Master's Capstone Project

They Know Best: Testing intervention packages to improve adolescents' access to and use of sexual and reproductive health services in emergencies

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Contents

Abstract

Adolescent sexual and reproductive health needs are often overlooked in humanitarian settings, putting adolescents at increased risk of early and unprotected sex, unintended pregnancies, unsafe abortion, and STIs. The International Rescue Committee (IRC) implemented an operational research study to test two different intervention packages aimed at increasing adolescent access to and use of high-quality sexual and reproductive health (SRH) services in crises.

The IRC selected three health facilities and their catchment areas and assigned them to one of three arms: the Core ASRH Package; the Engage, Empower and Act for Adolescent Health Package (EEAA); and a control arm. The IRC evaluated the effectiveness of each intervention package by measuring the use and quality of SRH services at baseline and endline using a mixed-methods approach.

Reproductive health services sought by adolescents in each health facility's catchment area were monitored from January 2018 to June 2019. After endline data analysis was conducted, no notable difference in adolescent service uptake between facility sites was found. Across sites, the rate of service utilization was also relatively unchanged from baseline to endline. In addition, the study found that underlying SRH service delivery quality was quite low across all sites, with especially low uptake of more stigmatized services like family planning, abortion care, and sexual assault care. Improvements made in ASRH quality were insufficient to increase use of services in the context of weak health systems and high user costs.

Investing in SRH service delivery and quality improvement, alongside ASRH specific interventions, is critical to sufficiently meet the needs of adolescents within the context of weak health systems and humanitarian settings. Program implementers and health system strengthening initiatives must eliminate adolescent health user fees in order to remove barriers to care and improve health equities.

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Background

Adolescents have unique sexual and reproductive health (SRH) needs and, in humanitarian settings, these needs intensify. In particular, adolescents in crises are at risk of early and unprotected sex, unintended pregnancies, unsafe abortion and Sexually Transmitted Infections (STIs). Yet there is limited evidence on effective interventions for increasing adolescent access to and use of SRH services in crises and humanitarian funding is often insufficient to meet adolescent SRH needs.[i]

More information is needed to better understand the vulnerabilities and needs of adolescents in emergency settings, especially girls. The evidence base for adolescent sexual and reproductive health (ASRH) is poor, despite adolescent girls being at the highest risk of maternal morbidity and mortality and more likely to pursue unsafe abortions.[ii] Most ASRH research has focused on development settings and there are few documented examples of effective and evidence-based approaches in emergencies that improve access and quality of ASRH.[iii]

Existing evidence on ASRH interventions shows that many strategies proven to be ineffective continue to be implemented and replicated, and strategies that have been shown to be effective are delivered inadequately. Youth centers, peer education, and high-profile meetings on ASRH have been shown to be ineffective yet remain popular approaches and peer education programs mainly benefit peer educators rather than their intended beneficiaries.[iv] Interventions that have been proven to be effective, such as comprehensive sexuality education and appropriate SRH services, are often poorly implemented.[v] Available evidence on effective adolescent participation frameworks in sexual and reproductive health programs – in both development and humanitarian contexts – is even scarcer. Many ASRH implementers continue to struggle with operationalizing adolescent participation within their program frameworks.[vi]

The overall goal of this research was to document the lessons learned and ultimately improve the humanitarian field's understanding of the most effective and efficient package of interventions to improve adolescent SRH and meaningful engagement in complex emergencies

Methods

Study design

They Know Best was an operational research study seeking to identify the most effective combination of interventions to increase adolescent use of sexual and reproductive health services in humanitarian settings. To achieve this goal, the IRC tested and evaluated two packages of interventions for adolescents in Panyijar County, South Sudan and Borno State, Nigeria: Core ASRH and Engage, Empower, and Act for Adolescents.

In each country context, the IRC purposively selected three health facilities and their catchment areas to participate in this research. All three health facilities were government managed and supported by the IRC to provide SRH services and served populations that were similar in population density, ethnicity and exposure to crisis.

In each setting, one facility served as a control arm and received no additional interventions other than the ongoing SRH support; the second received the Core ASRH intervention package; and the third received the Engage, Empower, and Act for Adolescents Health Package.

Intervention

The Core ASRH and Engage, Empower, and Act for Adolescents interventions were modeled after existing adolescent sexual and reproductive health programming resources and adapted from evidence based ASRH strategies from more stable settings. Interventions were designed to meet the World Health Organization's Global Standards for Quality Health-Care Services for Adolescents.[vii]

The IRC implemented this study in three health facilities per country:

Table 1: Selected health facilities, Nigeria

Control	Core ASRH	EEAA
Yerwa PHCC	Gwange PHCC	Dala PHCC

Table 2: Selected health facilities, South Sudan

Control	Core ASRH	EEAA
Duong PHCC	Nyal PHCC	Ganyiel PHCC

The Core ASRH package included the following interventions:

- Rapid three-day training for health care providers on adolescent-friendly service provision including activities on values clarification and attitude transformation to improve provider attitudes and confidence in delivering ASRH services.
- ASRH supportive supervision for health providers with a team of adolescent co-advisors using an ASRH facility readiness checklist and supervision tool.

- Monthly ASRH data analysis and use meetings with health providers to discuss ASRH service progress and identify opportunities for course correction.
- Reorganization of health facility operations to be more responsive to adolescent health needs.
- Training for Community Health Workers (CHWs) on and how to effectively facilitate ASRH outreach sessions
- Facilitation of adolescent outreach sessions to improve adolescents' awareness of the need for and availability of SRH services.
- Meetings with community leaders and parents to improve their awareness of, and support for, ASRH services.

The EEAA package included all the Core ASRH interventions, as well as Participatory Action Research (PAR) with adolescents and key adult influencers. Within the EEAA package, the PAR methodology convened four primary stakeholder groups: adolescent girls, adolescent boys, male 'adult influencers' and female 'adult influencers.' Male and female adult influencer groups included a range of critical stakeholders that affect adolescent access to and use of health services including, but not limited to: parents/guardians of adolescents, frontline health providers, Community Health Workers, teachers, community leaders, and local religious leaders.

The PAR process involved:

- Training local community members to facilitate meetings
- Stage 1 meetings: four separate meetings with adolescent girls, adolescent boys, female adult influencers, and male adult influencers
- Stage 2 meetings: included 10 participants from each stage 1 meeting to compare, contrast, and prioritize actions
- Implementing actions and monthly coordination meetings
- Review meeting to reflect on experiences and progress at the six-month mark.

Ethical considerations

The IRC's Institutional Review Board, the South Sudan Ministry of Health and the National Health Ethics Research Committee of Nigeria reviewed and approved the research protocol. IRC researchers collected the data. Voluntary, informed consent was obtained from all respondents.

Subjects

This study did not designate a set pool of participants, but rather measured the service usage of adolescents within each catchment area. Health behavior among all youth aged 10-19, was measured over the course of this study. Services delivered to adolescents at any of the six facilities was recorded and utilized for this study.

While the participants were largely female, this study recorded all adolescent data regardless of gender. It also did not segment married from unmarried adolescents. Residency of each catchment area was not verified at the time of visit but was assumed based on the clinic the adolescent chose to visit.

Setting

South Sudan:

They Know Best was implemented in Panyijar County, a swampy area governed by the political opposition and located in conflict-ridden Unity State which was severely affected in 2017 by food insecurity and famine. The state of adolescent sexual and reproductive health in Unity State is bleak - in 2010, the national adolescent birth rate was 158 per 1,000 women, while it stood at 197 in Unity State.[viii] Nearly half (48%) of women ages 20 – 24 in Unity State reported having had a live birth before the age of 18, a figure which was reported at 27.9% across the country. An astounding 98.7% of currently married or in union women ages 15 – 49 in South Sudan are not using a modern contraceptive method.[ix]

Much of the infrastructure and health system in the affected areas are in poor condition or nonexistent, leaving the population without access to health care. Reproductive health, a cornerstone to women and girl's wellbeing, is essentially unavailable. Across the country, the modern contraceptive prevalence rate is 6%, and the maternal mortality rate is 789 per every 100,000 women.[x]

During program implementation, the South Sudan team faced significant challenges related to health funding mechanisms and national workforce policy. The South Sudan Health Pool Fund (HPF) is a funding mechanism supported by multiple donor governments that works with the government of South Sudan to strengthen its capacity to deliver health services on its own. The transition from HPF Phase 2 to Phase 3, which took place between September 2018 and April 2019, significantly impacted health service delivery and the outcomes of this operational research study. Unlike the two intervention facilities, the Duong health facility (the control site) was primarily managed by a local implementing partner, UNIDO, with support from the IRC. At the end of HPF Phase 2, the Duong facility faced significant staff turnover and disruption, with SRH service delivery underprioritized and inadequately resourced for the remainder of the project implementation period.

In April 2019, the introduction of a new harmonized pay scale by the government for health providers across the country resulted in huge pay cuts to the MOH staff ranging from 10-54% for some cadres. The Local Health Department coordinated and led health worker strikes that essentially halted the delivery of health services in each project facility. This fueled community tensions, increased security risks for IRC staff, and eventually resulted in IRC medical staff evacuation. As a result of these challenges, SRH services were largely inaccessible during the program implementation period across all three South Sudan project sites.

Nigeria:

In Nigeria, the escalation of violent conflict in the northeastern region, largely driven by the emergence of the militant Islamist group, Boko Haram, has caused an acute humanitarian crisis. Of the estimated 1.7 million internally displaced persons (IDPs), 77% are in Borno state. Maiduguri, Borno state's capital, and Jere, a neighboring Local Government Area (LGA), have the highest numbers of IDPs in the region.

Nigeria's 2013 Demographic Health Survey, established disparities between adolescents in Borno state and adolescents in the rest of the country. While nationally, 29.1% of women aged 20–24 gave birth before the age of 18, the same figure stands at 41.2% in Borno state. Similarly, half (50.3%) of adolescent girls ages 15–19 in Borno state are sexually active, while slightly under one third (29%) of their national counterparts are. Approximately one fifth (22.5%) of women aged 20-24 in Borno state were married before the age of fifteen, and among adolescents aged 15–19 who are married or living in union, 0% in Borno state are using a modern contraceptive method.[xi]

Over the course of the study, the Nigeria project facilities were integrated into a health systems reform project known as the Additional Financing National State Health Investment Project (AF-NSHIP). NSHIP is an MOH performance-based financing (PBF) project funded by the World Bank aimed at improving maternal and child health. As part of NSHIP, the three health facilities had to enforce new policies on free and costed health services for clients (prior to this program, SRH services were free to all clients across all three facilities).

In addition, the Gwange health facility staff agreed to waive the fee for all ASRH services, whereas Dala was only able to waive the fees if the commodities or medications were available and procured at no cost to the facility. Therefore, if the Dala facility had to purchase a particular drug or commodity, then adolescents would be asked to pay a small fee. It is important to note that these differing cost policies may have significantly limited comparability of these three project sites during program implementation.

Measures

The IRC used mixed methods to evaluate the effectiveness, feasibility, and acceptability of each intervention package at baseline and endline (six months after implementation in South Sudan and Nigeria). To measure adolescent use of SRH services, the IRC collected services statistics from health facility registers on the quantity of SRH services received by adolescents at baseline (a six-month period prior to program implementation) and endline (January to June 2019, the program implementation period). This included:

- Number of adolescent clients who presented for their fourth antenatal care visit
- Number of adolescent clients who delivered in a facility
- Number of adolescent girls who received STI treatment
- Number of adolescent boys who received STI treatment
- Number of new adolescent family planning acceptors (in Nigeria only)
- Number of Couples Years of Protection delivered to adolescent clients (in South Sudan only)
- Number of adolescent clients treated for post abortion care
- Number of clients who received clinical care for sexual assault, disaggregated by gender

Data to measure the quality of SRH service delivery offered to adolescents were also collected through client interviews; facility readiness assessments; and knowledge, attitude, and practice

questionnaires. However, this manuscript will focus solely on the quantity of services delivered to adolescents.

Data Collection

Service delivery data were extracted by a program facilitator one month prior to and upon completion of the interventions at the three selected health facilities in South Sudan and Nigeria. Data were translated from clinic logs to Excel spreadsheets. These data were then compiled and cleaned to prepare for analysis.

Service delivery data were counted as the number of services accessed per month, not necessarily the number of unique visitors per month.

Data Analysis

Because this study did not designate a unique pool of participants, this study analyzed the percent change in service utilization at baseline compared to endline, as well as changes in the proportion of adolescents accessing services. Health service delivery data were cleaned, analyzed and stored in Microsoft Excel.

Results

One of the primary objectives of They Know Best was to increase adolescent use of SRH services. To measure change in ASRH service use, the IRC collected and compared baseline ASRH service delivery data with endline data from all project sites located in both South Sudan and Nigeria.

In Nigeria, the IRC collected and analyzed data on antenatal care (ANC) consultations, facility delivery, family planning (FP) and sexually transmitted infections (STIs). Data for post abortion care (PAC) and clinical care for sexual assault survivors (CCSAS) was not available during baseline and no clients presented for these services during the implementation period in any of the project sites. In South Sudan, the IRC collected and analyzed data on ANC, facility delivery, FP and STI data. No clients presented for CCSAS services in any of the sites during the baseline and implementation periods.

No notable increases in ASRH service use were found in either South Sudan or Nigeria following implementation of the two intervention packages. In fact, service usage generally declined across the board in all settings. Similarly, there were no substantial differences in ASRH use identified between the Core ASRH and EEAA intervention sites in each respective country, given the low number of adolescents served in both baseline and endline.

Table 3: Number of adolescent visits by service, Nigeria
(Baseline = July – December 2018, Endline = January – June 2019)

	New FP acceptors		STI - girls		STI - boys		Deliveries		ANC visits	
	B	E	B	E	B	E	B	E	B	E
Gwange (Control)	11	8	13	21	1	0	42	26	255	14
Yerwa (Core)	12	8	16	7	0	0	69	42	42	36
Dala (EEAA)	6	3	13	8	0	1	22	0	9	17

Table 4: Number of adolescent visits by service, South Sudan
(Baseline = February – June 2018, Endline = January – June 2019)

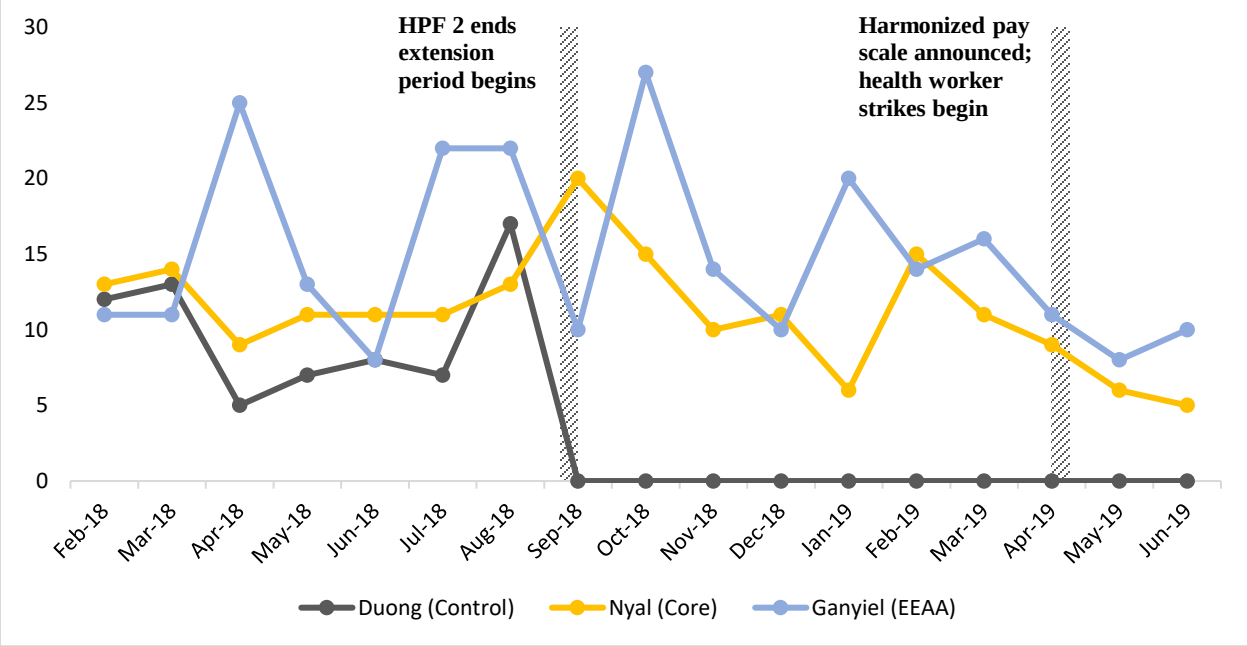
	Couple Years Protection		STI - girls		STI - boys		Deliveries		ANC visits		PAC visits	
	B	E	B	E	B	E	B	E	B	E	B	E
Duong (Control)	0.00	0.00	8	0	0	0	1	0	36	0	0	0
Nyal (Core)	0.38	0.27	2	1	0	0	28	24	28	22	3	0
Ganyiel (EEAA)	0.33	0.87	4	8	0	4	31	19	33	38	0	3

In the Duong health facility in South Sudan, IRC's local partner, UNIDO, struggled to maintain continuity of SRH services during health funding mechanism transitions, staff shortages and

subsequent health worker strikes. This explains the sharp decline in ASRH service use in that facility during the program implementation period – no adolescents or adults were served for any SRH services during the program implementation period.

Figure 1: Total ASRH services over time, South Sudan

The control site, Duong, was not able to provide SRH services after the HPF extension period began. Services declined at the Core and EEAA sites as well, with steep declines after health worker strikes began in April 2019.



Adolescents used SRH services less frequently than adults across all project sites during the program implementation period. There were no sizable increases found in the proportion of adolescent clients served for any SRH service when comparing baseline and endline data in each intervention arm in South Sudan and Nigeria.

Table 5: Percent of clients that were adolescents, by service, Nigeria

(Baseline = July – December 2018, Endline = January – June 2019)

	New FP acceptors		STI - girls		STI - boys		Deliveries		ANC 4 visits	
	B	E	B	E	B	E	B	E	B	E
Gwange (Control)	1.77%	1.32%	3.82%	7.03%	0.61%	0.00%	6.17%	4.77%	0.52%[1]	2.93%
Yerwa (Core)	1.80%	1.33%	4.10%	1.71%	0.00%	0.00%	7.06%	5.63%	3.78%	4.04%
Dala (EEAA)	1.27%	0.69%	2.80%	4.70%	0.00%	1.14%	10.23%	0.00%	3.64%	7.85%

[1] Due to missing ANC registers in Gwange health facility for the period covering July to December 2018, the team was unable to report the proportion of clients that are 19 or younger who presented for their fourth ANC visit at both baseline and endline. Instead, ANC4 data for adolescents age 18 or younger is used to calculate this indicator here for both baseline and endline, as it was available in IRC's health program database.

Table 6: Percent of clients that were adolescents, by service, Nigeria
(Baseline = February – June 2018, Endline = January – June 2019)

	CYP Delivered		STI Treatment		Deliveries		ANC 4 visits		PAC	
	B	E	B	E	B	E	B	E	B	E
Duong (Control)	0.80%	0.00%	15.87%	0.00%	2.04%	0.00%	15.36%	0.00%	0.00%	0.00%
Nyal (Core)	21.10%	7.60%	4.55%	0.49%	21.85%	12.56%	13.49%	4.59%	30%	0.00%
Ganyiel (EEAA)	7.38%	10.28%	4.07%	6.76%	17.56%	12.00%	18.38%	15.83%	0.00%	44.4%

Adolescents used maternity services at a higher level than other services such as CCSAS, PAC, FP and STI care. This indicates adolescents continue to face more barriers in accessing these more stigmatized SRH services than adults. Furthermore, despite the substantial need for STI prevention and treatment services, very few adolescent boys accessed services during the program period.

Discussion

Implementation of the Core ASRH and Engage, Empower and Act for Adolescent packages did not substantially increase the use of ASRH services in South Sudan and Nigeria. In addition, there were no major differences in uptake of services found between the two intervention packages. Improvements made in ASRH quality were insufficient to increase use of services in the context of weak health systems and high user costs.

During program implementation, there were significant SRH service delivery gaps across the South Sudan and Nigeria project sites – CCSAS and PAC services were largely unavailable in both countries and family planning (FP) service uptake was especially poor in South Sudan, with no long-term FP method service provision, even among adult clients. Health system instability posed severe challenges to service delivery in South Sudan, and differing cost policies may have significantly limited comparability of facility sites in Nigeria.

In addition to health system disruptions, this study was limited by the method of sampling and data collection, as it did not allow for the most robust analysis or insight into the target populations. The lack of a distinct participant pool and therefore lack of distinct participant interactions did not allow for statistical testing of the endline data. The sampling method also did not allow for the collection of demographic data, such as marriage status, number of children, education status, or household makeup. Without this information it is impossible to know how the interventions affected subgroups. While general ASRH usage did not increase, it is entirely possible that more nuanced changes occurred in each catchment area, such as increase in service usage among unmarried female adolescents. Redesigning data collection methods to track unique participants is recommended if this study is to be replicated.

This research makes clear that investing in SRH service delivery and quality improvement, alongside ASRH specific interventions, is critical to sufficiently meet the needs of adolescents within the context of weak health systems and humanitarian settings. Conversely, it is equally important to recognize that investments in adolescent-specific activities can help program implementers to advance equity, improve service coverage as well as generate high economic and social returns.[xii] In addition, program implementers and health system strengthening initiatives must eliminate adolescent health user fees in order to remove barriers to care and improve health equities.

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