.

SCIP developed an extensive network of community activists who worked to improve the health of their families, neighbors, and communities. 29,233 volunteers, 415 animadoras, and 51 supervisors in Intensive districts and 2,752 animadoras and 183 promotores in complementary districts were key actors who supported the behavior change process by sharing health information (covering HIV/AIDS, SRH & FP, Child Health, WASH, acute respiratory infections, and malaria) during home visits and educational group sessions, making and following up on referrals to HFs, supporting OVCs and chronically ill patients, participating in CLCs and sharing community data, mobilizing the community for national health campaigns and mobile brigades, and distributing oral contraceptives to users in their communities. As a way to further build the capacity at the community level, SCIP trained 3,842 CLFs in a variety of health areas: CLTS, Continuum of Care, Nutrition, and Male Involvement in SRH. These CLFs served as champions for their respective area, encouraging healthy behavior change in their communities and reinforcing the activities of other community activists.

Furthermore, 913 traditional birth attendants (TBAs) received refresher training and were highly involved in linking communities with HFs, through referrals of pregnant women to the HF for antenatal care and deliveries, as well as for FP services. *Agentes polivalentes elementares* (APEs) were another community actor important in improving health outcomes in communities. 337 APEs were trained to provide HBC for chronically ill in order to strengthen the continuum of care between communities and HFs. SCIP further supported APE malaria case-management activities.

CLCs are comprised of community leaders, and can include diverse members of the community, for example, animadoras, CLFs, APEs, YFC monitors, and TBAs. The CLC sends representatives to participate in CLL meetings, the HF CMC meeting, as well as to CLC sub-committees, such as the OVC sub-committee, the water committee, or the bicycle ambulance management committee. To encourage sustainability of CLC activities, a CLC monitoring book was rolled out during FY15, to allow CLCs to report on different health indicators and share with HFs during HF CMC meetings as well as with the head of the locality.

Figure 5. Community network actors and their links with locality structures



Comprised of CLC representatives, MCH nurses, HF staff, APEs, TBAs and community activists, HF CMCs are a strategy of the GoM to improve service quality and strengthen the health system at both the community and HF levels. Members collaborate to coordinate community activities to increase coverage and achievement in health indicators, and HF CMC meetings are a forum in which members advise of upcoming events, analyze health data, provide feedback on quality of care, and share challenges. 95 HF CMCs (out of 139) reported meeting at least once during the last quarter of FY15.

The next level of community leadership after the CLC is the CLL, a body representing peripheral communities and led by a government representative (who is the lowest appointed civil servant within the *Ministério do Interior*), covering a geographical area of approximately 900 square kilometers. The CLL meets biannually to discuss local governance issues and is composed of elected members. To cultivate accountability, SCIP supported (technically and financially) CLLs to include other key actors such as CLC presidents, *animadoras*, water committee presidents, YFC monitors, and CLFs in the review of locality activities. Figure 5 illustrates the relationships between community structures and actors.

SCIP dedicated technical assistance to strengthen the relationship between the CLCs and the CLL, as one step to increasing sustainability and accountability of activities (ensure local water committees are operational following inputs from the *Direcção Provincial das Obras Publicas e Habitação* (DPOPH), increase coverage of institutional deliveries following inputs from the *Direcção Provincial de Saúde* (DPS), support population to produce cashew for exportation per request of the *Direcção Provincial de Agricultura*, etc.). At the end of FY15, 463 locality and administrative post chiefs (as well as other relevant government technicians) participated in a two-day training facilitated by SCIP, SDSMAS, *Serviços Distritais de Planeamento e Infraestruturas* (SDPI), and the district secretaries. Participants worked to consolidate the knowledge and skills developed over the previous five years, working together with SCIP in a broad range of community development topics (increasing access to potable

water, the role of water committees, the importance of public accountability processes, support for OVCs, continuum of care for chronically ill, family planning, nutrition, institutional deliveries, the role of the HF CMC president).

Health System Strengthening (IR 4.1/4.3)

To strengthen health systems, SCIP focused on capacity-building and mentoring of service providers, rehabilitating and expanding health facilities (HFs), supporting decentralized and integrated mobile vaccination brigades, collaboration with provincial and district health directorates, and improving stock management in the peripheral HFs. These activities were undertaken mindful of the larger framework of ISS that seeks to integrate health and community systems.

A wide range of topics (as detailed in Table 3) were addressed in provider trainings throughout the SCIP project, under the broad technical areas of HIV, FP, Child health, and Maternal and Newborn health. SCIP provincial nurse supervisors followed up on topics covered during trainings through regular mentoring and on-the-job training of providers at the HF level, with the participation of SDSMAS/ DPS staff when possible. Using the quality standards of the Model Maternity Initiative, SCIP provincial nurse supervisors regularly assessed provider's technical skills and conditions in 103 HFs, usually on a quarterly basis in order to track progress made. SCIP provincial nurse supervisors reinforced skills acquired during provider trainings, such as quality of care, completion of registration forms, stock forecasting and management, hygiene and cleanliness, biosafety, and provision of FP, pre-natal, and post-natal consults.

One of SCIP's objectives was to strengthen the Mozambican Health System by upgrading selected health posts into health centers with maternity services. SCIP district teams and the respective SDSMAS' selected HFs for rehabilitation and extension taking into consideration population

size, remoteness, and potential coverage for service provision. Work was completed at 24 different HFs, of which seven were HF extensions and 17 were HF rehabilitations. Annex 1: Health Facility Rehabilitations and Extensions details the work completed.

From FY12, SCIP supported decentralized mobile vaccination brigades in all districts, aiming to increase the number of children completely vaccinated. SCIP also supported national health weeks, through enlisting the mobilization efforts of the community network as well as logistical assistance. From January 2013, FP services (first consult, distribution of pills, depo, implants) were progressively

Table 3. Number of providers trained, by topic

	# providers trained
HIV	708
Gender-Based Violence and Stigma	
<i>Grupo de Apoio e Adesão Comunitário</i> (Community HIV Assistance and Adherence Group)	
Sexually transmitted infections (STIs)	
Facilitation skills for community involvement (Hot Topics in SRH)	
FP	726
IUD insertion and removal	
IUD post-partum/ post-abortion	
Implant insertion and removal	
Integration of FP with other health services	
CBD of oral contraceptives and condoms	
Adolescent and Youth Sexual and reproductive health (AYRSH)	
Tiarht amendment	
CHILD HEALTH	367
Expanded Program on Immunization	
Cold chain management	
Vaccine management	
Introduction of PCV10	
Nutrition	
MATERNAL & NEWBORN HEALTH	217
New MCH monitoring instruments	
Humanization of Services and Quality of Care	
Model Maternity Initiative	
Biosafety	

integrated within mobile brigades.

When comparing the vaccination data of the SCIP Endline (2014) with the SCIP Baseline (2010), the percentage of children completely vaccinated by 12 months actually decreased, from 33.5% to 21.1%. This is in contrast with data of the Ministry of Health (MOH), which reported between 95-110% coverage for doses administered in the districts.

These are our recommendations:

- Reduce the number of registration errors on the child health card. All children should receive the child health card at birth, and it is important to ensure stock of the child health card at the health facility – both in the maternity and during the healthy child consult. HF's should have signs stating that the child health card is provided free of charge, and that it is the right of the child to receive this.
- Improve the planning and implementation of decentralized mobile to ensure adherence to the vaccination schedule. Mobile brigades should visit the same communities every six weeks throughout the year for children to have enough opportunities to receive all vaccinations prior to their first birthday.
- Data should be collected by concentration point, in the same way that vaccination data is collected at the HF, tracking individual children over time with the vaccinations received.

SCIP staff routinely monitored stock of specific tracer drugs (Section 1: Child Survival and Emergency Obstetric Care (EmOC) tracer drugs (iodized salt (90 mg) + folic acid (1 mg), mebendazole, oral paracetamol, cotrimoxazole suspension, amoxicillin suspension, injectable chloramphenicol, injectable gentamicin, oral rehydration salts, salbutamol, and oral solution); Section 2: Oral contraceptives; Section 3: First line malaria treatment) at peripheral HF's throughout the

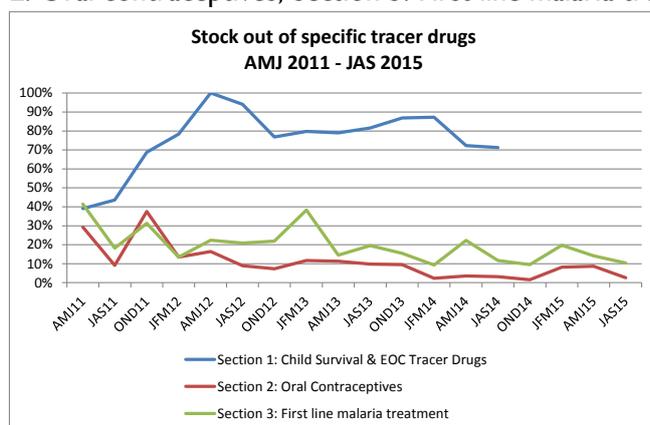


Figure 6. Stock out of specific tracer drugs AMJ 2011 - JAS 2015

As shown in Figure 6, stock out of oral contraceptives and first line malaria treatment improved significantly over the course of the project. In AMJ 2011, nearly 30% of the HF's experienced stock out of oral contraceptives and nearly 40% of HF's reported stock out of first line malaria treatment. SCIP supported peripheral HF providers in stock management, and to correctly anticipate medication quantities needed for upcoming months. By JAS15, stock out of oral contraceptives had

reduced to 3% and stock out of malaria treatment was 10%⁹. In contrast, reported stock out of one of the Child Survival and EmOC tracer drugs (in particular salbutamol, injectable gentamicin, and injectable chloramphenicol) increased over the course of the project, as these specific drugs ceased to be provided through the standard pharmaceutical kit for HF's. As such, SCIP stopped monitoring Section 1 in the last year of the project. Stock out at the peripheral HF's can result from various factors: stock out at the district, provincial, or national levels; lack of transportation and logistic support to ensure sufficient supply at the HF level; or incorrect forecasting/ late requisition from the peripheral HF's to replenish stock. SCIP staff provided technical assistance to strengthen the capacity of providers and pharmacists (at the HF level) and the pharmacy technician (at the district level) to correctly forecast needed medications, providing logistical support when stock dropped below the

⁹ SCIP programmatic data.

recommended minimum level or for other urgent needs.

Regular coordination and collaboration with DPS and SDSMAS, through meetings, participation in planning exercises, review sessions, logistical support, and joint supervision visits over a variety of sectors (MCH, HIV, the Expanded Program on Immunization (EPI), Nutrition) was key to ensure SCIP activities were consistent with government priorities. See Table 4 for details.

Table 4. Coordination Meetings with DPS and SDSMAS

	Frequency			
	Monthly	Quarterly	Yearly	Ad Hoc
DISTRICT				
Data analysis with all HF representatives	x			
Maternal and neonatal audit committees (in relevant districts)		x		
Coordination meeting with partners and SDSMAS		x		
Review and planning meeting with HF representatives and SDSMAS			x	
Technical (i.e. MCH, malaria, EPI, HIV) meetings				x
PROVINCIAL				
Health partner coordination meetings		x		
Meeting to analyze yearly PESS (<i>Plano Estratégico do Sector de Saúde</i>) outputs and outcomes (led by DPS with partner participation)		x		
MCH commodity task force		x		
Planning workshop to elaborate PESS for next year			x	
Technical (i.e. MCH, malaria, EPI, HIV) meetings				x
NATIONAL				
MCH commodity task force		x		

PROGRAMMATIC AREA: FAMILY PLANNING (IR 4.1)

Improving Family Planning indicators was a priority for the SCIP project. Contraceptive prevalence in Mozambique had plateaued between 2003 and 2011, and the method mix available in the country at the beginning of the project was heavily skewed to oral contraceptive pills and Depo-Provera. Intrauterine devices (IUDs) were available, but rarely provided. To improve current contraceptive use and expand the method mix, SCIP designed two packages of interventions, one focused on integrated community and health systems strengthening activities (#1-4) and another focusing on strengthening health systems (#5-9) as shown in the timeline below.

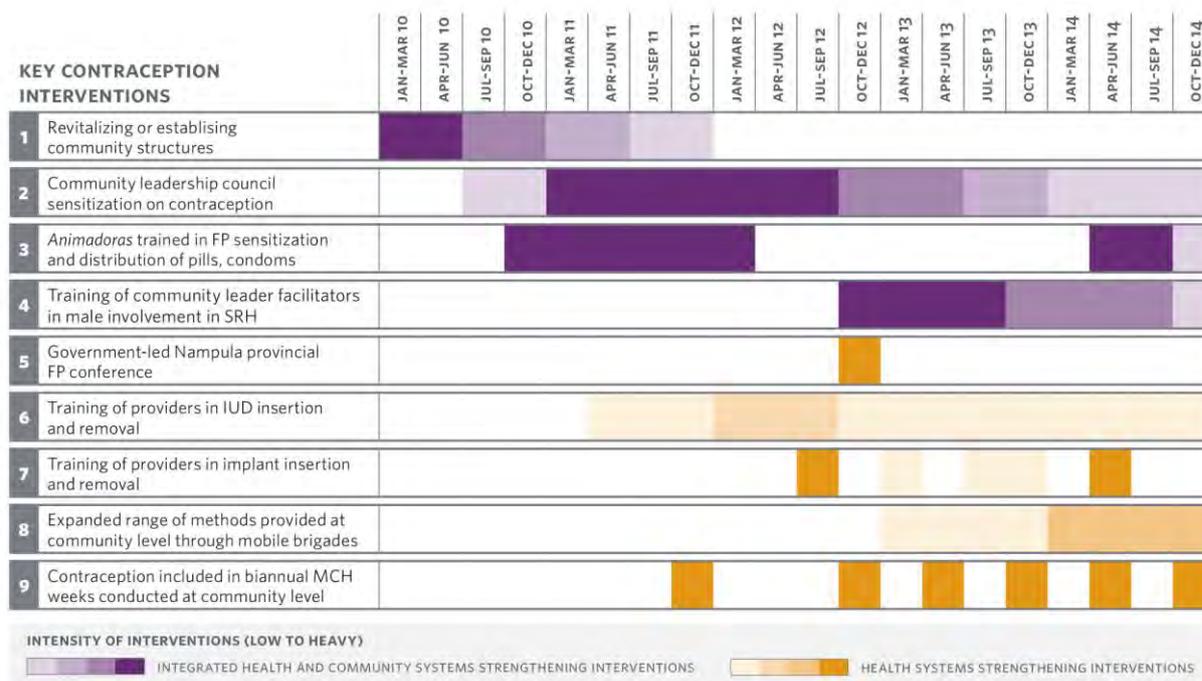


Figure 7. Timeline of key SCIP contraception interventions

Pathfinder’s recent technical publication “Integrated Health and Community Systems Strengthening for Improved Contraceptive Access and Uptake in Nampula Province, Mozambique” analyzes in depth the relationship between SCIP interventions and results achieved, especially in relation to long-acting methods, and informed much of what is written in this Programmatic area.

Integrated Community and Health Systems Strengthening Interventions (Activities 1-4)

Fostering informed, empowered communities capable of identifying and demanding quality health services was at the core of the SCIP project’s mission. With an eye to sustainability, SCIP worked to strengthen existing, formalized community structures tasked with overseeing local health initiatives per the community involvement policy of the MOH, such as CLCs and HF CMCs. Without these key structures, very few avenues exist for bridging community and health systems; however, at project start-up, many had weakened or lapsed altogether. Responding to this challenge, the project first revitalized and, where necessary, established, these structures.

Once these were functional, the SCIP project supported nurses from the nearest health facility to facilitate discussions with CLCs about the social norms and beliefs that hamper informed contraceptive decision making by couples and families. These nurses led “hot topics” discussions with 31,196 community leaders on a range of SRH issues, including: contraception; sexually transmitted infections; HIV and AIDS; institutional deliveries; and antenatal and postpartum care. In addition, SCIP provincial nurse supervisors trained a total of 948 community leader facilitators in the importance of male involvement in SRH, emphasizing contraception. These CLFs were champions

for family planning, influential actors in changing the norms and beliefs of their communities. These discussions with community leadership councils and leader facilitators contributed to an enabling environment for behavior change, encouraged health-seeking behavior among community members, and generated demand for services.

To ensure that the perspective of the community (as identified and aggregated by CLCs and CLFs) systematically fed back into the health system, SCIP supported the MOH to build the capacity of 129 HF CMCs to serve as the formal mechanism linking health and community systems. These co-management committees also play a role in assisting facilities to gauge community demand for contraceptive methods, which helps facility staff forecast the amount of commodities needed for outreach events.

In addition to these vital community structures, the project supported a cadre of 32,594 community activists (*animadoras*) and volunteers to sensitize community members on a constellation of health issues including contraception. 1,875 *animadoras* directly distributed pills and condoms and referred clients to facilities for other methods and for initial contraception consultations. However, as a result of the severe shortages of oral contraceptive pills at project start-up, *animadoras* focused almost exclusively on behavior change and demand generation until early 2012.

With the donation of 40,000 pill packs (donated by PSI in January 2012) specifically earmarked for community-based distribution (CBD), the CBD strategy was able to respond to the demand generated at the community level. Subsequently, with the regularization of the contraceptive pill supply in the national health system,

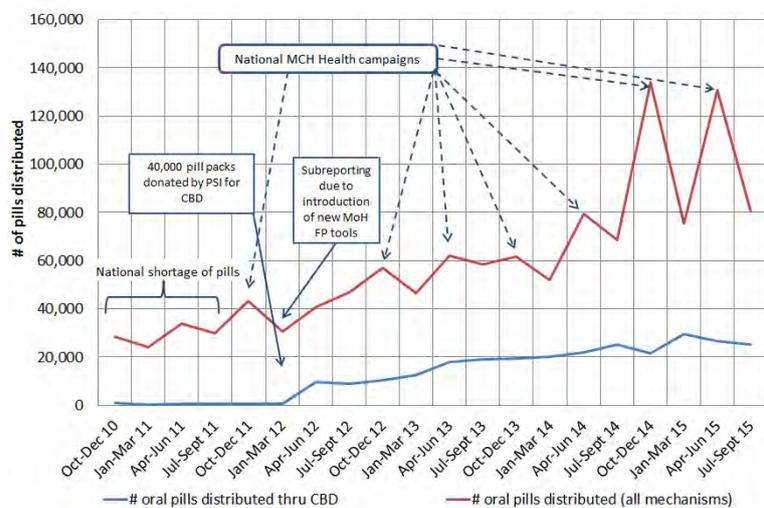


Figure 8. Contraceptive pill distribution

contraceptive pill supply for community-based activists was assumed by the Ministry of Health. As seen in Figure 8, over 25,000 pill packs were distributed via CBD in FY15Q4, 31% of the total number of pill packs distributed in SCIP districts. In addition to distributing pill pack refills to women in their communities, *animadoras* also mobilized women to the HF for the first FP consult and made referrals for other contraceptive methods (IUD, implant, depo).

Health System Strengthening Interventions (Activities 5-9)

Improving commodity security

At project start-up, the nationwide shortage of contraceptive commodities undermined initiation of planned SCIP activities. For example, community-based distribution of contraception was delayed due to prolonged national stock-outs of oral contraceptive pills, and provider trainings were deferred due to limited method availability. Recognizing the critical need to strengthen commodity security, Pathfinder and other stakeholders provided technical assistance through participation in the national and provincial commodity supply task forces to build government capacity to accurately forecast commodity needs. As mentioned before, SCIP staff also provided technical assistance at the HF and district levels to improve forecasting.

Strengthening human resources for health

To expand method choice at static facilities, SCIP worked with the government to build providers' clinical capacity to offer long-acting methods (as referred to prior in this report). Given provider discomfort with IUDs, SCIP worked with the MOH to enhance provider skills and confidence through a series of competency-based trainings on IUD insertion and removal for a total of 99 health providers who staff the 139 SCIP-supported health facilities. These trainings were facilitated by SCIP-supported provincial MCH nurses and used the MOH training curriculum, supplemented by a SCIP module covering balanced contraceptive counseling.

Following the government's introduction of contraceptive implants into the health system in 2012, SCIP worked with the MOH to expedite rollout of the new method. During the JAS12 quarter, SCIP supported a pilot training for 32 providers, followed by subsequent mass trainings for 103 providers on implant insertion and removal. Similar to the IUD trainings, SCIP provincial MCH nurses facilitated the implant trainings, and Pathfinder worked with the MOH to revise the contraception curriculum to include information pertaining to implants.

Following trainings, SCIP provincial nurse supervisors conducted day-long mentorship visits with providers on a quarterly basis to reinforce their newly acquired skills. During these visits, nurse supervisors used a checklist aligning with the MOH's quality standards to assess counseling, clinical skills, infection prevention measures, and management and flow of contraceptive services. Nurse supervisors then provided on-the-job training and mentorship to individual providers to redress any observed gaps.



A MCH nurse prepared for FP consults in Angoche.

Expanding contraceptive service delivery

To mitigate access barriers and expand contraceptive service delivery at the community level, Pathfinder worked with its government counterparts to broaden the range of methods offered through mobile brigades and to integrate contraception into biannual MCH weeks. At project start-up, no contraceptive methods were provided during mobile brigades. Pills and condoms were provided during some mobile brigades from January 2013, although providers involved had the capacity to offer long-acting methods as well. To broaden clients' choice, the project advocated for expansion of the range of methods available during brigades with government counterparts, resulting in Depo being offered as of July 2013 and implants as of January 2014.

No contraceptive methods were offered through MCH weeks at project start-up. Supported primarily by UNICEF, the main goal of the MCH weeks was to increase vaccination and maternal health coverage; yet as a national campaign, they reached communities across the country. Recognizing this key missed opportunity to reach women at the community level with contraceptive services, SCIP leveraged Pathfinder's broader involvement in the national SRH Steering Committee to advocate for provision of contraception during MCH weeks.

Advocacy with government and civil society

With technical support from SCIP, the provincial health directorate organized the Nampula Provincial Family Planning Conference in November, 2012. This full-day event attracted over 200 participants; including local government officials, community and religious leaders; and focused on making FP relevant to the diverse stakeholders present. Sessions drew connections between FP and a constellation of issues relevant to attendees, including improved MCH, nutrition status, poverty

reduction, the projected demographic dividend resulting from reduced fertility rates, and economic opportunity. The conference resulted in increased FP awareness among influential political and religious leaders, further solidifying the enabling environment for improved access to and uptake of contraception that the project had fostered at the community level.

PROGRAMMATIC AREA: INSTITUTIONAL DELIVERIES (IR 4.1)

The number and coverage¹⁰ of institutional deliveries increased significantly throughout the SCIP project, from 99,132 institutional deliveries reported for FY11 (59% of expected deliveries) to 165,994 (85%) in FY15¹¹. While there were differences in the scale of improvement between FY11 and FY15, similar results were observed in all districts apart from Nampula City, where coverage was already above 90% in FY11. In the SCIP baseline survey (2010), 62.3% of women reported their last delivery in the past three years was at the HF, compared to 72.3% at endline (2014). The proportion of women whose last delivery was attended by a skilled provider also increased from 63.4% at baseline (2010) to 75% at endline (2014).

From FY10, activities to encourage institutional activities focused on the community level: “hot topics” discussions led by MCH nurses from the nearest HF were facilitated to allow participants to reflect on recent maternal deaths which took place in their village, and addressed barriers and facilitators to institutional deliveries. Once community members understood the importance of institutional deliveries as a way to reduce maternal mortality through hot topics discussions or in playing the Pathways to Change board game, they designed community action plans to mitigate barriers and empower facilitators. Examples of barriers to institutional deliveries that were addressed through community action planning include: families were sometimes asked to pay in order for a woman deliver at the HF/receive a Child Health card following delivery, distance to the HF, lack of conditions for pregnant women and accompanying family members/TBAs when approaching the delivery date, and at times, insensitive attitudes of MCH nurses.

As with the family planning interventions, SCIP implemented a range of activities to mitigate some of the barriers identified, often by focusing on fortifying community involvement and capacity, strengthening the health system, and reinforcing the linkages between the two. SCIP distributed bicycle ambulances to 130 communities who were greater than 15 kilometers from the HF. Bicycle ambulances were managed at the community level by a committee dedicated to guarantee the proper usage and maintenance, as well as manage community contributions for maintenance. A Memorandum of Understanding (MoU) signed between the CLC, locality chief and SDSMAS clarified responsibilities and expectations. In addition to HF rehabilitations and extensions, SCIP also supported communities to construct 27 maternal waiting houses at peripheral HFs.

As mentioned above, on-the-job training and mentoring focused on improving provider skills, as well as the humanization of services and quality of care, and SCIP provided technical assistance to strengthen regular analysis of data, at both the CLC and HF levels. Throughout the project, SCIP supported SDSMAS of districts with surgical capacity to lead regular discussions on maternal and neonatal mortality through district audit committees, improving awareness of gaps existing in service delivery quality and transfers from peripheral to secondary level HFs. The TBA has an important role in the community, and SCIP conducted trainings to build her skills, highlight the risks of community deliveries, and encourage her to refer women to the HF for antenatal consults and delivery.

¹⁰ Institutional delivery coverage was estimated by dividing the reported number of institutional deliveries by the estimated number of pregnant women per year.

¹¹ Health system data.

Furthermore, as the policy of the MOH is to allow TBAs to accompany and assist pregnant women during labor, SCIP supported provider-led refreshment sessions and meetings with TBAs.

Figure 9 compares annual institutional delivery coverage from FY10 (OND09-JAS10) and FY15 (OND14 – JAS15) by district. All districts apart from Nampula City have increased their institutional delivery coverage. Of the two urban districts (Nampula City and Nacala Porto), Nacala Porto has increased its coverage because community empowerment and involvement interventions were concentrated in the surrounding semi-urban areas. Community activities in Nampula City were focused on two (out of the six) neighborhoods and the approach

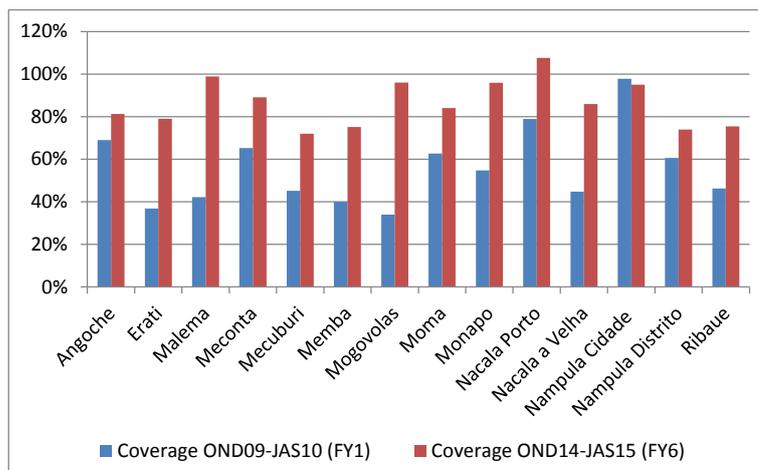


Figure 9. Trends of Institutional Delivery Coverage per district, FY10 (OND 2009 – JAS 2010) & FY15 (OND 2014 – JAS 2015)

was less comprehensive compared to the other districts. The most rural districts (Erati, Malema, Mecuburi, Momba, Mogovolas, Nacala Velha) have shown significant improvements, with coverage at least doubling in four of these six districts. In Angoche, no intervention was carried out in the municipality, which alone has a population of 80,000 people. Furthermore, only one third of the localities in Angoche were reached by the community involvement approach.

PROGRAMMATIC AREA: MALARIA (IR 4.3)

During household visits and mothers' group sessions, SCIP *animadoras* shared messages about malaria, addressing causes, complications, treatment, and how to set up and use a mosquito net. Over the course of the project, the percentage of households with a pregnant woman and/or a child under 5 with at least one insecticide-treated net (ITN) increased from 70.3% at SCIP baseline (2010) to 77.1% at SCIP endline (July 2014). This was complemented by greater percentages of women (30.7% baseline vs. 55.0% endline) and children (20.7% baseline vs. 52.4% endline) reporting sleeping under an ITN the previous night. The percentage of women who received intermittent preventive treatment in pregnancy during the last three years decreased from 56.5% at baseline to 45.1% at endline. This result was partially affected by a national shortage of Fansidar during 2012.

The SCIP project intensified efforts to support the malaria program in Nampula province during FY15, focusing on strengthening APE involvement in community-based malaria treatment (and inclusion of APE data in HF statistics), supporting joint supervision (DPS/SDSMAS/SCIP) visits at the district level, and improving the quality of malaria data analyzed during the district-level monthly statistics review meeting, in addition to the behavior change activities of community *animadoras*.

SCIP supported integrated SDSMAS supervision visits for the malaria program (management, malaria during pregnancy, social and behavior change communication (SBCC) and monitoring and evaluation (M&E) of malaria), during which monitoring forms were reviewed and inconsistencies highlighted, and discrepancies between the number of lab-verified malaria cases and treatment doses leaving the pharmacy were discussed. SCIP district coordinators and M&E officers also provided technical support to the district malaria focal point. Specific attention was given during the monthly district statistics meetings to analyze aggregated data of the malaria program. District malaria follow up meetings were carried out together with the malaria focal point, the SCIP team, and Malaria Consortium staff in order to coordinate community mobilization and mosquito net distribution, building on community structures already supported by SCIP. During SCIP-supported APE meetings,

participants discussed malaria data as well as supply shortages (rapid tests, medication) and proposed solutions where feasible.

PROGRAMMATIC AREA: NUTRITION (IR 4.1)

High rates of chronic malnutrition among children represent a significant health burden within SCIP's catchment area. According to the 2011 DHS, 55% of children 0-59 months were chronically malnourished in Nampula Province. In the intensive districts, nutrition and malnutrition topics were included within the curriculum of the community health network, while complementary districts benefited from the USAID SANA intervention. Starting in the second quarter of FY14 (JFM14), and building on the activities of SANA, the SCIP Nutrition strategy empowered communities to resolve moderate and severe acute malnutrition of children 6-59 months in selected localities of the six Nutrition-intensive districts: Angoche, Meconta, Mogovolas, Monapo, Moma, and Murrupula. The strategy was rolled out progressively, achieving complete coverage as of January 2015, reaching a general population of 900,000. 115 community-based promoters, nearly 2,000 *animadoras* and 1,000 CLFs led and participated in the theoretical and practical SCIP Nutrition training.

On a quarterly basis, *animadoras* and CLFs held a one-day screening for acute malnutrition using the mid-upper arm circumference (MUAC) tape and screening for bilateral edemas for all children in their community between 6-59 months. Children found with severe acute malnutrition were immediately referred to the HF for treatment, and children with moderate acute malnutrition were referred to community-based nutrition rehabilitation groups called "*lareira*". Organized by *animadoras*, caregivers brought their acutely malnourished children to daily rehabilitation sessions, where caregivers fed children enriched porridge they learned to prepare using locally available ingredients. Upon discharge from the HF, acutely malnourished children would be integrated into local *lareira* sessions.

SCIP NUTRITION STRATEGY

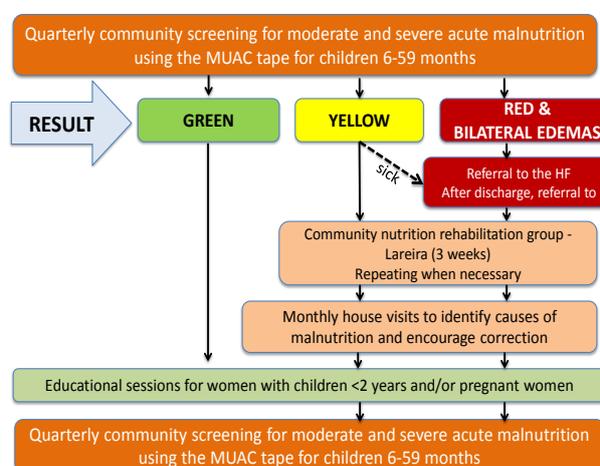


Figure 10. SCIP Nutrition Strategy

Animadoras and CLFs conducted house visits for all children identified as acutely malnourished on a regular basis, recording progress of the child and providing health counselling as needed. During these visits, they ensure preventive measures are taken at the household level and identify potential barriers to improved nutrition (i.e. associated illnesses, exposure to malaria, poor hygiene and sanitation conditions, adherence to services at HFs). *Animadoras* additionally facilitated educational mothers' groups with pregnant women and women with children under five, in accordance with a set calendar of nutrition and health topics. Figure 10 illustrates the SCIP Nutrition strategy. The total rate of acute malnutrition dropped dramatically, from 8% of the total number of children screened in March 2014, to 1.7% of the total number of children screened in November 2015. This result is explored further in the Achievement section.

The inclusion of an intensive nutrition strategy allowed the SCIP intervention to add yet one more result at the community level, addressing one of the major health concerns identified by communities, and building on integrated community platforms and structures developed throughout the previous years. The nutrition training for the community network used a similar methodology as during the first activities at the community level. Malnutrition was contextualized within a broader framework of roots and causes as well as consequences, in order for participants to identify barriers and potential solutions to resolving this problem. Activities were designed in a way that allowed

community members to see concrete results of their activities, and analyze their progress over time.

From May – October 2015, SCIP conducted joint supervision visits with DPS and SDSMAS Nutritionists in the 38 HFs located in the nutrition localities. The visits focused on improving the linkages between the HF and the community (including the referral/counter-referral process and through analysis of community-level nutrition data), increasing the capacity of providers to identify and treat malnourished children and pregnant women, and improving provider skills to correctly complete nutrition program monitoring forms and register books.

PROGRAMMATIC AREA: HIV (IR 4.2)

HIV was a key component of the SCIP project, with the overall strategy evolving over time in response to the priorities of the GRM and the USG. Activities were implemented in all districts, and included HTC-C, home-based care for chronically ill individuals, community-based active defaulter tracing to increase adherence to treatment, and behavior change activities.

Over the course of the project, 288,926 people were tested, counselled, and received their results from one of the 39 HTC-C counsellors who were working in 14 districts. During the first three years of the project, community-based testing and counselling efforts were directed towards testing couples and families within the general population. From FY13, prior to PEPFAR orientation, SCIP began re-directing testing efforts to target priority populations, as seen in Figure 11. Relevant priority populations for the SCIP project were other vulnerable populations (OVP) (chronically ill individuals, their partners and children; partners and children of HIV+ pregnant women; bridge and mobile populations; OVCs; and non-injecting drug users) and other key populations (KPs) such as (sex workers (SW) and men who have sex with men (MSM)) in areas not covered by the CDC KP intervention.

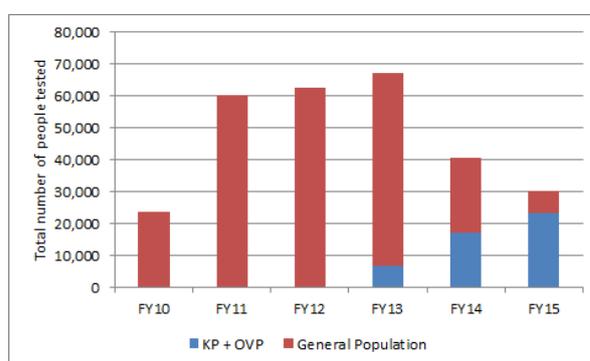


Figure 11. Distribution of population tested and counselled for HIV

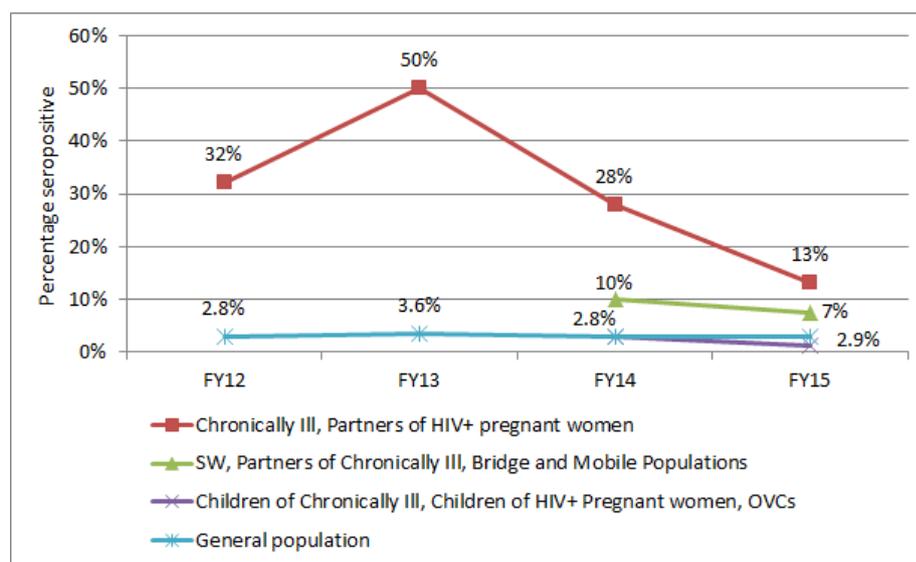


Figure 12. HIV seropositivity rates per year, by target populations

Chronically ill individuals and partners of HIV+ pregnant women reported the highest rates, peaking at 50% during FY13, confirming the value of the index case testing strategy. Targeting of this population was key to reduce the pool of unaware HIV+ individuals who were not yet included in

As seen in Figure 12, there was considerable heterogeneity in HIV seropositivity rates according to the population tested. Between 2.8-3.6% of the general population tested positive for HIV. Children (OVCs, children of chronically ill and of HIV+ pregnant women) had similar rates to the general population.

treatment programs. Coordination with HFs providing Anti-Retroviral Therapy (ART) and clinical partners was essential for subsequent integration in treatment. Rates for SW, partners of chronically ill, and bridge and mobile populations were between 7-10%, double that of the general population, representing an important driver of the HIV epidemic in Nampula Province.

The shift in strategy was particularly effective in identifying HIV+ individuals, who HTC-C counselors subsequently followed up at the community level, facilitating enrollment in and encouraging adherence to treatment services at the HF. Follow up of HIV+ individuals at the community level was integrated in the scope of work of HTC-C counselors who were attached to specific HFs providing ART services, strengthening linkages between the communities and the HFs in the context of the HIV continuum of care.

SCIP invested in the training and support of 338 APEs, 418 *animadoras* from intensive districts, 270 CLFs, and 39 HTC-Cs in the Continuum of Care curriculum (including prevention with positives) as a community-level approach to improve retention of HIV+ individuals to ART services. From FY12, SCIP worked to strengthen relationships with HFs to facilitate active defaulter tracing, aiming to reduce the number of patients defaulting on treatment or becoming lost-to follow up (LTFU). HFs provided lists of defaulters & LTFU to community activists for follow-up at the community level. Between FY12Q2 and FY15Q4, 1,789 defaulters were located in the community, with 1,110 (62%) being re-integrated to health services.

Regular coordination meetings with Columbia University's International Center for AIDS Care and Treatment Programs (ICAP) and SDSMAS/HFs as well as joint supervision/technical assistance (TA) visits to HFs were key to improving the quality of lists provided and maximizing the contributions of the community network, thus increasing the effectiveness of this strategy over time. That said, re-integration of defaulters is a significant challenge. A recent study looking at determinants of adherence to ART in Nampula Province found that stigma affecting those HIV+, insufficient food supply, depression, and substance abuse (mainly alcohol) were main barriers for HIV+ individuals to remain on treatment.¹² Improved accuracy and timeliness of lists of defaulters and LTFU, as well as patient flow and coordination within the HF and with CLCs, will further strengthen this result.



Community-based counselling and testing services for HIV.

APEs and *Animadoras* were also trained to HBC services for chronically ill patients (per the definition of the MoH for chronic illnesses: HIV/AIDS, tuberculosis, leprosy, hypertension, and epilepsy). SCIP began HBC activities in FY11, reported supporting an initial 589 chronically ill individuals in the first quarter of FY11, and expanding progressively to reach 7,626 chronically ill in FY15. Of the 7,626 chronically ill individuals who received HBC services during FY15, 7,458 were reported as alive and in treatment, 111 were LTFU, and 57 had passed away. These community activists educated caregivers on

how to care for chronically ill family members, as well as shared messages on adherence to treatment, nutrition, hygiene and other aspects benefitting the patient and the family.

A comprehensive information, education, and communication (IEC)/SBC strategy contributed to an

¹² Pires P, Abdoulaye M, Craegh J, Determinants of Adherence to Anti-retroviral therapy in HIV Positive patients, Nampula, Mozambique, 2014, Int J for Soc Studies. 2016; 2(2): 33-42.

enabling environment which supported positive health-seeking behavior. 14 district-based community theatre troupes performed skits addressing a variety of health topics (HIV, FP, nutrition, WASH, malaria, conservation agriculture, and MCH) in district communities, scheduling performances according to seasonal relevance. Actors facilitated small group sessions with audience members following performances to address questions and consolidate messages presented. SCIP also had MoUs with eleven community radio stations, who broadcast spots in Portuguese and eMakhuwa as well as live radio discussions and interviews held in the communities. Many IEC materials, such as flip books, job aids, pamphlets, and banners, were designed and produced over the course of the project and are listed later in the report.

PROGRAMMATIC AREA: OVCS & YOUTH FARMER CLUBS (IR 4.2)

OVCs constituted an important target population of the SCIP project. OVCs were identified in the communities during house visits by the community network. Community-based activists were trained to support OVCs through the provision of basic needs and social support as elaborated in the National Policy for OVCs (PACOV). Activists assisted OVCs and their families through facilitating enrollment in school, providing referrals to HFs, offering psychosocial support and food and nutrition counseling, working with local governments to provide legal documentation (birth certificates and/or poverty certification), and referral of OVC families to rotating savings and loans groups (RSLG) for economic empowerment.

OVC activities were concentrated in the five intensive districts for the first three years of the project, with efforts expanding to the nine remaining complementary districts from FY13-15. Over the life of the project, SCIP activists reached 46,997 OVCs in 14 districts, all of whom received food and nutrition counselling as well as psychosocial, social, and/or moral support. 24,018 OVCs were assisted to enroll in school for the first time, 11,080 OVCs were referred from the community to the HF for services, 16,704 OVCs received legal support, and 6,994 OVCs and their families benefitted from economic strengthening activities.



OVC beneficiary in Rapale.

Economic strengthening of OVCs and their families through integration in RSLGs was the main strategy to support OVCs from FY13. CLCs and OVC sub-committees were sensitized as to the opportunities for OVCs and their families, and assisted in the process of identifying OVC beneficiary families. Families were provided with agricultural inputs (sweet potato and fruit tree seedlings, seeds, tools) and technical assistance. At the end of FY15, 1,986 OVC families (with 3,666 OVCs) benefitted from farming inputs. Once families were able to generate enough income from their crops to make the minimum contributions, they were integrated in community RSLGs. Some OVC families had sufficient means to enter RSLGs directly. 2,418 OVC families (4,393 OVCs) were participating in RSLGs.

6,723 OVCs received agricultural inputs, and 3,735 OVC families were integrated into RSLGs.

During the first five years, SCIP focused on integrating OVCs into local Youth Farmer Clubs as a way for members to build skills and gain vocational training. By FY14Q2, 830 YFCs had been established, reaching a total of 28,044 members of whom a quarter were OVCs. Members were trained on the main conservation agriculture principles, putting these into practice through the cultivation of seasonally-appropriate crops in club demonstration plots. Other club activities focused on safe food handling and storage, post-harvest practices, engagement of community members in conservation farming, and training selected members to serve as peer educators in AYSRH. The YFC survey

undertaken in September 2012 found that 97% of the YFCs surveyed had a demonstration plot, and 71% were able to sell their crops. 93% of YFC members practiced at least three of the five conservation farming principles (early land preparation; mulching the soil; superficial tillage; crop rotation; and retention of crop residues in fields, with no burning of residues). 25% of YFC members were involved in small group discussions on AYSRH with a YFC peer educator. The YFC strategy



YFC members in Moma.

aimed to diminish the vulnerabilities of OVCs and their families as well as to disseminate the principles of conservation farming through young farmers and their families. Sustainability of YFCs by communities was never an objective, rather, it was a means through which to support rural OVCs. The PEPFAR strategy for OVCs was refined in 2013 to focus more intensely on economic strengthening, with the expectation that subsequently,

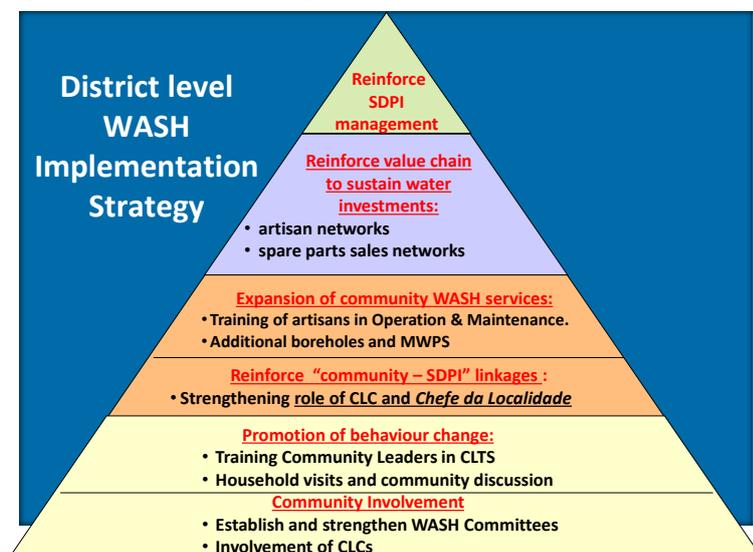
other OVC needs would be addressed directly by their families. Less technical support was provided for YFC activities after 2013, with light support given to CLCs interested in maintaining their YFC.

As a way to increase sustainability of the assistance provided to OVCs, SCIP created and trained 150 OVC sub-committees within CLCs, who worked with community activists to overcome barriers in assisting OVCs, facilitated interactions between formal and informal institutions, and developed action plans for OVCs in their communities.

PROGRAMMATIC AREA: WATER, SANITATION, AND HYGIENE (IR 4.1)

SCIP water, sanitation, and hygiene (WASH) activities were mainly focused in five districts (Eráti, Memba, Monapo, Nacala Velha, & Nacala Porto) for the first five years of implementation, and subsequently reaching five additional districts (Angoche, Meconta, Mogovolas, Moma, & Murrupula) during the last 15 months. The SCIP strategy is a continuum of complementary activities involving all existing levels in order to create “more” sustainability for water access and positive individual and collective hygiene and sanitation behavior. The strategy involved four main prongs: raising

Figure 13. SCIP WASH Strategy



community awareness using the CLTS approach, training and revitalizing water committees, establishing locality-level supply of spare parts, and increasing access to water (rehabilitating non-functioning water sources, drilling new sources) with the direct collaboration with provincial and district government. DPOPH, the *Departamento de Água e Saneamento*, and SDPIs were involved in the decision-making process for new boreholes: developing contracts, evaluating technical and financial proposals, and managing contractors.

SCIP trained 1,444 community leaders (CLs) as CLTS facilitators who facilitated the mobilization process of their communities to completely eliminate open defecation. Communities conducted their own appraisal and analysis of open defecation. After being trained in how to build latrines out of locally available materials, communities developed their action plan to become open defecation free (ODF). Over the life of the project, 50,452 latrines were constructed and 204 communities were declared ODF. The SCIP endline survey of 2014 found that 27.1% of the population (disaggregation by district intervention: Intensive: 25.9%, Complementary (WASH): 40.4%, Complementary (non-WASH): 21.7%) was using improved sanitation facilities, as compared to 16.7% at baseline (2010) (disaggregation by district intervention: Intensive: 29.0%, Complementary (WASH): 23.2%, Complementary (non-WASH): 3.2%).

SCIP increased access to potable water through the rehabilitation and construction of 297 boreholes and 4 small urban systems. As of 2015, over 300,000 people had access to improved drinking water as a result of USG assistance. Taking into account previous USG investment, 447 water committees were trained on water pump management, operation, maintenance, and repair; using a book to record minutes, contributions, and expenses. Of these, 70 were new water committees corresponding to new boreholes. 220 water committees were associated with non-functioning boreholes, which SCIP worked to repair. The remaining 157 water committees were trained to accompany functioning boreholes in which water committees were dysfunctional.

Committee members reported diarrhea outbreaks to the HF, participated in HF CMCs, and sensitized communities for upcoming mobile brigades and health campaigns. They also learned how to use excess water in the pump area to grow vegetables, how to use locally available materials to keep animals out of the pump area, and how to safely store water. SCIP worked to improve access to spare parts at the Administrative Post level, supporting local vendors to stock frequently needed spare parts in 16 localities. Six additional vendors were supported by Inter Aid, another partner working to improve water supply. 61.4% of households (disaggregation by district intervention: Intensive: 53.7%, Complementary (WASH): 65.7%, Complementary (non-WASH): 68.9%) interviewed in the SCIP endline survey had access to improved drinking water supply, nearly double the 32.7% with access in 2010. (disaggregation by district intervention: Intensive: 40.1%, Complementary (WASH): 42.2%, Complementary (non-WASH): 21.9%).



Water committee next to their borehole in Eráti.

OVERALL ACHIEVEMENTS (FY10-FY15)

ACHIEVEMENTS

SCIP is a complex project, and it is difficult to comprehensively describe all the results achieved from such a broad range of strategies, by actors from a variety of spheres. SCIP is intertwined in the history of Nampula and in the support for the country from USAID. This section addresses some of the results that offer lessons to be understood under the guise of greater responsiveness to the social and health needs that many districts are still facing. Reflecting on the past and planning for the future, some specific results were selected for further analysis, taking into consideration the 1990-2015 Millennium Development Goals (MDG) relevant to the project.

MATERNAL MORTALITY (MDG 5)

Safe motherhood

In countries like Mozambique that lack reliable systems of birth and death registration (including cause of death), demographic surveys are the primary tool through which to study maternal mortality. In the absence of these data sources, there are proxy measures that can help to predict if we are on the right path toward reducing maternal mortality. The maternal mortality rate (MMR) at facilities is useful in that it “measures” the ability of the health system to provide quality

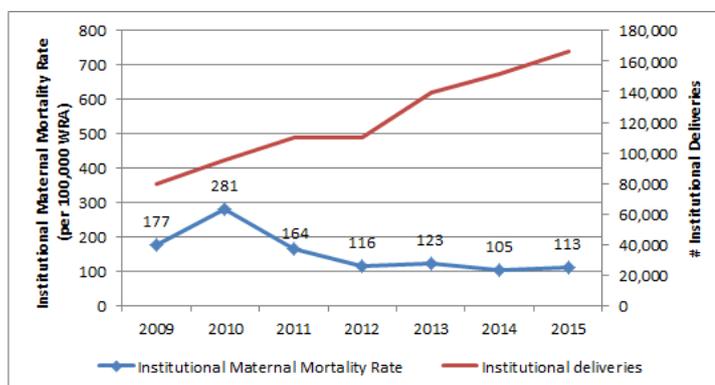


Figure 14. Trends in MMR and Institutional Deliveries (2009-2015)

intrapartum care to women delivering at facilities. Figure 14 shows the steady increase in the annual number of institutional deliveries at project-supported facilities, doubling from 80,000 in 2009¹³ to over 160,000 in 2015. This impressive achievement reflects the project’s community messaging and SBC efforts around safe motherhood and linking women with delivery services, as well as improved quality of care within antenatal care (ANC) services.

In the same time frame, the institutional MMR was 177/100,000 women of reproductive age (WRA) in 2009, increasing significantly to 281 in 2010, before levelling off around 115 during the last four years, between 105-123/100,000 WRA¹⁴. There are two possible explanations for the high MMR in 2010: it may be a data error (Angoche reported 1,598 maternal deaths in 2010, compared to their yearly average of around 150), or it may reflect the initial growing pains of the health system to cope with the increased volume of institutional deliveries. SCIP supervisors provided mentoring and on-the-job support for MCH nurses to apply the skills learned during Basic and Comprehensive EmOC trainings, thus contributing to reduced maternal mortality, as providers were better able to manage obstetric complications and refer complicated cases onwards. This is a significant achievement, indicating that as uptake of services increased consistently and dramatically over time, the health system was able to cope, and even decrease the initial MMR.

¹³ Please note that the number of institutional deliveries and the institutional MMR is for calendar years, as opposed to fiscal years.

¹⁴ Health system data

Antenatal care can contribute to reducing maternal mortality by providing an opportunity to counsel women on danger signs in pregnancy and the importance of delivering in a facility, and identify high-risk pregnancies that require referral to higher levels of care. The number of first ante-natal consults in SCIP districts increased from slightly under 250,000 in FY10 to nearly 300,000 in FY15¹⁵. Over the

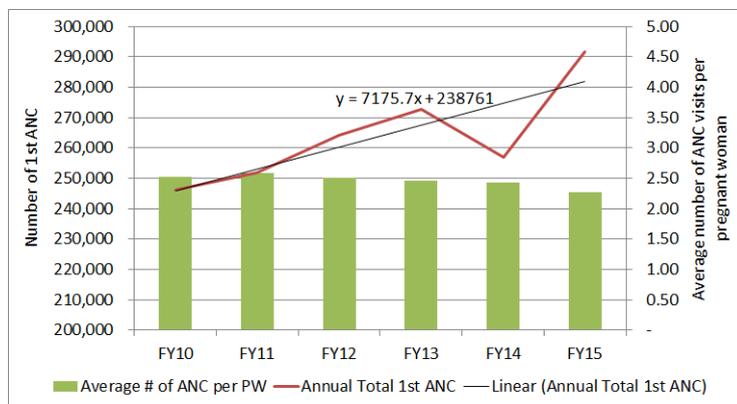


Figure 15. # of first ANC visits and average # ANC visit/pregnant woman

same period, the average number of consultations per pregnant woman has slightly decreased, from 2.52 ANC visits/pregnancy to 2.27¹⁶. However, the endline survey in 2014 has highlighted improvement in the quality of ANC visits: higher percentages of women reported receiving tetanus vaccination, iron supplementation, HIV testing and counselling, and FP counselling through increased integration of services.

In 2011, a positive deviance approach was adopted to explore in-depth cases of desired change in health outcomes. Two facilities with significant increases in institutional deliveries (from an estimated 60 to near 100% coverage in facility A and from 20 to near 100% coverage in facility B) were identified. The analysis followed a sequential mixed methods approach: 1) Quantitative analysis of clinic register data from 2011 to 2015 to assess performance consistency; 2) Adaptation of the Delphi method convening two panels of experts representing all levels of the health system to establish a timeline of events during the observation period, identify relevant actors involved in these events as well as the host of factors (e.g. local, provincial, national level interventions; changes to clinic registers; staff turnover; weather) relevant to the cases; 3) Semi-structured interviews with MCH nurses, facility managers, TBAs, CLC members, and beneficiaries using snowball and saturation approaches; 4) Coding of 32 transcripts using the Consolidated Framework for Implementation Research (CFIR) to identify relevant contextual factors across the cases, adapting our use of CFIR scoring to allow for distinction between factors relevant to community versus health system actors, as this was relevant to the intervention's design.

Findings point to important lessons for the project, and health system strengthening and development. In both cases, observed change in deliveries was associated by respondents with a key SCIP intervention designed with three core components: 1) revitalization of CLC operations, 2) community-led health and MH discussions using Pathfinder's Pathways to Change, and 3) MH nurse and TBA collaboration and mentorship supported by SCIP technical assistance. Though the cases had nearly identical interventions, the contextual factors relevant to the two have been found to be divergent in important ways. In Facility A, contextual factors were aligned between health system and community actors, both citing examples of their collaboration and mutual investment in implementation, working together as an integrated community- and health-system to achieve their remarkable outcomes. Alone, this could suggest that an overarching strategy contributing to the facility's success was the collaboration or integration of the two "systems" in their implementation toward this shared goal. In comparison, contextual factors across stakeholder respondents show notable misalignment in Facility B, with instances of poor performance and even harm done by health system actors toward the intervention and its goal. Respondent interviews demonstrate that, faced with this situation, community actors were able to rely on their own community-based processes,

¹⁵ Health system data.

¹⁶ Ibid.

revitalized through SCIP, as an independent system to enable systematic and coordinated operation amongst themselves toward their shared health priority: institutional deliveries for reduced maternal deaths. In other words, community actors operated as an autonomous, rather than dependent, system toward their remarkable outcome, achieving it despite identified inadequacies in their local health system counterpart.

These findings are important for both development and health systems research: 1) HSS interventions may benefit from rethinking of the target for strengthening—rather than placing primacy on health actors alone, it may be advantageous (particularly at scale) to invest in a more even schema of health and community systems as robust, autonomous and complementary parts to a larger integrated whole. 2) The CFIR, originally developed for contextual assessment in high resource formal health systems, can be applied as well to assess implementation context of interventions which engage and rely on implementers from both formal health and informal community systems—a key approach in many development interventions. This finding shows promise for ongoing efforts to ensure that Implementation Science concepts can yield value for implementers and funding decision-makers in resource-limited development settings.

Family Planning

Another factor contributing to the reduction of maternal mortality is the offer of protection for women and men who do not wish to conceive or who would like to space or limit the number of children. The population-based SCIP baseline (2010) and endline (2014) surveys found the modern contraceptive prevalence rate (mCPR) increased from 7.2% to 17.6% in the SCIP project catchment area. Met contraceptive need (percent of demand for family planning that is satisfied through contraceptive use) similarly increased, from 16.8% (2010) to 44.0% (2014) as seen in Figure 16.

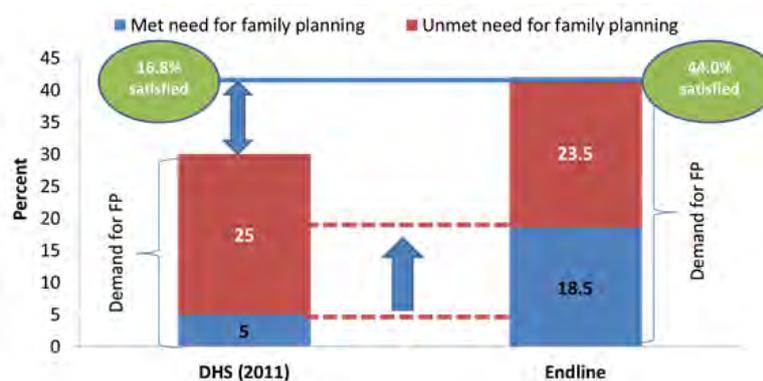


Figure 16. % Met and Unmet need for FP in women in union aged 15-49

Throughout the project, the number of couple-years protected (CYP) (excluding condoms) increased by nearly 750%, from 31,130 (2010) to 231,806 (2015)¹⁷ as shown in Figure 17. Significant increases in CYP between 2013, 2014, and 2015 were related to the increased uptake of contraceptive implants. Interestingly, not only did overall CYP increase, but from the AMJ 2013 quarter onward, an increase began to occur across all contraceptive methods included in the Mozambican method mix.¹⁸ In Figure 17, short-acting methods are represented in blue shades, and long-acting methods are in shades of red. The method mix breakdown of short-acting vs. long-acting contraceptive methods in 2010 (93.8% for short-acting methods vs. 6.2% for long-acting methods) shifted considerably by 2013 to a more equitable distribution (70.3% for short-acting methods vs. 29.7% for long-acting methods), and has maintained this distribution through 2015. This suggests that

¹⁷ SCIP programmatic data

¹⁸ Method mix in Mozambique includes oral contraceptive pills, condoms, Depo-provera, IUDs, implants, and sterilization.

both access to and choice of methods improved, and implies that health provider bias toward any particular method during contraceptive counseling was minimized. The increase in uptake of long-acting methods is particularly notable, given that contraceptive use in Mozambique has been heavily skewed toward short-acting methods.¹⁹

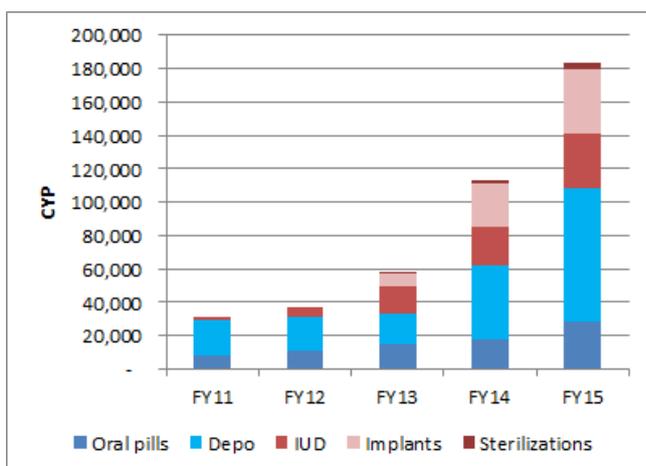


Figure 17. CYP by FP method

demonstrating a rights-based approach through the offer of a variety of methods, as recommended by USAID and WHO.

These accomplishments are especially impressive when compared to similar experiences that are recognized worldwide, for example, in Ethiopia. However, contrary to what occurred in Latin America countries in the 70s and 80s, in Nampula, the increase of contraceptives occurred in methods of both short- and long-term,

The remarkable FP results of Nampula Province were achieved through the successful implementation of the two packages of FP interventions described earlier: integrated community and health systems strengthening activities (ISS), and through activities specifically targeting health systems. Indeed, previous studies support this claim. For instance, the Community Health and Family Planning Project, implemented by the Navrongo Health Research Center in northern Ghana, found that the combination of community-based and facility-based interventions had a higher impact on fertility declines than either intervention in isolation.²⁰ Other studies have shown that when either the community or facility is prioritized over the other, the intervention's impact is attenuated. For example, a 2001 quasi-experimental study in Cameroon revealed lower impact in an intervention group receiving community-based interventions alone because the health system was unable to support and motivate community health workers.²¹ Ensuring that attention is paid to both the community and health system has also been associated with increased likelihood of sustained programmatic impact; a 2015 systematic review of provision of FP services by community health workers suggested that sustainability is more likely when community health worker programs are strongly linked to the formal health system.²² Global literature correlates community-based interventions with improved knowledge and increased uptake of contraception, as well as reductions in maternal morbidity and neonatal mortality, and increased rates of institutional deliveries and early breastfeeding.^{23,24}

¹⁹ USAID, "Couple years of protection (CYP)," 2009.

²⁰ C. Debpuur, J.F. Phillips, E.F. Jackson, P. Ngom, & F.N. Binka, "The impact of the Navrongo project on contraceptive knowledge and use, reproductive preferences, and fertility" *Studies in Family Planning* 2002; 33[2]: 141-64.

²¹ S. Babalola, N. Sakolsky, C. Vondrasek, D. Mounlom, J. Brown, & JP Tchupo, "The impact of a community mobilization project on health-related knowledge and practices in Cameroon" *Journal of Community Health* 2001;26(6): 459-77

²² V. Scott, L. Gottschalk, K. Wright, C. Twose, M. Bohren, M. Schmitt, & N. Ortayli, "Community health workers' provision of family planning services in low- and middle-income countries: A systematic review of effectiveness" *Studies in Family Planning* 2015;46(3): 241-61.

²³ *Ibid.*

In order to get a sense of the potential demographic, health, and economic impact of family planning, SCIP contraceptive service delivery data was run through the IMPACT 2.0 mathematical model developed by Marie Stopes International (Table 5). The results suggested that providing family planning services has significant returns on investment: the CYPs supported by the SCIP project contributed to over 120,000 unintended pregnancies averted; an estimated 434 maternal and 3,100 child deaths averted over the course of the project; and a savings of nearly 8 million USD in direct healthcare costs.

Table 5. Impact of family planning services for different health results. Impact 2 (v3), Marie Stopes International, 2015

	2010	2011	2012	2013	2014	2015	Total
Demographic impacts							
<i>Unintended pregnancies averted</i>	6,606	10,959	13,417	15,299	28,691	46,189	121,162
<i>Live births averted</i>	3,576	5,932	7,262	8,281	15,529	25,000	65,580
<i>Abortions averted</i>	2,048	3,397	4,159	4,743	8,894	14,319	37,560
Health impacts							
<i>Maternal deaths averted</i>	27	43	51	56	101	156	434
<i>Child deaths averted*</i>	169	280	343	391	734	1,182	3,100
<i>Unsafe abortions averted</i>	1,961	3,253	3,983	4,542	8,517	13,711	35,968
DALYs and economic impacts							
<i>Maternal DALYs averted (mortality and morbidity)</i>	1,670	2,679	3,166	3,482	6,287	9,733	27,017
<i>Child DALYs averted (mortality)*</i>	14,292	23,708	29,026	33,097	62,067	99,921	262,112
<i>Total DALYs averted</i>	15,962	26,387	32,192	36,579	68,354	109,654	289,129
<i>Direct healthcare costs saved (USD)**</i>	417,325	692,287	904,058	998,658	1,981,513	2,917,705	7,911,546
Couple Years of Protection (CYPs)							
<i>Total CYPs (FP only)</i>	31,130	53,217	71,751	85,041	164,390	231,806	637,335

*Estimates of child deaths averted may be unreliable because there is currently very limited data about the linkages between CPR, birth spacing and child mortality.

**Costs saved to families and health care systems on pregnancy-related care (e.g. ANC, safe delivery, treatment of complications including PAC). The default estimate for costs saved are based on “full coverage” – i.e. all women needing care receive it.

²⁴ Z.S. Lassi & Z.A. Bhutta, “Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes” Cochrane Database of Systematic Reviews 2015, Issue 3. Art. No.: CD007754. DOI:10.1002/14651858.CD007754.pub3.

INTEGRATION

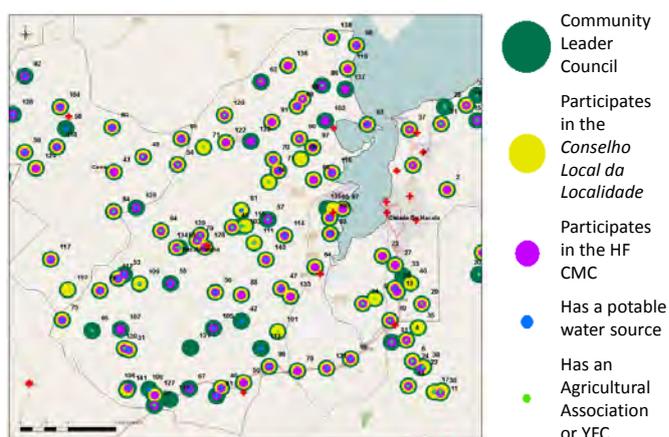
USAID envisioned a multi-sectorial response to holistically address the needs of the population in Nampula Province with a comprehensive development approach. As such, integration was a central theme in the original conception of the SCIP project RFA, and a principal characteristic throughout the design and implementation of project activities. There were three main ways in which the SCIP project was integrated: horizontal, multi-sectorial integration at the community level; vertical integration by working simultaneously throughout the various levels of community and health system structures; and integration of partners in the project management and administration.

At the beginning of the SCIP intervention, community structures (especially CLCs) were largely inactive. The first year of SCIP project focused on the reactivation or creation of CLCs. The mapping exercise of FY15 illustrated that the SCIP project successfully achieved multi-sectorial integration at the community level. “Active” CLCs were mapped along with selected characteristics throughout the 15 SCIP districts in Nampula Province, providing a snapshot of the current level of maturity and functionality of the CLC structures and as well as the degree of multi-sectoriality. 83% of CLCs interviewed reported meeting at least once during the previous three months, 87% had *animadoras* who regularly share community health data with the CLC, 61% had a Male Involvement CLF, 55% had a potable water source, and 36% had an agricultural association and/or YFC. Other key indicators are presented in Table 6.

Table 6. Community mapping results 2015

Domain	Number of CLCs (%)
Good governance	
Reported meeting at least once in the past 3 months	863 (83%)
Participate in the <i>Conselho Local da Localidade</i>	818 (79%)
Has a book to register minutes from CLC meetings	856 (83%)
Health	
Participate in the HF CMC	757 (73%)
Has a CLF in Male Involvement in SRH	633 (61%)
Animadoras regularly share community health data with CLC	905 (87%)
WASH	
Has a CLF in CLTS	757 (73%)
Has a potable water source	573 (55%)
Has a water management book	468 (82%)
Community members contribute funds for maintenance	484 (84%)
Agriculture	
Reported having an agricultural association and/or a youth farmer club	370 (36%)
Total number of CLCs mapped & interviewed	1,036

Figure 18. Integration map: Nacala Velha & Nacala Porto



For example, Figure 18 presents a geographic visualization of the multi-sectorial integration at the community level in Nacala Velha and Nacala Porto. Each green circle represents a CLC, and subsequent circles are layered on top, according to characteristics of their community as detailed in the legend. Communities with yellow circles indicate that a CLC member participates in the *Conselho Local da Localidade*. Purple circles indicate that a CLC member participates in the local HF CMC; the blue circle represents a potable water source; and a light green dot represents the presence of an agricultural association or YFC. The more colors a community has, the higher the degree of integration at the community level.

Another form of “horizontal” integration was implemented within the health sector, through the provision of different technical areas (i.e. offering FP services within HTC-C sessions, ANC, HIV

treatment services, mobile vaccination brigades). Offering multiple services during one visit increases the acceptance and the convenience for clients as well as reduces the number of missed opportunities.

The SCIP project also worked to strengthen “vertical” integration, seeing this strategy as key to increasing efficiency and further sustainability. Using the WASH technical sector as an example (Figure 19), SCIP designed interventions primarily to act at the community, locality, administrative post, and district levels; but also participated in meetings at the provincial and national levels. Working at multiple levels simultaneously reinforced the coherence and consistency of the WASH strategy.



Figure 19. "Vertical" integration of the WASH sector

The “horizontal” and “vertical” integration of the project was facilitated by the integrated program management, planning, and administration structure, taking in account not only the consortium partner inputs but also the larger development community working in Nampula province as described earlier in the Background section.

CHILD MORTALITY (MDG 4) & CHILD HEALTH

Mozambique has made progress in child health, possibly even reaching the MDG objective of decreasing the under-five mortality rate by two-thirds between 1990 and 2015. Family planning itself, as seen in Table 5, contributed to at least 3,100 fewer infant deaths. However, SCIP had an even bigger commitment. Gains in child survival are particularly important when associated with future social gains. A significant consequence of the unacceptably high rate of chronic malnutrition in children under 5 of 55% in Nampula²⁵ is the next generation that will not reach its full intellectual and physical potential, perpetuating the disadvantages of the poorest and least served by social and health systems.

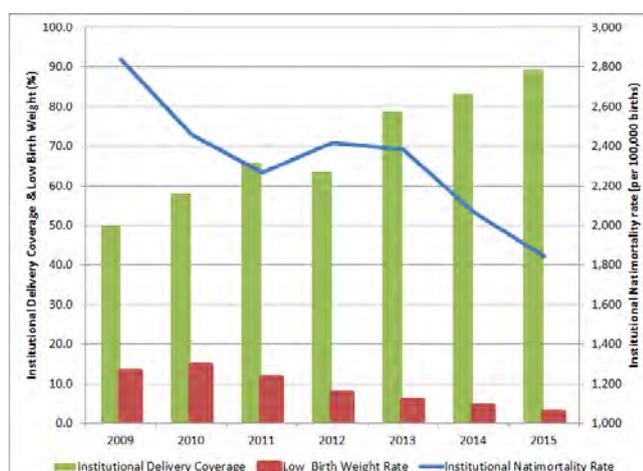


Figure 20. Trends in Low Birth Weight, Institutional Natimortality Rate, and Institutional delivery coverage

As presented in Figure 20, over the course of the project, the institutional natimortality rate (the number of still births divided by the total number of institutional births) decreased from 2,838/100,000 births (2009) to 1,844/100,000 births (2015)²⁶. During the same period, the low birth weight rate (# of children born under 2,500 grams/ total # live births) has reduced from 13.1% to 2.8%.²⁷ Reduction of low birth weight reflects the improved nutritional and health status of the pregnant woman, which was a main focus of the SCIP project. Community activists promoted the importance of a diverse, balanced diet, encouraged women to attend ANC and institutional deliveries, as well as explained the necessity of sleeping under mosquito nets. As discussed earlier, the SCIP endline survey (2014) found that the number of first ANC visits increased over the course of the project, even if the average number of ANC visits per pregnant woman slightly decreased (from 2.52 to 2.27). Furthermore, there were significant improvements in the quality of services provided during these consults, interventions proven to reduce risk factors for low birth weight. Finally, use of mosquito net by pregnant women nearly doubled, from 30.7% at baseline (2010) to 55.0% at endline (2014).

The improvement in the quality of services is clear. Increasing institutional births, while at the same time reducing maternal and neonatal deaths, as well as decreasing the proportion of children born weighing less than 2,500 grams, is indicative of a significant transformation of health indicators.

²⁵ Mozambique DHS 2011.

²⁶ Health system data.

²⁷ Ibid.

Nutrition

As mentioned earlier, the project saw significant and consistent reductions in acute malnutrition rates over the last two years (FY14 & FY15), dropping from an initial 8% (March 2014) to 1.7% (December 2015)²⁸ in the total number of children screened. Figure 21 shows the results by cohort (PIA1, PIA2, etc.) over successive screenings for acute malnutrition, as well as the number of children screened in each cohort, showing that similar trends were observed in each group. Acute malnutrition rates for P3AI were less consistent than in

other cohorts. After analyzing the data, it was clear that the high rates in this cohort were attributable to two specific localities, allowing SCIP to target technical assistance to better understand the specific challenges faced in these two areas and develop appropriate interventions. Political tensions in one locality impeded the mobilization and sensitization efforts of *animadoras* and CLFs, while in the other locality was experiencing severe food insecurity following the floods of JFM15.

Programmatic data at the community level clearly illustrated the contribution that quality community-level services made towards this achievement. On average, 88% of acutely malnourished children identified via MUAC were referred to the HF, of whom 87% completed their referral. An average of 84% of acutely malnourished children identified via bilateral edemas were referred to the HF, of whom 93% completed their referral. 79% of children being followed up received at least three visits at home, 93% were enrolled in the community nutrition rehabilitation sessions, and 94% gained sufficient weight to graduate.²⁹

The SCIP nutrition strategy built on the existing community platform of CLCs and *animadoras* consolidated during the first four years of implementation, which allowed us to mobilize quickly and achieve impressive results in a short period of time. As the intervention covered a general population of 900,000, distributed among specific localities, a subset of nutrition data can be extracted from the 2016 DHS results and can be used to verify (or not) the contribution of the community-based intervention.

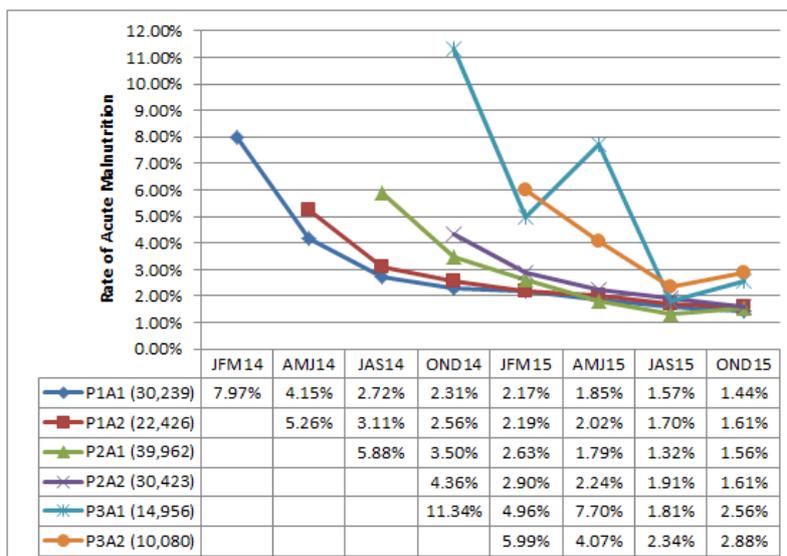


Figure 21. Quarterly Acute Malnutrition Rates of children 6-59 months, by cohort Jan14 - Dec15

²⁸ SCIP programmatic data

²⁹ Ibid.

INCREASE SUSTAINABLE ACCESS TO SAFE DRINKING WATER AND BASIC SANITATION (MDG 7)

Access to potable water is a priority for communities. As stated earlier, SCIP was able to increase access to potable water for over 300,000 people through the construction and rehabilitation of water sources at the community level.

The mapping exercise of 2015 showed the cascade of WASH characteristics at the community level. An example is seen in Figure 22.

564 (54%) of the 1,036 CLCs mapped reported having a functioning potable water source. Of these, 468 (83%) have a water source management book, and 489 (87%) reported that community members contributed regularly for maintenance and management.³⁰ These are two key factors influencing the sustainability of rural water investments. These indicators highlight that water management and contributions have become routine and are guiding communities towards achieving sustained potable water access.

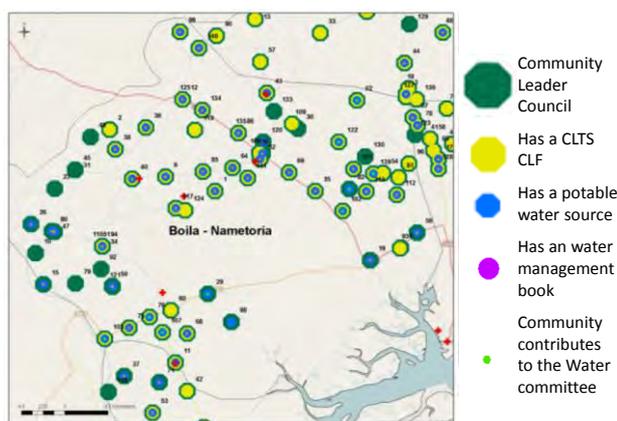


Figure 22. Snapshot of WASH cascade in Nametoria-Boila, Angoche

In complementary districts with the WASH intervention integrated within the original SCIP design, the percent of the population using improved sanitation facilities increased from 23.2% in 2010 to 40.4% in 2014³¹.

³⁰ SCIP mapping survey, 2015.

³¹ SCIP endline survey, 2014.

MOVING FORWARD: RECOMMENDATIONS AND LESSONS LEARNED

After six years of implementing the SCIP project in Nampula Province, the following are recommendations based on the experience and lessons learned:

- 1. Support normative change within CLCs.** Improved conditions and quality of service delivery is important, but may not produce the cultural and normative change required to impact health indicators. Reinforcing the quality of health services is important, but health is not only produced through services provided at the HF. Rather, it is shaped through the social network and the cycle of the behavior change process that is, in turn, the result of shifts in values, priorities, and norms. An active and committed community platform is fundamental in order to change health practices in the community, whether for adherence to FP services, community referrals to the HF for institutional delivery, management of water sources, etc. The case of improved institutional delivery coverage over the course of the project is a prime example: community leaders became empowered following discussions on maternal and SRH, recognizing the power they have over maternal health outcomes, and established new community norms of adhering to HFs for antenatal care and institutional deliveries. It is essential that the community health network is in constant dialogue with the health system so that all actors gain a better appreciation of what is expected of them and what they must do to play their part.
- 2. One must be ambitious and challenge the status quo.** Health is complex. Evidence is important, but should be adapted to the context. Technological innovations or intervention should not be scrutinized in a way that impedes innovation. Nampula province can position itself as a place for piloting new technologies and interventions and should be assertive in its expansion of coverage when innovations prove promising. SCIP's FP intervention illustrates this well: the introduction of the implant was hugely successful, with demand exceeding availability from the initial pilot. After advocating successfully for the integration of FP services in outreach activities, such as mobile vaccination brigades and national MCH weeks, CYP increased dramatically, across an increasingly diverse method mix. The experience in Nampula demonstrates that this strategy is effective, and should be considered in other provinces.
- 3. The traditional approach can be excellent.** Being open to new things does not mean abandoning proven, evidence-based approaches. Recognizing and continuing to invest in what works is being politically, socially and financially responsible, respecting the dedication and investment made by donors and communities. For example, the SCIP nutrition strategy built on established strategies known to be successful in reducing acute malnutrition, such as nutritional rehabilitation through enriched porridge, and use of the MUAC tape at community level to screen for acute malnutrition, and leveraged the existing knowledge and organization of the community network developed by SANA and SCIP. Sometimes, new management and managers, new organizations and organizers want to leave their legacy by implementing new approaches. The SCIP innovation was the shift in focus, encouraging communities to use these tools to resolve their problems by considering the root causes of malnutrition, and through using community data to track progress. The only legacy worth leaving is respect for the individual and his/her universal right to health, which can be achieved through applying proven approaches and carefully testing innovations to assess whether they are effective.
- 4. Integration shows that 1+1=3.** Integration is not the sum of actions, but the building of relationships between different parts. Integration goes beyond the obvious. Traditionally, investing in integration is the role of the provincial and district government, but integration is real when it's taking place at the locality and the community levels. The idea that integration is the simple introduction of an additional technical component (for example, offering family planning services during a postpartum visit) must be overcome. Integration requires intention, determination, and normalization with ample respect of human rights, as well as a

management that understands what and when to integrate according to the epidemiological, cultural, and financial reality. Finally, integrated approaches are better received by the community because they are more likely to address their diverse problems.

The community nutrition intervention is a good example to illustrate the value of an integrated multi-sectorial approach. When considering the cases of acute malnutrition in the community, animadoras and CLFs visited the houses of acutely malnourished children to explore the various causes resulting in malnutrition: use of the mosquito net to prevent malaria, access to and usage of potable water for prevention of diarrhea, timely use of child HF services to reduce or prevent common childhood diseases, household food security, and use of family planning to space births. Integration shows the community how their problems are related. With this global understanding, they are more empowered to take action.

- 5. Management and transformational leadership.** Transformative leadership is not individual, but results from the collective work process of a skilled and competent team, acting at the different levels. A community leader can change the way certain processes occur and generate more health for everyone. To this end, processes of community participation must be disseminated. Opportunities to access health information must be shared intentionally, and mechanisms emphasizing horizontal dialogue and decision-making must be established. The CLCs, the Water Committees, the CLL, and the HF co-management committees will continue using these spaces for dialogue in order to value the progress made, to identify barriers and define the steps needed to overcome them. This is development.
- 6. More consistency and less dependence.** Graduation targets for development assistance should not be strict benchmarks, but should guide different and gradual levels of support. Capacity development includes not just transferring of equipment, tools, and systems, but implies a continuous adaptation of the way the leadership and involved actors build and contextualize an adequate response to the health needs specific to each region. There is an unavoidable dependence on donors and other project implementers. This dependence does not need to be a relationship of submission, but of complementarity. The health systems manager first needs to have principles and a vision for health, with a team qualified to negotiate with other actors. The responsibility of projects like SCIP is to nurture this capacity.
- 7. Decentralize, decentralize, decentralize.** As a fundamental principle for decisions in health, decentralization can only take place when the central and provincial levels have the capacity to assist districts and localities with their technical needs and to support more informed decision-making at the local level. The local level includes the community and the people: the most affected, and those who, in the end, make their own decisions.
- 8. Health is development. Development is impossible without health.** A recent report from the International Monetary Fund³² points out that “there is no silver bullet” in development. Inequalities in health and education traverse all levels of development. Donors, implementers, government, and community leaders must monitor and analyze the most essential development indicators regularly and address coordinated and multi-sectorial actions. The Sustainable Development Goals are not just a new trend. They point to integrality as inevitable to really promote transformation and development. SCIP proved this. More than once.

³² IMF, Catalyst for Change: Empowering Women and Tackling Income Inequality, October 2015.

ANNEX I: HEALTH FACILITY REHABILITATIONS AND EXTENSIONS

District	Health Facility	Work undertaken	Date handed over
Angoche	Sangage HF	Rehabilitation New roof	January 2012
Eráti	Namapa HF	Rehabilitation Waiting areas MCH consultation rooms	August 2013
	Nantoge HF	Extension	September 2014
Lardes	Larde HF	Rehabilitation	March 2014
Malema	Murralelo HF	Extension	March 2012
	Mutuali HF	Rehabilitation Outpatient consultation area Roof Ceiling and wall repairs Electrical fitting	July 2012
Meconta	Meconta HF	Rehabilitation Waiting area 2 MCH consultation spaces	March 2012
	Nacavala HF	Rehabilitation Roof Replacement of foundation Windows, fittings Electrical re-fitting	December 2012
	Teterrene HF	Rehabilitation Maternity	December 2010
		Rehabilitation External consultation block Roof	September 2013
Mecubúri	Popué HF	Extension	June 2013
Memba	Mazua HF	Rehabilitation Maternity External consultation block	March 2014
		Rehabilitation Main building	March 2013
Moma	Uala HF	Extension	March 2013
Monapo	Muatuca HF	Rehabilitation	August 2013
Nacala Porto	Naherengue HF	Rehabilitation Water supply	March 2012
		MCH porch MCH consultation spaces	September 2012
	Quissimanjulo HF	MCH porch MCH consultation spaces Two provider houses	August 2013
Nacala Velha	Nacala Velha HF	Rehabilitation MCH porch MCH consultation space	September 2012
Rapale	Caramaja HF	Rehabilitation	June 2010
	Mucova HF	Extension	April 2013
	Namachilo HF	Rehabilitation	July 2013

		Maternity	
	Rapale HF	Rehabilitation AYSRH Services space	March 2011
Ribáuè	Escola Básica Agraria HF	Rehabilitation Water distribution system	September 2010
	Iapala Monapo HF	Rehabilitation	December 2013
	Namigonha HF	Rehabilitation	March 2014
	Riane HF	Extension	March 2012

ANNEX 2: PRODUCTS, PUBLICATIONS, REPORTS, AND PRESENTATIONS DEVELOPED OVER THE LIFE OF THE PROJECT

PRODUCTS

1. Pamphlet: 7 Razões Para Usar o Preservativo
2. Flip book: Saúde Reprodutiva e Abordagem Integrada das Doenças Infantis para Agente Comunitário
3. Flip book: Práticas de Horticultura
4. Flip book: Métodos seguros de planeamento familiar
5. Flip book: Agricultura de Conservação
6. Poster: Conhece as suas escolhas de planeamento familiar?
7. Flip book: Aproveite as Suas Consultas - Para informar sobre o planeamento familiar
8. Poster: Dupla Protecção – Purple, Red
9. Poster: Dupla Protecção – Red with text boxes
10. Poster: Com intervalo de pelo menos 2 anos entre o nascimento de cada filho
11. Poster: Como se apanha a diarreia?
12. Poster: Efeito das queimadas descontroladas
13. Poster: Em casos de diarreia, Prepare mistura de 1 pacote de SORO com 1 litro de água limpa
14. Decal: LIFECA Livre de feccalismo a céu aberto. SANTOLIC
15. Poster: Planeamento Familiar no Pós-Parto
16. Flip book: Práticas de higiene e saneamento
17. Poster: Protege o que é importante para ti Usa sempre a Rede Mosquiteira
18. Pamphlet: Saiba mais Acerca Dos Métodos do Planeamento Familiar
19. Flip book: Saúde do Recém Nascido - Cartões de informação, educação e comunicação
20. Flip book: Vulnerabilidade das Crianças Órfãs e Vulneráveis, (COVs) doentes crónicos e suas famílias



PUBLICATIONS

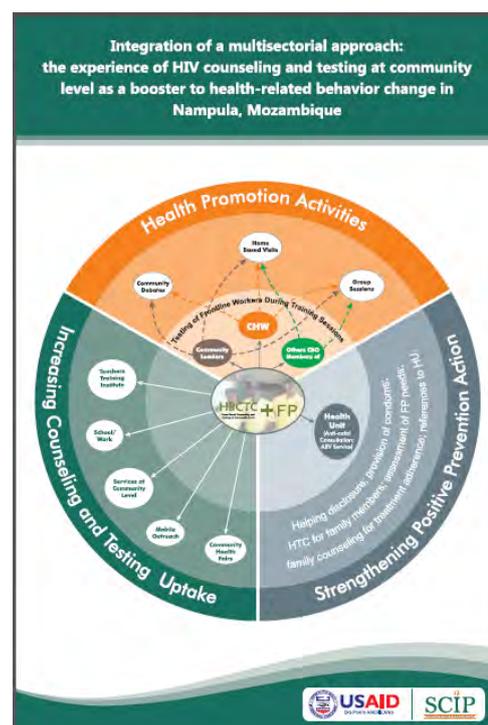
1. SCIP Integration Concept Note (July 2012)
2. Empowering Communities through Integrated Systems Strengthening in Northern Mozambique (December 2012). English and Portuguese.
3. Traditional birth attendant “Mana” Linda honored with REAL Award for health workers (May 2013)
4. Evaluating the Coverage and Cost of Community Health Worker Programs in Nampula Province in Mozambique (October 2013)
5. A Holistic Coordinated Approach to Community-based Family Planning across Projects in Mozambique (March 2014)
6. A Cost-Effectiveness Analysis of Community Health Workers in Mozambique (October 2015)
7. Integrated Health and Community Systems Strengthening for Improved Contraceptive Access and Uptake in Nampula Province, Mozambique (October 2015)
8. SCIP At A Glance - Improving the Quality of Life in Nampula (September 2015)
9. Strengthening Communities Through Integrated Programming (SCIP): Translating Words Into Actions (December 2015). English and Portuguese.
10. Integrated Health and Community Systems Strengthening for Improved Contraceptive Access and Uptake in Nampula Province, Mozambique featured in Insights from outside, BJOG: An International Journal of Obstetrics and Gynaecology (March 2016).

REPORTS

1. Annual Report: October 2009 – September 2010 (October 2010)
2. Performance Monitoring Plan - FY1 - October 2009-September 2010 (October 2010)
3. SCIP Nampula Baseline Survey Report (March 2011)
4. Report for the Data Quality Audit for SCIP (Strengthening Community through Integrated Programming) Nampula Mozambique (March 2011)
5. Annual Report: October 2010 – September 2011 (October 2011)
6. Performance Monitoring Plan - FY2 - October 2010-September 2011 (October 2011)
7. Annual Report: October 2011 – September 2012 (October 2012)
8. Performance Monitoring Plan - FY12 - October 2011-September 2012 (October 2012)
9. Análise da contribuição do projecto SCIP na criação da demanda e utilização de serviços de saúde em 14 distritos da Nampula (April 2013)
10. Inquérito Sobre a Situação Actual dos Clubes de Jovens Agricultores em Nampula - 2012 - Relatório Final (May 2013)
11. Annual Report: October 2012 – September 2013 (October 2013)
12. Performance Monitoring Plan - FY4 - October 2012-September 2013 (October 2013)
13. Performance Evaluation of the USAID/Mozambique Strengthening Communities through Integrated Programming (SCIP) Evaluation Report (January 2014)
14. Annual Report: October 2013 – September 2014 (October 2014)
15. Performance Monitoring Plan - FY5 - October 2013-September 2014 (October 2014)
16. SCIP Nampula Endline Survey Report (July 2015)
17. Annual Report: October 2014 – September 2015 (October 2015)
18. Performance Monitoring Plan - FY6 - October 2014-September 2015 (October 2015)
19. Relatório Narrativo da Avaliação Externa de Qualidade de Dados (September 2015)

PRESENTATIONS

1. Fortalecimento das Comunidades através da Programação Integrada (SCIP) Strengthening Communities through Integrated Programming (December 2009)
2. Main Strategies of SCIP Nampula for Presentation at Gurue (February 2011)
3. Resultados do Estudo de Linha de Base - SCIP Nampula (March 2011)
4. Poster Presentation: Integration of a multisectorial approach: the experience of HIV counseling and testing at community level as a booster to health-related behavior change in Nampula, Mozambique (June 2011) ICASA Conference, Addis Ababa, Ethiopia
5. Resultados finais Mapeamento SCIP Nampula (August 2012)
6. Mapeamento de principais intervenções em 14 distritos da Província de Nampula (August 2012)
7. USAID SCIP Meeting Nampula (September 2012)
8. Oral Presentation: Community-Level Integration of Family Planning and HIV Counseling and Testing in Nampula Province, Northern Mozambique (September 2012), Integration for Impact Conference, Nairobi, Kenya.
9. Oral Presentation: Integração a nível comunitário do Planeamento Familiar e Aconselhamento e Testagem em HIV na Província de Nampula (September 2012), Jornadas de Saúde conference, Maputo, Mozambique.
10. Oral Presentation: Abordagem combinada aumenta significativamente o uso dos dispositivos intra-uterinos (DIUs) em mulheres na idade reprodutiva da província de Nampula (September 2012), Jornadas de Saúde conference, Maputo, Mozambique.
11. Poster Presentation: Garantindo continuidade de cuidados no âmbito da ligação entre os serviços PTV e a prevenção positiva na comunidade (September 2012), Jornadas de Saúde conference, Maputo, Mozambique.
12. Sistema de Distribuição Comunitário de Métodos de Planeamento Familiar em Nampula (November 2012).
13. Strategy for increasing use of Contraception/Family Planning (November 2012)
14. SCIP Project in Northern Mozambique- Improving health and environment through integrated systems approaches. Wilson Center (March 2013)
15. Combining Health and Food Security in Nampula, Mozambique: An Interview With Pathfinder International's SCIP Project. Wilson Center (April 2013)
16. Visita da Sua Excia. o Sr Secretario Provincial de Nampula (May 2013)
17. Oral Presentation: Combined community and health system strategies to increase institutional deliveries: lessons from an emerging practice in Mozambique (November 2013) APHA Conference, Boston, USA.
18. Poster Presentation: Successful Implant Pilot in Nampula, Mozambique (November 2013), International Conference on Family Planning, Addis Ababa, Ethiopia.
19. Poster Presentation: Championing Male Involvement in PMTCT: The SCIP Experience in Nampula, Mozambique (July 2014), AIDS Conference, Melbourne, Australia
20. SCIP Endline Survey Results Presentation (June 2015)
21. SCIP Resultados Comparativos - Linha de base versus final (June 2015)
22. A experiencia WASH em Nampula: “uma estratégia abrangente” (June 2015)



23. CLTS in Nampula: Conclusions by EAWAG (August 2015)
24. A experiencia das comunidades de Nampula - Uma Estratégia Compreensiva na Redução da Desnutrição (September 2015)
25. Oral Presentation: It's about the community, stupid: Integrated systems strengthening for improved contraceptive access and uptake in Northern Mozambique (January 2016), IFP Conference, Bali, Indonesia

ANNEX 3. BUDGET REPORTING FOR AUGUST 1, 2009 – MARCH 31 2015

The SCIP project had a total budget of 51,939,817 USD.