Global Early Adolescent Study

GROWING UP GREAT!

Wave 5 Report

DECEMBER
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THE GLOBAL EARLY ADOLESCENT STUDY AT JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH & THE KINSHASA SCHOOL OF PUBLIC HEALTH

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TABLE OF CONTENTS

TABLES

FIGURES

LIST OF ACRONYMS AND KEY PHRASES

ACASI	Audio Computer-Assisted Self-Interview
CBOs	Community-Based Organizations
DiD	Difference in Differences
DRC	Democratic Republic of Congo
FACT Project	Fertility Awareness for Community Transformation
FLE	Family Life Education
GAD-7	Generalized Anxiety Disorder-7
GBV	Gender-based violence
GEAS	Global Early Adolescent Study
GUG!	Growing Up GREAT!
HIV	Human Immunodeficiency Virus
IRH	Institute for Reproductive Health at Georgetown University
IS	In-school
ITT	Intention to treat
JHSPH	Johns Hopkins Bloomberg School of Public Health
KSPH	Kinshasa School of Public Health
MOE	Ministry of Education
MOH	Ministry of Health
OOS	Out-of-school
PHQ9	Patient Health Questionnaire
PNSA	Programme National de la Santé des Adolescents
SGBV	Sexual and gender-based violence
SRH	Sexual and reproductive health
USAID	United States Agency for International Development
VYAs	Very young adolescents

EXECUTIVE SUMMARY

Background

The Global Early Adolescent Study (GEAS) is a worldwide investigation into how gender norms evolve and inform a spectrum of health outcomes in adolescence. The longitudinal GEAS study follows the experiences of over 15,000 very young adolescent boys and girls (10 - 14 years) on five continents as they mature into older adolescents and young adults (15 to 19 years). In Kinshasa, the study also evaluates Growing Up GREAT! (GUG!), a multi-level intervention that works with very young adolescents, their families, and community stakeholders to shift gender norms towards improved health.

Methodology

This report outlines the impact of the GUG! intervention using difference-in-differences analyses to compare average changes in the intervention vs. control group over time (Wave 5 versus Wave 1). It also provides cross-sectional findings for sexual and reproductive health (SRH) indicators newly introduced in wave 5.

GEAS Findings: Cohort and Evaluation Results

Evaluation findings at Wave 5 show that some intervention effects persist four years after the 9-month intervention ended. GUG! participants at Wave 5 were still more likely to hold egalitarian views about household chore sharing than adolescents in the control groups, although the gender-equitable attitudes did not translate into behavioral change in chore sharing over time. GUG! impacts related to SRH knowledge and communication seen at Wave 2 mostly faded away over time, with the exception of pregnancy knowledge which remained at higher levels among the intervention group compared to the control group. Interestingly, long-term novel impacts of the intervention started emerging in Wave 5 as more adolescents became romantically engaged and sexually active. Specifically, gender stereotypes related to sexuality and heterosexual relations diminished among GUG! participants relative to controls, which could inform more egalitarian relations as young people transition into adulthood.

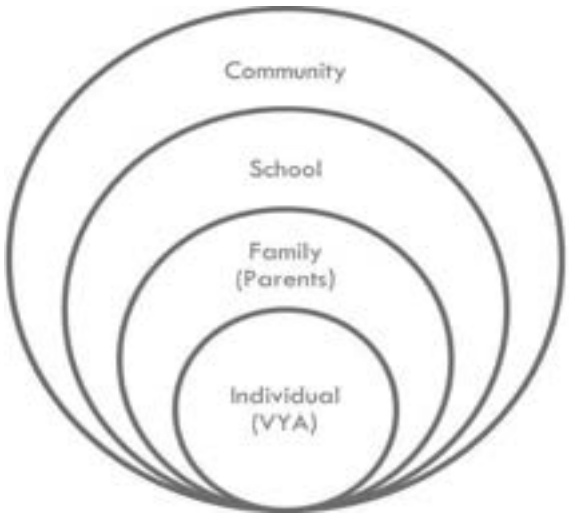
Intervention Implications

Wave 5 data indicate that the GUG! intervention has lasting effects on some dimensions of SRH knowledge and gender norms and attitudes, which could inform more egalitarian relations as young people transition into adulthood.

ABOUT THE GROWING UP GREAT! INTERVENTION

GUG! is a multi-level intervention for VYAs, their parents and caregivers and other influential community members. GUG! was implemented by Save the Children in Kinshasa from September 2017 to June 2018. It used an ecological approach to provide information and address social and gender norms related to reproductive health and wellbeing at each of the ecological levels (as shown in Figure 1), with the goal of improving both in-school and out-of-school VYAs' SRH knowledge and assets; fostering gender-equitable attitudes and norms and non-violent attitudes and behaviors.

Figure 1 | The Socio-Ecological Model



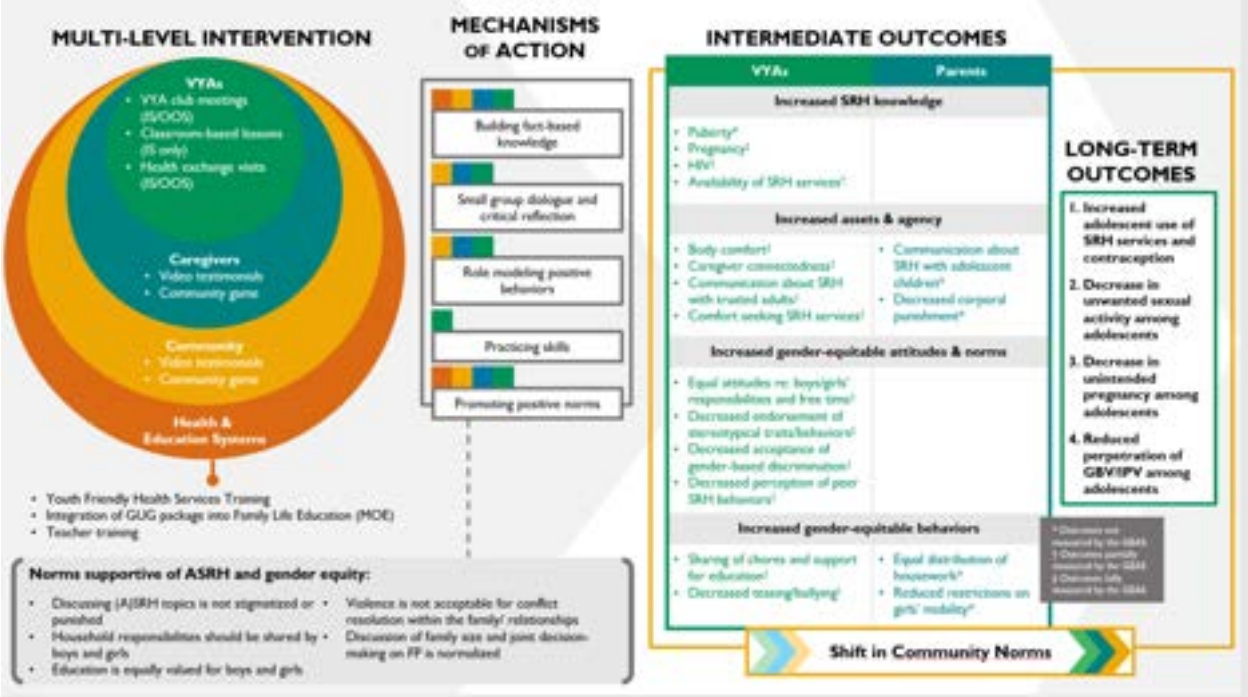
The intervention was guided by a theory of change (TOC) that articulates how multiple reinforcing change mechanisms contribute to outcomes while simultaneously fostering supportive social norms (Figure 2). The TOC and underlying intervention materials target attitudes and behaviors directly relevant not only to VYAs but also the adults in their lives (e.g., equitable sharing of chores, intergenerational discussion about puberty and future goals). As shown in the TOC (Figure 2), the four intermediate outcomes of the GUG! intervention are:

- Increase VYA SRH knowledge
- Increase VYA and Parent/Caregiver[1] assets and agency
- Increase VYA gender-equitable attitudes and norms
- Increase VYA and Parent/Caregiver gender-equitable and non-violent behaviors.

GUG! was informed by other successful approaches for improving gender equity and reproductive health among adolescents, and it incorporates evidence-based recommendations for health interventions with young people. It purposefully targets VYAs, a critical demographic group, to reach them prior to the onset of puberty. This early intervention is intended to provide an opportunity to shape the health trajectory and proactively prevent reproductive and other health problems, rather than addressing health issues as they arise. It also employs a holistic approach to VYA health interventions, acknowledging the multiple layers of influence from parents, peers, teachers and community leaders.

[1] Note: the GEAS study was designed to assess only adolescent outcomes. Parent/caregiver outcomes were assessed via qualitative interviews in 2018. See: Growing Up GREAT! Shows Promise in Skills Development and Norms Shifting After One Year. January 2021. Washington, D.C.: Institute for Reproductive Health, Georgetown University for the U.S. Agency for International Development (USAID) and the Bill and Melinda Gates Foundation. Available from: https://irh.org/resource-library/gug-wave-1-and-2-impact-brief/.

Figure 2 | The GUG! Theory of Change



Activities for Very Young Adolescents

Both in-school and out-of-school VYAs participate in weekly meetings of mixed sex groups using a set of interactive materials from the GUG! toolkit (see Figure 3) to discuss and reflect on norms. Participating VYAs are grouped into clubs with approximately 25 of their peers. In-school VYAs participate in self-facilitated school-based clubs led by trained VYA leaders for the duration of the school year (about 20 sessions), while out-of-school VYAs participate in community- based clubs led by trained facilitators from local community-based organizations (about 28 sessions). All VYA clubs participate in one session led by a health provider trained in providing adolescent-friendly health services, and also a visit to the nearest facility to foster health system linkages and reduce stigma.

Activities for Parents and Caregivers

Parents of VYA club members participate in a series of guided discussions prompted by six different testimonial videos featuring parents in their communities who have adopted key outcome (target) behaviors related to gender, girls' education and communication about puberty and sexuality. Discussions are led by trained facilitators from CBOs and focus on the social norms underlying and driving health behaviors.

School-based Activities

Teachers and other school officials are engaged in several ways. Three focal point teachers at each school are oriented to the GUG! toolkit and provided with a resource document to help them link activities to the national life-skills curriculum. Teachers also serve as resources for VYA school clubs and mentors for VYA club leaders. School-based activities are intended to have a whole-school reach beyond VYA club members to support diffusion of new ideas and encourage social norm change.

However, there is no prescribed number or frequency of in-school sessions, so classroom-based use of intervention materials varies by school.

Activities for the Community

Community members are invited to participate in a fun and interactive game to explore norms around VYA health and gender, and to view and reflect on the video testimonials developed for parent sessions. Teamwork and debate during collaborative gameplay and reflections following the video viewings both provide opportunities for community members to discuss how norms influence behaviors that impact VYAs. An effort is made to engage traditional and religious leaders, as well as other influential persons in these activities.

Figure 3 | The GUG! Toolkit

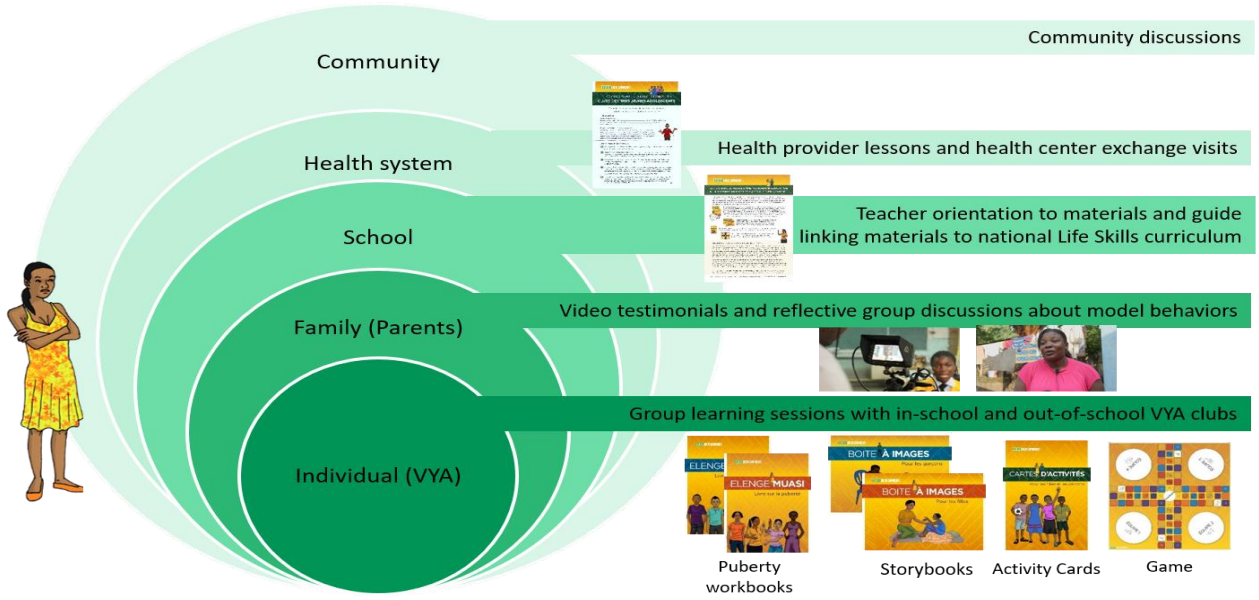


Table 1 | Growing Up GREAT! Multi-level Intervention Package

Level	Activity	Materials
Individual (VYA)	In-school: about 20 weekly club sessions (peer-led) Out-of-school: about 28 weekly club sessions (adult facilitated)	Puberty workbooks (girls & boys) Storybooks (girls & boys) Activity cards Game
Family (Caregivers)	Six video screenings and facilitated discussions	Testimonial videos
School	Classroom-based sessions (teacher-led; at will – no fixed frequency)	Resources for teachers that link to the National Family Life Education Curriculum
Health system	One provider-led session per VYA club One health center visit per VYA club	Guide for provider-led lesson Instructions for health center visit
Community	Collaborative community sessions (monthly)	Testimonial videos Community Game

ABOUT THE GLOBAL EARLY ADOLESCENT STUDY

Overview

GEAS is the first global study to explore the process of gender socialization in early adolescence, and how this process informs health and behavioral trajectories for boys and girls throughout adolescence and across contexts.

Longitudinal study

The GEAS uses a longitudinal design to assess the relationship between evolving gender norms and a range of key health outcomes across the adolescent period - including sexual health, gender-based violence and mental health - as well as the ways this is influenced by factors at individual, family, community and societal levels. The study provides unique insights into how these relationships vary across cultures and by sex. In a subset of sites including Kinshasa, the GEAS is used in conjunction with a gender transformative intervention to assess shifts in individual gender beliefs and influences on health trajectories over time.

Kinshasa was the first longitudinal site of the GEAS and is operated by the Kinshasa School of Public Health (KSPH) in collaboration with the GEAS Coordinating Center at Johns Hopkins University. The project is jointly funded by the Bill & Melinda Gates Foundation and the United States Agency for International Development (USAID) as part of the global **Passages Project**. Passages is led by the Institute for Reproductive Health, Georgetown University (IRH) and a consortium of partners including the GEAS, Save the Children, Tearfund and FHI 360. The Passages Project, funded by USAID, aims to transform social norms at scale to promote family planning and reproductive health by testing and evaluating normative change interventions. Under the Passages Project, the GEAS serves to evaluate Growing Up GREAT!, an intervention led by Save the Children and its community-based organization (CBOs) partners to transform reproductive health and gender norms among very young adolescents (VYAs) ages 10-14 at baseline in Kinshasa.

Study setting

Emerging from more than three decades of war, with significant civil strife remaining in some of the eastern and central provinces, the Democratic Republic of Congo (DRC) is one of the poorest countries in the world and ranks 153 out of 191 on the Human Development Index (UNDP, 2022). In addition to civil strife, DRC has a disproportionately young population which experiences a range of sexual and reproductive health risks: over half (57%) of DRC's population is under 24 years of age, and by 18 years of age, 12.7% of girls are married, 11.4% have had their first birth, 52.7% have had sex, and 24.5% have ever used contraception (PMA, 2020). The DRC has ranked among the top 10 countries with the highest 12-month prevalence rates of intimate partner violence (IPV) (UNFPA, GHRB, & PDB, 2021). The high prevalence of sexual and gender-based violence (SGBV) - 57% of women reported sexual or physical violence at some point in their lives with 27% of those women reporting sexual violence (DHS, 2013-2014) – reveals deep-rooted gender- inequitable norms and practices that are predominant across the country. Women's rights are limited in several facets - including access to owning land, restricted civil liberties, minimal participation in the government and the labor force - resulting in women's higher rates of poverty and lower rates of literacy compared to men (Matundu Mbambi & Faray-Kele, 2010; DHS 2013-2014).

Kinshasa, where the GUG! intervention took place, is the second largest city in sub-Saharan Africa with over 17 million inhabitants, comprising over 16% of the entire country's population. The total population has rapidly increased in recent years with migration from conflict-affected areas in central and eastern DRC. The city is a complex, challenging and at times violent place to live, with high rates of poverty and unemployment, inequality, and low-quality education and health.

However, greater access to and use of services is also apparent: at 4.4 the total fertility rate in Kinshasa is lower than other parts of the country; and the modern contraceptive prevalence rate is also higher than other provinces at 21% (PMA2020).

In Kinshasa in 2018, 22% of girls 18-24 years had been married before age 18 and 13.6% had given birth by the age of 18 (PMA2020, 2018). These estimates are higher among the poorest adolescents, placing these girls at higher risk of pregnancy-related complications and death. Girls who are pregnant and/or childbearing are more likely than peers to drop out of school increasing the economic burden on themselves and their families. Only 77.5% of children in Kinshasa enroll in primary school, with fewer girls enrolling than boys (INS 2017-2018). In urban Kinshasa, the 16% of school-age children who are out-of-school (OOS) – are at even higher risk of sexually transmitted infections (STIs), pregnancy and gender-based violence (GBV) compared to their in-school (IS) peers. The communes of Masina and Kimbanseke, where the GUG! intervention and GEAS evaluation take place, represent some of Kinshasa's poorest and most challenging environments for both in- and out-of-school youth.

The government has been proactive in supporting youth with a specific department under the Ministry of Health (MOH) for adolescents, le Programme National de la Santé des Adolescents (PNSA), and a national family life education curriculum mandated by the Ministry of Education (MOE). Additionally, in 2019 the government made primary education free for students. However, although these initiatives remain under-resourced and require additional capacity strengthening to fully support the inclusion of GUG! activities in national strategies to meet the needs of Congolese adolescents. This gap in policy and practice results in few younger adolescents who are able to access good quality, age-appropriate reproductive health information and services.

While it is true that many risks to adolescent reproductive health exist, it is equally true that pro-youth policies and national structures also provide direction, with significant opportunities for substantial improvements in health and well-being, especially if efforts are made to strengthen the foundations of sustainable development, including youth capacity and gender equality.

GEAS-KINSHASA STUDY DESIGN

The GEAS study in Masina and Kimbanseke, Kinshasa, combines 1) an observational cohort research study that explores how perceptions of gender norms are co-constructed in early adolescence and how they predict a spectrum of outcomes, and 2) an impact evaluation to assess the effects of the GUG! intervention among early adolescents in Kinshasa. The impact evaluation component is included in a single GEAS design in Kinshasa defined as a longitudinal quasi-experimental study with an intervention and a control arm, each divided into 2 subgroups based on school status: In-school and out-of-school adolescents. Altogether 2,842 adolescents completed the baseline study between June and November 2017. Based on data quality, 10 participants were excluded from the final sample based on the share of survey questions to which they provided no meaningful response (i.e. "Don't know" or "Refuse" responses), or consistent assessment by the interviewer as poor response quality (i.e. poor perceived response accuracy or comprehension). Nearly 65% of these baseline participants (n=1,856) were followed-up at Wave 5, a notable achievement in context of the developmental period of the respondents–one marked with transition and change.

STUDY POPULATION

Eligibility criteria

Adolescents were initially included in the study if they were 10-14 years old at the time of baseline interview, had given assent to participate in the study, lived in the study neighborhoods of Masina or Kimbanseke, and if their parents or guardians consented to their child's participation in the study.

Baseline Sampling

Out of School

At baseline, adolescents were recruited using a multi-stage sampling procedure. First, neighborhoods in the two communes were sampled using simple random sampling procedure and divided into intervention and control neighborhoods. In each selected intervention neighborhood, out-of-school adolescents aged 10-14 years old were identified by Community-Based Organizations (CBOs) in partnership with Save the Children. The CBOs mapped the OOS adolescents living in the included neighborhoods and established a sampling list. They then narrowed this list to those adolescents who met the following criteria: left school over two years ago, did not expect to be enrolled in school the following year, and did not expect to leave their current neighborhood. Adolescents were then selected from this list by simple random sampling to establish groups of 25 children that were recruited for the intervention.

A similar process was used to recruit the out-of-school adolescents in the control neighborhoods. With the help of CBOs, out-of-school adolescents were identified through the same mapping procedure. In each control neighborhood, two separate lists were established by sex, and sorted by age in order to obtain an acceptable age distribution. These lists were numbered and subsequently used to draw a random sample (with backups) using random number generation in Microsoft Excel. The list of selected children was then given to the CBOs to contact parents and adolescents to invite them to participate in the survey. In the event a child and/or guardian refused to participate, replacement participants were selected from the backup list. This process was repeated until the required sample size was achieved.

In School

In-school adolescents were recruited in the same intervention and control neighborhoods as out-of-school adolescents to facilitate follow-up for the intervention groups and avoid contamination across study groups. Save the Children and CBOs conducted a mapping exercise of all schools in neighborhoods within the two selected municipalities that included all primary or secondary schools enrolling adolescents ages 10-14 within each municipality. Schools were grouped by intervention and control neighborhoods and by school type (e.g., public, religious, or private). Twenty schools in each commune, half intervention and half controls were selected using Excel, with the expectation that each school would enroll 25 students in the survey. School leaders were invited to a meeting with the research team to provide an explanation of the survey, and subsequently establish a list of all pupils aged 10-14 each in the control and intervention zones. In the event that the list included 25 adolescents or less, all children were contacted. If a school's list was greater than 25 students, simple random sampling was applied to select 25 participants, divided by sex. The list was given to the school leaders to facilitate contact with participants.

Wave 5 Sampling

The Kinshasa School of Public Health team followed two different approaches to re-contact in-school and out-of-school participants for annual follow-up waves (i.e., at Waves 2 - 5) of data collection,

though the information collected from each participant's family was consistent (household addresses and phone numbers).

- *In School* participants were contacted through school administration and teachers, using existing school channels to establish survey times and notify participants. Participants who were in school at baseline but had left, transferred schools or moved, were tracked using existing information from teachers and school administrators, as well as neighborhood CBOs and resources. However, teachers and school administrators were limited in their ability to locate participating students who had changed schools between waves.
- *Out of school* participants were located by KSPH in coordination with a team of representatives from non-governmental organizations and community-based associations working in the participating neighborhoods. In cases where OOS adolescents were difficult to reach, data collection teams contacted neighbors to collect additional information to locate participants.

Before starting data collection for Wave 5, the data collection team met to establish a list of all participants from Wave 4 to be recontacted, including their household address and phone numbers. To facilitate data collection, each surveyor was assigned the same participants they surveyed from Wave 4. All identified participants were invited to participate in Wave 5 using the same data collection procedures as baseline, with 2,190 re-interviewed at Wave 5 and 1,865 (~65%) matched to baseline respondents and 1,834 of them retained after exclusion of poor-quality interviews. Weights were created to account for loss-to-follow-up.

DATA COLLECTION PROCEDURES

Wave 5 data collection took place between June and August, 2022. Data collectors, all of whom had conducted previous waves of data collection, received four days of refresher training on the questionnaires and a pretest prior to data collection. Surveys were administered in person at the adolescent household, following local guidelines for group size restrictions. Participants were instructed not to attend their scheduled survey time if they experienced any COVID-19 symptoms, though this was never necessary. All data collection centers and tablets were sanitized, and participants and data collectors were required to wear masks while at the study setting. Data collection was conducted using face-to-face interviews with an interviewer, with sensitive questions administered using Audio Computer-Assisted Self-Interview (ACASI) to promote privacy. Whenever possible, interviewer and respondent sex were matched. The interviews on average took 1.5 hours including time for at least two breaks. Each interviewer conducted a maximum of two interviews per day. Interviews were conducted in Lingala using tablets and uploaded to the SurveyCTO server.

GEAS WAVE 5 GUG EVALUATION RESULTS

This section describes differences between the intervention and the control groups four years after the end of the intervention, while accounting for baseline differences. This "difference in differences" (DID) approach specifically focuses on how the two groups have evolved since baseline and how these changes compare between the two groups. We present results based on intention to treat analysis (ITT, comparison of intervention and control regardless of GUG! exposure). Sensitivity analysis were conducted using per protocol analyses, restricting the analytical sample to participants who participated in the intervention and controls who were not exposed (excluding possible contamination). PPA and ITT results were largely consistent with the DID results, with more information available in Appendices D and E. All analyses are weighted to account for attrition.

GROWING UP GREAT EXPOSURE

The GUG! Intervention (September 2017 to June 2018) was designed to engage VYAs in weekly club sessions over the course of the nine months of the school year (for IS VYAs). Out-of-school adolescents joined club sessions for an additional two months. Overall, after accounting for regular holiday breaks and exam periods, VYA school clubs met for approximately 26 weekly sessions while community-based clubs (for out-of-school VYAs) met for an average of 28 weekly sessions. There was no standard format for weekly meetings. Club facilitators could use any materials from the VYA toolkit that they desired, in any order or frequency, though they were encouraged to use all materials in full at least once by the end of the intervention period. The VYA toolkit included three materials for group use – storybooks (one for boys, one for girls), activity cards, and an interactive game. Puberty books for girls and boys were distributed to each participating VYA as take-home materials, though they could also be used as references or to inspire discussion during weekly sessions.

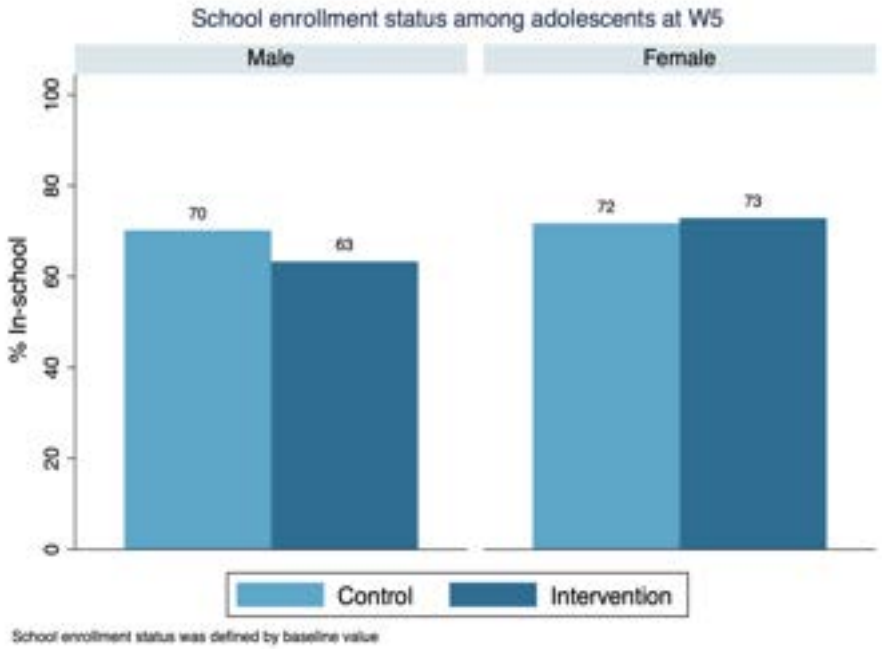
While the intervention officially covered roughly one academic year (between baseline and Wave 2 of the GEAS), exposure to GUG activities was reported in the second year. The continued exposure to GUG! activities even after the intervention was officially over may reflect the integration of GUG! materials and activities in the school curriculum, either as a continuation of previous activities or as a scale up process as the GUG! intervention was expanded to other communes in Kinshasa.

Thus, forty percent of adolescents in the intervention group indicated participating in at least one of the three activities (VYA club, classroom session, or community session) in the six months prior to Wave 3. Roughly a quarter (24%) of adolescents in the control group were exposed to GUG! activities in the six months preceding Wave 3, most of whom (80%) were in school. Exposure to GUG! activities was not assessed in Waves 4 or 5.

SOCIO-DEMOGRAPHIC CHARACTERISTICS AT WAVE 5

At Wave 5, the mean age of adolescents included in the GEAS survey was 16.2 years old. 67.0% of boys and 72.3% of girls were still in school. Boys in the control group were more likely to attend school at Wave 5 than those in the intervention group; while similar proportions of girls attended school at Wave 5 regardless of their study group status. Half of adolescents lived with both parents (control: 50.7% vs. intervention: 49.2%) and 39.8% of adolescents lived in the poorest households (lowest tertiles, control: 41.6% vs. intervention: 37.7%). In Wave 5, half of adolescents reported spending time with peers on a daily basis (control: 51.4% vs. intervention: 47.6%).

Figure 4 | School enrollment status (Wave 5)



COMPARISON BETWEEN INTERVENTION AND CONTROL AT BASELINE AND WAVE 5

We present Wave 5 results by the four GUG! intervention target outcomes (as presented in the GUG! Theory of Change - Figure 3 above): (1) SRH knowledge; (2) Assets and agency; (3) Gender-equitable attitudes and norms; and (4) Gender-equitable behaviors.

The blue bars on the graphs indicate baseline results and green represents Wave 5 results, with a darker hue indicating a statistically significant difference between intervention and control groups. Graphs in orange hues represent data specific to SRH indicators. This is because the GEAS included a number of questions exploring adolescents' sexual and contraceptive attitudes. While a number of those indicators were included at baseline (and shown with blue bars), other topics were introduced among older adolescents (15 years and older) in subsequent waves (with some introduced for the first time in Waves 4 and 5).

1. SRH KNOWLEDGE

SEXUAL & REPRODUCTIVE HEALTH KNOWLEDGE

Four dimensions of sexual and reproductive health (SRH) knowledge were examined in the GEAS, including: two *knowledge* indices—how to prevent pregnancy and how to prevent HIV; knowledge about where to access preventive commodities (condoms and contraception); and awareness about available forms of contraception in the Democratic Republic of the Congo.

At baseline, a few differences in SRH knowledge were noted between in-school and out-of-school adolescents in the intervention and control groups. Specifically, adolescents in the out-of-school intervention group had higher levels of pregnancy knowledge, were more likely to know where to get a condom and where to get contraception than the control group. No such differences were noted among in-school adolescents. In fact, girls in the in-school control group were statistically more likely to know where to get contraception.

Results from the difference-in-difference analysis showed sustained overall improvement in knowledge of pregnancy and HIV as adolescents aged. Pregnancy knowledge increased more among in-school intervention adolescents as compared to the control group, which was driven by changes among in-school girls (there were no significant intervention effects for in-school boys or out-of-school adolescents). Improvements in HIV knowledge over time did not differ by treatment group, gender, or school status.

Figure 5 | Pregnancy Knowledge (by school status)

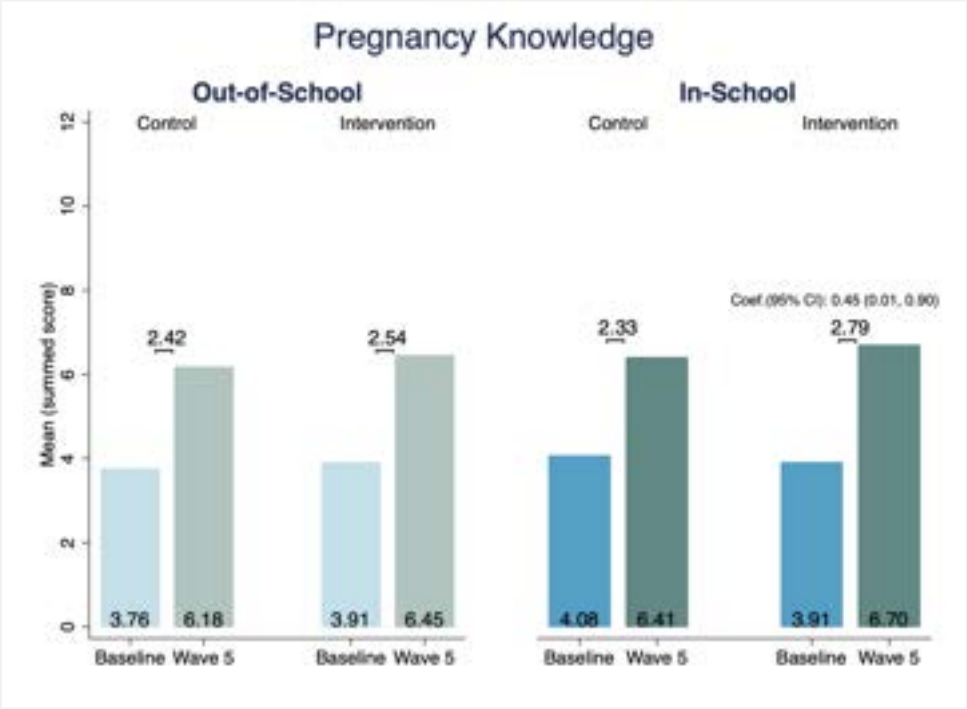


Figure 6 | Pregnancy Knowledge (by sex - IS only)

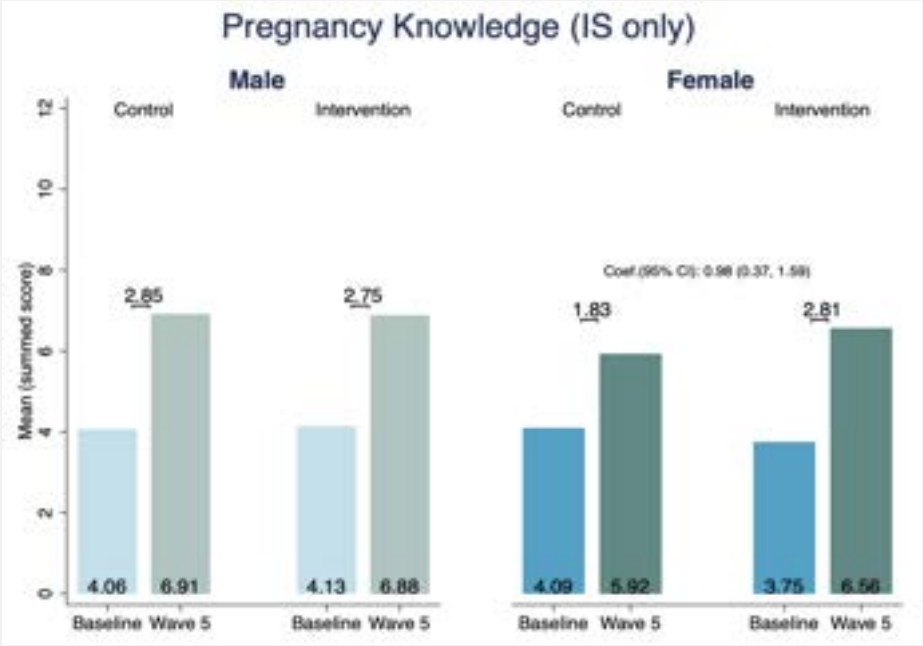
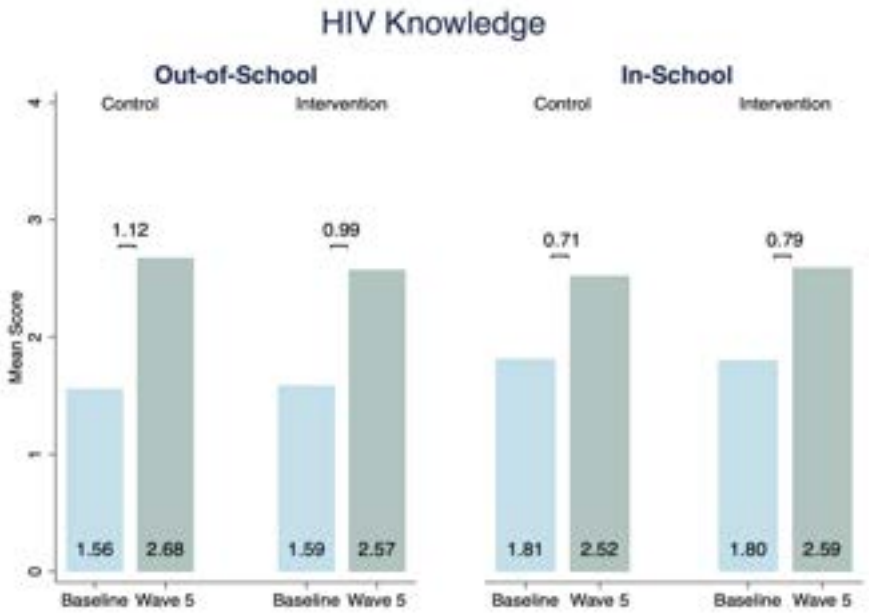


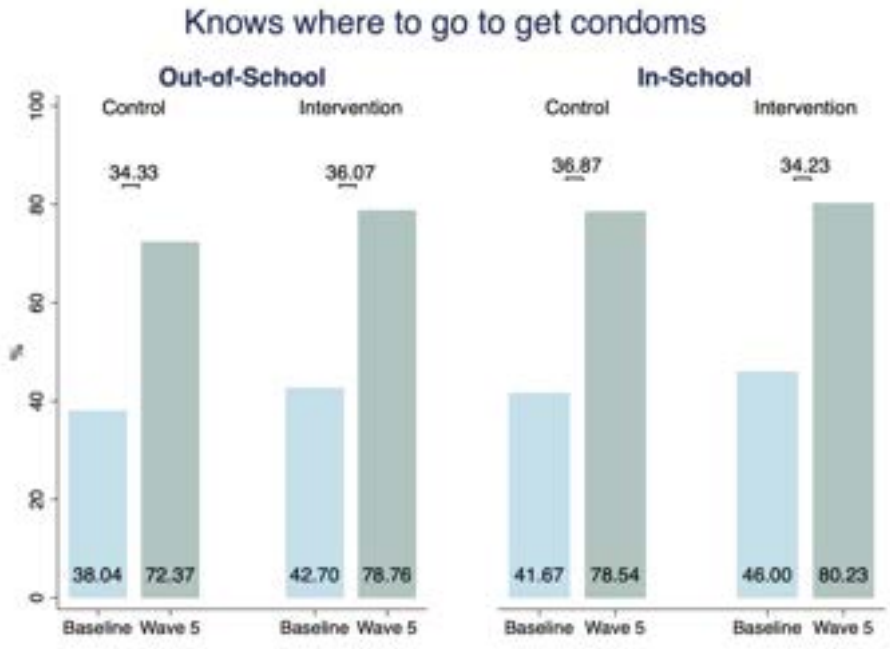
Figure 7 | HIV Knowledge (by school status)



Knowledge about where to seek condoms and contraception

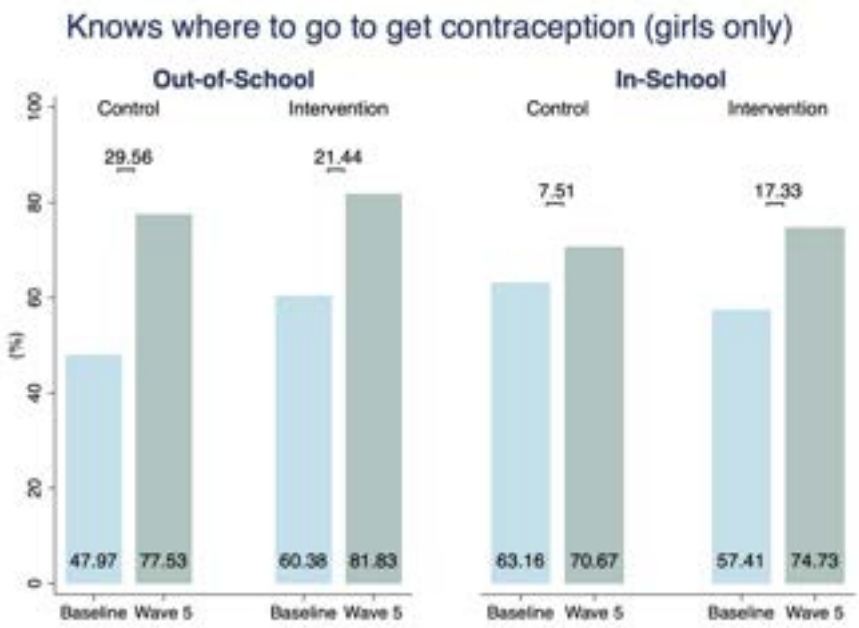
Knowledge about access to condoms also increased significantly between baseline and Wave 5 for all adolescents, rising approximately 34-36% between the two surveys. No additional gains were observed among adolescents in the intervention group relative to those in the control group or when comparing those in-school versus out-of-school.

Figure 8 | Knows where to go to get condoms (by school status)



Among girls, knowledge of where to go to get any form of contraception grew considerably between baseline and wave 5 for both out-of-school and in-school adolescents, with greater knowledge gains among the out-of-school group (21.4 to 29.6 percentage point increases for out-of-school compared to 7.5 to 17.3 percentage point increase for in-school adolescents). Increases were similar between adolescents in the intervention and control groups for both out-of-school and in-school adolescents (i.e., no statistically significant differences in increases between the intervention arms when disaggregated by school status).

Figure 9 | Contraceptive access (girls only - by school status)



Knowledge about contraceptive methods

Contraceptive awareness, which was asked of adolescents 15 years and older, was reasonably widespread at wave 5, but higher among girls than boys. Eight in 10 girls were familiar with short- and long-acting methods versus seven in 10 boys, while only 3% of girls and 5% of boys were only aware of barrier methods. No differences in contraceptive awareness were noted by school status or intervention group.

Figure 10 | Knowledge of Contraceptive Methods (at Wave 5 - by sex)

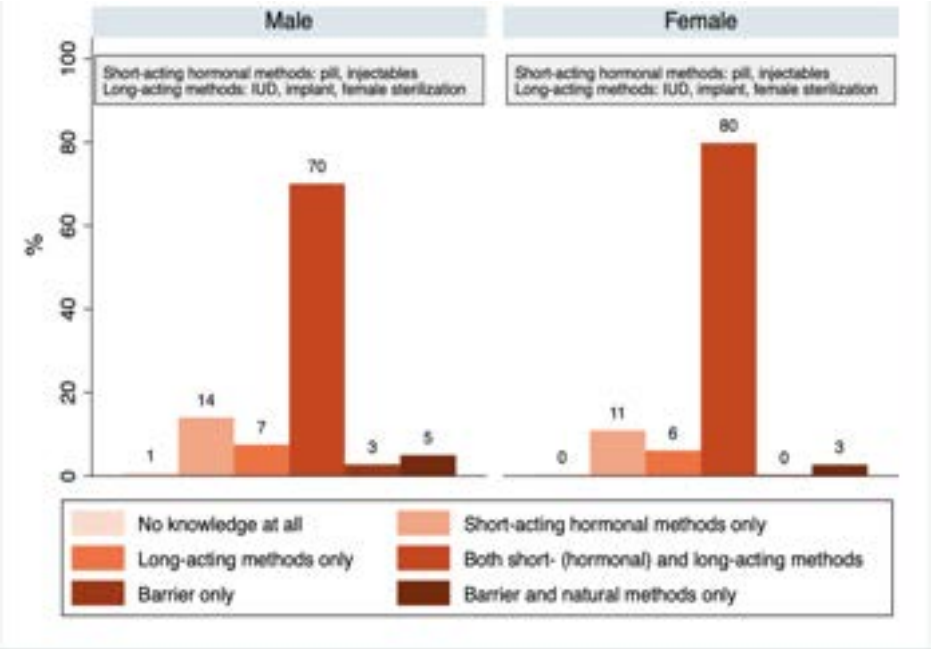


Figure 11 | Knowledge of Contraceptive Methods (at Wave 5 - by school status)

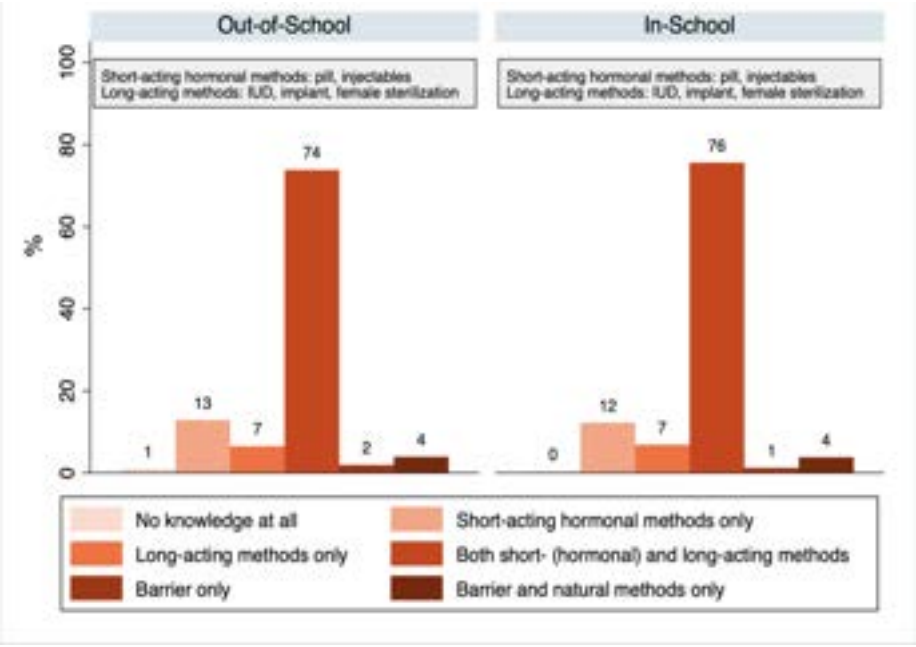
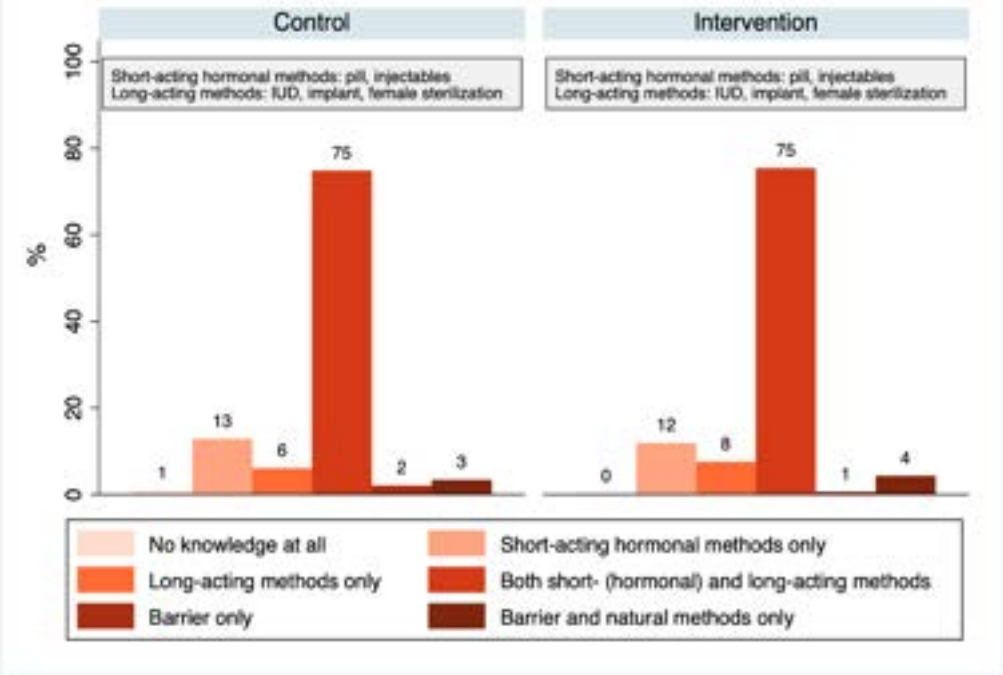
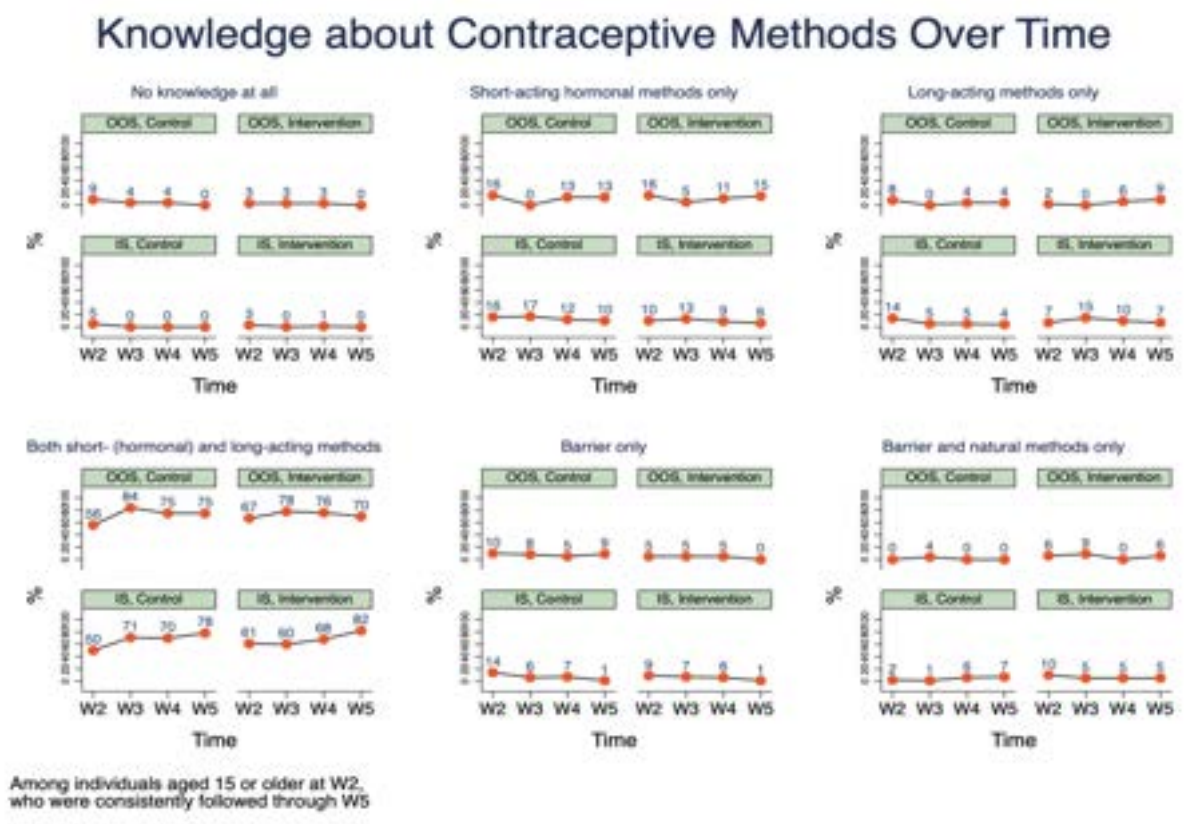


Figure 12 | Knowledge of Contraceptive Methods (at Wave 5 - by study arm)



Knowledge of short and long acting methods increased for all adolescents across waves (with these measures first assessed at Wave 2), with a greater increase for in-school adolescents. This corresponds to a slight decrease in knowledge of only one type of method across the four waves as adolescents gain knowledge of multiple types. Knowledge of barrier and natural methods remained relatively constant over time.

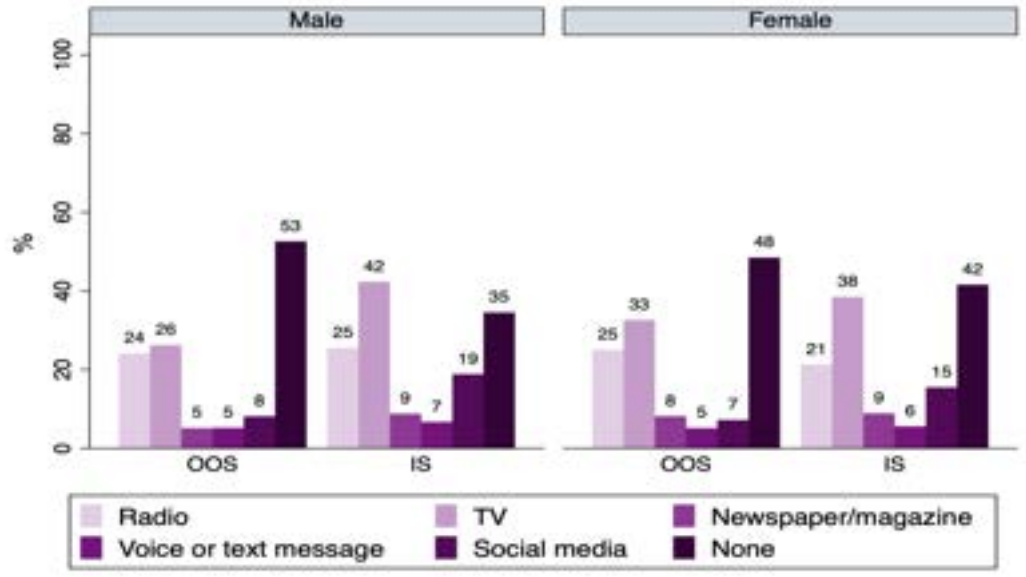
Figure 13 | Knowledge of Contraceptive Methods Over Time



Information sources about family planning in last 12 months

Adolescents were asked to reflect on where they had seen, heard, read, or received information about contraception in the previous 12 months. While the largest proportion of out-of-school adolescents reported receiving no information about family planning (53% of boys and 48% of girls), many had heard about contraception on the radio or television. Among in-school adolescents, many reported receiving information about contraception from the television (42% and 38% of boys and girls, respectively), radio (25% and 21% of boys and girls, respectively), and social media (19% and 15% of boys and girls, respectively).

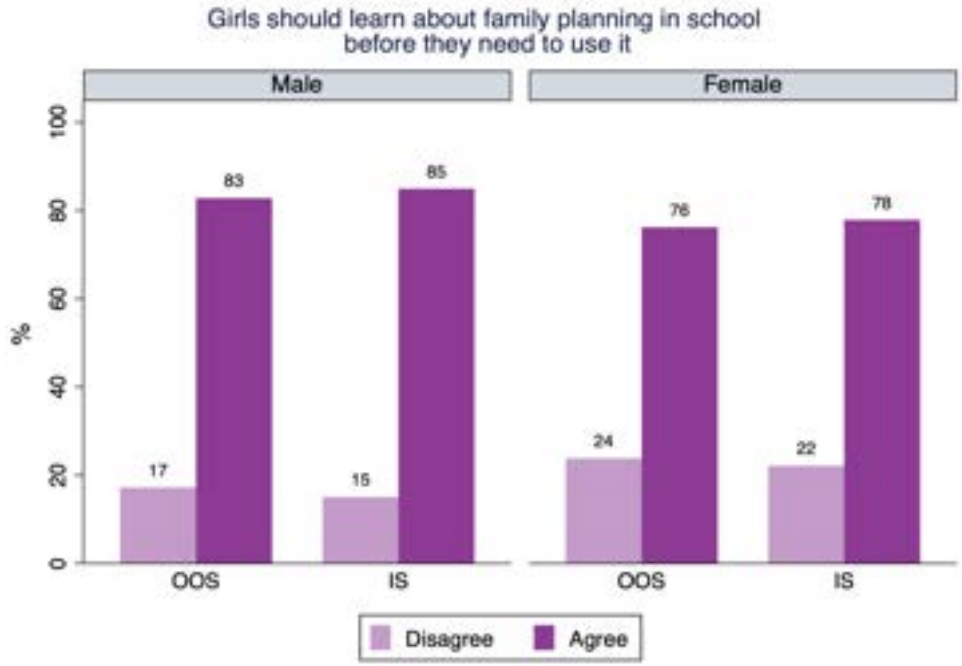
Figure 14 | Sources of information about family planning in the last 12 months (by sex)



Perceived timing of education about family planning

As shown in Figure 15, a greater percentage of boys (83-85%), relative to girls (76-78%), agreed with the statement that girls should learn about family planning in school before they need to use it. While differences in sex were observed, there were no differences in perceived timing of education about family planning when comparing in-school and out-of-school adolescents.

Figure 15 | Perceived Timing of Education about Family Planning (by sex and school status)



SRH ATTITUDES

Embarrassment about contraceptive care-seeking (stigma)

At baseline, the majority of boys and girls felt embarrassed to get condoms; no differences were present between adolescents in the intervention versus control group. A substantial percentage of girls - more than half of all sub-groups (e.g., by intervention, school status) - also expressed embarrassment about seeking contraception if they needed it.

Over time, stigma surrounding access to condoms or contraception decreased among all adolescents, with the exception of in-school adolescents in the intervention group who felt as embarrassed to access condoms at wave 5 as they had at baseline. No differences in embarrassment trends were noted between intervention and control groups, with stigma remaining a common sentiment shared across study groups.

Figure 16 | Embarrassed to get condoms (by school status)

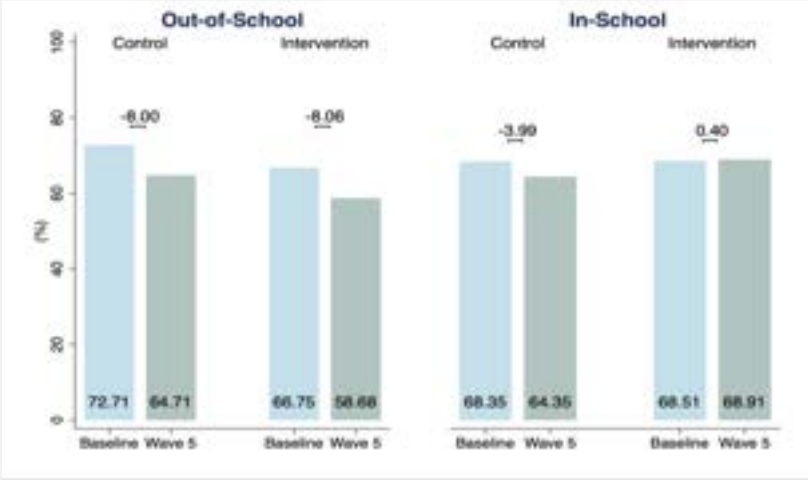
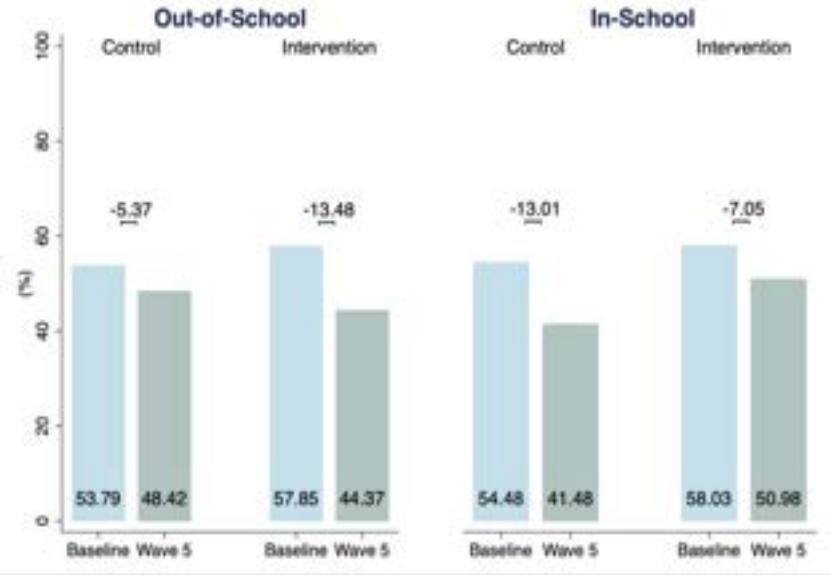


Figure 17 | Embarrassed to get contraception (asked of girls only – by school status)



Misconceptions about and attitudes toward contraception

In wave 5, adolescents were asked a series of questions about misconceptions related to contraception. Contraceptive attitudes from previous survey waves were compared over time, while contraceptive misconceptions (collected only in wave 5) were assessed at one time point. Adolescents were asked to share whether they agreed or disagreed with each of the following statements:

1. Contraception is only for married women.
2. With contraception, a young couple can have sex without worrying about pregnancy.
3. Adolescents or young women who use contraception are seen as promiscuous.
4. If women use contraception, they risk becoming infertile.
5. Contraception can make women very ill.
6. Women or girls who use contraception are better prepared to be mothers because they can decide when to have children.
7. Women or girls should not use contraception before having children.

Figure 18 | Attitudes towards Contraception (at Wave 5 - by sex)

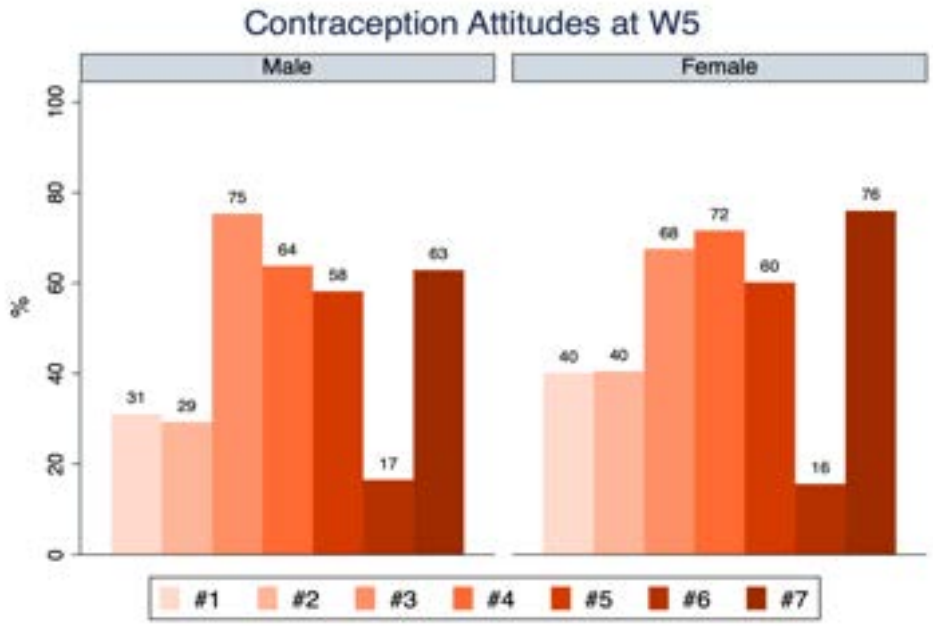
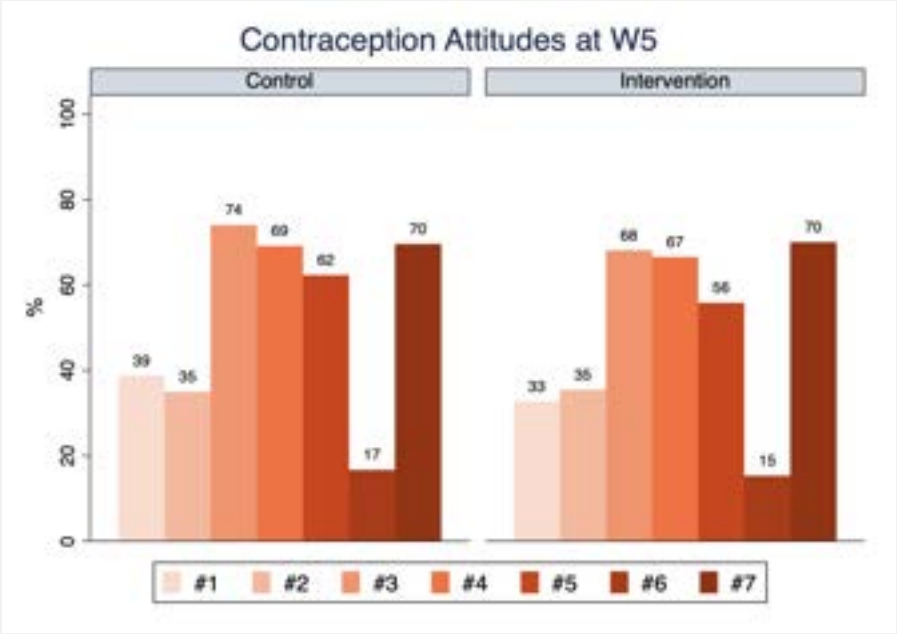
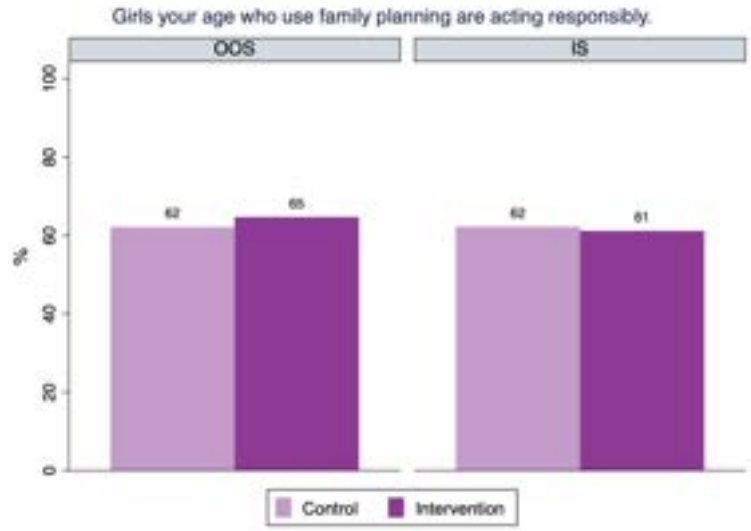


Figure 19 | Attitudes towards Contraception (at Wave 5 - by study arm)



As shown in Figure 20, while most adolescents considered girls using contraception to be acting responsibly, this perception was more common among boys than girls.

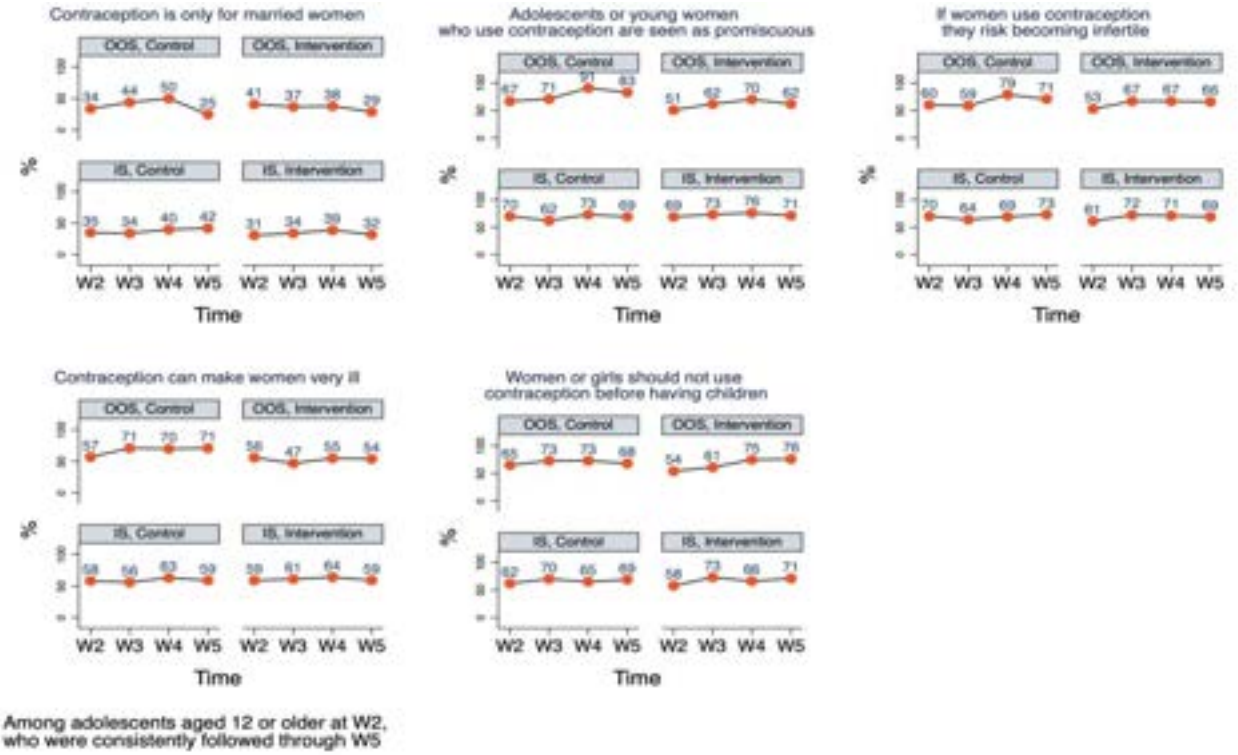
Figure 20 | Views that Use of Contraception Responsible (by school status)



At the same time, misperceptions about contraception remained widespread, with more than sixty percent of adolescents who thought contraception could bring about infertility and 58% to 60% who felt contraception could make women ill. A majority of respondents also thought nulliparous women should avoid contraception and 75% of girls and 68% of boys thought the use of contraception was stigmatizing for adolescents. Few young people thought contraception could provide benefits to sex life or parenting.

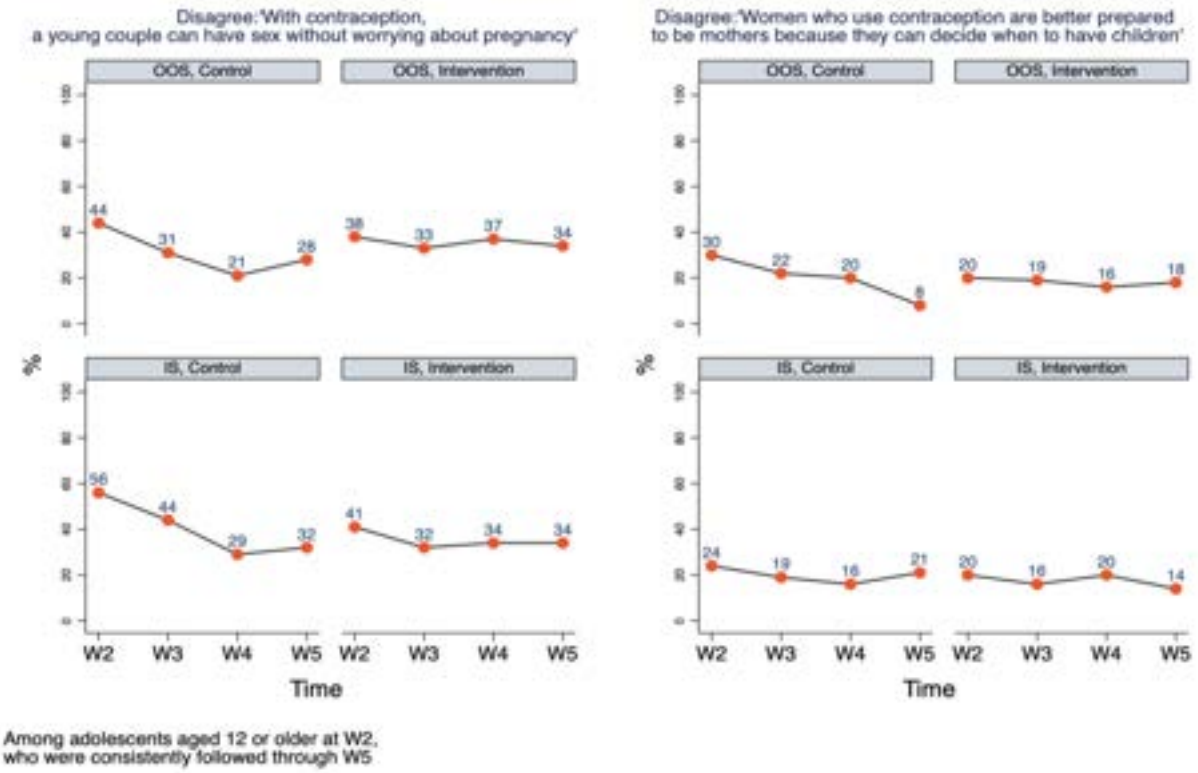
Misperceptions improved little over time as more adolescents worried about contraceptive health-related consequences and perceived stigma or disapproval of contraception for adolescents and nulliparous women.

Figure 21 | Agreement with gender-inequitable attitudes towards contraception over time



Among adolescents aged 12 or older at W2, who were consistently followed through W5

Figure 22 | Agreement with gender-equitable attitudes towards contraception over time

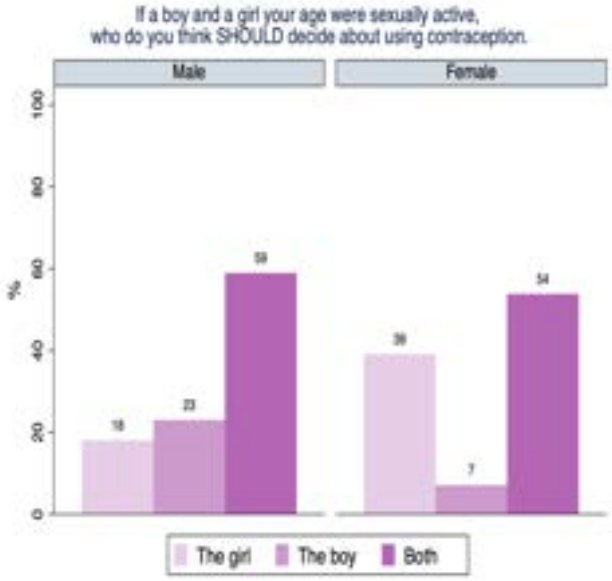


Beliefs about gendered decision-making for contraceptive use

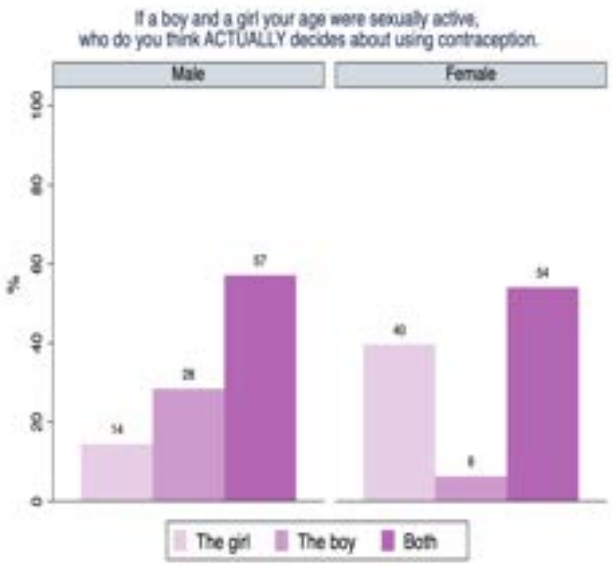
In wave 5, adolescents were also asked about their perceptions related to gendered decision-making about contraceptive use. Specifically, adolescents were asked to share who - in a sexually active relationship between boys and girls - they believed *should* be making decisions about using contraception versus who they believed *would actually* be making decisions about using contraception.

A little over half of boys and girls indicated that contraception should be a shared decision between a boy and a girl. There were pronounced gender differences among those who did not think that contraception should be a shared decision: while boys were slightly more likely to believe that contraception should be a boy's decision (23% versus 18%), girls were more likely to believe that girls rather than boys should make the decision (39% versus 7%). Normative beliefs and perceptions of actual contraceptive decisions were very closely aligned, suggesting strong injunctions to conform to these gender norms.

Figure 23 |Beliefs about perceived gendered decision-making for contraceptive use*, by gender



*Statement: If a boy and a girl your age were sexually active, who do you think **should** decide about using contraception.*



*Statement: If a boy and a girl your age were sexually active, who do you think **actually decides** about using contraception.*

RELATIONSHIP AND SEXUAL & REPRODUCTIVE BEHAVIORS

At Wave 5, 30.6% of girls and 33.7% of boys indicated having ever engaged in a romantic relationship. Romantic involvement increased between baseline and wave 5 among all adolescents with no difference by school status or study group (intervention versus control). Adolescent romantic engagement increased significantly by age, from 37% of boys and 27% of girls aged 14 to 87% and 86% respectively when they reached 19 years old. More boys than girls engaged in romantic relations before 16, but gender differences disappeared among adolescents 16 years and older.

Figure 24 | Engaged in romantic relations (ever – by school status)

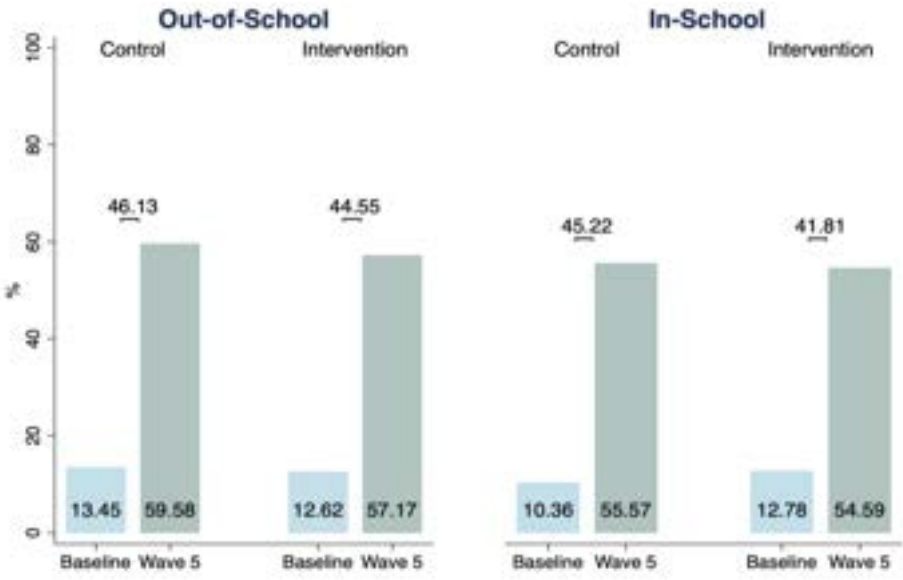
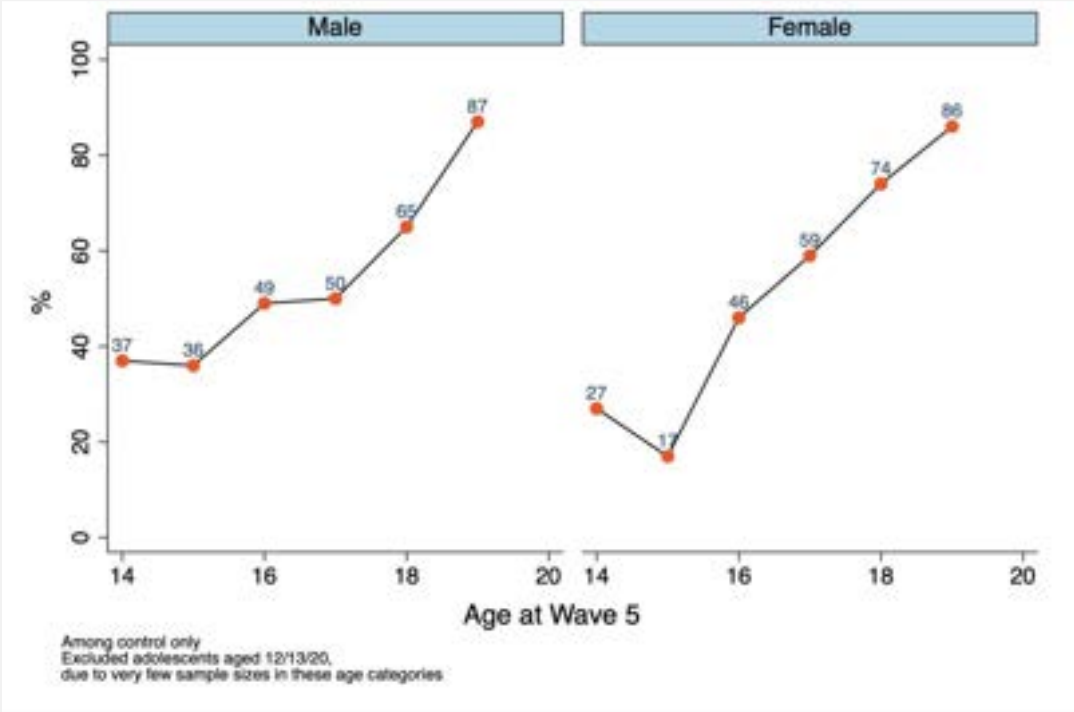


Figure 25 | Ever engaged in romantic relationship (by sex)



Participants were asked about controlling behaviors by a romantic partner in Wave 5 (Figure 26). Boys and girls alike suggested high levels of partner jealousy and monitoring of their whereabouts. Boys were more likely accused of unfaithfulness by their partners than girls but more trusted with their money by their partners than girls. A little less than a third of adolescents reported partner controlling behaviors on their friends and family contacts.

Figures 26 and 27 indicate the percent agreement (a lot/a little) with each item:

1. Jealous or angry if you talk to other boys/men or girls/women
2. Frequently accuses you of being unfaithful
3. Permitted you to meet your friends of the same sex (reverse coded)
4. Tried to limit contact with your family
5. Insisted on knowing where you are at all times
6. Trusted you with money (reverse coded)

Figure 26 | Endorsement of partner controlling behaviors (by study arm)

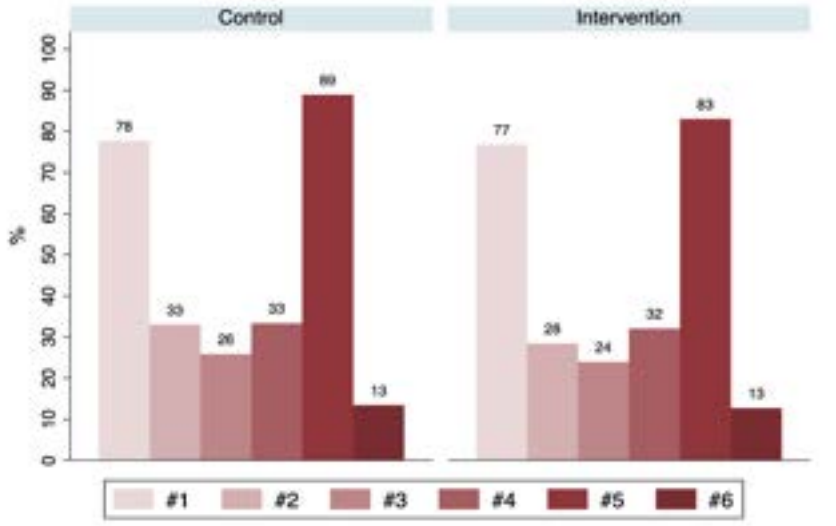
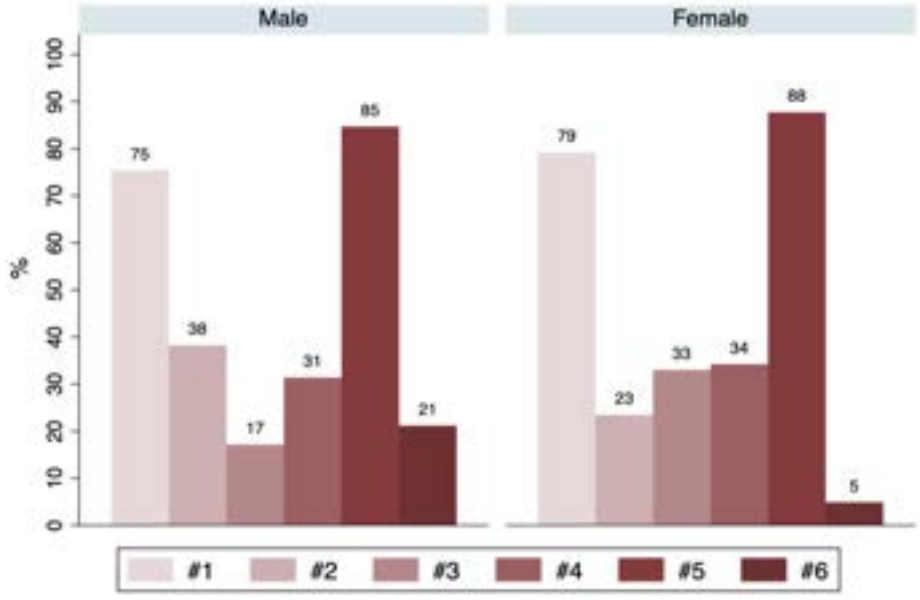


Figure 27 | Endorsement of partner controlling behaviors (by sex)



Adolescent boys and girls increasingly engaged in sexual relationships as they became older. Patterns of sexual activity differed between control and intervention groups for girls but were similar for boys.

Specifically, girls in the intervention and control groups had similar reports of sexual experience before the age of 17, but sexual activity increased sharply after the age of 17 reaching 53% at 18 and 72% at 19 years old in the control group but remaining lower at 48% in the intervention group. Boys' patterns were similar in intervention and control groups, reaching 57% and 52% of sexual activity by the age of 19. Irrespective of study group, boys started their sexual lives earlier than girls. However, patterns of activity differed between intervention and control groups: while intervention boys and girls had similar reports of sexual activity over time, girls over 17 became more sexually active than boys in the control group.

Figure 28 | Ever sexual intercourse (among control group – by sex)

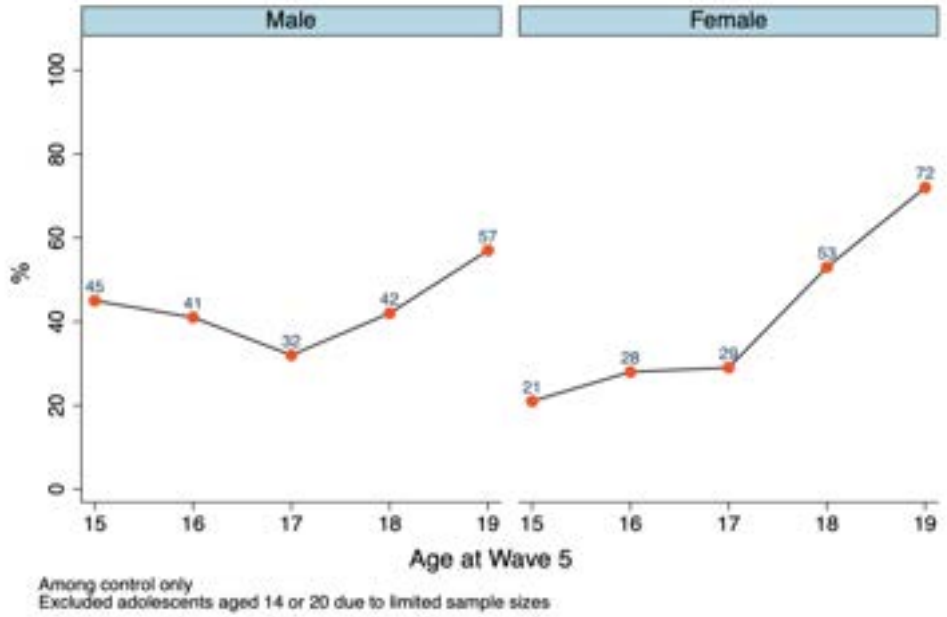
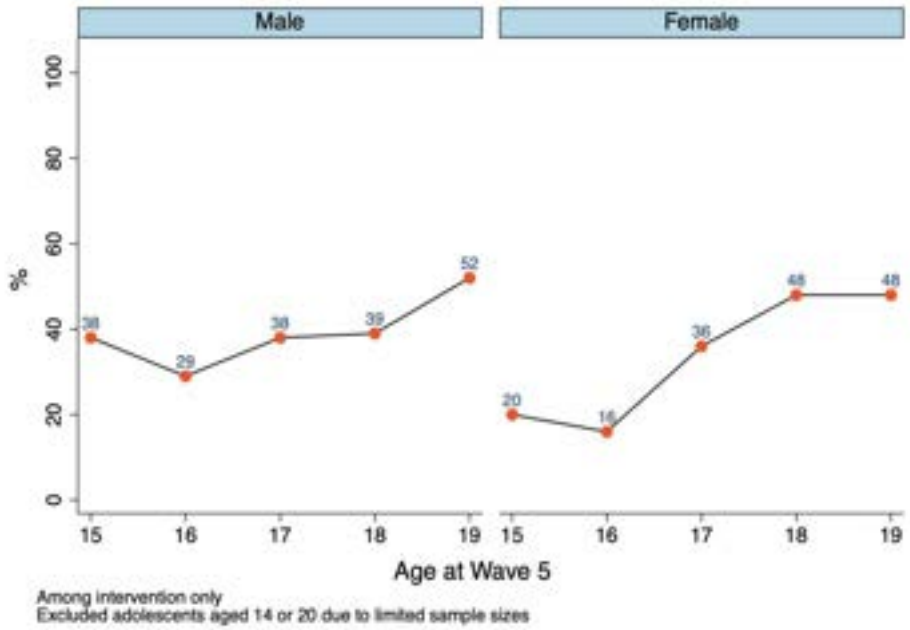
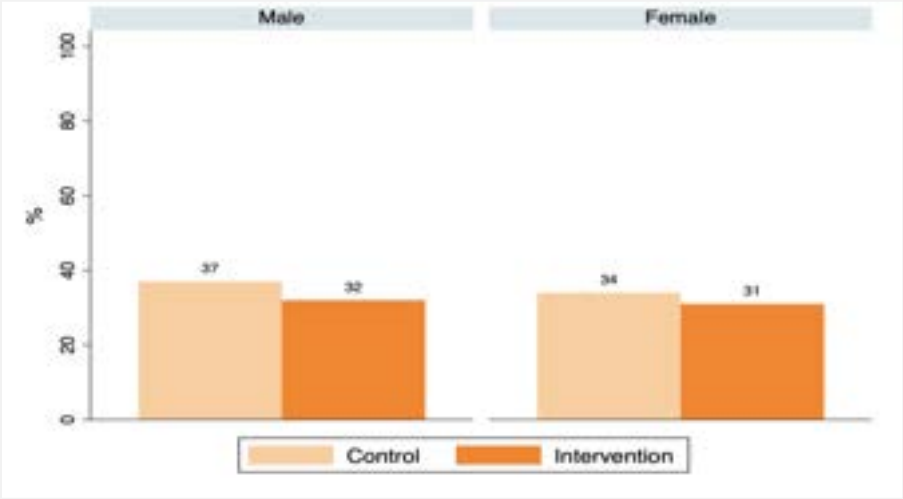


Figure 29 | Ever sexual intercourse (among intervention group – by sex)



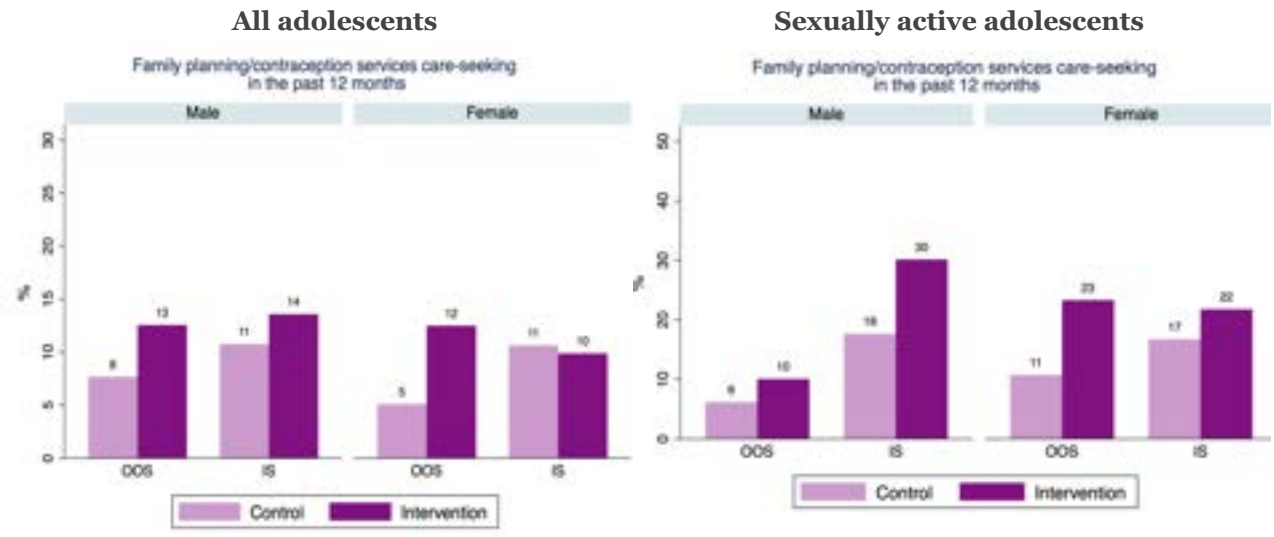
As shown in Figure 30, only a third of adolescents reported using contraception at first sex with no difference by sex or study group.

Figure 30 | Contraceptive use at first sex (as reported at Wave 5 – by sex)



Less than 15% of adolescents reported contact with a family planning provider in the last 12 months, with no difference by sex or school status. While service seeking among out-of-school boys and girls was higher in intervention than in control groups, these differences did not reach statistical significance. Healthcare seeking increased among sexually active adolescents across all groups except out-of-school males, but remained relatively uncommon. Again, healthcare seeking was more common in intervention groups than controls, especially among in-school boys and out-of-school girls, but these differences did not reach statistical significance. Only half of girls (54% in the control group and 51% in the intervention) thought they would be well received if they were to go to a clinic for contraception, which may partly explain low levels of care seeking in this population.

Figure 31 | Sought care from a healthcare provider in the last 12 months (as reported at Wave 5)



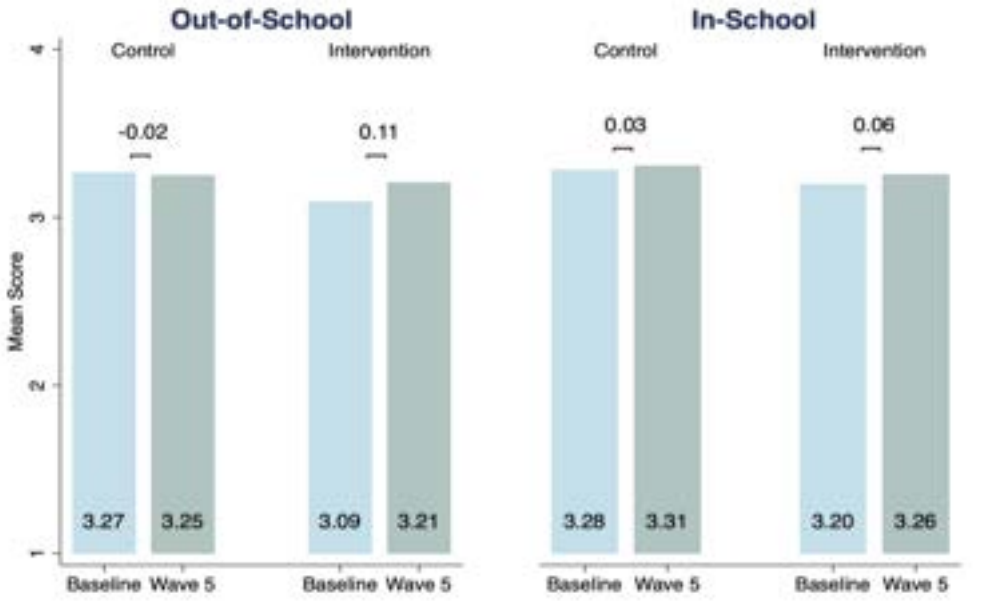
2. ASSETS AND AGENCY

CAREGIVER CONNECTEDNESS

At baseline, adolescents in the intervention and control groups had similar family structures. However, out-of-school girls in the intervention group were less likely to live with both of their parents than in the control group (intervention vs. control: 41.54% vs. 65.33%). Family relations at baseline, in the form of connectedness (feeling close to caregivers and comfortable communicating concerns regarding puberty and romantic relationship) and monitoring (caregivers being aware of adolescents' location, academic performance and friends' names) were similar between study groups.

Caregiver connectedness remained relatively stable over time with no differences between intervention and control groups.

Figure 32 | Parent Connectedness



ATTITUDES AND EXPERIENCES RELATED TO PUBERTAL DEVELOPMENT AND BODY COMFORT

Another critical component of the GUG! intervention was to promote communication, knowledge and comfort with pubertal development, especially for girls.

At baseline, body satisfaction was moderate (based on an indicator assuming a positive outlook across 5 items) with significant inequalities between out-of-school and in-school adolescents. No differences were noted between intervention and controls for either school status. Few adolescent girls had gone through menarche, and among those who ever had a period, about half knew when to expect their next period and many felt ashamed of their bodies during their periods, especially the out-of-school girls. Knowledge about the timing of menstruation was slightly higher among IS girls in the intervention group relative to the control, while stigma was higher among out-of-school girls in the control group compared to the intervention group (p=0.044).

At Wave 5, body satisfaction increased slightly, but remained low at 36% to 41% while positive attitudes towards female body pride increased more significantly reaching 90% or higher across groups.

Figure 33 | Body Satisfaction (by school status)

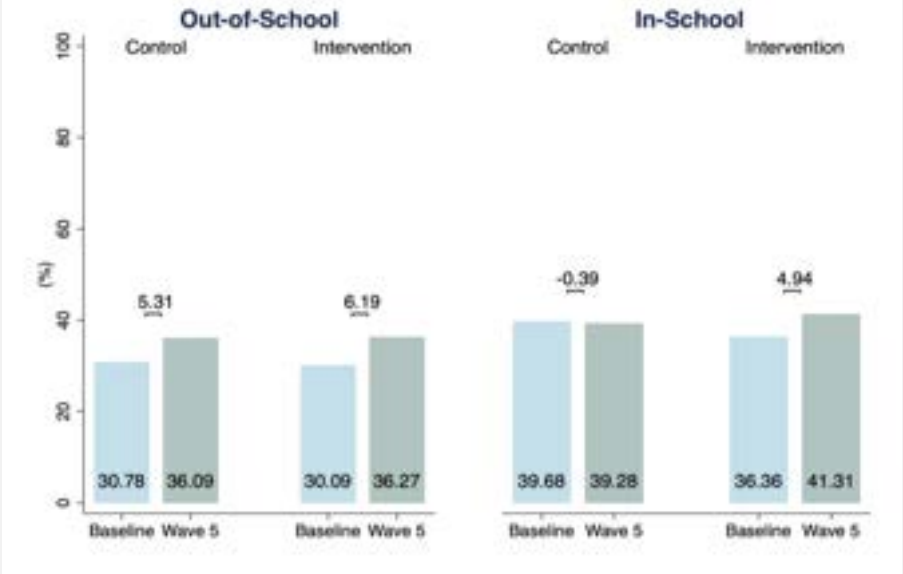
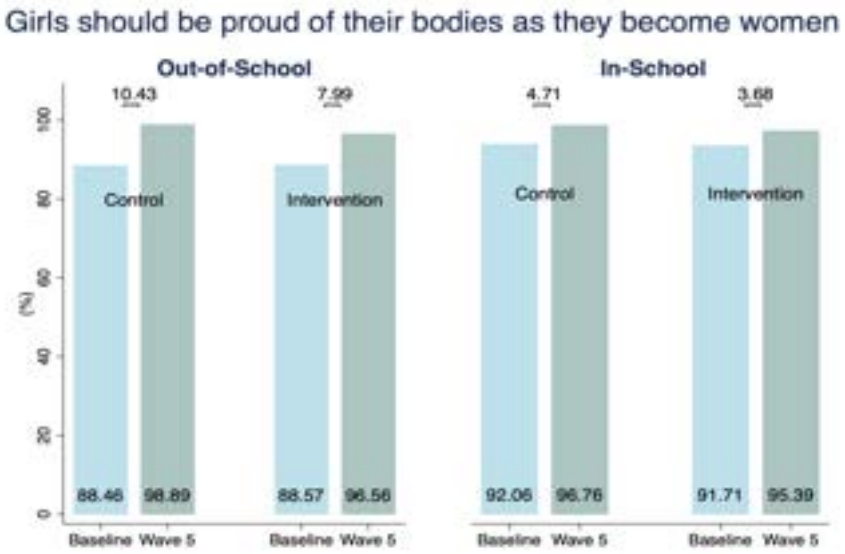


Figure 34 | Female Body Pride



Attitudes and practices regarding menstruation changed as female adolescents reported less shame over female menstruation and were more likely to track their menstrual periods. These improvements were similarly experienced in the intervention and controls groups.

Figure 35 | Menstrual attitudes (ashamed of body when menstruating) (by school status)

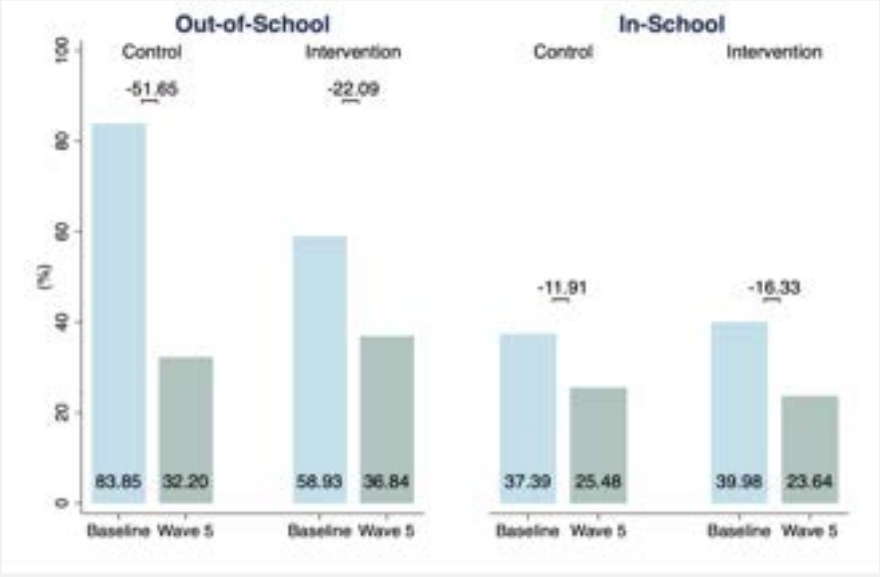
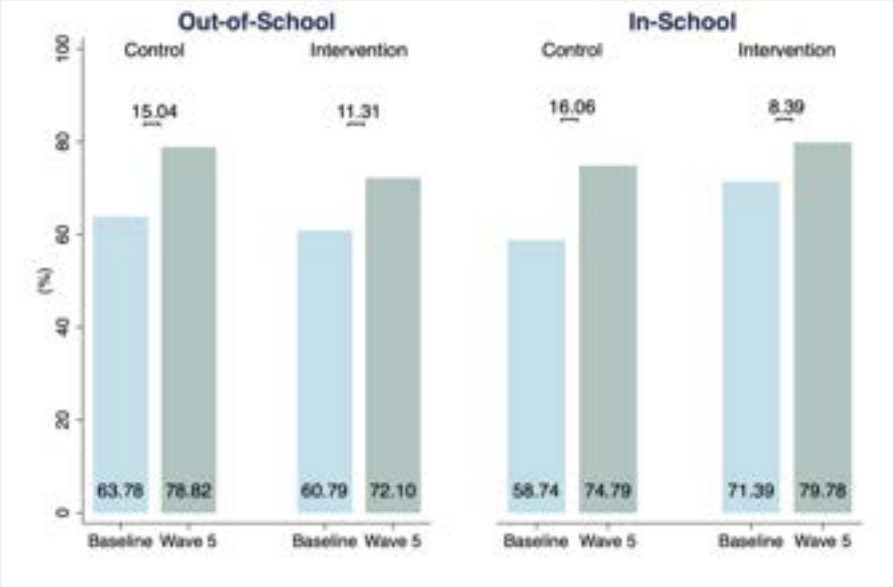


Figure 36 | Period tracking (by school status)



AGENCY

While agency and women and girl's empowerment were not direct outcomes of the GUG! intervention, these constructs are viewed as critical dimensions of gender equality, and a process towards improving women's and girls' health and wellbeing and as such were included in the global GEAS study. Adolescents' agency was operationalized using three indicators that are salient to the lives of young adolescents across diverse cultural settings (Zimmerman, 2019): 1) voice (or the ability to be heard), 2) freedom of movement, and 3) decision making (or the ability to make daily decisions). At baseline, the intervention group of in-school girls reported having more voice ($p<0.001$) and decision-making power ($p=0.002$) than the control group of in-school girls. No differences were seen among out-of-school girls, or boys.

Over time, adolescents gained more voice, especially out-of-school adolescents. They also gained more decision-making power and freedom of movement across all groups. These trends were similar in intervention and control groups, with the exception of a greater effect of the intervention among out of school girls relative to out of school boys. However, the intervention effect on voice was not statistically different between intervention and control groups among out of school girls.

Figure 37 | Voice (by school status)

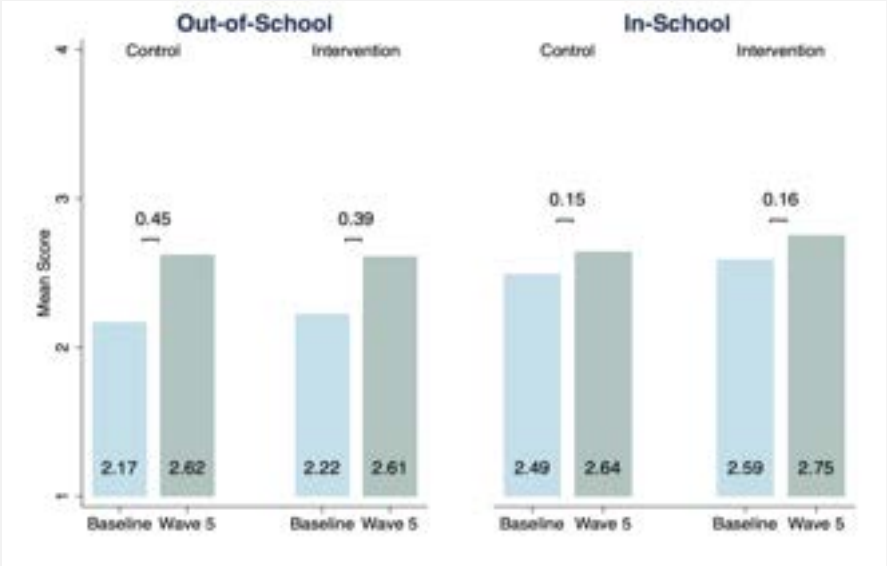


Figure 38 | Freedom of Movement (by school status)

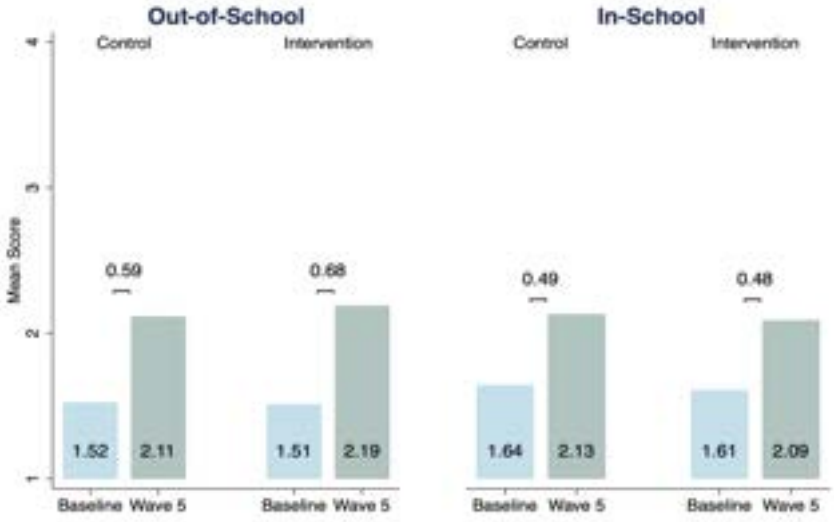
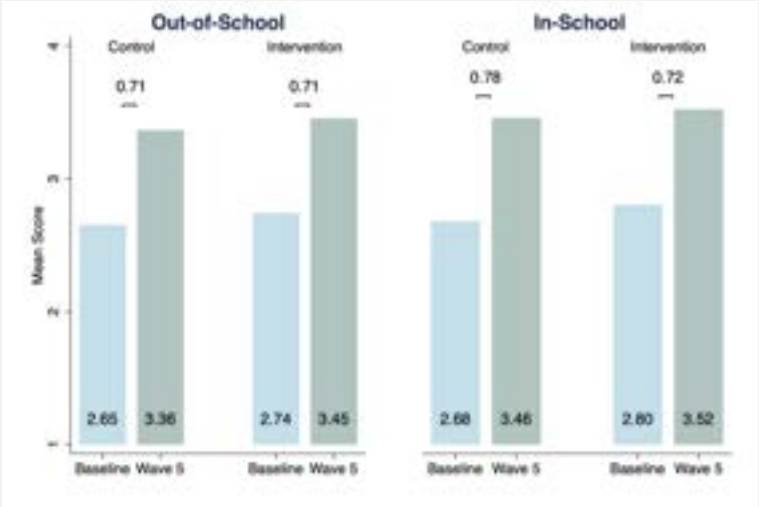


Figure 39 | Decision Making



SEXUAL COMMUNICATION

At baseline, communication about SRH topics was rare, with the exception of pubertal changes. There were significant differences between interventions and controls: IS adolescents in the intervention group were more likely to have talked about pregnancy. In school intervention boys were also more likely to have talked about contraception and sexual relations while out-of-school intervention girls were more likely have talked about body changes.

Over time, communication about SRH topics increased substantially across all domains but varied substantially by subject matter. In Wave 5, more than 60% of adolescents had discussed issues related to body changes but only a quarter discussed pregnancy, contraception or sexual relations. Trends in SRH communication were similar in the interventions and control groups.

Figure 40 | Talked about Body Changes (by school status)

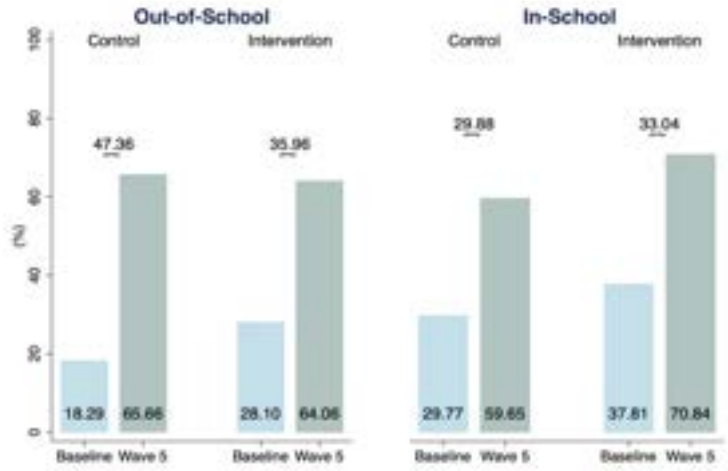


Figure 41 | Talked about Pregnancy (by school status)

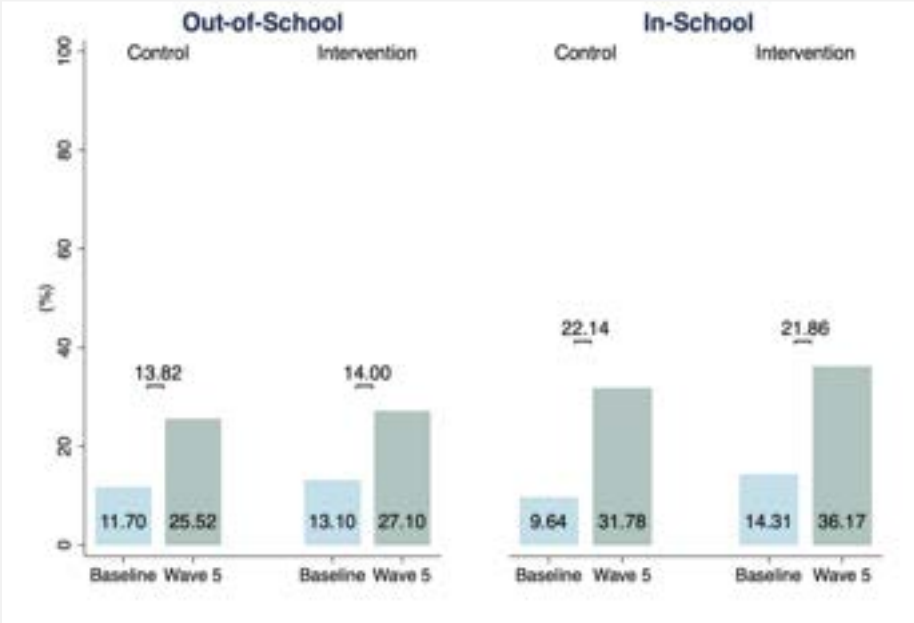


Figure 42 | Talked about Sexual Relations (by school status)

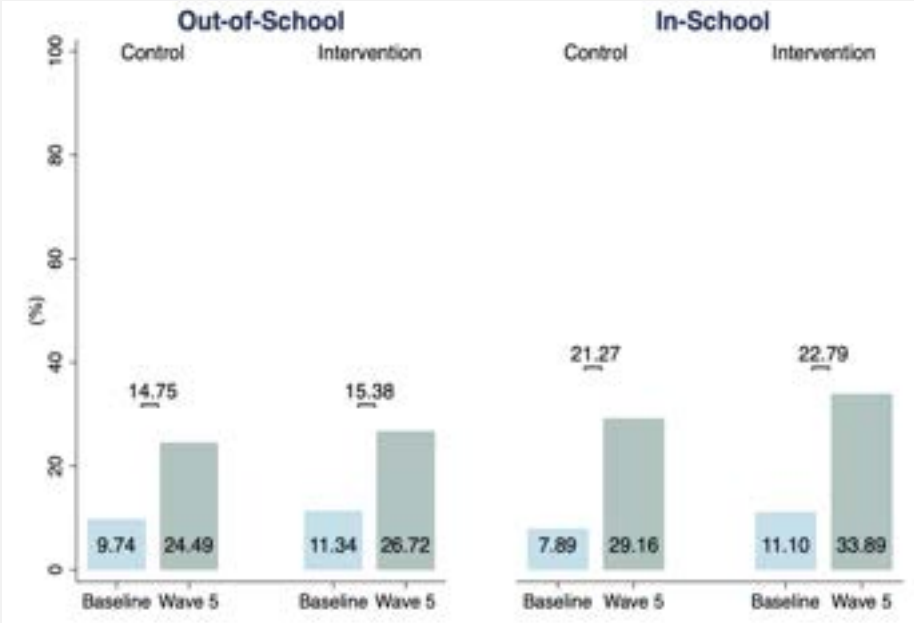
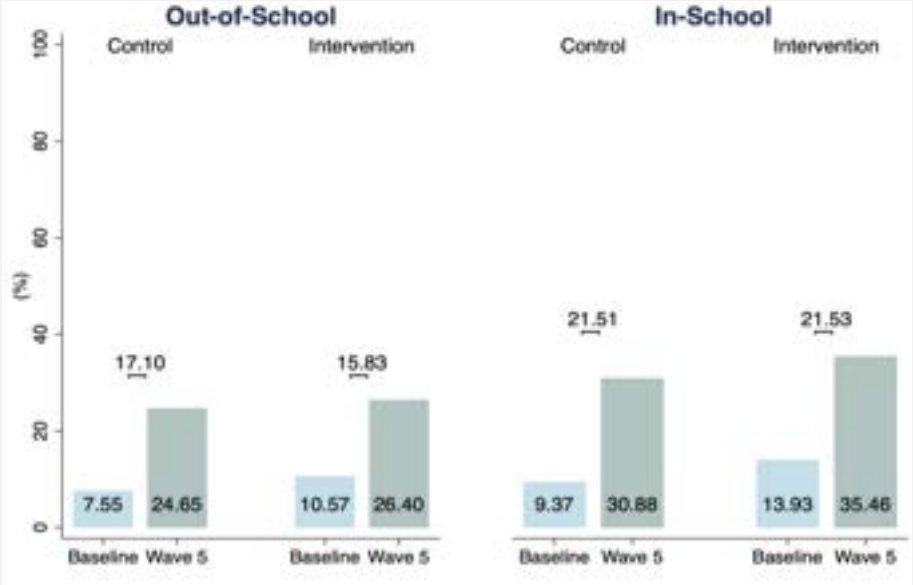


Figure 43 | Talked about Contraception (by school status)



3. GENDER-EQUITABLE ATTITUDES AND NORMS

PERCEPTIONS OF GENDER NORMS

At baseline, in-school and out-of-school boys in the control groups were more likely to perceive adolescent romantic relationships as normative (p=0.006 and p=0.048, respectively) and IS control boys were also more likely to endorse unequal gender stereotypical traits and to be accepting of teasing gender atypical adolescents than IS boys in the intervention group. In-school girls in the control group were also more likely to be accepting of teasing gender atypical boys (p=0.031), while no other difference in gender normative views were observed by the study group, including attitudes towards sharing household chores.

In Wave 5, four years after the intervention, gains in gender equal perceptions about household chore sharing remained significantly higher in the intervention groups (in-school and out-of-school alike) compared to control groups. Support of atypical gender behaviors decreased over time, especially among out-of-school adolescents, but there were no differences by study groups (intervention versus control). While there were no differences in gender stereotypical traits (i.e. males are tough) across the five waves, there was a decrease in endorsement of gender stereotypical roles (i.e. males as the breadwinners) among IS adolescents who received the intervention (p=0.01).

Figure 44 | Attitude towards Gender Equality in Household Chores (by school status)

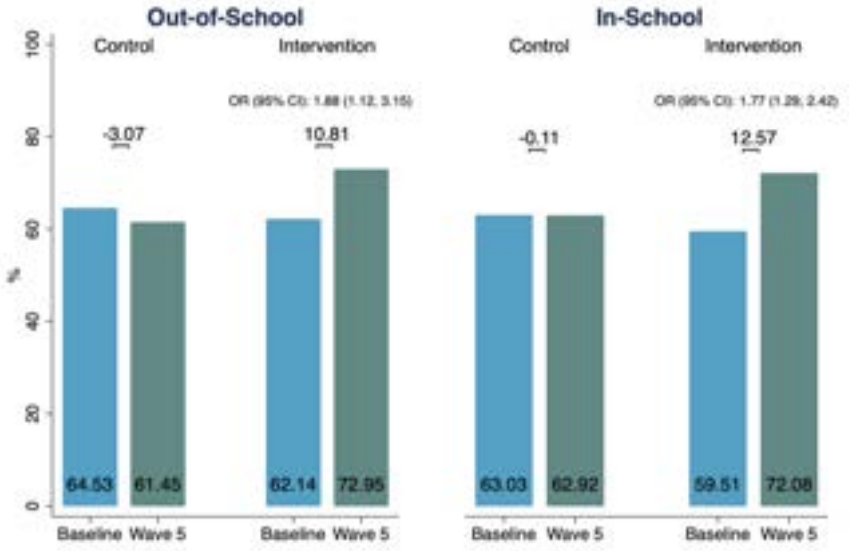


Figure 45 | Attitudes towards Teasing Gender A-typical Boys (by school status)

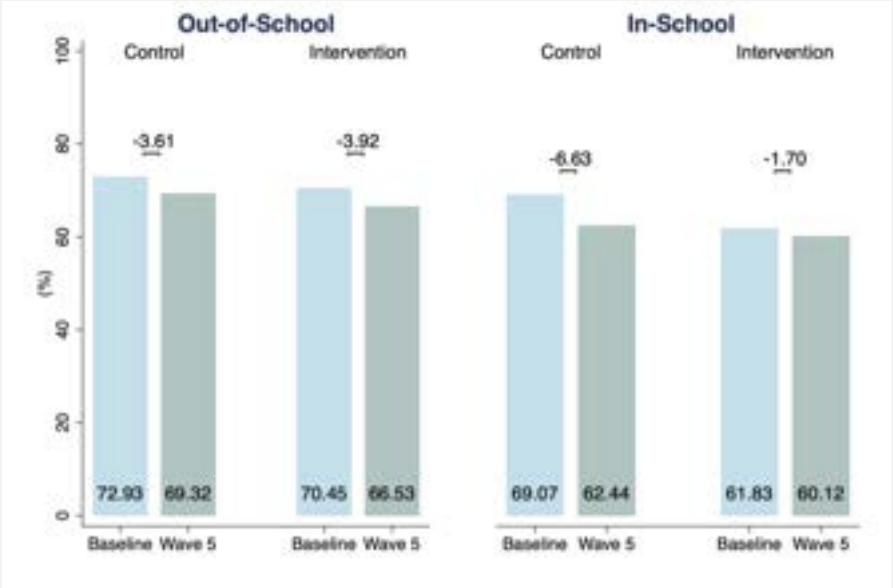
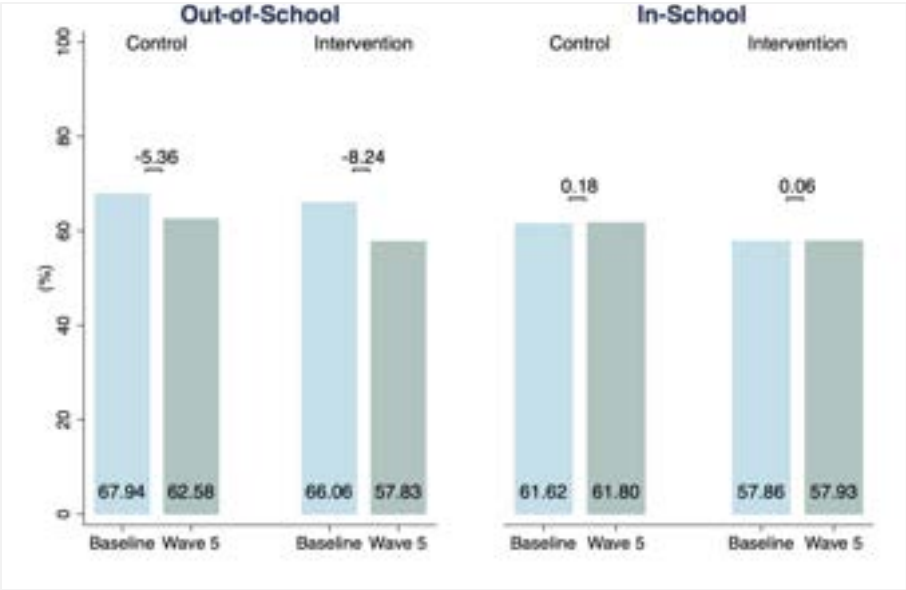


Figure 46 | Attitudes towards Teasing Gender A-typical Girls (by school status)



ATTITUDES RELATED TO GENDER AND SEX

Adolescents were asked about specific sexual attitudes that are influenced by certain gender normative beliefs. While some gender inequitable attitudes increased between baseline and wave 5 as more adolescents endorsed male sexual prowess and shaming of female sexuality over time, other gender unequitable beliefs declined over time as fewer adolescents believed pregnancy prevention was only girls' responsibility. These trends were observed across study groups, but the increase in the endorsement of male sexual prowess were less pronounced among in-school adolescents in the intervention group relative to the controls. Likewise, shifts towards more egalitarian views about pregnancy prevention were greater among in-school adolescents relative to controls (Figure 48).

Figure 47 | Attitudes Regarding Male Sexual Prowess (by school status)

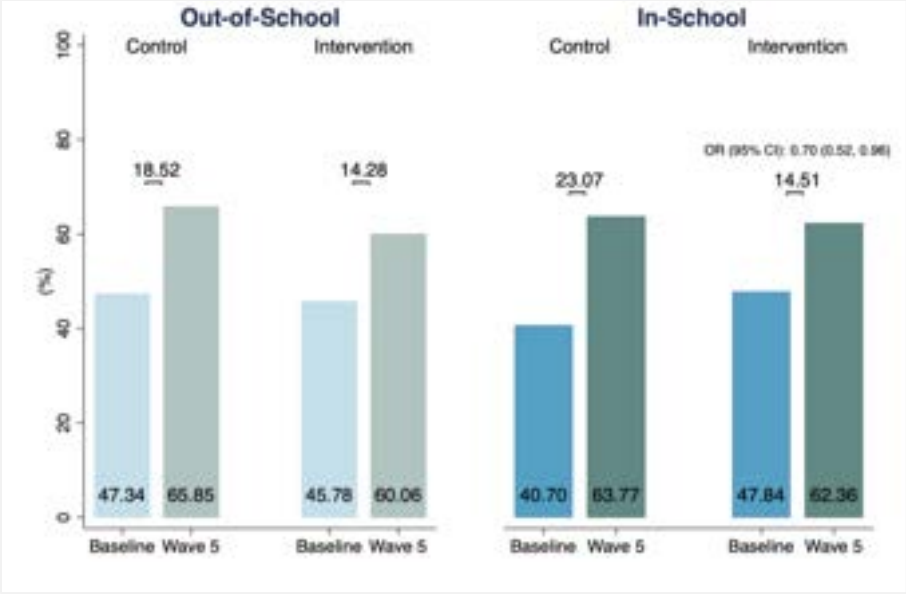


Figure 48 | Gendered Attitudes towards Responsibility for Pregnancy Prevention (by school status)

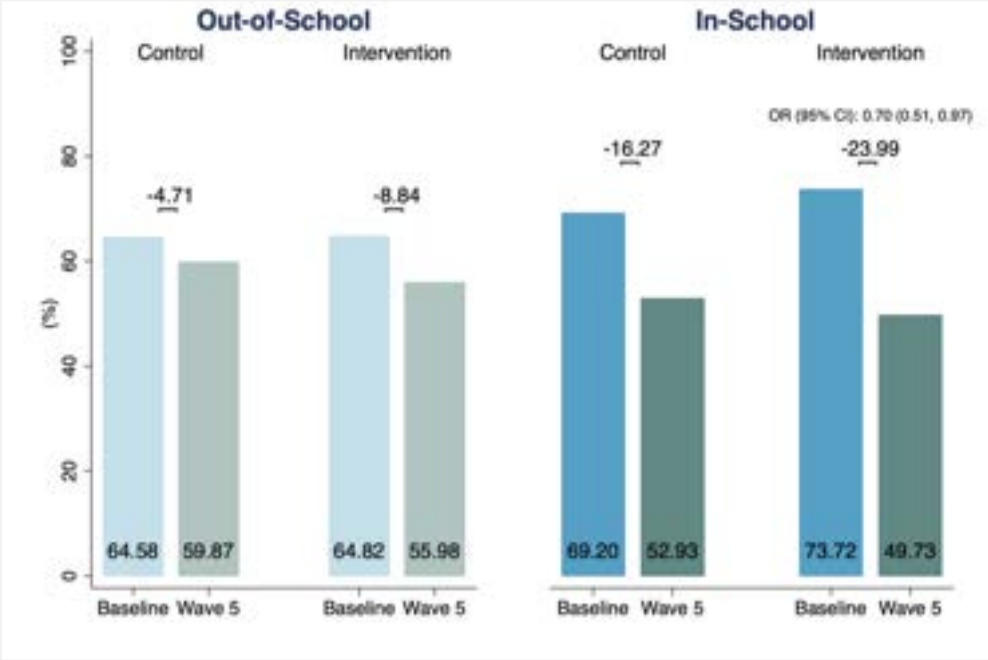


Figure 49 | Views that Women Who Carry Condoms Are 'Easy' (by school status)

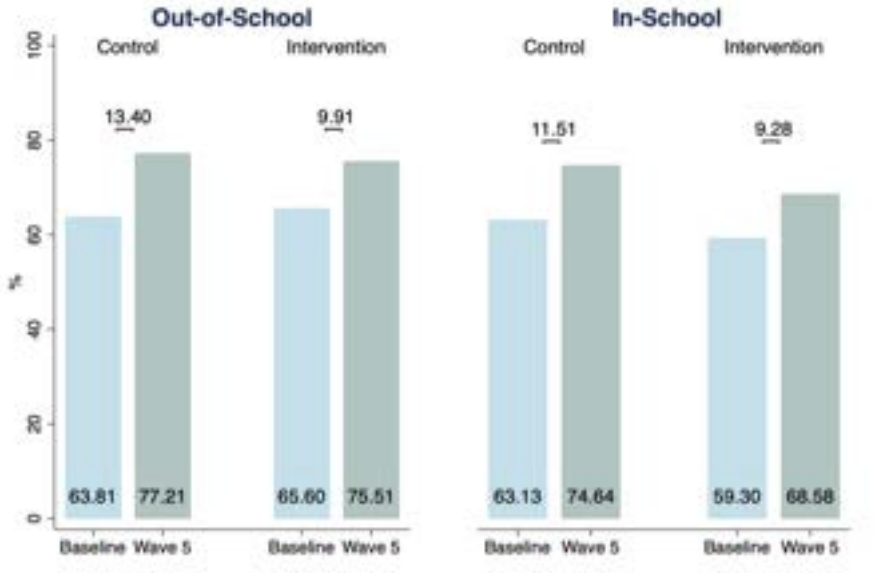
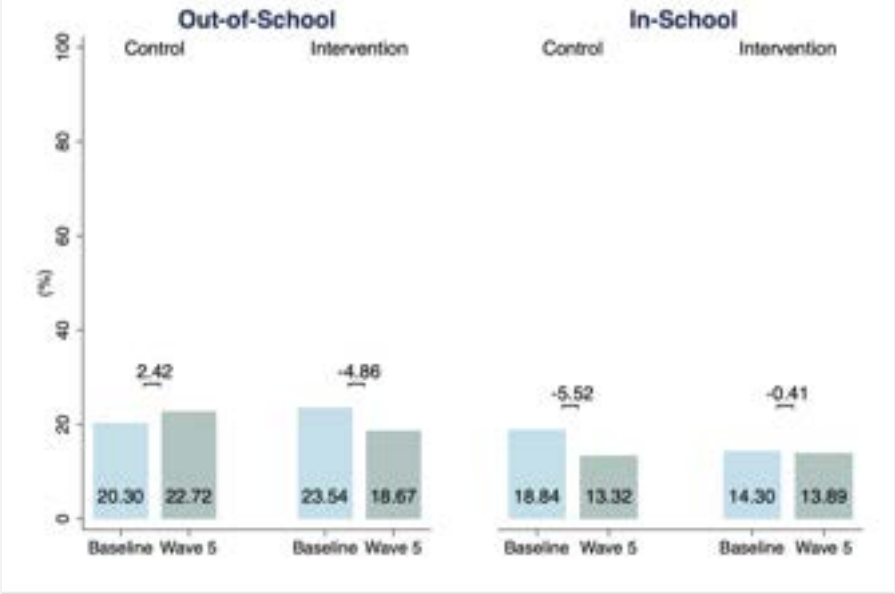


Figure 50 | Attitudes towards Male Promiscuity (by school status)



In the GEAS, sexual double standard is measured by agreement with the following items:

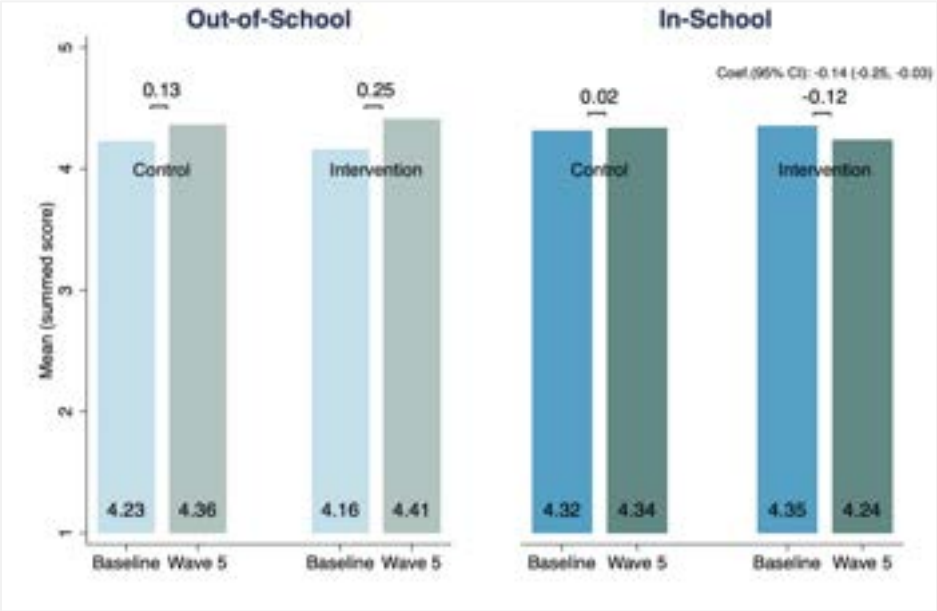
1. Adolescent boys fool girls into going out with them.
2. Adolescent girls should avoid boys because they trick them into going out with them.
3. Adolescent boys lose interest in a girl after they go out with her.
4. Boys have girlfriends to show off to their friends.
5. Girls are the victims of rumors if they have boyfriends.
6. Boys tell girls they love them when they don't.

Answers are then combined into a mean score that comprises the scale in Figure 50 below. Results show that normative perceptions regarding a sexual double standard, rewarding boys for engaging in

romantic heterosexual relations but sanctioning girls, were widespread among all adolescents at baseline, regardless of sex, school status or study group. Average scores exceeded 4 on a scale from 1 to 5, with higher score signaling greater perceptions of a sexual double standard.

Over time there was a small increase in these perceptions among out-of-school adolescents across treatment groups. In contrast, beliefs remained stable among in-school control group adolescents, compared to a small decline in agreement with a double standard among in-school intervention adolescents. Thus, in-school adolescents in the intervention group shifted towards more egalitarian views about adolescent relationships than their control counterparts.

Figure 51 | Sexual Double Standard (by school status)

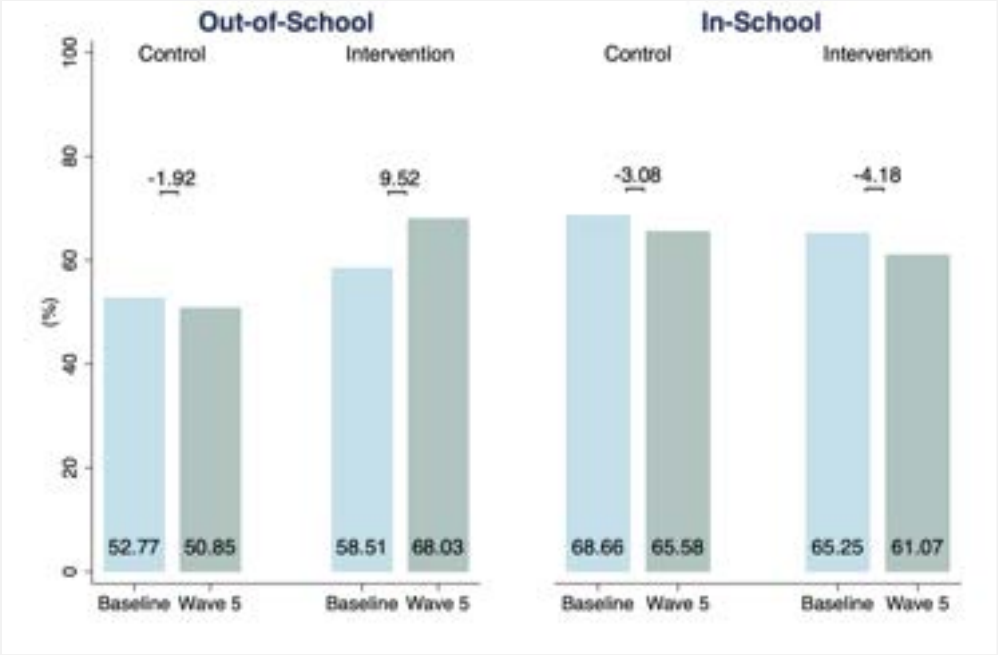


4. GENDER-EQUITABLE BEHAVIORS

SHARING OF CHORES

While attitudes towards household chore sharing were improved in the intervention group, these attitudinal shifts did not translate into significant behavioral change. However, out-of-school adolescents in the intervention group saw significant increases in brothers helping sisters with household chores between baseline and Wave 5, which was not the case among out of school controls.

Figure 52 | Chore-sharing Behavior (Brothers Helping Sisters) (by school status)



TEASING AND VIOLENCE

At baseline, peer physical violence perpetration, and physical violence and teasing victimization, were common behaviors with no significant differences by study arm. Roughly one quarter of boys (IS: 28% vs. OOS: 27%) and girls (IS: 21% vs. OOS: 25%) perpetrated violence against their peers in the last 6 months. Peer violence victimization was less common among IS girls than boys (17.1% vs. 28.2%, respectively).

Peer violence perpetration and victimization declined significantly between baseline and Wave 5; while the intervention had some shorter-term impacts on peer violence for IS adolescents as compared to control group adolescents, by Wave 5 these impacts ceased to be significant. In Wave 5, 22.0 to 28.8% of adolescents reported violence perpetration against their peers in the last 6 months and 12.6 to 18.8% were victimized (Figures 53 and 54, respectively).

Figure 53 | Violence Perpetration (by school status)

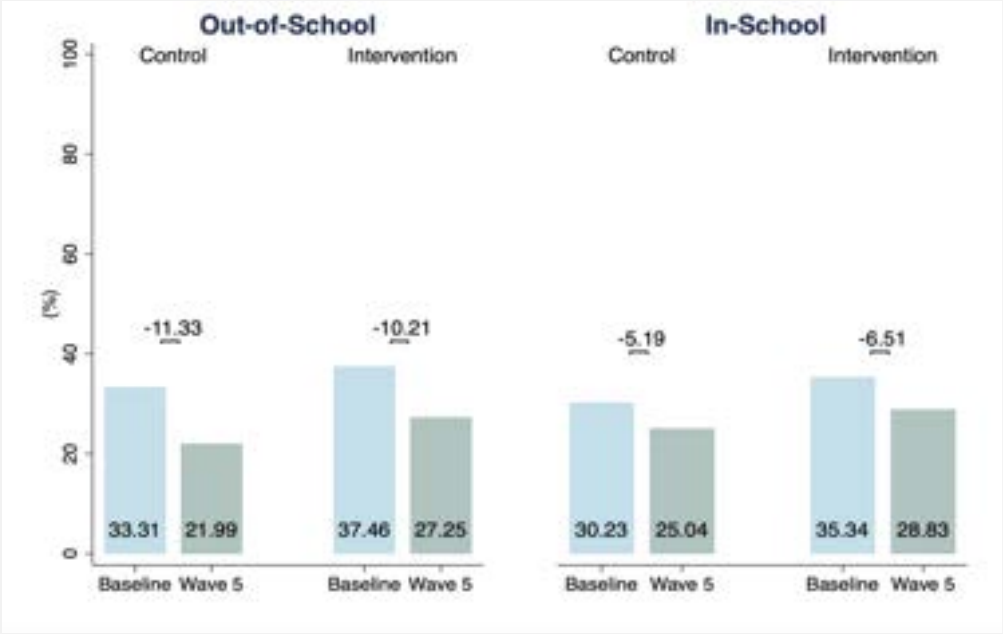
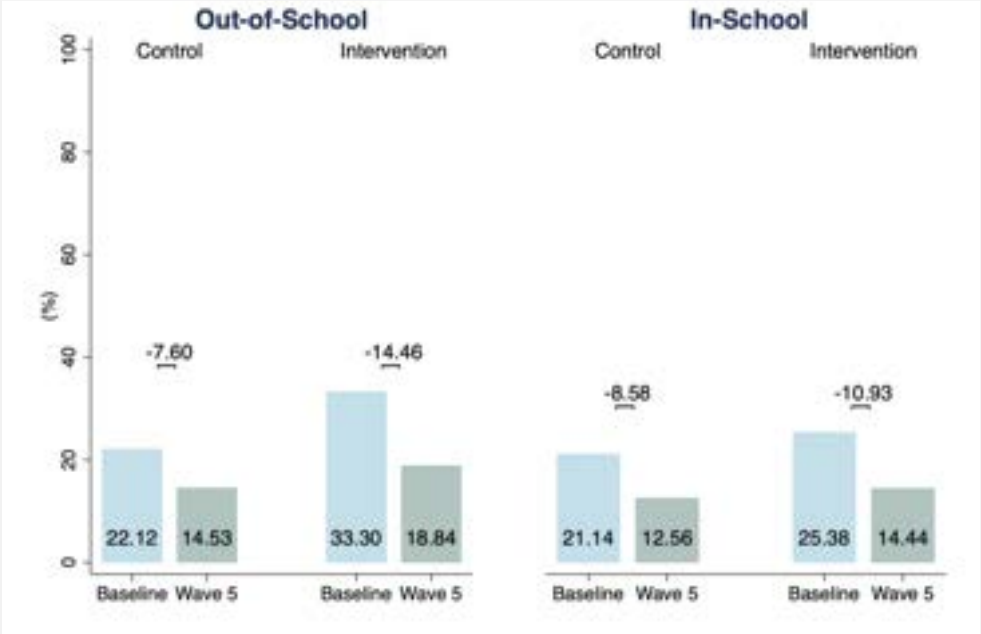


Figure 54 | Violence Victimization (by school status)



LIMITATIONS

This Wave 5 report presents results from both difference-in-differences analyses to assess GUG! intervention effects and descriptive results from the GEAS-Kinshasa cohort. We do not present results from regression analyses to examine the association between gender norms and health and the effect of the GUG! intervention on these associations. These more in-depth analyses are investigated in complementary research efforts that draw upon more advanced conceptual and analytic techniques within cross-cultural comparisons.

Loss to follow up reached 45% among out-of-school adolescents (versus 32% among in-school adolescents), and 45.3% in the intervention group (versus 24.6% in the control group), which may potentially bias the evaluation results. The COVID-19 pandemic and its lingering social impacts presented challenges to data collection and could have led to some of the loss to follow up. As most recruitment was done through home visits, data collectors relied on accurate addresses to follow-up with participants. The negative economic impact of the pandemic in Kinshasa might have led to some families being unable to pay rent and relocating, though these instances have not been confirmed. However, the loss to follow up rate is the same as from prior waves. We applied weights to account for attrition, based on respondents' socio demographic characteristics, but selection bias is still possible if young people who were lost to follow up respond differently to GUG! activities than those surveyed at wave 5.

With sample attrition, the statistical power to detect differential intervention effects by study group, sex or age was diminished, reducing the ability to detect sustained or long-term intervention effects. This may mask intervention effects among girls, who were more likely to benefit from the intervention in wave 2 relative to boys. We nevertheless found sustained effects of the intervention in shifting attitudes about gender-equitable household chore sharing over time and new benefits of the intervention in reducing perceptions of a sexual double standard, which was not detected in prior waves. We also found sustained benefits of the intervention on girls' knowledge about pregnancy prevention.

While more adolescents engaged in sexual activity at Wave 5 than in previous waves, the still relatively small number of sexually active adolescents continued to limit our ability to detect intervention effects on contraceptive behaviors given the small sample of girls in need of contraception even in wave 5. Lack of statistical power is unlikely to alter our conclusions of a lack of intervention benefit on contraceptive use at first sex given the very similar proportions of adolescents reporting contraception at first sex in the intervention and control groups. On the other hand, lack of statistical power may have masked an intervention effect on health care seeking behaviors given substantially higher proportions of adolescents in the intervention group who sought care from a family planning provider compared to adolescents in the control group.

While the GEAS collected rich data on knowledge and attitudes regarding contraception, these questions were only asked of participants aged 15 and older starting in wave 2, which prevents an assessment of baseline differences between intervention and controls. However, the suboptimal contraceptive knowledge paired with high levels of misperceptions across study arms highlight the need for comprehensive sexual education among younger adolescents, before they engage in any sexual activity.

SUMMARY OF RESULTS

The findings from the Global Early Adolescent Study in Kinshasa (GEAS-Kinshasa) follow young people from early adolescence (10-14 years) through older adolescence (15-19 years). They capture both: (1) the developmental and behavioral trends among all young adolescents in the cohort, and (2) evaluation results between the control and intervention group to document the impact of the Growing Up GREAT! (GUG!) intervention, four years after it ended.

SRH KNOWLEDGE

SRH knowledge improves over time with targeted intervention benefits in pregnancy related knowledge. Nonetheless, knowledge about contraception remained suboptimal in the GEAS-Kinshasa cohort with substantial misperceptions and high levels of stigma attached to girl's sexuality. Most adolescents indicated that television and radio were their primary sources of SRH information.

ASSETS & AGENCY

Young people's voice, decision making power and freedom of movement increase over time as well as their ability to communicate about SRH matters with others, although these discussions were largely constrained to pubertal development. Other topics, such as sexual relations and pregnancy prevention remained largely taboo, reflecting the social disapproval of adolescent sexuality.

GENDER-EQUITABLE ATTITUDES & NORMS

Gender-transformative interventions can effectively shift gender inequitable attitudes with sustained gains over time, but these shifts are targeted and cannot challenge the multitudes of unequal gender expectations on their own. Normative and attitudinal shifts can take some time to emerge based on when they become salient in people's lives. For example, intervention benefits towards more egalitarian outlooks on sexual relations only emerged 4 years after the intervention, when more young people started experiencing relationships.

GENDER-EQUITABLE BEHAVIORS

While young people may shift certain views about gender, these attitudes don't necessarily translate into behaviors in the absence of social support. For instance, more egalitarian attitudes towards chore sharing did not translate into actual sharing of chores, presumably because parents, not adolescents, decide on assignment of chores within the household system.

PROGRAMMATIC IMPLICATIONS

1: Adolescence is a critical time for gender transformative and SRH interventions.
Our results emphasize the need for gender transformative interventions among early adolescents to address young people's fluid unequal gender perceptions, which tend to amplify as young people get older. Evaluation results indicate that normative perceptions can be shifted with relatively modest initiatives resulting in sustained effects over time. Findings demonstrate a lack of SRH knowledge and sustained misperceptions and stigmatization surrounding adolescent sexuality. These are critical barriers to healthy sexual development as adolescents move into young adulthood. In the absence of family communication about these matters (common in Kinshasa), there is a critical need to integrate sexuality education, including contraception, earlier in the school curriculum, before the need for pregnancy and HIV prevention arises and young people start dropping out of school. Relatedly, stronger efforts are needed to engage families, health providers and communities to create a supportive environment for adolescents of all ages to seek SRH knowledge and services.

2: Programs need to engage with adolescents' social environments to transform attitudes into action.
While shifts in knowledge and attitudes are essential in paving the way to gender equality and healthy sexuality development, the lack of an enabling environment (family, teachers and community) is a serious obstacle to translating knowledge and attitudinal shifts into lasting behavioral change. While GUG! took on a multilevel approach to integrate caregivers, health providers and communities, more efforts are needed to engage and support adults as agents of young people's learning and healthy sexuality development. Such a socio-ecological approach is needed to foster better SRH communication with young people and tackle misperceptions and taboos that constrain young people's learning and relational experiences.

3: Gender transformative interventions need to better integrate the perspectives and normative environments of boys.
While girls are most negatively affected by inequitable gender norms, gender transformative interventions can also benefit boys. Boys' agreement with attitudes reflecting toxic masculinity over time points to a need to better understand and address such norms that are detrimental to their own health as well as to the wellbeing of girls. Current efforts to include boys in gender transformative interventions, such as GUG!, are promising but the lack of intervention effect for boys relative to girls calls for an assessment of how potentially to adapt these programs to better address boys' perspectives and learning abilities.

4: Longitudinal designs provide a nuanced evaluation of gender transformative interventions.
This longitudinal assessment of the GUG! intervention (from 2017 to 2022) provides unique perspectives on the short- and long-term effects of gender transformative interventions, showing both the need for reinforcement as some early effects fade away after 2 years or more (such as SRH knowledge and communication) while other effects (attitudinal or normative shifts) are sustained or appear later in time, when these norms become salient in young people's lives. More research is warranted to understand how early interventions promoting gender equality in relationships inform key transitions into adulthood, including family formation.

5: Sustained intervention efforts may have greater, longer-term benefits.
In light of the modest and sustained results of this nine-month intervention, an ongoing program implemented over the course of adolescence which includes layered and developmentally appropriate content tailored to boys and girls holds the potential of substantial impact, especially at scale.

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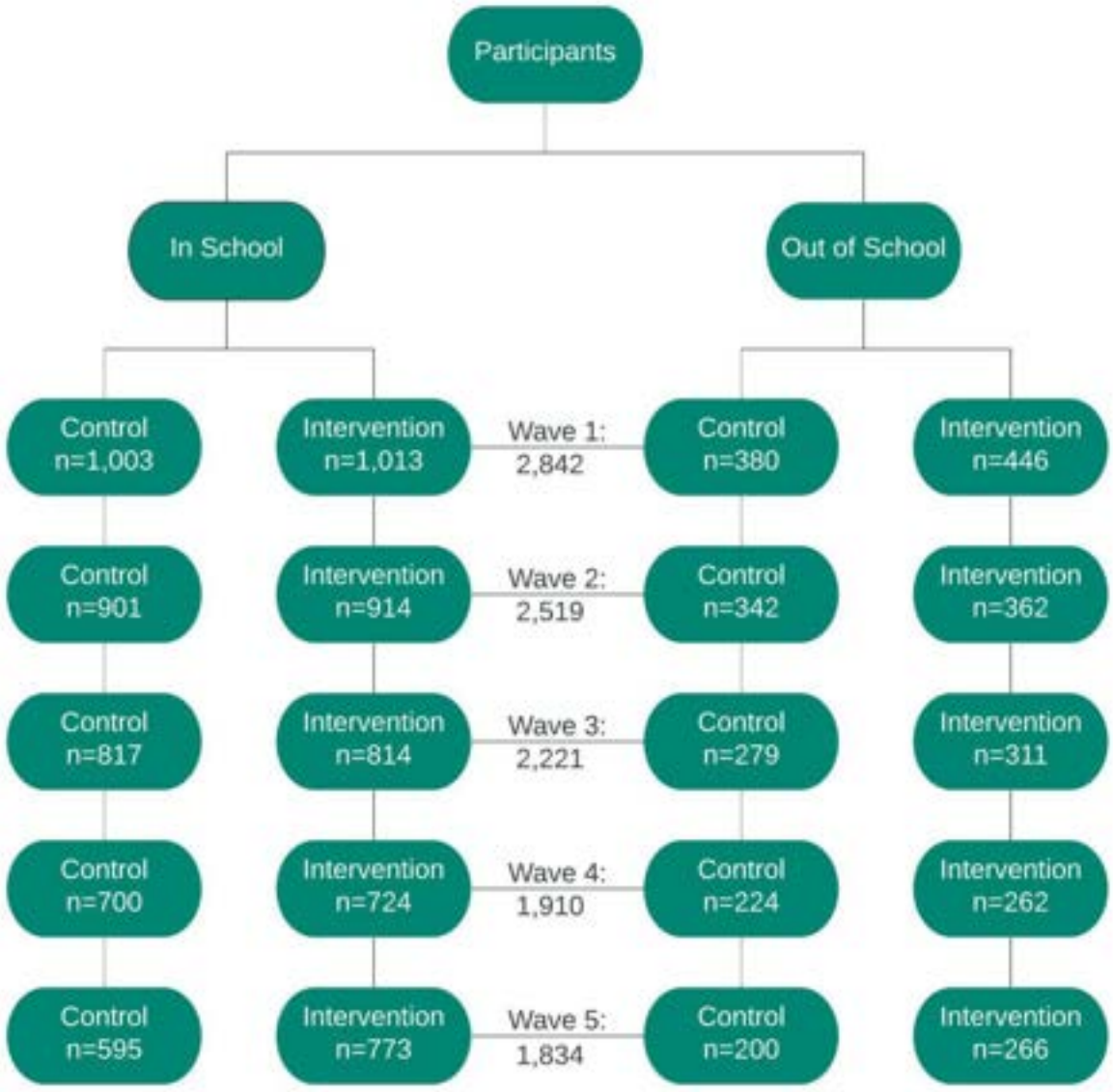
APPENDICES

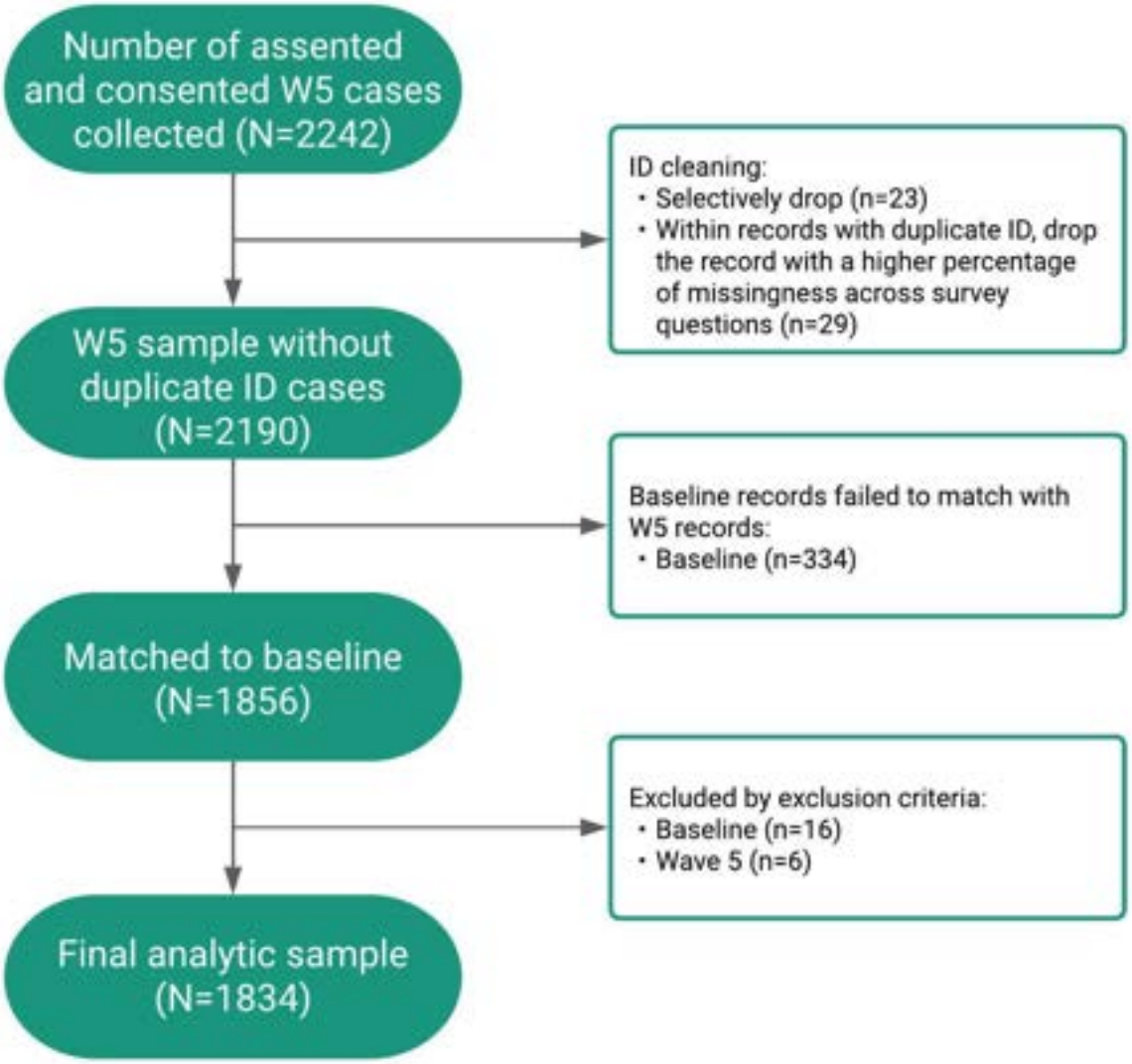
Appendix A. Flow Chart of Study Population across the Five Waves of Data Collection



Appendix B. Loss to Follow Up from Baseline to Wave 5

Loss to Follow Up Rates by Baseline Sample Characteristics		Overall (n=2,842)		Out of School (n=826)		In School (n=2,016)	
		n (%)	p-value	n (%)	p-value	n (%)	p-value
School Status		977 (34.38)	-	341 (34.90)	-	636 (65.10)	<0.001
Sex	Boy	469 (32.960)	0.111	172 (38.74)	0.109	297 (30.34)	0.256
	Girl	508 (35.80)		169 (44.24)		339 (32.69)	
Household Composition*	Two parents	538 (33.09)	0.348	119 (40.89)	0.863	419 (31.39)	0.740
	One parent	281 (35.66)		133 (40.06)		148 (32.46)	
	Grandparents	99 (36.40)		59 (44.36)		40 (28.78)	
	Other	48 (38.71)		25 (41.67)		23 (35.94)	
Wealth Quintile*	Bottom 20%	229 (38.88)	0.002	133 (39.58)	0.444	96 (37.94)	0.074
	20-40%	216 (36.42)		108 (45.57)		108 (30.34)	
	40-60%	187 (35.28)		60 (41.10)		127 (33.07)	
	60-80%	182 (32.56)		29 (37.66)		153 (31.74)	
	Top 20%	154 (28.10)		7 (30.43)		147 (28.00)	

Appendix C. Flow Chart of Wave 5 Analytical Population



Appendix D. Intention to Treat and Per Protocol Analysis for Out-of-School Adolescents

The table below first presents findings from intent to treat (ITT) analyses, followed by per protocol (PPA) analyses. Adherence to per protocol was defined as those who actually participated in the intervention versus controls who were not exposed (excluding possible contamination), and (PPA) were conducted as a sensitivity analysis to the main ITT analyses. Findings in differences and odds ratios should be interpreted with caution due to the small sample size. Differences between the PPA and ITT findings are noted in red text.

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Sexual Double Standard						
Control	200	4.23 +/- 0.06	4.36 +/- 0.06	0.13 +/- 0.09	0.12 (-0.11, 0.34)	0.300
Intervention	266	4.16 +/- 0.06	4.41 +/- 0.04	0.25 +/- 0.07		
age (<12, >=12) X study group interaction	466	-0.00 (-0.46, 0.46)				0.998
sex X study group interaction	466	-0.05 (-0.50, 0.40)				0.822
Adolescent Romantic Expectation						
Control	124	2.68 +/- 0.10	3.51 +/- 0.09	0.82 +/- 0.14	-0.39 (-0.74, -0.04)	0.027
Intervention	160	2.89 +/- 0.09	3.32 +/- 0.08	0.43 +/- 0.11		
age (<12, >=12) X study group interaction	284	-0.18 (-0.94, 0.58)				0.644
sex X study group interaction	284	0.19 (-0.51, 0.89)				0.599
Gender Stereotypical Traits						
Control	200	4.45 +/- 0.04	4.52 +/- 0.05	0.07 +/- 0.06	0.09 (-0.07, 0.25)	0.278
Intervention	266	4.40 +/- 0.04	4.55 +/- 0.04	0.16 +/- 0.06		
age (<12, >=12) X study group interaction	466	0.08 (-0.24, 0.41)				0.619

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
sex X study group interaction	466	-0.13 (-0.46, 0.20)				0.433
Gender Stereotypical Roles						
Control	200	4.51 +/- 0.05	4.37 +/- 0.04	-0.14 +/- 0.06	0.05 (-0.12, 0.22)	0.599
Intervention	265	4.43 +/- 0.05	4.34 +/- 0.04	-0.10 +/- 0.06		
age (<12, >=12) X study group interaction	465	0.04 (-0.31, 0.39)				0.820
sex X study group interaction	465	-0.01 (-0.35, 0.34)				0.965
Gender Equality in Household Chores (%)						
Control	198	64.53	61.45	-3.08	OR 1.88 (1.12, 3.15)	0.017
Intervention	263	62.14	72.95	10.81		
age (<12, >=12) X study group interaction	461	OR 0.49 (0.17, 1.43)				0.190
sex X study group interaction	461	OR 1.04 (0.36, 2.94)				0.947
Brothers Helped Sisters with Household Chores (%)						
Control	83	52.77	50.85	-1.92	OR 1.63 (0.73, 3.65)	0.235
Intervention	107	58.51	68.03	9.52		
age (<12, >=12) X study group interaction	190	OR 3.29 (0.58, 18.78)				0.180
sex X study group interaction	190	OR 0.37 (0.05, 2.93)				0.344
It is okay to tease a girl who acts like a boy (%)						
Control	199	67.94	62.58	-5.36	OR 0.89 (0.53, 1.51)	0.673
Intervention	261	66.06	57.83	-8.23		

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X study group interaction	460	OR 1.10 (0.38, 3.25)				0.857
sex X study group interaction	460	OR 2.02 (0.70, 5.85)				0.196
It is okay to tease a boy who acts like a girl (%)						
Control	200	72.93	69.32	-3.61	OR 0.99 (0.56, 1.75)	0.984
Intervention	262	70.45	66.53	-3.92		
age (<12, >=12) X study group interaction	462	OR 0.81 (0.26, 2.56)				0.726
sex X study group interaction	462	OR 1.36 (0.44, 4.22)				0.590
Girls should be proud of their bodies as they become women (%)						
Control	198	88.46	98.89	10.43	OR 0.31 (0.06, 1.68)	0.175
Intervention	263	88.57	96.56	7.99		
age (<12, >=12) X study group interaction	461	OR 0.09 (0.00, 2.77)				0.168
sex X study group interaction	461	OR 7.44 (0.23, 240.10)				0.257
Men are always ready for sex (%)						
Control	195	47.34	65.85	18.51	OR 0.83 (0.49, 1.39)	0.481
Intervention	258	45.78	60.06	14.28		
age (<12, >=12) X study group interaction	453	OR 2.02 (0.70, 5.88)				0.195
sex X study group interaction	453	OR 1.42 (0.49, 4.05)				0.518
It's the girl's responsibility to prevent pregnancy (%)						
Control	196	64.58	59.87	-4.71	OR 0.84 (0.48, 1.49)	0.557

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Intervention	260	64.82	55.98	-8.84		
age (<12, >=12) X study group interaction	456	OR 0.91 (0.28, 2.95)				0.874
sex X study group interaction	456	OR 0.85 (0.27, 2.71)				0.787
A real man should have as many female partners as he can (%)						
Control	200	20.3	22.72	2.42	OR 0.65 (0.35, 1.20)	0.169
Intervention	262	23.54	18.67	-4.87		
age (<12, >=12) X study group interaction	462	OR 1.01 (0.29, 3.58)				0.986
sex X study group interaction	462	OR 0.84 (0.22, 3.20)				0.800
Women who carry condoms on they are easy (%)						
Control	184	63.81	77.21	13.40	OR 0.84 (0.47, 1.52)	0.567
Intervention	238	65.6	75.51	9.91		
age (<12, >=12) X study group interaction	422	OR 1.39 (0.41, 4.71)				0.593
sex X study group interaction	422	OR 1.59 (0.46, 5.43)				0.460
Freedom of Movement						
Control	200	1.52 +/- 0.05	2.11 +/- 0.07	0.59 +/- 0.08	0.09 (-0.12, 0.29)	0.407
Intervention	265	1.51 +/- 0.04	2.19 +/- 0.06	0.68 +/- 0.07		
age (<12, >=12) X study group interaction	465	-0.23 (-0.63, 0.17)				0.255
sex X study group interaction	465	0.02 (-0.37, 0.40)				0.930
Voice						

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Control	200	2.17 +/- 0.05	2.62 +/- 0.06	0.45 +/- 0.07	-0.07 (-0.25, 0.12)	0.481
Intervention	265	2.22 +/- 0.04	2.61 +/- 0.05	0.39 +/- 0.06		
age (<12, >=12) X study group interaction	465	-0.34 (-0.73, 0.05)				0.084
sex X study group interaction	465	-0.09 (-0.47, 0.29)				0.634
Decision Making						
Control	200	2.65 +/- 0.06	3.36 +/- 0.06	0.71 +/- 0.08	0.00 (-0.20, 0.20)	0.995
Intervention	265	2.74 +/- 0.06	3.45 +/- 0.04	0.71 +/- 0.07		
age (<12, >=12) X study group interaction	465	-0.11 (-0.53, 0.31)				0.619
sex X study group interaction	465	0.48 (0.08, 0.87)				0.018
Boy						
Control	101	2.58 +/- 0.09	3.48 +/- 0.07	0.90 +/- 0.10	-0.23 (-0.50, 0.03)	0.085
Intervention	155	2.80 +/- 0.07	3.47 +/- 0.06	0.67 +/- 0.09		
Girls						
Control	99	2.72 +/- 0.09	3.24 +/- 0.08	0.52 +/- 0.11	0.25 (-0.05, 0.54)	0.102
Intervention	110	2.66 +/- 0.08	3.43 +/- 0.07	0.77 +/- 0.10		
Parent Connectedness						
Control	197	3.27 +/- 0.05	3.25 +/- 0.06	-0.02 +/- 0.08	0.13 (-0.08, 0.34)	0.223
Intervention	264	3.09 +/- 0.05	3.21 +/- 0.06	0.11 +/- 0.07		
age (<12, >=12) X study group interaction	461	-0.09 (-0.50, 0.33)				0.676

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
sex X study group interaction	461	0.11 (-0.31, 0.53)				0.607
Talked about Body Changes (%)						
Control	122	18.29	65.66	47.37	OR 0.53 (0.26, 1.10)	0.090
Intervention	156	28.1	64.06	35.96		
age (<12, >=12) X study group interaction	278	OR 1.63 (0.35, 7.60)				0.532
sex X study group interaction	278	OR 0.36 (0.08, 1.60)				0.181
Talked about Pregnancy (%)						
Control	197	11.7	25.52	13.82	OR 0.95 (0.49, 1.87)	0.889
Intervention	259	13.1	27.1	14.00		
age (<12, >=12) X study group interaction	456	OR 1.24 (0.25, 6.09)				0.792
sex X study group interaction	456	OR 5.15 (1.27, 20.86)				0.022
Boy						
Control	101	5.51	29.77	24.26	OR 0.37 (0.13, 1.03)	0.056
Intervention	154	10.1	23.04	12.94		
Girl						
Control	96	17.94	21.24	3.30	OR 1.89 (0.73, 4.89)	0.190
Intervention	105	17.28	32.74	15.46		
Talked about Contraception (%)						
Control	186	7.55	24.65	17.10	OR 0.76 (0.35, 1.63)	0.478
Intervention	239	10.57	26.4	15.83		

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X study group interaction	425	OR 0.18 (0.03, 1.32)				0.092
sex X study group interaction	425	OR 3.44 (0.68, 17.26)				0.134
Talked about Sexual Relations (%)						
Control	196	9.74	24.49	14.75	OR 0.95 (0.46, 1.97)	0.887
Intervention	263	11.34	26.72	15.38		
age (<12, >=12) X study group interaction	459	OR 1.38 (0.21, 9.06)				0.738
sex X study group interaction	459	OR 1.09 (0.25, 4.77)				0.907
Pregnancy Knowledge						
Control	82	3.76 +/- 0.25	6.18 +/- 0.19	2.42 +/- 0.31	0.13 (-0.69, 0.95)	0.759
Intervention	101	3.91 +/- 0.21	6.45 +/- 0.18	2.54 +/- 0.27		
age (<12, >=12) X study group interaction	183	1.66 (-0.08, 3.40)				0.062
sex X study group interaction	183	0.51 (-1.16, 2.18)				0.546
HIV Knowledge						
Control	122	1.56 +/- 0.11	2.68 +/- 0.08	1.12 +/- 0.13	-0.13 (-0.48, 0.21)	0.454
Intervention	157	1.59 +/- 0.10	2.57 +/- 0.08	0.99 +/- 0.12		
age (<12, >=12) X study group interaction	279	0.45 (-0.26, 1.15)				0.213
sex X study group interaction	279	-0.16 (-0.86, 0.53)				0.639
Knows where to go to get condoms (%)						
Control	122	38.04	72.37	34.33	OR 1.17 (0.60, 2.28)	0.652
Intervention	155	42.7	78.76	36.06		

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X study group interaction	277	OR 0.65 (0.15, 2.83)				0.567
sex X study group interaction	277	OR 0.75 (0.19, 3.05)				0.691
Embarrassed to get condoms (%)						
Control	106	72.71	64.71	-8.00	OR 1.03 (0.49, 2.16)	0.942
Intervention	140	66.75	58.68	-8.07		
age (<12, >=12) X study group interaction	246	OR 2.88 (0.46, 17.85)				0.257
sex X study group interaction	246	OR 0.55 (0.11, 2.70)				0.461
Knows where to go to get contraception (girls only) (%)						
Control	71	47.97	77.53	29.56	OR 0.79 (0.27, 2.28)	0.662
Intervention	75	60.38	81.83	21.45		
age (<12, >=12) X study group interaction	146	OR 0.66 (0.08, 5.63)				0.700
sex X study group interaction	146	-				-
Embarrassed to get contraception (girls only) (%)						
Control	70	53.79	48.42	-5.37	OR 0.72 (0.30, 1.74)	0.466
Intervention	79	57.85	44.37	-13.48		
age (<12, >=12) X study group interaction	149	OR 0.42 (0.07, 2.72)				0.365
sex X study group interaction	149	-				-
Menstrual Attitudes (ashamed of body when having period) (%)						
Control	19	83.85	32.2	-51.65	OR 4.44 (0.75, 26.32)	0.100

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Intervention	25	58.93	36.84	-22.09		
Know where to get information about menstrual periods (%)						
Control	41	34.28	81.72	47.44	OR 0.46 (0.11, 1.96)	0.293
Intervention	36	44.94	76.25	31.31		
Knows when next period comes (%)						
Control	18	52.83	61.57	8.74	OR 2.83 (0.45, 17.75)	0.266
Intervention	24	50.82	80.72	29.90		
Tracking periods (%)						
Control	18	63.78	78.82	15.04	OR 0.79 (0.12, 5.04)	0.802
Intervention	24	60.79	72.1	11.31		
General Health (%)						
Control	199	75.7	72.6	-3.10	OR 1.23 (0.67, 2.23)	0.501
Intervention	265	79.9	80.59	0.69		
age (<12, >=12) X study group interaction	464	OR 0.85 (0.23, 3.21)				0.810
sex X study group interaction	464	OR 0.33 (0.10, 1.13)				0.077
Body Satisfaction (%)						
Control	200	30.78	36.09	5.31	OR 1.04 (0.60, 1.80)	0.884
Intervention	266	30.09	36.27	6.18		
age (<12, >=12) X study group interaction	466	OR 1.46 (0.47, 4.49)				0.510
sex X study group interaction	466	OR 1.24 (0.41, 3.74)				0.702

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Depressive symptoms						
Control	200	2.08 +/- 0.06	2.03 +/- 0.06	-0.04 +/- 0.08	-0.02 (-0.23, 0.19)	0.881
Intervention	266	2.10 +/- 0.05	2.04 +/- 0.05	-0.06 +/- 0.07		
age (<12, >=12) X study group interaction	466	-0.06 (-0.48, 0.35)				0.757
sex X study group interaction	466	0.17 (-0.24, 0.59)				0.408
Teasing victimization (%)						
Control	200	36.23	27.76	-8.47	OR 0.86 (0.50, 1.49)	0.596
Intervention	266	47.01	34.12	-12.89		
age (<12, >=12) X study group interaction	466	OR 1.76 (0.55, 5.66)				0.343
sex X study group interaction	466	OR 1.33 (0.43, 4.13)				0.618
Violence victimization (%)						
Control	200	22.12	14.53	-7.59	OR 0.78 (0.39, 1.53)	0.468
Intervention	264	33.3	18.84	-14.46		
age (<12, >=12) X study group interaction	464	OR 0.89 (0.21, 3.69)				0.867
sex X study group interaction	464	OR 1.24 (0.29, 5.31)				0.773
Violence perpetration (%)						
Control	193	33.31	21.99	-11.32	OR 1.11 (0.61, 2.03)	0.738
Intervention	264	37.46	27.25	-10.21		
age (<12, >=12) X study group interaction	457	OR 1.01 (0.30, 3.45)				0.988
sex X study group interaction	457	OR 2.86 (0.79, 10.40)				0.111

	ITT analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Romantic Relations (ever) (%)						
Control	145	13.45	59.58	46.13	OR 0.97 (0.51, 1.85)	0.938
Intervention	207	12.62	57.17	44.55		
age (<12, >=12) X study group interaction	352	OR 0.69 (0.16, 2.96)				0.618
sex X study group interaction	352	OR 0.51 (0.14, 1.87)				0.307
Power Imbalance in Last Relation						
Control	11	3.72 +/- 0.24	3.68 +/- 0.27	-0.04 +/- 0.35	0.48 (-0.54, 1.50)	0.340
Intervention	10	3.79 +/- 0.31	4.22 +/- 0.19	0.43 +/- 0.31		
age (<12, >=12) X study group interaction	21	-				-
sex X study group interaction	21	0.17 (-2.34, 2.67)				0.889
Intimacy in Last Relation						
Control	11	3.62 +/- 0.16	3.84 +/- 0.10	0.22 +/- 0.14	0.17 (-0.43, 0.76)	0.565
Intervention	10	3.39 +/- 0.18	3.78 +/- 0.14	0.39 +/- 0.23		
age (<12, >=12) X study group interaction	21	-				-
sex X study group interaction	21	0.54 (-0.51, 1.59)				0.295
Alcohol consumption (%)						
Control	199	6.47	13.19	6.72	OR 0.59 (0.25, 1.41)	0.235
Intervention	265	9.6	12.13	2.53		
age (<12, >=12) X study group interaction	464	OR 2.16 (0.24, 19.84)				0.495
sex X study group interaction	464	OR 0.63 (0.08, 5.12)				0.663

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Sexual Double Standard						
Control	144	4.25 +/- 0.08	4.35 +/- 0.07	0.10 +/- 0.11	0.18 (-0.10, 0.46)	0.202
Intervention	175	4.17 +/- 0.08	4.45 +/- 0.05	0.29 +/- 0.09		
age (<12, >=12) X study group interaction	319	0.04 (-0.53, 0.61)				0.890
sex X study group interaction	319	0.09 (-0.47, 0.65)				0.747
Adolescent Romantic Expectation						
Control	90	2.67 +/- 0.12	3.55 +/- 0.11	0.87 +/- 0.16	-0.53 (-0.95, -0.12)	0.011
Intervention	107	2.99 +/- 0.11	3.32 +/- 0.10	0.34 +/- 0.13		
age (<12, >=12) X study group interaction	197	-0.18 (-1.08, 0.72)				0.696
sex X study group interaction	197	0.25 (-0.57, 1.07)				0.552
Gender Stereotypical Traits						
Control	144	4.45 +/- 0.05	4.53 +/- 0.06	0.08 +/- 0.07	0.05 (-0.15, 0.25)	0.609
Intervention	175	4.38 +/- 0.06	4.51 +/- 0.05	0.13 +/- 0.07		
age (<12, >=12) X study group interaction	319	0.11 (-0.28, 0.51)				0.570
sex X study group interaction	319	-0.21 (-0.60, 0.18)				0.288
Gender Stereotypical Roles						
Control	144	4.52 +/- 0.06	4.39 +/- 0.05	-0.13 +/- 0.07	-0.02 (-0.23, 0.18)	0.814
Intervention	174	4.46 +/- 0.06	4.31 +/- 0.06	-0.15 +/- 0.07		
age (<12, >=12) X study group interaction	318	0.06 (-0.36, 0.48)				0.773

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
sex X study group interaction	318	0.17 (-0.24, 0.58)				0.410
Gender Equality in Household Chores (%)						
Control	142	63.22	65.18	1.96	OR 1.78 (0.96, 3.28)	0.066
Intervention	173	61.25	75.37	14.12		
age (<12, >=12) X study group interaction	315	OR 0.31 (0.09, 1.08)				0.066
sex X study group interaction	315	OR 1.08 (0.32, 3.73)				0.898
Brothers Helped Sisters with Household Chores (%)						
Control	62	57.91	58.83	0.92	OR 1.11 (0.41, 3.00)	0.833
Intervention	74	63.14	66.44	3.30		
age (<12, >=12) X study group interaction	136	OR 2.76 (0.29, 25.82)				0.374
sex X study group interaction	136	OR 0.25 (0.02, 3.40)				0.297
It is okay to tease a girl who acts like a boy (%)						
Control	143	68.03	62.97	-5.06	OR 0.73 (0.39, 1.37)	0.328
Intervention	171	67.68	55.03	-12.65		
age (<12, >=12) X study group interaction	314	OR 2.07 (0.58, 7.40)				0.261
sex X study group interaction	314	OR 1.71 (0.49, 6.03)				0.401
It is okay to tease a boy who acts like a girl (%)						
Control	144	72.42	69.63	-2.79	OR 0.61 (0.31, 1.21)	0.160

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Intervention	172	73.9	60.25	-13.65		
age (<12, >=12) X study group interaction	316	OR 0.97 (0.24, 3.83)				0.961
sex X study group interaction	316	OR 1.73 (0.44, 6.78)				0.431
Girls should be proud of their bodies as they become women (%)						
Control	142	87.82	98.49	10.67	OR 0.25 (0.04, 1.43)	0.120
Intervention	172	88.98	94.79	5.81		
age (<12, >=12) X study group interaction	314	OR 0.09 (0.00, 3.22)				0.189
sex X study group interaction	314	OR 9.64 (0.27, 347.46)				0.215
Men are always ready for sex (%)						
Control	141	45.74	68.35	22.61	OR 0.72 (0.39, 1.34)	0.302
Intervention	169	47.79	62.79	15.00		
age (<12, >=12) X study group interaction	310	OR 1.74 (0.48, 6.30)				0.400
sex X study group interaction	310	OR 1.66 (0.47, 5.87)				0.432
It's the girl's responsibility to prevent pregnancy (%)						
Control	140	65.69	62.6	-3.09	OR 0.71 (0.36, 1.43)	0.337
Intervention	170	68.19	57.16	-11.03		
age (<12, >=12) X study group interaction	310	OR 1.30 (0.31, 5.54)				0.721
sex X study group interaction	310	OR 0.55 (0.14, 2.25)				0.409
A real man should have as many female partners as he can (%)						

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Control	144	20.33	20.61	0.28	OR 0.67 (0.31, 1.45)	0.311
Intervention	173	26.36	19.69	-6.67		
age (<12, >=12) X study group interaction	317	OR 0.58 (0.12, 2.80)				0.500
sex X study group interaction		OR 0.91 (0.19, 4.50)				0.913
Women who carry condoms on they are easy (%)						
Control	131	59.17	77.29	18.12	OR 0.70 (0.35, 1.39)	0.307
Intervention	153	63.2	73.76	10.56		
age (<12, >=12) X study group interaction	284	OR 1.75 (0.43, 7.15)				0.434
sex X study group interaction	284	OR 2.35 (0.53, 10.48)				0.263
Freedom of Movement						
Control	144	1.53 +/- 0.06	2.08 +/- 0.08	0.54 +/- 0.09	0.08 (-0.17, 0.33)	0.521
Intervention	174	1.49 +/- 0.05	2.12 +/- 0.07	0.63 +/- 0.08		
age (<12, >=12) X study group interaction	318	-0.17 (-0.65, 0.32)				0.493
sex X study group interaction	318	-0.06 (-0.53, 0.41)				0.810
Voice						
Control	144	2.19 +/- 0.06	2.60 +/- 0.07	0.41 +/- 0.08	-0.08 (-0.31, 0.14)	0.465
Intervention	174	2.25 +/- 0.05	2.58 +/- 0.07	0.33 +/- 0.08		
age (<12, >=12) X study group interaction	318	-0.40 (-0.87, 0.07)				0.092
sex X study group interaction	318	-0.20 (-0.65, 0.25)				0.379

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Decision Making						
Control	144	2.71 +/- 0.07	3.37 +/- 0.07	0.67 +/- 0.09	0.02 (-0.22, 0.26)	0.869
Intervention	174	2.73 +/- 0.07	3.42 +/- 0.06	0.69 +/- 0.08		
age (<12, >=12) X study group interaction	318	-0.12 (-0.62, 0.38)				0.647
sex X study group interaction	318	0.30 (-0.17, 0.77)				0.204
Parent Connectedness						
Control	143	3.24 +/- 0.06	3.28 +/- 0.07	0.03 +/- 0.09	0.07 (-0.18, 0.32)	0.602
Intervention	174	3.16 +/- 0.06	3.26 +/- 0.07	0.10 +/- 0.09		
age (<12, >=12) X study group interaction	317	-0.17 (-0.68, 0.33)				0.494
sex X study group interaction	317	0.04 (-0.46, 0.55)				0.864
Talked about Body Changes (%)						
Control	88	16.34	66.07	49.73	OR 0.53 (0.22, 1.27)	0.154
Intervention	104	29.47	68.94	39.47		
age (<12, >=12) X study group interaction	192	OR 1.21 (0.21, 7.05)				0.833
sex X study group interaction	192	OR 0.34 (0.06, 2.01)				0.237
Talked about Pregnancy (%)						
Control	141	11.9	25.58	13.68	OR 0.87 (0.39, 1.94)	0.728
Intervention	170	14.47	27.19	12.72		
age (<12, >=12) X study group interaction	311	OR 1.01 (0.17, 6.03)				0.990
sex X study group interaction	311	OR 5.53 (1.02, 29.90)				0.047

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Boy						
Control	71	4.77	30.14	25.37	OR 0.31 (0.09, 1.13)	0.076
Intervention	93	9.33	21.56	12.23		
Girl						
Control	70	18.81	21.15	2.34	OR 1.72 (0.58, 5.10)	0.331
Intervention	77	20.21	33.48	13.27		
Talked about Contraception (%)						
Control	131	5.94	26.19	20.25	OR 0.51 (0.20, 1.30)	0.157
Intervention	158	11.54	27.03	15.49		
age (<12, >=12) X study group interaction	289	OR 0.50 (0.05, 5.26)				0.561
sex X study group interaction	289	OR 4.18 (0.55, 31.75)				0.167
Talked about Sexual Relations (%)						
Control	141	7.63	24.17	16.54	OR 0.67 (0.27, 1.68)	0.393
Intervention	173	11.6	25.28	13.68		
age (<12, >=12) X study group interaction	314	OR 1.21 (0.12, 12.53)				0.875
sex X study group interaction	314	OR 0.64 (0.10, 4.22)				0.646
Pregnancy Knowledge						
Control	59	3.63 +/- 0.30	6.33 +/- 0.22	2.70 +/- 0.38	-0.20 (-1.20, 0.80)	0.689
Intervention	66	4.05 +/- 0.26	6.55 +/- 0.23	2.50 +/- 0.33		
age (<12, >=12) X study group interaction	125	2.11 (-0.00, 4.22)				0.051

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
sex X study group interaction	125	1.03 (-0.98, 3.04)				0.312
HIV Knowledge						
Control	88	1.48 +/- 0.12	2.69 +/- 0.10	1.21 +/- 0.14	-0.21 (-0.62, 0.19)	0.302
Intervention	105	1.64 +/- 0.12	2.64 +/- 0.09	1.00 +/- 0.15		
age (<12, >=12) X study group interaction	193	0.25 (-0.56, 1.07)				0.537
sex X study group interaction	193	-0.24 (-1.05, 0.57)				0.561
Knows where to go to get condoms (%)						
Control	85	38.62	74.77	36.15	OR 1.30 (0.59, 2.88)	0.521
Intervention	100	42.01	81.58	39.57		
age (<12, >=12) X study group interaction	185	OR 0.49 (0.08, 2.89)				0.429
sex X study group interaction	185	OR 0.99 (0.19, 5.12)				0.994
Embarrassed to get condoms (%)						
Control	69	70.39	61.91	-8.48	OR 1.39 (0.55, 3.53)	0.487
Intervention	94	63.4	62.22	-1.18		
age (<12, >=12) X study group interaction	163	OR 2.75 (0.32, 23.49)				0.355
sex X study group interaction	163	OR 0.76 (0.11, 5.07)				0.776
Knows where to go to get contraception (girls only) (%)						
Control	53	44.26	80.53	36.27	OR 0.70 (0.21, 2.39)	0.573
Intervention	54	62.8	86.09	23.29		
age (<12, >=12) X study group interaction	107	OR 1.68 (0.14, 20.05)				0.680

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Embarrassed to get contraception (girls only) (%)						
Control	50	54.25	41.7	-12.55	OR 1.10 (0.39, 3.15)	0.855
Intervention	60	51.3	41.18	-10.12		
age (<12, >=12) X study group interaction	110	OR 0.84 (0.09, 7.64)				0.880
Menstrual Attitudes (ashamed of body when having period) (%)						
Control	11	80.69	39.08	-41.61	OR 2.05 (0.27, 15.45)	0.488
Intervention	20	62.43	34.29	-28.14		
Know where to get information about menstrual periods (%)						
Control	32	33.96	87.73	53.77	OR 0.27 (0.04, 1.81)	0.180
Intervention	23	48.45	78.23	29.78		
Knows when next period comes (%)						
Control	10	76.03	67.37	-8.66	OR 31.56 (1.61, 620.12)	0.023
Intervention	19	47.82	94.96	47.14		
Tracking periods (%)						
Control	11	60.8	87.68	26.88	OR 0.76 (0.07, 8.39)	0.825
Intervention	19	60.3	84.17	23.87		
General Health (%)						
Control	144	75.67	72.25	-3.42	OR 1.18 (0.59, 2.39)	0.637
Intervention	174	79.71	79.57	-0.14		

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Body Satisfaction (%)						
Control	144	29.65	34.85	5.20	OR 0.98 (0.50, 1.89)	0.941
Intervention	175	29.93	34.59	4.66		
age (<12, >=12) X study group interaction	319	OR 1.72 (0.44, 6.77)				0.438
sex X study group interaction	319	OR 0.89 (0.24, 3.36)				0.868
Depressive symptoms						
Control	144	2.01 +/- 0.07	2.01 +/- 0.07	0.00 +/- 0.10	-0.07 (-0.32, 0.19)	0.604
Intervention	175	2.12 +/- 0.07	2.06 +/- 0.06	-0.07 +/- 0.08		
age (<12, >=12) X study group interaction	319	0.11 (-0.38, 0.61)				0.652
sex X study group interaction	319	0.26 (-0.23, 0.76)				0.294
Teasing victimization (%)						
Control	144	36.14	28.78	-7.36	OR 0.68 (0.36, 1.29)	0.240
Intervention	175	50.18	32.85	-17.33		
age (<12, >=12) X study group interaction	319	OR 1.43 (0.36, 5.64)				0.613
sex X study group interaction	319	OR 0.93 (0.25, 3.45)				0.918
Violence victimization (%)						
Control	144	19.93	14.66	-5.27	OR 0.76 (0.34, 1.71)	0.504
Intervention	173	33.5	20.85	-12.65		
age (<12, >=12) X study group interaction	317	OR 1.84 (0.33, 10.10)				0.485
sex X study group interaction	317	OR 1.33 (0.24, 7.51)				0.747

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Violence perpetration (%)						
Control	140	33.32	21.6	-11.72	OR 0.88 (0.42, 1.81)	0.723
Intervention	174	39.6	24.06	-15.54		
age (<12, >=12) X study group interaction	314	OR 1.26 (0.29, 5.45)				0.756
sex X study group interaction	314	OR 3.54 (0.78, 16.03)				0.101
Romantic Relations (ever) (%)						
Control	108	14.53	57.76	43.23	OR 0.91 (0.44, 1.87)	0.801
Intervention	145	13.29	52.92	39.63		
age (<12, >=12) X study group interaction	253	OR 0.69 (0.13, 3.81)				0.674
sex X study group interaction	253	OR 0.55 (0.13, 2.31)				0.413
Power Imbalance in Last Relation						
Control	9	3.46 +/- 0.21	3.62 +/- 0.33	0.16 +/- 0.40	0.05 (-1.24, 1.34)	0.933
Intervention	7	3.75 +/- 0.41	3.96 +/- 0.17	0.22 +/- 0.40		
age (<12, >=12) X study group interaction	16	-				-
sex X study group interaction	16	1.34 (-1.24, 3.93)				0.280
Intimacy in Last Relation						
Control	9	3.67 +/- 0.19	3.92 +/- 0.10	0.25 +/- 0.17	0.18 (-0.63, 0.98)	0.648
Intervention	7	3.26 +/- 0.22	3.68 +/- 0.18	0.43 +/- 0.31		
age (<12, >=12) X study group interaction	16	-				-
sex X study group interaction	16	0.88 (-0.37, 2.13)				0.150

	Per protocol analysis among Out of School (N=380: control-186; intervention-194)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Alcohol consumption (%)						
Control	144	4.39	14.46	10.07	OR 0.43 (0.13, 1.40)	0.160
Intervention	175	6.74	10.17	3.43		
age (<12, >=12) X study group interaction	319	OR 0.70 (0.05, 9.43)				0.790
sex X study group interaction	319	OR 0.28 (0.01, 5.41)				0.402

Appendix E. ITT and Per Protocol Analysis for In-School Adolescents

The table below first presents findings from intent to treat (ITT) analyses, followed by per protocol (PPA) analyses. Adherence to per protocol was defined as those who actually participated in the intervention versus controls who were not exposed (excluding possible contamination), and (PPA) were conducted as a sensitivity analysis to the main ITT analyses. Findings in differences and odds ratios should be interpreted with caution due to the small sample size. Differences between the PPA and ITT findings are noted in red text.

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Sexual Double Standard						
Control	595	4.32 +/- 0.04	4.34 +/- 0.03	0.02 +/- 0.04	-0.14 (-0.26, -0.02)	0.024
Intervention	773	4.35 +/- 0.03	4.24 +/- 0.03	-0.12 +/- 0.04		
age (<12, >=12) X study group interaction	1368	-0.02 (-0.26, 0.22)				0.882
sex X study group interaction	1368	-0.16 (-0.40, 0.07)				0.175
Adolescent Romantic Expectation						
Control	324	2.85 +/- 0.06	3.31 +/- 0.06	0.46 +/- 0.08	0.12 (-0.09, 0.33)	0.250
Intervention	486	2.69 +/- 0.05	3.26 +/- 0.05	0.58 +/- 0.06		
age (<12, >=12) X study group interaction	810	-0.15 (-0.59, 0.29)				0.516
sex X study group interaction	810	-0.48 (-0.89, -0.07)				0.022
Boy						
Control	162	2.87 +/- 0.09	3.29 +/- 0.09	0.42 +/- 0.11	0.39 (0.11, 0.66)	0.006
Intervention	221	2.60 +/- 0.07	3.40 +/- 0.07	0.80 +/- 0.09		
Girl						
Control	162	2.83 +/- 0.08	3.32 +/- 0.09	0.49 +/- 0.12	-0.09 (-0.39, 0.21)	0.556

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Intervention	265	2.76 +/- 0.06	3.16 +/- 0.07	0.40 +/- 0.09		
Gender Stereotypical Traits						
Control	595	4.51 +/- 0.03	4.41 +/- 0.03	-0.09 +/- 0.04	0.09 (-0.01, 0.19)	0.068
Intervention	773	4.42 +/- 0.03	4.41 +/- 0.02	-0.00 +/- 0.03		
age (<12, >=12) X study group interaction	1368	0.10 (-0.10, 0.30)				0.335
sex X study group interaction	1368	-0.02 (-0.21, 0.18)				0.863
Gender Stereotypical Roles						
Control	595	4.46 +/- 0.03	4.28 +/- 0.03	-0.19 +/- 0.04	-0.14 (-0.25, -0.03)	0.010
Intervention	772	4.39 +/- 0.03	4.06 +/- 0.03	-0.33 +/- 0.04		
age (<12, >=12) X study group interaction	1367	0.05 (-0.17, 0.28)				0.627
sex X study group interaction	1367	0.11 (-0.10, 0.33)				0.313
Gender Equality in Household Chores (%)						
Control	593	63.03	62.92	-0.11	OR 1.77 (1.29, 2.42)	<0.001
Intervention	771	59.51	72.08	12.57		
age (<12, >=12) X study group interaction	1364	OR 1.01 (0.53, 1.92)				0.972
sex X study group interaction	1364	OR 0.72 (0.38, 1.37)				0.315
Brothers Helped Sisters with Household Chores (%)						
Control	220	68.66	65.58	-3.08	OR 0.96 (0.60, 1.55)	0.869
Intervention	302	65.25	61.07	-4.18		
age (<12, >=12) X study group interaction	522	OR 1.07 (0.40, 2.85)				0.889

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
sex X study group interaction	522	OR 2.25 (0.66, 7.65)				0.193
It is okay to tease a girl who acts like a boy (%)						
Control	594	61.62	61.8	0.18	OR 0.99 (0.74, 1.34)	0.972
Intervention	768	57.86	57.93	0.07		
age (<12, >=12) X study group interaction	1362	OR 1.40 (0.77, 2.55)				0.267
sex X study group interaction	1362	OR 0.73 (0.40, 1.32)				0.293
It is okay to tease a boy who acts like a girl (%)						
Control	595	69.07	62.44	-6.63	OR 1.25 (0.93, 1.68)	0.139
Intervention	773	61.83	60.12	-1.71		
age (<12, >=12) X study group interaction	1368	OR 1.49 (0.82, 2.71)				0.195
sex X study group interaction	1368	OR 1.01 (0.55, 1.83)				0.986
Girls should be proud of their bodies as they become women (%)						
Control	593	92.06	96.76	4.70	OR 0.72 (0.37, 1.42)	0.346
Intervention	770	91.71	95.39	3.68		
age (<12, >=12) X study group interaction	1363	OR 1.18 (0.31, 4.56)				0.810
sex X study group interaction	1363	OR 0.44 (0.11, 1.69)				0.232
Men are always ready for sex (%)						
Control	589	40.7	63.77	23.07	OR 0.70 (0.52, 0.96)	0.026
Intervention	767	47.84	62.36	14.52		
age (<12, >=12) X study group interaction	1356	OR 1.07 (0.57, 2.00)				0.837

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
sex X study group interaction	1356	OR 0.73 (0.40, 1.36)				0.325
It's the girl's responsibility to prevent pregnancy (%)						
Control	591	69.2	52.93	-16.27	OR 0.70 (0.51, 0.97)	0.034
Intervention	766	73.72	49.73	-23.99		
age (<12, >=12) X study group interaction	1357	OR 1.13 (0.59, 2.18)				0.716
sex X study group interaction	1357	OR 0.67 (0.35, 1.28)				0.230
A real man should have as many female partners as he can (%)						
Control	594	18.84	13.32	-5.52	OR 1.46 (0.96, 2.22)	0.077
Intervention	772	14.3	13.89	-0.41		
age (<12, >=12) X study group interaction	1366	OR 1.72 (0.74, 3.98)				0.209
sex X study group interaction	1366	OR 0.73 (0.31, 1.72)				0.474
Women who carry condoms on they are easy (%)						
Control	553	63.13	74.64	11.51	OR 0.87 (0.62, 1.22)	0.424
Intervention	736	59.3	68.58	9.28		
age (<12, >=12) X study group interaction	1289	OR 1.57 (0.80, 3.12)				0.192
sex X study group interaction	1289	OR 0.77 (0.39, 1.53)				0.456
Freedom of Movement						
Control	595	1.64 +/- 0.03	2.13 +/- 0.04	0.49 +/- 0.04	-0.01 (-0.12, 0.10)	0.907
Intervention	773	1.61 +/- 0.03	2.09 +/- 0.03	0.48 +/- 0.04		

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X study group interaction	1368	0.02 (-0.20, 0.24)				0.858
sex X study group interaction	1368	-0.17 (-0.38, 0.05)				0.127
Voice						
Control	595	2.49 +/- 0.03	2.64 +/- 0.03	0.15 +/- 0.04	0.01 (-0.09, 0.11)	0.826
Intervention	773	2.59 +/- 0.02	2.75 +/- 0.03	0.16 +/- 0.03		
age (<12, >=12) X study group interaction	1368	-0.15 (-0.35, 0.06)				0.152
sex X study group interaction	1368	-0.06 (-0.26, 0.14)				0.562
Decision Making						
Control	595	2.68 +/- 0.04	3.46 +/- 0.03	0.78 +/- 0.04	-0.06 (-0.18, 0.06)	0.331
Intervention	773	2.80 +/- 0.03	3.52 +/- 0.02	0.72 +/- 0.04		
age (<12, >=12) X study group interaction	1368	-0.09 (-0.33, 0.14)				0.437
sex X study group interaction	1368	-0.21 (-0.45, 0.02)				0.077
Parent Connectedness						
Control	593	3.28 +/- 0.03	3.31 +/- 0.03	0.03 +/- 0.04	0.03 (-0.08, 0.15)	0.596
Intervention	772	3.20 +/- 0.03	3.26 +/- 0.03	0.06 +/- 0.04		
age (<12, >=12) X study group interaction	1365	-0.01 (-0.24, 0.22)				0.935
sex X study group interaction	1365	0.05 (-0.18, 0.28)				0.653
Talked about Body Changes (%)						
Control	320	29.77	59.65	29.88	OR 1.15 (0.75, 1.75)	0.526
Intervention	473	37.81	70.84	33.03		

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X study group interaction	793	OR 1.82 (0.73, 4.58)				0.200
sex X study group interaction	793	OR 0.80 (0.33, 1.93)				0.622
Talked about Pregnancy (%)						
Control	583	9.64	31.78	22.14	OR 0.78 (0.52, 1.16)	0.216
Intervention	745	14.31	36.17	21.86		
age (<12, >=12) X study group interaction	1328	OR 2.67 (0.96, 7.42)				0.060
sex X study group interaction	1328	OR 1.66 (0.74, 3.71)				0.215
Talked about Contraception (%)						
Control	560	9.37	30.88	21.51	OR 0.79 (0.52, 1.19)	0.254
Intervention	710	13.93	35.46	21.53		
age (<12, >=12) X study group interaction	1270	OR 1.33 (0.48, 3.68)				0.578
sex X study group interaction	1270	OR 1.87 (0.81, 4.35)				0.144
Talked about Sexual Relations (%)						
Control	581	7.89	29.16	21.27	OR 0.85 (0.56, 1.31)	0.469
Intervention	752	11.1	33.89	22.79		
age (<12, >=12) X study group interaction	1333	OR 1.50 (0.46, 4.91)				0.504
sex X study group interaction	1333	OR 1.63 (0.68, 3.92)				0.277
Pregnancy Knowledge						
Control	227	4.08 +/- 0.13	6.41 +/- 0.14	2.33 +/- 0.18	0.45 (0.01, 0.90)	0.046
Intervention	362	3.91 +/- 0.11	6.70 +/- 0.10	2.79 +/- 0.14		

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X study group interaction	589	-0.17 (-1.11, 0.78)				0.730
sex X study group interaction	589	1.09 (0.21, 1.97)				0.016
Boy						
Control	117	4.06 +/- 0.17	6.91 +/- 0.17	2.85 +/- 0.24	-0.11 (-0.75, 0.54)	0.745
Intervention	164	4.13 +/- 0.18	6.88 +/- 0.15	2.75 +/- 0.22		
Girl						
Control	110	4.09 +/- 0.18	5.92 +/- 0.20	1.83 +/- 0.26	0.98 (0.37, 1.59)	0.002
Intervention	233	3.75 +/- 0.13	6.56 +/- 0.13	2.81 +/- 0.17		
HIV Knowledge						
Control	321	1.81 +/- 0.06	2.52 +/- 0.06	0.71 +/- 0.08	0.08 (-0.12, 0.28)	0.446
Intervention	476	1.80 +/- 0.05	2.59 +/- 0.04	0.79 +/- 0.06		
age (<12, >=12) X study group interaction	797	0.16 (-0.25, 0.57)				0.445
sex X study group interaction	797	0.15 (-0.25, 0.55)				0.467
Knows where to go to get condoms (%)						
Control	357	41.67	78.54	36.87	OR 0.93 (0.60, 1.43)	0.742
Intervention	435	46	80.23	34.23		
age (<12, >=12) X study group interaction	792	OR 0.62 (0.25, 1.51)				0.289
sex X study group interaction	792	OR 1.15 (0.47, 2.82)				0.757
Embarrassed to get condoms (%)						
Control	339	68.35	64.35	-4.00	OR 1.22 (0.79, 1.87)	0.364

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Intervention	413	68.51	68.91	0.40		
age (<12, >=12) X study group interaction	752	OR 0.74 (0.30, 1.83)				0.513
sex X study group interaction	752	OR 1.65 (0.70, 3.92)				0.255
Knows where to go to get contraception (girls only) (%)						
Control	226	63.16	70.67	7.51	OR 1.56 (0.92, 2.65)	0.098
Intervention	299	57.41	74.73	17.32		
age (<12, >=12) X study group interaction	525	OR 1.45 (0.48, 4.40)				0.513
Embarrassed to get contraception (girls only) (%)						
Control	231	54.48	41.48	-13.00	OR 1.27 (0.80, 2.03)	0.316
Intervention	302	58.03	50.98	-7.05		
age (<12, >=12) X study group interaction	533	OR 1.09 (0.41, 2.87)				0.860
Menstrual Attitudes (ashamed of body when having period) (%)						
Control	81	37.39	25.48	-11.91	OR 0.81 (0.34, 1.96)	0.643
Intervention	99	39.98	23.64	-16.34		
Know where to get information about menstrual periods (%)						
Control	109	53.58	82.72	29.14	OR 1.09 (0.49, 2.46)	0.826
Intervention	166	55.98	85.24	29.26		
age (<12, >=12) X study group interaction	275	OR 0.66 (0.12, 3.74)				0.641
Knows when next period comes (%)						

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Control	78	57.03	69.09	12.06	OR 0.95 (0.41, 2.18)	0.906
Intervention	98	61.22	71.66	10.44		
Tracking periods (%)						
Control	81	58.74	74.79	16.05	OR 0.76 (0.31, 1.83)	0.539
Intervention	97	71.39	79.78	8.39		
General Health (%)						
Control	592	89.2	83.74	-5.46	OR 0.93 (0.61, 1.41)	0.734
Intervention	770	87.19	79.79	-7.40		
age (<12, >=12) X study group interaction	1362	OR 0.83 (0.35, 1.97)				0.673
sex X study group interaction	1362	OR 0.47 (0.21, 1.09)				0.080
Body Satisfaction (%)						
Control	595	39.68	39.28	-0.40	OR 1.25 (0.92, 1.71)	0.156
Intervention	773	36.36	41.31	4.95		
age (<12, >=12) X study group interaction	1368	OR 0.84 (0.45, 1.57)				0.580
sex X study group interaction	1368	OR 1.18 (0.63, 2.19)				0.608
Depressive symptoms						
Control	595	1.95 +/- 0.03	1.90 +/- 0.03	-0.05 +/- 0.04	0.02 (-0.08, 0.13)	0.671
Intervention	773	1.99 +/- 0.03	1.96 +/- 0.03	-0.03 +/- 0.04		
age (<12, >=12) X study group interaction	1368	-0.13 (-0.34, 0.09)				0.246
sex X study group interaction	1368	0.02 (-0.19, 0.24)				0.827

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Teasing victimization (%)						
Control	591	33.15	23.38	-9.77	OR 1.03 (0.75, 1.43)	0.842
Intervention	770	38.56	28.52	-10.04		
age (<12, >=12) X study group interaction	1361	OR 0.95 (0.49, 1.84)				0.878
sex X study group interaction	1361	OR 0.86 (0.43, 1.69)				0.652
Violence victimization (%)						
Control	592	21.14	12.56	-8.58	OR 0.93 (0.62, 1.39)	0.711
Intervention	770	25.38	14.44	-10.94		
age (<12, >=12) X study group interaction	1362	OR 0.50 (0.22, 1.14)				0.100
sex X study group interaction	1362	OR 1.79 (0.75, 4.29)				0.189
Violence perpetration (%)						
Control	584	30.23	25.04	-5.19	OR 0.96 (0.69, 1.33)	0.813
Intervention	759	35.34	28.83	-6.51		
age (<12, >=12) X study group interaction	1343	OR 0.71 (0.37, 1.38)				0.315
sex X study group interaction	1343	OR 0.78 (0.40, 1.52)				0.465
Romantic Relations (ever) (%)						
Control	476	10.36	55.57	45.21	OR 0.76 (0.51, 1.12)	0.162
Intervention	596	12.78	54.59	41.81		
age (<12, >=12) X study group interaction	1072	OR 0.77 (0.30, 1.97)				0.586
sex X study group interaction	1072	OR 0.90 (0.40, 2.01)				0.795

	ITT among In School Adolescents (N=1368: control-595; intervention-773)					
	N	Baseline	Wave 5	Difference (W5-baseline)	Delta (difference) 95% CI	P-value
Power Imbalance in Last Relation						
Control	36	3.61 +/- 0.16	3.89 +/- 0.13	0.28 +/- 0.18	0.24 (-0.26, 0.75)	0.341
Intervention	50	3.32 +/- 0.12	3.85 +/- 0.13	0.53 +/- 0.17		
age (<12, >=12) X study group interaction	86	-0.89 (-2.30, 0.52)				0.212
sex X study group interaction	86	0.77 (-0.18, 1.72)				0.112
Intimacy in Last Relation						
Control	36	3.55 +/- 0.11	3.82 +/- 0.10	0.27 +/- 0.14	-0.07 (-0.45, 0.32)	0.729
Intervention	50	3.44 +/- 0.10	3.65 +/- 0.07	0.20 +/- 0.13		
age (<12, >=12) X study group interaction	86	0.71 (-0.38, 1.80)				0.199
sex X study group interaction	86	-0.17 (-1.02, 0.68)				0.689
Alcohol consumption (%)						
Control	591	7.53	12.83	5.30	OR 0.91 (0.56, 1.50)	0.721
Intervention	772	7.6	11.97	4.37		
age (<12, >=12) X study group interaction	1363	OR 1.17 (0.39, 3.53)				0.775
sex X study group interaction	1363	OR 1.88 (0.63, 5.62)				0.259

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Sexual Double Standard						
Control	387	4.29 +/- 0.04	4.32 +/- 0.04	0.03 +/- 0.06	-0.18 (-0.32, -0.04)	**0.014**
Intervention	585	4.38 +/- 0.03	4.23 +/- 0.04	-0.15 +/- 0.05		
age (<12, >=12) X studygroup interaction	972	0.01 (-0.28, 0.29)				0.971
sex X studygroup interaction	972	-0.17 (-0.45, 0.12)				0.246
Adolescent Romantic Expectation						
Control	226	2.88 +/- 0.07	3.29 +/- 0.07	0.41 +/- 0.09	0.19 (-0.05, 0.42)	0.118
Intervention	361	2.67 +/- 0.06	3.27 +/- 0.06	0.60 +/- 0.07		
age (<12, >=12) X studygroup interaction	587	-0.09 (-0.58, 0.40)				0.714
sex X studygroup interaction	587	-0.42 (-0.88, 0.05)				0.077
Gender Stereotypical Traits						
Control	387	4.52 +/- 0.03	4.42 +/- 0.04	-0.10 +/- 0.05	0.08 (-0.04, 0.19)	0.201
Intervention	585	4.42 +/- 0.03	4.40 +/- 0.03	-0.02 +/- 0.04		
age (<12, >=12) X studygroup interaction	972	0.10 (-0.13, 0.34)				0.398
sex X studygroup interaction	972	-0.00 (-0.23, 0.23)				0.979
Gender Stereotypical Roles						
Control	387	4.50 +/- 0.04	4.26 +/- 0.03	-0.24 +/- 0.05	-0.05 (-0.18, 0.08)	0.469
Intervention	584	4.37 +/- 0.03	4.08 +/- 0.03	-0.29 +/- 0.04		

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X studygroup interaction	971	0.03 (-0.23, 0.30)				0.804
sex X studygroup interaction	971	0.16 (-0.10, 0.41)				0.224
Gender Equality in Household Chores (%)						
Control	386	62.54	62.12	-0.42	OR 1.83 (1.25, 2.67)	**0.002**
Intervention	583	59.77	72.72	12.95		
age (<12, >=12) X studygroup interaction	969	OR 1.34 (0.62, 2.89)				0.453
sex X studygroup interaction	969	OR 0.54 (0.25, 1.18)				0.121
Brothers Helped Sisters with Household Chores (%)						
Control	156	73.15	66.46	-6.69	OR 1.09 (0.61, 1.92)	0.775
Intervention	219	63.81	58.22	-5.59		
age (<12, >=12) X studygroup interaction	375	OR 1.38 (0.42, 4.51)				0.596
sex X studygroup interaction	375	OR 2.93 (0.64, 13.47)				0.167
It is okay to tease a girl who acts like a boy (%)						
Control	387	61.14	63.13	1.99	OR 0.93 (0.65, 1.32)	0.685
Intervention	581	56.76	57.05	0.29		
age (<12, >=12) X studygroup interaction	968	OR 1.09 (0.53, 2.22)				0.818
sex X studygroup interaction	968	OR 0.93 (0.46, 1.88)				0.833
It is okay to tease a boy who acts like a girl (%)						

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Control	387	70.73	62.51	-8.22	OR 1.39 (0.98, 1.99)	0.065
Intervention	585	60.69	59.77	-0.92		
age (<12, >=12) X studygroup interaction	972	OR 1.35 (0.66, 2.76)				0.417
sex X studygroup interaction	972	OR 1.04 (0.51, 2.13)				0.906
Girls should be proud of their bodies as they become women (%)						
Control	385	91.67	96.74	5.07	OR 0.76 (0.34, 1.66)	0.487
Intervention	583	91.94	95.87	3.93		
age (<12, >=12) X studygroup interaction	968	OR 1.33 (0.26, 6.72)				0.734
sex X studygroup interaction	968	OR 0.40 (0.08, 1.95)				0.255
Men are always ready for sex (%)						
Control	384	40.77	62.81	22.04	OR 0.80 (0.55, 1.15)	0.229
Intervention	582	47.33	63.72	16.39		
age (<12, >=12) X studygroup interaction	966	OR 1.13 (0.53, 2.41)				0.755
sex X studygroup interaction	966	OR 0.59 (0.28, 1.25)				0.170
It's the girl's responsibility to prevent pregnancy (%)						
Control	386	67.64	54.8	-12.84	OR 0.62 (0.42, 0.91)	**0.014**
Intervention	582	72.6	48.7	-23.90		

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X studygroup interaction	968			OR 0.71 (0.33, 1.56)		0.397
sex X studygroup interaction	968			OR 0.53 (0.25, 1.14)		0.106
A real man should have as many female partners as he can (%)						
Control	387	20.75	12.51	-8.24	OR 1.94 (1.17, 3.21)	**0.010**
Intervention	584	13.85	14.56	0.71		
age (<12, >=12) X studygroup interaction	971			OR 1.81 (0.66, 5.00)		0.251
sex X studygroup interaction	971			OR 0.82 (0.29, 2.31)		0.705
Women who carry condoms on they are easy (%)						
Control	361	61.34	75.09	13.75	OR 0.83 (0.55, 1.23)	0.348
Intervention	558	58.77	69.1	10.33		
age (<12, >=12) X studygroup interaction	919			OR 1.05 (0.47, 2.34)		0.907
sex X studygroup interaction	919			OR 0.85 (0.38, 1.92)		0.703
Freedom of Movement						
Control	387	1.64 +/- 0.03	2.08 +/- 0.05	0.44 +/- 0.05	-0.02 (-0.15, 0.12)	0.821
Intervention	585	1.64 +/- 0.03	2.07 +/- 0.04	0.43 +/- 0.04		
age (<12, >=12) X studygroup interaction	972			-0.07 (-0.33, 0.19)		0.602
sex X studygroup interaction	972			-0.08 (-0.34, 0.18)		0.568

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Voice						
Control	387	2.48 +/- 0.03	2.57 +/- 0.04	0.09 +/- 0.05	0.04 (-0.09, 0.16)	0.558
Intervention	585	2.62 +/- 0.03	2.75 +/- 0.03	0.13 +/- 0.04		
age (<12, >=12) X studygroup interaction	972	-0.22 (-0.47, 0.02)				0.074
sex X studygroup interaction	972	0.02 (-0.22, 0.26)				0.868
Decision Making						
Control	387	2.67 +/- 0.05	3.47 +/- 0.04	0.80 +/- 0.06	-0.11 (-0.25, 0.04)	0.141
Intervention	585	2.83 +/- 0.04	3.52 +/- 0.03	0.69 +/- 0.05		
age (<12, >=12) X studygroup interaction	972	-0.11 (-0.40, 0.18)				0.461
sex X studygroup interaction	972	-0.04 (-0.33, 0.24)				0.761
Parent Connectedness						
Control	386	3.28 +/- 0.04	3.29 +/- 0.04	0.00 +/- 0.05	0.05 (-0.09, 0.19)	0.498
Intervention	584	3.21 +/- 0.03	3.26 +/- 0.03	0.05 +/- 0.05		
age (<12, >=12) X studygroup interaction	970	0.08 (-0.20, 0.35)				0.572
sex X studygroup interaction	970	0.07 (-0.21, 0.35)				0.622
Talked about Body Changes (%)						
Control	224	27.02	58.02	31.00	OR 0.91 (0.55, 1.50)	0.711
Intervention	353	40.79	70.06	29.27		

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
age (<12, >=12) X studygroup interaction	577	OR 2.16 (0.72, 6.48)				0.168
sex X studygroup interaction	577	OR 0.57 (0.20, 1.59)				0.283
Talked about Pregnancy (%)						
Control	381	8.46	31.63	23.17	OR 0.62 (0.38, 1.03)	0.064
Intervention	564	14.71	34.97	20.26		
age (<12, >=12) X studygroup interaction	945	OR 1.59 (0.47, 5.45)				0.457
sex X studygroup interaction	945	OR 5.04 (1.76, 14.43)				*0.003*
Boy						
Control	196	4.25	38.4	34.15	OR 0.24 (0.11, 0.56)	**0.001**
Intervention	262	14.51	36.59	22.08		
Girl						
Control	185	12.42	25.27	12.85	OR 1.22 (0.64, 2.33)	0.547
Intervention	302	14.87	33.67	18.80		
Talked about Contraception (%)						
Control	362	8.64	32.73	24.09	OR 0.61 (0.37, 1.01)	0.055
Intervention	543	14.35	34.61	20.26		
age (<12, >=12) X studygroup interaction	905	OR 1.05 (0.31, 3.49)				0.941
sex X studygroup interaction	905	OR 3.44 (1.20, 9.89)				*0.022*

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Boy						
Control	187	4.97	35.93	30.96	OR 0.30 (0.13, 0.69)	**0.005**
Intervention	254	18.32	42.13	23.81		
Girl						
Control	175	12.13	29.69	17.56	OR 1.04 (0.54, 2.01)	0.904
Intervention	289	11.14	28.54	17.40		
Talked about Sexual Relations (%)						
Control	377	6.22	28.7	22.48	OR 0.66 (0.38, 1.15)	0.139
Intervention	569	10.92	32.86	21.94		
age (<12, >=12) X studygroup interaction	946	OR 0.89 (0.21, 3.82)				0.871
sex X studygroup interaction	946	OR 4.05 (1.30, 12.64)				0.016
Pregnancy Knowledge						
Control	160	4.12 +/- 0.15	6.29 +/- 0.17	2.17 +/- 0.23	0.69 (0.16, 1.23)	**0.011**
Intervention	281	3.93 +/- 0.12	6.79 +/- 0.11	2.86 +/- 0.15		
age (<12, >=12) X studygroup interaction	441	-0.36 (-1.51, 0.80)				0.544
sex X studygroup interaction	441	1.18 (0.11, 2.25)				*0.030*
Boy						
Control	86	4.13 +/- 0.22	6.81 +/- 0.20	2.69 +/- 0.30	0.10 (-0.66, 0.86)	0.800

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Intervention	127	4.19 +/- 0.20	6.98 +/- 0.17	2.78 +/- 0.25		
Girl						
Control	74	4.11 +/- 0.22	5.75 +/- 0.27	1.64 +/- 0.33	1.28 (0.53, 2.03)	**0.001**
Intervention	154	3.73 +/- 0.14	6.64 +/- 0.15	2.92 +/- 0.19		
HIV Knowledge						
Control	223	1.83 +/- 0.08	2.48 +/- 0.07	0.65 +/- 0.10	0.15 (-0.08, 0.39)	0.203
Intervention	353	1.80 +/- 0.06	2.60 +/- 0.05	0.80 +/- 0.07		
age (<12, >=12) X studygroup interaction	576	0.02 (-0.46, 0.49)				0.936
sex X studygroup interaction	576	0.22 (-0.26, 0.69)				0.369
Knows where to go to get condoms (%)						
Control	223	41.51	76.84	35.33	OR 0.90 (0.54, 1.50)	0.689
Intervention	331	46.84	78.78	31.94		
age (<12, >=12) X studygroup interaction	554	OR 0.81 (0.28, 2.30)				0.687
sex X studygroup interaction	554	OR 1.00 (0.35, 2.86)				0.993
Embarrassed to get condoms (%)						
Control	210	66.46	62.32	-4.14	OR 1.27 (0.76, 2.13)	0.363
Intervention	317	67.79	69.06	1.27		
age (<12, >=12) X studygroup interaction	527	OR 1.19 (0.40, 3.51)				0.755

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
sex X studygroup interaction	527	OR 1.55 (0.55, 4.36)				0.407
Knows where to go to get contraception (girls only) (%)						
Control	142	66.25	67.57	1.32	OR 1.98 (1.04, 3.76)	**0.037**
Intervention	236	59.35	75.39	16.04		
age (<12, >=12) X studygroup interaction	378	OR 1.11 (0.29, 4.33)				0.877
sex X studygroup interaction	378	-				-
Embarrassed to get contraception (girls only) (%)						
Control	148	51.73	41.31	-10.42	OR 1.14 (0.65, 1.99)	0.641
Intervention	235	57.25	50.1	-7.15		
age (<12, >=12) X studygroup interaction	383	OR 1.04 (0.32, 3.33)				0.947
sex X studygroup interaction	383	-				-
Menstrual Attitudes (ashamed of body when having period) (%)						
Control	44	47.23	23.11	-24.12	OR 1.23 (0.39, 3.87)	0.725
Intervention	78	36.32	19.05	-17.27		
age (<12, >=12) X studygroup interaction	122	-				-
sex X studygroup interaction	122	-				-
Know where to get information about menstrual periods (%)						

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Control	72	53.71	82.3	28.59	OR 0.83 (0.33, 2.06)	0.690
Intervention	126	58.78	82.6	23.82		
age (<12, >=12) X studygroup interaction	198	OR 0.93 (0.14, 6.25)				0.940
sex X studygroup interaction	198				-	-
Knows when next period comes (%)						
Control	42	53.88	67.3	13.42	OR 1.10 (0.38, 3.20)	0.860
Intervention	77	58.96	73.59	14.63		
age (<12, >=12) X studygroup interaction	117	-				-
sex X studygroup interaction	119	-				-
Tracking periods (%)						
Control	44	55.96	70.98	15.02	OR 0.71 (0.22, 2.36)	0.581
Intervention	76	73.91	79.56	5.65		
age (<12, >=12) X studygroup interaction	120	-				-
sex X studygroup interaction	120	-				-
General Health (%)						
Control	385	88.74	83.56	-5.18	OR 0.78 (0.48, 1.28)	0.324
Intervention	583	87.77	78.3	-9.47		
age (<12, >=12) X studygroup interaction	968	OR 1.29 (0.48, 3.49)				0.617

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
sex X studygroup interaction	968			OR 0.59 (0.22, 1.57)		0.291
Body Satisfaction (%)						
Control	387	40.31	39.94	-0.37	OR 1.19 (0.82, 1.73)	0.362
Intervention	585	37.38	41.17	3.79		
age (<12, >=12) X studygroup interaction	972			OR 0.71 (0.33, 1.51)		0.373
sex X studygroup interaction	972			OR 0.89 (0.42, 1.88)		0.755
Depressive symptoms						
Control	387	1.94 +/- 0.03	1.90 +/- 0.04	-0.04 +/- 0.05	-0.03 (-0.15, 0.10)	0.684
Intervention	585	2.00 +/- 0.03	1.93 +/- 0.03	-0.06 +/- 0.04		
age (<12, >=12) X studygroup interaction	972			-0.27 (-0.52, -0.01)		*0.039*
<12						
Control	166	1.96 +/- 0.06	1.82 +/- 0.05	-0.14 +/- 0.07	0.13 (-0.06, 0.32)	0.177
Intervention	255	1.93 +/- 0.04	1.92 +/- 0.04	-0.01 +/- 0.06		
>=12						
Control	221	1.92 +/- 0.04	1.96 +/- 0.05	0.03 +/- 0.06	-0.14 (-0.30, 0.03)	0.113
Intervention	330	2.04 +/- 0.04	1.94 +/- 0.04	-0.10 +/- 0.06		
sex X studygroup interaction	972			-0.06 (-0.31, 0.19)		0.651
Teasing victimization (%)						

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
Control	384	31.82	21.68	-10.14	OR 0.95 (0.64, 1.41)	0.804
Intervention	583	38.92	26.44	-12.48		
age (<12, >=12) X studygroup interaction	967	OR 0.99 (0.44, 2.24)				0.987
sex X studygroup interaction	967	OR 0.79 (0.34, 1.83)				0.582
Violence victimization (%)						
Control	385	19.5	12.7	-6.80	OR 0.76 (0.47, 1.25)	0.286
Intervention	584	26	13.88	-12.12		
age (<12, >=12) X studygroup interaction	969	OR 0.56 (0.20, 1.53)				0.257
sex X studygroup interaction	969	OR 2.07 (0.73, 5.88)				0.173
Violence perpetration (%)						
Control	382	29.22	24.06	-5.16	OR 0.84 (0.56, 1.25)	0.389
Intervention	578	35.95	26.51	-9.44		
age (<12, >=12) X studygroup interaction	960	OR 0.63 (0.28, 1.41)				0.259
sex X studygroup interaction	960	OR 0.96 (0.42, 2.20)				0.925
Romantic Relations (ever) (%)						
Control	320	10.02	50.85	40.83	OR 0.82 (0.52, 1.29)	0.393
Intervention	473	12.81	52.8	39.99		
age (<12, >=12) X studygroup interaction	793	OR 0.60 (0.22, 1.63)				0.315

	Per Protocol among In School Adolescents (N=972: control-387; intervention-585)					
	N	Baseline	Wave 5	Difference (Wave 5–Baseline)	Delta (difference) 95% CI	P-value
sex X studygroup interaction	793	OR 1.03 (0.40, 2.68)				0.949
Power Imbalance in Last Relation						
Control	21	3.66 +/- 0.22	3.83 +/- 0.18	0.17 +/- 0.24	0.34 (-0.29, 0.98)	0.282
Intervention	40	3.40 +/- 0.13	3.92 +/- 0.14	0.52 +/- 0.19		
age (<12, >=12) X study group interaction	61	-0.60 (-2.37, 1.17)				0.498
sex X study group interaction	61	0.35 (-0.86, 1.57)				0.560
Intimacy in Last Relation						
Control	21	3.55 +/- 0.11	3.82 +/- 0.10	0.27 +/- 0.14	-0.07 (-0.45, 0.32)	0.729
Intervention	40	3.44 +/- 0.10	3.65 +/- 0.07	0.20 +/- 0.13		
age (<12, >=12) X study group interaction	61	0.71 (-0.38, 1.80)				0.199
sex X study group interaction	61	-0.17 (-1.02, 0.68)				0.689
Alcohol consumption (%)						
Control	384	6.13	13	6.87	OR 0.70 (0.37, 1.31)	0.261
Intervention	584	8.03	12.23	4.20		
age (<12, >=12) X study group interaction	968	OR 1.17 (0.39, 3.53)				0.775
sex X study group interaction	968	OR 1.88 (0.63, 5.62)				0.259

Appendix F. Evaluation Results by Wave

The following tables represent results for each of the four intermediate outcomes presented in the GUG Theory of Change (Figure 3 above; intermediate outcomes summarized in the figure below). A few notes on the interpretation of the tables:

- Each column presents DID analyses comparing the listed wave (W2-W5) against baseline data. More detailed findings are presented in the W2 column as these results are the main results used to assess GUG's impact (W2 data were collected 3 months after the GUG intervention ended).
- Columns 'W3', 'W4', and 'W5' show any long-term sustained intervention effects at GEAS Waves 3, 4, and 5, respectively.
- Gray shading indicates no sustained effects, while shading in color and green font indicates a sustained intervention effect.
- A green check mark represents overall statistically significant differences between intervention and control groups.
- Colored shading and green font but no check mark indicates that there were no statistically significant findings in the overall group, but that we did see statistically significant findings by the stated sub-group (i.e., age or sex).
- Red check marks indicate statistically significant findings but in the opposite hypothesized direction based on the Theory of Change.

SRH KNOWLEDGE	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL INTERVENTION, N=914; CONTROL, N=901 (W2)				OUT-OF-SCHOOL INTERVENTION, N=362; CONTROL, N=342 (W2)			
	W2	W3	W4	W5	W2	W3	W4	W5
PREGNANCY KNOWLEDGE INDEX	✓ **MEAN SCORE DIFFERENCE 0.44 (0.15, 0.73), P=0.003**		✓ **<12 ONLY**	✓ **ESPECIALLY FOR GIRLS**	X MEAN SCORE DIFFERENCE 0.15 (-0.38, 0.68), P=0.585			
WHERE TO GET CONDOMS	X OR 0.98 (0.71, 1.36), P=0.923				✓ **(ESPECIALLY FOR <12Y/O AND GIRLS) OVERALL: OR 1.92 (1.14, 3.23), P=0.014 <12 Y/O: OR 4.67 (1.67, 13.07), P=0.003 GIRLS: OR 4.42 (1.76, 11.08), P=0.002**			
WHERE TO GET INFORMATION ABOUT MENSTRUATION (ASKED OF MENARCHAL GIRLS)	✓ **OR 2.10 (1.34, 3.29), P=0.001**	✓			✓ **(ESPECIALLY FOR <12 YEARS) OVERALL: OR 4.18 (1.95, 9.00), P<0.001 <12 Y/O: OR 20.09 (4.30, 93.83), P<0.001** >12 Y/O: OR 2.22 (0.87, 5.71), P=0.097			
WHERE TO GET CONTRACEPTION (ASKED OF GIRLS ONLY)	X OR 1.45 (0.93, 2.24), P=0.098				✓ **OR 2.66 (1.31, 5.42), P=0.007**			

CONNECTEDNESS, PERCEIVED QUALITY OF SERVICES AND BODY COMFORT	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL				OUT-OF-SCHOOL			
	W2	W3	W4	W5	W2	W3	W4	W5
CAREGIVER CONNECTEDNESS	✓ **MEAN SCORE DIFFERENCE 0.09 (0.00, 0.18), P=0.048**		✓		✓ **MEAN SCORE DIFFERENCE 0.22 (0.07, 0.38), P=0.005**	✓		
EXPECTATION OF GOOD TREATMENT IF SEEKING CONTRACEPTION (ASKED OF GIRLS ONLY)	X OR 1.46 (0.94, 2.26), P=0.090				X OR 1.92 (0.84, 4.41), P=0.124			
COMFORT WITH PUBERTAL DEVELOPMENT	X OR 2.39 (0.48, 11.97), P=0.289				X Effect not estimable[1]			
BODY SATISFACTION	X OR 1.03 (0.79, 1.34), P=0.847		✓		**(GIRLS ONLY) GIRLS: OR 2.79 (1.43, 5.42), P=0.003** BOYS: OR 0.82 (0.43, 1.53), P=0.527			

[1] Not estimable among OOS adolescents due to no variation in the responses (all yes) from intervention group at Wave 2.

SRH COMMUNICATION WITH OTHERS ABOUT…	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL				OUT-OF-SCHOOL			
	W2	W3	W4	W5	W2	W3	W4	W5
…BODY CHANGES	X OR 0.95 (0.75, 1.20), P=0.666				X OR 0.93 (0.63, 1.36), P=0.696			
…SEXUAL RELATIONSHIPS	X OR 0.84 (0.59, 1.21), P=0.360				✓ **(ESPECIALLY FOR GIRLS) OVERALL: OR 2.03 (1.11, 3.69), P=0.021 GIRLS: OR 4.61 (1.78, 11.91), P=0.002** BOYS: OR 1.11 (0.50, 2.42), P=0.801			
…PREGNANCY AND HOW IT OCCURS	✓ **OR 0.69 (0.49, 0.97), P=0.032**	✓	✓ **ESPECIALLY FOR <12**		X OR 1.52 (0.86, 2.69), P=0.151			
…CONTRACEPTION	X OR 0.82 (0.58, 1.17), P=0.276	✓			✓ **(ESPECIALLY FOR <12Y/O) OVERALL: OR 1.93 (0.98, 3.79), P=0.055 <12 Y/O: OR 14.12 (2.64, 75.46), P=0.002** >12 Y/O: OR 1.19 (0.55, 2.58), P=0.665	**<12 ONLY**		

Red check marks indicate statistically significant findings but in directions unanticipated based on the GUG Theory of Change.

ATTITUDES RE: BOYS'/GIRLS' ROLES, TRAITS, ACTIVITIES	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL				OUT-OF-SCHOOL			
	W2	W3	W4	W5	W2	W3	W4	W5
SEXUAL DOUBLE STANDARD (E.G., NOT OK FOR GIRLS TO HAVE BOYFRIENDS)	X MEAN DIFF. IN SCORE 0.02 (-0.07, 0.12), P=0.613			✓	X MEAN DIFF. IN SCORE 0.08 (-0.09, 0.25), P=0.377			
GENDER-STEREOTYPICAL ROLES (E.G., THE MALE BREADWINNER)	X MEAN DIFF. IN SCORE -0.06 (-0.15, 0.03), P=0.171			✓	X MEAN DIFF. IN SCORE 0.01 (-0.13, 0.15), P=0.901			
GENDER-STEREOTYPICAL TRAITS (E.G., MALE TOUGHNESS)	X MEAN DIFF. IN SCORE 0.07 (-0.01, 0.14), P=0.102				X MEAN DIFF. IN SCORE 0.06 (-0.06, 0.19), P=0.336			

ATTITUDES RE: BOYS'/GIRLS' ROLES, TRAITS, ACTIVITIES	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL				OUT-OF-SCHOOL			
	W2	W3	W4	W5	W2	W3	W4	W5
GENDER EQUALITY IN HOUSEHOLD CHORES	✓ **OR 1.95 (1.49, 2.56), P<0.001**	✓	✓	✓	✓ **(ESPECIALLY FOR GIRLS) OVERALL: OR 3.46 (2.21, 5.43), P<0.001** **GIRLS: OR 7.74 (3.62, 16.51), P<0.001** **BOYS: OR 2.29 (1.27, 4.12), P=0.006**	✓	✓	✓
DECREASED ACCEPTANCE OF GENDER-BASED DISCRIMINATION ‡	✓ AGAINST BOYS: OR 1.35 (1.05, 1.74), P=0.021 AGAINST GIRLS: OR 1.29 (1.00, 1.65), P=0.046				X AGAINST BOYS: OR 0.84 (0.53, 1.32), P=0.440 AGAINST GIRLS: OR 0.87 (0.57, 1.33), P=0.532			

‡ An odds ratio below 1.0 would indicate decreased acceptance of gender-based discrimination between Wave 1 and subsequent waves of data collection. An odds ratio greater than 1.0 indicates greater acceptance of gender-based discrimination between Wave 1 and subsequent waves of data collection.

SHARING OF CHORES	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL				OUT-OF-SCHOOL			
	W2	W3	W4	W5	W2	W3	W4	W5
BROTHER HELPED (FROM SISTERS' PERSPECTIVE)	X I, N=381; C, N=367 OR 1.20 (0.85, 1.70), P=0.308				X I, N=126; C, N=142 OR 1.58 (0.83, 3.03), P=0.167			
HELPED SISTERS (FROM BROTHERS' PERSPECTIVE)	X I, N=360; C, N=382 OR 0.95 (0.56, 1.61), P=0.845				✓ I, N=167; C, N=144 **OR 2.50 (1.15, 5.46),** **P=0.021**			

REDUCTION IN BULLYING/ VIOLENCE	EFFECT OF INTERVENTION RELATIVE TO CONTROL GROUP							
	IN-SCHOOL				OUT-OF-SCHOOL			
	W2	W3	W4	W5	W2	W3	W4	W5
EXPERIENCED TEASING AND VERBAL BULLYING	X OR 1.09 (0.84, 1.41), P=0.526				✓ **OR 0.61 (0.42, 0.90), P=0.014**			
EXPERIENCED PHYSICAL VIOLENCE SUCH AS SLAPPING OR KICKING	X OR 0.94 (0.69, 1.28), P=0.691				X OR 0.75 (0.47, 1.19), P=0.222			
PERPETRATED TEASING, BULLYING, AND/OR PHYSICAL VIOLENCE	X OR 0.86 (0.65, 1.13), P=0.283		**12+ ONLY**		**BOYS ONLY** **BOYS: OR 0.51 (0.29, 0.90), P=0.020** GIRLS: OR 1.46 (0.79, 2.72), P=0.229			