Renewal of Administrative Authorization Submission

National Ethical Committee of Research for Human Health

Title: *An adaptive experiment to improve quality in contraceptive counseling and increase the uptake of long-acting reversible contraceptive methods*

Principal investigator:

Dr. Berk Özler, Senior Economist, The World Bank

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Signature:

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Prof. Susan Athey	Stanford University	
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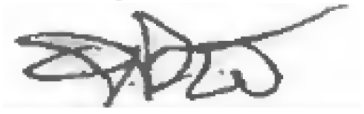
Prof. Julian Jamison	University of Exeter	
Prof. Craig McIntosh	University of California at San Diego	
Prof. Dohbit Sama	HGOPY Yaoundé	

Sponsor: The World Bank

1818 H Street NW, Washington, DC, 20433 USA

Washington DC, Aug. 09, 2020

Mr. Minister
Ministry of Public Health
Yaoundé

<u>Subject</u>: Demand for administrative authorization

Sir,

We have the honor of requesting a ***renewal of administrative authorization*** to conduct the research project entitled: *"An adaptive experiment to improve quality in contraceptive counseling and increase the uptake of long-acting reversible contraceptive methods*" which is sponsored by the World Bank and is a collaborative effort between the Yaounde Gynaeco-Obstetric and Pediatric Hospital and the World Bank.

The study team is comprised of researchers from YGOPH and elsewhere in the world and it closely collaborates with counterparts at the Department of Family Health at the Ministry of Health and World Bank staff based in Yaoundé and in Washington, DC.

In anticipation of a favorable outcome, please accept the expression of our sincere gratitude.

Sincerely,

Berk Özler, principal investigator
Lead Economist, The World Bank
1818 H Street NW, 20433,
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bozler@worldbank.org

REPUBLIQUE DU CAMEROUN
Paix – Travail – Patrie

MINISTERE DE LA SANTE PUBLIQUE

SECRETARIAT GENERAL

DIVISION DE LA RECHERCHE OPERATIONNELLE EN SANTE

REPUBLIC OF CAMEROON
Peace – Work – Fatherland

MINISTRY OF PUBLIC HEALTH

SECRETARIAT GENERAL

DIVISION OF HEALTH OPRERATIONS RESEARCH

D30-760

N °_____/L/MINSANTE/SG/DROS

Yaoundé, le 30 OCT 2019

LE MINISTRE
Au
Dr BERK OZLER
Investigateur Principal,
Banque Mondiale. Email : bozler@worldbank.org

Objet: *Autorisation Administrative de Recherche*
N°_____ 631-2019

Docteur,

Vous avez bien voulu solliciter de mes services, en qualité d'Investigateur Principal Local, une Autorisation Administrative de Recherche pour mener sur une durée de 01an, une étude intitulée : **« An adaptive experiment to improve quality in contraceptive counseling and increase the uptake of long-acting reversible contraceptive methods »;** de concert avec les professeurs Susan Athey-Stanford University, Sarah Baird-Georges Washington University, Julian Jamison-University of Exeter, Craig McIntosch University of California at San Diego et le Dr Dohbit Sama, hôpital gynéco-obstétrique et pédiatrique de Yaoundé.

Y faisant suite et par la présente,
J'ai l'honneur de vous signifier l'Autorisation Administrative de Recherche qui vous permettra de démarrer vos travaux. Vous voudrez bien noter que la Division de la Recherche Opérationnelle en Santé est chargée du suivi de la conformité aux principes de bioéthique de ce projet et devra être informée de vos activités, ainsi que des conclusions de votre étude au cours d'une restitution publique.

Le Ministère de la Santé Publique se réserve par ailleurs le droit d'effectuer des missions de suivi de la mise en œuvre de ladite recherche et d'arrêter celle-ci en cas de non respect du protocole approuvé et pour lequel cette autorisation vous est accordée.

Toute découverte au cours de vos travaux devra être notifiée à la Division sus mentionnée avant publication et les deux parties à savoir, l'Investigateur Principal et le Ministère de la Santé Publique partageront les droits de propriété intellectuelle y relatifs.

Toute modification du présent protocole devra être notifiée par écrit à l'Administration après une nouvelle approbation par le Comité National d'Ethique pour la Recherche en Santé Humaine. Le numéro de votre Autorisation Administrative de Recherche sus référencée devra être cité dans vos courriers ultérieurs.

Veuillez croire, Docteur, à l'assurance de ma considération distinguée.

Copie :
- MINRESI
- CAB/MINSANTE/SESP
- SG/MINSANTE/DROS
- Archives/Chrono

REPUBLIC OF CAMEROON Peace - Work - Fatherland LE MINISTRE The Minister Ministry of Public Health

Dr. Manaouda Malachie

COMITE NATIONAL D'ETHIQUE DE LA RECHERCHE POUR LA SANTE HUMAINE

Arrêté N° 0977/A/MINSANTE/SESP/SG/DROS/ du 18 avril 2012 portant création, organisation et fonctionnement des comités d'éthique de la recherche pour la santé humaine au sein des structures relevant du Ministère en charge de la santé publique

N° 2020/07/1270/CE/CNERSH/SP Yaoundé, le 22 juillet 2020

Cnethique_minsante@yahoo.fr

RENOUVELLEMENT DE LA CLAIRANCE ETHIQUE

Le Comité National d'Ethique de la Recherche pour la Santé Humaine (CNERSH), en sa session ordinaire du 22 juillet 2020, a examiné le projet de recherche intitulé : **«An adaptive experiment to improve quality in contraceptive counseling and increase the uptake of long-acting reversible contraceptive methods»** soumis par le **Docteur BERK ÖZLER,** Investigateur Principal, The World Bank-Washington.

Le projet est d'un grand intérêt scientifique et social. Cette étude a déjà bénéficié d'une clairance éthique (réf. N°2019/08/1183/CE/CNERSH/SP). Le Comité a pris acte de l'état d'avancement du projet. La dernière version approuvée n'a subi aucune modification ayant un impact éthique. La procédure de l'étude est bien documentée et claire. Pour toutes ces raisons, le Comité National d'Ethique approuve pour une durée d'un an la mise en œuvre de la présente version du protocole.

Les Investigateurs sont responsables du respect scrupuleux du protocole approuvé et ne devraient y apporter aucun amendement aussi mineur soit-il, sans avis favorable du CNERSH. Les investigateurs sont appelés à collaborer pour toute descente du CNERSH pour le suivi de la mise en œuvre du protocole approuvé. Le rapport final du projet devra être soumis au CNERSH et aux autorités sanitaires du Cameroun.

La présente clairance peut être retirée en cas de non respect de la réglementation en vigueur et des recommandations susmentionnées.

En foi de quoi, la présente clairance éthique est délivrée pour servir et valoir ce que de droit.

Ampliations

- MINSANTE

Le Président

Pr Lazare KAPTUE

N.B : cette clairance éthique ne vous dispense pas de l'autorisation administrative de recherche (AAR), exigée pour mener cette étude sur le territoire camerounais. Cette dernière vous sera délivrée par le Ministère de la Santé Publique.

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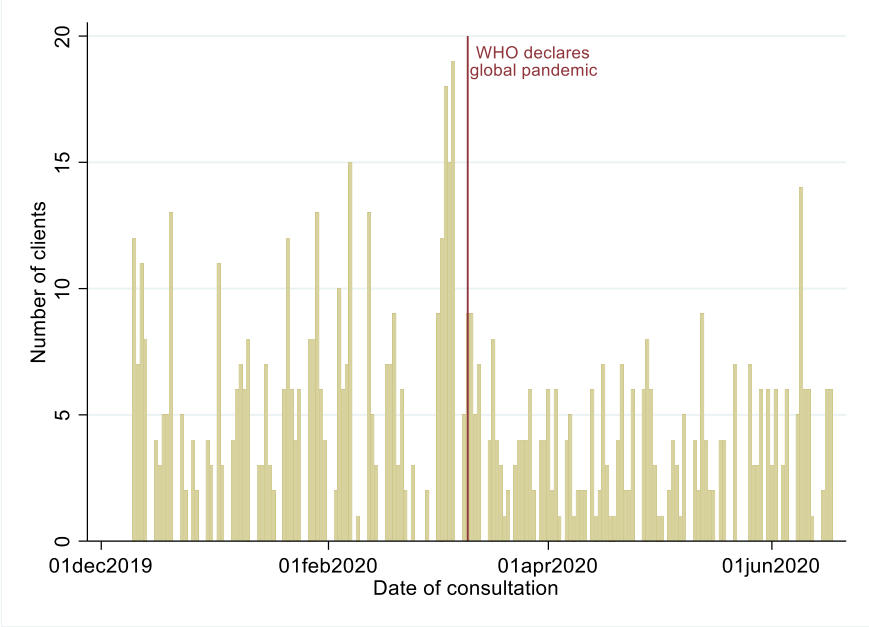
Activity Report

Overview and impact of Covid-19

The study activities at HGOPY have been ongoing successfully since the pilot was launched in December 2019 and there are no adverse effects nor unintended consequences to report. The study was intended to officially start in April 2020 after a three-month pilot period starting in December 2019. Unfortunately, the outbreak of the coronavirus/covid-19 pandemic and its arrival in Cameroon only a few weeks before the intended start date forced the study team to postpone the launch of the study and instead prolong the pilot period. After discussions with the principal investigator at HGOPY, Prof. Dohbit Sama, we are currently planning to move into the main study phase on Monday, August 31, 2020. Of course, if the government of Cameroon or the HGOPY administration imposes restrictions on the activities of the hospital, the study may need to pause accordingly. However, as you will see below, the average number of clients that seek services at HGOPY declined only by about a third since the declaration of the global pandemic by the WHO (Figure 1).

Figure 1: Number of FP consultations conducted per day since December 2019.



Despite this setback, the study activities at the hospital are carrying on successfully. The pilot phase incorporated all of the elements of the study with the exception of the follow-up phone surveys.[1] During this period, nine providers across the Family Planning, Maternity, and Gynecology departments at HGOPY have been trained to counsel clients on family planning and to administer and remove modern long- and short-acting reversible contraceptives (LARCs and SARCs) that are offered at the hospital. As of the 17th of June 2020, 796 family planning consultations have been conducted by the trained providers using the tablet-based job-support tool. The outbreak of the coronavirus pandemic has reduced the number of clients who receive family planning consultations, by approximately a third but the steady stream of

[1] Clients will be enrolled in the follow-up phone surveys only once the study has officially begun, the clients that have been counselled thus far have therefore not been asked to participate in the follow-up phone surveys and new clients will not be asked to participate until the new official start date is announced.

clients was sufficient to run a successful pilot phase and plan for the start of the main study within the next few months (Figure 1).

The hospital continues to operate throughout the pandemic because it offers essential services that require a physical presence at the hospital (e.g. deliveries, operations, etc.). Once a client is in the hospital for such services, they can still receive family planning consultations if they wish. Of course, consultations are held ensuring that all of the necessary measures are taken to minimize the risk of SARS-CoV-2 infection for the clients and providers alike. The hospital is also still accepting a reduced flow of walk-in clients, who are allowed onto the hospital's premises after a temperature check and an enhanced screening protocol at the main entrance. However, all plans for campaigns and additional outreach have been postponed until the coronavirus epidemic in Cameroon stabilizes and the risks of community transmission decline.

Study objectives and accomplishments

As described in the study protocol, included in this document, the study was designed to test whether the introduction of a tablet-based job-support tool for nurses conducting FP consultations, along with price discounts for contraceptive methods, can increase the uptake both SARCs and especially LARCs among reproductive-age females in Cameroon. The complexity of the study required an extensive pilot period that was originally scheduled to last from December 2019 through March 2020. This section lists and describes the objectives of the pilot period and explains the progress towards reaching those objectives.

1 – Training a sufficient number of healthcare providers to administer LARCs and SARCs

At the outset of the study HGOPY had three providers, who were fully-trained to provide family planning services and doing so on a full-time capacity. These providers covered the three departments targeted by this study: the family planning unit, the maternity ward, and the gynecology-hospitalizations ward. In order to increase the breadth of the study and reach a wider range of clients, with more heterogeneous needs regarding family planning, fertility objectives, and price sensitivity, six additional healthcare providers who were interested in conducting family planning consultations were trained.

All nine providers participated in a week-long training exercise designed, organized, and delivered by HGOPY staff at the hospital and funded by the study team. The trainings covered family planning and related subjects in a comprehensive manner, including specific modules for each of the long- and short-acting reversible contraceptive methods offered at the hospital (covering insertions and removals, medical eligibility criteria, etc.), as well as cross-cutting topics such as infection prevention and counselling. The trainings featured a practical component where providers practiced insertions and removals of LARCs on medical models. The training was immediately followed by a campaign held at the hospital, planned around the occasion of the *journée de la femme*, where the providers took their theoretical knowledge and practiced with real clients under the supervision of the trainers, who led the exercise the week prior.

2 – Ensuring providers' proficiency with conducting family planning consultations using the tablet

After having established the providers' knowledge of family planning, the subsequent key objective of the pilot period was to ensure providers would become proficient with the tablet-based job-support tool before the study could begin. For this purpose, the trained healthcare providers benefitted from continued one-on-one personalized coaching by an expert nurse trainer and a member of the study team who would supervise their consultations with real clients. This process ensured that the introduction of

the app did not affect the quality of consultations, even in the initial phase when the providers were relatively unfamiliar with it. This process was also extremely valuable to ensure that the providers with less experience in family planning could catch-up with the more experienced providers and deliver high-quality consultations before the start of the study.

3 – Improving the job-support tool based on provider feedback and direct supervision

The supervision and high degree of interaction between the study team and each provider allowed for a continuous process of improvement of the job-support tool. Continuous provider feedback enabled the study team to improve the 'app' across multiple dimensions, including with respect to the clients' experiences, how it was embedded within the hospital's own administrative system, and how it could be used as a tool for data collection and production of the hospital's official statistics.

With respect to client experience, the improvements made during this phase consisted mostly of marginal changes to key texts. Some of the key texts were shortened and simplified to ensure that all clients, no matter their level of education, could clearly understand all the information required for them to make an informed choice about their preferred method of contraception.

The 'app' was also improved to facilitate the providers in their administrative duties, by collating and extracting relevant information on each client and placing it in one easily accessible page, which facilitated the reporting and registration process at the hospital. Finally, with the help of the study team, the data collected through the app was also used by the providers to calculate their monthly family planning statistics. This helped to speed up the task significantly, which was typically done manually.

4 – Assessing the typologies of clients who visit the hospital seeking family planning services

Another aspect through which the pilot period would guide the study is through the collection of exploratory client data that could inform the interventions before the start of the main study.

This subsection describes some of these characteristics. As of the 17th of June, 2020, 726 clients have been counselled over 796 sessions.[2] Panel A in Table 1, below, describes some client characteristics for the clients who received a consultation since the pilot exercise began. The average age of clients is approximately 29 years old, with almost one third of clients being under the age of 25. Clients consulted at the hospital were slightly older than expected. Originally, additional campaigns were envisioned to include more adolescents in the study (especially aged 15-19), but this is currently not possible in the context of the coronavirus pandemic. The share of nulliparous clients is also quite small, with 86 percent of clients who received a consultation having given birth at least once.

Despite the slightly older make-up of sample, the women visiting the hospital are expected to be receptive to the proposed interventions. A large part of the sample is married or cohabiting (66 percent) and an overwhelming majority of clients want to wait more than 12 months until their next pregnancy, or want no more children (73% and 24%, respectively). However, only 18% of the clients were currently using a modern contraceptive method, with only 8% using a LARC. Panel B in Table 1, above, also shows the method adopted by the clients at the end of their consultation. We find that a significant share of clients

[2] Some clients received multiple consultations after returning to the hospital receive treatment for side-effects or to adopt/change their chosen method.

leaves HGOPY without adopting a LARC or a SARC (38%).[3] Furthermore, a larger than expected 55% of clients choose to adopt LARCs – with 41% choosing the Implant and 14% the IUD.

Table 1: Client characteristics.

	Mean	Median	SD	Min	Max	N
PANEL A: Client characteristics						
Age	28.85	29.00	7.04	15.00	49.00	726
Adolescent (under 25 years old)	0.30	0.00	0.46	0.00	1.00	726
Marital status						
Single	0.34	0.00	0.47	0.00	1.00	726
Married	0.34	0.00	0.48	0.00	1.00	726
Cohabiting	0.32	0.00	0.47	0.00	1.00	726
Highest level of education completed						
Tertiary	0.40	0.00	0.49	0.00	1.00	726
Secondary	0.26	0.00	0.44	0.00	1.00	726
Primary	0.32	0.00	0.47	0.00	1.00	726
No education	0.02	0.00	0.14	0.00	1.00	726
Birth history						
Pregnancies	3.53	3.00	2.34	0.00	13.00	726
Children alive today	2.62	2.00	1.83	0.00	11.00	726
Ever gave birth (live or still)	0.85	1.00	0.35	0.00	1.00	726
Gave birth in the last 6 months	0.27	0.00	0.44	0.00	1.00	726
Currently pregnant	0.08	0.00	0.27	0.00	1.00	726
How long does the client want to wait until next pregnancy						
Wants no more children	0.24	0.00	0.42	0.00	1.00	726
Wants to wait less than 1 year	0.03	0.00	0.17	0.00	1.00	726
Wants to wait between 1 and 3 years	0.33	0.00	0.47	0.00	1.00	726
Wants to wait more than 3 years	0.40	0.00	0.49	0.00	1.00	726
Current method (before the consultation)						
Currently using a LARC	0.08	0.00	0.26	0.00	1.00	726
Currently using a SARC	0.04	0.00	0.21	0.00	1.00	726
Currently using another method	0.06	0.00	0.24	0.00	1.00	726
PANEL B: Adopted method						
No method	0.38	0.00	0.49	0.00	1.00	726
IUD (copper)	0.14	0.00	0.34	0.00	1.00	726
Implant	0.41	0.00	0.49	0.00	1.00	726
Pill (COC or POP)	0.02	0.00	0.15	0.00	1.00	726
Injectable	0.05	0.00	0.22	0.00	1.00	726

The pilot data has therefore validated many of the assumptions we had initially made regarding the need for family planning and potential receptiveness of the target population to the designed interventions. Aside from the smaller share of nulliparous adolescents than expected, we do not believe that the data warrant any changes or modifications to the proposed protocols.

5 – Trialing the interventions

Finally, the pilot period was useful to assess the impact of the various interventions before having launched the study, which could be useful in determining whether any small modifications to any of the study arms should be made. Again, the effects of the discounts on method choice, discussed briefly below, do not give any strong motivation to the study team to deviate from the study design that was described in the original protocols.

[3] However, everyone is given free condoms as required by the study protocols. All clients are also counseled on the importance of dual protection.

Figure 2 and Figure 3 below show the mean adoption rates of LARCS and SARCs, respectively, for the groups of clients who were offered contraceptives at randomly assigned prices.[4] Lower prices generally result in higher adoption rates of LARCs, especially when they are offered for free or at CFA 150. At these prices, 55% and 60% of the respective clients adopt a LARC, compared with 44% in the group that is offered LARCs at CFA 4,000. The demand for SARCs (the pill, COC or POP, and the injectable) is low and not responsive to the price: offering them for free vs. their regular price has no effect on adoption rates. The prices of LARCs don't seem to affect the adoption of SARCs, either.

Figure 2: LARC price randomization and adoptions.

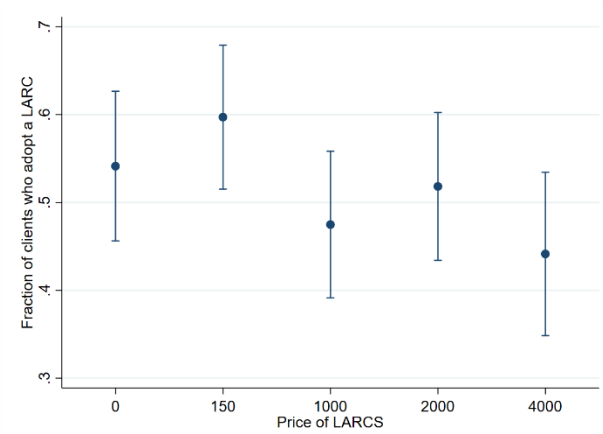
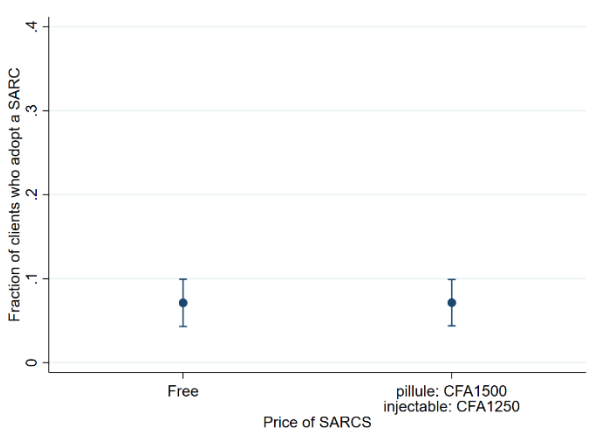


Figure 3: SARC price randomization and adoptions.



Notes: Results from a simple comparison of means across groups and do not control for any other factors; LARCs include the implant of IUD which are priced the same for each client; SARCs include 3 month of the pill (POP or COC) or one injection at the indicated price in Figure 2.

Our study also aims to assess the importance of the counseling style – as described in our original protocol. However, we do not report results on this topic in this activity report, because we did not randomize the counselling style during the pilot phase. This was done to focus on the basic training of all nine nurses so that they could reach proficiency in counseling clients using both approaches, as well as practice their newly-acquired skills (counseling, insertions, and removals). As all trained nurses have now internalized the protocols and become proficient with their tasks, this part of the experiment will get underway when the study moves from pilot to its main phase.

Conclusion

The preparations for the study were highly successfully and an environment has been created at HGOPY where a larger volume and range of clients can receive high-quality family planning consultations. Unfortunately, the study had to be delayed due to the covid-19 pandemic, but the momentum gained in the first few months of the pilot has not been lost. From the providers' perspectives, their work in the past few months has consisted almost exactly of what it will be once the study is officially launched.

[4] All clients were simultaneously offered one price for LARCs and a price level for SARCs, which are randomly generated by the tablet-based app. There were five price levels for LARCs (CFA 4,000, 2,000, 1,000, 150, and 0) and two price levels for SARCs (regular price or free) for a total of 10 cells in our factorial design of random price offers. As described in detail in the protocol, these prices were all inclusive for the surrounding services, including free provision of LARC removals, pregnancy tests, and condoms.

Although it will take slightly longer to reach the sample size that was originally intended, due to the reduced foot traffic at the hospital and the delay of information campaigns and community outreach events, the number of clients visiting the hospital remains large enough to conduct the study successfully. Therefore, at the moment we are closely monitoring the coronavirus situation in Cameroon as well as trends in the number of visits to the hospital, and we hope to be able to launch the study by the end of August, 2020.

The most promising sign for the potential of a successful study remains the feedback received from the providers, which points to the positive impact of the trainings and the continued supervision on their newfound enthusiasm for their work in general and for family planning services in particular. A few anonymized quotes below are taken from a WhatsApp messaging group used to coordinate activities across the hospital:

« Nous sommes vraiment contents de cette étude car il y a un très grand plus que nous retenons et que nous nous appliquions pour aider la famille a mieux s'épanouir. Merci pour ceux qui ont pu me choisir pour acquérir ces connaissances. »

« La formation était formidable. J'ai beaucoup appris. »

« Le projet est prometteur par ce qu'il y a plus de femmes qui adhèrent [à la PF], il nous permet de faire plus de pratique et nous nous en ventons un peu parce que nous sommes les pionniers au Cameroun, C'est très impressionnant ! »

Timeline of important events

- **2nd December, 2019:** A week-long workshop held at the World Bank offices in Yaounde with the study team and the HGOPY team, including the healthcare providers and the research team. The participants reviewed the study objectives, discussed the study protocols, and went over the application in depth.
- **9th of December, 2019:** The pilot study is launched in the family planning department at HGOPY, with the three providers who are already trained in counselling and insertion of contraceptive methods. The providers are using the tablets under the supervision of the study team and the expert nurse trainer. HGOPY begins offering discounts for LARC and SARCs.
    - The pilot phase continues through January and February 2020, the providers work closely with a member of the World Bank study team and receive further coaching from the expert nurse trainer.
- **24th February, 2020:** A week-long training exercise is held at led by national expert trainers from HGOPY and MinSante, including Prof. Dohbit, who is a principal investigator of the study. The trainings cover family planning and related subjects in a comprehensive manner, including specific modules for each of the modern long- and short-acting reversible contraceptive methods offered at the hospital (going over insertions and removals, medical eligibility criteria, etc.), as well as more cross-cutting topics such as infection prevention and counselling. The trainings feature a practical component to practice insertions and removals on models.
    - In total, nine providers participate in this exercise. These include the three providers from the FP department with an additional six providers from Maternity and Gyneco-hospitalizations.

- **3rd of March, 2020:** *Journees portes ouvertes at HGOPY* – the training exercise is immediately followed by community outreach and a campaign held at the hospital, where the providers took their theoretical knowledge and practiced on real clients under the supervision of the trainers who led the exercise the week prior. More than 75 clients are consulted in one week (Figure 1).
- **9th of March, 2020:** The pilot exercise is officially expanded hospital-wide, enough providers are trained to ensure a permanent presence in the Maternity and the Gyneco-hospitalizations departments at HGOPY. All the involved providers have received their qualifications and are capable of counselling clients and administering and removing LARCs and SARCs.
    - Dedicated rooms for FP counselling are set up in the Maternity and Gyneco-hospitalizations departments to ensure that all clients can have consultations and be administered methods in a confidential and private environment.
    - At this point everything is in place to launch the study, the date of April 1st is set as an official launch date so as to give providers some time additional to familiarize themselves with the app and receive additional one-on-one coaching and supervision by the expert nurse trainer.
- **11th of March:** The WHO officially declares covid-19 a global pandemic. The coronavirus crisis worsens worldwide and a few initial cases are identified in Cameroon, the HGOPY team and the World Bank study teams decide to postpone the official start date of the study until the situation stabilizes.
    - Consultations and coaching continue at the hospital under enhanced safety protocols to minimize the risk of transmission. Campaigns are cancelled and the number of walk-in clients declines. Clients are extensively screened before being allowed on the hospital's premises.

Study protocol

1. List of abbreviations

ACMS: L'Association Camerounaise pour le Marketing Social

CHEW: community health extension worker

FP: Family planning

HEREG: Health Economics & Policy Research and Evaluation for Development Results Group

HGOPY: Hôpital gynéco-obstétrique et pédiatrique de Yaoundé

ITT: intention-to-treat

IUD: Intrauterine device

LARC: long-acting reversible contraceptive

MAB: Multi-Armed Bandit

MC: modern contraceptive

PBF: performance-based financing

PI: principal investigator

RCT: randomized controlled trial

RMNCAH: Reproductive, Maternal, Newborn, Child and Adolescent Health

SARC: short-acting reversible contraceptive

2. Glossary

A/B testing: refers to a classical RCT with only two treatment conditions, where treatment condition A is compared to treatment condition B, using static (or fixed) random assignment probabilities and statistical hypothesis testing.

Adaptive experimental design: Adaptive experiments are trials which are designed to increase the efficiency with which multi-armed trials establish the best-performing arm or arms. In conventional (or static) randomized controlled trials (RCTs), the proportion of subjects allocated to each treatment arm is determined at the onset of the trial. By contrast, in adaptive trials the proportion of subjects allocated to each treatment arm is adjusted as the trial is ongoing, typically to favor better performing arms. Adaptive trials can thus declare a 'winner', or best performing arm, with greater confidence than a static experiment for a given sample size, or more quickly than a classical RCT, allowing resources to be saved and reallocated to achieve other research objectives.[5] Adaptive designs can also decrease the likelihood that subjects are allocated to inferior treatment arms for the duration of the study.

In the case of this study, the research team will analyze (de-identified) data from clients, who received FP counseling at HGOPY, monthly and will randomly assign more clients to treatments that performed better in the previous month(s) and less clients to underperforming interventions. The exact details of how the research team will conduct this analysis and reassign allocation probabilities to each intervention arm is described in the *Experiment Design* section. The result is a potential increase in the probability that each new client is assigned to the intervention best suited for her. The procedure also makes the experiment more efficient (statistically) than a classic RCT that allocates clients to each intervention with a fixed probability throughout the study period. The algorithm that produces the adaptive probabilities is called a "multi-armed bandit algorithm," which is defined below and discussed in the *Experiment Design* section.

Multi-armed bandit algorithm: It is a type of algorithm to manage an adaptive experiment, where:

a) the goal is to find the best treatment condition for the subjects, and
b) the probabilities of random assignment to each treatment arm can be updated as the experiment progresses.

The **multi-armed** refers to the fact that there are more than two treatment conditions from which to choose. The highly developed mathematical models to run these algorithms try to manage the desire to assign each client to the best possible treatment for her while at the same time trying to learn which seemingly inferior arms may perform better in the long-run. *(Bandit comes from an analogy to a slot machine at a casino, which is sometimes referred to as a one-armed bandit.)* As the experiment progresses and the high-performing treatments get more clients assigned to them, this helps to better separate the "best" treatments from simply the "good" ones faster and maximize expected benefits to the clients.

Contextual multi-armed bandit algorithm refers to a MAB, where the algorithm considers the characteristics of the individual client. For example, it might be the case that treatment arm 1 is performing very well among adolescent females while treatment arm 2 is performing better among adults. Then the algorithm would update the random allocation probabilities differently for adolescents

[5] Offer-Westort, Molly and Coppock, Alexander and Green, Donald P., Adaptive Experimental Design: Prospects and Applications in Political Science (February 12, 2019). Available at SSRN: https://ssrn.com/abstract=3364402 or http://dx.doi.org/10.2139/ssrn.3364402

and adults, assigning more adolescents Treatment 1 and more adults to Treatment 2. In other words, the MAB algorithm considers the clients' context while adapting random assignment probabilities during the study period. This again benefits the clients (by providing them with individually-tailored treatments) and the experimenter, who can devise better policies for different sub-groups of the target population.

Partially randomized patient preference trial (page 8, under *literature review*): Patients who present seeking a service or a method are asked whether they would prefer to (a) simply receive the service/method they are seeking OR (b) accept to be randomized into the service/method they are seeking or another one. Those who opt into (b) are then randomized into the specified treatments. The randomized arms can be compared to each other among those who accepted randomization, while those randomly assigned to the service they were seeking vs. those who received it by preference (i.e. declined randomization) can also be compared to provide a bridge between observational and experimental samples. Please see Hubacher et al (2015, 2017) for an example of such a trial.

Title X clinics in the U.S. (page 9, under *literature review*): "Established in 1970, Title X provides affordable birth control and reproductive health care to people with low incomes, who couldn't otherwise afford health care services on their own. Federal Title X funding helps ensure that every person — regardless of where they live, how much money they make, their background, or whether or not they have health insurance — has access to basic, preventive reproductive health care."

3. Study summary

English

We propose to test whether the introduction of a tablet-based job-support tool for nurses conducting family planning (FP) consultations can increase the uptake of modern contraceptive methods among reproductive-age females, but particularly among adolescents who may be unmarried and/or nulliparous. We will do this by conducting an adaptive experiment in a research hospital, the Yaoundé Gynecological, Obstetrics, and Pediatric Hospital (HGOPY). The proposed study, which will trial alternative counseling approaches and provide varying discounts to clients for modern contraceptive methods, is likely to have significant public health value by improving client satisfaction with both the service provider and their chosen contraceptive method, thereby reducing discontinuation rates and unintended pregnancies. It is expected to benefit the target population directly – by decreasing maternal mortality and unintended pregnancies – and indirectly – by reducing side effects that arise due to current one-size-fits-all family-planning counseling; improving the health of children due to improved birth spacing; and increasing human capital accumulation among children and young potential mothers.

The tablet-based job-support tool (or simply the job-support tool) will help tailor contraceptive prices and job-support tool settings to the client's circumstances. The hospital setting, where incoming clients can be continually enrolled into the study, provides a natural environment in which to conduct an *adaptive experimental design*. Such experiments make the trial more efficient (by reducing the sample size required and, hence, making the trial period shorter), but also more beneficial to the clients by increasing the chances that each client is assigned to an intervention that is most suited to her context.

Français

Nous proposons d'évaluer l'introduction d'un outil de travail sur tablette pour soutenir les prestataires effectuant des consultations de planification familiale (PF) et augmenter les taux d'utilisation de méthodes contraceptives modernes chez les femmes en âge de procréer, et en particulier chez les adolescentes célibataires et/ou nullipares. Nous proposons de mener une étude dans l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé (HGOPY). L'étude proposée évaluera l'efficacité de certaines approches alternatives au counseling en planning familial et offrira aux clientes des remises sur les méthodes de contraception modernes. L'étude aura une valeur importante pour la santé publique, en améliorant la satisfaction des clientes à l'égard des services reçus et envers leur méthode de contraception choisie, réduisant ainsi les taux de discontinuation et les grossesses non-désirées. Il est attendu à ce que cette intervention bénéficie directement la population cible – en réduisant la mortalité maternelle et les grossesses non-désirées – et indirectement – en réduisant les effets secondaires ressentis dus au counseling en planning familial uniformisé ; améliorer la santé des enfants grâce à un meilleur espacement des naissances ; et augmenter l'accumulation de capital humain chez les enfants et les jeunes mères potentielles.

L'outil de travail sur tablette (ou simplement « l'application ») aidera à adapter les prix des contraceptifs et les paramètres du counseling à la situation de la cliente. Le cadre hospitalier, dans lequel les clientes entrantes sur une longue période peuvent être continuellement inscrites à l'étude, fournit un environnement naturel dans lequel adopter une *expérimentation adaptive*. Ces procédures rendront l'essai contrôlé randomisé plus efficace (en réduisant la taille de l'échantillon et en raccourcissant la période d'essai), mais également plus bénéfique pour les clientes en augmentant les chances que chaque cliente soit affectée à l'intervention qui est la mieux adaptée à son contexte.

4. Introduction and objectives

Cameroon exhibits a high and nondecreasing level of maternal mortality (roughly 600 per 100,000 live births), partially related to its relatively high total fertility rate (roughly 4.6). Survey evidence furthermore suggests that a significant fraction of these pregnancies is unwanted or considered mistimed by the mother, especially among females aged 15-19. Despite this, the rate of utilization of family planning (FP) methods is low: e.g. only 48% of sexually active unmarried women use any form of modern contraception, or MC, and even then, it is primarily condoms. The use of LARCs (long-acting reversible contraceptives, i.e. the IUD and implant) is less than 1% according to the most recent Demographic Health Survey.

We propose to test whether the introduction of a tablet-based job-support tool for nurses conducting FP consultations, along with price discounts for contraceptive methods, can increase the uptake both SARCs (short-acting reversible contraceptives, i.e. the pill and injectable) and especially LARCs among reproductive-age females in Cameroon, including adolescents who may be unmarried and/or nulliparous, who present at HGOPY seeking family planning counseling. In addition to decreasing maternal mortality and unintended pregnancies, indirect effects for the community will include: increased welfare from reduced side effects that arise due to current one-size-fits-all FP counseling; healthier children due to improved birth spacing; and increased human capital formation both for children and for young (often school-aged) potential mothers.

The interventions are centered around the use of a newly developed *tablet-based decision-support tool*, or, simply, the "app," which was designed for use by service providers conducting FP counseling sessions. It takes a patient-centered approach to counseling and is designed to explicitly and fully take the needs and preferences of the client regarding contraceptive methods into account, while also helping providers make the most appropriate recommendations. In this way, the job-support tool focuses on improving quality from the client's perspective by creating an empathetic and respectful environment that fosters shared decision-making. The job-support tool was developed by a multi-disciplinary working group formed in Cameroon and comprised of nurses, doctors, and researchers from HGOPY, public health and adolescent health specialists from the Department of Family Health in the Ministry of Health (DSF/MinSanté), and public health and economics researchers focusing on adolescent health from the World Bank.

The job-support tool structures the counseling session and records the answers to a series of questions eliciting the client's goals, fertility plans, needs, and preferences regarding contraceptive methods, while also assessing her medical eligibility for each method.[6] This inclusive approach is not only recognized as having utmost importance for the client to be able to make an informed decision, but is also empowering – endowing her with agency and making her feel respected. At the same time, the working group acknowledged that while clients, especially adolescents, may benefit from a shared decision-making approach, health providers may also bring their own biases into the counseling session. Therefore, to counter any potential provider bias, the job-support tool ranks contraceptive methods from most suitable

[6] The working group used the latest version of the U.S. Center for Disease Control and Prevention's recommendations on the medical eligibility criteria for contraceptive use. The software used to program the "app" uses these recommendations to automatically eliminate methods that are contra-indicated from the set of methods eligible for recommendation to the client.

to least suitable for the client. The providers are trained to use these rankings to suggest methods in order of suitability until the client decides to adopt a method (or refuse all of them).

We propose to conduct an adaptive experiment at HGOPY for a duration of 12 months. All providers at HGOPY, who conduct FP counseling, will be given tablets and receive training to use the job-support tool. We propose to test alternative counseling approaches using the job-support tool to improve its efficacy – both for the clients and for the providers – and to provide random discounts for modern contraceptive methods to all clients. The treatment conditions are described under *Experiment Design* in the *Study Procedures and Methodology* section below.

5. Research questions and hypotheses

1. **"Is the quality of FP counseling important in increasing the uptake of more effective methods of family planning, such as LARCs?"** All providers at HGOPY, who provide family planning counseling (in three different wards: maternity, gynecology, and family planning), will be given tablets and receive training to use the job-support tool. We have access to aggregated monthly administrative data on outcomes prior to the intervention, such as the number of each type of modern contraceptive adopted by clients at HGOPY, so we will be able to conduct an event-study analysis to detect a change in method composition among new FP clients at HGOPY. Furthermore, within the job-support tool, we will test alternative counseling approaches by randomly assigning clients to "status quo" or "ranked recommendation" treatment conditions.[7] Our hypotheses are that (a) the use of the tablet-based job-support tool will increase the uptake of modern contraceptives at HGOPY; and (b) "ranked recommendations" will increase the uptake of more effective long-acting methods of contraception, especially among younger, unmarried, and nulliparous clients.

2. ***"What is the effect of FP counseling on client satisfaction and discontinuation rates?*** Of course, with any intervention that tries to improve counseling strategies, the uptake of LARCs is not the only, or even the most important outcome. The aim is to be able to reduce unintended pregnancy rates and improve related maternal and child health issues, while increasing, or at least maintaining client satisfaction. In addition, we know that many clients discontinue their chosen method within a short period of time after adoption, due to various reasons, including inconvenience and side effects. Since the tablet-based job-support tool explicitly takes the client's preferences with respect to side effect into account, it is also possible that discontinuation rates will decline, further reducing unintended pregnancies and improving client satisfaction. So, the research team hypothesizes that (a) potential increases in the uptake of modern contraceptives in general, and long-acting methods in particular, will not be obtained at the cost of client satisfaction with the health provider and their chosen method; and (b) that discontinuation rates will decline under the "ranked recommendation" treatment condition compared with the "status quo." A review of the literature suggests that most studies focus on the immediate method choice of the client and do not track clients longitudinally. As a result, there is limited knowledge on the relationship between the quality of FP counseling and discontinuation rates, which is an important policy question for public health. We plan to interview consenting clients recruited into our study during three rounds of follow-up phone surveys (two-week, 16-week, and 12-month surveys),

[7] These approaches are described in detail in the Section *Interventions*.

which will provide important information on a number of critical short- and longer-term outcomes, such as client satisfaction; counseling quality; renewal, switching, and discontinuation rates for modern contraceptives; experiences with side effects and their management by the provider; and, ultimately, 12-month unintended pregnancy rates. Indeed, while the immediately observable outcome of modern contraceptive adoption at the clinic is a good proxy for reduced rates of unintended pregnancies within 12 months, validation of this fact within the study population would increase the credibility of study findings and improve subsequent policy advice.

3. **"How does the demand for modern contraceptives respond to reductions in prices? Are women much less likely to adopt modern contraceptives at a very small price than when they are provided for free? Is the sensitivity of clients to contraceptive prices different for adolescents vs. adults?"** We will investigate these questions by randomly offering discounts to FP clients via the job-support tool during each counseling session. All clients will receive discounts during the study period and the sizes of the discounts will range from small (20%) to medium to large, with the largest discounts providing free contraception to the clients. The details of the exact amounts of discounts that will be offered to the clients and how these offers are integrated into the tablet-based job-support tool at the end of the counseling session are described in detail in section *Interventions*. Our hypotheses regarding price discounts are that (a) adolescents – especially younger, unmarried, and nulliparous adolescents – are much more sensitive to prices of modern contraceptives than adults; and (b) there is discontinuity of demand for contraceptives at price equal to zero, meaning that individuals are much less likely to adopt a method that costs a very small amount (say, FCFA 150 or approximately € 0.25) compared with the same method being provided for free. Evidence in favor or rejecting these hypotheses would be helpful to both the private sector and the government in setting prices for family planning services and methods.

6. Literature review

There is a growing literature tackling the issues of under-provision of more effective modern contraceptive methods from both developed and developing countries. The tablet-based decision-support tool that is being tested in this study aims to increase the uptake of LARCs by overcoming provider bias (by making recommendations based on the information given by the client) and empowering the young clients (by asking them to be actively involved in the decision-making process, based on their goals, needs, and preferences). In the U.S., counseling interventions, which included peer counseling, a "waiting room app" for contraceptive counseling, and motivational interviewing techniques allowing the client to articulate goals and discuss plans, showed promise in leading to higher levels of knowledge of contraceptive effectiveness, increased interest in adopting the implant, and higher rates of LARC uptake (Gilliam 2014; Wilson 2014; Tomlin et al. 2016). Use of tablet-based decision-support tools for family planning and provision of information to young people via SMS have been tried in various countries, such as Tanzania, but the evaluations of these tools are generally to assess feasibility and acceptability, rather than larger causal impact evaluations to gauge effects on take-up and fertility (Agrawal 2016; Braun et al. 2013, 2016; Vahdat et al. 2013).

The use of the tablet-based job-support tool by the provider is likely to increase the chances of long-acting methods being discussed with the clients, who might have initially presented seeking a short-acting method. Studies that assess the acceptability of LARCs, especially implants, find many women, including

young women, to be amenable to adopting them – with low discontinuation and unintended pregnancy rates (Hubacher et al. 2012). In a partially randomized patient preference trial among women arriving at a facility seeking a short-acting method, 57% chose to be in the preference cohort and 43% agreed to be randomized into receiving a short- or long-acting method. Those choosing the randomized assignment more likely to cite cost as a reason for not having tried a LARC previously. Those in the preference cohort were most likely to cite fear of pain, injury, side effects, and health risks for not wanting to try a long-acting method (Hubacher et al. 2015). The same study showed significantly higher continuation rates and lower unintended pregnancies after 12 months among the randomized LARC group than both the randomized SARC group and the preference SARC cohort (Hubacher et al. 2017). Satisfaction with randomly assigned methods was high in both randomized groups, but slightly higher in the SARC group (89% v. 77%, $p<0.05$). These three studies showed that LARCs could prove highly acceptable even among populations presenting to adopt a SARC, but it also bears acknowledging that not all women want long-acting methods and not all women will be satisfied with them.

With respect to *behavioral science*, our study will also build on and contribute to the literature as applied to decision-making in health. In particular, concerning the tablet-based decision-support tool, this includes the key role of defaults and choice architecture (Johnson et al. 2005), among others. In addition, there is a general sense that agency (being involved in decisions, rather than being told what to do) is especially important for compliance in medical contexts (Donovan 1995) – beyond the simple fact that it is also likely to produce better decisions in the first place – in the sense of matching personal preferences. There also exists a large literature in marketing, along with a small but a growing one in development economics, which suggests that a price of zero is fundamentally different than a very small, but positive price (Bates et al. 2012). However, this hypothesis has not been examined in the context of demand for modern contraceptives, which we aim to do in the proposed study.

Finally, cost is an important barrier to the adoption of contraceptives, perhaps especially for adolescents, who may not independently have the means to adopt methods that are not free or very cheap. While large changes in prices of contraceptive methods were found to have little impact on contraceptive use in Indonesia during the 1998 financial crisis (McKelvey, Thomas, and Frankenberg 2012), more recent studies indicate that women, unmarried young women in particular, may be more responsive to contraceptive prices (Lindo and Packham 2017; Rau, Sarzosa, and Urzúa 2017). In the U.S., adolescents who receive comprehensive counseling and face no cost barriers preferentially select LARC methods and continue to use them long-term (Mestad et al., 2011). In Colorado, U.S., funding provided to Title X clinics on the condition that they stock and provide free LARCs to low-income women not only caused many facilities, which had never offered these methods before, to start providing them for free, but also decreased teen birth rates substantially, with the effect being largest in the poorest counties of the state (Lindo and Packham 2017).

7. Literature

7.1. Overview

7.1.1. Type of study

The proposed study is an ***adaptive experiment***. As described in the glossary at the beginning of this protocol, adaptive experiments are trials which are designed to increase the efficiency with which multi-armed trials establish the best-performing arm or arms. Adaptive experiments or trials are a form of

randomized controlled trials (RCT), but they differ in the following manner: in a classical (or static) RCT, the proportion of subjects allocated to each treatment arm is determined at the onset of the trial and remains fixed for the duration of the intervention period. By contrast, in adaptive trials the proportion of subjects allocated to each treatment arm is adjusted periodically throughout the trial, typically to favor better performing arms. Adaptive trials can thus declare a 'winner', or a best-performing arm, with greater confidence than a static experiment for a given sample size, or more quickly than a classical RCT, allowing resources to be saved and reallocated to achieve other research objectives. Adaptive designs can also decrease the likelihood that subjects are allocated to inferior treatment arms for the duration of the study.

The research team will use an algorithm to manage the adaptive experiment, called ***multi-armed bandit algorithm***. The ***multi-armed*** refers to the fact that there are more than two treatment conditions from which to choose. The highly developed mathematical models underlying these algorithms try to balance the desire to assign each client to the best possible treatment for her while at the same time trying to learn which seemingly inferior arms may perform better in the long-run. *(**Bandit** comes from an analogy to a slot machine at a casino, which is sometimes referred to as a one-armed bandit.)* As the experiment progresses and the high-performing treatments get more clients assigned to them, this helps separate the "best" treatments from simply the "good" ones faster and maximize expected benefits to the clients.

Adaptive designs require multiple periods of treatment and outcome assessment. As such, they are well suited to experiments, where participants are treated, and outcomes measured in batches over time. This makes the setting at HGOPY, where clients present at multiple departments (maternity, gynecology, and family planning) everyday seeking family planning services and counseling, particularly suitable for this type of adaptive experimentation. As the hospital has a significant interest is in improving the quality of and increasing the demand for its family planning services, trying alternative methods of counseling and pricing strategies with new incoming clients, analyzing these data in batches (say, every month), and adapting the strategies makes perfect sense. In such a process, interim results are assessed periodically, and in the next period subjects are assigned to treatment arms in proportion to the posterior probability that a given arm is best: the more likely an arm is to be "best," the more subjects it receives.

While the use of adaptive trials is gradually winning acceptance in biomedical research (Chin 2016), applications are still surprisingly rare. As Villar et al. (2015, p.200) note, "Despite this apparent near-perfect fit between a real-world problem and a mathematical theory, the [multi-armed bandit problem] has yet to be applied to an actual clinical trial." The research team is therefore employing a novel and cutting-edge method to a real-world policy question at HGOPY, which will make the trial more efficient (by making it faster) and more ethical (by assigning more clients to the treatment condition with the highest probability of success for their context).

7.1.2. Location of study

The study will be conducted at the **Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé** (HGOPY) in the Family Planning, Gynecology, and Maternity departments.

7.1.3. Target population

The target population is **childbearing-age females, i.e. females aged 15-49**.[8] Subjects will be enrolled into the study continuously as they visit the hospital seeking family planning services.

7.1.4. Enrollment criteria

Inclusion criteria: All women presenting at one of the following departments at HGOPY, who wish to receive family planning counseling are eligible for enrollment in the study:

- Family Planning,
- Gynaecology, or
- Maternity.

Clients at HGOPY, seeking to receive FP counselling, are a diverse set of women. Some people can present at the Family Planning unit seeking to receive information, adopt a new method, renew their current method, switch to another method, manage side effects of their current method, or discontinue their current method. All such clients are eligible for enrolment in the study. Some other clients may be in the maternity ward, receiving ante-natal services and may wish to plan for post-partum adoption of a method. Others may be in the same department, post-partum, and wish to receive counselling to choose a method. Yet, other women may be clients at the gynaecology unit, seeking to adopt a birth control method before their discharge. Such clients are also eligible for enrolment in the study.

As detailed in the section that describes the content and the functioning of the job-support tool, the health provider using the tablet (a) welcomes the client; (b) tells her the purpose of the session; (c) puts her at ease by explaining that the session is completely private and confidential; and (d) describes her the new measures the hospital is taking to improve quality of service (such as the use of the tablet, improved counselling techniques, and provision of discounts for family planning methods and services). Once the health provider is satisfied that the client has understood all this information, the job-support tool directs her to ask the client: "Are you ready to go on with counselling?" All clients who respond "Yes" to this question will be considered enrolled in the study.

Exclusion criteria: Other than age and sex, there are no exclusion criteria. Females outside of the age range 15-49 can receive the same service with the provider using the tablet-based job-support tool, but they will not be enrolled as subjects in the proposed study. In such cases, the job-support tool will default to the "status quo" counseling strategy but will still offer random discounts for modern contraceptive methods – should the client choose to adopt one.

7.1.5. Duration of study and sample size

The study is intended to be conducted for **a duration of 12 months**, starting in mid-2019, during which we expect to recruit approximately 2,400 subjects – based on the administrative data available from HGOPY on the number of family planning consultations per month from January 2017 to the start of the study. The study period may be slightly shorter or longer depending on the number of participants recruited into the study, but the number subjects enrolled into the study will not exceed 3,000. The maximum sample size has been determined using simulations of the adaptive experiment, based on the number of past clients receiving FP counseling at HGOPY and their method mix. The simulations are

[8] Following Sawyer et al. (2018) in The Lancet Child & Adolescent Health, we adopt an expanded and more inclusive definition of adolescence up to age 24 years, rather than 19.

necessary because the standard power calculations that can be used for classical RCTs do not apply for this adaptive experiment.

7.2. Experiment design

7.2.1. The tablet-based job-support tool

Before describing the design of the experiment, the unit of intervention, and the details of each intervention, it is necessary to describe the tablet-based job-support tool that will be used by all health providers from HGOPY, who are involved in this study. This is because the tablet-based job-support tool serves multiple functions:

- ***A job-aid for the health provider***, which makes the process of family planning counselling more streamlined, efficient, and less prone to human error.
- ***Electronic health records for the hospital***: the data that are collected on the tablet are uploaded to the hospital's server, which can then become part of the patient's electronic health records and facilitate the scheduling of future appointments and sending clients reminders.
- ***A rich source of administrative data for research***: the data collected during the counseling session, which is described in detail below, are, by and large, the same data that health providers informally collect during FP counseling sessions around the world, but because these data are not collected systematically or recorded, they are not available for important public health research. These data, after careful de-identification by medical personnel bound by doctor-patient confidentiality, can become part of an unusually rich administrative dataset on family planning services, which can be made available to biomedical, public health, and social science researchers, who have proper ethical clearance for the retrospective studies they wish to conduct using these previously unavailable administrative data.

Why was a tablet-based job-support tool developed?

Counseling clients adequately on contraceptive method choice and use is critical to ensuring that individuals' needs are respected and met (Holt, Dehlendorf, and Langer 2017). While there is justifiably a focus on increasing the update of long-acting contraceptive methods to reduce unintended and mistimed pregnancies, concerns have been raised over potentially negative consequences of this focus on respect for the clients' autonomy and decision-making. In this context, a new framework for contraceptive counseling seems appropriate, which improves individual welfare and public health while providing the client with a needs assessment, decision-making support, and provision of important information surrounding contraceptives and sexually transmitted infections in an environment that ensures privacy, confidentiality, non-discrimination, respect, empathy, and trust.

Counseling clients on family planning and contraceptive methods is not straightforward. There are more than 10 methods that can be considered by a client. Each modern method, especially hormonal ones, can cause various side effects, which can vary from person to person. The clients' contexts, such as how long she would like to wait before getting pregnant, her birth history, her previous experience with some of the methods, her preferences for side effects, are relevant as to what methods will be most suitable for her. Finally, depending on her birth history, breastfeeding status, medical history, blood pressure, and medicines she is taking at the time of the visit, some methods may be contra-indicated for the client.

An experienced family planning counselor, whether it is a medical doctor or a nurse – is trained to consider all these issues during a family planning counseling session. Since all of this information is difficult to consider and impart from memory, health providers often have job-aids, such as the medical eligibility criteria wheel or the quick reference chart of the WHO, the Balanced Counseling Strategy Plus Toolkit of the Population Council, checklists to be reasonably sure that the client is not pregnant, cue cards describing each contraceptive method, etc. These job aids are often available in counseling room in the form of posters and booklets in print form.

Referring to these job aids during the counseling session is necessary, but often takes time and leaves room for provider error. A tablet-based job-support tool, into which all this information has been carefully programmed and extensively tested by health providers, is the perfect substitute for these charts, posters, toolkits, and reference books. By eliminating the need to refer to different documents, the tablet-based application streamlines the counseling session and saves valuable time. More importantly, it also automatically eliminates methods that are contra-indicated by the client's context, such as her breastfeeding status, medical history, or current medications. This reduces the possibility of provider error. Finally, a tablet-based counseling application saves all the data from the counseling session with the client, making her return visits more efficient as these data become part of her medical records.

Examples of similar smartphone-based job-support tools exist elsewhere. For example, in Nigeria, an initiative by the International Committee of the Red Cross, Swiss Tropical and Public Health Institute, and the Adamawa State Primary Health Care Agency developed a smartphone-based tool, called the Algorithm for the Management of Childhood Illnesses is an electronic upgraded version of the more commonly used IMCI (Integrated Management of Childhood Illnesses), which improves both preventive efforts and curative care for children under 5.[9]

Hence, the tablet-based job-support tool, which will be used by family planning counselors at HGOPY, was designed by a group of doctors, nurses, public health specialists, and researchers to:

- make counseling sessions more streamlined and efficient,
- reduce provider errors,
- elicit client preferences, goals, and needs, which can be incorporated into the algorithm for decision-making support, and
- to reduce potential provider bias, particularly against adolescents and nulliparous clients.

The tool has been extensively tested by Ob-Gyns, medical doctors, nurses, and other health providers conducting family planning counseling, and their feedback has been incorporated to improve the framework adopted by the tool. The tool does not require additional training for the providers charged with using it, because the tool is simply guiding and streamlining the counseling they would have already provided the client without the tablet. To incorporate the job-support tool into their day-to-day work in family planning counseling, the providers simply need some basic training on using tablets, get used to the various features and study protocols, and practice with the tablet so that the tablet becomes a natural and useful part of the counseling process.

What does tablet-based job-support tool do?

[9] https://www.icrc.org/en/document/nigeria-smartphone-technology-help-tackle-child-mortality-conflict-areas

The structure of the counselling session as guided by the job-support tool is not fundamentally different than the standard practice –worldwide and at HGOPY. In other words, the tool does not require any new knowledge or training on part of the provider. It simply is a job-aid that allows her to conduct the counseling session more efficiently. The principles of counseling remain the same and the provider simply needs to familiarize herself with the tablet and the flow of the guided session to be able to take advantage of this tool in counseling clients.

The main innovation that the tool brings to counseling sessions is the introduction of a ranked recommendation to the client in the "Method Choice" phase of the session, which comes towards the end. The algorithm employed by the tool takes all the answers by the client up to that point into consideration and ranks methods from most suitable to least suitable for the client. The provider is then instructed to ask the client whether she would like to discuss the method that is most suitable for her. We describe this small but important innovation, in more detail below.

The process of family planning counselling using the job-support tool consists of three main sections, followed by a concluding section:

I. Introduction:

1. Welcome the client, explain the purpose of the session (talk about her life and goals, healthy families, pregnancy spacing, safe sex, and contraceptive methods), and clarify that the session is private and confidential.
2. Collect basic demographic information (age, marital status, education, primary activity, religion, and neighbourhood)
3. Discuss client's plans for having children in the future, how long she would like to wait before getting pregnant, how many more children she would like to have, and healthy birth spacing
4. Cover her birth history and establish her breastfeeding status
5. Conduct a pregnancy check

II. Consultation and needs assessment:

6. Discuss current method of birth control used by the client, if any. Discuss her experience with the method, how long she has been using it, and assess whether she would like to continue or switch
7. Discuss any methods that she might be worried about. Any methods she has in mind that she is curious about.
8. Clarify any questions or misconceptions the client might have about any contraceptive methods
9. Ask her about her preferences regarding side effects concerning:
    a. Increased bleeding and cramping,
    b. Decreased bleeding, spotting, and amenorrhea, and
    c. Weight gain
10. Obtain her medical history to avoid the adoption of contra-indicated methods. Take blood pressure and measure the height and weight of the client.

III. Method choice and follow-up:

11. Depending on the intervention condition, either ask the client to choose the modern method she would like to discuss first OR ask her whether she would like to discuss the method that is recommended by the tool as being the most suitable for her needs. Regardless of the intervention

condition (please see more below in the next section on intervention details), the tool excludes methods that are contra-indicated from the list of methods presented to the client. When the client makes her choice as to which method she would like to discuss, the provider presents neutral, evidence-based, and understandable information on the effectiveness and the side effects of that method. The provider does so with the help of printed and laminated cue cards, each of which contain the necessary information for a different method. Please see section *16. Cue cards for consultation* for examples of the cue cards used at HGOPY.

12. Answer client's questions and concerns about the method being discussed. Listen to the client carefully and counsel her individually, based on her needs assessment.
13. Ask the client whether she would like to adopt the method or discuss another method. Discuss next preferred method, and so on, until the client decides to adopt or leave with no method.
14. Adoption of chosen method, as appropriate, along with documentation of consent for adopting a modern method, such as the pill, injectable, implant, or IUD.
15. Provide information on method use and follow-up mechanisms for switching or discontinuing selected method.

IV. Conclusion:

16. Discuss the importance of dual protection from sexually transmitted diseases and provide the client with a package of condoms.
17. Schedule the next appointment, as appropriate.
18. Provide the client information about the study and seek her informed consent to participate in the study.

It is important to reemphasize that the process of counselling a client for modern contraceptives with the help of the tablet-based job-support tool is very similar to what the provider would have done in the absence of the tablet. The main difference is in the "method choice and follow-up" section, where we introduce a small but important paradigm shift with respect to shared decision-making. In the established approach to counselling, the client is given information about all the methods and asked to choose which method she would prefer to discuss: this is encapsulated in the "status quo" intervention condition, discussed in more detail in the "Interventions" section. We want to test whether it is more beneficial to the client for the provider to make a recommendation, based on the ranking of methods provided by the tablet using the information provided by the client earlier in the session: this is the "ranked recommendation" intervention.

How does the tablet-based job-support tool rank modern contraceptive methods for each client?

The tablet-based job-support tool has a built-in algorithm that considers all medical eligibility criteria to eliminate contra-indicated methods. It also takes client preferences regarding how long to wait before becoming pregnant and the importance of various side effects into account, which allows the tool to produce method rankings. Finally, the tool eliminates any methods the client does not want to consider and elevates any method she has in mind.

Method rankings

The algorithm uses three key criteria to rank the suitability of contraceptive methods for a client:

1. How long she would like to wait before becoming pregnant, and

2. How strongly she feels about avoiding the following three categories of side effects:
    a. Increased bleeding and cramping,
    b. Decreased bleeding, spotting, and amenorrhea, and
    c. Weight gain
3. Typical use effectiveness of each method

Based on the client's answers to these questions, the algorithm creates a score for each method. In the "ranked recommendation" intervention condition, the highest ranked method (that is not eliminated by the algorithm due to contraindications or client wishes – please see below) is suggested to the client first, followed by the next highest ranked method, and so on until the client decides.

For example, if the client feels strongly about minimizing the chances of all three categories of side effects and would like to wait more than one year before getting pregnant, the ranking of methods (from most suitable to least suitable) is as follows: IUD, pill, (lactational amenorrhea method or LAM), implant, and the injectable. The LAM method is included in the rankings if a client has (i) given birth in the past six months; (ii) is fully breastfeeding; and (iii) has not menstruated since birth; and excluded otherwise. Please note that in this example, the pill, which is a short-acting method with a typical use effectiveness much lower than the implant and the injectable, is ranked above both methods because of the client's preferences regarding side effects. The algorithm uses evidence on the average side effects of each method from the existing peer-reviewed literature. Similarly, the typical use effectiveness data used by the algorithm comes from peer-reviewed literature.

In contrast, consider a client who wishes to have no more children and does not care about any of the side effects. The method rankings for such an individual is: IUD, implant, injectable=(LAM), and the pill. The reader will now notice that because the client is interested in avoiding pregnancies altogether and is not concerned with side effects, long-acting methods are ranked higher, while the pill, which has the mildest expected side effects, is ranked at the bottom. Please also note that the algorithm sometimes produces identical scores for two or more methods that result in a tie in the rankings. In such cases, the client is told that two (or more) methods are equally suitable for her and the tablet uses an internal random number generator to decide the ordering of the tied methods for discussion.

Medical eligibility and contra-indications

We use the U.S. Centers for Disease Control and Prevention's recommendations for "U.S. Medical Eligibility Criteria for Contraceptive Use, 2016" to determine methods that are contraindicated for various conditions the clients may have. The main considerations are the following:

- Recent delivery of a baby
- Breastfeeding
- Unexplained vaginal bleeding
- Current blood pressure/history of hypertension
- Older age (>35), smoking, diabetes
- Medications such as TB drugs or barbiturates

A large number of medical eligibility rules relating to the conditions above are programmed into the algorithm and when a condition is satisfied, the method is ruled out and excluded from rankings. When this happens, the job-support tool displays a message at the top of the method choice section that certain

methods are being excluded due to medical eligibility criteria, so that the provider can explain the client why she is not being given the option to discuss that method.

For example, the IUD can be administered within 48 hours after delivery, but after that it is recommended that the client wait to adopt the IUD four weeks after the delivery. Therefore, if the client is being counselled between 48 hours and 27 days after delivery, the tool would exclude the IUD from the rankings. Of course, the client could choose to come back after four weeks to adopt the method should she wish to do so.

Alternatively, the combined oral contraceptive (COC) pill is not recommended for clients who have systolic blood pressure over 140 or diastolic blood pressure over 90. Such clients are told that they cannot adopt the COC but can adopt the progestin only pill (POP) if they wish. There are many other eligibility rules, which are too numerous to be included in this proposal.

Elimination of methods according to the client's wishes

During the "Consultation and needs assessment" phase of the counselling session, the client is asked whether there are any methods about which she is worried. If she mentions at least one method, the provider and the client discuss the reasons why and the provider may clarify any misconceptions that the client may have about the method. After this discussion, the client is asked if there are any methods she absolutely does not want to consider. Any method she lists under this question (she can specify more than one method) is automatically eliminated from the rankings.

For example, a client may have previous experience with a method, which caused painful side effects that could not be managed. In such cases, it is completely natural for the client to rule out that method from consideration. In fact, the client may be seeking counselling to discontinue this method and switch to another one. It is also possible that some methods may be ruled out for other reasons, such as convenience, disgust, or discretion. It is important to empower the client to freely state her preferences and allow her to rule out methods she does not want.

Elevation of methods according to the client's wishes

Conversely, in some cases, a client may have arrived at the facility almost certain of the method that she would like to adopt. For example, a client may have a friend or relative who is very satisfied with a certain method. Or, the client may have experience with a method in the past, say before her last pregnancy, and would like to return to using that method. To ascertain such cases, the provider asks the client in the "Consultation and needs assessment" phase, whether she has any method in mind. If she specifies a method and indicates that she would not like to discuss any other methods, the specified method is moved to the top of the rankings.

7.2.2. Interventions

This study consists of two primary independent interventions:

1. Randomly varying the prices individual clients face by offering discounts

As described in the *Research questions and hypotheses* section, this study seeks to answer several questions regarding clients' demand for modern contraceptives and its sensitivity to changes in prices. Therefore, as part of the experiment, all clients who receive a FP consultation by a provider in one of HGOPY's participating services will be offered randomly varying discounts, or randomly varying prices, for each type of modern contraceptive methods. The discounts offered to each client will be randomly calculated by the tablet with the help of an inbuilt random number generator and the corresponding prices will be displayed after the client has chosen to adopt her preferred method. The prices for all methods at the same time will be displayed on the tablet for the client and the provider to see. More information on the random allocation of prices is provided in the *Data analysis* section.

The decision to incorporate prices only at the end of the consultation, after clients have made their initial method choice, was made after careful deliberation with the healthcare providers at HGOPY based on established best-practices and ethical norms.

For the intervention and the analysis, the four modern methods offered at HGOPY are grouped into two categories: **LARCs** – i.e. the IUD and Implant – and **SARCs** – the pill, injectable, and LAM. Of course, LAM is free to use so it can be ignored in the discussion of the price intervention. Based on this distinction, clients will be randomly offered two independent sets of prices, one for the two LARCS and another for the two SARCS. Each combination of a set of LARCS prices and a set of SARCS prices constitutes a treatment, or experiment arm. The experiment comprises five LARCs price categories {High, Mid, Low, Very Low, and Free}, and two SARCs price categories {High and Free}, implying a total of **ten** possible price combinations, or ten experiment arms. Table 2 describes the prices offered for each modern method offered at HGOPY and how they compare to the current prices (or pre-experiment prices). It is relevant to note that all prices offered for LARCs, even the highest, consists of discounted prices relative to the current prices offered at HGOPY.

Table 2: Prices offered during the experiment.

Type	Method	Pre-experiment prices	Experiment prices				
			High	Mid	Low	Very low	Free
LARC	IUD	5,000	4,000	2,000	1,000	150	0
	Implant	5,250	4,000	2,000	1,000	150	0
SARC	Pill	500	500	-	-	-	0
	Injectable	1,250	1,250	-	-	-	0

These two independent price sets imply a 5x2 factorial experimental design, detailed in Table 3. With equal probability of assignment this means that each client has a 10 percent probability of being assigned to either one of the ten different price combinations shown in Table 3.

Table 3: Initial probability of assignment per each price set.

		Price of LARCs (IUD and implant)					
		Free	Very low	Low	Mid	High	**Total**
Price of SARCs (pill and injectable)	*Free*	10%	10%	10%	10%	10%	**50%**
	High	10%	10%	10%	10%	10%	**50%**
	Total:	**20%**	**20%**	**20%**	**20%**	**20%**	**100%**

2. Randomly varying whether the app makes a "ranked recommendation" vs. the "status quo"

Here, we would like to test, as closely as possible, the proposed paradigm shift in FP counseling – i.e. going from discussing all modern methods and letting the client state the method she would like to discuss first, to having the job-support tool recommending which method to discuss first based on the information elicited from the client during the session. This intervention occurs during the "method choice" section towards the end of the consultation once clients are ready to discuss specific methods and potentially choose to adopt one. The "method choice" happens after the providers have discussed the clients' past experiences with contraception and have elicited their fertility goals, their preferences towards side effects, their desires to exclude or favour specific modern methods, and their medical eligibility – i.e. the elements necessary to make an informed choice for a contraceptive method to adopt. Keeping in mind that all clients receive a consultation using the app, the two different paradigms are compared by randomly varying the protocol providers are asked to follow when assisting clients during this "method choice" phase and is reflected through the instructions and options displayed in the job-support tool.

After the providers elicit the clients' medical eligibility, the app randomly assigns each client to one of two regimes with the help of the random number generator inbuilt into the tablet software. Each experiment arm will initially be assigned to clients with equal probability:

i. **Status quo**: In this regime, the job-support tool displays all available modern contraceptive methods that have not been ruled out by the client or contraindicated due to medical eligibility (contraindicated methods will be indicated as such as well as the reason for contraindication). The available modern methods are presented as unranked (i.e. as if each method is equally suitable for the client) and the providers will provide basic information on all available methods (in order of the methods displayed, *which is also randomized*). The basic information covers what the method is, how it is used and its duration (capsule placed under the skin in the arm for 3-5 years or pill taken daily, etc.), and its typical use effectiveness. This quick description is expected to take about 30-60 seconds for each method. The provider will then ask the client to indicate which method they would like to discuss first. The provider will use the relevant cue card (included in the section *16. Cue cards for consultation*) to discuss the method in question in more detail to inform the client of all the relevant information the client needs to know before adoption. After going through this information, the client can choose to either adopt this method or discuss another method (of her choice). This process is repeated until a decision is made.

ii. **Ranked recommendation**: In this regime, the tablet will first display the method that is deemed most suitable for the client given her preferences, as described in section *The tablet-based job-support tool*, and ask her if she would like to hear about it. If the client answers 'no,' then the next highest ranked recommendation is displayed, and the provider asks the client if she would like to discuss this method, the process is repeated until the client decides to discuss one of the recommended methods (the app displays non-modern methods if the client does not want to discuss any one of the modern methods). If the client answers 'yes,' that she would like to hear about a modern method, then the procedure is the same as in the "status quo" regime, whereby the provider uses the appropriate cue card to explain to the client everything she needs to know about the method in question. The client can then decide whether to adopt this method or discuss the next method recommended by the app. Again, this process is repeated until a decision is made.

7.2.3. Random assignment procedures and adaptive experimentation

The tablet is programmed to assign clients to a treatment arm for each one of the two interventions with the help of a random number generator that is embedded in the tablet.[10] Clients are assigned one set of prices – i.e. one of the ten possible price combinations – and one recommendation style – i.e. "ranked recommendation" vs "status quo."[11] Initially, the probability distribution of each treatment arm will be equal, meaning that, on average, an equal number of new clients will be assigned to each treatment arm. This is typical of classical (i.e. static and not adaptive) RCTs conducted in medicine and other social sciences, otherwise known as "A/B testing."

However, as mentioned in the "*Research Questions*" sub-section above, this experiment is an **adaptive RCT**, whereby the assignment probabilities will be adjusted as the experiment is ongoing. Throughout the study period, the research team will continuously analyze the anonymized client data (*please see the section below, titled "Data management"*) in monthly batches to evaluate which interventions are more successful and which ones are less promising. We will then use machine learning techniques to adjust the probabilities that clients are assigned to each one of the various treatment arms to more efficiently establish which are the best performing arms.

The difference between a conventional RCT and an adaptive RCT is essentially the following: In conventional, or static, experiments the proportion of subjects allocated to each treatment arm is generally determined at the onset of the trial. The probabilities will typically be based on ex-ante power

[10] For example, to assign a client into the status quo method choice vs. the ranked recommendation regime, the tablet will make use of a 12-digit random number that is automatically generated each time a new counselling session is started. Using a simple formula, we scale up the first four digits of this number to create a new number between 1 and 5,000. We then use that number to select a row in a table that has been pre-loaded onto the tablet, which contains 5,000 random draws from a standard normal distribution with mean equal to zero and standard deviation equal to one. For example, if the number we created is 1234, then we select the 1234th row of the pre-loaded table. This row is assigned to the status quo method choice regime while the next row (i.e. the 1235th row, which is an independent draw) is assigned to the ranked recommendation regime. Whichever number in those two rows is bigger is then selected for the client. For example, if the 1234th row contains 0.13687 and the 1235th row contains 0.00035, then row 1234 is chosen and the client is assigned to the status quo method choice regime.

[11] Clients are assigned to one set of treatments which is maintained throughout the experiment duration, meaning that clients return to the hospital for follow-up visits and receive a new consultation they will be allocated to the same treatment arms.

calculations, which determine the sample size required to estimate an effect of a given size. Clients are then assigned to treatment arms with probabilities that are pre-specified and fixed throughout the study period. In contrast, an adaptive trial will typically begin like a conventional RCT, but after a pre-specified period of data collection it will allow these probabilities to evolve over time to achieve balance between two distinct goals: (i) to maximize learning, which requires assigning enough subjects to every treatment arm so as to estimate its relative success with enough accuracy, and (ii) to maximize patient welfare, which requires assigning subjects to the treatment arms that show the most promise. As the researcher learns more about how people respond, they will increase the chances that a person will be assigned to a treatment that will be beneficial to them. Adaptive trials can thus declare a 'winner', or best performing arm, with greater confidence than a static experiment for a given sample size or experiment duration. In addition to the benefits to the experiment participants just discussed, adaptive experimental designs can also aid in the ex-post analysis because more observations are collected from the most beneficial treatments, and there will be more statistical power to test hypotheses about those arms specifically since less observations will be effectively wasted on non-performing arms.

To determine the probabilistic allocation of clients to each treatment arm, this study will employ an algorithm known as the "multi-armed bandit algorithm." In particular, this study will employ a "**contextual** multi-armed bandit algorithm," which further varies the assignment probabilities based on the client's characteristics, or "context." Therefore, the implication is that *Contextual* bandit algorithms go even further than general adaptive trials towards improving efficiency and maximizing the welfare of clients during the experiment, because not only will the algorithms favor arms that are performing better overall, they will also favor certain arms specifically for those clients who have been found to respond well to those arms.

Since our interventions are likely to have different effects for different types of clients, our algorithms can take the clients' contexts into account and increase the probability that they get assigned to the intervention that is, on expectation, most beneficial for them. For example, if younger women, who may have fewer financial resources available to them, are found to respond particularly strongly to the offer of free contraceptives, then the algorithm will learn this over time and allocated more young women to the intervention arms where contraceptive are provided for free. An added advantage of these algorithms is that they do not require pre-specifying these contexts before the experiment begins, since the algorithms are built to retain the flexibility to incorporate various contexts after they have become apparent once the first few batches of data have been analyzed.

Data collection and the adaptive process

This section describes in more detail the process of data collection and analysis, including how the probabilities of assignment are updated while the trial is ongoing. For a more technical treatment we refer the reader to section 18 titled *Technical Appendix*.

As explained in the previous section, data will be analyzed in monthly batches. In the first batch – i.e. the initial phase of the experiment, before any adaptive experimentation will be taking place – the experiment will proceed in the same manner as in a conventional RCT. Clients who receive a family planning consultation are randomly assigned a set of prices and a recommendation style uniformly at random. The tablet-based job-support tool records the clients' answers to the providers' questions as they go through the consultation, including basic demographics and the method chosen by the client, if any. This data is automatically uploaded to a password-protected secure server – accessible only to assigned hospital staff

bound by medical secrecy (see the next section *Data management* for a comprehensive discussion of data confidentiality and data management issues). The tablets are also password protected, and once the data from the consultations is uploaded to the server it disappears from the tablets, adding another level of security.

After one month, the adaptive phase of the experiment will begin. At this point we will allow the assignment probabilities to change based on weighing the predicted benefit to the clients against the cost of providing subsidies (or discounts). From the perspective of the healthcare providers and the clients, the adaptive phase of the experiment will be no different than the initial phase of the experiment. The random assignments into each treatment arm is done by the tablets' software, the probabilities for which will be remotely updated by research team once each batch is analyzed. Therefore, the providers and the clients will not notice anything different about the consultation.

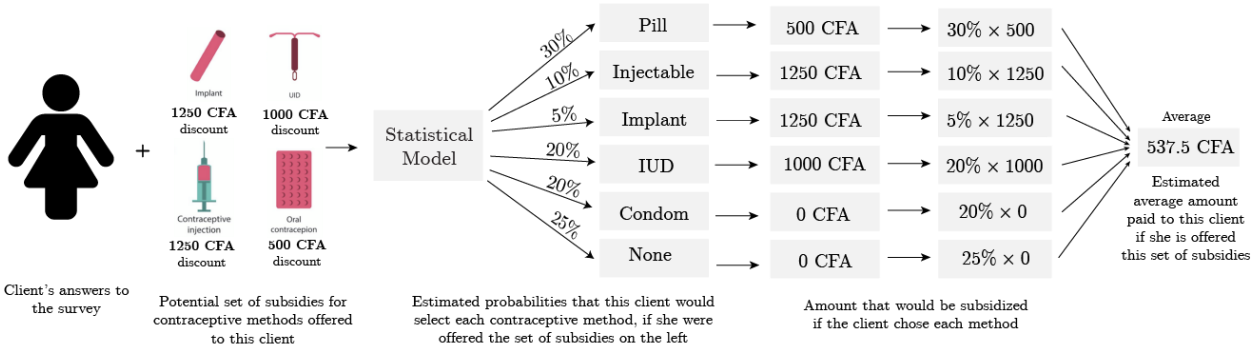
There are five main steps to updating the probabilities of assignment:

Step 1 – calculating the probabilities of adoption: At the end of the each monthly batch, the research team will train a statistical model to estimate the likelihood of a client selecting each contraceptive method given their basic demographics (e.g. age, level of education, birth history, current employment, marital status, etc.), the set of prices they were offered, and the recommendation style they received during the consultation. This will be done by fitting a multinomial logistic model to regress the choice of contraceptive method on the client characteristics and a set of binary variables indicating to which treatment arms they were assigned. Based on this statistical model, we can calculate the predicted probabilities of a client adopting each contraceptive method, for every possible combination of the observed set of characteristics that can be exhibited by clients – we will henceforth refer to a client's set of characteristics, e.g. her age, her maternal history, her marital status, etc., as this client's *context*.

These probabilities are used to compute two values for every combination of a context and a set of treatments: the expected cost and the probability of unintended pregnancy.

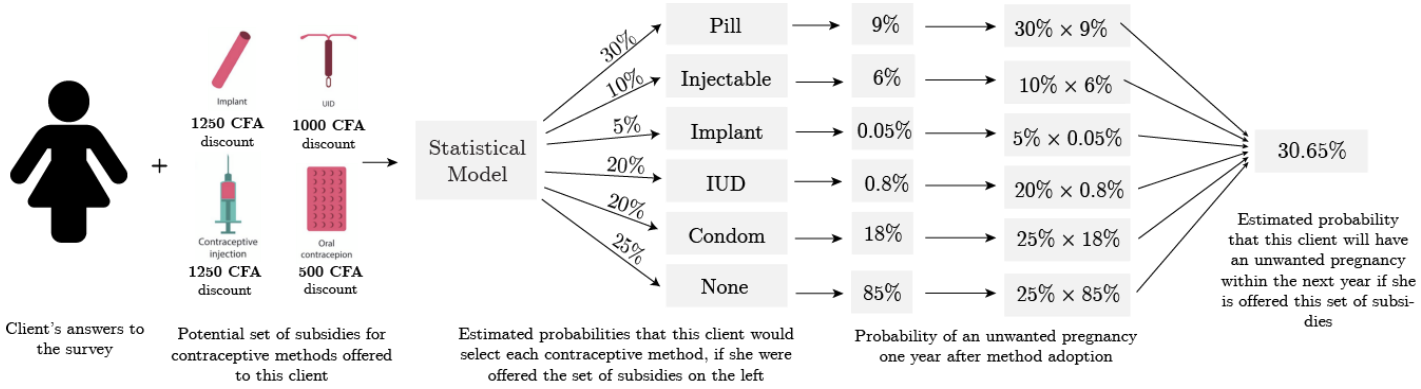
Step 2 – calculating the expected cost of each intervention: The expected cost of each price intervention, or subsidy profile, is obtained by multiplying the value of the subsidy offered for each method by the predicted probability that a client exhibiting a certain context adopts this method given the subsidy profile (Figure 4). This estimate tells us what we would expect, on average, to spend on subsidies for a client exhibiting a certain context if we were to offer her this specific set of subsidies.

Figure 4 - Use our statistical model to predict the client's choice of contraceptive, and how much we would need to disburse depending on that choice



Step 3 – calculating the probability of an unintended pregnancy: The probability of an unintended pregnancy is obtained by multiplying the likelihood of a client with a certain context adopting each method, given that they are offered this specific set of subsidies, by the 12-month typical use failure rate for each contraceptive method (Figure 5). The typical use failure rate is based on the latest and best peer-reviewed evidence available (Trussel 2011).

Figure 5 - Use our statistical model to predict the client's choice of contraceptive, and how likely she would be to suffer an unwanted pregnancy one year after the contraceptive adoption.



Step 4 – calculating value of each intervention for each context: Once we have computed the expected cost of the subsidy profile (Figure 1) and the probability of an unintended pregnancy (Figure 2) for each intervention-context combination, we can combine these two values into what we will call the expected *intervention benefit*. The *intervention benefit* effectively assigns a numerical value to each intervention, i.e. treatment arms, summarizing the benefit of this intervention for clients exhibiting a certain context. The value of the intervention is obtained by weighing the cost of the intervention – i.e. the expected cost of the subsidy package – relative to the benefit of the intervention to the client – the probability of avoiding an unintended pregnancy.

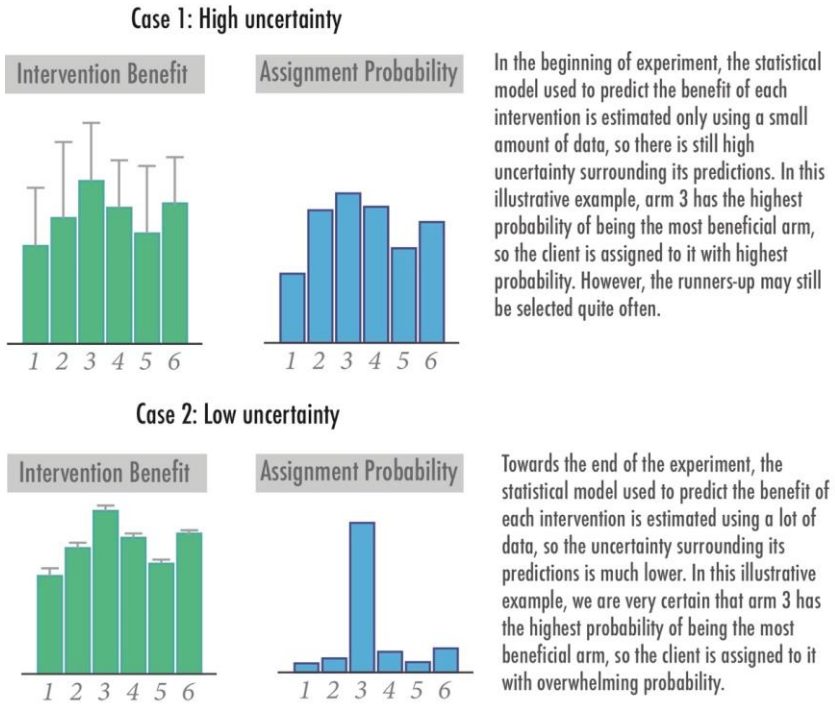
Then, steps 1 – 4 are repeated for a large number of bootstrap samples drawn from the main dataset collected in all previous batches thus far, i.e. a large number of randomly selected subsamples of the main sample. The *intervention benefit* for each intervention-context combination will therefore have a distribution with a mean and a variance.

Finally, Step 5 – assigning the clients to an intervention given their context: After having calculated the value of each intervention for each client context, we will be using a method called *Thompson Sampling* to generate new probabilities of assignment. *Thompson sampling* effectively tilts the assignment probabilities towards better performing arms by assigning clients to intervention arms in *proportion to the probability that an intervention arm has the highest benefit* for the subject's context. For example, if a certain intervention arm has a 70 percent chance of being the best arm for a client, then there will be a 70 percent chance that this client will be assigned to this intervention arm. In practice, Thompson Sampling will be implemented by: (i) using the tablet's internal random number generator to draw a random value for each one of the treatment arms from their context-specific distributions of intervention benefits, and (ii) assigning the client to the treatment arm with the highest drawn random value.

What is the rationale for Thompson Sampling?

If we were only looking to maximize the benefit of the intervention and *exploit* the benefits of the better performing arms, we would be tempted to assign all subsequent clients to the interventions with the highest predicted benefit. However, this would be naïve for the simple reason that at this stage in the experiment we may not be able to ascertain with enough confidence that any one intervention that has been performing very well in the previous batches will continue to do so in future batches. Hence, we run the risk of making a mistake by assigning too many subjects to the wrong intervention. Case 1 shown in Figure 6 below highlights such a situation, where although arm 3 may have the highest average benefit, all the arms have a high variance and large confidence intervals. In this case, we may want to assign slightly more clients to arm 3 because it looks promising, but we should also keep assigning clients to the other treatment arms to *explore* their potential benefits. This will allow us to optimize the benefits to the clients of the various interventions while also allowing learning.

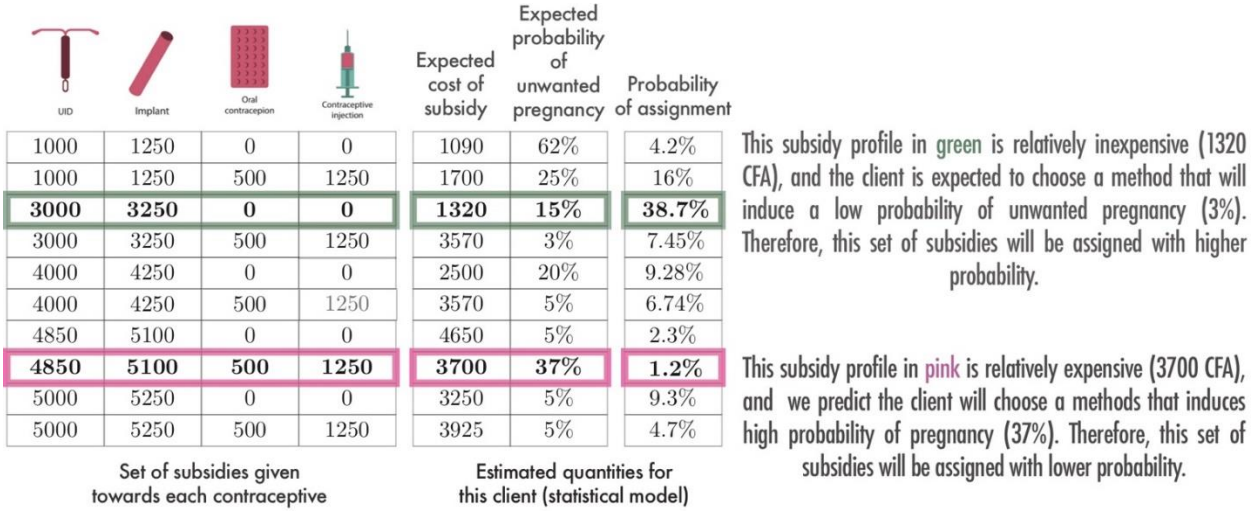
Figure 6 - Illustration of the Thompson Sampling method used to determine intervention probabilities.



In contrast, towards the end of the experiment, once we have collected enough data so that the variances of the predicted benefits of each intervention are low, we can more confidently assign clients to the most beneficial arm, as is shown in Case 2 of Figure 6 for intervention arm 3. It is important to note that although the mean levels of the expected intervention benefits may not have changed, the assignment probabilities are now very different. This is because our level of confidence regarding relative expected intervention benefits has greatly improved over time – from Case 1 to Case 2. This is evident from the figure by the tighter confidence intervals depicted in Case 2. Therefore, we can assign a much higher share of clients to this intervention arm because we have a significantly lower risk of being wrong about our predictions, and thus maximizing the expected benefit to the clients.

Figure 7 below, depicting a completely hypothetical scenario and constructed only for illustration purposes, shows the link between the expected cost, the expected probability of an unintended pregnancy, and the probability of assignment for each subsidy package.

Figure 7 - Using the quantities computed in Figures 1 and 2 for each set of subsidies, our algorithm will modify the probability of assignment to each treatment favoring treatments that are more inexpensive and beneficial to the client.



7.2.4. Post-experiment analyses

Once the experiment is over, we will perform two kinds of statistical analyses using the collected data. First, we will test the following set of **hypotheses** about the primary and secondary outcomes

- Hypotheses about intervention effects:
  - Are women more likely to adopt a modern contraceptive as the subsidy towards that contraceptive increases? Moreover, is the magnitude of this effect different for:
    - Teenagers vs adults?
    - Clients who were already using a modern contraceptive vs otherwise?
  - Are women more likely to adopt a modern contraceptive depending on the recommendation method (i.e. status quo vs ranked, as explained in the section)?
  - How do the other secondary outcomes change as a function of the intervention?
    - For example, are clients more likely to be satisfied with their choice of contraceptive method under the "ranked recommendation" condition than the "status quo"?
- Hypotheses about the demand function:
  - Are short-acting and long-acting contraceptives complements or substitutes, i.e. what is the sign of the cross-price elasticity?
  - Are women more likely to adopt a contraceptive if they pay exactly zero vs a small positive price, i.e. does the demand for long-acting contraceptives exhibit a discontinuity at zero?
- The "business as usual" counterfactual policy vs. the "best-performing intervention arm"

  The "status quo" recommendation style combined with high prices for both LARCs and SARCs is the closest to "business as usual" at HGOPY when it comes to family planning services before the study. By collecting a sufficiently large sample in this group and comparing it with the "best-performing arm," averaged over all contexts, we can conduct classical hypothesis

testing. This analysis would allow us to answer the question: "Can we reject the null hypothesis that the impact of the best-performing arm on any primary or secondary outcomes is equal to that of "business as usual."

7.2.5. Outcomes of interest

The **primary outcomes** in this study are:

1. The client adopted a LARC or not, and
2. The client adopted a modern contraceptive method (LARC or SARC) or not.

In the short-run, these primary outcomes are proxies for use of a reliable contraceptive method in the longer-run and, hence, for avoiding mistimed or unwanted pregnancies. The data to construct the primary outcomes for the proposed study will be obtained from the tablets, as the characteristics, goals, preferences, and the choices of each client will be recorded by the job-support tool during the counseling sessions.

We will then also collect data on those longer-term outcomes through follow-up surveys with assenting/consenting clients.

The **secondary outcomes** in this study are:

3. Client satisfaction with the counseling session,
4. A checklist to assess the quality of the counseling session,
5. Side effects of methods and their management,
6. Renewal, switching, and discontinuation rates of methods,
7. Client satisfaction with adopted method, and
8. 12-month unintended pregnancy rates.

These secondary outcomes will be assessed using data from three rounds of follow-up surveys with assenting/consenting clients. Some outcomes, such as client satisfaction with and the quality of the counseling session will be assessed using a two-week follow-up phone survey. Others, such as side effects, discontinuation rates, and satisfaction with adopted methods, will be assessed using a 16-week follow-up. Finally, unintended pregnancy rates will be assessed 12 months after the initial counseling session.

7.2.6. Data management

The study requires two distinct types of data. To construct the primary outcomes, analyze them in monthly batches within the context of the adaptive experiment, and tailoring interventions to individual clients' contexts, we need access to the data collected by the tablets during each counseling session. To collect secondary outcomes, to gauge the longer-term (12-month) impacts of our interventions, we propose to conduct short follow-up phone surveys with clients, who provided assent/consent to participate in our study. Below, we outline our proposed method of data access and management separately for primary and secondary outcomes.

*Data access and management for **primary outcomes***

The data necessary to construct the primary outcomes, analyze them in monthly batches, and adapt random allocation probabilities to each intervention arm based on clients' contexts, can be found in the electronic health records of each individual client from their family planning counseling session. These records not only have the outcome indicators, i.e. what method the client adopted, if any, but also all the contextual variables needed by the adaptive experiment, such as age, marital status, birth history, previous method, future fertility plans, preferences for methods and side effects, etc. More importantly,

however, the tablet-based app uses a simple skip pattern for non-consenting clients so that their records do not contain personally identifiable information (PII).

Ordinarily, the primacy of respect for patient autonomy is uncontroversial: patients, of course, have the right to decide whether and which procedures they wish to undergo, what methods they wish to adopt. However, a strong argument can be made for the use of information that is already stored by the provider when (a) that information, properly anonymized, can have significant public health and/or biomedical value; and (b) when the only risk to the client is a breach of privacy; and (c) that risk is minimal.

Throughout this protocol, we have made the case for the value of the proposed research – both directly for the clients (please see the section below, titled *Benefits and Risks to the Client*, under *Ethical Considerations*) and indirectly for the community and for global knowledge generation. This type of research cannot be conducted using publicly available or pre-existing data, as we are interested in the effect of alternative approaches to family planning counseling with the use of a tablet-based job-support tool. While our research does require sensitive data (client's choice of contraceptive method), the risks of harms arising from privacy breaches are minimal. As our research is focused on studying the effect of slightly different counseling approaches and reduction of prices for contraceptives on method choice, there are no other risks than privacy breaches. Our study is not a clinical trial, where a new drug or a medical product is being trialed and there are other harms that need to be considered. The clients presenting at HGOPY already get counseled and adopt all methods under consideration in our study. The expected outcome is simply a change in the method mix among the target population.

Increasingly, a case is being made by researchers and public health officials that access to de-identified, minimally risky EHR data should be made available to researchers without the need to seek consent from each patient. For example, researchers, who were interested in evaluating the effect of access to free health insurance in the state of Oregon, U.S.A., were given access to anonymized EHR data by the state's office of health policy and research, who conducted the matching of the data and the de-identification on-site using its own authorized personnel, and then gave the researchers access to anonymized data (Finkelstein et al. 2011). Porsdam Mann, Savulescu, and Sahakian (2016) argues that when the only expected risk to the individual is a breach of privacy and the likelihood of that breach is minimal, obtaining waivers to access EHR without individual consent should be granted.

We argue that the likelihood of a privacy breach is minimal in our context for two reasons. First, the sensitive data are already kept in two locations: in physical family planning registers and in the hospital's own administrative records. The additional probability of a breach of privacy because of this study is very small. In fact, the study may reduce this risk by eliminating the need for double entry of sensitive PII data; requiring dedicated and more secure servers for these data; and encouraging better data handling practices by hospital staff. Access to the job-support tool on each tablet requires a pre-assigned user ID and password. Each provider is asked to transmit data to the dedicated and secure server daily. Transmitted data are automatically deleted from the tablet once transmission is successful. Second, the dedicated and encrypted server is only accessible by a person authorized by the HGOPY administration through a username and password and off-limits to the rest of the study team.[12]

[12] The dedicated server is hosted by Amazon Web Services (AWS) and is compliant with various assurance and certification programs, including the Health Insurance Portability and Accountability Act (HIPAA) of the USA, the EU Data Protection Directive, Privacy Acts of Australia and New Zealand, among others. Therefore, it is compliant with

Therefore, to construct and analyze primary outcomes during the study period without any 'consent bias,' the study team is requesting access to de-identified electronic health records for each client from the tablet-based app. For access to these data, in keeping with the arguments made above, the study team requests from the Committee the "waiving of consent from clients for review of their electronic health records from the family planning counseling session."

We note that the skip pattern employed in the tablet-based app eliminates the need to manually de-identify the data from HGOPY clients who did not consent to participate in this study, because their PII will never be collected electronically and uploaded to the dedicated study server in the first place. The hospital, for its own operational purposes, will be able to link the data for each client from the dedicated study server to the family planning register using a unique patient ID. As only the service providers, who are HGOPY employees, have access to the family planning register, the study team will have no access to PII for non-consenting clients. This protocol also implies that the data that are uploaded to the study server will only contain PII for clients who provided informed assent/consent to participate in the study. We explain the reason why we are seeking consent from HGOPY clients in the next sub-section below.

The EHR data include the treatment status of each client, access to which allows us to evaluate treatment effects on primary outcomes for every client counseled during the study period, avoiding any 'consent bias,' which can be non-negligible for adolescent females and young women. Furthermore, having access to de-identified client-level background characteristics – such as age, education, marital status, parity, religion, as well as preferences and history regarding contraceptive methods – will not only allow the implementation of the proposed adaptive experiment, but also enable the research team to investigate the mechanisms underlying the potential program impacts.

*Data access and management for **secondary outcomes***

To collect data on secondary outcomes, which were listed above, the research team needs to conduct follow-up interviews with clients. As such data are not part of existing records at HGOPY and need to be collected via follow-up surveys with clients, **they will only be collected from clients who provide their assent or consent to participate in our study**. Below, we briefly describe the nature of the follow-up surveys and the procedure for obtaining consent.

Three follow-up interviews, each of which are expected to take 15 minutes or less to conduct by phone, are planned at two weeks, 16 weeks, and 52 weeks after the initial visit – when the client is counseled for the first time by a provider at HGOPY using the "app." The short follow-up interviews will include questions about client satisfaction with the counseling session; side effects of the chosen methods; renewal, switching, or discontinuation of the chosen methods; and 12-month pregnancy status. The follow-up interviews will be conducted by a local survey firm using phone numbers provided by the client specifically for this purpose. The data for secondary outcomes obtained through the phone survey will be hosted on another server, with the same safety standards as the server hosting the administrative EHR data.

As the evaluation of treatment effects on secondary outcomes requires knowledge of treatment status, as well as background characteristics and primary outcomes, all of which were collected as part of the

the highest standards of security to protect the privacy and confidentiality of clients and will only be accessed by a person authorized by the HGOPY administration through a username and password.

electronic counseling records using the "app," the follow-up surveys will be linked with the electronic health records for analysis using the unique study identifier assigned to each consenting client.

We will seek informed consent from all first-time clients to participate in the study at the start of their counseling session. The informed consent process will make it clear to the client that their willingness to participate in the study has no bearing on the quality or the range of services they will receive at HGOPY.

Before starting the counseling sessions, the provider will invite the client to participate in the follow-up study by reading them a notice of information, go over the informed consent form that is both printed for the client and embedded into the tablet, and obtain their signature (on paper and digital) if they agree to participate in the study. The tablets will be programmed to prompt the provider to record the outcome of the informed consent. For consenting clients, the counseling session will continue as usual. For non-consenting clients, the tablet will skip questions collecting personally identifiable information, such as name and phone number, and prompt the provider to record these information in the family planning register only. Physical copies of the notice of information and informed consent forms will also be given to the client. The English and French versions of these client-level forms, as well as the draft questionnaires for each follow-up interview are included in section.

The target population of our study is females aged 15-49, who present at HGOPY seeking family planning counseling. This means that a small percentage of the clients seeking family planning services will be under the age of 18. While some of these clients will be married and, hence, emancipated, others will be minors. For the purposes of our study, we will refer to a client as a 'minor adolescent' if she is between the ages of 15-17 and is unmarried. The consent protocols described in the paragraph above will apply to anyone who is **not** a 'minor adolescent,' from whom we will simply seek consent to participate in our study.

For a 'minor adolescent,' we will seek her assent to participate in our study following the same protocol described above. Assent forms for minor adolescents can be found in Section 12 (*Notice of information and consent forms*). In addition, we will explain to her that since she is legally a minor, we would like to seek her parents' or guardians' permission for her participation in our study. Notices of information and consent forms for the parents, both of which can be seen in Section 12 (*Notice of information and consent forms*), will describe the follow-up surveys within the context of an adolescent health survey. If the parents/guardians are at HGOPY with the 'minor adolescent' client, then their verbal consent will be sought in person. If they are not present at the hospital, then the provider will ask the 'minor adolescent' to provide a contact number for the parents/guardians to obtain their verbal consent by phone. For 'minor adolescents' wishing to adopt a contraceptive method, HGOPY requires parental consent before providing such clients with a method. For these clients, the provider will seek to obtain parental consent to adopt a method and to participate in the study at the same time. For all other 'minor adolescents,' the local survey firm will be in charge of obtaining consent from their parents/guardians by phone before any follow-up interview with them can take place.

The procedures described above imply the following:

- The research team will receive all data, including PII, for consenting adults, who agreed to participate in the study, and 'minor adolescents,' who assented to participate in the study and whose parents/guardians provided consent
- For non-consenting clients, who have declined to participate in the study, the research team will only have access to anonymous EHR data.

- There will be no need for manual de-identification of data at either server, because PII will only be uploaded to servers for clients who have provided informed consent or assent. For non-consenting clients, there will be no follow-up surveys and their EHR data will exclude PII.

8. Ethical considerations and confidentiality

8.1. Role of the World Bank as a research partner to HGOPY

The World Bank has no financial interest in the outcome of the trial: The tablet-based job-support tool is designed to be an open-source algorithm to serve as a job-aid to health providers. If it is found to be an effective tool in improving adoption of reliable contraceptive methods, reducing discontinuation rates, and discomfort from side effects, then health providers in other countries may also wish to adopt the tool. However, this would bring no financial benefits to the World Bank, the PI, or the co-PIs.

The World Bank has no reputational interest in the outcome of the trial: The tool was designed by a working group, only one member of which (the PI, Özler) is from the World Bank. The rest are mostly medical and public health professionals from Cameroon, and some academics from other universities in the U.K. and the U.S. The tool is primarily designed to make the jobs of family planning counsellors easier. In this study, it will also be used to test certain hypotheses about barriers to access to modern contraceptive methods among adolescent females and young women. Whether or not these hypotheses are rejected poses no reputational risk to the World Bank one way or the other. The aim of the study is to simply understand whether small but important changes to traditional counselling methods and lowering barriers to access can improve the uptake of modern contraceptives and lower unintended pregnancy rates, especially among adolescent females and young women, without decreasing client satisfaction with the quality of service they receive.

The study is not part of a World Bank project and it is not financed by World Bank operations: The PI (Özler) works for the research department at the World Bank. He and the study team are using Trust Funds raised specifically for this research project to finance study expenses. These funds are used primarily to reimburse HGOPY in their efforts to serve more clients with improved and cheaper family planning services during the study period. The World Bank has no direct financial relationship with HGOPY and the study team has a small contract with Health Economics & Policy Research and Evaluation for Development Results Group (HEREG), which is handling a performance-based financing contract with HGOPY. The size of this contract between HEREG and HGOPY is very small, under US$ 50,000, and is designed to (a) reimburse HGOPY for providing discounted family planning services throughout the study period; and (b) to encourage HGOPY to attract more clients presenting to receive family planning counselling – by conducting sensitization and information campaigns targeting young women in Yaoundé.

8.2. Benefits and risks to the clients

Direct benefits to study participants

All clients presenting at HGOPY seeking to receive family planning counseling during the study period will enjoy the following benefits:

- Receive counseling from providers working within a revised quality in contraceptive counseling framework with the help of the tablet-based job-support tool,
- Free pregnancy tests, removal of LARCs, and provision of condoms throughout the study period,
- Discounted prices for all modern contraceptive methods,

- Free treatment for the rare but serious side effects mainly associated with combined oral contraceptives, such as blood clots, deep vein thrombosis, or pulmonary embolism.

Indirect benefits to future clients at HGOPY and elsewhere in Cameroon

Once we understand the effects of the discounted and free FP services on client behavior, satisfaction, and outcomes, it will be up to HGOPY and the responsible health officials in Cameroon to incorporate the study findings into policies to improve RMNCAH. In addition to decreasing maternal mortality and unintended pregnancies, potential indirect effects for the community include:

- increased welfare from reduced side effects that arise due to current one-size-fits-all FP counseling,
- healthier children due to improved birth spacing, and
- increased human capital formation both for children and for young (often school-aged) potential mothers.

Global knowledge generation

The study aims to make a number of contributions to global knowledge in family planning:

- The use of a tablet-based job-support tool in family planning,
- The importance of designing family planning counselling to empower clients to make choices that are more informed and better suited for the needs and preferences,
- The importance of reduced prices (or free provision) for modern contraceptives,
- Employment of adaptive experimentation techniques to learn about the effectiveness of interventions tailored to each client's context, and
- Follow-up interviews with clients to assess rates and reasons for method continuation, switching, or discontinuation.

Risks to study participants

As mentioned above, since our research is focused on studying the effect of slightly different counseling approaches and reduction of prices for contraceptives on method choice, there are no other risks than privacy breaches. Our study is not a clinical trial, where a new drug or a medical product is being trialed, where there are other harms that need to be considered. The clients presenting at HGOPY – with or without our study – already get counseled and adopt all contraceptive methods under consideration in our study. The expected outcome is simply a change in the method mix among the target population. [13]

[13] It is true that using combined oral contraceptives (COC) as a birth control method can very slightly elevate the risk of developing blood clots, even though this risk remains below the risks caused by pregnancy or during the first 12 weeks after giving birth. According to the U.S. Food and Drug Administration, out of every 10,000 women taking COC, 3 to 9 of them will develop a blood clot, compared with 1 to 5 women who are not pregnant and do no use COC. Furthermore, not all blood clots result in a pulmonary embolism. Therefore, the chances of clients in the study developing a blood clot are extremely small: of the maximum number of 3,000 subjects, only some of them will adopt the COC, meaning that we can expect less than 1 to 3 individuals to develop a blood clot and an even lower chance of someone experiencing deep vein thrombosis or pulmonary embolism. However, if any study participant using the COC presents at HGOPY with one of these severe side effects, the study protocols require HGOPY to provide treatment for the condition free of charge and the hospital will be reimbursed by HEREG under the terms of the performance-based financing contract.

With regards to the risk of a breach of privacy, we argue that the likelihood of this is minimal in our context for two reasons. First, the sensitive data are already kept in two locations at HGOPY: in physical family planning registers and in the hospital's own administrative records. The additional probability of a breach of privacy because of this study is very small. In fact, the study may reduce this risk by eliminating the need for double entry of sensitive PII data; requiring dedicated and more secure servers for these data; and encouraging better data handling practices by hospital staff. Access to the job-support tool on each tablet requires a pre-assigned user ID and password. Each provider will be instructed to transmit data to the dedicated and secure server daily. Transmitted data will be deleted from the tablet once transmission is successful.

Second, the data management protocol envisioned for this study has the providers regularly upload the data for each family planning counseling session they conduct from the tablets to a dedicated server – accessible only by one medical personnel employed at HGOPY, who is bound by doctor-patient confidentiality. The server will be dedicated only for the purposes of the study; will be password protected and encrypted; only accessible to the server administrator bound by doctor-patient confidentiality, and off-limits to the study team.[14] The server administrator from HGOPY, who will serve as the liaison between the research team and the hospital, will be responsible to ***de-identify*** the data by removing any PII (name, surname, and telephone number) for each client who has withheld consent (or assent), and share the data with the research team on a weekly basis.

[14] The dedicated server is hosted by Amazon Web Services (AWS) and is compliant with various assurance and certification programs, including the Health Insurance Portability and Accountability Act (HIPAA) of the USA, the EU Data Protection Directive, Privacy Acts of Australia and New Zealand, among others. Therefore, it is compliant with the highest standards of security to protect the privacy and confidentiality of clients and will only be accessed by a person authorized by the HGOPY administration through a username and password.

9. Notice of information and consent forms

9.1. Adults

9.1.1. Notice d'information (Francais)

Vous êtes invitée à participer à une étude de recherche. Si vous êtes d'accord, j'aimerais prendre quelques minutes pour vous expliquer ce que cela signifie :

Si vous avez des questions alors que nous parcourons ces informations, demandez-moi de m'arrêter et je prendrai le temps de vous expliquer. Si vous avez des questions plus tard, vous pouvez les poser une fois que j'ai fini de vous lire ce document, je vais aussi vous donner les coordonnées d'un chercheur qui travaille sur cette étude et qui pourra répondre à vos questions.

Quel est le sujet de l'étude :

Une équipe de chercheurs Camerounais et internationaux mènent actuellement une étude pour améliorer la qualité des services de planification familiale fournis par cet hôpital. À cette fin, ils aimeraient en savoir plus sur votre satisfaction à l'égard de notre centre de santé aujourd'hui et sur votre expérience de la méthode de contraception choisie dans les semaines et les mois à venir. Toutes les clientes qui ont reçu une consultation en planning familial a cet hôpital seront invitées à participer à cette étude, vous êtes l'une d'environ 3,000 femmes invitées à participer.

Ce que nous allons demander de vous lors de cette étude :

Si vous acceptez de participer à cette étude, il vous sera demandé de participer à trois courts entretiens téléphoniques, chacun ne devant pas durer plus de 15 minutes. Vous recevrez trois appels, un dans deux semaines, un autre dans quatre mois, et un dernier dans un an.

Lors du premier appel, dans environ deux semaines, il vous sera demandé :

- Votre satisfaction avec la consultation que vous avez reçue aujourd'hui ;
- De confirmer certains détails à propos de la consultation et les services que vous avez reçu.

Au cours des deux appels restants, on vous posera quelques questions à propos de :

- Votre satisfaction avec la méthode de contraception que vous avez choisie ;
- Les effets secondaires que vous avez ressentis, si vous en avez ressentis ;
- Si vous avez renouvelé, changé, ou abandonné votre méthode choisie ;
- Lors du dernier appel, dans 12 mois, nous allons vous demander si vous été tombée enceinte.

Soyez assurée qu'il n'y a pas de bonne ou de mauvaise réponse et qu'il s'agit de vos propres expériences et vos propres opinions qui sont précieuses pour éclairer l'étude.

Votre participation est volontaire :

Votre participation à cette étude est entièrement volontaire. Votre refus de participer à cette étude ou votre consentement n'affectera pas les soins ou les services que vous recevrez à l'avenir – dans cet hôpital ni dans toute autre formation sanitaire. Même si vous décidez de participer aujourd'hui, vous pouvez changer d'avis à tout moment.

Risques et bénéfices :

Cette étude porte un niveau de risque minime. Le seul risque que vous pourriez rencontrer est que les enquêteurs vous demanderont de partager ce que vous pourriez considérer comme des informations personnelles et confidentielles, à propos de la contraception et du planning familial. Cependant, il faut que vous sachiez que si vous ne souhaitez pas répondre à une des questions posées lors de l'entretien, vous pouvez simplement le dire et l'enquêteur passera à la question suivante. Si à un moment quelconque de l'entretien vous souhaitez arrêter complètement, vous pouvez simplement arrêter. Vous n'aurez jamais à justifier votre refus de participer à l'entretien ou de ne pas vouloir répondre à une question.

Votre participation ne garantira pas d'avantages, services, ou d'assistance directe, ni à vous ni à votre famille. Cependant, votre participation aidera les prestataires de santé à développer et à découvrir de nouvelles et meilleures méthodes pour améliorer les services de planning familiale et l'accès aux contraceptifs modernes. Après l'étude, l'équipe de chercheurs travaillera en étroite collaboration avec le Ministère de la Santé publique et la direction de cet hôpital afin de s'assurer que les résultats de ces travaux puissent influencer les services de santé dans tout le pays.

Bien que cela soit extrêmement rare, il est possible qu'un client ayant adopté la pilule COC développe des caillots sanguins (moins de 1 personnes sur 1 000), ce qui peut entraîner ou non d'autres complications. Dans tels cas, toute cliente qui a adopté la pilule COC a HGOPY au cours de l'étude et qui présente une complication quelconque pourra bénéficier d'un traitement gratuit pour ces complications à l'hôpital.

Confidentialité et respect de la vie privée :

Les informations que vous donnerez lors des entretiens seront traitées de manière privées et confidentielles. Si vous êtes d'accord nous allons partager vos informations avec les enquêteurs pour qu'ils puissent vous appeler. Lorsque les chercheurs analyseront vos données et celles des autres femmes qui participent à l'enquête, les données seront complètement anonymisées afin que personne ne puisse jamais retracer vos réponses ni à vous ni à personne d'autre. Des informations sur la recherche peuvent apparaître dans des publications, des sites Web et d'autres médias, mais elles resteront anonymes et ni vous ni votre communauté ne seront identifiés.

Prenez tout le temps dont vous avez besoin pour décider si vous souhaitez participer à cette enquête.

9.1.2. Formulaire de consentement éclairé (Francais)

Je, soussigné (e), déclare que j'ai été invité à participer à l'étude intitulée « *Un essai adaptif pour améliorer la qualité du counseling en planning familial* », coordonné par le Dr Berk Özler, chercheur principal,

Par M./Mme. _____

J'ai lu attentivement l'avis d'information / on m'a lu l'avis à voix haute. J'en ai ensuite discuté et j'ai compris les objectifs de l'étude et les procédures de recherche. Je comprends ce qu'on attend de moi, ce qui est de répondre à quelques questions au sujet de ma visite à la formation sanitaire aujourd'hui, ma satisfaction avec les services que je recevais, et mes expériences avec la méthode contraceptive que j'ai adoptée.

Les risques et les avantages de l'étude m'ont également été présentés et j'ai eu le temps de poser des questions, auxquelles on a répondu de manière satisfaisante. Je comprends aussi que ma participation à cette recherche est volontaire. Je suis libre de refuser de participer à cette étude ou de retirer ma participation à tout moment sans subir de représailles de la part des prestataires de soins de santé.

Au vu de tout ce qui précède, j'accepte volontairement de participer à cette étude.

Date, nom et signature:

_____
_____

Pour de plus amples informations au sujet de cette étude ou si vous estimez que vos droits ont été violés, vous pouvez contacter Dr. Dohbit Sama a l'Hôpital Gynéco Obstétrique de Yaoundé: dohbit@yahoo.com

Vous pouvez également contacter l'administrateur du Comité national d'éthique, le Dr Marceline Djuidje Ngounoue, tél: 237 000 2221 1284, E-mail: cnecprot@yahoo.fr.

Vous pouvez également envoyer un courriel à cnéthique_minsante@yahoo.fr. Le Comité national d'éthique est situé à la Clinique Bastos Face Lycee NkolEton. Yaoundé, Cameroun et son adresse postale est B.P. : 1937, Yaoundé, Cameroun.

9.1.3. Notice of information (English)

You are being invited to participate in a research study. If you agree, I would like to take a few minutes to explain to you what this means:

If you have any questions as we go through this information, please ask me to stop and I will take time to explain. If you have questions later, you can ask them to me once I have finished reading this or I will give you the contact details of a researcher who can answer them.

What the study is about:

A team of international and Cameroonian researchers are conducting a study trying to improve the quality of family planning services provided at this hospital. For this purpose, they would like to learn more about your satisfaction with the consultation you received today and your experience with your chosen method of contraceptive in the upcoming weeks and months. All women who came in for a family planning consultation at this hospital since the start of this study have been invited to participate in this study. You are one of approximately 3,000 women who have been, or will be, invited.

What we will ask of you:

If you agree to participate in this study, you will be asked to participate in three short telephone interviews, each of which should last no more than 15 minutes. You will receive three calls, one in two weeks from now, another four months from now, and one final call in one year from now.

During the first call, in about two weeks' time, you will be asked:

- About your satisfaction with the consultation you have received today;
- To confirm certain aspects of today's visit and the consultation you received.

In the remaining two calls, you will be asked about:

- Your satisfaction with the contraceptive method you have chosen;
- Any side-effects you may have experience;
- Whether you have renewed, switched, or abandoned your chosen method of contraception;
- In the final call, 12 months from now, you will also be asked about pregnancies.

Please be assured that there are no right or wrong answers and that it is your own experiences and your own opinions that are valuable to inform the study.

Your participation is voluntary:

Your participation in this study is entirely voluntary. Your refusal to participate in this study, or your acceptance, will not affect the care or services you will receive in the future – in this hospital or anywhere else. Even if you decide to participate today you can change your mind at any time.

Risks and benefits:

This study poses only minimal risk. The primary risk you face is that the interviewers will be asking you to share what some may consider personal and confidential information about contraception and family planning, this can make some people feel uncomfortable. However, remember that if you do not wish to answer any of the questions asked during the interview you can simply say so and the interviewer will

move on to the next question. If at any point during the interview you want to stop the interview entirely you can simply tell the interviewer and you can stop. You will never have to provide any reason for refusing to take part in the interview or for not wanting to respond to any question.

Your participation will not ensure any direct benefits, services, or assistance to yourself or your family. However, your participation will help HGOPY and other healthcare providers develop and discover new and better ways to improve family planning services and access to modern contraceptives for other young women such as yourself. After the study, the team of researchers will be working closely with the Ministry of Public Health and the administration of this hospital to ensure that the findings inform policy decisions made across the entire country.

While extremely rare, it is possible that a client who adopted the pill-COC will develop blood clots (less than 1 in 1,000 people), which may or may not result in further complications. Any client who has adopted the pill-COC at HGOPY during the study who is experiencing any complication will be able to receive treatment for these complications free of charge at the hospital.

Confidentiality and respect for your privacy:

The information you give during the interview will be treated as private and confidential. If you agree, we will pass on your name and any contact information you agree to provide to the interview team so that they can reach you in the future, but when your information and that of all the other women who participated in the interview will be analyzed by the researchers it will be completely anonymized so that no one will ever be able to trace your answers back to you or anyone else. Information about the research may appear in publications, websites, and other media, but it will be anonymous and neither you nor your community will be identified.

Please take as much time as you need to decide if you'd like to participate in this survey.

9.1.4. Informed consent form (English)

I, the undersigned, _____, declare that I have been invited to participate in the study entitled *"An adaptive experiment to improve quality in contraceptive counseling"* coordinated by Dr. Berk Özler, Principal Investigator,

by Mr./Mrs./Ms. _____

I read the notice of information carefully/the notice of information was read out loud to me. I further discussed it and understand the objectives of the study and the research procedures. I understand what is expected of me, which is to answer some questions regarding my visit to the clinic today, my satisfaction with the services I received, and my experiences with the contraceptive method that I have adopted.

The risks and the benefits of the study were also presented to me and I had enough time to ask questions, which were answered satisfactorily. I also understand that my participation in this research is voluntary. I am free to refuse to participate in this study, or to withdraw my participation at any time without experiencing reprisals from health care providers.

In view of all the above, I accept voluntarily to participate in this study.

Date, Name, and Signature:

_____

_____

For further information regarding this study or if you feel that your rights have been violated, please contact Dr. Dohbit Sama at the à l'Hôpital Gynéco Obstétrique de Yaoundé: dohbit@yahoo.com

You can also contact the administrator of National Ethics Committee, Dr Marceline Djuidje Ngounoue, at Tel: 237 000 2221 1284, E-mail: cnecprot@yahoo.fr.

You can also email cnéthique_minsante@yahoo.fr. The National Ethics Committee is physically located at Clinique Bastos Face Lycee NkolEton. Yaoundé, Cameroon and its postal address is P. O. Box 1937, Yaoundé, Cameroon

9.2. Minors

9.2.1. Notice d'information - adolescents (Francais)

Vous êtes invitée à participer à une étude de recherche. Si vous êtes d'accord, j'aimerais prendre quelques minutes pour vous expliquer ce que cela signifie :

Si vous avez des questions alors que nous parcourons ces informations, demandez-moi de m'arrêter et je prendrai le temps de vous expliquer. Si vous avez des questions plus tard, vous pouvez les poser une fois que j'ai fini de vous lire ce document, je vais aussi vous donner les coordonnées d'un chercheur qui travaille sur cette étude et qui pourra répondre à vos questions.

Quel est le sujet de l'étude :

Une équipe de chercheurs Camerounais et internationaux mènent actuellement une étude pour améliorer la qualité des services de planification familiale fournis par cet hôpital. À cette fin, ils aimeraient en savoir plus sur votre satisfaction à l'égard de notre centre de santé aujourd'hui et sur votre expérience de la méthode de contraception choisie dans les semaines et les mois à venir. Toutes les clientes qui ont reçu une consultation en planning familial a cet hôpital seront invitées à participer à cette étude, vous êtes l'une d'environ 3,000 femmes invitées à participer.

Ce que nous allons demander de vous lors de cette étude :

Si vous acceptez de participer à cette étude, il vous sera demandé de participer à trois courts entretiens téléphoniques, chacun ne devant pas durer plus de 15 minutes. Vous recevrez trois appels, un dans deux semaines, un autre dans quatre mois, et un dernier dans un an.

Lors du premier appel, dans environ deux semaines, il vous sera demandé :

- Votre satisfaction avec la consultation que vous avez reçue aujourd'hui ;
- De confirmer certains détails à propos de la consultation et les services que vous avez reçu.

Au cours des deux appels restants, on vous posera quelques questions à propos de :

- Votre satisfaction avec la méthode de contraception que vous avez choisie ;
- Les effets secondaires que vous avez ressentis, si vous en avez ressentis ;
- Si vous avez renouvelé, changé, ou abandonné votre méthode choisie ;
- Lors du dernier appel, dans 12 mois, nous allons vous demander si vous été tombée enceinte.

Soyez assurée qu'il n'y a pas de bonne ou de mauvaise réponse et qu'il s'agit de vos propres expériences et vos propres opinions qui sont précieuses pour éclairer l'étude.

Votre participation est volontaire :

Votre participation à cette étude est entièrement volontaire. Votre refus de participer à cette étude ou votre consentement n'affectera pas les soins ou les services que vous recevrez à l'avenir – dans cet hôpital ni dans toute autre formation sanitaire. Même si vous décidez de participer aujourd'hui, vous pouvez changer d'avis à tout moment.

Risques et bénéfices :

Cette étude porte un niveau de risque minime. Le seul risque que vous pourriez rencontrer est que les enquêteurs vous demanderont de partager ce que vous pourriez considérer comme des informations personnelles et confidentielles, à propos de la contraception et du planning familial. Cependant, il faut que vous sachiez que si vous ne souhaitez pas répondre à une des questions posées lors de l'entretien, vous pouvez simplement le dire et l'enquêteur passera à la question suivante. Si à un moment quelconque de l'entretien vous souhaitez arrêter complètement, vous pouvez simplement arrêter. Vous n'aurez jamais à justifier votre refus de participer à l'entretien ou de ne pas vouloir répondre à une question.

Votre participation ne garantira pas d'avantages, services, ou d'assistance directe, ni à vous ni à votre famille. Cependant, votre participation aidera les prestataires de santé à développer et à découvrir de nouvelles et meilleures méthodes pour améliorer les services de planning familiale et l'accès aux contraceptifs modernes. Après l'étude, l'équipe de chercheurs travaillera en étroite collaboration avec le Ministère de la Santé publique et la direction de cet hôpital afin de s'assurer que les résultats de ces travaux puissent influencer les services de santé dans tout le pays.

Bien que cela soit extrêmement rare, il est possible qu'un client ayant adopté la pilule COC développe des caillots sanguins (moins de 1 personnes sur 1 000), ce qui peut entraîner ou non d'autres complications. Dans tels cas, toute cliente qui a adopté la pilule COC a HGOPY au cours de l'étude et qui présente une complication quelconque pourra bénéficier d'un traitement gratuit pour ces complications à l'hôpital.

Confidentialité et respect de la vie privée :

Les informations que vous donnerez lors des entretiens seront traitées de manière privées et confidentielles. Si vous êtes d'accord nous allons partager vos informations avec les enquêteurs pour qu'ils puissent vous appeler. Lorsque les chercheurs analyseront vos données et celles des autres femmes qui participent à l'enquête, les données seront complètement anonymisées afin que personne ne puisse jamais retracer vos réponses ni à vous ni à personne d'autre. Des informations sur la recherche peuvent apparaître dans des publications scientifiques, des sites Web et d'autres médias, mais elles resteront anonymes et ni vous ni votre communauté ne seront identifiés.

Consentement de vos parents/gardiens :

Vu que vous êtes mineure, si vous êtes d'accord, nous allons aussi devoir demander à l'un de vos parents ou votre gardien légal pour qu'il/elle donne son consentement pour que vous participiez à cette étude. Vous ne pouvez pas participer à cette étude sans l'accord d'un de vos parents/gardien. Pour demander leur consentement je vais leur lire une fiche d'information qui contient certaines de ces informations que je vous ai donné, veuillez lire la fiche avant que l'on contacte votre parent/gardien.

Prenez tout le temps dont vous avez besoin pour décider si vous souhaitez participer à cette enquête.

9.2.2. Formulaire de assentement éclairé - adolescents (Francais)

Je, soussigné (e), déclare que j'ai été invité à participer à l'étude intitulée « *Un essai adaptif pour améliorer la qualité du counseling en planning familial* », coordonné par le Dr Berk Özler, chercheur principal,

Par M./Mme. _____

J'ai lu attentivement l'avis d'information / le personnel de la santé m'a lu l'avis à voix haute. J'en ai ensuite discuté avec le personnel de la santé et j'ai compris les objectifs de l'étude et les procédures de recherche. Je comprends ce qu'on attend de moi, ce qui est de répondre à quelques questions au sujet de ma visite à la formation sanitaire aujourd'hui, ma satisfaction avec les services que j'ai reçu, et mes expériences avec la méthode contraceptive que j'ai adopté.

Les risques et les avantages de l'étude m'ont également été présentés et j'ai eu le temps de poser des questions, auxquelles on a répondu de manière satisfaisante. Je comprends aussi que ma participation à cette recherche est volontaire. Je suis libre de refuser de participer à cette étude ou de retirer ma participation à tout moment sans subir de représailles de la part des prestataires de soins de santé.

Au vu de tout ce qui précède, j'accepte volontairement de participer à cette étude.

Date, nom et signature:

_____
_____

Pour de plus amples informations au sujet de cette étude ou si vous estimez que vos droits ont été violés, vous pouvez contacter Dr. Dohbit Sama a l'Hôpital Gynéco Obstétrique de Yaoundé: dohbit@yahoo.com

Vous pouvez également contacter l'administrateur du Comité national d'éthique, le Dr Marceline Djuidje Ngounoue, tél: 237 000 2221 1284, E-mail: cnecprot@yahoo.fr.

Vous pouvez également envoyer un courriel à cnéthique_minsante@yahoo.fr. Le Comité national d'éthique est situé à la Clinique Bastos Face Lycee NkolEton. Yaoundé, Cameroun et son adresse postale est B.P. : 1937, Yaoundé, Cameroun.

9.2.3. Notice d'information - parents/gardiens (Francais)

Votre enfant a été invitée à participer à une étude de recherche. Si vous êtes d'accord, j'aimerais prendre quelques minutes pour vous expliquer ce que cela signifie :

Si vous avez des questions alors que nous parcourons ces informations, demandez-moi de m'arrêter et je prendrai le temps de vous expliquer. Si vous avez des questions plus tard, vous pouvez les poser une fois que j'aurais fini de vous lire ce document, je vais aussi vous donner les coordonnées d'un chercheur qui travaille sur cette étude et qui pourra répondre à vos questions.

Quel est le sujet de l'étude :

Une équipe de chercheurs Camerounais et internationaux mènent une étude sur la santé et le bien-être des adolescentes et jeunes femmes à Yaounde. Votre enfant et l'une d'environ 3,000 femmes invitées à participer à cette étude.

Ce que nous allons demander de votre enfant lors de cette étude :

Si vous acceptez que votre enfant participe à cette étude, on lui demandera de participer à trois courts entretiens téléphoniques, chacun ne devant pas durer plus de 15 minutes. Elle recevra trois appels, un dans deux semaines, un autre dans quatre mois, et un dernier dans un an. Lors de ces appels les enquêteurs lui poseront quelques questions vis-à-vis de sa santé physique et mentale.

La participation de votre enfant est entièrement volontaire :

La participation de votre enfant à cette étude, et votre accord, est entièrement volontaire. Son refus de participer ou son consentement, ou le vôtre, n'affectera en aucune manière les soins ou les services que vous recevrez à l'avenir – dans toute autre formation sanitaire au Cameroun. Même si vous décidez de donner votre autorisation à sa participation aujourd'hui, vous pouvez changer d'avis à tout moment.

Risques et bénéfices :

Cette étude porte un niveau de risque minime. Le seul risque que vous pourriez rencontrer est que les enquêteurs vous demanderont de partager ce que vous pourriez considérez comme des informations personnelles et confidentielles. Cependant, il faut que vous sachiez que si votre enfant ne souhaitez pas répondre à une des questions posées lors de l'entretien, elle pourra simplement le dire et l'enquêteur passera à la question suivante. Si à un moment quelconque de l'entretien votre enfant souhaitera arrêter complètement l'entretien, elle pourra simplement en informer l'enquêteur et arrêter. Elle n'aura jamais à justifier son refus de participer à l'entretien ou de ne pas vouloir répondre à une question.

Sa participation ne garantira pas d'avantages, services ou assistance directs, ni à vous ni à votre famille. Cependant, sa participation aidera les prestataires de soins de santé à développer et à découvrir de nouvelles et meilleures méthodes pour améliorer les services de santé pour les adolescentes à travers le Cameroun. Après l'étude, l'équipe de chercheurs travaillera en étroite collaboration avec le ministère de la Santé publique afin de s'assurer que les résultats de ces travaux éclairent les décisions politiques prises dans tout le pays.

Confidentialité et respect de la vie privée :

Les informations que votre enfant donnera lors de ses l'entretien seront traitées de manière privée et confidentielle. Lorsque les chercheurs analyseront les informations et celles de toutes les autres femmes

ayant participé à l'enquête, les données seront complètement anonymisées afin que personne ne puisse jamais retracer ses réponses à votre enfant. Des informations sur la recherche peuvent apparaître dans des publications, des sites Web et d'autres médias, mais elles resteront anonymes et ni votre enfant ni votre communauté ne seront identifiés.

Prenez tout le temps dont vous avez besoin pour décider si vous souhaitez donner votre consentement pour que votre enfant puisse participer à cette enquête.

9.2.4. Formulaire de consentement éclairé – parents/gardiens (Francais)

Je, soussigné (e), déclare que mon enfant a été invitée à participer à une étude sur la santé et le bien-être des adolescentes et jeunes femmes à Yaoundé coordonnées par le Dr Berk Özler, chercheur principal,

Par M./Mme. _____

J'ai lu attentivement l'avis d'information / on m'a lu l'avis à voix haute. J'en ai ensuite discuté et j'ai compris les objectifs de l'étude et les procédures de recherche. Je comprends ce qu'on attend de mon enfant, ce qui est de répondre à quelques questions au sujet de sa santé et de son bien-être physique et mental.

Les risques et les avantages de l'étude m'ont également été présentés et j'ai eu le temps de poser des questions, auxquelles on a répondu de manière satisfaisante. Je comprends aussi que la participation de mon enfant à cette recherche est volontaire. Je suis libre de refuser d'autoriser mon enfant de participer à cette étude ou de retirer sa participation à tout moment sans subir de représailles.

Au vu de tout ce qui précède, j'accepte volontairement de participer à cette étude.

Date, nom et signature:

_____
_____

Pour de plus amples informations au sujet de cette étude ou si vous estimez que vos droits ont été violés, vous pouvez contacter Dr. Dohbit Sama a l'Hôpital Gynéco Obstétrique de Yaoundé: dohbit@yahoo.com

Vous pouvez également contacter l'administrateur du Comité national d'éthique, le Dr Marceline Djuidje Ngounoue, tél: 237 000 2221 1284, E-mail: cnecprot@yahoo.fr.

Vous pouvez également envoyer un courriel à cnéthique_minsante@yahoo.fr. Le Comité national d'éthique est situé à la Clinique Bastos Face Lycee NkolEton. Yaoundé, Cameroun et son adresse postale est B.P. : 1937, Yaoundé, Cameroun.

9.2.5. Notice of information – adolescents (English)

You are being invited to participate in a research study. If you agree, I would like to take a few minutes to explain to you what this means:

If you have any questions as we go through this information, please ask me to stop and I will take time to explain. If you have questions later, you can ask them to me once I have finished reading this or I will give you the contact details of a researcher who can answer them.

What the study is about:

A team of international and Cameroonian researchers are conducting a study trying to improve the quality of family planning services provided at this hospital. For this purpose, they would like to learn more about your satisfaction with the consultation you received today and your experience with your chosen method of contraceptive in the upcoming weeks and months. All women who came in for a family planning consultation at this hospital since the start of this study have been invited to participate in this study. You are one of approximately 3,000 women who have been, or will be, invited.

What we will ask of you:

If you agree to participate in this study, you will be asked to participate in three short telephone interviews, each of which should last no more than 15 minutes. You will receive three calls, one in two weeks from now, another four months from now, and one final call in one year from now.

During the first call, in about two weeks' time, you will be asked:

- About your satisfaction with the consultation you have received today;
- To confirm certain aspects of today's visit and the consultation you received.

In the remaining two calls, you will be asked about:

- Your satisfaction with the contraceptive method you have chosen;
- Any side-effects you may have experience;
- Whether you have renewed, switched, or abandoned your chosen method of contraception;
- In the final call, 12 months from now, you will also be asked about pregnancies.

Please be assured that there are no right or wrong answers and that it is your own experiences and your own opinions that are valuable to inform the study.

Your participation is voluntary:

Your participation in this study is entirely voluntary. Your refusal to participate in this study, or your acceptance, will not affect the care or services you will receive in the future – in this hospital or anywhere else. Even if you decide to participate today you can change your mind at any time.

Risks and benefits:

This study poses only minimal risk. The only risk you may face is that the interviewers will be asking you to share what you may consider personal and confidential information about contraception and family planning, this can make some people feel uncomfortable. However, remember that if you do not wish to answer any of the questions asked during the interview you can simply say so and the interviewer will

move on to the next question. If at any point during the interview you want to stop the interview entirely you can simply tell the interviewer and you can stop. You will never have to provide any reason for refusing to take part in the interview or for not wanting to respond to any question.

Your participation will not ensure any direct benefits, services, or assistance to yourself or your family. However, your participation will help HGOPY and other healthcare providers develop and discover new and better ways to improve family planning services and access to modern contraceptives for other young women such as yourself. After the study, the team of researchers will be working closely with the Ministry of Public Health and the administration of this hospital to ensure that the findings inform policy decisions made across the entire country.

While extremely rare, it is possible that a client who adopted the pill-COC will develop blood clots (less than 1 in 1,000 people), which may or may not result in further complications. Any client who has adopted the pill-COC at HGOPY during the study who is experiencing any complication will be able to receive treatment for these complications free of charge at the hospital.

Confidentiality and respect for your privacy:

The information you give during the interview will be treated as private and confidential. If you agree, we will pass on your name and any contact information you agree to provide to the interview team so that they can reach you in the future, but when your information and that of all the other women who participated in the interview will be analyzed by the researchers it will be completely anonymized so that no one will ever be able to trace your answers back to you or anyone else. Information about the research may appear in publications, websites, and other media, but it will be anonymous and neither you nor your community will be identified.

Parental consent:

Because you are a minor, if you agree, we will need to ask one of your parents or legal guardians for them to also provide consent for your participation in this study. You cannot participate in this study without the consent of one of your parents or legal guardians. If you agree I will read them a notice of information which contains much of the information I have just read to you, please read this form before we contact your parent/guardian.

Please take as much time as you need to decide if you'd like to participate in this survey.

9.2.6. Informed assent form – adolescents (English)

I, the undersigned, _____, declare that I have been invited to participate in the study entitled *"An adaptive experiment to improve quality in contraceptive counseling,"* coordinated by Dr. Berk Özler, Principal Investigator,

by Mr./Mrs./Ms._____

I read the notice of information carefully/the notice of information was read out loud to me by the health care practitioner. I further discussed it with the health care practitioner and understand the objectives of the study and the research procedures. I understand what is expected of me, which is to answer some questions regarding my visit to the clinic today, my satisfaction with the services I received, and my experiences with the contraceptive method that I have adopted.

The risks and the benefits of the study were also presented to me and I had enough time to ask questions, which were answered satisfactorily. I also understand that my participation in this research is voluntary. I am free to refuse to participate in this study, or to withdraw my participation at any time without experiencing reprisals from health care providers.

In view of all the above, I accept voluntarily to participate in this study.

Date, Name, and Signature:

_____

_____

For further information regarding this study or if you feel that your rights have been violated, please contact Dr. Dohbit Sama at the à l'Hôpital Gynéco Obstétrique de Yaoundé: dohbit@yahoo.com

You can also contact the administrator of National Ethics Committee, Dr Marceline Djuidje Ngounoue, at Tel: 237 000 2221 1284, E-mail: cnecprot@yahoo.fr.

You can also email cnéthique_minsante@yahoo.fr. The National Ethics Committee is physically located at Clinique Bastos Face Lycee NkolEton. Yaoundé, Cameroon and its postal address is P. O. Box 1937, Yaoundé, Cameroon

9.2.7. Notice of information – parents/guardians (English)

Your daughter, or dependent, has been invited to participate in a research study. If you agree, I would like to take a few minutes to explain to you what this means:

If you have any questions as we go through this information, please ask me to stop and I will take time to explain. If you have questions later, you can ask them to me once I have finished reading this or I will give you the contact details of a researcher who can answer them.

What the study is about:

A team of international and Cameroonian researchers are conducting a study about the health and welfare of adolescent females and young women in Yaounde. Your daughter/dependent is one of approximately 3,000 women who have been, or will be, invited.

What we will ask of your daughter:

If you agree to let your daughter/dependent participate in this study, she will be asked to participate in three short telephone interviews, each of which should last no more than 15 minutes. She will receive three calls, one in two weeks from now, another four months from now, and one final call in one year from now. During these calls she will be asked a short health-related questionnaire about her physical mental, and sexual and reproductive health.

Participation is voluntary:

Your consent and her participation in this study are entirely voluntary. Her refusal or acceptance to participate in this study, or yours, will not affect the care or services you will receive in the future. Even if you decide to allow her to participate today you can change your mind at any time.

Risks and benefits:

This study poses only minimal risk. The only risk she may face is that the interviewers will be asking her to share what some may consider personal and confidential information, this can make some people feel uncomfortable. However, if she does not wish to answer any of the questions asked during the interview she can simply say so and the interviewer will move on to the next question. If at any point during the interview she wants to stop entirely she can simply say so and the interview will stop. She will never have to provide any reason for refusing to take part in the interview or for not wanting to respond to any question.

Her participation will not ensure any direct benefits, services, or assistance to yourself or your family. However, her participation will help Cameroonian healthcare providers develop and discover new and better ways to improve health services for adolescents and young women across the country. After the study, the research team will be working closely with the Ministry of Public Health to ensure that the findings inform policy decisions made across the entire country.

Confidentiality and respect for privacy:

The information given during the interviews will be treated as private and confidential. When her information and that of all the other women who participated in the interview will be analyzed by the researchers it will be completely anonymized, so that no one will ever be able to trace her answers or

anyone else's. Information about the research may appear in publications, websites, and other media, but it will be anonymous and neither her nor your community will be identified.

Please take as much time as you need to decide if you'd like to consent to your daughter/dependent to participate in this survey.

10. Study Team

Principal investigators contributing to all aspects of the research design, data collection, and analysis are ***Susan Athey*** (Stanford University) – whose expertise includes machine learning –, ***Sarah Baird*** (George Washington University), ***Julius Sama Dohbit*** (HGOPY), ***Julian Jamison*** (University of Exeter and the World Bank), ***Craig McIntosh*** (UC San Diego), and ***Berk Özler*** (World Bank).

We have three collaborators from HGOPY: Professor Julius Sama Dohbit is the chief of research and evaluation at the hospital. Professor Pascal Foumane, who was a part of the working group to develop the "app," is head of Gynecology and Obstetrics and a clinical and research obstetrician-gynecologist. Esther Ewolo, whose contributions to the development of the job-support tool and training other providers at HGOPY has been invaluable, is a family planning nurse and former employee of HGOPY. All three individuals were original members of the multi-disciplinary working group, which has been developing the decision-support tool since 2017.

11. Budget

Breakdown of activities:

Activity	*Cost*
Research assistant / Project manager	$50,000
Consultant: nurse trainer	$6,000
Consultant: technical assistant	$10,000
Consulting firm to manage PBF contract with Hospital	$50,000
Follow-up data collection	$66,000
Travel (2 trips for PIs, 4 for research assistant)	$20,000
Tablets	$1,000
Total	**$203,000**

Sponsor:

The World Bank

1818 H Street NW, Washington, DC, 20433 USA

12. Bibliographic references

Bajracharya, A., Veasnakiry, L., Rathavy, T., & Bellows, B. (2016). "Increasing uptake of long-acting reversible contraceptives in Cambodia through a voucher program: evidence from a difference-in-differences analysis." *Global Health: Science and Practice*, 4(Supplement 2), S109-S121

Bates, M.A., Glennerster, R., Gumede, K., & Duflo, E. (2012). "The Price is Wrong." *Field Actions Science Reports*, special issue 4, https://journals.openedition.org/factsreports/1554

Boddam-Whetham, L., Gul, X., Al-Kobati, E., & Gorter, A. C. (2016). "Vouchers in fragile states: reducing barriers to long-acting reversible contraception in Yemen and Pakistan." *Global Health: Science and Practice*, 4(Supplement 2), S94-S108

Chin, Richard. 2016. Adaptive and flexible clinical trials. New York: CRC Press.

Charyeva, Z., Oguntunde, O., Orobaton, N., Otolorin, E., Inuwa, F., Alalade, O., & Abegunde, D. (2015). "Task shifting provision of contraceptive implants to community health extension workers: results of operations research in northern Nigeria." *Global Health: Science and Practice*, 3(3), 382-394.

Donovan, J.L. (1995). "Patient Decision Making: The Missing Ingredient in Compliance Research." *International Journal of Technology Assessment in Health Care*, 11(3), 443-455.

Finkelstein, Amy, Taubman, S., Wright, B., Bernstein, M., Gruber, J., Newhouse, J.P., Allen, H., Baicker, K., and the Oregon Health Study Group. NBER Working Paper 17190, July 2011, National Bureau of Economic Research.

Gilliam, M.L., Martins, S.L., Bartlett, E., Mistretta, S.Q., and Holl, J.L. (2014). "Development and testing of an iOS waiting room job-support tool for contraceptive counseling in a Title X family planning clinic." *American Journal of Obstetrics and Gynecology*, 211(5), 481.e1-8

Gueye, B., Wesson, J., Koumtingue, D., Stratton, S., Viadro, C., Talla, H., … & Daff, B. M. (2016). "Mentoring, Task Sharing, and Community Outreach Through the *TutoratPlus* Approach: Increasing Use of Long-Acting Reversible Contraceptives in Senegal." *Global Health: Science and Practice*, 4(Supplement 2), S33-S43

Hubacher, D., Olawo, A., Manduku, C., Kiarie, J., and Chen, P-L (2012). "Preventing unintended pregnancy among young women in Kenya: prospective cohort study to offer contraceptive implants." Contraception, 86(5), 511-517

Hubacher, D., Spector, H., Monteith, C., Chen, P-L, and Hart, C. (2015). "Rationale and enrollment results for a partially randomized patient preference trial to compare continuation rates of short-acting and long-acting reversible contraception." Contraception, 91(3), 185-192

_____(2017). "Long-acting reversible contraceptive acceptability and unintended pregnancy among women presenting for short-acting methods: a randomized patient preference trial." *American Journal of Obstetrics and Gynecology*, 216(2), 101-109

Johnson, E.J., Steffel, M., & Goldstein, D.G. (2005). "Making Better Decisions: From Measuring to Constructing Preferences." *Health Psychology*, 24(4 Supplement), S17-S22.

Khu, N. H., Vwalika, B., Karita, E., Kilembe, W., Bayingana, R. A., Sitrin, D., and others (2013). "Fertility goal-based counseling increases contraceptive implant and IUD use in HIV-discordant couples in Rwanda and Zambia." *Contraception*, 88(1), 74-82

Porsdam Mann, S., Savulescu, J., Sahakian, B.J. 2016 "Facilitating the ethical use of health data for the benefit of society: electronic health records, consent and the duty of easy rescue." *Phil. Trans. R. Soc. A* **374**:20160130. http://dx.doi.org/10.1098/rsta.2016.0130

Pleah, T., Hyjazi, Y., Austin, S., Diallo, A., Dao, B., Waxman, R., & Karna, P. (2016). "Increasing use of postpartum family planning and the postpartum IUD: early experiences in West and Central Africa." *Global Health: Science and Practice*, 4(Supplement 2), S140-S152.

Samuel, M., Fetters, T., & Desta, D. (2016). "Strengthening postabortion family planning services in Ethiopia: expanding contraceptive choice and improving access to long-acting reversible contraception." *Global Health: Science and Practice*, 4(Supplement 2), S60-S72.

Tomlin, K., Bambulas, T., Sutton, M., Pazdernik, V., & Coonrod, D. V. (2016). "Motivational Interviewing to Promote Long-Acting Reversible Contraception in Postpartum Teenagers." *Journal of Pediatric and Adolescent Gynecology*, 30(3), 383-388

Trussell, J. (2011). "Contraceptive efficacy," in: Hatcher R, Trussell J, Nelson A, Cates W, Kowal D, Policar M, eds. Contraceptive technology, 20th revised ed. Atlanta (GA): Ardent Media, Inc; 2011. p. 779-863.

Villar, Sofía S., Jack Bowden, and James Wason. "Multi-Armed Bandit Models for the Optimal Design of Clinical Trials: Benefits and Challenges." Statistical science: a review journal of the Institute of Mathematical Statistics 30.2 (2015): 199–215.

Wilson, Susan F., Nathalie Degaiffier, Sarah J. Ratcliffe & Courtney A. Schreiber (2016). "Peer counselling for the promotion of long-acting, reversible contraception among teens: a randomised, controlled trial." *The European Journal of Contraception & Reproductive Health Care*, 21:5, 380-387

13. Accord de principe

REPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie
MINISTERE DE LA SANTE PUBLIQUE
HOPITAL GYNECO-OBSTETRIQUE
ET PEDIATRIQUE DE YAOUNDE
HUMILITE – INTEGRITE – VERITE - SERVICE

REPUBLIC OF CAMEROON
Peace-Work-Fatherland
MINISTRY OF PUBLIC HEALTH
YAOUNDE GYNAECO-OBSTETRIC
AND PEDIATRIC HOSPITAL
HUMILITY – INTEGRITY – TRUTH - SERVICE

N°E598 /L/DG/DGA

Yaoundé le 8 MAI 2019

LE DIRECTEUR GENERAL

AU

Docteur BERK OLZER
BANQUE MONDIALE YAOUNDE

Objet : Accord de principe

Monsieur,

Répondant favorablement à votre demande dont l'objet est l'autorisation d'exécuter une recherche sur le thème :« *A sequential and adaptive experiment to increase the uptake of long-acting reversible contraceptives in Cameroon,* » que vous proposez de réaliser à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé ;

J'ai l'honneur de vous marquer mon accord de principe pour que vous puissiez mener cette activité dans l'enceinte de l'Hôpital comme souhaité.

Toutefois, je tiens à vous rappeler que cet accord ne vaut pas autorisation administrative de recherche (AAR) acte relevant de la seule compétence du ministre de la Santé Publique.

Je vous prie de croire Docteur, à l'assurance de ma considération distinguée. /-

COPIE
DM
DAF
COOP

LE DIRECTEUR GENERAL

P.D

Dr. Nsom Mba Charles
Médecine Générale
Maîtrise en Santé Publique

N°1827 ; Rue 1564 ; Ngousso ; Yaoundé 5ème
BP : 4362 Tél. : 242 05 92 94 / 222 21 24 33 / 222 21 24 31 Fax : 222 21 24 30
E-mail : hgopy@hotmail.com / hgopy@hgopy.cm

Data sharing agreement

DATA SHARING AGREEMENT

Between

Yaoundé Gynecological, Obstetrics, and Pediatric Hospital,

AND

The World Bank, 1818 H Street NW, Washington, DC, 20433 USA

I. ENTITIES RECEIVING AND PROVIDING DATA

ENTITY RECEIVING DATA: The World Bank

CONTACT PERSON: Berk Ozler, PhD

ADDRESS: 1818 H Street NW, Washington, DC, 20433 USA

NUMBER: +1 (202) 368-4109 EMAIL: bozler@worldbank.org

ENTITY PROVIDING DATA: Yaoundé Gynecological, Obstetrics, and Pediatric Hospital,

CONTACT PERSON: Prof. Dohbit, MD

TITLE: Professor

ADDRESS: No 1827, Rue 1564, Ngousso, Yaoundé 5th. B.P : 4362 Yaoundé, Cameroon.

PHONE NUMBER: +237 6 77 78 60 59 EMAIL: dohbit@yahoo.com

II. PURPOSE, AUTHORITY AND TERM OF AGREEMENT

A. PURPOSE

The Yaoundé Gynecological, Obstetrics, and Pediatric Hospital (HGOPY), Cameroon and The World Bank (WB), USA are entering into an agreement which will allow the exchange of data and clarification of data access and utilization. The data will be generated in the context of a research program seeking to inform on effective ways to improve care in the provision of family planning services.

B. PERIOD OF PERFORMANCE

This Agreement shall be effective when signed by both parties and shall continue until terminated pursuant to the termination clause contained herein.

III - DESCRIPTION OF DATA/DATA WORKPLAN

The following data will be provided under this agreement: The HGOPY team will employ a tablet-based job-support tool during family planning consultations, the tablets will collect data during these consultations and automatically upload it to a secure password protected web-based server (HIPAA compliant). This server will be accessible only to a specially designated member of the medical staff at HGOPY, who will be bound by patient-doctor confidentiality and medical secrecy.

This dedicated medical staff member will be responsible for sharing anonymized and de-identified data to the research team. The data will be shared though a **separate** cloud-based server which will be accessible only to the HGOPY team and the research team.

For a subset of clients selected to participate in follow-up interviews and who consented to having their information shared with researchers, the HGOPY team will share the data including personally identifiable information.

IV. ACCESS TO DATA

A. METHOD OF ACCESS AND TRANSFER

The data will be shared between the HGOPY team and the WB team through a password protected secure cloud-based server.

B. *FREQUENCY OF DATA EXCHANGE*

Data will be shared by the HGOPY team in weekly batches until completion of the research project.

V. SECURITY OF DATA

The research team will not attempt to identify individuals' records by any method. All reasonable precautions shall be taken to secure the data from individuals who do not specifically have authorized access. Data shall be kept on a password-protected server in a secure environment. Project data will be kept in a separate directory on the server which is also password-protected and will be accessible only by WB research team members specifically authorized access as provided in this Agreement.

VI. CONFIDENTIALITY

A. REGULATIONS COVERING CONFIDENTIALITY OF DATA

The use and disclosure of information obtained under this contract shall be subject to penalties identified in law. The Cameroon team and WB shall maintain the confidentiality of any information which may, in any manner, identify individual subjects.

B. NON-DISCLOSURE OF DATA

The HGOPY team and the WB shall not disclose, in whole or in part, the data described in this agreement to any individual or agency not specifically authorized by this agreement.

The Cameroon team and WB will not disclose directly to, or use for the benefit of, any third-party confidential information, knowledge or data acquired by virtue of its relationship with the other party named in this Agreement, without the prior approval of the other party. It is understood and agreed by the parties that the obligations of this paragraph shall survive the expiration of termination of this Agreement.

VII. PROPERTY RIGHTS

Original materials prepared by either party, including, without limitation: reports, proposals, analysis, writings, sound recordings, pictorial reproductions or materials of any type whatsoever, are and shall remain the joint property of the research team. The HGOPY team and WB team will assert no right, claim or interest of any nature whatsoever with respect thereto, including specifically but, without limitation, any claim to statutory copyright or patent.

Data Use and Ownership

The HGOPY team and the WB team shall be cited in reports, presentations, and scientific papers with respect to their contribution in data generation.

VIII. TERMINATION

Either party may terminate this Agreement upon 30 days prior written notification to the other party.

IX. ALL WRITINGS CONTAINED HEREIN

This Agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties hereto.

The World Bank

Berk Özler

Date: 6/18/2019

Yaoundé Gynecological, Obstetrics, and Pediatric Hospital

Prof. Dohbit Sama

Date: 6/18/2019

15. Technical Appendix

Technical Appendix

June 18, 2019

Abstract

In this short appendix, we will formally explain the contextual bandit algorithm used to decide the intervention assignment during a counseling session.

1 Background and definitions

Data Following the contextual bandit literature, the information collected about experiment participants will be called *contexts* or *covariates* $X_i \in \mathcal{X}$; the available interventions will be called *arms* or *actions* $W_i \in \mathcal{W}$; the *outcome* is contraceptive $O_i \in \mathcal{O}$ selected by the client. To each contraceptive we will associate a numerical value $Y_i \in \mathbb{R}$ called the *reward*, explained in more detail below.

For instance, having observed a woman's contexts such as age, current number of children etc (contexts), we can assign her a the set of contraceptive discounts and recommendation (arm), observe that she has chosen an implant (outcome); as a result, the algorithm receives a numerical value corresponding to perceived benefit of that transaction. Each unit in our data is described by a tuple of (X_i, W_i, O_i, Y_i). The set of sequential data points is called a *history*.

The *cost* function outputs the expected amount of subsidy that will need to be disbursed when presenting a client with covariates x a particular subsidy profile from arm w.

$$\text{Cost}(x, w) = \sum_c \underbrace{\text{Subsidy}(w, c)}_{\text{Amt. given for method } c \text{ in arm } w} \times \underbrace{\mathbb{P}\left[O_i = c \,\middle|\, X_i = x, W_i = w\right]}_{\text{Prob. method adoption under subsidy}} \tag{1}$$

Also, the *unwanted pregnancy* function yields the probability that a client with covariates x will have an unwanted pregnancy within a year of receiving arm w.

$$\text{Preg}(x, w) = \sum_c \underbrace{\mathbb{P}\left[G_i = 1 \,\middle|\, X_i = x, C_i = c\right]}_{\text{Prob. unwanted pregnancy}} \times \underbrace{\mathbb{P}\left[O_i = c \,\middle|\, X_i = x, W_i = w\right]}_{\text{Prob. method adoption if arm } w} \tag{2}$$

Finally, the *pregnancy threshold* function $p(x)$ is a mapping from covariates to a desired probability of unwanted pregnancies for any client with covariates x.

Policies A *policy* is a potentially randomized rule to select actions given contexts. More formally, it is a function mapping points in the context space to a point in the simplex of available arms.

$$\pi : \mathcal{X} \to \Delta\mathcal{W} \tag{3}$$

Bandit problems A *bandit problem* is a sequential decision problem in which a decision maker, also called the *agent* or the *learner*, produces policies based on the past history. A *bandit algorithm* is a method to produce policies π_i given the history collected up to period i. An extensive literature on algorithms for the bandit problem traditionally focuses on learning a sequence of personalized policies that have low *regret* Lattimore and Szepesvári (2018), which is defined as the cumulative expected difference between the attained rewards and optimal rewards

$$Regret(n) = \sum_{i=1}^{n} \max_{\tilde{\pi}} E[Y(\tilde{\pi}(X_i))] - E[Y(\pi_i(X_i))] \tag{4}$$

In the context of this experiment, our goal is to find a policy that assigns combinations of subsidies and recommendation method that will minimize the *expected cost* (1) while limiting the expected probability of pregnancy (2) low (i.e. keeping this probability below the threshold function $p(x)$.)

2 Contextual bandit algorithm

During each family planning counseling, the following takes place.

Contexts The client answers the survey, revealing her context X_i. The nurse records her answers in the app. A set of four contraceptives is selected deterministically depending on the client's health status and survey answers.

Arm selection Our algorithm selects an arm W_i consisting of a set of contraceptive subsidies and a contraceptive recommendation method. During the *initial phase*, these arms are selected at random. During the *adaptive phase*, our algorithm will have two objectiives: first, to minimize the *expected cost* (1) while keeping the expected probability of pregnancy (2) relatively low; second to minimize uncertainty about which arm is best by introducing randomization in the arm selection process (exploration).

In a traditional Thompson Sampling algorithm (see Russo et al. (2018) for a review tutorial), arms are drawn from the Bayesian posterior probability that

they are maximal. Here, we follow a similar approach. However, instead of using a Bayesian posterior probability, we will evaluate the uncertainty around our estimates using a bootstrap procedure.

1. Draw M bootstrap samples of the data $D^{*m} := (X_i^{*m}, W_i^{*m}, O_i^{*m})_i$

2. Using each bootstrap sample, estimate the probability distribution of contraceptive adoption

$$\mathbb{P}^{*m}\left[O_i = c \,\middle|\, X_i = x, W_i = w\right] \tag{5}$$

   Plug these probabilities into the definitions of cost and unwanted pregnancy probabilities:

$$\text{Cost}^{*m}(x, w) = \sum_c \text{Subsidy}(w, c)\mathbb{P}^{*m}\left[O_i = c \,\middle|\, X_i = x, W_i = w\right] \tag{6}$$

$$\text{Preg}^{*m}(x, w) = \sum_c \mathbb{P}\left[G_i = 1 \,\middle|\, X_i = x, C_i = c\right] \mathbb{P}\left[O_i = c \,\middle|\, X_i = x, W_i = w\right] \tag{7}$$

3. Using each bootstrap sample, compute the *value* of arm w for every point x in the covariate space.

$$V^{*m}(x, w) = -\text{Cost}^{*m}(x, w) - \lambda\,\text{Preg}^{*m}(x, w) \tag{8}$$

4. Compute and store the probability that each arm is best across bootstrap samples

$$q(x, w) = \frac{1}{M}\sum_m \{\arg\max_{w'} V^{*m}(x, w') = w\} \tag{9}$$

5. Approximate the solution to the the constrained minimization problem

$$\text{BestArm}^{*m}(x) = \arg\min_w \text{Cost}^{*m}(x, w) \tag{10}$$

$$\text{s.t. } \text{Preg}^{*m}(x, w) \leq \bar{p}(x) \tag{11}$$

6. Compute and the probability that each arm would be the best, given our current level of uncertainty.

$$q(x, w) = \frac{1}{M}\sum_m \{\text{BestArm}^{*m}(x) = w\} \tag{12}$$

7. Draw from the probability computed in the previous step.

$$W_i \sim q(x, \cdot) \tag{13}$$

Outcome and reward revealed The client chooses a contraceptive O_i. The bandit algorithm receives a corresponding reward Y_i recording the numerical value associate with the client's choice. The tuple (X_i, W_i, O_i, Y_i) is stored.

In practice, we will work in batches, so that the probabilities (12) are precomputed for each possible combination of contexts x, and during a counseling session the app simply has to draw from this probability. Once a pre-determined number of observations is reached, we can recompute these probabilities and update the app.

References

Lattimore, T. and Szepesvári, C. (2018). *Bandit algorithms*. Cambridge University Press.

Russo, D. J., Van Roy, B., Kazerouni, A., Osband, I., Wen, Z., et al. (2018). A tutorial on thompson sampling. *Foundations and Trends® in Machine Learning*, 11(1):1–96.

16. Cue cards for consultation

Cue Cards for Counseling Adolescents on Contraception

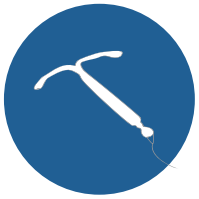
About the Cue Cards

This set of contraceptive counseling cue cards was developed to support a range of providers (such as facility-based providers, community health workers, pharmacists, outreach workers, counselors, and peer providers) in counseling young people on their contraceptive options. The cue cards provide information that is particularly relevant to adolescents (10–19 years), but can also be used with young people over age 19. The cards can be adapted to meet local circumstances and contexts.

One side of the card serves to remind the provider of important information about the contraceptive method, such as the effectiveness, advantages, and disadvantages. The provider should use this information to educate an adolescent client about the full range of available methods and support the adolescent client in choosing a method that is right for her/him. After the client chooses a method, the provider can turn to the other side of the card to give the client specific instructions on her/his method of choice. This side of the card includes information that the provider should tell the adolescent client about how to use the method, possible side effects, and reasons to return to the provider.

The cue cards cover the following methods:

Implants

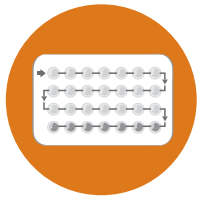


Levonorgestrel Intrauterine Device (LNG-IUD)

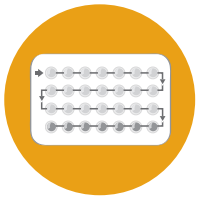
Copper-bearing Intrauterine Device (Cu-IUD)

DMPA (injectables)

Lactational Amenorrhea Method (LAM)



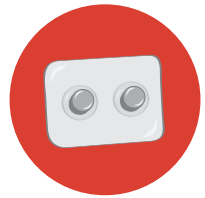
Combined Oral Contraceptives (COCs)



Progestin-Only Pills (POPs)

Male Condom

Female Condom



Emergency Contraceptive Pills (ECPs)

Pathfinder INTERNATIONAL
Sexual and reproductive health without fear or boundary

Cue Cards for Counseling Adolescents on Contraception

Counseling Tips

- **It is important to remember that adolescents—regardless of age, relationship, marital, or childbearing status—are eligible for the full range of contraceptive methods.** The World Health Organization's (WHO) Medical Eligibility Criteria states that age alone is not a contraindication for any contraceptive method included in this set of cue cards, including long-acting methods. Providers have an obligation to provide adolescents with evidence-based and unbiased information about a full range of methods that might meet their needs. However, the provider should verify that the adolescent does not have any other condition that precludes use of a particular method per the WHO's Medical Eligibility Criteria.
- **The cue cards can be used in any order based on the stated preferences and medical eligibility of the client.** They are arranged in order of method effectiveness (from most effective to least effective) to encourage you to include method effectiveness as a key component of client counseling and to reinforce the fact that long-acting methods are an appropriate option for adolescents.
- **Adolescent clients should have full information on a method, including potential side effects.** This can help minimize an adolescent's concern if she/he does experience a side effect. However, adolescent clients also have more misinformation than adults about contraception and, as a result, often have greater fears about side effects. **Therefore, when counseling adolescent clients on possible side effects, be sure to start by mentioning that most adolescent clients do not experience any side effects.**
- **Make sure to emphasize that *only* male and female condoms offer protection from sexually transmitted infections (STIs), HIV, *and* pregnancy**. Therefore, if the client chooses a contraceptive method other than condoms, a condom must also be used to prevent pregnancy and STIs/HIV (dual method use).
- **If you need additional information about the contraceptive methods, consult** *Family Planning: A Global Handbook for Providers* (JHU-CCP/WHO, 2011)* and *Medical Eligibility Criteria for Contraceptive Use* (WHO, 2015).

*An updated version is pending.

As you counsel adolescents remember to:

- ✓ Ensure privacy and confidentiality
- ✓ Be respectful of the client's choices, culture, religion, and sexuality
- ✓ Listen actively and show interest
- ✓ Be attentive to the client's questions and specific needs
- ✓ Use clear language the client can understand
- ✓ Avoid one-way communication and ask open-ended questions
- ✓ Avoid judgmental attitudes and behaviors—don't lecture, scold, or tell the adolescent what he/she should do
- ✓ Provide unbiased, evidence-based information using the cue cards to ensure the adolescent has a choice of methods

Implants

What are they?

Implants are small flexible rods that contain the hormone progestin. The capsules are placed under the skin of a woman's upper arm and can prevent pregnancy for 3–5 years, depending on the type. There are several types of implants:

- **Jadelle:** 2 rods, effective for 5 years
- **Implanon/Implanon NXT:** 1 rod, effective for 3 years
- **Sino-implant (II):** 2 rods, effective for 5 years

How effective are they?

If 100 women use an implant, typically less than 1 becomes pregnant during the first year. Over the 3–5 years (depending on type), up to 1 pregnancy occurs per 100 women using an implant.

How do implants work?

Implants work by thickening cervical mucus, blocking sperm from meeting an egg, and by preventing the release of the egg from the ovary.

Not recommended for adolescents who:

- Have unexplained vaginal bleeding (requires examination)

Advantages

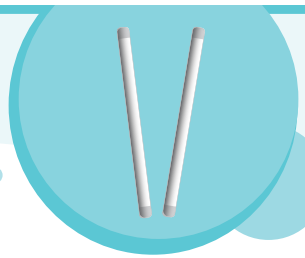
- Safe and effective
- Long lasting (3–5 years) and no daily action required
- Monthly bleeding becomes very light and often disappears after a year
- Can become pregnant again immediately after removing the implants
- Can be used immediately postpartum, whether or not the woman is breastfeeding
- Doesn't interfere with sex
- May improve anemia
- Can be used discreetly

Disadvantages

- Menstrual pattern will probably change
- Doesn't protect against STIs/HIV
- Requires a health provider to insert and remove

Check medical eligibility criteria if adolescent has other serious health problems.

Implants



Show the client the implants and explain the following:

How to use implants

- The small rods or capsules are inserted under the skin of the client's upper arm.
- If implant is inserted more than 7 days after the start of monthly bleeding (or more than 5 days for Implanon/Implanon NXT), the client will need a back-up method for the first 7 days. The implant will need to be removed after 3–5 years depending on implant type and client's weight.
- In postpartum women, there is no need for a back-up method if the woman is less than 6 months postpartum, exclusively breastfeeding and her monthly bleeding has not returned. Otherwise a back-up method is required for the first 7 days.
- If a woman is heavier than 80 kg, advise her that Jadelle will become less effective after 4 years of use.

Possible side effects may include:

- Changes in monthly bleeding: irregular spotting or prolonged light to moderate bleeding in the beginning. Later, bleeding is likely to be lighter, less frequent, or stop altogether.
- Weight gain, breast tenderness, headaches, dizziness, nausea, mood changes.

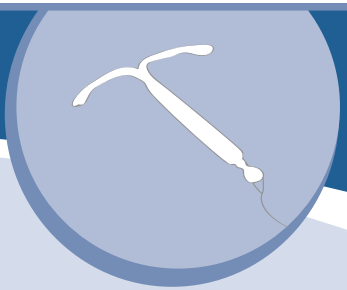
Reasons to return to the provider

- Pus, heat, redness, or pain at the insertion site that worsens or does not go away (could indicate an infection at the site)
- Migraine headaches with blurred vision
- Implant seems to be coming out
- In the event of significant weight gain, as this may reduce the long-term effectiveness of the implant
- Any time there is a problem or if either partner has been exposed to an STI
- A resupply of condoms is needed (never run out before returning)

Implants do not protect against STIs/HIV: To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Have the client repeat this information back to you.

Levonorgestrel Intrauterine Device (LNG-IUD)



What is it?

A levonorgestrel IUD (LNG-IUD) is a small plastic device that is inserted into the uterus to prevent pregnancy. Unlike the copper-bearing IUD, the LNG-IUD releases a small amount of hormone directly to the uterus.

How effective is it?

If 100 women use an LNG-IUD for 1 year, typically less than 1 woman will become pregnant.

How does the LNG-IUD work?

The LNG-IUD works by preventing sperm from joining with the egg. In some women the LNG-IUD also prevents an egg from being released from the ovary.

Not recommended for women who:

- Are 48 hours to 4 weeks postpartum
- Have postpartum sepsis or postabortion sepsis
- Have unexplained vaginal bleeding (must have an examination before initiating method)
- Have active pelvic inflammatory disease, gonorrhea, or chlamydia (initiation only, continuation of method is acceptable)
- Have uterine fibroids or other distortion of the uterine cavity
- Have a very high individual likelihood of STIs (for instance, women who have multiple sexual partners or whose partner has other sexual partners). Under these circumstances, insertion should be delayed until appropriate testing and treatment have occurred.
- Have AIDS and are not clinically well (initiation only)

Check medical eligibility criteria if adolescent has other serious health problems.

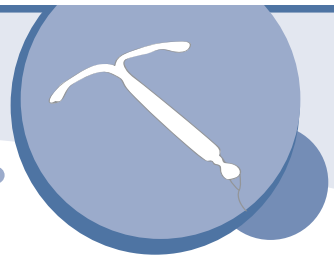
Advantages

- Safe, effective, and long acting (up to 5 years)
- Easy to remove (by the provider) and the client can become pregnant immediately
- No daily action required
- Doesn't interfere with sex
- Can be used discreetly—no visible clues that it is used (occasionally a partner may feel the strings during sex)
- Can be inserted up to 48 hours postpartum or from 4 weeks postpartum onwards
- Doesn't interfere with breastfeeding
- Can be used by young women, including those who have never been pregnant
- Monthly bleeding becomes very light, and may stop completely

Disadvantages

- Slight pain during the first few days after insertion
- Irregular monthly bleeding
- Doesn't protect against STIs/HIV
- Requires a health care provider to insert and remove

Levonorgestrel Intrauterine Device (LNG-IUD)



Show the client the LNG-IUD and explain the following:

How to use the LNG-IUD

- The LNG-IUD is inserted by the provider once and can stay in place for up to 5 years.
- The LNG-IUD can be inserted up to 7 days after the start of monthly bleeding with no pregnancy assessment, and no need for a back-up method.
- If it is more than 7 days since the start of monthly bleeding, the provider should be reasonably certain you are not pregnant. You will need to use a back-up method for 7 days.
- During the postpartum period, the LNG-IUD can be inserted immediately after delivery of the placenta, up to 48 hours postpartum or from 4 weeks postpartum onwards.
- The client should come for a check-up 3–6 weeks after insertion, but no additional follow-up is required (unless there is a problem).
- Checking the strings is optional. The strings may be checked during the first few months and after monthly bleeding to verify that the LNG-IUD is still in place. *Explain how to check strings.*

The LNG-IUD does not protect against STIs/HIV: To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Possible side effects may include:

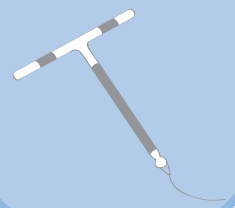
- Bleeding is likely to be lighter, less frequent, or stop altogether
- Possible infection
- Pain and cramping during insertion and in the first few days after LNG-IUD insertion
- Headache
- Dizziness
- Nausea/vomiting

Reasons to return to provider

- Abnormal bleeding or discharge
- Pain (abdominal or pain with intercourse)
- Fever
- Strings are missing or you feel the hard plastic of an IUD that has partially come out
- Any time there is a problem or if either partner has been exposed to an STI
- Any time a resupply of condoms is needed (never run out completely before returning)

Have the client repeat this information back to you.

Copper-bearing Intrauterine Device (Cu-IUD)



What is it?

A copper-bearing IUD (Cu-IUD) is a small plastic and copper device that is inserted into the uterus to prevent pregnancy. Unlike the LNG-IUD, the Cu-IUD does not contain any hormones.

How effective is it?

If 100 women use a Cu-IUD for 1 year, typically less than 1 woman becomes pregnant.

How does the Cu-IUD work?

The Cu-IUD works by preventing sperm from joining with the egg.

Not recommended for adolescents who:

- Are 48 hours to 4 weeks postpartum
- Have postpartum sepsis or post-septic abortion
- Have unexplained vaginal bleeding (must do an examination before initiating method)
- Have active pelvic inflammatory disease, chlamydia, or gonorrhea (initiation only, continuation of method is acceptable)
- Have a very high individual likelihood of STIs (for instance, women who have multiple sexual partners or whose partner has other sexual partners). Under these circumstances, insertion should be delayed until appropriate testing and treatment have occurred.
- Have AIDS and are not clinically well (initiation only)

Check medical eligibility criteria if adolescent has other serious health problems.

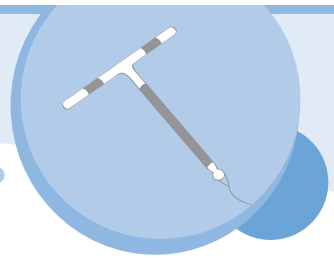
Advantages

- Safe, effective, and long-acting (up to 12 years)
- Easy to remove (by the provider) if the client wants to become pregnant
- No daily action required
- Doesn't interfere with sex
- Can be used discreetly—no visible clues that it is used (occasionally a partner may feel the strings during sex)
- Can be inserted up to 48 hours postpartum or from 4 weeks postpartum onwards
- Doesn't interfere with breastfeeding
- Can be used by young women, including those who have never been pregnant
- The copper Cu-IUD can also be used as emergency contraception to prevent pregnancy if inserted within 5 days of unprotected sex.

Disadvantages

- Slight pain during the first few days after IUD insertion
- Heavier and/or longer periods, which normally decrease during the first and second years
- Doesn't protect against STIs/HIV
- Requires a health care provider to insert and remove

Copper-bearing Intrauterine Device (Cu-IUD)



Show the client the Cu-IUD and explain the following:

How to use the Cu-IUD

- The Cu-IUD is inserted by the provider once and can stay for up to 12 years.
- The Cu-IUD can be inserted up to 12 days after the start of monthly bleeding with no pregnancy assessment. If it is more than 12 days since the start of monthly bleeding, the provider should be reasonably certain you are not pregnant.
- During the postpartum period, the Cu-IUD can be inserted immediately after delivery of the placenta, up to 48 hours postpartum, or from 4 weeks postpartum onwards
- The client should come for a check-up 3–6 weeks after insertion, but no additional follow-up is required (unless there is a problem).
- Checking the strings is optional. The strings may be checked during the first few months and after monthly bleeding to see if the IUD is still in place. *Explain how to check strings*.

Possible side effects may include:

- Heavier, longer, and/or irregular bleeding (usually decreases after first 3–6 months)
- More cramps and pain during monthly bleeding
- Increased vaginal discharge
- Possible infection
- Pain and cramping during insertion and the first few days after IUD insertion

Reasons to return to provider

- Abnormal bleeding or discharge
- Pain (abdominal or pain with intercourse)
- Fever
- Strings are missing or you feel the hard plastic of an IUD that has partially come out.
- Any time there is a problem or if either partner has been exposed to an STI
- Any time a re-supply of condoms is needed (never run out completely before returning)

The IUD does not protect against STIs/HIV: To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Have the client repeat this information back to you.

DMPA: Injectable Contraceptive

What is it?

DMPA, sometimes known as “the shot” or “Depo,” is an injection containing the hormone progestin. The injection is given every 3 months. There are several types of injectable contraceptives. This card refers to DMPA, not NET-EN or monthly combined injectables.

How effective is it?

If 100 women use DMPA for 1 year, typically 3 become pregnant.

How does DMPA work?

DMPA works by preventing the release of the egg from the ovary. Without an egg, a woman cannot become pregnant.

Not recommended for adolescents who:

- Have unexplained vaginal bleeding (before evaluation)

Note: The 2015 WHO Medical Eligibility Criteria recommend that clients at high risk of HIV should be informed that current research is unclear on whether this method of contraception increases risk of HIV acquisition. Although the WHO has declared DMPA safe for use by women at high risk of HIV, they recommend that condoms are used simultaneously as a method of STI prevention.

Check medical eligibility criteria if adolescent has other serious health problems.

Advantages

- Safe and effective
- Can be administered by non-physician health care workers
- Lasts for 3 months, no daily action required
- Discreet
- Monthly bleedings become very light and often disappear after a year of use
- Completely reversible—can become pregnant again after stopping DMPA, but there might be a delay of several months
- Can be used while breastfeeding
- Doesn’t interfere with sex
- May improve anemia

Disadvantages

- Monthly bleeding pattern will probably change
- Increased appetite may cause weight gain
- On average, a 4-month longer delay in ability to get pregnant after stopping DMPA compared to other methods
- Doesn’t protect against STIs/HIV

DMPA: Injectable Contraceptive

Show the client the vial of DMPA and explain the following:

How to use DMPA

- DMPA is given by injection every 3 months.
- Never be more than 4 weeks late for a repeat injection.
- Effective immediately if starting within 7 days after the start of monthly bleeding.
- If starting more than 7 days after the first day of monthly bleeding, a back-up method (e.g., condoms) is needed for the first 7 days.

Missed injection – What to do

- Come immediately to get an injection and use a back-up method immediately until 7 days after the injection.
- If you can't come at the appointed time, but you can come earlier, it is possible to come up to 4 weeks early for your next injection.

DMPA does not protect against STIs/HIV:
To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Possible side effects may include:

- Irregular spotting
- Prolonged light to moderate bleeding
- Bleeding is likely to become lighter, less frequent, or stop altogether.
- Possible weight gain, headaches, dizziness, mood changes

Reasons to return to provider

- Heavy vaginal bleeding
- Excessive weight gain
- Extreme headaches with blurred vision
- Any time there is a problem or if either partner has been exposed to an STI
- Another 3-month injection or a resupply of condoms is needed (never run out completely before returning)

Have the client repeat this information back to you.

Lactational Amenorrhea Method (LAM)

What is it?

The Lactational Amenorrhea Method (LAM) is the use of breastfeeding as a temporary contraceptive method. ("Lactational" means related to breastfeeding and "amenorrhea" means not having menstrual bleeding.)

How effective is it?

If 100 women use LAM in the first 6 months after childbirth, typically 2 become pregnant.

How does LAM work?

LAM works by preventing ovulation because breastfeeding changes the rate of release of natural hormones.

Advantages

- Effective in preventing pregnancy for at least 6 months
- Encourages the best breastfeeding patterns with health benefits for the mother and baby
- Can be used immediately after childbirth
- Doesn't interfere with sex
- No direct cost for contraception or for feeding the baby
- No supplies or procedures needed to prevent pregnancy

Disadvantages

- Reduced effectiveness after 6 months
- Requires frequent breastfeeding (day and night), which may be difficult for some mothers
- Does not provide protection against STIs, including HIV
- If the mother has HIV there is a chance that breast milk will pass HIV to the baby. It is recommended for mothers to exclusively breastfeed to reduce this risk.

Lactational Amenorrhea Method (LAM)

Explain the following to the client:

LAM *can* be used if <u>all</u> the conditions below are met:

- Monthly bleeding has not returned.
- The baby is not receiving other food besides breast milk and does not go for long periods (more than 4–6 hours) without breastfeeding, either during the day or night.
- The baby is less than 6 months old.

Note: A complementary form of contraception can also be used at any point.

LAM *cannot* be used if <u>any</u> of the following conditions exist:

- Baby is 6 months of age or older
- Monthly bleeding begins
- Baby is receiving supplemental foods

LAM does not protect against STIs/HIV: To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

How to make breastfeeding effective

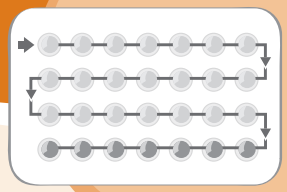
- Breastfeed whenever the baby wants to be fed, day and night.
- Feed from both breasts.
- Avoid intervals of more than 4 hours between any daytime feeds and more than 6 hours between any nighttime feeds.
- Breastfeed for 6 months.
- Don't use pacifiers, nipples, or bottles.
- Express breast milk if separated from the baby.
- Don't give the baby water or teas.

Reasons to return to provider

- No longer fully breastfeeding and need another contraceptive method
- Any time there is a problem or if either partner has been exposed to an STI
- A resupply of condoms is needed (never run out completely before returning)

Have the client repeat this information back to you.

Combined Oral Contraceptives (COCs)



What are they?

COCs (also known as “the pill”) are tablets containing the hormones estrogen and progestin. A woman takes 1 pill daily to prevent pregnancy.

How effective are they?

If 100 women use COCs for 1 year, typically 8 become pregnant. There is a higher failure rate for adolescents than for all other ages because adolescents have trouble remembering to take pills regularly.

How do COCs work?

COCs work by preventing the release of the egg from the ovary. Without releasing an egg, a woman cannot become pregnant.

Not recommended for adolescents who:

- Gave birth less than 4 weeks ago (if not breastfeeding)
- Are breastfeeding a baby less than 6 months old
- Have migraine headaches with aura
- Have viral hepatitis with severe or acute flare-up
- Take Ritonavir-boosted protease inhibitor ARVs (If using any ARV, use COCs with at least 30 ug EE.)
- Take rifampicin or rifabutin for TB (If using rifampicin or rifabutin, use COCs with at least 30 ug EE.)

Check medical eligibility criteria if adolescent has other serious health problems.

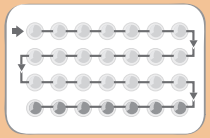
Advantages

- Safe, effective, and easy to use
- Controlled by the woman
- Can be used before the onset of monthly bleeding
- Lighter, regular monthly bleeding with less cramping
- Possible to become pregnant again immediately after stopping COCs
- Don’t interfere with sex
- May be beneficial for adolescents who have irregular or heavy monthly bleeding, severe cramping, or acne
- Decrease risk of cancer of the female reproductive organs

Disadvantages

- Must be taken every day to be effective
- Not always discreet (someone could see the pills)
- Weight gain or unexpected bleeding/spotting in some adolescents
- Don’t protect against STIs including HIV

Combined Oral Contraceptives (COCs)



Show the client the pill packet and explain the following:

How to use COCs

- Take first pill on the first day of monthly bleeding or any of the next 4 days.
- If taking the pill more than 5 days after the start of your monthly bleeding, use a back-up method for the first 7 days.
- Take 1 pill every day, at the same time of day. Keep the pills in a place that will help you remember, such as near where you wash at night.
- 28-day packet: After finishing the packet, begin next packet the following day. The last 7 pills do not contain hormones, but they are there to remind you to keep taking the pill.
- 21-day packet: After finishing the packet, wait 7 days and then begin the next packet.

Missed pills – What to do

- Missed pills may result in pregnancy.
- If you miss pills, ALWAYS take one as soon as you remember and continue to take the rest of the pills each day at the regular time.
- If you miss 3 or more pills, or start a pack more than 3 days late, continue taking the rest of the pills at the regular time and use a condom or avoid sex for the next 7 days.
- If you miss 3 or more pills in the third week of the pill packet, skip the inactive pills and start a new packet. Use a condom or avoid sex for the next 7 days.

Possible side effects may include:

- Nausea, weight gain, breast tenderness, headaches, dizziness, mood changes
- Changes in monthly bleeding patterns, including unexpected bleeding or spotting

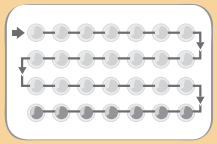
Reasons to return to provider

- Severe headaches (including headaches with blurred vision)
- Severe, constant pain in belly, chest, or legs
- Jaundice or yellowing of the skin
- Brief loss of vision, seeing flashing lights or zigzag lines (with or without bad headaches)
- Brief trouble speaking or moving arms or legs
- Any time there is a problem or if either partner has been exposed to an STI
- When a resupply of COCs (always have at least 1 back-up pack) or condoms is needed

COCs do not protect against STIs/HIV:
To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Have the client repeat this information back to you.

Progestin-only Pills (POPs)



What are they?

POPs (also known as the “mini-pill”) are oral contraceptive pills containing only a very small amount of one hormone (a progestin). A woman takes 1 tablet daily to prevent pregnancy.

How effective are they?

- POPs are very effective for breastfeeding women. If 100 breastfeeding women use POPs for 1 year, typically 1 becomes pregnant.
- As typically used, they are less effective for non-breastfeeding women. If 100 non-breastfeeding women use POPs for 1 year, typically 3–10 women become pregnant.
- There is a higher failure rate for adolescents since adolescents have trouble remembering to take pills regularly.

How do POPs work?

POPs work by thickening the cervical mucus, making it difficult for sperm to pass through, and by preventing the release of the egg from the ovary in about half of all menstrual cycles.

Not recommended for adolescents who are:

- Taking ritonavir-boosted protease inhibitor ARVs
- Taking rifampicin or rifabutin therapy for TB

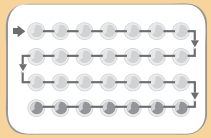
Advantages

- Can be used while breastfeeding, and can be started immediately postpartum
- Good option for adolescents who can’t use estrogen but want to use pills
- Can become pregnant again immediately after stopping
- Don’t interfere with sex

Disadvantages

- For adolescents (not breastfeeding), monthly bleeding patterns may change (including spotting and amenorrhea)
- Must be taken at the same time every day, which can be difficult for adolescents to remember—a delay of 3 hours is similar to missing a pill
- Not always discreet (someone could see the pills)
- Don’t protect against STIs/HIV

Progestin-only Pills (POPs)



Show the client the pill packet and explain the following:

How to use POPs

- If exclusively breastfeeding and monthly bleeding has not returned, can start POPs at any time in the first 6 months postpartum without a back-up method.
- If monthly bleeding has returned, POPs can be started within the first 5 days after the start of monthly bleeding without a back-up method.
- If it has been more than 6 months since giving birth or if monthly bleeding has returned, but it is not within the first 5 days after the start of monthly bleeding, POPs can be started any time if you are reasonably certain you are not pregnant. But a back-up method, like a condom, should be used for the first 2 days.
- Take 1 pill every day, at the same time of day. When a packet finishes, start another pack the very next day.
- Don't miss a day or take the pill late. You may want to take the pill when you do something that you do every day, like washing your face or brushing your teeth.

Missed pills – What to do

- Take pill or pills as soon as you remember. You may take 2 pills at the same time or the same day.
- Continue taking the next pill at the usual time.
- Use a back-up method, like a condom, for the next 2 days.

Possible side effects may include:

- Changes in monthly bleeding patterns, including amenorrhea, spotting, irregular or prolonged bleeding (for adolescents who are not breastfeeding)
- Breast tenderness, headaches, dizziness, mood changes, abdominal pain, nausea
- Breastfeeding adolescents may have a longer delay in return of monthly bleeding after childbirth.

Reasons to return to provider

- Stopped breastfeeding and would like to switch methods
- Took a pill more than 3 hours late or missed one completely, and also had sex during this time, and want to consider ECPs (for women who have monthly bleeding)
- Severe headaches with blurred vision
- Any time there is a problem or if either partner has been exposed to an STI
- A resupply of POPs or condoms is needed (always have at least 1 back-up pack)

POPs do not protect against STIs/HIV:
To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Have the client repeat this information back to you.

Male Condom

What is it?

The male condom is a thin sheath worn over the erect penis when a couple is having sex.

How effective is it?

- If 100 couples use condoms for 1 year, typically 15 become pregnant.
- If used correctly with every act of intercourse, condoms are highly effective in protecting against most STIs (except herpes simplex and other genital ulcer diseases), including HIV.

How do condoms work?

The condom catches the man's sperm so that no sperm can enter the vagina.

Not recommended for adolescents who:

- Have a severe allergy to latex rubber

Condoms are always recommended to prevent STIs/HIV.

If the adolescent feels that s/he may not always be able to negotiate condom use, it is recommended s/he use an additional contraceptive method.

Note: You may wish to refer to the male condom as the "external condom" depending on the populations you are counseling (e.g., transgender people, women who have sex with women)

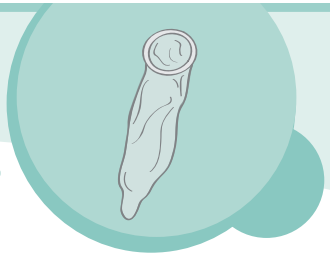
Advantages

- Safe
- Doesn't require a prescription or medical examination
- Effective and easy to use
- Protects against STIs/HIV

Disadvantages

- Interrupts the sex act
- May decrease sexual sensitivity in some men and women
- Requires communication and consent from both partners
- A new condom must be used each time the couple has sex
- A supply of condoms must be available before sex occurs

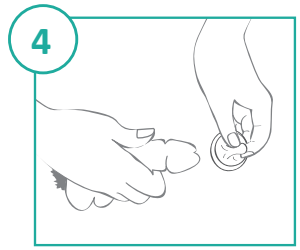
Male Condom

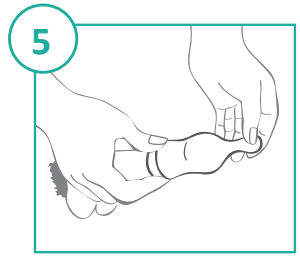


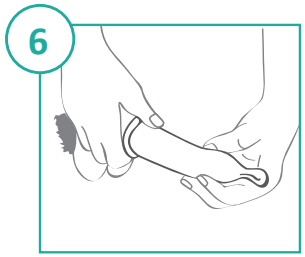
Show the client the condom and explain the following:

How to use a condom

1. Check the expiration date on the condom package.
2. Open the package carefully so the condom doesn't tear.
3. Don't unroll the condom before putting it on.
4. Place the unrolled condom on the tip of the hard penis.
5. Hold the tip of the condom with the thumb and forefinger.
6. Unroll the condom until it covers the penis.
7. Leave enough space at the tip of the condom for the semen.
8. After ejaculation, hold the rim of the condom and pull the penis out of the vagina before it becomes soft.
9. Only use one condom at a time.
10. Always keep a supply of condoms readily available.







Care of condoms

- Don't apply oil-based lubricants (like baby oil, cooking oil, petroleum jelly/Vaseline) because they can destroy the condom. It is safe to use clean water, saliva, or water-based lubricants.
- Store condoms in a cool, dry place. Don't carry them close to the body because heat can destroy them.
- Use each condom only once.
- Don't use a condom if the package is broken or if the condom is dry or sticky or the color has changed.
- Take care to dispose of used condoms properly.

Possible side effects may include:

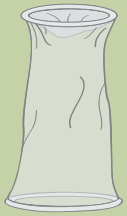
A condom may break or come off during sex. A few men and women experience itching, burning, or swelling due to latex allergy.

Reasons to return to provider

- Any time there is a problem (condom breaks or unhappy with method)
- A resupply is needed (never run out completely before returning)
- Either partner thinks s/he may have been exposed to an STI

Have the client repeat this information back to you.

Female Condom



What is it?

The female condom is a thin lubricated sheath or lining made of a soft plastic film that fits loosely inside a woman's vagina. It has flexible rings at both ends. The ring at one end is closed and covers the cervix. A woman uses the female condom during intercourse to prevent pregnancy.

How effective is it?

- If 100 women use the female condom for 1 year, typically 21 become pregnant.
- The female condom also effectively prevents many STIs including HIV when used correctly every time a woman and her partner have sexual intercourse.

How does the female condom work?

The condom catches the man's sperm so that no sperm can enter the vagina.

Condoms are always recommended to prevent STIs/HIV.

If the adolescent feels s/he may not always be able to negotiate condom use, it is recommended that s/he also use an additional contraceptive method.

Note: You may wish to refer to the female condom as the "internal condom" depending on the populations you are counseling (e.g., transgender people, men who have sex with men).

Advantages

- Safe
- Effective
- Can be inserted up to 8 hours before sex
- Can be used with oil-based lubricants
- Can feel more natural during sex than male condoms
- Protects against STIs/HIV
- Reduces the chance of irritation or allergic reaction compared to latex condoms

Disadvantages

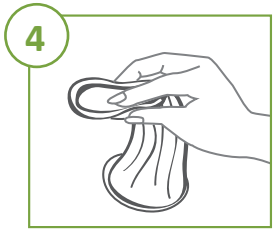
- Costs more than the male condom
- May be noisy or awkward
- Is female initiated, but requires cooperation and consent of the male partner
- Can be difficult to insert

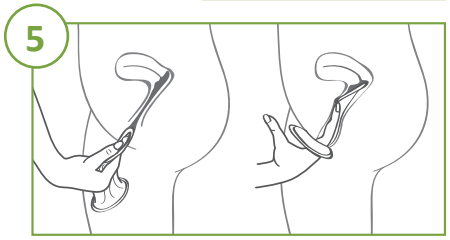
Female Condom

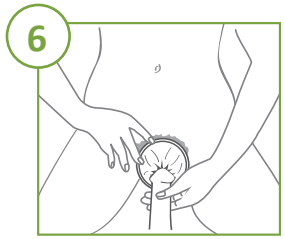
Show the client the female condom and explain the following:

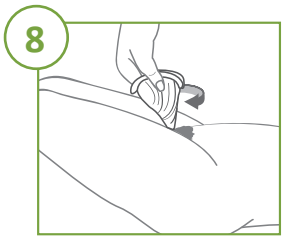
How to use the female condom

1. Check the expiration date on the condom package.
2. Open the package carefully so the condom doesn't tear.
3. Find the inner ring, which is at the closed end of the condom.
4. Squeeze the inner ring together.
5. Put the inner ring in the vagina and push up into the vagina with the finger. (The outer ring stays outside the vagina.)
6. During sex, guide the penis through the outer ring. (If it is outside the ring, it will not offer protection from pregnancy or STIs/HIV.)
7. Remove condom immediately after sex, before standing up.
8. Squeeze and twist the outer ring to keep the sperm inside the pouch.
9. Pull the pouch out gently.
10. Burn or bury the condom—do not put it down the toilet.









Suggest that the client practice inserting and removing the condom before having sex with it for the first time and try different positions to see which way insertion is easiest.

Care of female condoms

- Store condoms in a cool, dry place. Don't carry them close to the body because heat can destroy them.
- Use each condom only once.
- Don't use a condom if the package is broken or if the condom is dry or sticky or the color has changed.
- Always keep a supply of condoms readily available.

Possible side effects may include:

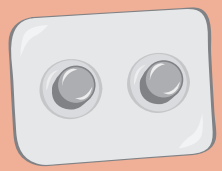
- Usually there are no side effects. Occasionally, a condom may break or slip out during intercourse.
- Very few adolescents may have itching, burning, or redness around the vagina (or partner's penis).

Reasons to return to provider

- Any time there is a problem (condom breaks or unhappy with method)
- A resupply of condoms is needed (never run out completely)
- Either partner thinks s/he may have been exposed to an STI

Have the client repeat this information back to you.

Emergency Contraceptive Pills (ECPs)



What are they?

ECPs are a hormonal method of contraception that can be used to prevent pregnancy up to 120 hours (5 days) following an act of unprotected sexual intercourse.

How effective are they?

- Effectiveness depends on several factors, including which kind of EC you use and how quickly you take it after unprotected sex. The progestin-only regimen reduces pregnancy risk by at least half, and possibly by as much as 80–90%, for one act of unprotected sex. The ulipristal regime is more effective than the progestin-only regimen. Regular oral contraceptives used as EC are less effective.*
- ECPs are most effective when used shortly after unprotected sex.
- High body mass index (BMI) may decrease the effectiveness. However, since EC is so safe, this should never be a reason for women to be denied it. The WHO recommends that EC can be used by women who are obese.
- There are no restrictions on repeat use, however counseling about more effective methods should be emphasized.

How do ECPs work?

- ECPs prevent a pregnancy from occurring. They do not disrupt an implanted pregnancy. ECPs prevent the egg from leaving the ovary and may thicken cervical mucus to prevent the sperm from meeting the egg.
- ECPs only prevent pregnancy from unprotected sex that occurs before the pills are taken. They do not prevent pregnancy from sex that occurs after the ECPs are taken.

Note: The copper IUD may also be used as a method of emergency contraception. As such, it is very effective in preventing pregnancy, and can be continued to be used as contraception by the client.

*For more information, see: http://www.cecinfo.org/custom-content/uploads/2014/01/ICEC_Medical-and-Service-Delivery-Guildelines-English_June-2013.pdf

Advantages

- Safe for women of all ages, including adolescents who may be less likely to prepare for a first sexual encounter
- Reduce risk of unintended pregnancy and need for abortion
- Appropriate for use after unprotected intercourse (including rape or contraceptive failure)
- Provide a bridge to the practice of regular contraception
- Drug exposure and side effects are of short duration

Disadvantages

- Don’t protect against STIs/HIV
- Don’t provide ongoing protection against pregnancy
- Must be used with 120 hours after unprotected sex (and should be taken as soon as possible to be most effective)
- May change the time of the woman’s next monthly bleeding
- Inappropriate for regular use (high cumulative pregnancy rate)

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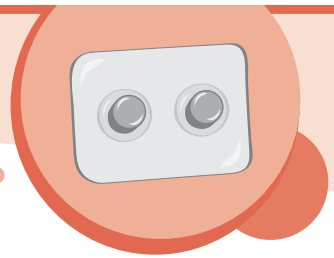
Emergency Contraceptive Pills (ECPs)



Show the client the ECPs and explain the following:

How to use ECPs

- It is most important to take ECPs as soon as possible after unprotected sex, within 120 hours (5 days).
- For progestin-only ECP (dedicated product): Progestin-only ECPs come in two forms; 1-pill packages or 2-pill packages. The 2-pill packages contain instructions to take the pills 12 hours apart, but both pills should be taken together if possible. ECPs should be taken as soon as possible after unprotected sex, and no later than 120 hours after unprotected intercourse.
- For ulipristal acetate: One tablet of ulipristal should be taken as soon as possible after unprotected sex, and no later than 120 hours after unprotected sex.
- For combined oral contraceptives (COCs): 1 dose of 0.1 mg ethinyl estradiol plus 0.5 mg levonorgestrel followed by a second identical dose 12 hours later.
- If vomiting occurs within 2 hours of taking ECPs, take another dose as soon as possible. If vomiting occurs after 2 hours, no additional dose is needed.
- To reduce nausea, take the tablets after eating or use anti-nausea medication.
- Do not to take any extra ECPs unless vomiting occurs. More pills will not decrease risk of pregnancy.

Possible side effects may include:*

- Nausea and vomiting
- Headaches or dizziness
- Cramping/abdominal pain
- Breast tenderness
- Changes in monthly bleeding or slight irregular bleeding for 1–2 days after taking ECPs

What to expect after using ECPs

There will not be any immediate signs showing whether the ECPs worked. The next monthly bleeding should come on time (or a few days early or late).

Reasons to return to provider

- If next monthly bleeding is more than 1 week later than expected
- Any time there is a problem or if either partner has been exposed to an STI

Contraceptive methods after taking ECPs

- Now may be good time to begin a regular contraceptive method. COCs and POPs can be started the day after ECPs are taken.
- DMPA, IUD, and male and female condoms can be started on the same day as the ECP.
- For the implant, you must return after the next monthly bleeding.

ECPs do not protect against STIs/HIV: To protect against pregnancy and STIs/HIV, use a condom every time you have sex.

Have the client repeat this information back to you.

* Most do not last for more than 24 hours.

Cartes Aide-Mémoire de Conseils pour Adolescents sur la Contraception

A propos des cartes aide-mémoire

Cet ensemble de cartes aide-mémoire de conseils sur la contraception a été développé pour aider une variété de prestataires (tels le personnel des formations sanitaires, les agents de santé communautaires, les pharmaciens, les agents de proximité, les conseillers et les pairs éducateurs) à conseiller la jeunesse sur les options disponibles en matière de contraception. Les cartes aide-mémoire fournissent des informations destinées aux adolescents de 10 à 19 ans, mais peuvent également être utilisées avec des jeunes de plus de 19 ans. Les cartes peuvent être adaptées pour répondre aux circonstances et contextes locaux.

Une face de la carte sert à rappeler au prestataire une information importante sur la méthode contraceptive, comme son efficacité, ses avantages et inconvénients.

Le prestataire devra utiliser cette information pour éduquer un(e) client(e) adolescent(e) sur un ensemble de méthodes contraceptives disponibles et l'aider à choisir celle qui lui convient le mieux. Après le choix d'une méthode par le client ou la cliente, le prestataire peut présenter l'autre face de la carte pour donner au client ou à la cliente des instructions spécifiques sur la méthode qu'il/elle aura choisie. Ce côté de la carte inclut les informations que le prestataire devra fournir au client ou à la cliente adolescent(e) sur la façon d'utiliser cette méthode, les effets secondaires possibles, et les raisons de retourner le consulter.

Les cartes aide-mémoire de conseils couvrent les méthodes suivantes :

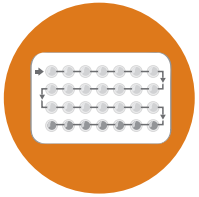
Les Implants Contraceptifs

Le Dispositif Intra-Utérin au Lévonorgestrel (DIU-LNG)

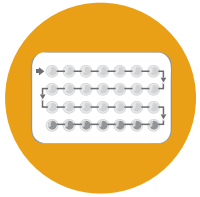
Le Dispositif Intra-Utérin au Cuivre (DIU-Cu)

L'AMPR (Un Contraceptif Injectable)

La Méthode de l'Allaitement Maternel et de l'Aménorrhée (MAMA)



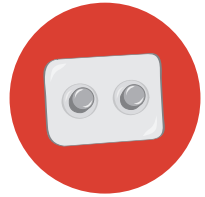
Les Contraceptifs Oraux Combinés (COC)



Les Contraceptifs Oraux à Progestatif Seul (COP)

Les Préservatifs Masculins

Les Préservatifs Féminins



Les Pilules de Contraception d'Urgence (PCU)

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Sexual and reproductive health without fear or boundary

Cartes Aide-Mémoire de Conseils pour Adolescents sur la Contraception

Trucs :

- **Il est important de se rappeler que les adolescent(e)s – quel que soit leur âge, orientation sexuelle, statut marital ou état de grossesse - sont admissibles à toutes les méthodes de contraception.** Selon les Critères Médicaux d'Admissibilité de l'Organisation Mondiale de la Santé (OMS), l'âge seul ne constitue pas une contre-indication aux méthodes contraceptives incluses dans l'ensemble des cartes aide-mémoire, y compris les méthodes à longue durée d'action. Les prestataires ont l'obligation de fournir aux adolescents des informations prouvées et non biaisées au sujet de l'ensemble des méthodes qui pourraient leur convenir. Cependant, le prestataire devrait s'assurer que l'adolescent n'a pas d'autres problèmes médicaux qui l'excluraient de l'usage d'une méthode particulière en raison des Critères Médicaux d'Admissibilité de l'OMS.
- **Les client(e)s adolescent(e)s doivent recevoir toutes les informations sur une méthode, y compris les effets secondaires potentiels.** Cela peut aider à réduire leurs inquiétudes si ils/elles subissent ces effets. Cependant, les client(e)s adolescent(e)s sont plus mal informés que les adultes en matière de contraception. En conséquence, ils/elles ont une plus grande crainte des effets secondaires. C'est pourquoi, **en conseillant des client(e)s adolescent(e)s sur les effets secondaires possibles, soyez sûr de mentionner dès le départ que la plupart des client(e)s adolescent(e)s ne subissent aucun de ces effets.**
- **Assurez-vous de mettre l'accent sur le fait que seuls les préservatifs masculins et féminins protègent contre les Infections Sexuellement Transmissibles (IST), le VIH et les grossesses.** Ainsi, si le client ou la cliente choisit une méthode contraceptive autre que le préservatif, un préservatif doit aussi être utilisé pour prévenir une grossesse et des IST/VIH (utilisation de la méthode de la double protection).
- **Pour des informations additionnelles au sujet des méthodes contraceptives, veuillez consulter *Planification Familiale :*** *Un Manuel à l'Intention des Prestataires du Monde Entier* (JHU-CCP/WHO (UJH-CPC/OMS), 2011)* et *Critères Médicaux d'Admissibilité pour l'Usage des Contraceptifs* (WHO (OMS), 2015).

*Une mise à jour est en attente.

En conseillant un client ou une cliente adolescent(e), rappelez-vous :

- ✓ d'assurer intimité et confidentialité
- ✓ d'être respectueux des choix, de la culture, de la religion et de l'orientation sexuelle du client
- ✓ d'écouter attentivement et montrer de l'intérêt
- ✓ d'être attentif aux questions et besoins spécifiques du client
- ✓ d'utiliser un langage clair que le client peut comprendre
- ✓ d'éviter une communication à sens unique et poser des questions ouvertes
- ✓ d'éviter de juger – pas de leçons, pas de réprimandes, ne dis pas à l'adolescent(e) ce qu'il/elle devrait faire
- ✓ de fournir des informations prouvées et non biaisées, en utilisant les cartes aide-mémoire pour vous assurer que l'adolescent(e) dispose de plusieurs possibilités de choix de méthodes de contraception

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Les Implants Contraceptifs

Qu'est-ce que c'est ?

Les implants sont des petites tiges flexibles qui contiennent un progestatif. Les capsules sont insérées sous la peau du bras d'une femme et peuvent empêcher la grossesse pendant 3 à 5 ans, selon le type d'implant employé. Il existe plusieurs types d'implants :

- **Jadelle :** 2 tiges, efficace pendant 5 ans
- **Implanon/Implanon NXT :** 1 tige, efficace pendant 3 ans
- **Sino-implant (II) :** 2 tiges, efficace pendant 5 ans

Quel est leur degré d'efficacité ?

Sur 100 femmes utilisant un implant, typiquement moins de 1 tombe enceinte pendant la première année. Au cours des 3 à 5 années suivantes (selon le type), jusqu'à 1 grossesse peut survenir pour 100 femmes qui utilisent un implant.

Comment les implants fonctionnent-ils ?

Les implants provoquent un épaississement de la muqueuse cervicale, bloquant la rencontre entre le sperme et l'ovule. Ils empêchent aussi l'ovule de quitter l'ovaire.

Non recommandé pour les adolescentes qui :

- Ont un saignement vaginal inexpliqué (nécessite un examen)

Vérifier les critères médicaux d'admissibilité si l'adolescente a d'autres problèmes médicaux sérieux.

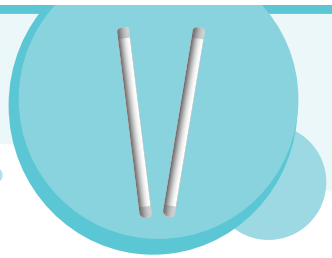
Avantages

- Inoffensif et efficace
- Longue durée d'action (3 à 5 ans) et aucune action quotidienne n'est requise
- Les règles deviennent très légères et disparaissent souvent après une année
- La grossesse redevient possible immédiatement après avoir retiré les implants
- Peuvent être utilisés immédiatement après l'accouchement, que la femme allaite au sein ou pas
- Ne gênent pas les relations sexuelles
- Peuvent améliorer l'anémie
- Peuvent s'utiliser avec discrétion

Inconvénients

- Le mode d'écoulement des règles va probablement changer
- Ne protègent pas contre les IST/VIH
- Nécessite un prestataire de santé pour l'insertion et le retrait

Les Implants Contraceptifs



Présenter à la cliente les implants et lui donner les explications suivantes :

Comment utiliser les implants :

- Les petites tiges ou capsules sont insérées sous la peau de la partie supérieure du bras de la cliente.
- Si l'implant est inséré dans les 7 jours suivant le début des règles, il n'est pas nécessaire de recourir à une méthode d'appoint.
- Si l'implant est inséré plus de 7 jours après le début des règles (ou plus de 5 jours pour Implanon/Implanon NXT), la cliente devra recourir à une méthode d'appoint pendant les 7 premiers jours. Il faudra retirer l'implant après 3 à 5 ans, selon le type d'implant et le poids de la cliente.
- Pour les femmes en période postpartum, une méthode d'appoint n'est pas nécessaire si la femme a accouché il y a moins de 6 mois, allaite exclusivement au sein et ses règles ne sont pas revenues. Autrement, une méthode d'appoint est nécessaire pendant les 7 premiers jours.
- Si une femme pèse plus de 80 kg, l'informer que le Jadelle deviendra moins efficace après 4 ans d'utilisation.

Les implants ne protègent pas contre les IST/VIH : pour se protéger à la fois contre la grossesse et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Effets secondaires possibles

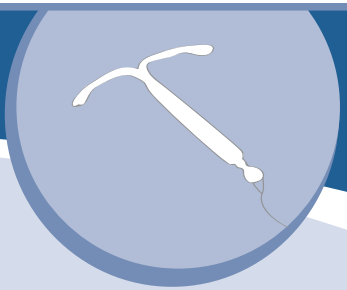
- Changements lors des règles : petites pertes de sang irrégulières ou saignements prolongés, légers et modérés, au début. Par la suite, il est probable que les règles deviennent plus légères, moins fréquentes ou cessent carrément totalement.
- Prise de poids, sensibilité des seins, maux de tête, vertiges, nausées, changements d'humeur.

Raisons de revenir voir le prestataire

- Pus, chaleur, rougeur, ou douleur au point d'insertion qui s'aggrave et ne guérit pas – ce qui pourrait indiquer une infection à cet endroit
- Maux de tête avec vision brouillée
- L'implant semble sortir
- En cas de gain pondéral important, car cela peut réduire l'efficacité à long terme de l'implant
- Dès qu'un problème survient ou si l'un des partenaires a été exposé à une IST
- Un réapprovisionnement en préservatifs est nécessaire (ne jamais se trouver à court avant de revenir)

Demandez à la cliente de vous répéter cette information.

Dispositif Intra-Utérin au Lévonorgestrel (DIU-LNG)



Qu'est-ce que c'est ?

Un DIU au lévonorgestrel (DIU-LNG) est un petit dispositif en plastique qui est inséré dans l'utérus afin d'empêcher la grossesse. Contrairement au DIU au cuivre, le DIU-LNG libère une petite quantité d'hormones directement dans l'utérus.

Quel est son degré d'efficacité ?

Si 100 femmes utilisent un DIU-LNG pendant 1 année, en général moins d'une femme tombera enceinte.

Comment agit le DIU-LNG ?

Le DIU-LNG empêche le sperme de rejoindre l'œuf. Chez certaines femmes, le DIU-LNG empêche également un œuf d'être libéré de l'ovaire.

N'est pas recommandé pour les femmes qui :

- Ont accouché depuis 48 heures à 4 semaines
- Ont un sepsis postnatal ou un sepsis post-avortement
- Ont un saignement vaginal inexpliqué (doivent subir un examen avant de commencer la méthode)
- Ont une maladie inflammatoire pelvienne active, une gonorrhée ou une chlamydia (c'est un problème pour l'initiation uniquement, il est acceptable de continuer la méthode)
- Ont des fibromes utérins ou autres déformation de la cavité utérine
- Ont un risque individuel très élevée d'ISTs (par exemple, les femmes qui ont plusieurs partenaires sexuels ou dont le partenaire a d'autres partenaires sexuelles). Dans de telles situations, l'insertion devrait être retardée jusqu'à ce que les examens et le traitement appropriés aient été effectués.
- Ont le SIDA et ne sont pas en bon état clinique (initiation uniquement)

Vérifier les critères médicaux d'admissibilité si la cliente a d'autres problèmes graves de santé.

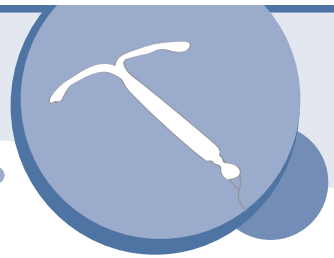
Avantages

- Sans danger, efficace et de longue durée d'action (jusqu'à 5 ans)
- Facile à retirer (par le prestataire) et la cliente peut tomber enceinte immédiatement
- Pas d'action quotidienne nécessaire
- Ne gêne pas les rapports sexuels
- Peut être utilisé discrètement – pas de traces visibles de son utilisation (occasionnellement, une partenaire peut sentir les fils au cours des rapports sexuels)
- Peut être inséré jusqu'à 48 heures après l'accouchement ou à partir de 4 semaines après l'accouchement
- Ne gêne pas l'allaitement au sein
- Peut être utilisé par les jeunes femmes, y compris celles qui ne sont jamais tombées enceintes
- Les saignements mensuels deviennent plus légers et peuvent cesser complètement

Inconvénients

- Peine légère au cours des premiers jours après l'insertion
- Saignement mensuel irrégulier
- Ne protège pas contre les ISTs/le VIH
- Nécessite un prestataire de soins de santé pour l'insertion et le retrait

Dispositif Intra-Utérin au Lévonorgestrel (DIU-LNG)



Présentez le DIU-LNG à la cliente et expliquez ce qui suit :

Comment utiliser le DIU-LNG

- Le DIU-LNG est inséré par le prestataire une fois et peut rester en place pendant une période pouvant aller jusqu'à 5 ans.
- Le DIU-LNG peut être inséré jusqu'à 7 jours après le début du saignement mensuel, sans test de grossesse et sans avoir besoin d'une méthode d'appoint.
- Si plus de 7 jours sont passés depuis le déclenchement du saignement mensuel, le prestataire devrait être raisonnablement certain que vous n'êtes pas enceinte. Vous aurez besoin d'utiliser une méthode d'appoint pendant 7 jours.
- Au cours de la période qui suit l'accouchement, le DIU-LNG peut être inséré immédiatement après le retrait du placenta, jusqu'à 48 heures après l'accouchement ou à partir de 4 semaines après l'accouchement.
- La cliente devrait venir pour un contrôle médical 3 à 6 semaines après l'insertion, mais aucun suivi supplémentaire n'est nécessaire (à moins qu'il y ait un problème).
- Vérifier les fils est optionnel. Les fils peuvent être inspectés au cours des premiers mois et après le saignement mensuel afin de vérifier que le DIU-LNG est toujours en place. *Expliquez comment vérifier les fils.*

Les effets secondaires possibles peuvent comprendre :

- Le saignement est susceptible d'être plus léger, moins fréquent ou de cesser complètement
- Infection possible
- Douleur et crampes lors de l'insertion et dans les premiers jours suivant l'insertion du DIU-LNG
- Mal de tête
- Vertige
- Nausée/vomissement

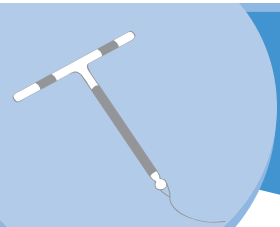
Raisons de revenir voir le prestataire

- Saignement ou pertes anormaux
- Douleur (abdominale ou douleur avec les rapports sexuels)
- Fièvre
- Des fils manquent ou vous sentez le plastique dur d'un DIU qui est partiellement ressorti
- Chaque fois qu'il y a un problème ou si l'un ou l'autre des partenaires a été exposé à une IST
- Chaque fois qu'un réapprovisionnement en préservatifs est nécessaire (ne jamais manquer complètement de préservatifs avant de revenir)

Le DIU-LNG ne protège pas contre les ISTs/le VIH : pour une protection contre à la fois la grossesse et les ISTs/le VIH, utilisez un préservatif à chaque rapport sexuel.

Demandez à la cliente de vous répéter cette information.

Dispositif Intra-Utérin au Cuivre (DIU-Cu)



Qu'est-ce que c'est ?

Un DIU au Cuivre (DIU-Cu) est un petit dispositif en plastique et en cuivre qui est inséré dans l'utérus pour empêcher la grossesse. Contrairement au DIU-LNG, le DIU-Cu ne contient pas d'hormones.

Quel est son degré d'efficacité ?

Sur 100 femmes utilisant un DIU-Cu pendant une année, typiquement moins de une tombe enceinte.

Comment le DIU-Cu fonctionne-t-il ?

Le DIU-Cu empêche le spermatozoïde de se joindre à l'œuf.

Pas recommandé pour les adolescentes qui :

- Ont accouché depuis 48 heures à 4 semaines
- Ont un sepsis postnatale ou une sepsis post-avortement
- Ont un saignement vaginal inexpliqué (il faut faire un examen avant d'initier la méthode)
- Ont une maladie inflammatoire pelvienne, une chlamydia ou une gonorrhée (initiation seulement, continuer la méthode est acceptable)
- Courent un risque individuel élevé de contracter des ISTs (par exemple, les femmes qui ont plusieurs partenaires sexuels ou dont le partenaire a d'autres partenaires sexuelles). Dans de telles situations, l'insertion devrait être retardée jusqu'à ce que les examens et le traitement appropriés aient été effectués
- Ont plusieurs partenaires sexuels, ou un partenaire qui a d'autres partenaires sexuels (courent un risque accru de contracter IST)
- Ont le SIDA et ne sont pas en bon état clinique (initiation des DIU uniquement)

Vérifier les critères médicaux d'admissibilité si l'adolescente a d'autres problèmes médicaux sérieux

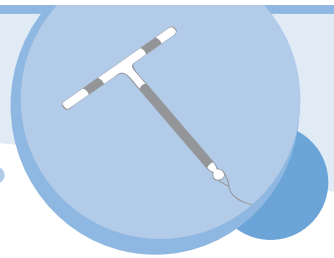
Avantages

- Inoffensif, efficace et à longue durée d'action (jusqu'à 12 ans)
- Facile à retirer (par le prestataire) si la cliente veut tomber enceinte
- Aucune action quotidienne n'est nécessaire
- Ne gêne pas les relations sexuelles
- Peut être utilisé discrètement – pas de signe visible de son utilisation (à l'occasion un partenaire peut sentir les fils pendant le rapport sexuel)
- Peut être inséré jusqu'à 48 heures après l'accouchement ou à partir de 4 semaines après l'accouchement
- Ne gêne pas l'allaitement maternel
- Peut être utilisé par les femmes jeunes, y compris celles ne sont jamais tombées enceintes
- Le DIU-Cu peut aussi être utilisé comme méthode contraceptive d'urgence pour empêcher la grossesse, s'il est inséré dans les 5 jours suivant un rapport sexuel non protégé

Inconvénients

- Légère douleur pendant les premiers jours suivant l'insertion du DIU
- Règles plus abondantes et/ou plus longues, qui normalement diminuent au cours de la première et de la seconde années
- Ne protège pas contre les IST/VIH
- Nécessite un prestataire de santé pour l'insérer et le retirer

Dispositif Intra-Utérin au Cuivre (DIU-Cu)



Présenter à la cliente le DIU-Cu et lui donner les explications suivantes :

Comment utiliser le DIU-Cu

- Le DIU-Cu est inséré par le prestataire médical une fois et peut rester en place pendant une période allant jusqu'à 12 ans.
- Le DIU-Cu peut être inséré jusqu'à 12 jours après le début du saignement mensuel sans test de grossesse. A plus de 12 jours après le début du saignement mensuel, le prestataire devrait raisonnablement être certain que vous n'êtes pas enceinte.
- Au cours de la période qui suit l'accouchement, le DIU-Cu peut être inséré immédiatement après le retrait du placenta, jusqu'à 48 heures après l'accouchement, ou à partir de 4 semaines après l'accouchement.
- Le client devrait revenir pour un suivi 3 à 6 semaines après l'insertion. Par la suite, aucun autre suivi n'est nécessaire (sauf en cas de problème).
- Le contrôle des fils est facultatif. Les fils peuvent être contrôlés pendant les premiers mois et après les règles pour vérifier si le DIU est toujours en place. *Expliquer comment contrôler les fils.*

Effets secondaires possibles

- Règles plus abondantes, plus longues et/ou irrégulières (diminuent habituellement après les 3 à 6 premiers mois)
- Davantage de crampes et de douleurs pendant les règles
- Pertes vaginales accrues
- Possibilité d'infection
- Douleur et crampes pendant l'insertion et dans les premiers jours suivant l'insertion du DIU

Raisons de revenir voir le prestataire

- Saignement ou pertes anormales
- Douleur (abdominale ou douleur lors du rapport sexuel)
- Fièvre
- Il n'y a pas de fil ou vous sentez la partie en plastique dur d'un DIU qui est partiellement à l'extérieur
- Chaque fois qu'un problème survient ou si l'un des partenaires a été exposé à une IST
- Chaque fois qu'un réapprovisionnement en préservatifs est nécessaire (ne jamais se trouver complètement à court avant de revenir)

Les DIU ne protègent pas contre les IST/VIH : pour se protéger à la fois contre les grossesses et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Demandez à la cliente de vous répéter cette information.

AMPR : Un Contraceptif Injectable

Qu'est-ce que c'est ?

L'acétate de médroxyprogestérone-retard (AMPR), parfois connu comme « l'injection » ou « Depo », est une injection contenant un type d'hormone, l'hormone progestative. L'injection est administrée tous les 3 mois. Il y a plusieurs types de contraceptifs injectables. La présente carte fait référence à l'AMPR et non à l'EN-NET (énanthate de noréthistérone) ou aux contraceptifs injectables combinés mensuels.

Quel est son degré d'efficacité ?

Sur 100 femmes utilisant l'AMPR pendant une année, typiquement 3 tombent enceintes.

Comment l'AMPR fonctionne-t-il ?

L'AMPR empêche l'ovule de quitter les ovaires de la femme. Sans la libération de l'ovule, une femme ne peut tomber enceinte.

Non recommandé pour les adolescents qui :

- Ont un saignement vaginal inexpliqué (avant l'évaluation)

Remarque: Les Critères Médicaux d'Admissibilité 2015 de l'OMS recommandent que les clientes à haut risque de contraction du VIH devraient être informés que les recherches actuelles n'indiquent pas clairement si cette méthode de contraception augmente le risque de contraction du VIH. Bien que l'OMS ait déclaré sans danger l'usage de l'AMPR par les femmes à haut risque de VIH, ils recommandent que les préservatifs soient utilisés simultanément comme méthode de prévention des ISTs.

Vérifier les critères médicaux d'admissibilité si l'adolescente a d'autres problèmes médicaux graves.

Avantages

- Inoffensif et efficace
- Peut être administré par des professionnels de la santé qui ne sont pas des médecins
- Dure trois mois, ne nécessite aucune action quotidienne.
- Discrète
- Les règles deviennent très légères et disparaissent souvent après une année d'utilisation
- Complètement réversible ; la cliente peut tomber de nouveau enceinte après avoir arrêté l'AMPR, mais elle devrait observer un délai de plusieurs mois
- Peut s'utiliser pendant l'allaitement maternel
- Ne gêne pas les relations sexuelles
- Peut améliorer l'anémie

Inconvénients

- Le mode d'écoulement des règles va probablement changer
- Une augmentation de l'appétit peut conduire à une prise de poids
- Un retard moyen de 4 mois dans la capacité à tomber enceinte après l'arrêt de l'AMPR
- Ne protège pas contre les IST/VIH

AMPR : Un Contraceptif Injectable

Présenter à la cliente le flacon d'AMPR et lui donner les explications suivantes :

Comment utiliser l'AMPR

- L'AMPR est administré par injection tous les trois mois.
- Ne jamais avoir plus de 4 semaines de retard pour une injection périodique
- Efficace immédiatement si l'on commence dans les 7 jours après le début des règles
- Si l'on commence plus de 7 jours après le premier jour des règles, une méthode d'appoint (par ex. préservatifs) est nécessaire pendant les 7 premiers jours.

Oubli d'injection – ce qu'il faut faire

- Venir immédiatement pour recevoir une injection et utiliser immédiatement une méthode d'appoint jusqu'à 7 jours après l'injection.
- Si vous ne pouvez pas venir au rendez-vous prévu, il est possible de venir jusqu'à deux semaines plus tôt ou 4 semaines plus tard pour votre prochaine injection.

L'AMPR ne protège pas contre les IST/VIH : pour se protéger à la fois contre la grossesse et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Effets secondaires possibles

- Petites pertes de sang irrégulières
- Saignement prolongé, léger à modéré
- Il est probable que les règles deviennent plus légères, moins fréquentes ou cessent totalement.
- Possibles prise de poids, maux de tête, étourdissements et/ou changements d'humeur

Raisons de revenir voir le prestataire

- Saignement vaginal abondant
- Prise de poids excessive
- Maux de tête extrêmes avec vision brouillée
- Chaque fois qu'un problème survient ou si l'un des partenaires a été exposé à une IST
- Lorsqu'une nouvelle injection trimestrielle ou un réapprovisionnement en préservatifs est nécessaire (ne jamais se trouver complètement à court avant de revenir)

Demandez à la cliente de vous répéter cette information.

Méthode de l'Allaitement Maternel et de l'Aménorrhée (MAMA)

Qu'est-ce que c'est ?

La méthode de l'allaitement maternel et de l'aménorrhée (MAMA) est l'utilisation de l'allaitement maternel comme méthode de planification familiale temporaire. (« Aménorrhée » signifie absence de règles.)

Quel est son degré d'efficacité ?

Sur 100 femmes utilisant la MAMA dans les 6 premiers mois suivant l'accouchement, typiquement 2 tombent enceintes.*

Comment la MAMA fonctionne-t-elle ?

La MAMA empêche l'ovulation parce que l'allaitement maternel change le taux de libération des hormones naturelles.

*A noter que le taux d'efficacité n'est que de 6 mois, contrairement aux autres méthodes décrites par ces cartes-mémoire, et qui sont d'1 an.

Avantages

- Efficace pour empêcher la grossesse pendant au moins 6 mois
- Encourage au meilleur mode d'allaitement, avec des bienfaits pour la santé de la mère et de l'enfant
- Peut être utilisée tout de suite après l'accouchement
- Ne gêne pas les relations sexuelles
- Aucun coût financier direct pour la planification familiale ou pour l'alimentation du bébé
- Aucun matériel ou procédure n'est nécessaire pour empêcher la grossesse

Inconvénients

- Efficacité réduite après 6 mois
- Exige d'allaiter fréquemment, nuit et jour, ce qui peut être difficile pour certaines mères
- Ne fournit pas de protection contre les IST, y compris contre le VIH
- Si la mère a le VIH, il y a des chances que le virus soit transmis au bébé par le lait maternel. Il est recommandé aux mères d'allaiter *exclusivement* au sein pour réduire ce risque.

Méthode de l'Allaitement Maternel et de l'Aménorrhée (MAMA)

Donner les explications suivantes à la cliente :

La MAMA peut être utilisée si <u>toutes</u> les conditions ci-dessous sont remplies :

- Les règles ne sont pas revenues.
- Le bébé ne reçoit pas d'autre nourriture à part le lait maternel ou ne passe pas de période prolongée (plus de 4 à 6 heures) sans être allaité, de jour comme de nuit.
- Le bébé a moins de 6 mois.

Remarque : Une forme de contraception complémentaire peut aussi être utilisée à n'importe quel moment.

La MAMA ne peut pas être utilisée si *n'importe laquelle* des conditions ci-dessous existe :

- Le bébé est âgé de 6 mois ou plus.
- Les règles commencent.
- Le bébé reçoit des aliments supplémentaires.

La MAMA ne protège pas contre les IST/VIH : pour se protéger à la fois contre la grossesse et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Comment rendre l'allaitement maternel efficace

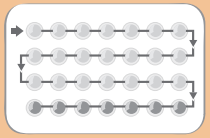
- Allaiter au sein chaque fois que le bébé veut être nourri, de jour comme de nuit.
- Allaiter des deux seins.
- Éviter les intervalles de plus de 4 heures entre deux tétées successives de jour, et de plus de 6 heures entre deux tétées successives de nuit.
- Allaiter exclusivement au sein pendant 6 mois.
- Ne pas utiliser de sucettes, tétines ou biberons.
- Faire une provision de lait maternelle lorsque l'on est séparée du bébé.
- Ne pas donner au bébé de l'eau ou des tisanes.

Raisons de revenir voir le prestataire

- Vous n'allaitez plus exclusivement au sein et avez besoin d'une autre méthode contraceptive
- Chaque fois qu'un problème survient ou si l'un des partenaires a été exposé à une IST
- Un réapprovisionnement en préservatifs est nécessaire (ne jamais se trouver complètement à court avant de revenir)

Demandez à la cliente de vous répéter cette information.

Contraceptifs Oraux Combinés (COCs)



Qu'est-ce que c'est ?

Les COC (communément appelés « la pilule ») sont des comprimés contenant une combinaison d'hormones : de l'œstrogène et des progestatifs. Pour prévenir les grossesses, une femme doit prendre une pilule par voie orale chaque jour.

Quel est leur degré d'efficacité ?

Sur 100 femmes utilisant des COC pendant une année, typiquement 8 tombent enceintes. Le taux d'échec est plus élevé chez les adolescentes que dans les autres tranches d'âge, parce que les adolescentes oublient souvent de prendre régulièrement la pilule.

Comment les COC fonctionnent-ils ?

Les COC empêchent l'ovule de quitter les ovaires de la femme. Sans la libération de l'ovule, une femme ne peut tomber enceinte.

Non recommandé pour les adolescentes qui :

- Ont enfanté il y a moins de 21 jours (si elles n'allaitent pas au sein)
- Allaitent au sein un bébé de moins de 6 mois
- Ont des migraines avec aura (illusions visuelles et autres troubles d'ordre sensoriel et moteur)
- Ont une hépatite virale avec flambée sévère ou aiguë
- Prennent des antirétroviraux sous forme d'un inhibiteur de protéase avec du ritonavir comme adjuvant (si l'on prend un antirétroviral, il faut utiliser les COC avec au moins 30 ug d'éthinyl estradiol)
- Prennent de la rifampicine ou de la rifabutine contre la tuberculose (utiliser les COC avec au moins 30 ug d'éthinyl estradiol)

Vérifier les critères médicaux d'admissibilité si l'adolescente a d'autres problèmes médicaux sérieux.

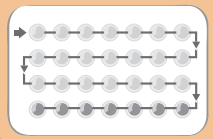
Avantages

- Inoffensifs, efficaces et faciles à utiliser
- Contrôlés par la femme
- Peuvent être utilisés avant l'apparition des règles
- Règles plus légères et plus régulières, avec moins de crampes
- La grossesse redevient possible immédiatement après l'arrêt de la prise des COC
- Ne gênent pas les relations sexuelles
- Peut s'avérer bénéfique pour les adolescentes qui ont des règles irrégulières ou abondantes, des crampes sévères ou de l'acné
- Diminue le risque de cancer des organes reproducteurs de la femme

Inconvénients

- Ils doivent être pris chaque jour pour être efficaces
- Pas toujours discret (quelqu'un pourrait voir les pilules)
- Prise de poids ou saignements/petites pertes de sang inattendues chez certaines adolescentes
- Ne protège pas contre les IST, y compris le VIH

Contraceptifs Oraux Combinés (COC)



Présenter à la cliente la plaquette de pilules et lui donner les explications suivantes :

Comment utiliser les COC

- Prendre la première pilule le premier jour des règles ou l'un des quatre jours suivants.
- Si la pilule est prise plus de 5 jours après le début de vos règles, utiliser une méthode d'appoint pendant les 7 premiers jours.
- Prendre une pilule par jour, à la même heure de la journée. Garder les pilules en un lieu qui vous aidera à vous rappeler de les prendre, par exemple près de l'endroit où vous vous lavez le soir.
- Plaquette de 28 jours : après épuisement d'une plaquette, commencer une nouvelle plaquette dès le lendemain. Les 7 dernières pilules ne contiennent pas d'hormone mais servent à vous rappeler de prendre la pilule.
- Plaquette de 21 jours : Apres épuisement de la plaquette, attendre 7 jours, puis commencer une nouvelle plaquette.

Pilules oubliées – ce qu'il faut faire

- Oublier de prendre ses pilules peut occasionner une grossesse
- Si vous oubliez de prendre des pilules, il faut TOUJOURS en prendre une dès que vous vous rappelez et continuer de prendre le reste des pilules chaque jourà l'heure habituelle
- Si vous oubliez 3 pilules ou plus ou que vous commencez une plaquette avec plus de 3 jours de retard, il faut continuer de prendre le reste des pilules à l'heure habituelle et aussi utiliser un préservatif ou éviter tout rapport sexuel pendant les 7 jours suivants.
- Si vous oubliez 3 pilules ou plus dans la troisième semaine de la plaquette, il faut jeter la plaquette et commencer immédiatement une nouvelle plaquette. Utilisez un préservatif ou éviter tout rapport sexuel pendant les 7 jours suivants.

Effets secondaires possibles

- Nausée, prise de poids, sensibilité des seins, maux de tête, étourdissement ou changements d'humeur
- Changements dans la manifestation des règles, y compris petites pertes de sang ou saignements inattendus

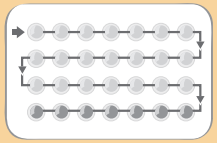
Raisons de revenir voir le prestataire

- Maux de tête sévères (y compris maux de tête avec vision brouillée)
- Douleur sévère et constante au ventre, à la poitrine ou aux jambes
- Jaunisse ou jaunissement de la peau
- Brève perte visuelle, vision d'éclairs lumineux ou de lignes en zigzag (avec ou sans maux de tête sévères)
- Difficulté passagère à parler ou à mouvoir les bras ou les jambes
- Chaque fois qu'un problème survient ou si l'un des partenaires a été exposé à une IST
- Lorsqu'un réapprovisionnement en COC (toujours avoir au moins 1 plaquette supplémentaire) ou en préservatifs est nécessaire

Les COC ne protègent pas contre les IST/VIH : Pour se protéger à la fois contre la grossesse et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Demandez à la cliente de vous répéter cette information.

Contraceptifs Oraux à Progestatif Seul (COP)



Qu'est-ce que c'est ?

Les COP (appelés aussi « micropilule ») sont des comprimés contenant une hormone progestative en très petite quantité. Une femme doit prendre un comprimé par jour pour prévenir la grossesse.

Quel est leur degré d'efficacité ?

- Les COP sont très efficaces pour les femmes qui allaitent. Sur 100 femmes qui allaitent au sein et qui utilisent des COP pendant une année, typiquement 1 tombe enceinte.
- Dans leur utilisation typique, ils sont moins efficaces chez les femmes qui n'allaitent pas au sein. Sur 100 femmes utilisant des COP pendant une année, typiquement 3 à 10 tombent enceintes.
- Le taux d'échec est plus élevé chez les adolescentes, parce que celles-ci oublient souvent de prendre régulièrement la pilule.

Comment les COP fonctionnent-ils ?

Les COP provoquent un épaississement de la muqueuse cervicale, rendant difficile le passage du sperme à travers la muqueuse. Ils empêchent aussi la libération de l'ovule par l'ovaire dans environ la moitié des cycles menstruels.

Pas recommandé pour les adolescentes qui :

- Prennent des agents antirétroviraux avec du ritonavir comme inhibiteur de protéase
- Prennent un traitement à base de rifampicine ou de rifabutine pour la tuberculose

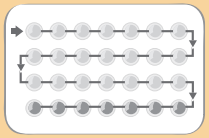
Avantages

- Peuvent être utilisés par les mères qui allaitent au sein, et peuvent être commencés immédiatement après l'accouchement
- Bonne option pour les adolescentes qui ne peuvent pas utiliser d'œstrogènes mais veulent utiliser des pilules
- La grossesse redevient possible immédiatement après avoir arrêté la pilule
- Ne gênent pas les relations sexuelles

Inconvénients

- Pour les adolescentes qui n'allaitent pas au sein, le mode d'écoulement des règles peut changer (y compris petites pertes de sang et aménorrhée)
- Doivent se prendre à la même heure chaque jour, ce qui peut être difficile à se rappeler pour les adolescentes – l'effet d'un retard de 3 heures est similaire à celui d'oublier une pilule
- Pas toujours discret (quelqu'un peut voir les pilules)
- Ne protègent pas contre les IST/HIV

Contraceptifs Oraux à Progestatif Seul (COP)



Présenter à la cliente la plaquette de pilules et lui donner les explications suivantes :

Comment utiliser les POPs

- Si vous pratiquer exclusivement l'allaitement maternel et que vos règles ne sont pas revenues, vous pouvez commencer les COP à n'importe quel moment dans les premiers 6 mois après l'accouchement, et sans méthode d'appoint.
- Si les règles sont revenues, vous pouvez commencer à prendre les COP dans les 5 premiers jours suivant le début des règles, et sans méthode d'appoint.
- Si plus de 6 mois se sont écoulés depuis l'accouchement ou si les règles sont revenues, mais qu'on n'est pas dans les 5 premiers jours après le début des règles, vous pouvez commencer à prendre les COP à n'importe quel moment à condition d'être raisonnablement certaine que vous n'êtes pas enceinte. Cependant, une méthode d'appoint comme un préservatif devrait être utilisée pendant les 2 premiers jours.
- Prendre une pilule par jour, à la même heure de la journée. Lorsqu'une plaquette est terminée, commencer une autre plaquette dès le lendemain.
- Ne pas manquer une journée ou prendre la pilule en retard. Cela peut être une bonne idée de prendre la pilule en même temps que quelque chose que vous faites chaque jour, comme vous laver le visage ou vous brosser les dents.

Les COP ne protègent pas contre les IST/VIH : pour se protéger à la fois contre la grossesse et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Pilules omises – ce qu'il faut faire

- Prendre une pilule ou des pilules dès que vous vous rappelez. Vous pouvez prendre 2 pilules en même temps ou le même jour.
- Continuer en prenant la prochaine pilule à l'heure habituelle.
- Utiliser une méthode d'appoint, comme un préservatif, pendant les 2 jours suivants.

Effets secondaires possibles

- Changement du mode d'écoulement des règles y compris aménorrhée, petites pertes de sang, règles irrégulières ou prolongées (pour les adolescentes qui n'allaitent pas au sein).
- Sensibilité des seins, maux de tête, vertiges, changements d'humeur, douleur abdominale ou nausées
- Pour les adolescentes qui allaitent au sein, le délai de retour des règles peut être plus long après l'accouchement.

Raisons de revenir voir le prestataire

- Vous avez arrêté d'allaiter au sein et souhaitez changer de méthode
- Vous avez pris une pilule avec plus de 3 heures de retard ou avez complètement oublié d'en prendre. Dans la même période, vous avez également eu un rapport sexuel et vous voulez envisager des PCU (pour les femmes qui ont leurs règles)
- Maux de tête sévères avec vision brouillée
- Dès qu'un problème survient ou si l'un des partenaires a été exposé à une IST
- Un réapprovisionnement en COP ou en préservatifs est nécessaire (toujours avoir au moins 1 paquet en réserve).

Demandez à la cliente de vous répéter cette information.

Préservatif Masculin

Qu'est-ce que c'est ?

Le préservatif masculin est une fine gaine qui se porte sur le pénis en érection lorsqu'un couple a des relations sexuelles.

Quel est leur degré d'efficacité ?

- Sur 100 couples utilisant des préservatifs pendant une année, typiquement 15 femmes qui tombent enceintes.
- S'ils sont utilisés correctement à chaque rapport sexuel, les préservatifs sont hautement efficaces pour protéger contre la plupart des IST (sauf Herpes Simplex et d'autres maladies donnant des ulcères génitaux), y compris contre le VIH.

Comment les préservatifs fonctionnent-ils ?

Le préservatif recueille le sperme masculin, de sorte que celui-ci ne peut pas pénétrer dans le vagin.

Non recommandé pour les adolescentes qui :

- Ont une allergie sévère au latex.

Les préservatifs sont toujours recommandés comme prévention des IST/VIH.

Si l'adolescent(e) a le sentiment qu'il/elle ne peut pas *toujours* négocier l'utilisation du préservatif, il est recommandé d'utiliser une méthode contraceptive additionnelle.

Remarque : Vous pourriez souhaiter vous référer au préservatif masculin comme le « préservatif externe » en fonction des populations que vous conseillez (par exemple personnes transgenres, femmes qui ont des rapports sexuels avec des femmes).

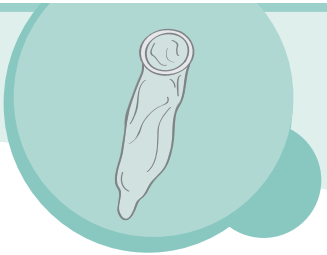
Avantages

- Inoffensif
- N'exige pas d'ordonnance ou d'examen médical
- Efficace et facile à utiliser
- Protège contre les IST/VIH

Inconvénients

- Interrompt l'acte sexuel
- Peut réduire la sensibilité sexuelle chez certains hommes et certaines femmes
- Nécessite une communication entre les partenaires et un consentement mutuel
- Un nouveau préservatif doit être utilisé chaque fois que le couple a un rapport sexuel
- Il faut avoir sous la main une provision de préservatifs avant tout rapport sexuel

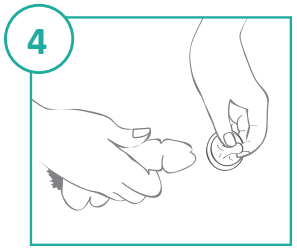
Préservatif Masculin

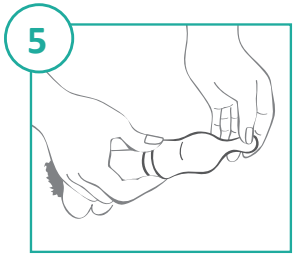


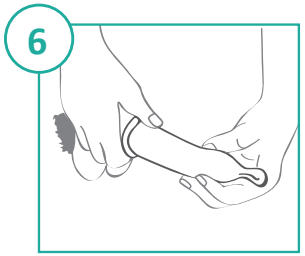
Présenter le préservatif au (à la) client(e) et lui donner les explications suivantes :

Comment utiliser le préservatif

1. Vérifier la date de péremption sur l'emballage du préservatif.
2. Ouvrir soigneusement l'emballage pour que le préservatif ne se déchire pas.
3. Ne pas dérouler le préservatif avant de l'enfiler.
4. Placer le préservatif non déroulé sur le gland du pénis durci.
5. Tenir le bout du préservatif avec le pouce et l'index.
6. Dérouler le préservatif jusqu'à ce qu'il recouvre le pénis.
7. Laisser assez d'espace au bout du préservatif pour le sperme.
8. Après l'éjaculation, tenir l'anneau du préservatif et retirer le pénis du vagin avant qu'il ne devienne mou.
9. N'utiliser qu'un préservatif à la fois.
10. Toujours garder une provision de préservatifs à portée de main.







Entretien des préservatifs

- Ne pas appliquer de lubrifiant à base d'huile (comme de l'huile pour bébé, de l'huile de cuisson, du pétrolatum/de la vaseline) parce qu'ils peuvent détruire le préservatif. On peut utiliser sans danger de l'eau propre, de la salive ou des lubrifiants à base d'eau.
- Conserver les préservatifs dans un endroit frais et sec. Ne pas les porter près du corps parce que la chaleur peut les détruire.
- Utiliser chaque préservatif une seule fois.
- Ne pas utiliser un préservatif si son emballage s'est rompu ou si le préservatif est sec ou collant, ou si sa couleur a changé.
- Prendre soin d'éliminer les préservatifs utilisés de manière appropriée.

Effets secondaires possibles

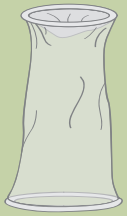
- Un préservatif peut se rompre ou être retiré involontairement pendant l'acte sexuel. Chez certains hommes et femmes, l'utilisation du préservatif provoque des démangeaisons, brûlures ou enflures à cause d'une allergie au latex.

Raisons de revenir voir le prestataire

- Toutes les fois qu'un problème survient (rupture du préservatif ou insatisfaction avec cette méthode)
- Un réapprovisionnement est nécessaire (ne jamais se trouver complètement à court avant de revenir)
- L'un ou l'autre des partenaires pense qu'il/elle a été exposé(e) à une IST

Demandez au (à la) client(e) de vous répéter cette information et de vous montrer l'utilisation du préservatif.

Préservatif Féminin



Qu'est-ce que c'est ?

Le préservatif féminin est une fine gaine lubrifiée ou un revêtement de film plastique souple qui s'adapte librement à l'intérieur du vagin de la femme. Il a des anneaux flexibles aux deux bouts ; l'anneau de l'extrémité intérieure est fermé et recouvre le col de l'utérus. Une femme utilise le préservatif féminin pendant les rapports sexuels pour empêcher la grossesse.

Quel est son degré d'efficacité ?

- Sur 100 femmes utilisant un préservatif féminin pendant une année, typiquement 21 tombent enceintes.
- Le préservatif féminin est également efficace pour prévenir de nombreuses IST, y compris le VIH, lorsqu'il est utilisé correctement chaque fois qu'une femme et son partenaire ont des rapports sexuels.

Comment le préservatif féminin fonctionne-t-il ?

Le préservatif recueille le sperme masculin, de sorte que celui-ci ne peut pas pénétrer dans le vagin.

Les préservatifs sont toujours recommandés comme prévention des IST/VIH.

Si l'adolescent(e) a le sentiment qu'il/elle ne peut pas toujours négocier l'utilisation du préservatif, il est également recommandé d'utiliser une méthode contraceptive additionnelle.

Remarque : Vous pourriez souhaiter vous référer au préservatif féminin comme le « préservatif interne » en fonction des populations que vous conseillez (par exemple personnes transgenres, hommes qui ont des rapports sexuels avec des hommes).

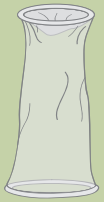
Avantages

- Inoffensif
- Efficace
- Peut être inséré jusqu'à 8 heures avant l'acte sexuel
- Peut s'utiliser avec des lubrifiants à base d'huile
- Peut donner une sensation plus naturelle que les préservatifs masculins pendant l'acte sexuel
- Protège contre les IST/VIH
- N'altère pas la flore vaginale et réduit les chances d'irritation ou de réaction allergique

Inconvénients

- Coûte plus cher que le préservatif masculin
- Peut occasionner du bruit ou de la gêne
- Exige un certain degré de coopération et le consentement du partenaire masculin
- Peut être difficile à insérer

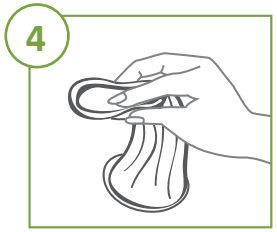
Préservatif Féminin

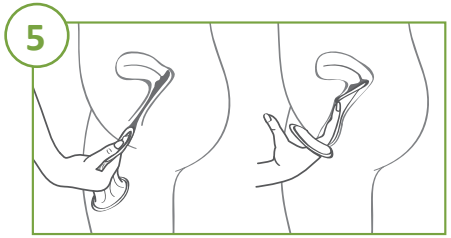


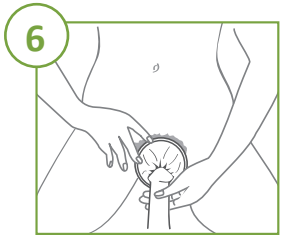
Présenter le préservatif féminin à la cliente et lui donner les explications suivantes :

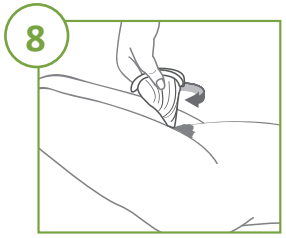
Comment utiliser le préservatif féminin

1. Vérifier la date de péremption sur l'emballage du préservatif.
2. Ouvrir soigneusement l'emballage pour que le préservatif ne se déchire pas.
3. Trouver l'anneau intérieur, qui est à l'extrémité fermée du préservatif.
4. Presser l'anneau intérieur.
5. Mettre l'anneau intérieur dans le vagin et le pousser à l'intérieur avec le doigt, pendant que l'anneau extérieur reste à hors du vagin.
6. Pendant l'acte sexuel, guider le pénis à travers l'anneau extérieur. S'il est en dehors de l'anneau, il n'y aura pas de protection contre la grossesse ou les IST/VIH.
7. Retirer le préservatif tout de suite après le rapport sexuel, avant de vous mettre debout
8. Presser et tordre l'anneau extérieur de manière à ce que le sperme reste à l'intérieur de l'étui.
9. Tirer doucement l'étui.
10. Brûler ou enterrer le préservatif, ne pas le jeter aux toilettes.









Suggérer à la cliente de s'exercer à insérer et à retirer le préservatif avant de l'utiliser pour la première fois dans un rapport sexuel, et d'essayer différentes positions pour voir de quelle manière il est le plus facile à insérer.

Entretien des préservatifs féminins

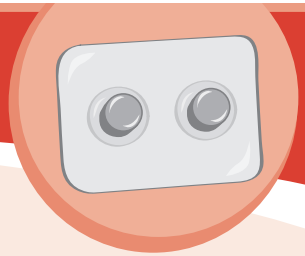
- Conserver les préservatifs dans un endroit frais et sec. Ne pas les porter près du corps parce que la chaleur peut les détruire.
- Utiliser chaque préservatif une seule fois.
- Ne pas utiliser un préservatif si son emballage s'est rompu ou si le préservatif est sec ou collant ou si sa couleur a changé.
- Toujours garder une provision de préservatifs à portée de main.

Effets secondaires possibles

- Il n'y a généralement pas d'effets secondaires. Parfois, un préservatif peut se rompre ou être retiré involontairement pendant l'acte sexuel.
- Très peu de femmes ont une réaction ou une irritation allergique.
- Raisons pour revenir voir le prestataire
- Toutes les fois qu'un problème survient (rupture du préservatif ou insatisfaction avec cette méthode)
- Un réapprovisionnement en préservatifs est nécessaire (ne jamais se trouver complètement à court)
- L'un ou l'autre des partenaires pense qu'il/elle a été exposé(e) à une IST

Demandez à la cliente de vous répéter cette information.

Pilules Contraceptives d'Urgence (PCU)



Qu'est-ce que c'est?

Les PCU sont une méthode hormonale de contraception qui peut être utilisée pour empêcher la grossesse jusqu'à 120 heures (5 jours) après un acte sexuel non protégé.

Quel est leur degré d'efficacité?

- Sur 100 femmes utilisant des PCU uniquement à base de progestatif, typiquement 1 tombe enceinte.
- Sur 100 femmes utilisant des PCU combinées (à base d'œstrogène et de progestatif), typiquement 2 tombent enceinte.
- Les PCU sont plus efficaces quand elles sont utilisées très peu de temps après un acte sexuel non protégé.
- Il n'y a aucune restriction à un usage répété ; néanmoins, l'accent devrait être mis sur des conseils au sujet de méthodes plus efficaces.
- Un indice de masse corporelle (IMC) élevé peut réduire l'efficacité. Néanmoins, puisque le CU est sans danger, cela ne devrait jamais constituer une raison pour qu'il soit refusé aux femmes. L'OMS recommande que le CU puisse être utilisé par les femmes obèses.

Comment les PCU fonctionnent-elles?

- Les PCU empêchent une grossesse de se produire. Elles ne perturbent pas une grossesse déjà implantée. Les PCU empêchent l'ovule de quitter l'ovaire et peuvent épaissir la muqueuse cervicale, ce qui empêche la rencontre entre le sperme et l'ovule.
- Les PCU ne font que prévenir la grossesse consécutive à un acte sexuel non protégé survenu avant la prise des pilules. Elles n'empêchent pas la grossesse résultant d'un acte sexuel qui survient après la prise des pilules.

Remarque : Le DIU-Cu peut également être utilisé comme une méthode de contraception d'urgence. En tant que tel, il est très efficace dans la prévention de la grossesse et peut continuer à être utilisé comme contraception par la cliente.

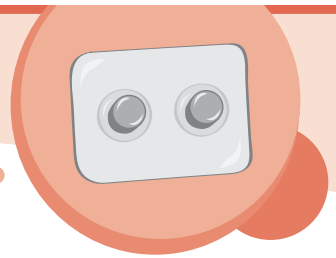
Avantages

- Inoffensives pour les femmes de tous âges, y compris les adolescentes qui ont moins de chances de se préparer à leur première rencontre sexuelle
- Réduisent le risque de grossesse non désirée et la nécessité d'avorter
- Appropriées pour utilisation après un acte sexuel non protégé (y compris un viol ou l'échec d'une méthode contraceptive)
- Offrent une étape de transition vers la pratique d'une contraception régulière
- L'exposition au médicament et les effets secondaires sont de courte durée

Inconvénients

- Ne protègent pas contre les IST/VIH
- Ne fournissent pas de protection durable contre la grossesse
- Doivent être utilisées au plus tard dans les 120 heures suivant un acte sexuel non protégé (et être prises le plus tôt possible pour une efficacité optimale)
- Peuvent changer la date des prochaines règles
- Inappropriées en usage régulier (taux cumulatif élevé de grossesses).

Pilules Contraceptives d'Urgence (PCU)



Présenter à la cliente les PCU et lui donner les explications suivantes:

Comment utiliser les PCU

- Il est important de prendre les PCUs le plus tôt possible après des rapports sexuels non protégés, dans les 120 heures (5 jours) qui suivent.
- Pour les PCUs uniquement à base de progestatifs (produit dédié) : les PCUs uniquement à base de progestatifs se présentent sous deux formes : des paquets d'1 pilule et des paquets de 2 pilules. Les paquets de 2 pilules contiennent les instructions pour prendre les pilules à 12 heures d'intervalle, mis les deux pilules devraient être prises ensemble si possible. Les PCUs devraient être priwses le plus tôt possible après des rapports sexuels non protégés, et pas plus tard que 120 heures après des rapports sexuels non protégés.
- Pour l'acétate d'ulipristal : Un comprimé d'ulipristal devrait être pris le plus tôt possible après des rapports sexuels non protégés, et pas plus tard que 120 heures après des rapports sexuels non protégés.
- Pour les PCU uniquement à base de progestatifs (produit dédié) : lorsque c'est possible, prendre 2 pilules en même temps dans les 120 heures suivant le rapport sexuel non protégé, ou prendre 1 pilule dans les 120 heures et 1 autre pilule 12 heures plus tard.
- Pour les contraceptifs oraux combinés (COC) : une dose de 0,1 mg d'éthinyl estradiol plus 0,5 mg de lévonorgestrel suivie d'une deuxième dose identique 12 heures plus tard.
- En cas de vomissement dans les deux heures suivant la prise des PCU, prendre une autre dose dès que possible.
- Si des vomissements surviennent après 2 heures, aucune dose supplémentaire n'est nécessaire.
- Pour réduire la nausée, prendre les comprimés après avoir mangé ou utiliser un médicament contre la nausée.
- Ne pas prendre de PCU supplémentaires sauf en cas de vomissement. Le fait de prendre plus de pilules n'entraîne pas de diminution supplémentaire du risque de grossesse.

Effets secondaires possibles:*

- Nausées et vomissements
- Maux de tête ou vertiges
- Crampes/douleurs abdominales
- Sensibilité des seins
- Changement du mode de saignement lors des règles ou légers saignements irréguliers pendant 1 à 2 jours après avoir pris les PCU

À quoi s'attendre après avoir utilisé les PCU

Il n'y aura pas de manifestations immédiates des résultats. Les prochaines règles devraient survenir à temps (ou avec quelques jours d'avance ou de retard).

Raisons de revenir voir le prestataire

- Si les prochaines règles ont plus d'une semaine de retard par rapport à la date prévue
- Chaque fois qu'un problème survient ou si l'un des partenaires a été exposé à une IST

Méthodes contraceptives après les PCU:

- C'est peut-être maintenant le bon moment pour initier une méthode contraceptive régulière. Les COC et COP peuvent être initiés le jour qui suit la prise des PCU.
- L'AMPR, les DIU et les préservatifs masculins et féminins peuvent être initiés le jour même de la prise de PCU.
- Pour l'implant, il faut revenir après les prochaines règles.

Les PCU ne protègent pas contre les IST/VIH : pour se protéger à la fois contre la grossesse et les IST/VIH, il faut utiliser un préservatif à chaque rapport sexuel.

Demandez à la cliente de vous répéter cette information.

* La plupart des effets secondaires ne durent pas plus de 24 heures.

17. CVs of investigators

June 2018

Berk Özler

Education

Cornell University, Ithaca, NY, Ph.D. in Economics, 2001

Boğaziçi University, Istanbul, Turkey, B.Sc. in Mathematics, 1991

Employment History

World Bank, Senior Economist, Development Research Group, 2007 – current.

University of Otago, Associate Professor, Department of Economics, April 1, 2013 – July 4, 2014.

World Bank, Economist, Development Research Group, 2001 - 2007

World Bank, Consultant, Development Research Group, 1996 - 2000

World Bank, Summer Intern, Development Research Group, 1993 – 1995

Other Affiliations

University of Otago, Sabbatical Visitor, Department of Economics, 2012.

Paris School of Economics, DIMeco Guest Researcher, March – April 2011.

University of California, San Diego Visiting Scholar, School of International Relations and Pacific Studies, September 2007 – September 2008.

Courses Taught

University of Otago, 'ECON 402: Growth and Development,' 2013; 'ECON 406: Labour and Population Economics,' 2013; 'BSNS 102: Quantitative Analysis for Business,' 2012 & 2013

Paris School of Economics 'Social Policies in Developing Countries,' 2009/2010 (Master's Program in Public Policy and Development)

University of Namur 'Introduction to Questionnaire Design,' 2009 (AMID Summer School for PhD students and junior faculty)

Languages

Turkish (native), English (fluent), Spanish (fair), French (fair)

Personal Information

Citizen of Turkey and the United States

Publications

1. Baird, S., McKenzie, D., and Özler, B. (2018), "The Effects of Cash Transfers on Adult Labor Market Outcomes." *Forthcoming, IZA Journal of Development and Migration*.

2. Baird, B., Bohren, A., McIntosh, C., and Özler, B., "Designing Experiments to Measure Spillover Effects," *Forthcoming. Review of Economics and Statistics*.

3. Özler, B., Fernald, L. C. H., Kariger, P., McConnell, C., Neuman, M. J., and Fraga, E. (2018), "Combining Pre-School Teacher Training with Parenting Education: A Cluster-Randomized Controlled Trial," *Journal of Development Economics,* Vol. 133, pp. 448-467.

4. Halloran et al. (2017), "Simulations for Designing and Interpreting Intervention Trials in Infectious Diseases," *BMC Medicine*, Vol. 15(1): 223.

5. Ferreira, F. H. G., Lakner, C., Lugo, M. A., and Özler, B. (2017), "Inequality of Opportunity and Economic Growth: How much can cross-country regressions really tell us?" *Review of Income and Wealth*. doi: 10.1111.roiw.12311.

6. Baird, S., Gong, E., McIntosh, C., and Özler, B. (2014), "The Heterogeneous Effects of HIV Testing," *Journal of Health Economics*, Vol. 37, pp. 98-112.

7. McKenzie, D. and Özler, B. (2014), "The Impact of Economics Blogs," *Economic Development and Cultural Change*, Vol. 62(3), pp. 567-597.

8. Baird, S., Ferreira, F., Woolcock, M., and Özler, B. (2014), "Conditional, Unconditional and Everything in Between: A Systematic Review of the Effects of Cash Transfer Programs on Schooling Outcomes," *Journal of Development Effectiveness*, Vol. 6(1), pp. 1-43.

    a. Baird, S., Ferreira, F. H. G., Woolcock, M., and Özler, B. (2013), "Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review," *Campbell Systematic Reviews*, 2013:8.

9. Baird, S., McIntosh, C., and Özler, B. (2013), "The Regressive Demands of Demand-Driven Development," *Journal of Public Economics*, Vol. 106, pp. 27-41.

10. Baird, S., de Hoop, J., and Özler, B. (2013), "Income Shocks and Adolescent Mental Health," *Journal of Human Resources*, Vol. 48(2), pp. 370-403.

11. Baird, S., Garfein, R., McIntosh, C., and Özler, B. (2012), "Impact of a cash transfer program for schooling on prevalence of HIV and HSV-2 in Malawi: a cluster randomized trial," *The Lancet*, Vol. 379(9823), pp. 1320-1329.

a. Baird, S., Garfein, R., McIntosh, C., and Özler, B. (2012), Authors' reply to "Cash transfer scheme for reducing HIV and herpes simplex type 2," correspondence in *The Lancet*, Vol. 380(9844), pp. 802.

12. Baird, S., and Özler, B. (2012), "Examining the Reliability of Self-Reported Data on School Participation," *Journal of Development Economics*, Vol. 98(1), pp. 89-93.

13. Baird, S., McIntosh, C., and Özler, B. (2011), "Cash or Condition? Evidence from a Cash Transfer Experiment," *Quarterly Journal of Economics*, Vol. 126(4), pp. 1709-1753.

14. Baird, S., Chirwa, E., McIntosh, C., and Özler, B. (2010), "The Short-Term Impacts of a Schooling Conditional Cash Transfer Program on the Sexual Behavior of Young Women," *Health Economics*, Vol. 19(S1), pp. 55-68.

15. Elbers, C., Lanjouw, P., Mistiaen, J., and Özler, B. (2008), "Reinterpreting Between-Group Inequality," *Journal of Economic Inequality*, Vol. 6(3), pp. 231-245.

16. Araujo, M. C., Ferreira, F. H. G., Lanjouw, P., and Özler, B. (2008), "Local Inequality and Project Choice: Theory and Evidence from Ecuador," *Journal of Public Economics*, Vol. 92(5-6), pp. 1022-1046.

17. Elbers, C., Fujii, T., Lanjouw, P. Yin, W., and Özler, B. (2007), "Poverty Alleviation Through Geographic Targeting: How Much Does Disaggregation Help?" *Journal of Development Economics*, Vol. 83(1), pp. 198-213.

18. Özler, B. (2007), "Not Separate, Not Equal: Poverty and Inequality in Post-Apartheid South Africa," *Economic Development and Cultural Change*, Vol. 55(3), pp. 487-529.

19. Özler, B., and Prennushi, G., (2006), "Toward Greater Global Equity," *Nordic Journal of Political Economy*, Vol. 32, pp. 3-15.

20. Demombynes, G., and Özler, B. (2005), "Crime and Local Inequality in South Africa," *Journal of Development Economics*, Vol. 76(2), pp. 265-292.

21. Das, J., Do, Q.-T., and Özler, B. (2005), "Reassessing Conditional Cash Transfer Programs," *World Bank Research Observer*, Vol. 20(1), pp. 57-80.

22. Elbers, C., Lanjouw, P., Mistiaen, J., Simler, K., and Özler, B. (2004), "On the Unequal Inequality of Poor Communities," *World Bank Economic Review*, Vol. 18(3), pp. 401-421.

23. Alderman, H., Babita, M., Demombynes, G., Makhatha, N., and Özler, B. (2003), "How Low Can You Go? Combining Census and Survey Data for Mapping Poverty in South Africa," *Journal of African Economies*, Vol. 11(2), pp.169-200.

Chapters in Edited Volumes

24. Baird, S., Ahner-Mchaffie, T., and Özler, B. *In press*. "Education, Poverty and HIV: Can Interventions in Education and Economics be Successful Tools for HIV Prevention among Young Women in SSA?" in R.A. Crosby and R.J. DiClemente (editors), Preventing HIV Transmission and Improving HIV Care Through the Use of Structural-Level Approaches: Global Insights from Successful Approaches. Oxford University Press.

25. Baird, S., Chirwa, E., de Hoop, J., and Özler, B. (2016), "Girl Power: Cash Transfers and Adolescent Welfare. Evidence from a Cluster-Randomized Experiment in Malawi," in S. Edwards, S. Johnson, D. Weil (editors), African Successes, Volume II: Human Capital, University of Chicago Press. NBER Working Paper 19479.

26. Baird, S., and Özler, B. (2016), "Transactional Sex in Malawi," in S. Cunningham and M. Shah (editors), The Oxford Handbook of the Economics of Prostitution, Oxford University Press.

27. Baird, S., and Özler, B. (2015), "Conditional Cash Transfers: Influence on Marriage and Fertility," in James D. Wright (editor-in-chief), International Encyclopedia of the Social & Behavioral Sciences, 2nd edition, Vol 4, pp. 555–559. Oxford: Elsevier.

28. Chomitz, K., Corson, C., Gorenflo, L., Harper, G., Honzak, M. and Özler, B. (2011), "Exploring the Association between People and Deforestation in Madagascar," in R. Cincotta and L. Gorenflo (editors), Human Population: Its Influences on Biological Diversity, Springer.

29. Lanjouw, P., and Özler, B. (2007), "Administrative Data in a Study of Local Inequality and Project Choice: Issues in Interpretation and Relevance," in S. Amin, J. Das, and M. Goldstein (editors), Are You Being Served? New Tools for Measuring Service Delivery**,** World Bank Publications.

30. Demombynes, G., and Özler, B. (2006), "Crime and Local Inequality in South Africa," in H. Bhorat and R. Kanbur (editors), Poverty and Policy in post-apartheid South Africa, HSRC Press: Pretoria.

31. Hoogeveen, J., and Özler, B. (2006), "Poverty and Inequality in Post-Apartheid South Africa: 1995-2000," in H. Bhorat and R. Kanbur (editors), Poverty and Policy in post-apartheid South Africa, HSRC Press: Pretoria.

32. Elbers, C., Lanjouw, P., Mistiaen, J., Simler, K., and Özler, B. (2005), "Are Neighbors Equal? Estimating Inequality in Three Developing Countries," in R. Kanbur, T. Venables (editors), Spatial Inequality and Development, Oxford University Press.

33. Demombynes, G., Elbers, C., Lanjouw, J. O., Lanjouw, P., Mistiaen, J., and Özler, B. (2004), "Producing an Improved Geographic Profile of Poverty. Methodology and Evidence from Three Developing Countries," in R. van der Hoeven, A. Shorrocks (editors), Growth, Inequality, and Poverty – Prospects for Pro-poor Economic Development, Oxford University Press.

Working Papers and Manuscripts under Review

1. Özler, B, Hallman K., Guimond M. F., and Kelvin E. (2018), "A Gender Transformative Mentoring and Cash Transfer Intervention to Promote Adolescent Wellbeing: Impact Findings from a Cluster-Randomized Controlled Trial in Liberia." *Under review*.
2. Baird, S., McIntosh, C., and Özler, B. (2016), "When the Money Runs Out: Do Cash Transfers Have Sustained Effects on Human Capital Accumulation?" World Bank Policy Research Working Paper No. 7901, *under review*.

Work in Progress

"Validity of measures used to assess cognitive, language and fine motor skills in rural Malawi" (with Patricia Kariger, Lia Fernald, and Eduardo Fraga)

"Building Businesses among the Vulnerable: Experimental Evidence from Tanzania" (with Sarah Baird, Craig McIntosh, and Utz Pape)

"Using Cash Transfers to Fight HIV among Adolescent Girls: Exploring Causal Pathways with a Randomized Experiment" (with Sarah Baird and Craig McIntosh)

"Combining a structural model and a randomized experiment in Malawi to study policy impacts of conditional and unconditional cash transfer programs" (with Sarah Baird, Gil Shapira, and Petra Todd)

Permanent Working Papers

Sarah Baird and Berk Özler (2016), "Sustained Effects on Economic Empowerment of Interventions for Adolescent Girls: Existing Evidence and Knowledge Gaps." Background Paper, Washington, DC: Center for Global Development. http://www.cgdev.org/sites/default/files/sustained-effects-economic-empowerment.pdf

Hallman, K., Kelvin, E., Özler, B., Seban, J., and others (2016), "Combining Mentoring Programs with Cash Transfers for Adolescent Girls in Liberia: Baseline Report," World Bank Policy Research Working Paper 7797.

Baird, S., McIntosh, C., and Özler, B. (2009), "Designing Cost-Effective Cash Transfer Programs to Boost Schooling in Sub-Saharan Africa," World Bank Policy Research Working Paper 5090.

Beegle, K., and Özler, B. (2007), "Young Women, Rich(er) Men, and the Spread of HIV," *Mimeo*.

King, E., and Özler, B. (2005), "What's Decentralization Got to Do with Learning? School Autonomy and Student Performance," Discussion Paper No. 054, Interfaces for Advanced Economic Analysis, Kyoto University.

Mistiaen, J., and Özler, B. (2002), "Putting Welfare on the Map in Madagascar," Africa Region Working Paper Series No. 34.

King, E., Özler, B., and Rawlings, L. (1999), "Nicaragua's School Autonomy Reform: Fact or Fiction?" Working Paper Series on Impact Evaluation of Education Reforms, Development Research Group, The World Bank, No. 19.

Major World Bank Publications

World Development Report 2006: Equity and Development.

Nonacademic Publications

FiveThirtyEight, "Lesson's from Brazil's War on Poverty," July 2, 2014.

Software

Power Calculator: Designing Experiments in the Presence of Interference (2017)

Selected Press Mentions and Media Appearances

New York Times, "African Studies Give Women Hope in H.I.V. Fight," July 19, 2010.

Financial Times, "HIV cut in Africa by paying teenagers," July 19, 2010.

BBC, "Paying to Change Behavior," July 19, 2010.

IRIN News, "Unconditional Money," August 2, 2010.

Newsweek, "A New Fix for the Needy," October 25, 2010.

NPR, "Helping the Poor, with Conditions" February 9, 2011.

Bloomberg, "African Girls Getting World Bank Cash Deters Sugar Daddies," March 15, 2011.

The Economist, "Link Exchange," July 6, 2011.

Positive Living Society of British Columbia, "What's next for HIV prevention? Paying people to be healthy?" July 25, 2011.

The Economist, "Link Exchange," August 12, 2011.

Freakonomics, "The Economics of Economics Blogs," August 15, 2011.

The Economist, "Economics blogs: A less dismal debate," December 31, 2011.

The Guardian, "Cash payments help cut HIV infection rate in young women, study finds," February 14, 2012.

The Economist, "Preventing AIDS: A drug called money," February 15, 2012.

Voice of America, "Fighting Poverty, Protecting Women from HIV," February 16, 2012.

BBC Health Check, "Paying people to be healthy," February 22, 2012.

Slate, "Want to Get Young Women to Use Condoms? Give Them Money," March 1, 2012.

GW Today, "Prevention Pays Off," March 12, 2012.

New York Times, "A Gates Summit Hopes to Fill Family Planning Gap," July 11, 2012.

BusinessWeek, "For Fighting Poverty, Cash is Surprisingly Effective," June 3, 2013.

The Dish, "Poverty's Cash Flow Problem," June 5, 2013.

The Atlantic, "Paying Teens Not to Have Sex: What Mississippi Can Learn from Malawi," August 12, 2013.

The Monkey Cage, "The Promise and Perils of Sharing Work-in-Progress," September 9, 2013.

The Economist, "Pennies from heaven," October 26, 2013.

New York Times, "Study That Paid Patients to Take HIV Drugs Fails," February 24, 2015.

Insight, "Does Money Talk?" May 2015

Vox, "Giving poor people cash makes them happier – and their cashless neighbors miserable," January 23, 2016.

The Christian Science Monitor, "To fight poverty in Africa, a new-old solution: cash handouts," December 11, 2016.

Vox, "This Kenyan Village is a laboratory for the biggest basic income experiment ever," March 6, 2017.

PBS Newshour Weekend, "Group gives cash aid to rural Kenyans, then studies its effects," April 8, 2017.

Mother Jones, "Small Cash Grants Might Not Work as Well as We Think," March 28, 2018.

Funded Proposals and Awards

$200,000 World Bank (Knowledge for Change Trust Fund), 2017

"Increasing uptake of long-acting reversible contraceptives (LARCs) among adolescent females in Cameroon"

$400,000 Strategic Impact Evaluation Fund, 2015

"Effects of Quality Improvement Strategies on Early Childhood Development in Community-Based Childcare Centers in Malawi: A Randomized Trial. Long-term Follow-Up."

$200,000 World Bank (Knowledge for Change Trust Fund), 2014

"Weekend Special: A Sports-Based Intervention to Encourage Uptake of Voluntary Medical Male Circumcision in Zimbabwe."

$594,955 Strategic Impact Evaluation Fund, 2013

"Effects of Quality Improvement Strategies on Early Childhood Development in Community-Based Childcare Centers in Malawi: A Randomized Trial."

$91,920 World Bank (Research Support Budget), 2012

"Tracking the Long-Term Effects of a CCT Program in Sub-Saharan Africa: Augmenting Survey Data with Biomarkers."

$60,000 3ie-DfID-AusAID Joint Call for Systematic Reviews, 2011

"What is the evidence on the relative effectiveness and cost effectiveness of conditional cash transfers versus unconditional cash transfers in improving health, education and household welfare?"

$800,000 3ie Open Window: Second Round, 2010

"Understanding the Long Term Impacts of a Schooling Conditional Cash Transfer Program"

$540,000 World Bank (Research Support Budget), 2009

"Unpacking the Impacts of a Randomized CCT program in sub-Saharan Africa"

$65,000 National Bureau of Economic Research, 2009

"Schooling Quality and Quantity: What Impact Does It Have on Health in Malawi?"

$50,000 World Bank (Hewlett Foundation Trust Fund), 2009

"Schooling, Income, and HIV Risk"

$35,000 World Bank (Gender Action Plan), 2009

"Can CCTs provide adequate protection for adolescent girls and young women during times of economic crises?"

$170,000 World Bank (Gender Action Plan), 2008

"The Impact of Female Education on Labor Market Outcomes in Malawi"

$311,500 World Bank (Spanish Impact Evaluation Fund), 2007

"Schooling, Income, and HIV Risk"

$260,000 World Bank (Knowledge for Change Trust Fund), 2007

"Schooling, Income, and HIV Risk"

$50,000 World Bank (World Development Report Small Grants Fund), 2007

"Schooling, Income, and HIV Risk"

$304,000 Global Development Network, 2007

"Schooling, Income, and HIV Risk"

$274,500 World Bank (Research Support Budget), 2007

"Marriage Transitions in Malawi"

Selected Presentations (since 2011)

2017: Annual Meeting of the American Economic Association (Chicago, IL), Center for the Study of African Economies Annual Conference (Oxford, U.K.), Impact Evaluation Network 10th Anniversary Meeting (Washington, DC).

2016: Workshop on Causal Inference with Highly Dependent Data in Communicable Diseases Research (Harvard University, Cambridge, MA), Cowles Econometrics Conference (Yale University, New Haven, CT), Applied Microeconomics and Development Seminar (IFPRI, Washington, DC), Africa Economics Seminar Series (World Bank, Washington, DC), Modeling and trial design workshop (Fred Hutchinson Cancer Research Center, Seattle, WA), Quantitative Methods Workshop (Yale University, New Haven, CT), Behavioral Economics and Global Health Conference (UC Berkeley, Berkeley, CA).

2015: Middlebury College (Middlebury, VT), Washington Area Development Economics Symposium, (Georgetown University, Washington, DC), Africa Economics Seminar Series (World Bank, Washington, DC), Seminar (Center for Global Development, Washington, DC).

2014: Annual Bank Conference on Development Economics (World Bank, Washington, DC), Africa Big Ideas Conference (World Bank, Washington, DC)

2013: Labour Econometrics Workshop (**keynote address**; Melbourne, Australia), University of Melbourne (Melbourne, Australia), University of Sydney (Sydney, Australia), Monash University (Melbourne, Australia), University of Otago (Dunedin, New Zealand)

2012: Yale University (New Haven, CT), Australasian Development Economics Workshop (Melbourne, Australia), New Zealand Economic Association Conference (New Palmerston, New Zealand), World Bank (Washington, DC), Monash University (Melbourne, Australia), University of Otago (Dunedin, New Zealand)

2011: BREAD Conference (New York, NY), International Center for Research on Women (Washington, DC), UNESCO (New York, NY), El Instituto Nacional de Salud Publica (Cuernavaca, Mexico), Midwest International Economic Development Conference (Madison, WI), Paris School of Economics (Paris, France), University of Auckland (Auckland, New Zealand), University of Waikato (Hamilton, New Zealand), University of Otago (Dunedin, New Zealand), University of Michigan (Ann Arbor, MI), University of Pennsylvania (Philadelphia, PA), World Bank Poverty and Applied Micro Seminar Series (Washington, DC).

Professional Service

Referee Service

African Studies Quarterly, American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, American Economic Review, Crime and Delinquency, Economic Development and Cultural Change, Economic Inquiry, Economic Letters, European Journal of Health Economics, Journal of African Economies, Journal of Comparative Economics, Journal of Development Economics, Journal of Development Effectiveness, Journal of Economic Literature, Journal of Health Economics, Journal of Human Resources, Journal of Public Economics, Oxford Economic Papers, Preventive Medicine, Quarterly Journal of Economics, Review of Economics and Statistics, Science, Social Science and Medicine, The Lancet, World Bank Economic Review, World Development.

Grant Review

National Institutes of Health (NIH)

Global Innovations Fund (GIF)

International Initiative for Impact Evaluation (3ie)

Growth and Labour Markets in Low Income Countries program (GLM-LIC) for the Institute for the Study of Labor (IZA) and the UK Department for International Development (DFID)

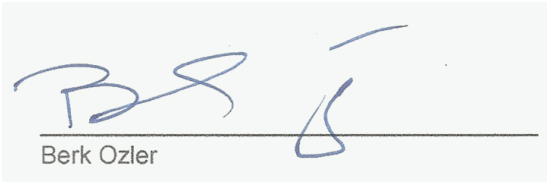
Other

Development Impact Blog

A blog about impact evaluations, covering news, views, methods, and insights from the world of impact evaluation (founder and contributor with David McKenzie, Jed Friedman, and Markus Goldstein since April 2011)

World Bank Service

Staff Association Delegate, from 2001-2004.



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Sarah J. Baird

EMPLOYMENT

2015-Present	Associate Professor of Global Health and Economics, Department of Global Health, George Washington University.
2009-2015	Assistant Professor of Global Health and Economics, Department of Global Health, George Washington University.
2013-2014	Senior Lecturer, Department of Economics/Preventive and Social Medicine, University of Otago.
2007-2009	Postdoctoral Scholar, School of International Relations and Pacific Studies, University of California at San Diego.

OTHER AFFILIATIONS

2013-Present	Affiliated Faculty, Centre for International Health, University of Otago.
2012-Present	Advisory Group, Global Gender Program, Elliot School of International Affairs, GWU.
2010-Present	Affiliated Faculty, The Institute for International Economic Policy (IIEP), Elliot School of International Affairs, GWU.
2012	Visiting Researcher, University of Otago, Department of Economics.
Dec 2011	DIMeco Guest Researcher, Paris School of Economics

EDUCATION

PhD	University of California at Berkeley. Agricultural & Resource Economics, 2007.
MS	University of California at Berkeley. Agricultural & Resource Economics, 2002.
BA	Claremont McKenna College. Economics, Environmental Science, & Politics, 2001.

PRIMARY RESEARCH FIELDS

Development Economics, Program Design and Evaluation, Applied Microeconomics, Health Economics

FORTHCOMING AND PUBLISHED PAPERS: ECONOMICS

1. Baird, S., Bohren, A., McIntosh, C., and *Ö*zler, B. (forthcoming). "Optimal Design of Experiments in the Presence of Interference." *Review of Economics and Statistics.*
2. Baird, S., Hamory Hicks, J., Kremer, M. and Miguel, E. (2017). "Commentary: Assessing long-run deworming impacts on education and economic outcomes: a comment on Jullien, Sinclair and Garner (2016)." *International Journal of Epidemiology,* doi: 10.1093/ije/dyw350.
3. Baird, S., Hamory-Hicks, J., Kremer, M., and Miguel, E. (2016) "Worms at Work: Long Run Impacts of a Child Health Investment." *Quarterly Journal of Economics*, Vol. 131 (4), pp.1637-1680.
4. Baird, S and *Ö*zler, B. (2016)."Sustained Effects on Economic Empowerment of Interventions for Adolescent Girls: Existing Evidence and Knowledge Gaps." *Center for Global Development*

Background Paper. Washington, DC: Center for Global Development.

5. Cintron, C., Seff, I., and Baird, S. (2016) "Dynamics of Wasting and Underweight in Ethiopian Children." *Ethiopian Journal of Economics*, Vol. 25 (2), pp. 113-170.
6. Ahuja, A., Baird, S., Hamory Hicks, J., Kremer, M., Miguel, E., and Powers, S. (2015), "When Should Governments Subsidize Health? The Case of Mass Deworming," *World Bank Economic Review*, Vol. 29 (suppl 1), pp. S9-S24.
7. Baird, S., Gong, E., McIntosh, C. and Özler, B. (2014), "The heterogeneous effects of HIV testing," *Journal of Health Economics*, Vol. 37, pp. 98-112.
8. Baird, S., Ferreira, F., Özler, B., and Woolcock, M. (2014),"Conditional, Unconditional and Everything in Between: A Systematic Review of the Effects of Cash Transfer Programs on Schooling Outcomes," *Journal of Development Effectiveness*, Vol. 6(1), pp. 1-43.
9. Baird, S., McIntosh, C. and Özler, B. (2013), "The Regressive Demands of Demand Driven Development," *Journal of Public Economics*, Vol. 106, pp. 370-403.
10. Baird, S., Ferreira, F., Özler, B., Woolcock, M. (2013),"Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review," *Campbell Systematic Reviews*, 2013:8.
11. Baird, S., de Hoop, J. and Özler, B. (2013) "Income Shocks and Adolescent Mental Health," *Journal of Human Resources*, Vol. 48(2), pp. 370-403.
12. Baird, S. and Özler, B. (2012), "Examining the Reliability of Self-Reported Data on School Participation," *Journal of Development Economics*, Vol. 98(1), pp. 89-93.
13. Baird, S., McIntosh, C., and Özler, B. (2011), "Cash or Condition: Evidence from a Randomized Cash Transfer Program" *Quarterly Journal of Economics*, Vol. 126(4), pp. 1709-1753.
14. Baird, S., Friedman, J. and Schady, N. (2011), "Aggregate Income Shocks and Infant Mortality in the Developing World," *Review of Economics and Statistics*, Vol. 93(3), pp. 847-856.
15. Baird, S., Chirwa, E., McIntosh, C. and Özler, B. (2010), "The short-term impacts of a schooling conditional cash transfer program on the sexual behavior of young women," *Health Economics*, Vol. 19(S1), pp. 5568.

FORTHCOMING AND PUBLISHED PAPERS: PUBLIC HEALTH

1. Bundy, D.A.P., de Silva, N., Horton, S., Patton, G.C., Schultz, L., Jamison, D.T., and Adolescent Health and Development Authors Group (Baird, S. is member). (2017). Investment in child and adolescent health and development: key messages from Disease Control Priorities, 3rd Edition. *The Lancet.* ISSN 0140-6736, https://doi.org/10.1016/S0140-6736(17)32417-0.
2. Talib, Z., van Schalkwyk, S., Couper, I., Pattanaik, S., Turay, K., Sagay, A., Baingana, R., Baird, S., Gaede, B., Iputo, J., Kibore, M., Manongi, R., Matsika, A., Mogodi, M., Ramucesse, J. Ross, H., Simuyeba, M., Haile-Mariam, D. (2017). "Medical Education in Decentralized Settings: How Medical Students Contribute to Health Care in 10 Sub-Saharan African Countries." *Academic Medicine*, [published online ahead of print October 17, 2017] doi: 10.1097/ACM.0000000000002003.
3. Omaswa, F., Kiguli-Malwadde, E., Donkor, P., Hakim, J., Derbew, M., Baird, S., Frehywot, S., Gachuno, O.W., Kamiza, S., Kibwage, I.O., Mteta, K.A., Mulla, Y., Mullan, F., Nachega, J.B., Nkomazana, O., Noormohamed, E., Ojoome, V., Olalaye, D., Pillay, S., Sewankambo, N.K., de Villiers, M. (2017). "Medical Education Partnership Initiative gives birth to AFREhealth." *The Lancet Global Health,* Vol. 5 (10), e965 - e966.

4. Jull, J., Whitehead, M., Petticrew, M., Krisjansson, E., Gough, D., Petkovic, J., Volmink, J., Weijer, C., Taljaard, M., Edwards, S., Mbuagbaw, L., Cookson, R., McGowan, J., Lyddiatt, A., Boyer, Y., Cuervo, L.G., Armstrong, R., White, H., Yoganathan, M., Pantoja, T., Shea, B., Pottie, K., Norheim, O., Baird, S., Robberstand, ,B., Sommerfelt, H., Asada, Y., Wells, G., Tugwell, P., and Welch, V. (2017). "When is a randomised controlled trial health equity relevant? Development and validation of a conceptual framework." *BMJ Open* 2017;7:e015815. doi: 10.1136/bmjopen-2016-015815.
5. Penno, E.C., Baird, S.J., Crump, J.A. (2015), "Cost Effectiveness of Surveillance for Bloodstream Infections for Sepsis Management in Low Resource Settings," *The American Journal of Tropical Medicine and Hygiene*, Vol. 93(4), pp. 850-860.
6. Penno, E.C., Crump, J.A., and Baird, S.J. (2015), "Performance Requirements to Achieve Cost-Effectiveness of Point of Care Tests for Sepsis Among Patients with Febrile Illness in Low Resource Settings," *The American Journal of Tropical Medicine and Hygiene*, Vol. 93(4), pp. 841-849.
7. Andres, E., Baird, S., Bingenheimer, J.B., and Markus, A.R. (2015), "Maternity Leave Access and Health: A Systematic Narrative Review and Conceptual Framework Development," *Maternity and Child Health Journal*, pp. 1-15.
8. Njiri, F.J., Child, M.J., OMalley, G., Baird, S., Ojoome, V., Davies, L.D., and Kiarie, J. (2014), "Evolution of a Multi-university Monitoring and Evaluation Technical Working Group," *Academic Medicine*, Vol. 89(8)/August Supplement, pp. S110.
9. Olapade-Olaopa, E.O., Baird, S., Kiguli-Malwadde, E., Kolars, J. (2014), "Growing Partnerships: Leveraging the Power of Collaboration Through the Medical Education Partnership Initiative," *Academic Medicine*, Vol. 89(8)/August Supplement, pp. S19-S23.
10. Chen, C., Baird, S., Ssentongo, K., Mehtsun, S., Olapade-Olaopa, E.O., Scott, J., Sewankambo, N., Talib, Z., Ward-Peterson, M., Haile Mariam, D. and Rugarabamu, P. (2014), "Physician tracking in sub-Saharan Africa: current initiatives and opportunities," *Human Resources for Health*, Vol. 12(21).
11. Baird, S., Garfein, R., McIntosh, C., and Özler, B. (2012), "Effect of a cash transfer programme for schooling on prevalence of HIV and herpes simplex type 2 in Malawi: a cluster randomised trial," *The Lancet*, Vol. 379(9823), pp. 1320-1329.
12. Morhardt, E., Baird, S., and Freeman, K. (2002), "Scoring Corporate Environmental and Sustainability Reports Using GRI 2000, ISO 14031 and Other Criteria," *Corporate Social Responsibility and Environmental Management*, Vol. 9(4), pp. 215-233.

CHAPTERS IN EDITED VOLUMES AND OTHER PUBLICATIONS

1. Crump, J.A., Newton, P.N., Baird, S.J., and Lubell, Y. (2017) Febrile Illness in Adolescents and Adults. In Holmes, K.K., S. Bertozzi, B.R. Bloom, and P. Jha, (editors). 2017. *Major Infectious Diseases. Disease Control Priorities*, third edition, volume 6. Washington: DC: World Bank.
2. Baird, S. and Özler, B. (2016) "Transactional Sex in Malawi," in S. Cunningham and M. Shah (editors), *Handbook of the Economics of Prostitution*, Oxford University Press. pp. 165-187.
3. Baird, S., Chirwa, E., de Hoop, J., and Özler, B. (2016) "Girl Power: Cash Transfers and Adolescent Welfare. Evidence from a Cluster-Randomized Experiment in Malawi," in S. Edwards, S. Johnson, D. Weil (editors), *African Successes, Volume II: Human Capital*, University of Chicago Press. pp. 139-164.
4. Baird, S. and Özler, B. (2015) "Conditional Cash Transfers: Influence on Marriage and Fertility," in James D. Wright (editor in chief), *International Encyclopedia of the Social and Behavioral Sciences, 2nd*

Edition, vol4. Oxford: Elsevier. pp. 555559

5. Baird, S., Beegle, K., and Friedman, J. (2012) "Economic Crisis and Adolescent Mental Health," in M. Lundberg and A. Wuermli (editors), *Children and Youth in Crisis: Protecting and Promoting Human Development in Times of Economic Shocks*, World Bank.

6. Baird, S., Beegle, K., and Friedman, J. (2012) "Shocks, Health and Nutrition during Early Childhood," in M. Lundberg and A. Wuermli (editors), *Children and Youth in Crisis: Protecting and Promoting Human Development in Times of Economic Shocks*, World Bank.

MANUSCRIPTS UNDER REVIEW AND WORKING PAPERS

Vaithianathan, R., Wilson, M., Maloney, T. and Baird, S. (2016) "Impact of a Targeted Home Visiting Program on Child Mortality and Maltreatment: Quasi Experimental Evidence Using Linked Administrative Data." *Under Review.*

Baird, S., McIntosh, C., and Özler, B. (2016) "When the Money Runs Out: Do Cash Transfers Have Sustained Effects?" *Under Review.*

Seff, I., Baird, S., and Jolliffe, D. (2016) "Dynamics of Malnutrition in Rural and Small Town Ethiopia" *Under Review.*

Ahuja, A., Baird, S., Hicks, J., Kremer, M., and Miguel, E. (2016), "The Economics of Mass Deworming Programs," *Submitted as chapter for Disease Control Priorities, Third Edition (DCP3).*

Ward-Peterson, M., Fennie, K., Baird, S., Coxe, S., Trepka, M.J., and Madhivanan, P. (2017), "The association between multilevel factors related to HIV awareness and risky sexual behavior among young women in Zomba district, Malawi." *Accepted at Journal of Biosocial Sciences.*

Welch, V.A., Norheim, O.F., Jull, J., Cookson, R., Sommerfelt, H., Tugwell, P. and the CONSORT-Equity and Boston Equity Symposium participants (Baird, S. is a participant in the Boston Equity Symposium),(2017). "Better reporting of health equity in randomised trials: CONSORT-Equity 2017 extension and elaboration." *Accepted at BMJ.*

Halloran, M. E., Auranen, K., Baird, S., Basta, N.E., Bellan, S.E., Brookmeyer, R., Cooper, B.S., DeGruttola, V., Hughes, J.P., Lessler, J., Lofgren, E.T., Longini, I.M., Onnela, J.P., Özler, B., Seage, G.R., Smith, T.A., Vespignani, A., Vynnycky, E., and Lipsitch, M. (2017). "Simulations for Designing and Interpreting Intervention Trials in Infectious Diseases." *Under Review.*

Ward-Peterson, M., Fennie, K., Baird, S., Coxe, S., Trepka, M.J., Madhivanan, P. (2017). "Multilevel influences of women's empowerment and economic resources on risky sexual behavior among young women in Zomba district, Malawi." *Under Review.*

Baird, S., Hamory, J., and Miguel E. (2008), "Lessons from the Field: Tracking, Attrition and Data Quality in the Kenya Life Panel Survey Round1 (KLPS-1)," CIDER Working Paper, UC Berkeley.

WORK IN PROGRESS

"Climate Variability and Infant Mortality in Africa," with Jed Friedman and Marc Smitz.

"Determinants of Infant Survival: Revisiting the Role of Maternal Education," with Jed Friedman and Ellen Umapathi.

"Combining a structural model and a randomized experiment in Malawi to study policy impacts of conditional and unconditional cash transfer programs," with Berk Özler, Gil Shapira, and Petra Todd.

"Building Businesses among the Vulnerable: Experimental Evidence from Tanzania.," with Craig

McIntosh, and Berk Özler.

"Can Agricultural Technology Diffusion be Harnessed to Reduce Malnutrition? Experimental Evidence from Uganda," with Dan Gilligan and Scott McNiven.

"Education, Poverty and HIV: Can Interventions in Education and Economics be Successful Tools for HIV Prevention among Young Women in SSA?" *In preparation for: Preventing HIV Transmission and Improving HIV Care Through the Use of Structural-Level Approaches: Global Insights from Successful Approaches. (Editors: R.A. Crosby and R.J. DiClemente) to be published by Oxford University Press,* with Tessa Ahner-Mchaffie and Berk Özler

"The Effects of Cash Transfers on Labor Market Outcomes." *Synthesis paper in preparation for IZA/DFID Growth and Labour Markets in Low-Income Countries Programme,* with David McKenzie and Berk Özler.

PERMANENT WORKING PAPERS AND REPORTS

Vaithianathan, R., Wilson, M., Maloney, T. and Baird, S. (2016),"The Impact of the Family Start Home Visiting Programme on Outcomes for Mothers and Children: A Quasi-Experimental Study." Wellington: Ministry of Social Development.

Baird, S., Chirwa, E, McIntosh, C, and Özler, B. (2015). "What happens once the intervention ends? The medium-term impacts of a cash transfer programme in Malawi." 3ie Impact Evaluation Report 27. New Delhi: International Initiative for Impact Evaluation (3ie).

Baird, S., McIntosh, C. and Özler, B. (2009), "Designing Cost-Effective Cash Transfer Programs to Boost Schooling in Sub-Saharan Africa." World Bank Policy Research Working Paper 5090.

POPULAR PRESS

Innovations for Poverty Action, Encouraging mixed methods in impact evaluations on womens empowerment: An economists perspective, September 25, 2017.

The Guardian, Cash transfers help Punjabi girls stay in school, September 14, 2016.

VOX, Mass Deworming: (Still) a Best Buy for Development, August 11, 2015.

STM Digest, The Surprising Effects of HIV Testing, May 19, 2015.

National Public Radio, What it Takes to Lift Families out of Poverty, May 15, 2015.

INSIGHTS, Does Money Talk?, May 13, 2015.

Experiments in Governance and Politics (EGAP) Policy Brief, Is it the cash or condition in Malawi, 2015.

The Economist, Pennies from Heaven, October 26, 2013.

The Atlantic, Paying Teens Not to Have Sex, What Mississippi Can Learn from Malawi, August 12, 2013.

GW Today, Prevention Pays Off, March 12, 2012.

Slate, Want to Get Young Women to Use Condoms? Give Them Money, March 1, 2012.

BBC Health Check, Paying People to be Healthy, February 22, 2012.

Voice of America, Fighting Poverty, Protecting Women from HIV, February 16, 2012.

The Economist, A drug called money, February 15, 2012.

The Guardian, Cash payments help cut HIV infection rate in young women, study finds, February 14,

2012.

Bloomberg, African Girls Getting World Bank Cash Deters Sugar Daddies, March 15, 2011.

NPR, Helping the Poor, with Conditions February 9, 2011.

Newsweek, A New Fix for the Needy, October 25, 2010.

New York Times, African Studies Give Women Hope in HIV Fight, July 19, 2010.

Financial Times, HIV cut in Africa by paying teenagers, July 19, 2010.

BBC, Paying to Change Behavior, July 19, 2010.

FUNDED RESEARCH GRANTS

National Institute of Health R01, Experimental Evidence on the Long-run and Intergenerational Impacts of Human Capital Investments in Kenya (Total GWU Award: $138,333), 2016-2021 (co-investigator).

DC-CFAR Pilot Award, Support Groups for HIV+ Adolescents in Tanzania: A Pilot Study (Total Award: $50,000), 2016-2018 (PI).

National Institute of Health R03, Female Labor Force Participation and Child Outcomes (Total GWU Award: $32,340), 2016-2018 (co-investigator).

Department for International Development (DfID), Gender and Adolescence: Global Evidence (GAGE) (Total Award: £26.4 million) 2015-2024, (Quantitative Lead).

The World Bank, The Dynamics of Wealth and Well-Being in Ethiopia (Total Award: $163,752), 2015-2016, (PI).

Ministry of Social Development (New Zealand), MSD Home Visitation Study (Total Award: NZ$70,500), 2014-2015, (co-investigator).

Behavioral Economics of Reproductive Health Initiative (University of California, Berkeley), Empowering Young Women in Malawi: A Mixed Methods Approach (Total Award: $10,347), 2013-2014, (co-PI)

Performance Based Resource Fund (University of Otago), Cost Effectiveness Analysis of Laboratory Services in Low-Resource Settings (Total Award: NZ$10,015), 2013-2014 (co-PI)

Research Support Budget (World Bank), Tracking the Long-Term Effects of a CCT Program in Sub-Saharan Africa: Augmenting Survey Data with Biomarkers (Total Award: $91,920), 2012-2013 (co-PI)

National Institute of Health R01, Estimating the Impacts of Health and Human Capital Investments on Long-run Life Outcomes in Kenya-Evidence from Three Randomized Experiments (Yearly Direct Costs: $437,950), 2011-2016 (co-investigator).

3ie-DfID-AusAID Joint Call for Systematic Reviews, What is the evidence of the relative effectiveness and cost effectiveness of conditional cash transfers versus unconditional cash transfers in improving health, education, and household welfare (Total Award: $56,881), 2011-2012 (PI).

National Institutes of Health R24 Medical Education Partnership Initiative, Coordinating Center: Fostering African Medical Education Community of Excellence (Yearly Direct Costs: $2,290,000), 2010-2015 (co-investigator)

International Initiative for Impact Evaluation (3ie) Open Window 2, Understanding the Long Term Impacts of a Schooling Conditional Cash Transfer Program (Total Award $850,354), 2010-2014 (PI).

Research Support Budget (World Bank), Unpacking the Impact of a Randomized Conditional Cash Transfer Program in Sub-Saharan Africa (Total Award: $540,000), 2009-2010 (Co-PI).

National Bureau of Economic Research Africa Project , Schooling Quality and Quantity: What Impact Does It Have on Health in Malawi? (Total Award: $65,000), 2009-2010 (PI).

World Development Report 2007 Small Grants Program, Schooling Income and HIV Risk in Malawi (Total Award: $50,000), 2008 (Co-PI).

Spanish Impact Evaluation Fund, Tanzania–Impact Evaluation of TASAF II (Total Award: $170,000), 2007-2008 (Co-PI).

HONORS AND FELLOWSHIPS

Social Science Research Council Fellowship in Applied Economics, 2004.

Sidney Hoos' Award for Best Second Year Econometrics Paper, 2003.

ADDITIONAL PROFESSIONAL EXPERIENCE

Senior Research Fellow. *International Food Policy Research Institute, Poverty, Health and Nutrition Division*, 2016-2017.

Consultant. *International Food Policy Research Institute, Poverty, Health and Nutrition Division*, December 2014-2015

Short-term Consultant. *The World Bank*. Commissioned author for chapter on health in book entitled Children and Youth in Crisis , 2011-2012

Short-term Consultant. *The World Bank*. Consultant on project entitled "Understanding the relationship between macroeconomic crises and child health," 2005

TEACHING EXPERIENCE

George Washington University. Department of Global Health
Global Health Economics and Finance (Master's), 2010, 2011, 2012, 2013, 2015, 2016, 2017
Doctoral Research Methods III (Doctoral), 2011, 2015
Doctoral Research Methods II (Doctoral), 2011
Study Design and Ethics (Master's), 2009, 2010.
Quantitative Data Collection and Data Analysis (Master's), 2009, 2010, 2011
Advanced Topics-Leadership in the International Setting (Doctoral), 2009
Advanced Topics-Health Research in the Global Arena (Doctoral), 2011
Policy Methods(Master's), 2010.
Comparative Regional Determinants, Sub-Saharan Africa Region (Master's), 2010, 2011

University of Otago. Department of Economics
Quantitative Analysis for Business (Undergraduate), 2014

University of Otago. Preventive and Social Medicine
Health Economics (Diploma Public Health), 2013

University of California at San Diego. School of International Relations and Pacific Studies
Corporate Strategy and the Environment (Master's), 2008, 2009.

University of California at Berkeley. Agricultural & Resource Economics:
Introductory Applied Econometrics, Graduate Teaching Assistant (Undergraduate), 2006.
Economics of Water Management, Graduate Teaching Assistant (Undergraduate), 2006.
Graduate Introductory Econometrics, tutor and grader (Doctoral), 2003.

INVITED SEMINARS AND CONFERENCE PRESENTATIONS

2017: Allied Social Sciences Association Annual Meeting (Chicago, IL), Workshop on Development Economics (Rome, Italy), Center on Population Dynamics (McGill, Montreal, Canada), YouthPower Learning Event - Giving Adolescents a Voice: Age-Appropriate Methods that Work for Measuring Gender Norms Across Contexts (Washington, DC), Workshop on the Demographic Effects of Girls Education in Developing Countries (National Academies of Sciences, Engineering and Medicine (Irvine, CA), Summer Institute at Pathfinder (Boston, MA), Stunting: Past, Present, Future (London School of Economics, London, UK)

2016: Center for Communicable Disease Dynamics (Harvard School of Public Health, Boston, MA), GAGE Workshop (Overseas Development Institute (London, UK), Measurement Workshop (Yale University, New Haven, CT), Outcomes Beyond Test Scores (NYU, New York, NY), Simulating Intervention Trials in Infectious Diseases (Fred Hutchinson Cancer Research Center, Seattle, WA), PopPov Annual Conference (Washington, DC), International Food Policy Research Institute (Washington, DC), What Works Global Summit 2016 (London, UK), Global Health Interest Group 2016 Symposium (NIH, Washington, DC), Womens Economic Empowerment: What Works and How to Measure It (Center for Global Development, Washington, DC), Gender Measures (UCSD DC, Washington, DC)

2015: Middlebury College, Washington Area Development Economics Association (Washington, DC), University of Oklahoma, PopPov Annual Conference (Addis Ababa, Ethiopia), Identifying What Works: Using Randomized Control Trials in Public Policy (Wellington, New Zealand), Otago International Health Research Network (Dunedin, New Zealand), COR-NTD: How to Make a Case for Deworming (Philadelphia, PA), Big Impact: Creating Conditions for Women and Girls to Thrive (Center for Global Development, Washington, DC), University of Maryland

2014: American Society of Tropical Medicine and Hygiene (New Orleans, USA)

2013: Melbourne Workshop in Development Economics (Melbourne University), University of New South Wales, Campbell Colloquium (Chicago, USA), International Health Economics Association (Sydney, Australia), Econometric Society Australasian Meeting (Sydney, Australia), Labor Econometrics Workshop (University of Melbourne), University of Otago, Otago International Health Research Network (OIHRN) (University of Otago), University of Melbourne, Otago Development Workshop (University of Otago), Monash Development Workshop (Monash University)

2012: GWU Elliot School's Latin America and Hemispheric Studies Program, UCSD Division of Global Public Health, GWU Department of Global Health, Population Association of America Annual Meeting (San Francisco, CA), MEPI Annual Symposium (Ethiopia), University of Otago

2011: JPAL Africa Launch (Cape Town, South Africa), Population Association of America Annual Meeting (Washington, DC), Unite for Site Conference at Yale University, Children and Youth in Crisis Conference (Marbach, Germany), BREAD (two papers accepted), Center for Global Development, International Health Economics Association 8th World Congress (Toronto, Canada), NBER Summer Institute Labor Studies (paper accepted), Agricultural and Applied Economics Association Annual meeting (Pittsburgh, PA), University of Auckland, University of Waikato, University of Otago, World Health Summit (Berlin), American University, University of Namur, Paris School of Economics

2010: George Washington University, International Food Policy Research Institute, Eleventh Annual Global Development Conference (Prague), American Society of Health Economists (ASHE) Conference at Cornell University, NBER African Development Successes Conference (Accra,

Ghana), George Washington University Mini University, Africare (Washington, DC)

2009: Center for the Study of African Economies (CSAE) Conference at Oxford University, Pacific Development Conference at San Francisco State University, Midwest International Economic Development Conference at Minnesota University, Pomona College, Claremont McKenna College Joint Science Department, Marian Miner Cook Athenaeum at Claremont McKenna College, University of California at Berkeley, Meeting on the Evaluation of Cash Transfer Schemes in Africa (Washington, DC), Research Workshop on Gender and Crisis (World Bank), Paris School of Economics, Toulouse School of Economics, Global Forum for Health Research Forum 2009 (Cuba), Measurement Conference (World Bank), NBER African Development Successes Conference (Cambridge, MA)

2008: Pacific Development Conference at University of California at San Diego, George Washington University

2007: University of California at Berkeley, University of California at San Diego, Williams College, Resources for the Future, Macalester College, Swarthmore College, Towson University

2006: University of California at Berkeley, Center for the Study of African Economies (CSAE) Conference at Oxford University, Northeastern University Development Conference (NEUDC) at Cornell University, Population Association of America (PAA) Meetings (Los Angeles)

2005: University of California at Berkeley

PROFESSIONAL MEMBERSHIPS

Agricultural and Applied Economics Association, since 2012

American Economic Association, since 2010

International Health Economics Association, since 2009

Population Association of America, since 2011

PROFESSIONAL SERVICE

Referee for *Annals of Epidemiology, American Economic Review, American Economics Journals: Applied Economics, American Journal of Agricultural Economics, American Journal of Preventive Medicine, American Journal of Public Health, Campbell Collaboration, Center for Global Development Working Paper Series, Contemporary Economics Policy, Demography, Eastern Economic Journal, Economic Development and Cultural Change, Economic Inquiry, Economic Journal, Economic Letters, Educational Evaluation and Policy Analysis, Environment and Development Economics, Environmental Management, European Journal of Development Research, Field Methods, Food Policy, Global Public Health, Governance, Health Economics, Health Policy and Planning, International Journal of Epidemiology, Journal of Adolescent Health, Journal of African Economics, Journal of Biosocial Science, Journal of Comparative Social Welfare, Journal of Development Economics, Journal of Development Effectiveness, Journal of Development Studies, Journal of the European Economic Association, Journal of Globalization and Development, Journal of Health Economics, Journal of Human Resources, Journal of Policy Analysis and Management, Journal of Population Economics, New Zealand Medical Journal, Oxford Bulletin of Economics and Statistics, Oxford Development Studies, Oxford Press, PLOS Neglected Tropical Diseases, PLOS One, Population Studies, Quarterly Journal of Economics, SAGE, Science, The Lancet, The Review of Economics and Statistics, World Bank Economic Review, World Development*

Grant Review: American Association for the Advancement of Science, International Initiative for Impact Evaluation (3ie), John Templeton Foundation, IZA-DFID, Medical Research Council (UK), National Institutes of Health, National Science Foundation, Research Foundation - Flanders

(Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO)

Scientific Program Committee Member: Global Health Mini University (2014, 2015, 2017), PopPov Annual Conference (2015, 2016)

Expert Roster, International Initiative for Impact Evaluation (3ie), Appointed Member, 2010-

External Project Advisor, International Initiative for Impact Evaluation (3ie), 2012-

Master's Thesis Advisor for over 50 Master's students

Undergraduate Honors Thesis Advisor: Emily Adams

PhD/DRPH Dissertation Committees: Elle Andres (member), Jennifer Malia (Chair), Ronald Mutasa (Chair), Apsara Nepal (Member), Pierre Pratley (member), Mahesh Shukla (member), Melissa Ward-Peterson (Member)

PhD/DRPH External Reader: Saher Asad (GWU Economics),Fenohasina Maret-Rakotondrazaka (GWU Economics), Bentry Mkwara (University of Waikato), Mitsuaki Hirai (GWU, Department of Global Health)

PERSONAL INFORMATION

New Zealand Citizen

US Permanent Resident

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School of Global Policy and Strategy
9500 Gilman Dr.
La Jolla, CA 92093-0519.

EDUCATION

Ph.D. U.C. Berkeley, Agricultural and Resource Economics, 2003.
Dissertation: "Assessing the Impact of New Products in Microfinance Lending."

M.S. U.C. Berkeley, Agricultural and Resource Economics, 1999.

B.A. U.C. Santa Cruz, Economics, 1993

PROFESSIONAL EXPERIENCE

Director, Policy Design and Evaluation Laboratory (PDEL), UCSD, 2013-present.

Director, International Development and Non-Profit Management Career Track, IRPS. 2003-present.

Co-Director, Global Agriculture Program, Jameel Poverty Action Lab, MIT

Professor of Economics, Graduate School of International Relations and Pacific Studies, U.C. San Diego, 2013 – Present.
MA Courses: Development Economics, Microfinance, Advanced Econometrics.
Ph.D. Courses: Economic Development, Designing Field Experiments.

Research Affiliate:

- Jameel Poverty Action Lab (JPAL)
- Bureau for Research and Economic Analysis of Development (BREAD)
- Center for Effective Global Action (CEGA).

Advisory Board Member:

- Agricultural Technology Adoption Initiative (ATAI)
- Center for Effective Global Action (CEGA)
- BASIS/USAID CRSP
- Working Group on African Political Economy (WGAPE)
- Experiments in Governance and Politics (EGAP)

Affiliated Faculty, Department of Economics, UCSD.

Scientific Advisor to Innovations for Poverty Action/Rwanda, 2017-present.

Visiting Scholar, Institute of Behavioral Science and Department of Economics, University of Colorado Boulder, 2012-13.

Associate Editor, *American Journal of Agricultural Economics,* 2010-2013

Associate Dean, GPS\UCSD. 2010-2012.

Lecturer in Economics & Econometrics, University of San Francisco, 2002-2003.

PUBLICATIONS

"How Rising Competition among Microfinance Institutions Affects Incumbent Lenders", with Alain de Janvry, and Elisabeth Sadoulet , *The Economic Journal* 115, October 2005, pp. 987-1004.

"Competition and Microfinance" McIntosh, Craig and Bruce Wydick, *Journal of Development Economics* 78, December 2005, pp. 271-298.

"Credit Information Systems in Less-Developed Countries: A Test with Microfinance in Guatemala", with Jill Luoto, Craig McIntosh, and Bruce Wydick, *Economic Development and Cultural Change,* January 2007

"The Effectiveness of Listing under the U.S. Endangered Species Act: An Econometric Analysis Using Matching Methods", with Paul Ferraro and Monica Ospina. *Journal of Environmental Economics and Management,* Vol 24, 2007.

"Estimating Treatment Effects from Spatial Policy Experiments: An Application to Ugandan Microfinance". *Review of Economics and Statistics,* 90(1), February 2008.

'Using the Error in Pre-Election Polls to Test for the Presence of Pork', with Jacob Allen. *The B.E. Journal of Economic Analysis & Policy, Contributions,* Vol 9, Issue 1, 2009.

"The Demography of Mexican Migration to the United States", with Gordon Hanson. *American Economic Review Papers & Proceedings,* Vol. 99, Issue 2, May 2009.

"Tracking the Introduction of the Village Phone Product in Rwanda", with Michael Futch. *Information Technologies in International Development* 5(9). 2009.

"The Short Term Impacts of a CCT Program for Schooling on the Sexual Behavior of Young Women", with Sarah Baird, Ephraim Chirwa, and Berk Özler. *Health Economics* (19), 2010.

"The Great Mexican Emigration", with Gordon Hanson, NBER Working Paper 13675. *Review of Economics and Statistics* 92(4), November 2010.

"The Supply and Demand Side Impacts of Credit Market Information", with Alain de Janvry and Elisabeth Sadoulet. *Journal of Development Economics* 93(2), 2010.

"Cash or Condition? Evidence from a Randomized Cash Transfer Program", with Sarah Baird and Berk Özler. *Quarterly Journal of Economics* (126), 2011.

"Microfinance and Home Improvement: Using Retrospective Panel Data to Measure Program Effects on Fundamental Events", with Gonzalo Villaran and Bruce Wydick. *World Development* 39(6), 2011.

"Monitoring Repayment in Online Peer-to-Peer Lending", in Peter Gourevitch, David A.

Lake, and Janice Stein, eds., *Beyond Virtue: Evaluating the Credibility of Non-Governmental Organizations* (Toronto: University of Toronto Press, 2012).

"Impact of a Cash Transfer Program for Schooling on Prevalence of HIV and HSV-2 in Malawi: A Cluster Randomized Trial." With Sarah Baird, Richard Garfein, and Berk Özler. *Lancet*, February 2012.

"Birth Rates and Border Crossing: Latin American Emigration to the US, Canada, Spain, and the UK", with Gordon Hanson. *The Economic Journal,* 122(561), 707-726.

"Reputation in a Public Goods Game: Taking the Design of Credit Bureaus to the Lab", with Steven Buck, Tomas Rosada, and Elisabeth Sadoulet. *Journal of Economic Behavior & Organization,* 95, 270-285.

"The Ecological Footprint of Poverty Alleviation: Evidence from Mexico's Oportunidades Program", with Jennifer Alix-Garcia, Kate Sims, and Jarrod Welch. 2013, *Review of Economics and Statistics.* Vol. 95, No. 2. Pp 417-435.

"Prompting Microfinance Borrowers to Save: A Field Experiment from Guatemala", with Jesse Atkinson, Alain de Janvry, and Elisabeth Sadoulet. *Economic Development and Cultural Change,* 62(1), 21-64

"Productivity, Credit, Risk, and the Demand for Weather Index Insurance in Smallholder Agriculture in Ethiopia", with Alexander Sarris and Fotis Papdopoulos, *Agricultural Economics (44), 2013.*

"Deposit Collecting: Unbundling the Role of Frequency, Salience, and Habit Formation in Generating Savings", with Suresh de Mel and Christopher Woodruff. *American Economic Review, Papers & Proceedings,* May 2013.

"The Regressive Demands of Demand-Driven Development", with Sarah Baird and Berk Özler. *Journal of Public Economics.* 106 (2013): 27-41.

"The Heterogeneous Effects of HIV Testing", with Sarah Baird, Erick Gong, and Berk Özler. *Journal of Health Economics* 37 (2014): 98-112.

"Alcances e Impactos del Programa Hábitat en Cominidades Pobres Urbanas de México", with Tito Alegria, Gerardo Ordonez, and Rene Zenteno. *Papeles de Poblacion,* 19.77 (2013): 231-267.

"Fair Trade and Free Entry: Can a Disequilibrium Market Serve as a Development Tool?" with Alain de Janvry and Elisabeth Sadoulet. *Review of Economics and Statistics,* 97(3), 567-573..

"Is the Mediterranean the New Rio Grande? US and EU Immigration Pressures in the Long Run", with Gordon Hanson, *The Journal of Economic Perspectives*, 30(4), 57-81.

"Optimal Design of Experiments in the Presence of Interference", with Sarah Baird, Aislinn Bohren, and Berk Ozler. Forthcoming, *Review of Economics and Statistics.*

"The Neighborhood Impacts of Local Infrastructure Investment: Evidence from Urban Mexico", with Tito Alegría, Gerardo Ordóñez, and René Zenteno. Forthcoming, *American Economic Journal: Applied.'*

'The Rise and Fall of U.S. Low-Skilled Immigration', with Gordon Hanson and Chen Liu. Forthcoming, *Brookings Papers on Economic Activity.*

"The Double-Edged Sword of Mobilizing Citizens via Mobile Phone in Developing Countries", with Aaron Ehrlich, Danielle Jung, and James Long. Forthcoming, *Development Engineering.*

HONORS & AWARDS

Outstanding Faculty Teaching Award, GPS, UCSD. 2017, 2016, 2015, 2011, 2010, 2009, 2008, 2005.
Distinguished Teaching Award for an Academic Senate Member, UCSD 2012.
Excellence in Teaching a Graduate Field Course, UCSD PhD Economics, 2008 and 2010.
Co-Winner, Private Sector Impact Assessment Contest, USAID, December 2006.
Visiting Research Fellow, Center for U.S.-Mexican Studies, UCSD, 2005-6.
Outstanding Graduate Student Instructor Award, University of California Berkeley, 2002.
Fulbright IIE Scholarship, Uganda, 2000-01.
Berkeley Fellowship, University of California, Berkeley, 1997-2002.

RESEARCH EXPERIENCE

Principal Investigator, USAID impact benchmarking studies with GiveDirectly in Rwanda, 2016.

Principal Investigator, USAID + ATAI Grant "Building market linkages for smallholder producers in Uganda". 2014

Principal Investigator, USAID/I4 + ATAI Grant "Interlinking weather index insurance with credit to alleviate market failures and improve agricultural productivity in rural Ethiopia". 2010.

Co-Principal Investigator, USAID Grant "Defining Index Insurance Products for Coffee", 2010.

Co-Principal Investigator, DFID/3ie/BMGF Grant "Locating the Headwaters of Household Savings", Sri Lanka, 2009.

Principal Investigator, USAID/AMA Grant 'Enhancing Smallholder Competitiveness in the Face of Globalization.', 2007-10.

Principal Investigator, USAID/BASIS Grant 'Credit-Reporting Bureaus and the Deepening of Financial Services for the Rural Poor in Latin America', 2003-6

Research Director, Foundation for International Community Assistance (FINCA), Uganda, 2000-01.

Field researcher for development of Small-Business Enterprise Program, Bua'ale, Somalia, with International Rescue Committee, 1993-94.

CONSULTING EXPERIENCE

World Bank
Inter-American Development Bank/Sedesol (Mexican Government)
Hewlett Foundation
Grameen Foundation
Grameen Technology Center
FINCA
IFAD
Wireless Reach/Qualcomm

REFEREEING

American Economic Review, Quarterly Journal of Economics, Review of Economic Studies, Science, Review of Economics and Statistics, American Economic Journal: Applied, Journal of Development Economics, Economic Journal, Journal of Health Economics, Economic Development and Cultural Change, Proceedings of the National Academy of Science, World Bank Press, World Bank Economic Review, Journal of Emerging Market Finance, MIT Press, American Journal of Agricultural Economics, Journal of Environmental Economics and Management, Environmental and Resource Economics, Journal of Development Studies, Journal of Public Economics

LANGUAGES

Conversational in Kiswahili and Spanish.

HOME ADDRESS: 1835 W. MONTECITO WAY, San Diego, CA, 92103.

SUSAN CARLETON ATHEY

Stanford University
Graduate School of Business
655 Knight Way
Stanford, CA 94305
athey@stanford.edu

PERSONAL

Born November, 1970.
U.S. Citizen.

EDUCATION

Duke University
Bachelor of Arts, 1991.
Majors in economics, mathematics, and computer science.
Magna Cum Laude. Phi Beta Kappa.

Stanford Graduate School of Business
Ph.D., 1995
Dissertation: "Comparative Statics in Stochastic Problems with Applications."
Advisors: Paul Milgrom and John Roberts (co-chairs), Edward Lazear.

CURRENT POSITIONS

Stanford University Graduate School of Business
2014-present The Economics of Technology Professor
2013-2014 Professor of Economics
National Bureau of Economic Research
2001-present Research Associate. Co-organizer of Productivity and Information Technology/Digitization; Founding co-director of Market Design Working Group, 2008-2014.

PAST POSITIONS

Harvard University
2006-2012 Professor of Economics
Center for Advanced Study in the Behavioral Sciences
2004-2005 Fellow
Department of Economics, Stanford University
2001-2004 Associate Professor of Economics
2004-2006 Holbrook Working Professor of Economics and Professor (by courtesy) in the Graduate School of Business
Department of Economics, Massachusetts Institute of Technology
1999-2001 Castle Krob Career Development Associate Professor of Economics
1997-1999 Castle Krob Career Development Assistant Professor of Economics
1995-1997 Assistant Professor of Economics
Cowles Foundation for Economic Research, Yale University
1997-1998 Visiting Assistant Professor of Economics

Hoover Institution, Stanford University
2000-2001 National Fellow
National Bureau of Economic Research
1997-2001 Faculty Research Fellow

OTHER POSITIONS

Ongoing	Boards of Directors: Lending Club (2018-present), Expedia (2015-present), Ripple (2014-present), Rover (2016-present)
2008-present	Visiting/Consulting Researcher, Microsoft Research, New England
2007-2016	Consultant to Microsoft Corporation.
2001-present	Principal, Market Design, Inc.
April,1999; October, 2000; February, 2001	Consultant, Research Department, Minneapolis Federal Reserve Bank
May, 1998	Visiting Professor, I.D.E.I. Toulouse.

CURRENT PROFESSIONAL ACTIVITIES

- Vice President, American Economics Association, 2017-2018
- Member, Federal Economics and Statistics Advisory Committee, 2016-present.
- Member, President's Committee for the National Medal of Science (Presidential Appointment, two consecutive terms), 2011-2016.
- Co-organizer of Productivity and Information Technology/Digitization, National Bureau of Economics Research, 2009-present.

PAST PROFESSIONAL ACTIVITIES

- Advisory Board, Toulouse School of Economics, 2010-15.
- Member, National Academies Board on Science, Technology and Economic Policy Innovation Policy Form, 2013-2015.
- Member, National Academies Committee on Science, Engineering, and Public Policy, 2013-2016.
- Member, Nominating Committee for American Academy of Arts and Sciences, 2011-2012.
- Honors and Awards Committee, American Economics Association, 2013-2016.
- Membership Committee, National Academy of Science, 2013-2016.
- NBER, Founding co-director of Market Design Working Group, 2008-2014.
- Cambridge Economics Economics and Computational Day, co-founder, 2011.
- Council, Game Theory Society, 2009-2012. (elected position).
- Associate Editor, *Theoretical Economics*, 2005-2011.
- Council, Econometric Society, 2007-2010. (elected position)
- Executive Committee, American Economic Association, 2008-2010. (elected position)
- Advisory Committee on Editorial Appointments, American Economics Association, 2011.
- Co-Editor, *American Economic Journals: Microeconomics,* 2007-2008.
- Associate Editor, *Econometrica*, 2006-2007.

- Associate Editor, *Quarterly Journal of Economics*, 2001-2007.
- Editorial Board, *Not a Journal Economics,* 2001-2008.
- Fellows Nominating Committee, Econometric Society, 2006.
- Elaine Bennett Research Prize Committee (AEA/CSWEP), 2002, 2004, 2006 (Chair).
- Chair, Program Committee, Winter Meetings of the Econometric Society, 2006.
- National Science Foundation Economics Panel, 2004-2006.
- Co-director, Market Design Program, Stanford Institute for Economic Policy Research, 2004-2006.
    - Mentor, CeMent Mentoring Workshop, AEA/CSWEP, 2006.
- Young Faculty Nominating Committee, Center for Advanced Study in the Behavioral Sciences.
- Associate Editor, *American Economic Review*, 2002-2005.
- Associate Editor, *RAND Journal of Economics*, 2002-2004.
- Foreign Editor, *Review of Economic Studies*, 2001-2004.
- American Economic Association Nominating Committee, 2003.
- Stanford University Fellow, 2002-2004.
- Co-editor, *Journal of Economics and Management Strategy*, 1997-2001.
- Program Committee, Summer Meetings of the Econometric Society, 1997 and 1998; 8th World Congress of the Econometric Society, 2000; Winter Meetings of the Econometric Society, 2001 and 2005.

HONORS

- Fellow, Game Theory Society, elected 2017.
- Jean-Jacques Laffont Prize, 2016
- Corresponding Fellow, British Academy, elected 2016.
- Knight Fellows Favorite Professor Award, Stanford University, 2014.
- 2013 Best Paper Award, *American Economic Journal: Microeconomics*.
- Fellow, Society for the Advancement of Economic Theory, 2013.
- Member, National Academy of Science, elected 2012.
- Honorary doctorate, Duke University, 2009.
- Fellow, American Academy of Arts and Sciences, elected 2008.
- John Bates Clark Medal, 2007.
- Fellow, Econometric Society, elected 2004.
- Guggenhime Faculty Scholar, Stanford University, 2004-2006.
- Elaine Bennett Research Award, 2001.
- Sloan Foundation Research Fellow, 2000.
- Undergraduate Economics Association Teaching Award, 1995-1996.
- Review of Economic Studies Tour, 1995.
- Stanford University Lieberman Fellow, 1994-1995.
- State Farm Dissertation Award in Business, 1994.
- National Science Foundation Graduate Fellowship, 1991-1994.
- Jaedicke Scholar, Stanford Graduate School of Business, 1992-1993.
- Mary Love Collins Scholarship, Chi Omega Foundation, 1991-1992.
- Duke University Alice Baldwin Memorial Scholarship, 1990-1991.

DISTINGUISHED LECTURES

- Keynote, North American Summer Meetings of the Econometric Society, 2018
- Nancy Schwarz Lecture, Kellogg, Northwestern University, 2018
- William Comanor '59 Lectureship in Economics, Haverford College, 2018
- Munich Lectures, 2017
- Distinguished Visiting Lecturer, Boston University, 2016
- Keynote, MIT Conference on Digital Experimentation, 2014, 2015, 2016, 2017
- Keynote, EARIE, 2016
- Keynote, European Conference on Machine Learning/European Knowledge, Discovery, and Data Mining Conference (ECML/EKDD), 2016
- Keynote, International Conference on Machine Learning (ICML), 2016
- Distinguished Lecturer, Department of Economics, Columbia, 2016
- Distinguished Lecture Series, Carnegie Mellon, 2016
- Manchot Lecture, Bonn, 2016
- WZB Distinguished Lecture in Social Sciences, 2016
- Keynote, Knowledge Discovery and Data Mining (KDD), Sydney, 2015
- Henry George Lecture, University of Scranton, 2015
- Milliman Lecture, University of Washington, 2015
- George Staller Lecture, Cornell, 2015
- Fathauer Lecture, University of Arizona, 2015
- The GSB Salon, Stanford-Bejing Lecture, 2015
- Woytinksy Lecture, University of Michigan, 2014.
- Leigh Lecture, Washington State University, 2014.
- Central Planning Bureau Lecture, Netherlands, 2014.
- Keynote, DIMACS Workshop on Economic Aspects of Information Sharing, 2013.
- Association Lecture, Southern Economics Association, 2013.
- Keynote, Searle Antitrust Conference, 2012.
- Sir Richard Stone Annual Lecture, Cambridge University, 2012.
- Dunaway Lecture, Michigan State University, 2012.
- Keynote, 2011 MIT Center for Digital Business Annual Conference
- Keynote address, 2011 Southern California Symposium on Network Economics and Game Theory.
- Keynote address, International Joint Conferences on Artificial Intelligence, Barcelona, July 2011.
- Fisher Schultz Lecture, Econometric Society, 2011.
- Plenary Lecture for Society of Economic Dynamics, 2010.
- Plenary Lecture for joint meeting of Electronic Commerce and Theoretical Aspects of Rationality and Knowledge, 2009.
- Society of Economic Design Plenary Lecture, 2008.
- Frank Hahn Lecture, Royal Economic Society Conference, 2008.
- John F. Nash, Jr., Lecture, Carroll Round, Georgetown, 2008.

- Schultz Lecture, University of Chicago, 2007.
- Toulouse Lectures in Economics, 2007.
- Invited Speaker, 9th World Congress of the Econometric Society.
- Johnson Distinguished Lecturer in Economics, Duke University, 2004.

GRANTS AND RESEARCH AWARDS

- Sloan Foundation Research Grant, 2017.
- "Causal Inference," DARPA/ONR Grant, 2016.
- "How Intermediaries Affect User Choice in News and Commerce," Cyber Initiative Grant, Stanford University, 2016.
- "Private Information and Dynamic Games," NSF Grant No. SES-0351500.
- "Private Information in Auctions, Pricing Games, and Ongoing Relationships," NSF CAREER Award No. SES-9983820.
- "Bidding Behavior in U.S. Forest Service Timber Auctions," MIT Provost's Fund for Humanities, Arts, and Social Sciences Research Award, 1997.
- "Empirical Tests for Complementarities: A Structural Approach," MIT Sloan School of Management, Creative Research Award, 1996 (with Scott Stern).
- "Comparative Statics: Theory and an Empirical Framework for Testing Predictions," NSF Grant No. SBR-9631760.
- "Product and Process Innovation," William Miller Fund, Stanford GSB.

ARTICLES

1. "Stable Prediction across Unknown Environments," (with Kun Kuang, Ruoxuan Xiong, Peng Cui, and Bo Li), forthcoming, *Knowledge Discovery and Data Mining*.
2. "Generalized Random Forests," with Julie Tibshirani and Stefan Wager, forthcoming, *Annals of Statistics.* http://arxiv.org/abs/1610.01271
3. "Estimating Heterogeneous Consumer Preferences for Restaurants and Travel Time Using Mobile Location Data," (with David Blei, Robert Donnelly, Francisco Ruiz, and Tobias Schmidt), *American Economic Review Papers and Proceedings*, May, 2018. https://arxiv.org/abs/1801.07826
4. "Efficient Inference of Average Treatment Effects in High Dimensions via Approximate Residual Balancing" (with Guido Imbens and Stefan Wager), forthcoming, *Journal of the Royal Statistical Society-Series B.* http://arxiv.org/abs/1604.07125
5. "Context Selection for Embedding Models," (with Liping Liu, Francisco Ruiz, and David Blei), *Neural Information Processing Systems*, 4819-4827, 2017. http://papers.nips.cc/paper/7067-context-selection-for-embedding-models.pdf
6. "Structured Embedding Models for Grouped Data," with Maja Rudolph, Francisco Ruiz, and David Blei, *Neural Information Processing Systems*, 250-260, 2017. https://arxiv.org/abs/1709.10367

7. "Estimation and Inference of Heterogeneous Treatment Effects using Random Forests" (with Stefan Wager), Working Paper, 2015. http://arxiv.org/abs/1510.04342 Forthcoming, *Journal of the American Statistical Association.*
8. "Beyond Prediction: Using Big Data for Policy Problems," *Science*, February 3, 2017.
9. "Estimating Average Treatment Effects: Supplementary Analyses and Remaining Challenges," (with Guido Imbens, Thai Pham, and Stefan Wager), *American Economic Review*, May 2017.
10. "The Impact of Consumer Multi-homing on Advertising Markets and Media Competition" (with Emilio Calvano and Joshua Gans). *Management Science*, 64(4), 2017, 1574-1590.
11. "Exact P-values for Network Interference" (with Dean Eckles and Guido Imbens). Forthcoming, *Journal of the American Statistical Association.*
12. "Recursive Partitioning for Heterogeneous Causal Effects" (with Guido Imbens), *Proceedings of the National Academy of Science* 2016 113 (27) 7353-7360.
13. "A Measure of Robustness to Misspecification" (with Guido Imbens), *American Economic Review*, May 2015, 105 (5), 476-480.
14. "Dynamics of Open Source Movements," (with Glenn Ellison), *Journal of Economics and Management Strategy*, 2014, 23 (2), 294-316.
15. "An Efficient Dynamic Mechanism," (with Ilya Segal), *Econometrica*, 2013, 81 (6), 2463-2485.
16. "Subsidies and Set-Asides in Auctions," (with Jonathan Levin and Dominic Coey). *American Economic Journal: Microeconomics*, 2013, 5 (1), 1-27. Winner: 2013 Best Paper Award, *American Economic Journal: Microeconomics*.
17. "Position Auctions with Consumer Search," (with Glenn Ellison). *Quarterly Journal of Economics*, 2011, 126(3), 1213-1270.
18. "Comparing Open and Sealed Bid Auctions: Theory and Evidence from Timber Auctions," (with Jonathan Levin and Enrique Seira). *Quarterly Journal of Economics*, 2011, 126(1), 207-257.
19. "The Impact of Targeting Technology on Advertising Markets and Media Competition," with Joshua Gans, *American Economic Review*, May 2010.
20. "Skewed Bidding in Pay Per Action Models of Online Advertising," with Nikhil Agarwal and David Yang. *American Economic Review*, May 2009.
21. "Collusion with Persistent Cost Shocks," (with Kyle Bagwell). *Econometrica*, May 2008, 76 (3), 493-540.
22. "Designing Efficient Mechanisms for Dynamic Bilateral Trading Games," (with Ilya Segal), *American Economic Review*, May 2008.
23. "Efficiency in Repeated Trade with Hidden Valuations," (with David Miller). *Theoretical Economics*, 2007, 2 (3), 299-354.
24. "Discrete Choice Models with Multiple Unobserved Choice Characteristics," (with Guido Imbens). *International Economic Review*, 2007, 48 (4), 1159-1192.
25. "What Does Performance in Graduate School Predict? Graduate Economics Education and Student Outcomes" (with Larry Katz, Alan Krueger, James Poterba, and Steve Levitt), *American Economic Review*, May 2007.
26. "Identification and Inference in Nonlinear Difference-In-Difference Models," (with Guido Imbens). *Econometrica* 74 (2), March, 2006, 431-498.

27. "The Optimal Degree of Monetary Policy Discretion," (with Andrew Atkeson and Patrick Kehoe), *Econometrica* 73 (5), September, 2005, 1431-1476.
28. "Collusion and Price Rigidity," (with Kyle Bagwell and Chris Sanchirico). *Review of Economic Studies* 71 (2), April 2004, 317-349.
29. "Identification in Standard Auction Models," (with Philip Haile), *Econometrica*, 70 (6), *November* 2002, pp. 2107-2140.
30. "The Impact of Information Technology on Emergency Health Care Outcomes," (with Scott Stern), *RAND Journal of Economics*, 33 (3), Autumn 2002, pp. 399-432.
31. "Monotone Comparative Statics Under Uncertainty," *Quarterly Journal of Economics*, February 2002, CXVII (1): 187-223.
32. "Optimal Collusion with Private Information," (with Kyle Bagwell), *RAND Journal of Economics*, Autumn 2001, 32 (3): 428-465.
33. "Single Crossing Properties and the Existence of Pure Strategy Equilibria in Games of Incomplete Information," *Econometrica* 69 (4), July, 2001: 861-890.
34. "Organizational Design: Decision Rights and Incentive Contracts," (with John Roberts), *American Economic Review*, May 2001.
35. "Information and Competition in U.S. Forest Service Timber Auctions," (with Jonathan Levin), *Journal of Political Economy*, 109 (2), April 2001. Reprinted in: Empirical Industrial Organization, Paul Joskow and Michael Waterson, ed., Critical Ideas in Economics, Edward Elgar, forthcoming 2004.
36. "Investment and Market Dominance," (with Armin Schmutzler), *RAND Journal of Economics* 32 (1), Spring 2001: 1-26.
37. "Mentoring and Diversity," (with Chris Avery and Peter Zemsky), *American Economic Review* 90 (4) September 2000: 765-786.
38. "Information Technology and Training in Emergency Call Centers." (with Scott Stern). *Proceedings of the Fifty-First Annual Meetings* (New York, Jan 3-5, 1999). Madison, WI: Industrial Relations Research Association, pp. 53-60.
39. "Product and Process Flexibility in an Innovative Environment," (with Armin Schmutzler), *RAND Journal of Economics*, 26 (4) Winter1995: 557-574.

BOOKS/SURVEYS/CONFERENCE VOLUMES

1. "Yuliy Sannikov: Winner of the 2016 John Bates Clark Medal," with Andrzej Skrzypacz, *Journal of Economic Perspectives*, 2017.
2. "The State of Applied Econometrics - Causality and Policy Evaluation," with Guido Imbens, *Journal of Economic Perspectives*, 2017. http://arxiv.org/abs/1607.00699
3. "The Econometrics of Randomized Experiments," with Guido Imbens, *Handbook of Development Economics*. http://arxiv.org/abs/1607.00698
4. "Machine Learning and Causal Inference for Policy Evaluation," KDD '15 Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Pages 5-6.
5. "The Nature and Incidence of Software Piracy: Evidence from Windows" (with Scott Stern), *The Economics of Digitization*, University of Chicago Press.

6. "Empirical Models of Auctions," in *Advances in Economics and Econometrics: Theory and Applications, Ninth World Congress, Volume II*. Richard Blundell, Whitney K. Newey, Torsten Persson, eds., Cambridge University Press, 2007.
7. "Nonparametric Approaches to Auctions," *Handbook of Econometrics*, Volume 6.
8. *Robust Comparative Statics* (with Paul Milgrom and John Roberts), research monograph (draft form).
9. "Adoption and Impact of Advanced Technologies in Emergency Response Systems," (with Scott Stern), in *The Changing Hospital Industry: Comparing Not-for-Profit and For-Profit Institutions*, David Cutler, ed. University of Chicago Press, 2000, pp. 113-155.

WORKING PAPERS/UNDER REVIEW

1. "SHOPPER: A Probabilistic Model of Consumer Choice with Substitutes and Complements," 2017, (with Francisco Ruiz and David Blei), https://arxiv.org/abs/1711.03560
2. "Matrix Completion Methods for Causal Panel Data Models," (with Mohsen Bayati, Guido Imbens, Nikolay Doudchenko, Guido Imbens, Khashayar Khosravi), 2017. https://arxiv.org/abs/1710.10251
3. "Estimation Considerations in Contextual Bandits," with Maria Dimakopoulou and Guido Imbens, 2017. https://arxiv.org/abs/1711.07077
4. "When Should You Adjust Standard Errors for Clustering?" with Alberto Abadie, Guido Imbens, and Jeffrey Wooldridge, 2017. https://arxiv.org/abs/1710.02926
5. "Efficient Policy Learning," with Stefan Wager, 2017. https://arxiv.org/abs/1702.02896
6. "The Digital Privacy Paradox: Small Money, Small Costs, Small Talk," with Christian Catalini and Catherine Tucker, Working Paper, MIT, 2017.
7. "Model Criticism for Bayesian Causal Inference," with David Blei, Francisco Ruiz, and Dustin Tran, 2016. http://arxiv.org/abs/1610.09037
8. "The Impact of Aggregators on Internet News Consumption," with Markus Mobius and Jeno Pal, 2016.
9. "Bitcoin Pricing, Adoption, and Usage: Theory and Evidence," with Ivo Parashkevov, Vishnu Sarukkai, Jing Xia. Stanford GSB Working Paper, 2016.
10. "Estimating Treatment Effects using Multiple Surrogates: The Role of the Surrogate Score and the Surrogate Index" (with Raj Chetty, Guido Imbens and Hyunseung Kang), 2016 http://arxiv.org/abs/1603.09326
11. "Finite Population Standard Errors" (with Guido Imbens), Working paper, 2014, revise and resubmit, *Econometrica.*
12. "A Structural Model of Sponsored Search Advertising Markets" (with Denis Nekipelov). Working paper, 2012. Under review.
13. "The Impact of News Aggregators on Internet News Consumption: The Case of Localization" (with Markus Mobius). Working paper, 2012.
14. "Peaches, Lemons, and Cookies: Designing Auction Markets with Dispersed Information." With Moshe Babaioff, Michael Grubb and Ittai Abraham. Working paper, 2012.

15. "Exchange Rate Fluctuations, Consumer Demand, and Advertising: the Case of Internet Search" (with Maya Cohen Meidan). Working paper, 2011.
16. "A Theory of Group Formation and Social Hierarchy," (with Saumitra Jha and Emilio Calvano). Working Paper, 2010.
17. "Characterizing Properties of Stochastic Objective Functions," MIT Working Paper 96-1R. *Revise & Resubmit, B.E. Journals in Theoretical Economics.*
18. "Investment and Information Value for a Risk-Averse Firm," MIT Working Paper No. 00-30. *Revise & Resubmit, B.E. Journals in Theoretical Economics.*
19. "The Value of Information in Monotone Decision Problems," (with Jonathan Levin), MIT Working Paper No. 98-24, November 1998.
20. "An Empirical Framework for Testing Theories about Complementarities in Organizational Design," (with Scott Stern). NBER Working Paper 6600, February 1998. *Revise & Resubmit, Management Science.*
21. "The Allocation of Decisions in Organizations," (with Joshua Gans and Scott Stern), Mimeo, MIT, 1996.

WORK IN PROGRESS

1. "Social Media and News Consumption" (with Markus Mobius and Jeno Pal), Working paper, 2013.
2. "Internet Information Gathering and Stock Returns: Evidence from Ticker Lookups" (with Stefano Della Vigna).

TEACHING

- MBA: Marketplaces, Economics of Internet Search, Platform Competition in Digital Markets, Financial Technology, Advertising and Monetization, Cryptocurrency
- Graduate: Machine Learning and Causal Inference, Economics of Information Technology, Market Design, Advanced Topics in Game Theory, Industrial Organization, Contract Theory, Microeconomic Theory.
- Undergraduate: Market Design, Industrial Organization, Intermediate Applied Microeconomics.

NON-ACADEMIC HONORS

- Microsoft Research Distinguished Collaborator Award, 2016
- World Innovation Summit on Entrepreneurship and Innovation's World's Most Innovative People Award, 2012.
- World Economic Forum Young Global Leader, selected 2008.
- Fast Company's 100 Most Creative People in Business
- Diversity MBA's Top 100 under 50 Diverse Executives
- Kilby Award Foundation's Young Innovator Award, 1998.

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Date of Birth: Jan 17, 1973 (California) **Citizenship:** USA & Canada

FIELDS OF INTEREST

Behavioral Economics — Development and Policy
Microeconomic Theory — Experimental Methodology

EDUCATION

California Institute of Technology (Pasadena, CA) 1998-99
Postdoctoral Scholar, Division of Social Sciences

Massachusetts Institute of Technology (Cambridge, MA) 1994-98
Ph.D. in Economics (advisors: Lones Smith and Peter Diamond)
Fields: Microeconomics, Political Economy, Economic History
Thesis: "Bringing Game Theory Back to Earth: Thinking, Feeling, and Talking"

California Institute of Technology (Pasadena, CA) 1990-94
M.S. in Mathematics
B.S. (with honors) in Mathematics

PROFESSIONAL EXPERIENCE

Department of Economics, University of Exeter (Exeter, UK) 2018-
Professor of Economics

Associate Editor, *Behavioral Science & Policy* 2013-

Development Economics Group, The World Bank (Wash, DC) 2015-18
Senior Economist, Mind-Behavior-Development Unit (eMBeD)

Office of Research, Consumer Financial Protection Bureau (Wash, DC) 2012-15
Senior Economist (2012-13); Section Chief (2013-15)

Research Department, Federal Reserve Bank (Boston, MA) 2009-12
Senior Economist, Center for Behavioral Economics

Brain and Creativity Institute, University of Southern Calif (Los Angeles, CA) 2006-09
Research Assistant Professor of Psychology

University of California (Berkeley, CA and San Francisco, CA) 2004-06
Fellow, Robert Wood Johnson Health & Society Scholars Program
Research Director, Experimental Social Science Laboratory

Kellogg School of Management, Northwestern Univ (Evanston, IL) 1999-2004
Assistant Professor, Managerial Economics and Decision Science

VISITING POSITIONS

Department of Economics, Harvard University (Cambridge, MA) 2010-12
KSG Women & Public Policy Program Harvard University (Cambridge, MA) 2009-12
Department of Economics, Yale University (New Haven, CT) 2008-10
Intelligent Systems Division, Ames Research Center, NASA (Mountain View, CA) 2008
Finance and Economics, HEC School of Management (Jouy-en-Josas, France) 2007
Social Sciences Division, California Institute of Technology (Pasadena, CA) 2006-07

JOURNAL ARTICLES

"Costly Offers and the Equilibration Properties of the Multiple Unit Double Auction Under Conditions of Unpredictable Shifts of Demand and Supply" (with Charles Plott), *J of Econ Behavior and Organization*, **32** (April 1997), 591-612.
reprinted in *Market Institutions and Price Discovery: Collected Papers on the Experimental Foundations of Econ & Polit Sci (II)*, Edward Elgar (2001).

"Lithium Revisited: Savings Brought About by the Use of Lithium, 1970-1991" (with Richard J. Wyatt and Ioline Henter), *Psychiatric Quarterly*, **72:2** (Summer 2001), 149-166.

"The Le Chatelier Principle in Lattices," *Economics Bulletin*, **3:2** (2006), 1-9.

"Collusion with (Almost) No Information" (with Johannes Hörner), *RAND J of Econ*, **38:3** (2007), 804-22.

"What's in the Dictionary (or Is It?)" (with Johannes Hörner), *J of Quantitative Linguistics*, **14:2** (2007), 215-21.

"Sequential Common-Value Auctions with Asymmetrically Informed Bidders" (with Johannes Hörner), *Rev of Econ Studies*, **75** (2008), 475-98.

"To Deceive or Not to Deceive: The Effect of Deception on Behavior in Future Laboratory Experiments" (with Dean Karlan and Laura Schechter), *J of Econ Behavior and Organization*, **68** (2008), 477-88.

"Well-Being and Neuroeconomics," *Economics and Philosophy*, **24:3** (2008), 407-18.

"When Curiosity Kills the Profits: An Experimental Examination" (with Dean Karlan), *Games & Econ Behavior*, **66** (2009), 830-40.

"Methodological Challenges in Psychiatric Treatment Adherence Research" (with Dawn Velligan et al.), *Clinical Schizophrenia & Related Psychoses*, **4:1** (2010), 74-91.

"Multiple Selves in Intertemporal Choice" (with Jon Wegener), *J of Econ Psych*, **31** (2010), 832-9.

"Characterizing the Amount and Speed of Discounting Procedures" (with Dean T. Jamison), *J of Benefit-Cost Analysis*, **2:2** (2011), Article 1.

"Strategic Choice of Preferences: the Persona Model" (with David H. Wolpert, David Newth, and Michael Harre), *B.E. Journal of Theoretical Econ*, **11:1** (2011), ISSN 1935-1704.

"Incentivizing Safe Sex: A randomized trial of conditional cash transfers for HIV and STI prevention in rural Tanzania" (with Damien de Walque *et al*.), *Brit Med J Open*, **2:1** (2012).

"Games with Synergistic Utilities", *Games*, **3:1** (2012), 41-55.

"Shifting Confidence in Home Ownership: The Great Recession" (with Anat Bracha), *B.E. Journal of Macroeconomics*, **12:3** (2012), Article 5.

"Ambiguous Solicitation: Ambiguous Prescription" (with Robert Gazzale, Alexander Karlan, and Dean Karlan), *Economic Inquiry*, **51:1** (2013), 1002-11.

"Mixed Method Evaluation of a Passive mHealth Sexual Information Texting Service in Uganda" (with Dean Karlan and Pia Raffler), *Information Technologies & Int'l Development*, **9:3** (2013), 1-28.

"Renegotiation Perfection in Infinite Games", *Game Theory*, Article 742508 (2014).

"Two Examples of Equilibrium Nonexistence", *Math Econ Letters*, **1:2-4** (2014), 55-60.

"Women's entrepreneurship and intimate partner violence: A cluster randomized trial of microenterprise assistance and partner participation in post-conflict Uganda" (with Eric Green, Chris Blattman, and Jeannie Annan), *Social Sci & Med*, **133** (2015), 177-88. [corrigendum 2016]

"Selecting Public Goods Institutions: Who Likes to Punish and Reward?" (with Michalis Drouvelis), *Southern Econ J*, **82:2** (2015), 501-34.

"Predicting Health Behaviors with Economic Preferences and Locus of Control" (with Lynn Conell-Price), *J Behavioral & Experimental Econ*, **54** (2015), 1-9.

"Does poverty alleviation decrease depression symptoms in post-conflict settings? A cluster-randomized trial of microenterprise assistance in northern Uganda" (with Eric Green, Jeannie Annan, and Christopher Blattman), *Global Mental Health*, **3** (2016) e7.

"Candy Elasticity: Halloween Experiments on Public Political Statements" (with Dean Karlan), *Economic Inquiry*, **54:1** (2016), 543-7.

"The Returns to Cash and Microenterprise Support among the Ultra-Poor: A Field Experiment" (with Christopher Blattman, Eric Green, Christian Lehmann, and Jeannie Annan), *Amer Econ J: Applied*, **8:2** (2016), 35-64.

"Perceptions Regarding the Value of Life Before and After Birth", *Reproductive System and Sexual Disorders*, **5:4** (2016), 1000195.

"Measuring the Measurement Error: A Method to Qualitatively Validate Survey Data" (with Christopher Blattman, Tricia Koroknay-Palicz, Katherine Rodrigues, and Margaret Sheridan), *J Dev Econ*, **120** (2016), 99-112.

"Overcoming Behavioral Obstacles to Escaping Poverty" (with Christopher Bryan, Nina Mažar, et al.), *Behavioral Science & Policy*, **3:1** (2017), 81-92.

"Reducing Crime and Violence: Experimental Evidence on Adult Noncognitive Investments in Liberia" (with Chris Blattman and Margaret Sheridan), *Amer Econ Rev*, **107:4** (2017), 1165-1206.

"Behaviorally Informed Policies for Household Financial Decisionmaking" (with Brigitte Madrian, Hal E. Herschfield, Abigail B. Sussman, et al.), *Behavioral Science & Policy*, **3:1** (2017), 27-42.

"Social Learning about Environmental Innovations: Experimental Analysis of Adoption Timing" (with David Owens and Glenn Woroch), *Strategic Behavior and the Environment*, **7:1-2** (2017), 135-78.

BOOK CHAPTERS

"Do Only Women Clean in a 'Perfect' World?" (with Johannes Hörner), *Proc of the Int'l Conf of Mathematicians 2002: Game Theory & Applications*, Qingdao Publishing House (2002).

"Incorporating Deaths Near the Time of Birth into Estimates of the Global Burden of Disease" (with Dean T. Jamison, Sonbol A. Shahid-Salles, Joy E. Lawn, and Jelka Zupan), in *The Global Burden of Disease and Risk Factors*, Alan Lopez *et al* (eds.), Oxford (2006).

"Toward a Theory of Syntax and Persuasive Communication", in *Exact Methods in the Study of Language and Text*, Grzybek and Köhler (eds.), de Gruyter, Berlin (2007).

"Schelling Formalized: Strategic Choices of Non-Rational Behavior" (with David H. Wolpert), in *Evolution and Rationality*, Binmore and Okasha (eds.), UK (2012).

OTHER PUBLICATIONS

"Designing Markets for the Common Good", *Kellogg World*, **3** (Winter 2002).

"Optimal Strategy for a Number-Guessing Game" (with Kenneth Schilling, Christian Blatter, et al), *Amer Math Monthly*, **113:1** (2006), pp. 81-82.

"Do Risk-Takers Floss?: Experimental Economics and Epidemiology", *Amer J Epi* **163:Suppl** (2006), S63.

"Live to Regret Those Calories…", Letter to the Editor, *The New York Times* (Nov 6, 2006).

"Libertarian Paternalism and Growing Up", *Harvard College Economic Review* (Spring 2011).

"The Paradox of Voting Revisited", *Harvard College Economic Review* (Spring 2012).

"Marrying Down", Letter to the Editor, *Contingencies* (Sept 2012)

"The Great Recession and Confidence in Homeownership" (with Anat Bracha), *Communities & Banking* (Spring 2013).

"Norms and Communication in Collaboration", *CSWEP News*, Issue III (2017).

WORKING PAPERS

"Credit Building or Credit Crumbling? A Credit Builder Loan's Effects on Credit Scores and Their Predictive Power" (with Jeremy Burke, Dean Karlan, Kata Mihaly, and Jonathan Zinman)

"Don't Swipe the Small Stuff: A Randomized Evaluation of Rules of Thumb-based Financial Education" (with Rebecca Daniels, Devlin Hanson, Christina Stacy, and Brett Theodos)

"Inequality in Survival" (with Dean T. Jamison, Ole F. Norheim, and Stéphane Verguet)

"Tools for Saving: Using Prepaid Cards to Set Aside Funds" (with Cheryl Cooper, Melissa Knoll, and David Zimmerman)

"Financial Education and Access to Savings Accounts: Complements or Substitutes? Evidence from Ugandan Youth Clubs" (with Dean Karlan and Jonathan Zinman)

"Hotelling's Spatial Model with Finitely Many Consumers" (with Johannes Hörner)

"Risk Preferences in Future Military Leaders" (with Patrick Bell, Rozlyn Engel, Darren Hudson, and William Skimmyhorn)

"Choice Architecture to Improve Financial Decision Making" (with Dustin Beckett, Jeffrey Carpenter, Emiliano Huet-Vaughn, Peter Matthews, and Andrea Robbett)

"Economic Preferences and Sexual Transmitted Infections" (with Samantha de Martino, Damien de Walque, and William Dow)

"The Entry of Randomized Assignment into the Social Sciences"

"Motivating Bureaucrats through Social Recognition: External Validity – A Tale of Two States" (with Varun Gauri, Nina Mažar, and Owen Ozier)

"The impacts of conflicts, economic shocks, and death on depression, economic activities and human capital investment in Nigeria" (with Kevin McGee, Gbemisola Osenia, Julie Perng, Ryoko Sato, Tomomi Tanaka, and Renos Vakis)

"Can Cognitive Behavioral Therapy Reduce School Dropouts in Mexico?" (with Ciro Avitabile, Janina Cuevas, Rafael de Hoyos, and Marcela Silveyra)

HONORS/AWARDS

NOAA award for superior performance in the field of physics (1987 DC science fair)
Robert A. Millikan Scholarship and Carnation Fellowship (Caltech)
Honorable Mention (top 100 internationally) on Putnam Mathematics Examination
Elected to *Tau Beta Pi* Engineering Honor Society
E.T. Bell Prize for Outstanding Undergraduate Mathematics Research
'Dean's List' for exceptional teaching (Kellogg)
Best Paper Award, *ConNEcs 2008* (Copenhagen)
Invited Speaker at plenary debate on neuroeconomics, ESA World Congress (Rome)
Young Leader's Forum, National Committee on US-China Relations
Keynote Speaker, Behavioral Research for Emerging and Applied Knowledge (BREAK 2016)
World Bank Research Academy winner (2017)

MEDIA COVERAGE

"Embarrassing Obama Kids" by Emily Bazelon, slate.com (Nov 3, 2008).
"Random Lives in Northern Uganda" by Dwyer Gunn, freakonomics.com (Aug 3, 2009).
"Next Generation of Homeowners Are [sic] Freaked Out" by Michael S. Derby, wsj.com *Real Time Economics* (Oct 18, 2011).
"What's Behind the Lack of Confidence" by Binyamin Appelbaum, nytimes.com *Economix* (Oct 18, 2011).
"Seniors Hit by the Housing Market Still Think It's Great" by Madeleine Scinto, businessinsider.com (Oct 20, 2011).
"Investing in poor women helps them earn more, but does it 'empower' them?" by Joshua Keating, foreignpolicy.com *War of Ideas* (May 3, 2013).
"What It Don't Get I Can't Use: The Development Case for Cash" by Tom Watson, forbes.com (May 28, 2013).
"For Fighting Poverty, Cash is Surprisingly Effective" by Charles Kenny, businessweek.com *Global Economics* (June 3, 2013).
"Google Mobile Sex Advice Boosted Cheating in Uganda" by Makiko Kitamura, bloomberg.com *GlobalTech* (June 5, 2013).
"The Benefits of Cash without Conditions" by Tina Rosenberg, nytimes.com *Fixes* (Aug 28, 2013).
"What Happens When You Just Give Money to Poor People?" *NPR Planet Money* (Nov 8, 2013).
"Show Them the Money" by Christopher Blattman & Paul Niehaus, *Foreign Affairs* (May 2014).
"Jobs and jail might not keep young men out of crime, but how about therapy?" by Christopher Blattman, washingtonpost.com *Monkey Cage* (April 15, 2015).
"Everything We Think We Know About Preventing Crime is Wrong" by Zeeshan Aleem, mic.com *PolicyMic* (April 24, 2015).
"I Don't Know What You've Done With My Husband But He's a Changed Man" *Freakonomics* radio podcast by Christopher Werth (Sept 17, 2015).
"Candy for Your Vote, Kid? A Test of Political Bribery" by Shankar Vedantam, *NPR Morning Edition* with Steve Inskeep (Oct 27, 2015).
"Economists tested 7 welfare programs to see if they made people lazy. They didn't." by Dylan Matthews, vox.com *Policy & Politics* (Nov 20, 2015).
"World Bank's Global INsights Initiative Underway", behavioraleconomics.com (Dec 19, 2015).
"Count 'em: 2 simple rules for reducing credit card debt" by Aimee Picchi, cbsnews.com *Moneywatch* (Sep 8, 2016).
"A Little Nagging Can Help Reduce Credit Card Debt" by Ann Carrns, nytimes.com *Your Money Advisor* (Sep 9, 2016).
"Know your rules of thumb for credit card use" by Michelle Singletary, washingtonpost.com *Get There* (Sep 13, 2016).
"The $20 rule will keep you from overspending on your credit card" by Brittney Laryea, businessinsider.com *Magnify Money* (Sep 14, 2016).
"Guaranteed paycheck: Does a 'basic income' encourage laziness?" by Charlie Wood, csmonitor.com *World* (Mar 1, 2017).
"Nudge comes to shove", *The Economist* (May 18, 2017).
"Skarbówka uczy się pisać listy. Cel: Wyegzekwować podatki" by Bartek Godusławski, *Gazeta Prawna* (June 12, 2017).
"Taking Advantage of Behavioral Economics Can Get Aid to More People in Poverty" by Ben Paynter, fastcompany.com *Future of Philanthropy* (Sep 5, 2017)
"One in five Nigerians suffer chronic depression" by Yemisi Adegoke, guardian.ng (Feb 14, 2018).
"The history of randomized control trials: scurvy, poets, and beer" by Markus Goldstein, worldbank.org *Development Impact* (Feb 18, 2018)

CONSULTING

Lockheed-Martin Corporation
National Institute of Mental Health
Jet Propulsion Laboratory
GiveWell
Bates White, LLC
World Bank Group
U.S. Army
NASA

INVITED TALKS

Cheap-Talk: Caltech, Middlebury, Rochester – Simon, NSA, Penn State, Summer in Tel Aviv 1999

Renegotiation Perfection: MIT, Caltech, Texas – Austin, University of British Columbia, Northwestern – Kellogg School, UCSB, UCLA, University of Rochester, USC

Assigning and Trading Tasks: Institute for Economics (Copenhagen)

When Curiosity Kills the Profits: Wesleyan, Northwestern, Washington & Lee University

Sequential Auctions: LSE, Royal Holloway College (London), IESE Business School (Barcelona), Univ of Bonn, HEC Paris, Univ of Copenhagen

Discounting: Resources for the Future, Illinois State, Int'l Health Economics 2005 (Barcelona), Washington & Lee, Law/Econ/Neuro Conference (USC), CEAR (Georgia State), CBS

Collusion without Info: Carlos III, Pompeu Fabra, Melbourne Business School

Hotelling: UC-Berkeley, Copenhagen, USC, Joint Game Theory Seminar (IHP, Paris)

Neuroeconomics: RWJ Workshop (Madison), Danish Research Centre for MR (Copenhagen), Gallo Institute, Johns Hopkins Medical Inst, SAET 2007 (Kos), ESA 2007 (Rome), York

Exp'l Econ & Health: Behavioral Econ & Epi (Berkeley), Princeton – Wilson, ASHE (Madison), McGill, Otago, Berkeley Int'l Group, Boston Fed, UCSD – Rady, Yale – Public Health

SES and Health in Mexico: International Health Economics Assoc 2005 (Barcelona)

To Deceive or Not: UC Berkeley, USC Psychology, Aberdeen, Nuffield (Oxford)

Persona Games: Yale, Essex, HEC Paris

Social Learning: FSU Game Theory Conference, CEDEX (Nottingham), ICES (George Mason)

Preferences and Health Behavior: Harvard – Kennedy, Boston Fed, Iowa State, York, Middlebury, ABCDE 2010 (Stockholm), Penn State – Smeal, Carlo Alberto, Tilburg, CFPB (Wash, DC)

Behavioral Econ: CRA 2010 (New Orleans); Danish Financial Analysts; CMU – SDS

Endog Prefs: ConNecs 2010 (Copenhagen); Bio, Neurosci, & Econ (USC 2011), EIEF

Shifting Confidence: Boston Fed

FinEd and Savings Access: RAND BeFi 2013 (DC); Boulder 2014; Cherry Blossom Institute 2015 (DC); MicroCredit Summit 2016 (Abu Dhabi)

Youth Transformation: WZB (Berlin); USIP/ESOC (Wash, DC); IPA Faith-Based Poverty Reduction (New Haven 2016), USAID / JPAL (Mexico City 2017)

mHealth Sexual Information: CGD (Wash, DC); DIME group (World Bank)

Mandated Disclosure: Design for Action 2014 (Wash, DC); FCA 2015 (London, UK)

Inequality in Health: Global Priorities 2020 (Wash, DC)

Encouraging Saving on Prepaid Cards: Maryland – Smith School; IPA Fin Inclusion 2015 (New Haven); Claremont Grad Univ; SEEP Network 2017 (Wash, DC)

Objective vs Subjective [Financial] Well-being: Toronto – Rotman School

Performance Incentives: CEGA (Berkeley 2016); Exeter

Exp Econ & Global Health: NIH; Missouri

LARC Take-up: ActionDesign DC

OTHER PRESENTATIONS

Valuable Cheap-Talk: Arne Ryde Symposium 1997 (Lund), MIT
The Le Chatelier Principle: MIT, Caltech
Assigning and Trading Tasks: Games 2000 (Bilbao), MIT, Mars Society 1999 (Boulder)
Do Women Clean: Northwestern, Econometric Society 2002 (Brisbane), ICM 2002 (Qingdao)
Sequential Auctions: Canadian Econ Theory 2003 (Vancouver), NASMES 2003 (Evanston), ESEM 2003 (Stockholm), Games 2004 (Marseille), Northwestern
Discounting: EEA 2003 (Stockholm), Neuroeconomics 2005 (Kiawah)
Collusion without Info: Society for Economic Design 2004 (Mallorca)
Hotelling's Spatial Model: Econometric Society World Congress 2005 (London)
Experiments and Health: RWJ HSS Meeting (Santa Fe), ESA 2006 (Tucson)
Social Learning: French Econ Association 2007 (Lyon), IO Workshop 2009 (Lecce)
Preferences in Rats: Econ Science Assoc 2008 (Pasadena), Neuroecon 2008 (Park City)
Persona Games: Games 2008 (Evanston)
Prefs and Health Behavior: 4th Nordic Conference 2009 (Oslo), ESE 2009 (Rotterdam), ASSA 2011 (Denver), SEEDEC 2011 (Berkeley), ESA 2012 (Cologne)
Endogenous Preferences: Behavioral DM 2011 (IDC, Herzliya)
Public Goods: SEA 2011 (DC); ESA 2012 (New York)
Youth Transformation: Fondazione Bruno Kessler (Trento 2013), ESA 2013 (Santa Cruz), Experiments & Policy 2014 (Curaçao), NIBS 2015 (Nottingham), Lithuanian Econ Research 2016, AFE 2016 (Chicago)
Preferences and Sexual Behavior: ESA 2014 (Prague), SEET 2016 (Malta)
Microenterprise Support: USAID (Wash, DC), NEUDC 2014 (Boston)
Reducing Dropouts in Mexico: Experiments & Policy 2018 (Punta Cana)

PROFESSIONAL SERVICE

Teaching: Managerial Economics; Probability & Statistics; Game Theory; Information Economics; Experimental Economics; Neuroeconomics and Well-being; Microeconomic Theory

Refereeing: *Econometrica, Economic Journal, Intl J of Game Theory*, *J of Econ Theory*, *J of Political Economy, Management Science, BE Press (Theory)*, *RAND J of Econ*, *BE Press (Policy)*, *J of Finance*, *Intl J of Industrial Org*, *Economic Inquiry*, *Economic Development & Cultural Change*, *J of Public Econ*, *J of Development Econ*, *J of Marketing Research*, *J of European Econ Assoc, Games*, *Rev of Econ Studies*, *Rev of Econ & Statistics*, *Perspectives on Psych Sci*, *J of Econ Behavior & Organization*, *Oxford Bulletin of Econ and Stat*, *World Bank Econ Rev*, *Amer Econ Rev*, *J of Human Resources*, McGraw-Hill, Princeton Univ Press, Oxford Univ Press, National Institutes of Health, National Science Foundation

Membership: Econometric Society, Mathematical Association of America, Economic Science Association, Society for Judgment & Decision-Making, Tau Beta Pi

CURRICULUM VITAE

Name: DOHBIT JULIUS SAMA

Position: Senior Lecturer and Consultant Obstetrician/Gynaecologist

Date and place of birth: 24th May 1970 in Baligham

Nationality: Cameroonian

Address: Yaoundé Gyneco-Obstetric and Pediatric Hospital.

P.O Box 4362 Yaounde – Cameroon

Telephone: (00237) 6 77 78 60 59

E-mail: dohbit@yahoo.com

1. CERTIFICATES OBTAINED.

Certificate	**Place and year**	**Contents of certificate.**
GCE "A" Level	Sacred Heart College Mankon. 1989	Biology, Chemistry , Mathematics, Physics.
Doctorate degree in Medicine	Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, 1997	General medicine
WHO/GFMER Certificate in Reproductive Health Research	FMBS, University of Yaounde I, 2004	Reproductive Health Research
WHO/GFMER Certificate in Reproductive Health Research	WHO – Geneva 2006	Reproductive Health Research
Specialist Diploma	FMBS, University of Yaoundé	Specialisation in clinical science.

in Medicine	I, 2006	Option: Pediatrics.
Certificate in Maternal-Foetal Medicine	Geneva University Teaching Hospital, 2007	Foetal Medicine and Echography

1. A. DOCTORATE DEGREE THESIS

- **Exact title of thesis**: The use of Intra-cervical Foley's Catheter with traction in Preinduction Cervical Ripening.

Name of the Supervisor: Pr DOH Anderson SAMA/ Dr Pius CHANCHU NGASSA

JURY: - **President**: Pr LEKE Robert John Ivo

- **Members of jury**: Dr FOMULU Joseph Nelson/Dr FRU ANGWAFOR III

-Date and place of defense: 7th February 1997 at the Faculty of Medicine and Biomedical Sciences, University of Yaounde1.

1. B. END OF SPECIALIZATION MEMOIR.

Research 1, Obstetrics: Knowledge, Attitude and Practice of the Labour Partogramme in some peripheral hospitals of Yaounde.

Name of the Supervisors: Prof. LEKE Robert John Ivo/ Dr NANA NJOTANG Philip

Research 2, Gynaecology: Epidemiological study of Breast tumors in Yaounde.

Name of Supervisors: Prof DOH Anderson SAMA/Dr Pius CHANCHU NGASSA

JURY: - **President**: Pr LEKE Robert J I

Members: Prof DOH A S/Prof KOUAM L/Dr NGASSA P C/Dr MBOUDOU E T/Dr NANA N P

2. FUNCTIONS

2.1. At the Faculty of Medicine:-

- In charge of examinations in the department of Obstetrics and Gynaecology and coordinator for examination 2013-2016.

- Member of unit in charge of evaluations at the Faculty of Medicine and Biomedical Sciences. 2015-till date

2.2. At the Hospital (HGOPY)

- Chief of service for Research and Evaluation at the Yaounde Gyneco-Obstetric and Pediatric Hospital (YGOPH) since 2015

- Supervisor of the Family Planning Unit of HGOPY since 2012

- Focal point, Adolescent Clinic HGOPY since 2015

2.3. At the Ministry of Health

National Trainer for: - Emergency Obstetrics and Neonatal care

- Prevention of Mother to Child transmission of HIV (PMTCT)

- Family planning

- Clinical management of Rape survivors

3. AREA OF RESEARCH.

Obstetrics: Pregnancy and childbirth and related maternal-foetal-neonatal complications

Gynaecology: Reproductive Medicine, Adolescent and adult Gynaecology, Gynaecologic oncology

4. MISSIONS.

	VENUE	Period	Mission	Organizer
1.	Yaounde	12th to 23rd December 2010	Training of Health Personnel on Emergency Obstetrics and neonatal care	UNFPA/MoH
2.	Yaounde	6th to 17th June	Training of Health Personnel on Emergency Obstetrics and	UNFPA/MoH

		2011	neonatal care	
3.	Bamenda	30th January to 3rd February 2012	Training on Post Abortion care	ACMS/MoH
4.	Kumba	6th to 19th February 2012	Training of Health Personnel on Emergency Obstetrics and neonatal care	DFH
5.	Buea	5th to 18th March 2012	Training of Health Personnel on Emergency Obstetrics and neonatal care	DFH
6.	Bamenda	9th to 24th August 2012	Training of health personnel on Contraceptive Technology	PEPFAR/DFH
7.	Limbe	5th to 15th June 2013	Training of trainers on Clinical Training skills	PEPFAR/DFH
8.	Limbe	31st July to 13th August	Training on Emergency Obstetrics and PMTCT	PEPFAR/DFH
9.	Limbe	16th to 20th December	Training of Trainers on CTS and Option B+	PEPFAR/DFH
10.	Yaounde	17th to 26th February 2014	Training on Emergency Obstetrics and PMTCT	UNICEF/MoH
11.	Yaounde	4th to 13th March 2014	Training on Emergency Obstetrics and PMTCT	UNICEF/MoH
12.	Bafoussam	4th to 9th August 2014	Training on Emergency Obstetrics and PMTCT	PEPFAR/DFH
13.	Bamenda	1st to 6th September 2014	Training of personnel on maternal and neonatal Death Review	MoH
14.	Dschang	18th to 27th November 2014	Training on Emergency Obstetrics and PMTCT	UNICEF/MoH
15.	Yaounde	26th to 31st January 2015	Training on Post-partum contraception	MSH/USAID
16.	Yaounde	2nd to 7th February 2015	Training of health personnel on Post-partum contraception	MSH/USAID

17.	Edea	20th to 31st July 2015	Training on Contraceptive technology	UNFPA/MoH
18.	Mbalmayo	1st to 10th December 2015	Training on Contraceptive technology	UNFPA/MoH
19.	Centre/East Regions	May to October 2016	Consultant for Mentoring in Maternal and child health	WHO/CHAI

5. PUBLICATIONS.

ORIGINAL ARTICLES

1. Foumane P, Mboudou ET, Belley Priso E, Moifo B, **Dohbit JS**, Nkemayim DC, Doh AS. Sensitivity of ultrasonography in the diagnosis of ectopic pregnancy: a series of 172 cases at the Yaounde Gynaeco-Obstetric and Paediatric Hospital, Cameroon. ***J Afr Imag Méd 2009***; 3(2): 92-6.

2. Mboudou ET, Foumane P, Belley Priso E, **Dohbit JS**, Ze Minkande J, Nkengafac WM, Doh AS. Hypertension au cours de la grossesse: Aspects cliniques et épidémiologiques à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé, Cameroun. ***Clin Mother Child Health 2009*;** 6 (2): 1087-93.

3. Foumane P, Mboudou ET, **Dohbit JS**, Nkemayim DC, Tchokoteu PF, Doh AS. Streptocoque béta-hémolytique du groupe B et conséquences materno-fœtales observées à l'Hôpital Général de Yaoundé : étude descriptive. ***Clin Mother Child Health 2009*;** 6 (1): 995-1001.

4. Nzintcheu Youssa JM, Foumane P, Mboudou ET, **Dohbit JS**, Mbu RE, Doh AS. Hystérectomie obstétricale d'urgence à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé : une revue de 30 cas. ***J SAGO 2009*** ; 10(2) : 25-9.

5. Mando E, Foumane P, Sando Z, Mboudou ET, **Dohbit JS,** Doh AS. Mélanome malin du vagin de la patiente non ménopausée : à propos d'un cas. ***J SAGO 2009*** ; 10(2) : 35-7.

6. Foumane P; Mboudou ET; Mbakop Ndingue S; **Dohbit JS**; Belinga E; Doh AS. La place du traitement peu ou non invasif dans la prise en charge de la grossesse extra-utérine à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé: une analyse rétrospective sur cinq ans. ***Clin Mother Child Health 2010***; 7(1): 1201-4.

7. **Dohbit JS**; Foumane P; Kapche MD; Mboudou ET; Doumbe M; Doh AS. Grossesse extra-utérine à l'Hôpital Régional de Bafoussam: Aspects épidémiologiques, cliniques et thérapeutiques. ***Clin Mother Child Health 2010***; 7(1): 1189 – 93.

8. **Dohbit JS**; Nana NP; Foumane P; Mboudou ET; Mbu RE; Leke RJI. A survey of the knowledge, attitude and practice of the labour partogramme among health personnel in seven peripheral hospitals in Yaounde, Cameroon. ***Clin Mother Child Health 2010*****;** 7(1): 1215-9.

9. Foumane P; Mboudou ET; **Dohbit JS**; Mbakop Ndingue S, Tebeu PM ; Doh AS. Conservative treatment of ectopic pregnancy in a sub-Saharan African setting. ***Trop Doct 2011***; 41(2):79-81.

10. Mboudou ET, Foumane P, Esiene A, **Dohbit J**, Belley Priso E, Assembe YF, Ze Minkande J. Facteurs influençant la variation pondérale dans une population de femmes enceintes a Yaoundé (Cameroun). ***J SAGO 2011***; 12(1): 30-4.

11. Foumane P, Chiabi A, Kamdem C, Monebenimp F, **Dohbit JS**, Mbu RE. Sexual Activity of Adolescent School Girls in an Urban Secondary School in Cameroon. ***J Reprod Infertil 2013***; 14(2): 85-9.

12. Essiben F, Foumane P, Mboudou ET, **Dohbit JS**, Mve Koh V, Ndom P. Diagnostic et traitement du cancer de sein au Cameroun: à propos de 65 cas. ***Mali Med 2013***; 23(1): 1-5.

13. Foumane P, Sando Z, **Dohbit JS**, Bilo'o L, Mboudou ET, Essame Oyono JL. The diagnosis of uterine cervical polyps in a low resource setting; the positive predictive value of clinical judgment, a series of 192 cases at the Yaounde Gynaeco-Obstetric and Pediatric Hospital, Cameroon. ***Trop Doct 2013***; 43(2):54-6.

14. Foumane P, Mboudou ET, Djiadeu B, Moifo B, **Dohbit JS**, Ze Minkande J. Facteurs prédisposant au traitement chirurgical dans la prise en charge de la pelvipéritonite à Yaoundé, Cameroun. ***Health Sci Dis 2013***; 14(2): 126-30.

15. Foumane P, Nkomom G, Mboudou ET, **Dohbit JS**, Nguefack S, Moifo B. Risk factors of clinical birth asphyxia and subsequent newborn death following nuchal cord in a low-resource setting. ***Open J Obstet Gynecol 2013***; 3(9): 642-7.

16. Mboudou ET, Foumane P, Morfaw FLI, Ze Minkande J, **Dohbit JS**, Enama Mbatsogo BA. Female infertility and laparoscopic surgery: a series of 415 operations at the Yaounde Gyneco-Obstetric and Pediatric Hospital, Cameroon. ***Open J Obstet Gynecol 2013***; 3(9): 663-7.

17. Mboudou E, Morfaw LIF, Foumane P, **Dohbit JS**, Enama Mbatsogo BA, Ze Minkande J. Gynaecological laparoscopic surgery: eight years experience in the

Yaounde Gynaeco-Obstetric and Paediatric Hospital, Cameroon. ***Trop Doct 2014***; 44(1): 71-76.

18. Foumane P, Chumbe Mounton, **Dohbit JS**, Nguefack S, Dobgima Pisoh W, Mboudou ET. Risk factors of intrapartal fetal death in a low-resource setting. ***Open J Obstet Gynecol 2014*****;** 4(3): 101-4.

19. Foumane P, Mando E, Mboudou ET, **Dohbit JS**, Dobgima Pisoh W, Ze Minkande J. Outcome of cesarean delivery in women with excessive weight gain during pregnancy. ***Open J Obstet Gynecol 2014***; 4(3): 139-43.

20. Foumane P, **Dohbit JS,** Monebenimp F, Natolga B, Ngo Um Meka E, Mboudou ET. Clinical study of female rape at the Yaounde Gyneco-Obstetric and Pediatric Hospital, Cameroun**.** ***Adv Sex Med 2014*****;** 4(2): 11-16

21. Foumane P, Mve Koh V, Ze Minkande J, Njofang Ngantcha EA, **Dohbit JS**, Mboudou ET. Facteurs de risque et pronostic des césariennes d'urgence à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé (Cameroun). *Méd Santé Trop 2014*; 24: 89-93.

22. Ahounkeng NP, Mboudou ET, Adjoby CR, Rakotomalala NZ, Foumane P, **Dohbit SJ**, Nshimirimana E. Impact du gain pondéral excessif pendant la grossesse sur l'issue maternofoetale à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé (Cameroun). ***Méd Santé Trop 2014*** ; 24 : 63-7.

23. Ahounkeng NP, Mboudou ET, **Dohbit SJ**, Foumane P, Nana Njotang P, Mbu Enow R. Le vécu du premier examen gynécologique en milieu africain: cas du Cameroun. Quels ajustements à apporter à son déroulement pour un meilleur vécu? ***Méd Santé Trop 2014*** ; 24 : 165-8.

24. Foumane P, Mboudou ET, **Dohbit JS**, Baba S, Enama Mbatsogo BA, Ngwana B. Sexual activity during pregnancy and prognosis of labor in Cameroonian women: a cohort study. ***J Matern Fetal Neonatal Med 2014***; 27(13): 1305-8.

25. Ahounkeng Nanda P, Mboudou ET**,** Foumane P, **Dohbit Sama J**, Tiomela Douanla P, Nnang GM. Issue maternofoetale de la grossesse chez la femme obèse à l'hôpital gynéco-obstétrique et pédiatrique de Yaoundé, Cameroun. ***Rev Méd Périnat 2015***; 7:110-16.

26. Djoda Adama N, Foumane P, Kamga Olen JP, **Dohbit JS**, Ngo Um Meka E, Mboudou ET. Prevalence and risk factors of postpartum depression. ***Open J Obstet Gynecol 2015***; 5(11): 608-17.

27. Foumane P, **Dohbit JS**, Ngo Um Meka E, Nkada MN, Ze Minkande J, Mboudou ET. Etiologies de la mortalité maternelle à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé: une série de 58 décès. ***Health Sci Dis 2015***; 16(3): 1-5.

28. Foumane P, Belinga E, Hafizatou M, **Dohbit JS**, Ngo Um E, Mboudou ET. Risk factors of poor outcome of pregnancy and delivery in adolescents: a case-control study at the Yaounde Gynaeco-Obstetric and Pediatric Hospital. ***Int J Reprod Contracept Obstet Gynecol. 2016***; 5(7): 2228-32. doi:10.18203/2320-1770.ijrcog20162099

29. *Essiben F, Foumane P, Moifo B,* ***Dohbit J****, Mboudou E, Doh A.* Pratique de l'échographie de routine dans le suivi de la grossesse à Yaoundé (Cameroun): analyse des connaissances des prescripteurs. ***Health Sci Dis 2016***; 17(1): 1-5.

30. Essiben F, Foumane P, Ngo Um Meka E, Signing Soh P, **Dohbit Sama J**, Eyongoben Osogo, Mboudou ET. Risk Factors for Breast Cancer: A Case-Control Study of 315 Women Followed in the Gynecology and Oncology Departments of Two University Teaching Hospitals in Yaounde, Cameroon. ***Open J Obstet Gynecol 2016***; 6: 676-88.

31. Doh E, Mbanya A, Kemfang NJD, **Dohbit JS**, Tchana Sinou M, Foumane P, Donfack OT, Doh AS, Mbanya JC, Sobngwi E. The relationship between adiposity and insulin sensitivity in African women living with the polycystic ovarian syndrome: a clamp study. ***Int J Endocrinol 2016***;16: Article ID 9201701, 6 pages. *http://dx.doi.org/10.1155/2016/9201701.*

32. Foumane P, Nguefack S, Fouedjio JH, Bitnkeu Assam A, **Dohbit JS**, Mboudou ET. Predictive factors perinatal death in nuchal cord cases: a case control study. ***Int J Reprod Contracept Obstet Gynecol 2016 Dec***;5(12):4206-9.

33. Foumane P, Esiene A, **Dohbit JS**, Ambatta Mbasso RC, Nsahlai C, Ze Minkande J. Kaolin consumption and outcome of surgery in women: a comparative study of 263 operations at the Yaoundé Gyneco-Obstetric and Pediatric Hospital. ***Int J Reprod Contracept Obstet Gynecol 2016 Dec***;5(12): 4216-19.

34. Ngo Um Meka E, **Foumane P**, Essiben F, Ngwesse ER, **Dohbit JS**, Mboudou ET. Predictive factors of complications of vaginal delivery on scarred uterus at the Yaoundé Gynaeco-Obstetric and Paediatric Hospital. ***Open J Obstet Gynecol 2016***; 6: 851-860

35. **Dohbit JS**, Esther Meka E, Tochie Noutakdie J, Kamla I, Mwadjie D, Foumane P. A case report of bicornis bicollis uterus with unilateral cervical atresia: an unusual aetiology of chronic debilitating pelvic pain in a Cameroonian teenager. ***BMC Women Health 2017***; 17(39). *DOI 10.1186/s12905-017-0396-9*

36. **Dohbit JS**, Foumane P, Nkwabong E, Kamouko Ogolong C, Tochie Noutakdie J, Otabela B, Mboudou E. Uterus preserving surgery versus hysterectomy in the treatment of refractory postpartum haemorrhage in two tertiary maternity

units in Cameroon: a cohort analysis of perioperative outcomes. ***BMC Pregnancy Childbirth 2017***; 17(158). DOI 10.1186/s12884-017-1346-0

37. Mah EM, Foumane P, Ngwanou DH, Nguefack, Chiabi A, **Dohbit JS**, Siyou H. Birth Injuries in Neonates at a University Teaching Hospital in Cameroon: Epidemiological, Clinical and Therapeutic Aspects. ***Open J Ped 2017***; 7: 51-58

38. Foumane P, Essiben F, **Dohbit JS**, Yondjeu Tongna C, Ngo Um Meka EJ, Ojong S, Mboudou ET. Assessment of labor and delivery in pregnant women on sulfadoxine-pyrimethamine regimen in Yaoundé Gynaeco-Obstetric and Paediatric Hospital: a comparative study of 313 cases. ***Int J Reprod Contracept Obstet Gynecol. 2017 Mar***;6(3):1076-1082

39. Essiben F, Foumane P, Meka EJ, Tchakounte M, **Dohbit JS**, Nsahlai C, Atenguena E, Nana Njotang P, Mboudou ET. Descriptive analysis of 192 cases of breast cancer occurring before age 40 in Yaounde, Cameroon. ***Int J Reprod Contracept Obstet Gynecol. 2017 Jul****;* 6(7):2704-2710

6. A. THESES CO-DIRECTED IN FMBS:

ORDER	YEAR	STUDENT	RESEARCH TYPE	TITLE	SUPERVISORS
1.	2010	NGONGANG Cedrik	Thesis	Initiation du diagnostic anténatal au Cameroun	Pr DOH A S Dr WONKAM Dr DOHBIT S
2.	2011	GANG DIHGA MUNYUTU	Thesis	Preterm deliveries in HGOPY: epidemiologic and clinical aspects	Pr DOH A S Dr DOHBIT S Dr MAH E
3.	2012	AWOUDA NTOMO F A	Thesis	Traditional medicine use in the second half of pregnancy and outcome of labour	Pr MBOUDOU Dr DOHBIT S Dr NDIKUM V
4.	2013	BAYE CATHERINE BONGKA	Thesis	KAP study on the female condom among female students of FMBS	Pr MBU R Dr DOHBIT S

5.	2013	MUNANG Yvonne NANGEH	Thesis	Reproducibility of the 75g OGTT for the Diagnosis of gestational diabetes mellitus in Cameroonian population	Pr MBANYA J C Dr SOBNGWI E Dr DOHBIT S
6.	2013	BATE BETSY EFU-DEM	Thesis	Reproductive and Metabolic features of the PCOS among infertile women	Pr MBOUDOU Dr SOBNGWI E Dr DOHBIT S
7.	2014	AKAME MEKA Glwadys épse ELOUNG NNA	Thesis	Profil Epidemiologique et Histologique des tumeurs du sein à HGOPY	Pr MBOUDOU Dr DOHBIT S Dr FOUMANE
8.	2015	MEDOUA KOH KOH E S	Thesis	Profil etiologique de la mortalite maternelle, comparaison entre un Hopital Central et un Hopital Regional	Pr NANA Dr DOHBIT S
9.	2015	KWANKEKAN G SHE Christian	Thesis	KAP of cervical cancer screeing in clinical year students of FHS UB	Pr ESSAME O Dr SANDO Dr DOHBIT S
10.	2015	NGONO ELOUNDOU R V	Thesis	Fibromes uterins, aspects epidemiologiques, cliniques et therapeutiques	Pr MBOUDOU Dr DOHBIT S Dr FOUEDJIO
11.	2015	KUM Jerry NGHA	Thesis	The quality of ANC services in the Wum Health District	Pr MBU Dr DOHBIT S
12.	2015	FADIMATOU MAMOUDOU	Thesis	Pronostic materno-foetal de l'accouchement par voie basse a HGOPY	Pr FOUMANE Dr DOHBIT S
13.	2015	MESUMBE NZENE Edmond	Thesis	Devenir materno-foetal en cas de liquid amniotique meconial	Pr NANA Dr DOHBIT S Dr MAH E
14.	2015	DJUBOUSSI	Thesis	Facteurs de risqué des lesions	Pr FOUMANE Dr DOHBIT S

				ureterales au cours des Hysterectomies	
15.	2015	KAMOUKO OGOLONG D	Thesis	Etude comparative des approches conservatrice et radicale dans la prise en charge chirurgicale des HPP	Pr FOUMANE Dr DOHBIT S Dr NKWABONG
16.	2016	MBIA KOUDA ZEH M M	Thesis	Prise enterale de medicaments traditionnels et pronostic de l'accouchement	Pr FOUMANE Dr DOHBIT S Dr ESSIBEN Dr GUEDJE N M
17.	2016	NGA BEKOLO	Thesis	Facteurs de risque des deces perinataux au cours de la procidence du cordon ombilical	Pr FOUMANE Dr DOHBIT S
18.	2016	SAKINATOU	Thesis	Facteurs de risque des grossesses chez adolescentes scolarisees dans les etablissements secondaires de Ngaoundere	Pr FOUMANE Dr DOHBIT S Dr ESSI M J
19.	2016	MANDJOUEL Laeticia	Thesis	Les parodontopathies en grossesses	Pr FOUMANE Dr DOHBIT S Dr ABENA
20.	2016	Dr EYONGOBEN	Memoir	Gestational and Intrapartum characteristics of parturients diagnosed of Acute fœtal distress in two reference hospitals in Yaounde	Pr FOUMANE Dr DOHBIT S
21.	2016	Dr METOGO J	Memoir	L'Applicabilite de la 'WHO safe-motherhood checklist' dans la maternite de HGOPY.	Pr FOUMANE Dr DOHBIT S
22.	2017	BOLO Salomee	Thesis	Facteurs de risqué de perdue de vue des grossesses chez les	Pr FOUMANE Dr DOHBIT S

				Adolescentes a HGOPY	
23.	2017	TICHA Joek	Thesis	Risk factors of adverse outcomes in severe preeclampsia in HGOPY	Pr NANA NJOTANG Dr DOHBIT S
24.	2017	NDODE NGOLE EYA EKOLLE	Thesis	Outcome of Laparoscopic surgery for infertility in a private setting in Yaounde	Pr NANA NJOTANG Dr DOHBIT S
25.	2017	NDOUMBE MBALLO Jacky	Thesis	Facteur de risqué de circulaire de cordon a Yaounde	Pr NKWABONG Dr DOHBIT S
26.	2017	MBOKA Laure	Thesis	La sensibilite de FCV a Yaounde	Pr NKWABONG Dr DOHBIT S
27.	2017	NGADEU Rosine	Thesis	La sensibilite de VIA/VILI dans le depistage de cancer du col de l'Uterus	Pr NKWABONG Dr DOHBIT S
28.	2017	MBONO LEKA Laure Bertille	Thesis	Le cancer du col de l'Uterus et le statut VIH	Pr TEBEU Dr DOHBIT S
29.	2017	OUMMOUL	Thesis	CAP sur le partoggramme dans le District de Sante de Deido a Douala	Pr FOUMANE Dr DOHBIT S
30.	2017	KAAR KIA	Thesis	Etude comparative de Misoprostol et AMIU dans la PEC des avortements incomplets a HCY et HGOPY	Pr NANA NJOTANG Dr DOHBIT S
31.	2017	TATA Fritz	Thesis	Comparative study of elective versus emergency caesarean section in Yaounde	Pr MBU Dr DOHBIT S
32.	2017	NGUEPESI Rosine	Thesis	Etude Clinique et Anatomopathologique des avortements incomplets a HGOPY	Pr FOUMANE Pr SANDO Dr DOHBIT S
33.	2017	DEGA Samira	Thesis	Facteurs de risque de rupture prématurée	Pr FOUMANE Dr DOHBIT S

				des membranes a HGOPY	
34.	2017	NGA ENGOLO H D	Thesis	Impact de l'Obésité sur les pathologies gynécologiques	Pr FOUMANE Dr DOHBIT

6. B. LIST OF THESES CODIRECTED IN THE UNIVERSITE DES MONTAGNES, BANGANGTE

1. KAPCHE FOTSO M D : La grossesse extra-uterine a l'Hopital Regional de Bafoussam : aspects epidemiologiques, cliniques et therapeutiques. 2008-2009. Pr DOH A S/**Dr DOHBIT S.**
2. NGOUNGOURE HALIMA : Prescription et Utilisation des medicaments en grossesse. 2009-2010. Pr MBOUDOU/**Dr DOHBIT S**/Dr NDIKUM V
3. NONO KENMOGNE Germain : Relation entre utilisation medicamenteuse et les malformations chez les ouveau nes. 2010-2011. Pr KOKI/**Dr DOHBIT S** /Dr NDIKUM V
4. KAMKUI DADJE Laure : Aspects épidémiologiques et cliniques des urgences gynécologiques et obstétricales à l'hôpital gynéco-obstétrique et pédiatrique de Yaoundé. MD Thesis 2012-2013. Pr MBOUDOU/**Dr DOHBIT S.**

5. YOUMBI Giovanni : Facteurs de risque de diabète gestationnel à HGOPY. 2016-2017. Pr FOUMANE/**Dr DOHBIT S**
6. ZOYEM MELI : Facteurs de risques de grossesse chez les adolescentes de la ville de Bertoua. 2016-2017 Pr FOUMANE/**Dr DOHBIT S**
7. TCHATCHOUA NANA Murielle : Facteurs de risque d'échec de l'épreuve de cicatrice à HGOPY. 2016-2017. Pr FOUMANE/**Dr DOHBIT S**
8. PETKEU Christelle : Facteurs de risque de l'Hemorragie de post-partum precoce. 2016-2017. Pr NANA NJOTANG/**Dr DOHBIT S**

7. POST-GRADUATE RESEARCHES CO-DIRECTED (Memoirs).

1. Dr. AKWA John. Family planning needs of marginalized groups: the case of refugees in Cameroon. 2012-2013. Pr MBU/ **Dr DOHBIT S**
2. Dr NOA NDOUA: Connaissances attitudes et pratiques des accoucheuses traditionnelles en matière des signes de danger en grossesse et la prévention des infections. 2012-2013. Pr MBU/**Dr DOHBIT S**
3. Dr NKOMMON Gustave: Etude epidémio-clinique et thérapeutique du fibrome utérin a l'hôpital Gynéco-Obstétrique de Yaoundé.2012-2013 Pr MBOUDOU/Dr FOUMANE/**Dr DOHBIT S**

4. Dr NENG TATAH Humphry: A comparative study of seasonal weight variation in a rural community and an urban community.2012-2013. Pr MBOUDOU/**Dr DOHBIT S**
5. Dr SIMO WAMBO: Etude sur la perception de l'accouchement sans douleur chez la femme au Cameroun. 2012-2013 Pr MBOUDOU/**Dr DOHBIT S**
6. Dr YAYA Desire : Acceptabilite de la mastectomie dans les cancers du sein a Yaounde. 2012-2013. Pr MBOUDOU/**Dr DOHBIT S**
7. Dr DOBGIMA Walter PISOH : A KAP study on contraception in adolescent school girls in Yaounde. 2013-2014. Pr MBOUDOU/Dr FOUMANE/**Dr DOHBIT S**
8. Dr OSOGO EYONGOBEN: Gestational and Intrapartum characteristics of parturients diagnosed of Acute fœtal distress in two reference hospitals in Yaounde. 2015-2016. Pr FOUMANE/**Dr DOHBIT S**
9. Dr METOGO J: L'Applicabilite de la 'WHO safe-motherhood checklist' dans la maternite de HGOPY. 2015-2016. Pr FOUMANE/**Dr DOHBIT S**

7. PROFESSIONAL SOCIETIES:

- Member of the Cameroon society of Obstetricians and Gynaecologists (SOGOC)

- Cameroon National Medical Council

- Member of the African Society of Obstetricians and Gynaecologists (SAGO)

- Member of the International Federation of Obstetricians and Gynaecologists (FIGO)

- Member, African society of Gynaecological Endoscopy (AFSGE)

8. ADMINISTRATIVE INFORMATION:

Matricule: 562094 X

Date of last promotion to grade of Senior Lecturer: December 2011.

9. LANGUAGES

Language	Spoken	Reading	Written
English	Excellent	Excellent	Excellent

French	Very good	Excellent	Very Good

Date and Signature: 29th January 2018.

18. Survey questionnaires

This section includes the questionnaires for the follow-up interviews at 2, 16, and 52 weeks.

Generated by parisottol, Aug 12, 2019 11:04
Questionnaire created by parisottol, Oct 19, 2018 14:30
Last modified by parisottol, Aug 12, 2019 11:04

Not shared with anyone

Sections: 1, Sub-sections: 0, Questions: 14.
Questions with enabling conditions: 11
Questions with validation conditions:1
Rosters: 0
Variables: 1

HGOPY Follow up - 2 weeks

SURVEY IDENTIFICATION INFORMATION
QUESTIONNAIRE DESCRIPTION

INTERVIEW
No sub-sections, No rosters, Questions: 14, Static texts: 2, Variables: 1.

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title HGOPY Follow up - 2 weeks

INTERVIEW

Nom de la patiente

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée da ns la construction d'une variable ou dans un texte.

TEXT patient_name
SCOPE: IDENTIFYING

Date de consultation

DATE date_consultation
SCOPE: IDENTIFYING

VARIABLE
date_consultation.Value.Date

DATETIME date_consult

S'il vous plait, pressez ce bouton pour commencer.

DATE: CURRENT TIME datetime

La cliente est prête à commencer l'entretien

E IsAnswered(datetime)

SINGLE-SELECT start
01 ○ Oui
00 ○ Non

Quelle est votre date de naissance?

I Vous pouvez selectionner une date approxime si la patiente ne le sait p as exactement
E start==1
V1 FullYearsBetween(dob_confirm,date_consult)>=12
M1 Etes vous sure que cette date est correcte?

DATE dob_confirm

Quelle méthode le prestataire a-t-il administré après votre consultation?

E IsAnswered(dob_confirm)

SINGLE-SELECT method
01 ○ DUI
02 ○ Implant
03 ○ Pilule (COC ou POP)
04 ○ Injectable (DEPO)
00 ○ Aucune
-98 ○ Ne sais pas/Ne se rappelle pas
-99 ○ Refuse de repondre

Combien avez-vous payé pour la méthode?

I NE LISEZ PAS immédiatement les choix de réponse. Laissez la cliente essayer de répondre d'abord et si elle ne s'en souvient pas, vous pouve z lire les choix de réponse.
E method.InList(1,2)

NUMERIC: INTEGER return_price_larc

SPECIAL VALUES
4000 4000
2000 2000
1000 1000
0150 150
0000 Gratuit
-0098 Ne sais pas/Ne se rappelle pas
-0099 Refuse de repondre

Combien avez-vous payé pour la méthode?

I NE LISEZ PAS immédiatement les choix de réponse. Laissez la cliente essayer de répondre d'abord et si elle ne s'en souvient pas, vous pouvez lire les choix de réponse.

E `method.InList(3,4)`

NUMERIC: INTEGER `return_price_sarc`

SPECIAL VALUES

0500 500
1250 1250
0000 Gratuit
-0098 Ne sais pas/Ne se rappelle pas
-0099 Refuse de repondre

Laquelle de ces responses mieux decrit votre niveau de satisfaction avec la qualite des services de planning familial que vous avez recu a HGOPY?

I S'il vous plait lisez les reponses et en selectionnez une

E `IsAnswered(return_price_larc) || IsAnswered(return_price_sarc) || method.InList(0,-98,-99)`

SINGLE-SELECT `agree_satisfied`

05 ○ Tres satisfaite
04 ○ Satisfaite
03 ○ Ni satisfaite ni insatisfaite
02 ○ Insatisfaite
01 ○ Tres insatisfaite
-98 ○ Ne sais pas/Ne se rappelle pas
-99 ○ Refuse de repondre

Avec quelle probabilite pensez vous retourner a HGOPY pour les services de planning familial et de contraception?

I S'il vous plait lisez les reponses et en selectionnez une

E `IsAnswered(agree_satisfied)`

SINGLE-SELECT `likely_return`

05 ○ Tres probable
04 ○ Probable
03 ○ Ni probable ni improbable
02 ○ Peu probable
01 ○ Tres peu probable
-98 ○ Ne sais pas/Ne se rappelle pas
-99 ○ Refuse de repondre

Je vais vous poser quelques questions sur votre consultation du %date_consult%, pour chacune des déclarations ci-dessous veuillez me dire si oui/non le prestataire l'a fait pendant la consultation :

I Veuillez lire les questions exactement telles qu'elles sont écrites. Sélectionnez Oui ou Non pour chacune.

E `IsAnswered(likely_return)`

MULTI-SELECT: YES/NO `validation_questions`

01 ☐ / ☐ Vous a demandé si vous souhaitez avoir un / un autre enfant ?
02 ☐ / ☐ Vous a demandé quand vous voudriez avoir un / un autre enfant ?
03 ☐ / ☐ Vous avez discuté de vos expériences antérieures en matière le planning familial ?
04 ☐ / ☐ Vous a demandé si vous aviez une préférence pour une méthode de planning familial?
05 ☐ / ☐ Fournir des informations sur différentes méthodes de planning familial?
06 ☐ / ☐ Vous a expliqué des effets secondaires possibles ou des problèmes avec la méthode que vous avez sélectionnée ?
07 ☐ / ☐ Vous a dit quoi faire si vous rencontrez des effets secondaires ou des problèmes avec la méthode que vous avez sélectionnée ?
08 ☐ / ☐ Parlez-vous des signes d'avertissement associés à la méthode que vous avez sélectionnée ?
09 ☐ / ☐ Parlez de la possibilité de passer à une autre méthode si la méthode que vous avez sélectionnée n'était pas adapté ?
10 ☐ / ☐ Lorsque vous rencontrez le prestataire lors de votre visite, pensez-vous que d'autres clients pourraient vous voir ?
11 ☐ / ☐ Lorsque vous rencontrez le fournisseur pendant votre visite, pensez-vous que d'autres clients pourraient entendre ce que vous avez dit ?

STATIC TEXT

E validation_questions.Yes.Length+validation_questions.No.Length==11

" Veuillez lire cette déclaration à haute voix:

Merci beaucoup d'avoir participé à cet entretien, c'est tout pour l'instant. Nous vous rappellerons dans 3 mois pour vous poser quelques questions supplémentaires, comme convenu auparavant. Rappelez-vous que si vous changez d'avis vous pourrez toujours refuser de participer quand on vous appellera.

Y a-t-il un numéro de téléphone où vous préféreriez que nous vous contactions? E validation_questions.Yes.Length+validation_questions.No.Length==11	SINGLE-SELECT contact_alt 01 ○ Oui 00 ○ Non
Listez-les ici E contact_alt==1	LIST contact_alt_list .....
Laquelle de ces méthodes de contact est votre préférence (vous pouvez en donner plusieurs indiquees en ordre)? E IsAnswered(contact_alt_list)	MULTI-SELECT: ORDERED, LINKED preferred_contact

STATIC TEXT

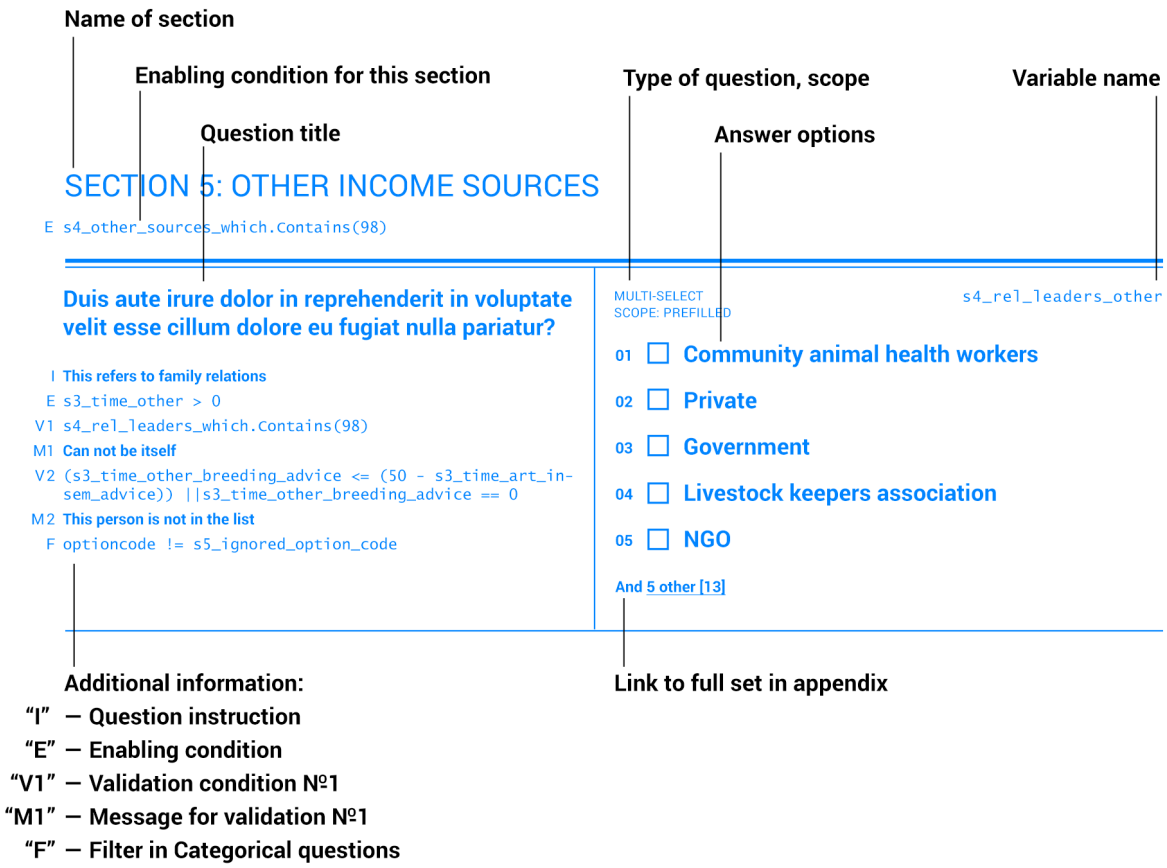
E validation_questions.Yes.Length+validation_questions.No.Length==11

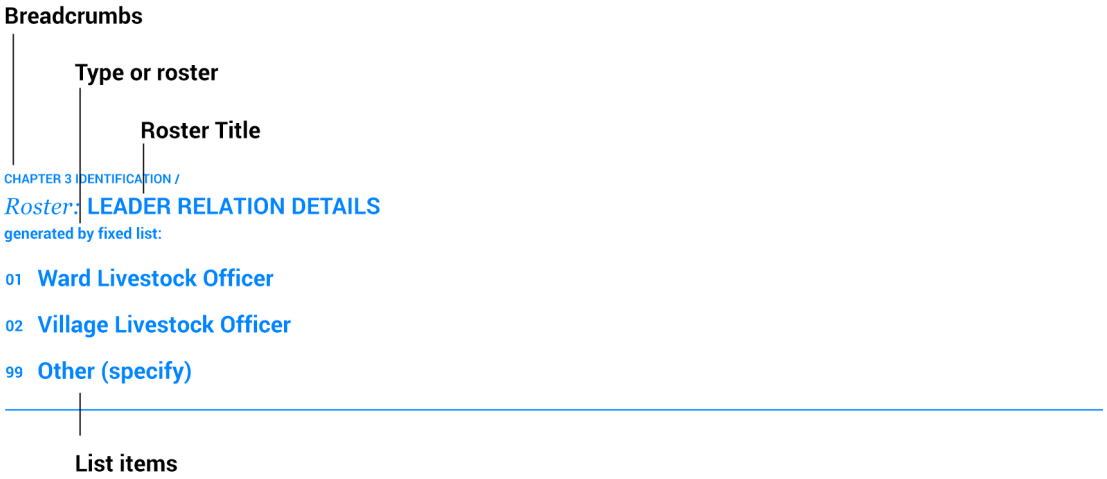
L'entretien est terminée. Merci de remercier le répondant et raccrochez.

N'oubliez pas de compléter l'entretien sur la tablette.

LEGEND

Legend and structure of information in this file





Generated by parisottol, Aug 12, 2019 11:04
Questionnaire created by parisottol, Oct 19, 2018 14:30
Last modified by parisottol, Aug 12, 2019 11:04

Not shared with anyone

Sections: 1, Sub-sections: 0, Questions: 14.
Questions with enabling conditions: 11
Questions with validation conditions:1
Rosters: 0
Variables: 1

HGOPY Follow up - 2 weeks

SURVEY IDENTIFICATION INFORMATION
QUESTIONNAIRE DESCRIPTION

INTERVIEW
No sub-sections, No rosters, Questions: 14, Static texts: 2, Variables: 1.

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title HGOPY Follow up - 2 weeks

INTERVIEW

Name of patient

I This is a prefilled variable, it will be loaded into the tablet before the inter view is assigned to the interviewer and not shown during the interview u nless it is called in a piece of text.

TEXT patient_name
SCOPE: IDENTIFYING

Date of consultation

DATE date_consultation
SCOPE: IDENTIFYING

VARIABLE
date_consultation.Value.Date

DATETIME date_consult

Please tap this button to begin.

DATE: CURRENT TIME datetime

Client is ready to start the interview.

E IsAnswered(datetime)

SINGLE-SELECT start

01 ○ Yes
00 ○ No

What is your date of birth?

I You can select an approximate date if the patient does not know exactly.
E start==1
V1 FullYearsBetween(dob_confirm,date_consult)>=12
M1 Are you sure the birthdate is correct? Please check again.

DATE dob_confirm

Which method did the healthcare provider administer after your consultation?

E IsAnswered(dob_confirm)

SINGLE-SELECT method

01 ○ IUD
02 ○ Implant
03 ○ Pill (COC or POP)
04 ○ Injectable
00 ○ None of the above
-98 ○ Don't know
-99 ○ Refused to respond

How much did you pay for the method?

I DO NOT immediately read out the answer choices. Let the client try to a nswer first and if she doesn't remember then you may read out the ans wer choices.
E method.InList(1,2)

NUMERIC: INTEGER return_price_larc

SPECIAL VALUES
4000 4000
2000 2000
1000 1000
0150 150
0000 free
-0098 Don't know
-0099 Refused to respond

How much did you pay for the method?

I DO NOT immediately read out the answer choices. Let the client try to a nswer first and if she doesn't remember then you may read out the ans wer choices.
E method.InList(3,4)

NUMERIC: INTEGER return_price_sarc

SPECIAL VALUES
0500 500
1250 1250
0000 free
-0098 Don't know
-0099 Refused to respond

Which of the following best describes your level of satisfaction with the quality of family planning services you received at HGOPY"?

I Please read response options to the respondent. Select one.
E `IsAnswered(return_price_larc) || IsAnswered(return_price_sarc) || method.InList(0,-98,-99)`

SINGLE-SELECT `agree_satisfied`

05 ○ Very satisfied
04 ○ Satisfied
03 ○ Neither satisfied nor dissatisfied
02 ○ Dissatisfied
01 ○ Very dissatisfied
-98 ○ Don't know
-99 ○ Refused to respond

How likely are you to return to HGOPY if you needed services related to contraception and family planning?

I Please read response options to the respondent. Select one.
E `IsAnswered(agree_satisfied)`

SINGLE-SELECT `likely_return`

05 ○ Very likely
04 ○ Likely
03 ○ Neither likely nor unlikely
02 ○ Unlikely
01 ○ Very unlikely
-98 ○ Don't know
-99 ○ Refused to respond

I will now read out a series of statements, for each one of these please tell me if during your consultation on %date_consult% the provider did it during the consultation:

I Please read the questions exactly as they are written. Select Yes or No f or each one.
E `IsAnswered(likely_return)`

MULTI-SELECT: YES/NO `validation_questions`

01 ☐ / ☐ Ask about whether you would like to have a/another child?
02 ☐ / ☐ Ask about when you would like to have a/another child?
03 ☐ / ☐ Ask about previous family planning experience?
04 ☐ / ☐ Ask about your family planning method preference?
05 ☐ / ☐ Provide information about different family planning methods?
06 ☐ / ☐ Talk about possible side effects or problems with the method you selected?
07 ☐ / ☐ Tell you what to do if you experience any side effects or problems with the method you selected?
08 ☐ / ☐ Talk about warning signs associated with the method you selected?
09 ☐ / ☐ Talk about the possibility of switching to another method if the method you selected was not suitable?
10 ☐ / ☐ When meeting with the provider during your visit, do you think other clients could see you?
11 ☐ / ☐ When meeting with the provider during your visit, do you think other clients could hear what you said?

STATIC TEXT

E `validation_questions.Yes.Length+validation_questions.No.Length==11`

Please read this statement out loud:

Thank you very much for participating in this interview, this is it for now.

We will call you again in about 3 months time to ask you a fewmore questions, as we had agreed before.

Could you provide additional phone numbers or email addresses on which the researchers may reach you?

E `validation_questions.Yes.Length+validation_questions.No.Length==11`

SINGLE-SELECT `contact_alt`

01 ○ Yes
00 ○ No

Please list them here

E `contact_alt==1`

LIST `contact_alt_list`

.....

	Which of these contact methods is your preferred (you can give more than one in order from best to worst)?	MULTI-SELECT: ORDERED, LINKED	preferred_contact
E	IsAnswered(contact_alt_list)		

STATIC TEXT

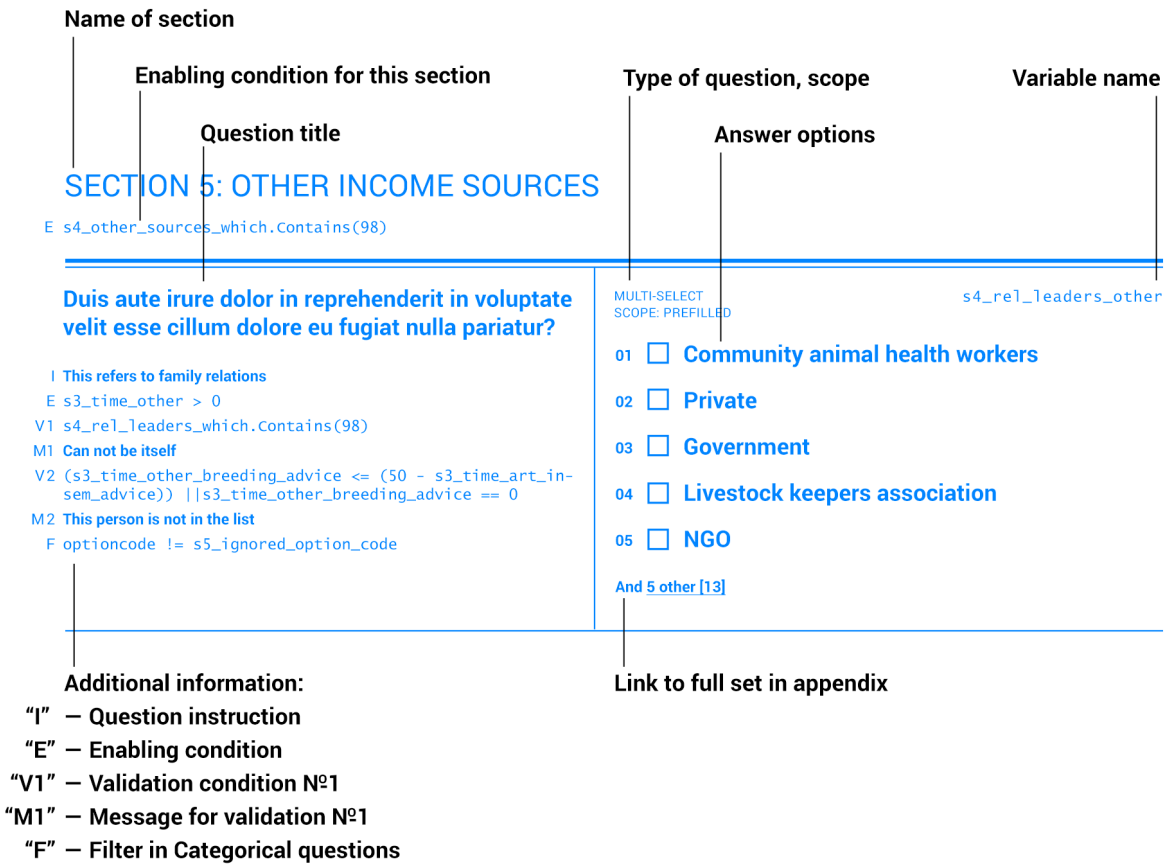
E validation_questions.Yes.Length+validation_questions.No.Length==11

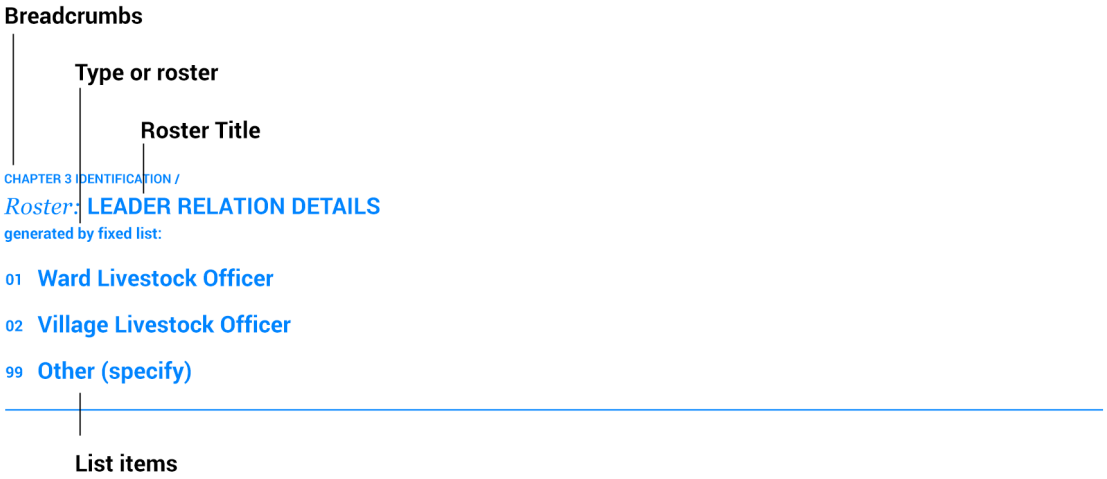
The interview has ended, please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

LEGEND

Legend and structure of information in this file





Generated by parisottol, 10/19/2018 2:46:57 PM
Questionnaire created by parisottol, 10/19/2018 6:40:07 PM
Last modified by parisottol, 10/19/2018 6:43:37 PM

Not shared with anyone

Sections: 1, Sub-sections: 1, Questions: 33.
Questions with enabling conditions: 27
Questions with validation conditions:1
Rosters: 0
Variables: 3

HGOPY Follow up - 16 weeks

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

INTERVIEW

Sub-sections: 1, No rosters, Questions: 33, Static texts: 7, Variables: 3.

APPENDIX A — ENABLING CONDITIONS

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title HGOPY Follow up - 16 weeks

INTERVIEW

Name of patient

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

TEXT patient_name
SCOPE: IDENTIFYING

Patient is aged<25 years

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

SINGLE-SELECT adolescent
SCOPE: IDENTIFYING

01 ○ Yes
00 ○ No

Contraceptive method chosen during visit to clinic.

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

SINGLE-SELECT mc
SCOPE: IDENTIFYING

01 ○ IUD
02 ○ Implant
03 ○ Pill (COC or POP)
04 ○ Injectable (DEPO)
00 ○ None

VARIABLE mc_string

```
(mc==1) ? "IUD" : (mc==2) ? "IMPLANT" : (mc==3) ? "PILL" : (mc==4) ? "INJECTABLE" : "NONE"
```

STRING mc_string

Date of visit to the clinic

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

DATE date_visit
SCOPE: IDENTIFYING

How satisfied was this person of FOSA services in the past?

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

TEXT agree_satisfied_past
SCOPE: IDENTIFYING

Please press this button to start

DATE: CURRENT TIME datetime

STATIC TEXT

E `IsAnswered(datetime)`

Please read this statement out loud:

Hi my name is [...interviewer name...], I work for [...Organization...] and I am calling on behalf of a research team from the Ministry of Public Health and the World Bank.

Before I continue may I confirm that I am speaking to %patient_name%?

I If you are speaking to someone other than %patient_name%, ask this person whether you can speak to %patient_name%. Select 'yes' only once you are talking to %patient_name%.

E `IsAnswered(datetime)`

SINGLE-SELECT speaking_to

01 ○ Yes
-01 ○ The patient is not available right now
-02 ○ The respondent does not know who the patient is

STATIC TEXT

E `speaking_to==1`

Please read this statement out loud:

You may remember that at the end of your visit at HGOPY we asked you if you would agree to participate in a research study. At the time you had said yes and signed a consent form where you agreed to conduct three short phone interviews.

This is the second phone interview of this study. If you still agree to participate, I will ask you a few questions about your experience with family planning and about visit to the clinic. This call should take no longer than 10 minutes.

Your participation in this study is entirely voluntary. The information you give during the interview will be treated as private and confidential. The information collected in this interview will be anonymized and no one will be able to trace your answers back to you. If you do not wish to answer any of the questions asked during the interview you can say so and the interviewer will move on to the next question. If at any point during the interview you want to stop the interview entirely you can simply tell the interviewer and you can stop. You will never have to provide any reason for refusing to take part in the interview or for not wanting to respond to any question. Your refusal to participate in this study, or your acceptance, will not affect the care or services you will receive in the future, in this clinic nor in any other clinic.

Please be assured that there are no right or wrong answers and that it is your own experiences and your own opinions that are valuable to inform the study.

Would you still like to participate in this study?

If this is not a good time I can call you back when it is more convenient for you.

E `speaking_to==1`

SINGLE-SELECT `start`

- 02 ○ Agrees to participate now
- 01 ○ Agrees to participate but wants to reschedule the call
- 00 ○ Refuses to participate

STATIC TEXT

E `start==2`

A couple of the questions I will ask you today are about contraception and your visit to the clinic for family planning services. You might want some privacy while answering these questions. I can wait while you move to a safer/more quiet place.

INTERVIEW

STUDY QUESTIONS

E `start==2`

Are you still using the %mc_string%?

E `mc.InList(1,2)`

SINGLE-SELECT `larc stillusing`

- 01 ○ Yes
- 00 ○ No
- -99 ○ Refused to respond

Do you remember your visit to HGOPY on the %date_visit%, when you had agreed to participate in this study. Since that visit, have you ever gone back to a FOSA to get a new supply of pills?

E `mc.InList(3)`

SINGLE-SELECT `sarc_stillusing_pill`

- 01 ○ Yes
- 00 ○ No
- -99 ○ Refused to respond

Do you remember your visit to HGOPY on the %date_visit%, when you had agreed to participate in this study. Since that visit, have you ever gone back to a FOSA to get another injection?

E `mc.InList(4)`

SINGLE-SELECT `sarc_stillusing_inje`

- 01 ○ Yes
- 00 ○ No
- -99 ○ Refused to respond

Approximately when was this?

E `sarc_stillusing_inje==1 || sarc_stillusing_pill==1`

DATE `date_renewal_sarc`

.....

VARIABLE

```
(larc_stillusing==1 && IsAnswered(larc_stillusing)) || (sarc_stillusing_inje==1 && IsAnswered(sarc_stillusing_inje)) || (sarc_stillusing_pill==1 && IsAnswered(larc_stillusing))
```

BOOLEAN `renewed`

Overall, how satisfied are you with %mc_string%?

E `mc.InList(1,2,3,4) && renewed==true`

SINGLE-SELECT `stillusing satisfied`

05 ○ Very satisfied
04 ○ Satisfied
03 ○ Neither satisfied nor dissatisfied
02 ○ Dissatisfied
01 ○ Very dissatisfied
-98 ○ Don't know
-99 ○ Refused to respond

Did you experience any side effects with %mc_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.
E `mc.InList(1,2,3,4) && renewed==true`

MULTI-SELECT: YES/NO `stillusing se past`

01 ☐ / ☐ Bleeding increase
02 ☐ / ☐ Bleeding decrease
03 ☐ / ☐ Painful bleeding
04 ☐ / ☐ Weight gain
05 ☐ / ☐ Weight loss
06 ☐ / ☐ Headaches
07 ☐ / ☐ Dizziness
08 ☐ / ☐ Abdominal pain
09 ☐ / ☐ Pain in the arm
10 ☐ / ☐ Mood changes
11 ☐ / ☐ Depression
12 ☐ / ☐ Acne
99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E `stillusing_se_past.Yes.Contains(99)`

TEXT `stillusing_se_past_desc`

Of the side effects you just mentioned, are you still experiencing any of them?

I Please read each answer choice out loud.
F stillusing_se_past.Yes.Contains(@optioncode)
E `stillusing_se_past.Yes.Length>0`

MULTI-SELECT: YES/NO `stillusing se prsnt`

01 ☐ / ☐ Bleeding increase
02 ☐ / ☐ Bleeding decrease
03 ☐ / ☐ Painful bleeding
04 ☐ / ☐ Weight gain
05 ☐ / ☐ Weight loss
06 ☐ / ☐ Headaches
07 ☐ / ☐ Dizziness
08 ☐ / ☐ Abdominal pain
09 ☐ / ☐ Pain in the arm
10 ☐ / ☐ Mood changes
11 ☐ / ☐ Depression
12 ☐ / ☐ Acne
99 ☐ / ☐ Other

Why did you decide to stop using %mc_string%?

E `renewed==false && ((IsAnswered(larc_stillusing) && larc_stillusing!=-99) || (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99) || (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_p` And 11 other symbols [1]

MULTI-SELECT `why_quit`

01 ☐ Side effects
02 ☐ Forgot to renew
03 ☐ Too expensive to renew
04 ☐ Discreteness
05 ☐ Pressure from partner
06 ☐ Want to get pregnant
99 ☐ Other
-98 ☐ Don't know
-99 ☐ Refused to respond

Which side effects did you experience with %mc_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E `mc.InList(1,2,3,4) && renewed==false && why_quit.Contains(1)`

MULTI-SELECT: YES/NO `quit because se past`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E `quit_because_se_past.Yes.Contains(99)`

TEXT `quit because se past desc`

Overall, how satisfied were you with %mc_string%?

E `// Did not renew LARC/SARC AND mc.InList(1,2,3,4) && renewed==false // (reasons why quit answered & does not include side effects OR && ((IsAnswered(why_quit) && !why_quit.Contains(1)) //` And 150 other symbols [2]

SINGLE-SELECT `quit satisfied`

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

Did you experience any side effects with %mc_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E `mc.InList(1,2,3,4) && renewed==false && !why_quit.Contains(1)`

MULTI-SELECT: YES/NO `quit nose se past`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E `quit_nose_se_past.Yes.Contains(99)`

TEXT `quit_nose_se_past_desc`

What method are you using now?

E `// did not renew AND did not quit because patient wants to get pregnant renewed==false && !why_quit.Contains(6)`

SINGLE-SELECT `mc_new`

- 00 ○ None
- 01 ○ IUD
- 02 ○ Implant
- 03 ○ Pill (COC or POP)
- 04 ○ Injectable (DEPO)
- 05 ○ Traditional methods
- 99 ○ Other
- -99 ○ Refused to respond

Please describe this other method?

E `mc_new==99 || mc_new==5`

TEXT `mc_new_other`

VARIABLE

`(mc_new==1) ? "IUD" : (mc_new==2) ? "IMPLANT" : (mc_new==3) ? "PILL" : (mc_new==4) ? "INJECTABLE" : "NONE"`

STRING `mc_new_string`

Overall, how satisfied are you with %mc_new_string%?

E `mc_new.InList(1,2,3,4)`

SINGLE-SELECT `mc_new_satisfied`

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

Are experiencing any side effects with %mc_new_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E `mc_new.InList(1,2,3,4)`

MULTI-SELECT: YES/NO `mc_new_se`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E `mc_new_se.Yes.Contains(99)`

TEXT `se_new_other`

In our last telephone call, you had mentioned that you were %agree_satisfied_past% with the quality of FP services received at HGOPY.

Looking back, which of the following best describes your present level of satisfaction with the quality of FP services you received at HGOPY?

I Please read response options to the respondent. Select one.

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `agree satisfied`

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

How likely are you to return to HGOPY if you needed services related to contraception and family planning?

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `likely_return`

- 05 ○ Very likely
- 04 ○ Likely
- 03 ○ Neither likely nor unlikely
- 02 ○ Unlikely
- 01 ○ Very unlikely
- -98 ○ Don't know
- -99 ○ Refused to respond

Are you using any other forms of contraception?

E `(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))) || IsAn` And 56 other symbols [3]

MULTI-SELECT `mc other`

- 01 ☐ Male condoms
- 02 ☐ Female Condoms
- 03 ☐ Traditional methods list

Even if you do not want to participate in this interview, can we call you in 9 months for the next follow up interview?

E `start==0`

SINGLE-SELECT `call_3months`

- 01 ○ Yes
- 00 ○ No

STATIC TEXT

E `start==0`

The respondent does not wish to be interviewed, please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

Could we arrange a time when I can call back and talk to %patient_name%?

E `speaking_to==-1`

SINGLE-SELECT `call_back`

- 01 ○ Yes
- 00 ○ No

STATIC TEXT

E `start==1 || (speaking_to==-1 && call_back==1)`

Please arrange a time and date to call back, once you have agreed please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

STATIC TEXT

E `//// change back the start condition!!!!! speaking_to==0 || (start==2 && IsAnswered(start))`

Please read this statement out loud:

Thank you very much for participating in this interview, this is it for now. We will call you again in about 9 months time to ask you a few more questions, as we had agreed before. Remember that if you change your mind before then you will still be able to refuse to participate.

Is there a phone number where you would prefer us to contact you on?

NUMERIC: INTEGER phone

E //// change back the start condition!!!!! call_back==1 || (start==2 && IsAnswered(start))

E1 (self>99999999 && self<1000000000) || self==-99

M1 The phone number must be 9 digits long!

SPECIAL VALUES

-99 No

STATIC TEXT

E //// change back the start condition!!!!! call_back==0 || speaking_to==-2 || (start==2 && IsAnswered(start))

The interview has ended, please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

APPENDIX A — ENABLING CONDITIONS

[1] why_quit: Why did you decide to stop using %mc_string%?
Enablement Condition:

```
renewed==false &&
((IsAnswered(larc_stillusing) && larc_stillusing!=-99)
|| (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99)
|| (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_pill!=-99))
```

[2] quit_satisfied: Overall, how satisfied were you with %mc_string%?
Enablement Condition:

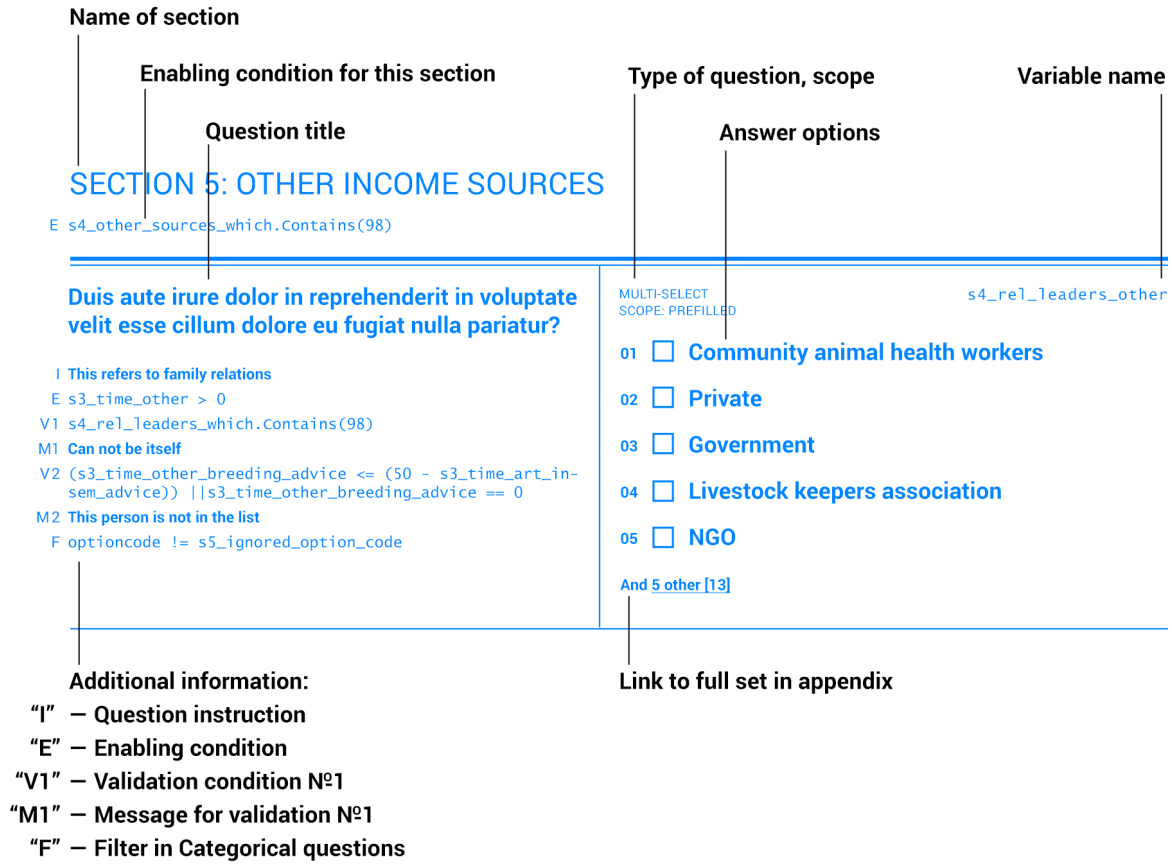
```
// Did not renew LARC/SARC        AND
mc.InList(1,2,3,4) && renewed==false
//  (reasons why quit answered & does not include side effects   OR
&& ((IsAnswered(why_quit) && !why_quit.Contains(1))
//  reasons why quit include side effects & answered
|| (IsAnswered(quit_because_se_past) && why_quit.Contains(1) && IsAnswered(quit_because_se_past)))
```

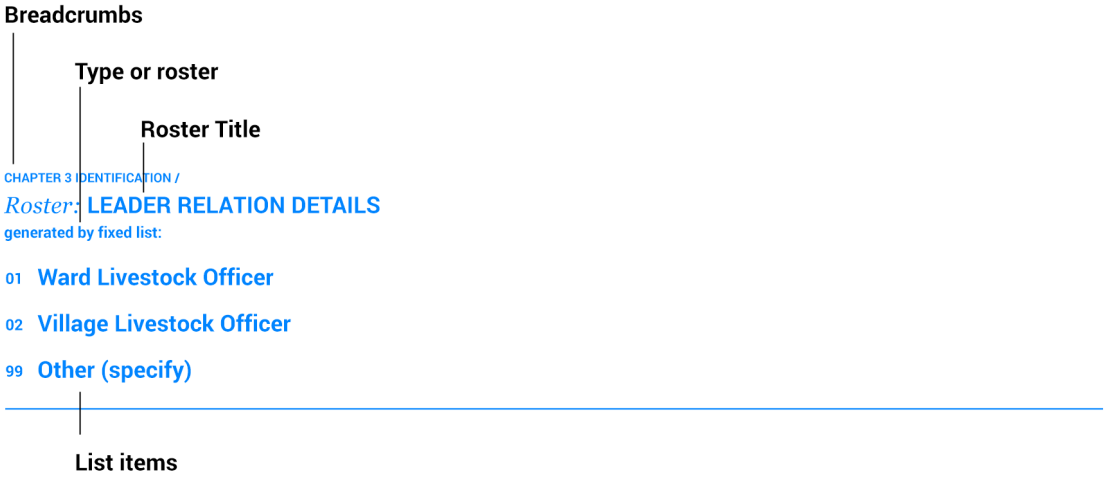
[3] mc_other: Are you using any other forms of contraception?
Enablement Condition:

```
(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99)))

|| IsAnswered(stillusing_se_past) || IsAnswered(quit_satisfied)
```

LEGEND

Legend and structure of information in this file





Generated by parisottol, 10/19/2018 2:47:10 PM
Questionnaire created by parisottol, 10/19/2018 6:40:07 PM
Last modified by parisottol, 10/19/2018 6:43:37 PM

Not shared with anyone

Sections: 1, Sub-sections: 1, Questions: 33.
Questions with enabling conditions: 27
Questions with validation conditions:1
Rosters: 0
Variables: 3

HGOPY Follow up - 16 weeks

SURVEY IDENTIFICATION INFORMATION
QUESTIONNAIRE DESCRIPTION

INTERVIEW
Sub-sections: 1, No rosters, Questions: 33, Static texts: 7, Variables: 3.

APPENDIX A — ENABLING CONDITIONS

APPENDIX B — INSTRUCTIONS

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title HGOPY Follow up - 16 weeks

INTERVIEW

Nom de la patiente

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

TEXT patient_name
SCOPE: IDENTIFYING

La patiente a moins de 25 ans

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

SINGLE-SELECT adolescent
SCOPE: IDENTIFYING
01 ○ Oui
00 ○ Non

Methode contraceptive choisie durant la visite a la FOSA

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

SINGLE-SELECT mc
SCOPE: IDENTIFYING
01 ○ DUI
02 ○ Implant
03 ○ Pilule (COC ou POP)
04 ○ Injection (DEPO)
00 ○ Aucune

VARIABLE
`(mc==1) ? "IUD" : (mc==2) ? "IMPLANT" : (mc==3) ? "PILL" : (mc==4) ? "INJECTABLE" : "NONE"`

STRING mc_string

Date de la visite a la FOSA

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

DATE date_visit
SCOPE: IDENTIFYING

Niveau de satisfaction de la cliente lors du premier entretien telephonique

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

TEXT agree_satisfied_past
SCOPE: IDENTIFYING

S'il vous plait, pressez ce bouton pour commencer.

DATE: CURRENT TIME datetime

STATIC TEXT

E `IsAnswered(datetime)`

S'il vous plait lisez cet information a voiz haute:

Bonjour, je m'appelle [...votre nom...], je travaille pour [...votre organization...] et je vous appelle de la part d'une equipe de chercheurs du Ministere de la Sante Publique et de la Banque Mondiale.

Avant de continuer, puis-je confirmer que je suis en train de parler avec %patient_name%?

I Si vous etes en train de parler a une personne autre que %patient_na me%, demandez a cette personne si vous pouvez parler avec %patient _name%. Selectionnez la touche "oui" uniquement lorsque vous serez
And 40 other symbols [1]

E `IsAnswered(datetime)`

SINGLE-SELECT speaking_to
01 ○ Oui
-01 ○ La patiente n'est pas disponible en ce moment.
-02 ○ La personne au telephone ne sait pas qui est la patiente.

STATIC TEXT

E `speaking_to==1`

" Veuillez lire cette déclaration à haute voix:

Vous vous rappelez peut-être qu'à la fin de votre visite à HGOPY, nous vous avions demandé si vous accepteriez de participer à une étude. À ce moment-là, vous avez dit oui et vous avez signé un formulaire de consentement et vous avez accepté de participer a trois courts entretiens téléphoniques.

Cet appel est le deuxieme entretien téléphonique de cette étude. Si vous etes toujours d'accord de participer, je vais vous poser quelques questions a propos de vos experiences avec le planning familial et a propos de votre visite à la clinique. Cet appel ne devrait pas prendre plus de environ 10 minutes.

Votre participation à cette étude est entièrement volontaire. Les informations recueillies lors de cet entretien seront traitées comme privées et confidentielles. Les données seront anonymisées et personne ne pourra retracer vos réponses a vous. Si vous ne souhaitez pas répondre à une des questions posées lors de l'entretien, vous pouvez simplement le dire et l'interviewer passera à la question suivante. Si à un moment quelconque de l'entretien vous souhaitez arrêter complètement, vous pouvez simplement en informer l'interviewer et raccrocher. Vous n'aurez jamais à justifier votre refus, ni de participer à l'entretien ni de ne pas vouloir répondre à une question. Votre refus ou acceptation de participer à cette étude n'affectera pas les soins ou les services que vous recevrez à l'avenir, dans cette clinique ni dans aucune autre clinique.

Soyez assuré qu'il n'y a pas de bonne ou de mauvaise réponse et que ce sont vos veritables expériences et vos propres opinions don't l'étude va en beneficier le plus.

Etes vous toujours d'accord de participer à cette étude?

Si ce n'est pas un bon moment je peux vous rappeler quand cela vous conviendra mieux.

E `speaking_to==1`

SINGLE-SELECT `start`

02 ○ Est d'accord de participer maintenant
01 ○ Est d'accord de participer mais prefere qu'on rappelle a un autre moment
00 ○ Refuse de participer

STATIC TEXT

E `start==2`

Quelques questions que je vais vous poser aujourd'hui concernent votre visite à la clinique pour les services de planification familiale. Vous prefereriez peut etre completer cet entretien a un endroit prive, ou personne ne puisse entendre vos reponses que vous ne voulez pas. Je peux attendre afin que vous vous deplaciez a un endroit plus prive ou plus calme avant de continuer.

INTERVIEW

QUESTIONS

E `start==2`

Etes vous toujours en train d'utiliser le/la %mc_string%?

E `mc.InList(1,2)`

SINGLE-SELECT `larc_stillusing`

01 ○ Oui
00 ○ Non
-99 ○ Refuse de repondre

Vous souvenez-vous de votre visite à HGOPY le %date_visit%, lorsque vous avez accepté de participer à cette étude? Depuis cette visite, êtes-vous déjà retourné dans une FOSA pour vous procurer une nouvelle réserve de pilules?

E `mc.InList(3)`

SINGLE-SELECT `sarc_stillusing_pill`

01 ○ Oui
00 ○ Non
-99 ○ Refuse de repondre

Vous souvenez-vous de votre visite à HGOPY le %date_visit%, lorsque vous avez accepté de participer à cette étude? Depuis cette visite, êtes-vous déjà retourné chez un FOSA pour recevoir une autre injection?

E `mc.InList(4)`

SINGLE-SELECT `sarc_stillusing_inje`

01 ○ Oui
00 ○ Non
-99 ○ Refuse de repondre

A quelle date fut ceci?

E `sarc_stillusing_inje==1 || sarc_stillusing_pill==1`

DATE `date_renewal_sarc`

.....

VARIABLE

```
(larc_stillusing==1 && IsAnswered(larc_stillusing)) || (sarc_stillusing_inje==1 && IsAnswered(sarc_stillusing_inje)) || (sarc_stillusing_pill==1 && IsAnswered(larc_stillusing))
```

BOOLEAN `renewed`

Globalement, etes vous satisfaite de %mc_string%?

E `mc.InList(1,2,3,4) && renewed==true`

SINGLE-SELECT `stillusing satisfied`

05 ○ Très satisfaite
04 ○ Satisfaite
03 ○ Ni satisfaite ni insatisfaite
02 ○ Insatisfaite
01 ○ Tres Insatisfaite
-98 ○ Ne sais pas
-99 ○ Refuse de repondre

Avez-vous ressenti des effets secondaires avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.
E `mc.InList(1,2,3,4) && renewed==true`

MULTI-SELECT: YES/NO `stillusing se past`

01 ☐ / ☐ Saignement plus fort
02 ☐ / ☐ Saignement moins fort
03 ☐ / ☐ Saignment douloureux
04 ☐ / ☐ Gain de poids
05 ☐ / ☐ Perte de poids
06 ☐ / ☐ Maux de tête
07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
08 ☐ / ☐ Douleur abdominales
09 ☐ / ☐ Douleur au bras
10 ☐ / ☐ Changements d'humeur
11 ☐ / ☐ Dépression
12 ☐ / ☐ Acne
99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `stillusing_se_past.Yes.Contains(99)`

TEXT `stillusing se past desc`

.....

Parmi les effets secondaires que vous venez de mentionner, en ressentez-vous encore quelques-uns?

I S'il vous plait lisez chaque option a voiz haute.
F stillusing_se_past.Yes.Contains(@optioncode)
E `stillusing_se_past.Yes.Length>0`

MULTI-SELECT: YES/NO `stillusing se prsnt`

01 ☐ / ☐ Saignement plus fort
02 ☐ / ☐ Saignement moins fort
03 ☐ / ☐ Saignment douloureux
04 ☐ / ☐ Gain de poids
05 ☐ / ☐ Perte de poids
06 ☐ / ☐ Maux de tête
07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
08 ☐ / ☐ Douleur abdominales
09 ☐ / ☐ Douleur au bras
10 ☐ / ☐ Changements d'humeur
11 ☐ / ☐ Dépression
12 ☐ / ☐ Acne
99 ☐ / ☐ Autres

Pour quelles raisons avez vous decider de ne plus utiliser %mc_string%?

E `renewed==false && ((IsAnswered(larc_stillusing) && larc_stillusing!=-99) || (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99) || (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_p` And 11 other symbols [1]

MULTI-SELECT `why quit`

01 ☐ Effets secondaires
02 ☐ Oublié de renouveler
03 ☐ Trop cher
04 ☐ Discrétion
05 ☐ Pression du partenaire
06 ☐ Voudrais tomber enceinte
99 ☐ Autres
-98 ☐ Ne sais pas
-99 ☐ Refuse de repondre

Lesquels effets secondaires avez vous ressenti avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.

E `mc.InList(1,2,3,4) && renewed==false && why_quit.Contains(1)`

MULTI-SELECT: YES/NO — `quit because se past`

- 01 ☐ / ☐ Saignement plus fort
- 02 ☐ / ☐ Saignement moins fort
- 03 ☐ / ☐ Saignment douloureux
- 04 ☐ / ☐ Gain de poids
- 05 ☐ / ☐ Perte de poids
- 06 ☐ / ☐ Maux de tête
- 07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
- 08 ☐ / ☐ Douleur abdominales
- 09 ☐ / ☐ Douleur au bras
- 10 ☐ / ☐ Changements d'humeur
- 11 ☐ / ☐ Dépression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `quit_because_se_past.Yes.Contains(99)`

TEXT — `quit because se past desc`

.....

Globalement, etes vous satisfaite de %mc_string%?

E `// Did not renew LARC/SARC AND mc.InList(1,2,3,4) && renewed==false // (reasons why quit answered & does not include side effects OR && ((IsAnswered(why_quit) && !why_quit.Contains(1)) //` And 150 other symbols [2]

SINGLE-SELECT — `quit satisfied`

- 05 ○ Très satisfaite
- 04 ○ Satisfaite
- 03 ○ Ni satisfaite ni insatisfaite
- 02 ○ Insatisfaite
- 01 ○ Tres Insatisfaite
- -98 ○ Ne sais pas
- -99 ○ Refuse de repondre

Avez-vous ressenti des effets secondaires avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.

E `mc.InList(1,2,3,4) && renewed==false && !why_quit.Contains(1)`

MULTI-SELECT: YES/NO — `quit nose se past`

- 01 ☐ / ☐ Saignement plus fort
- 02 ☐ / ☐ Saignement moins fort
- 03 ☐ / ☐ Saignment douloureux
- 04 ☐ / ☐ Gain de poids
- 05 ☐ / ☐ Perte de poids
- 06 ☐ / ☐ Maux de tête
- 07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
- 08 ☐ / ☐ Douleur abdominales
- 09 ☐ / ☐ Douleur au bras
- 10 ☐ / ☐ Changements d'humeur
- 11 ☐ / ☐ Dépression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `quit_nose_se_past.Yes.Contains(99)`

TEXT — `quit nose se past desc`

.....

Quelle methodes contraceptives utilisez vous en ce moment?

E `// did not renew AND did not quit because patient wants to get pregnant renewed==false && !why_quit.Contains(6)`

SINGLE-SELECT `mc_new`

- 00 ○ Aucune
- 01 ○ DUI
- 02 ○ Implant
- 03 ○ Pilule (COC ou POP)
- 04 ○ Injection (DEPO)
- 05 ○ Methode traditionelle
- 99 ○ Autre
- -99 ○ Refuse de repondre

Pouvez-vous s'il vous plait decrire cette methode?

E `mc_new==99 || mc_new==5`

TEXT `mc_new_other`

VARIABLE

`(mc_new==1) ? "IUD" : (mc_new==2) ? "IMPLANT" : (mc_new==3) ? "PILL" : (mc_new==4) ? "INJECTABLE" : "NONE"`

STRING `mc_new_string`

Globalement, etes vous satisfaite de %mc_string%?

E `mc_new.InList(1,2,3,4)`

SINGLE-SELECT `mc_new_satisfied`

- 05 ○ Très satisfaite
- 04 ○ Satisfaite
- 03 ○ Ni satisfaite ni insatisfaite
- 02 ○ Insatisfaite
- 01 ○ Tres Insatisfaite
- -98 ○ Ne sais pas
- -99 ○ Refuse de repondre

Avez-vous ressenti des effets secondaires avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.

E `mc_new.InList(1,2,3,4)`

MULTI-SELECT: YES/NO `mc_new_se`

- 01 ☐ / ☐ Saignement plus fort
- 02 ☐ / ☐ Saignement moins fort
- 03 ☐ / ☐ Saignment douloureux
- 04 ☐ / ☐ Gain de poids
- 05 ☐ / ☐ Perte de poids
- 06 ☐ / ☐ Maux de tête
- 07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
- 08 ☐ / ☐ Douleur abdominales
- 09 ☐ / ☐ Douleur au bras
- 10 ☐ / ☐ Changements d'humeur
- 11 ☐ / ☐ Dépression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `mc_new_se.Yes.Contains(99)`

TEXT `se_new_other`

Lors de notre dernier appel téléphonique, vous aviez indiqué que vous étiez %agree_satisfied_past% avec la qualité des services de PF reçus à HGOPY.

Selon vos souvenirs, laquelle des responses suivantes décrit le mieux votre niveau de satisfaction actuel vis-à-vis de la qualité des services de PF que vous avez reçus à HGOPY ?

I S'il vous plait lisez les reponses et en selectionnez une

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `agree satisfied`

05 ○ Tres satisfaite
04 ○ Satisfaite
03 ○ Ni satisfaite ni insatisfaite
02 ○ Insatisfaite
01 ○ Tres insatisfaite
-98 ○ Ne sais pas/Ne se rappelle pas
-99 ○ Refuse de repondre

Avec quelle probabilite pensez vous retourner a HGOPY pour les services de planning familial et de contraception?

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `likely return`

05 ○ Tres probable
04 ○ Probable
03 ○ Ni probable ni improbable
02 ○ Peu probable
01 ○ Tres peu probable
-98 ○ Ne sais pas/Ne se rappelle pas
-99 ○ Refuse de repondre

Utilisez vous d'autres formes de contraception?

E `(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))) || IsAn` And 56 other symbols [3]

MULTI-SELECT `mc other`

01 ☐ Preservatifs (hommes)
02 ☐ Preservatifs (femmes)
03 ☐ Methodes traditionelles

Meme si vous ne voulez pas participer a l'entretien telephonique d'aujourd'hui, est ce qu'on pourrais vous appeler dans 9 mois? Cet entretien sera tout aussi court.

E `start==0`

SINGLE-SELECT `call 3months`

01 ○ Oui
00 ○ Non

STATIC TEXT

E `start==0`

La patiente ne souhaite pas participter. Veuillez la remercier et raccrochez.

N'oubliez pas de compléter l'entretien sur la tablette.

Pourrions nous arranger sur un certaine date et heure pour rappeler et parler avec %patient_name%?

E `speaking_to==-1`

SINGLE-SELECT `call back`

01 ○ Oui
00 ○ Non

STATIC TEXT

E `start==1 || (speaking_to==-1 && call_back==1)`

Veuillez arranger une heure et une date qui convient pour un autre rendez-vous telephonique. Une fois que vous avez accepté, veuillez remercier la personne et raccrocher.

N'oubliez pas de compléter l'entretien sur la tablette.

STATIC TEXT

E `//// change back the start condition!!!!! speaking_to==0 || (start==2 && IsAnswered(start))`

" Veuillez lire cette déclaration à haute voix:

Merci beaucoup d'avoir participé à cet entretien, c'est tout pour l'instant. Nous vous rappellerons dans 9 mois pour vous poser quelques questions supplémentaires, comme convenu auparavant. Rappelez-vous que si vous changez d'avis vous pourrez toujours refuser de participer quand on vous appellera.

Y a-t-il un numéro de téléphone où vous préféreriez que nous vous contactions?

NUMERIC: INTEGER phone

E //// change back the start condition!!!!! call_back==1 | | (start==2 && IsAnswered(start))

E1 (self>99999999 && self<1000000000) || self==-99

M1 Le numéro de téléphone doit comporter 9 chiffres!

SPECIAL VALUES

-99 Non

STATIC TEXT

E //// change back the start condition!!!!! call_back==0 || speaking_to==-2 || (start==2 && IsAnswered(start))

L'entretien est terminée. Merci de remercier le répondant et raccrochez.

N'oubliez pas de compléter l'entretien sur la tablette.

APPENDIX A — ENABLING CONDITIONS

[1] why_quit: Pour quelles raisons avez vous decider de ne plus utiliser %mc_string%?
Enablement Condition:

```
renewed==false &&
((IsAnswered(larc_stillusing) && larc_stillusing!=-99)
|| (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99)
|| (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_pill!=-99))
```

[2] quit_satisfied: Globalement, etes vous satisfaite de %mc_string%?
Enablement Condition:

```
// Did not renew LARC/SARC        AND
mc.InList(1,2,3,4) && renewed==false
//  (reasons why quit answered & does not include side effects   OR
&& ((IsAnswered(why_quit) && !why_quit.Contains(1))
//  reasons why quit include side effects & answered
|| (IsAnswered(quit_because_se_past) && why_quit.Contains(1) && IsAnswered(quit_because_se_past)))
```

[3] mc_other: Utilisez vous d'autres formes de contraception?
Enablement Condition:

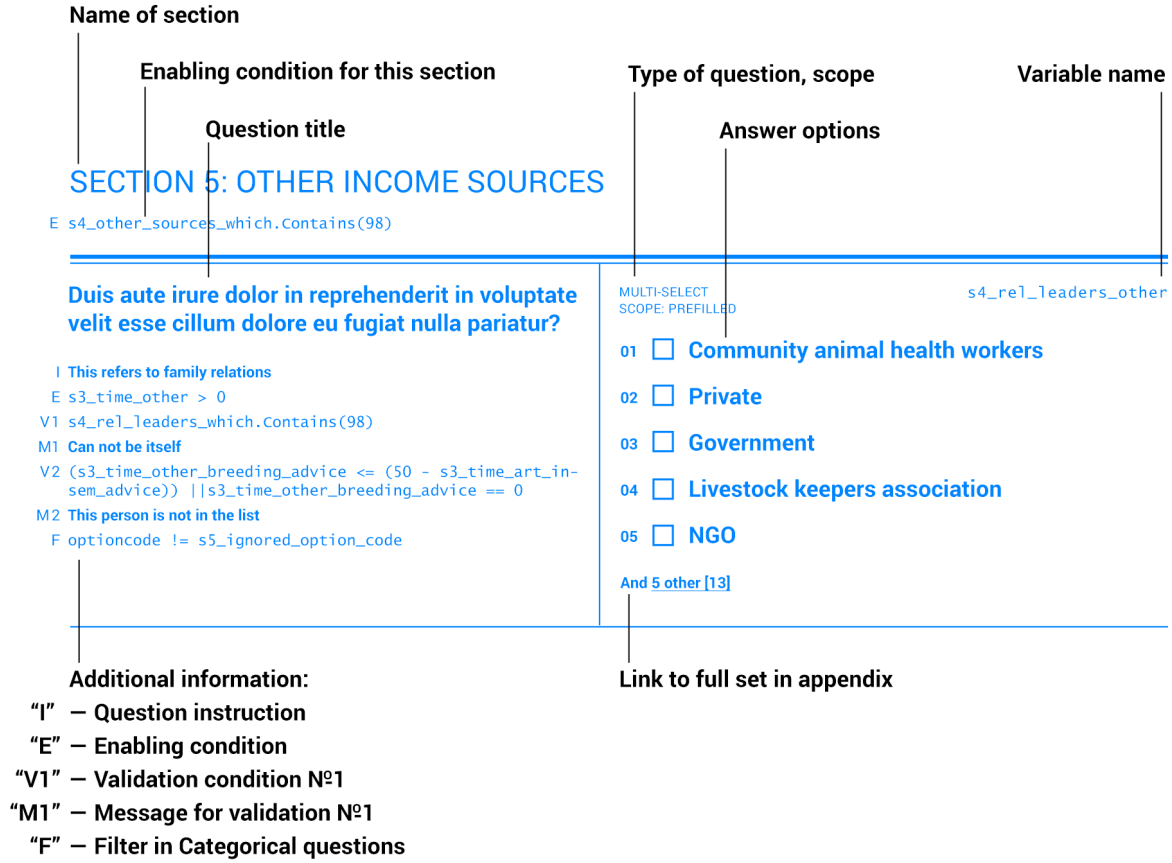
```
(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99)))

|| IsAnswered(stillusing_se_past) || IsAnswered(quit_satisfied)
```

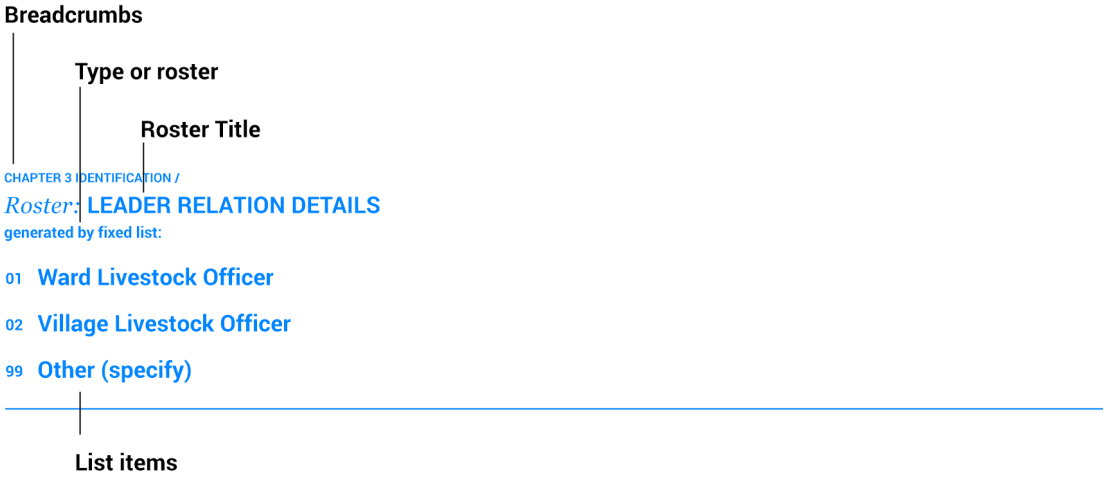
APPENDIX B — INSTRUCTIONS

[1] speaking_to: Avant de continuer, puis-je confirmer que je suis en train de parler avec %patient_name%?
Si vous etes en train de parler a une personne autre que %patient_name%, demandez a cette personne si vous pouvez parler avec %patient_name%. Selectionnez la touche "oui" uniquement lorsque vous serez en train de parler avec %patient_name%.

LEGEND

Legend and structure of information in this file





Generated by parisottol, 10/19/2018 2:47:19 PM
Questionnaire created by parisottol, 10/19/2018 6:43:54 PM
Last modified by parisottol, 10/19/2018 6:46:41 PM

Not shared with anyone

Sections: 1, Sub-sections: 1, Questions: 35.
Questions with enabling conditions: 29
Questions with validation conditions:1
Rosters: 0
Variables: 3

HGOPY Follow up - 52 weeks

SURVEY IDENTIFICATION INFORMATION
QUESTIONNAIRE DESCRIPTION

INTERVIEW
Sub-sections: 1, No rosters, Questions: 35, Static texts: 7, Variables: 3.

APPENDIX A — ENABLING CONDITIONS

APPENDIX B — VARIABLES

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title HGOPY Follow up - 52 weeks

INTERVIEW

Name of patient

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

TEXT patient_name
SCOPE: IDENTIFYING

Patient is aged<25 years

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

SINGLE-SELECT adolescent
SCOPE: IDENTIFYING
01 ○ Yes
00 ○ No

Contraceptive method chosen during visit to clinic.

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

SINGLE-SELECT mc
SCOPE: IDENTIFYING
01 ○ IUD
02 ○ Implant
03 ○ Pill (COC or POP)
04 ○ Injectable (DEPO)
00 ○ None

VARIABLE

```
(mc==1) ? "IUD" : (mc==2) ? "IMPLANT" : (mc==3) ? "PILL" : (mc==4) ? "INJECTABLE" : "NONE"
```

STRING mc_string

Date of visit to the clinic

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

DATE date_visit
SCOPE: IDENTIFYING

How satisfied was this person of FOSA services in the past?

I This is a prefilled variable, it will be loaded into the tablet before the interview is assigned to the interviewer and not shown during the interview unless it is called in a piece of text.

TEXT agree_satisfied_past
SCOPE: IDENTIFYING

Please press this button to begin.

DATE: CURRENT TIME datetime

STATIC TEXT

E `IsAnswered(datetime)`

Please read this statement out loud:

Hi my name is [...interviewer name...], I work for [...Organization...] and I am calling on behalf of a research team from the Ministry of Public Health and the World Bank.

Before I continue may I confirm that I am speaking to %patient_name%?

I If you are speaking to someone other than %patient_name%, ask this person whether you can speak to %patient_name%. Select 'yes' only once you are talking to %patient_name%.

E `IsAnswered(datetime)`

SINGLE-SELECT speaking_to
01 ○ Yes
-01 ○ The patient is not available right now
-02 ○ The respondent does not know who the patient is

STATIC TEXT

E `speaking_to==1`

Please read this statement out loud:

You may remember that at the end of your visit at HGOPY we asked you if you would agree to participate in a research study. At the time you had said yes and signed a consent form where you agreed to conduct three short phone interviews.

This is the third and last phone interview of this study. If you still agree to participate, I will ask you a few questions about your visit to the clinic, which should take no longer than 10 minutes.

Your participation in this study is entirely voluntary. The information you give during the interview will be treated as private and confidential. The information collected in this interview will be anonymized and no one will be able to trace your answers back to you. If you do not wish to answer any of the questions asked during the interview you can say so and the interviewer will move on to the next question. If at any point during the interview you want to stop the interview entirely you can simply tell the interviewer and you can stop. You will never have to provide any reason for refusing to take part in the interview or for not wanting to respond to any question. Your refusal to participate in this study, or your acceptance, will not affect the care or services you will receive in the future, in this clinic nor in any other clinic.

Please be assured that there are no right or wrong answers and that it is your own experiences and your own opinions that are valuable to inform the study.

Would you still like to participate in this study?

If this is not a good time I can call you back when it is more convenient for you.

E `speaking_to==1`

SINGLE-SELECT `start`

- 02 ○ Agrees to participate now
- 01 ○ Agrees to participate but wants to reschedule the call
- 00 ○ Refuses to participate

STATIC TEXT

E `start==2`

A couple of the questions I will ask you today are about contraception and your visit to the clinic for family planning services. You might want some privacy while answering these questions. I can wait while you move to a safer/more quiet place.

INTERVIEW

STUDY QUESTIONS

E `start==2`

Are you still using the %mc_string%?

E `mc.InList(1,2)`

SINGLE-SELECT `larc stillusing`

- 01 ○ Yes
- 00 ○ No
- -99 ○ Refused to respond

Do you remember your visit to HGOPY on the %date_visit%, when you had agreed to participate in this study. Since that visit, have you ever gone back to a FOSA to get a new supply of pills?

E `mc.InList(3)`

SINGLE-SELECT `sarc_stillusing_pill`

- 01 ○ Yes
- 00 ○ No
- -99 ○ Refused to respond

Do you remember your visit to HGOPY on the %date_visit%, when you had agreed to participate in this study. Since that visit, have you ever gone back to a FOSA to get another injection?

E `mc.InList(4)`

SINGLE-SELECT `sarc_stillusing_inje`

- 01 ○ Yes
- 00 ○ No
- -99 ○ Refused to respond

Approximately when was the last time you went to a clinic to get a new supply of pills?

E `sarc_stillusing_pill==1`

DATE `date_renewal_pill`

Approximately when was the last time you went to a clinic to get a new injection?

E `sarc_stillusing_inje==1`

DATE `date_renewal_inje`

VARIABLE

```
(larc_stillusing==1 && IsAnswered(larc_stillusing)) || (
(sarc_stillusing_inje==1 && IsAnswered(sarc_stillusing_i
nje)) && (date_renewal_inje.InRange(datetime.Value.AddMo
nths(-2),datetime))) || ((sarc
```

And 123 other symbols [1]

BOOLEAN `renewed`

Overall, how satisfied are you with %mc_string%?

E `mc.InList(1,2,3,4) && renewed==true`

SINGLE-SELECT `stillusing satisfied`

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

Did you experience any side effects with %mc_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E `mc.InList(1,2,3,4) && renewed==true`

MULTI-SELECT: YES/NO `stillusing se past`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E `stillusing_se_past.Yes.Contains(99)`

TEXT `stillusing_se_past_desc`

Of the side effects you just mentioned, are you still experiencing any of them?

I Please read each answer choice out loud.

F stillusing_se_past.Yes.Contains(@optioncode)

E `stillusing_se_past.Yes.Length>0`

MULTI-SELECT: YES/NO `stillusing se prsnt`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Why did you decide to stop using %mc_string%?

E `renewed==false && ((IsAnswered(larc_stillusing) && larc_stillusing!=-99) || (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99) || (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_p` And 11 other symbols [1]

MULTI-SELECT `why_quit`

- 01 ☐ Side effects
- 02 ☐ Forgot to renew
- 03 ☐ Too expensive to renew
- 04 ☐ Discreteness
- 05 ☐ Pressure from partner
- 06 ☐ Want to get pregnant
- 99 ☐ Other
- -98 ☐ Don't know
- -99 ☐ Refused to respond

Which side effects did you experience with %mc_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E `mc.InList(1,2,3,4) && renewed==false && why_quit.Contains(1)`

MULTI-SELECT: YES/NO `quit_because_se_past`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E `quit_because_se_past.Yes.Contains(99)`

TEXT `quit_because_se_past_desc`

Overall, how satisfied were you with %mc_string%?

E `// Did not renew LARC/SARC AND mc.InList(1,2,3,4) && renewed==false // (reasons why quit answered & does not include side effects OR && ((IsAnswered(why_quit) && !why_quit.Contains(1)) //` And 150 other symbols [2]

SINGLE-SELECT `quit_satisfied`

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

Did you experience any side effects with %mc_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E `mc.InList(1,2,3,4) && renewed==false && !why_quit.Contains(1)`

MULTI-SELECT: YES/NO `quit_nose_se_past`

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E quit_nose_se_past.Yes.Contains(99)

TEXT quit_nose_se_past_desc

What method are you using now?

E // did not renew AND did not quit because patient wants to get pregnant renewed==false && !why_quit.Contains(6)

SINGLE-SELECT mc_new

- 00 ○ None
- 01 ○ IUD
- 02 ○ Implant
- 03 ○ Pill (COC or POP)
- 04 ○ Injectable (DEPO)
- 05 ○ Traditional methods
- 99 ○ Other
- -99 ○ Refused to respond

Please describe this other method?

E mc_new==99 || mc_new==5

TEXT mc_new_other

VARIABLE

(mc_new==1) ? "IUD" : (mc_new==2) ? "IMPLANT" : (mc_new==3) ? "PILL" : (mc_new==4) ? "INJECTABLE" : "NONE"

STRING mc_new_string

Overall, how satisfied are you with %mc_new_string%?

E mc_new.InList(1,2,3,4)

SINGLE-SELECT mc_new_satisfied

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

Are experiencing any side effects with %mc_new_string%? I will read a list of side effects and you tell me Yes/No if you experienced any one of them.

I Please read each answer choice out loud.

E mc_new.InList(1,2,3,4)

MULTI-SELECT: YES/NO mc_new_se

- 01 ☐ / ☐ Bleeding increase
- 02 ☐ / ☐ Bleeding decrease
- 03 ☐ / ☐ Painful bleeding
- 04 ☐ / ☐ Weight gain
- 05 ☐ / ☐ Weight loss
- 06 ☐ / ☐ Headaches
- 07 ☐ / ☐ Dizziness
- 08 ☐ / ☐ Abdominal pain
- 09 ☐ / ☐ Pain in the arm
- 10 ☐ / ☐ Mood changes
- 11 ☐ / ☐ Depression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Other

Please describe what other side effects you experienced?

E mc_new_se.Yes.Contains(99)

TEXT se_new_other

In our last telephone call, you had mentioned that you were %agree_satisfied_past% with the quality of FP services received at HGOPY.

Looking back, which of the following best describes your present level of satisfaction with the quality of FP services you received at HGOPY"?

I Please read response options to the respondent. Select one.

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `agree satisfied`

- 05 ○ Very satisfied
- 04 ○ Satisfied
- 03 ○ Neither satisfied nor dissatisfied
- 02 ○ Dissatisfied
- 01 ○ Very dissatisfied
- -98 ○ Don't know
- -99 ○ Refused to respond

How likely are you to return to HGOPY if you needed services related to contraception and family planning?

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `likely return`

- 05 ○ Very likely
- 04 ○ Likely
- 03 ○ Neither likely nor unlikely
- 02 ○ Unlikely
- 01 ○ Very unlikely
- -98 ○ Don't know
- -99 ○ Refused to respond

Are you using any other forms of contraception?

E `(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))) || IsAn` And 56 other symbols [3]

MULTI-SELECT `mc other`

- 01 ☐ Male condoms
- 02 ☐ Female Condoms
- 03 ☐ Traditional methods list

Are you currently pregnant?

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `pregnant`

- 01 ○ Yes
- 00 ○ No
- -98 ○ Don't know/Not sure
- -99 ○ Refused to respond

Even if you do not want to participate in this interview, can we call you in 9 months for the next follow up interview?

E `start==0`

SINGLE-SELECT `call 3months`

- 01 ○ Yes
- 00 ○ No

STATIC TEXT

E `start==0`

The respondent does not wish to be interviewed, please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

Could we arrange a time when I can call back and talk to %patient_name%?

E `speaking_to==-1`

SINGLE-SELECT `call back`

- 01 ○ Yes
- 00 ○ No

STATIC TEXT

E `start==1 || (speaking_to==-1 && call_back==1)`

Please arrange a time and date to call back, once you have agreed please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

STATIC TEXT

E `//// change back the start condition!!!!! speaking_to==0 || (start==2 && IsAnswered(start))`

Please read this statement out loud:

Thank you very much for participating in this interview, this is it for now. We will call you again in about 9 months time to ask you a few more questions, as we had agreed before. Remember that if you change your mind before then you will still be able to refuse to participate.

Is there a phone number where you would prefer us to contact you on?

NUMERIC: INTEGER phone

E //// change back the start condition!!!!! call_back==1 | | (start==2 && IsAnswered(start))

E1 (self>99999999 && self<1000000000) || self==-99

M1 The phone number must be 9 digits long!

SPECIAL VALUES

-99 No

STATIC TEXT

E //// change back the start condition!!!!! call_back==0 || speaking_to==-2 || (start==2 && IsAnswered(start))

The interview has ended, please thank the respondent and hang up.

Please don't forget to complete and submit the interview.

APPENDIX A — ENABLING CONDITIONS

[1] why_quit: Why did you decide to stop using %mc_string%?
Enablement Condition:

```
renewed==false &&
((IsAnswered(larc_stillusing) && larc_stillusing!=-99)
|| (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99)
|| (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_pill!=-99))
```

[2] quit_satisfied: Overall, how satisfied were you with %mc_string%?
Enablement Condition:

```
// Did not renew LARC/SARC        AND
mc.InList(1,2,3,4) && renewed==false
//  (reasons why quit answered & does not include side effects   OR
&& ((IsAnswered(why_quit) && !why_quit.Contains(1))
//  reasons why quit include side effects & answered
|| (IsAnswered(quit_because_se_past) && why_quit.Contains(1) && IsAnswered(quit_because_se_past)))
```

[3] mc_other: Are you using any other forms of contraception?
Enablement Condition:

```
(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99)))

|| IsAnswered(stillusing_se_past) || IsAnswered(quit_satisfied)
```

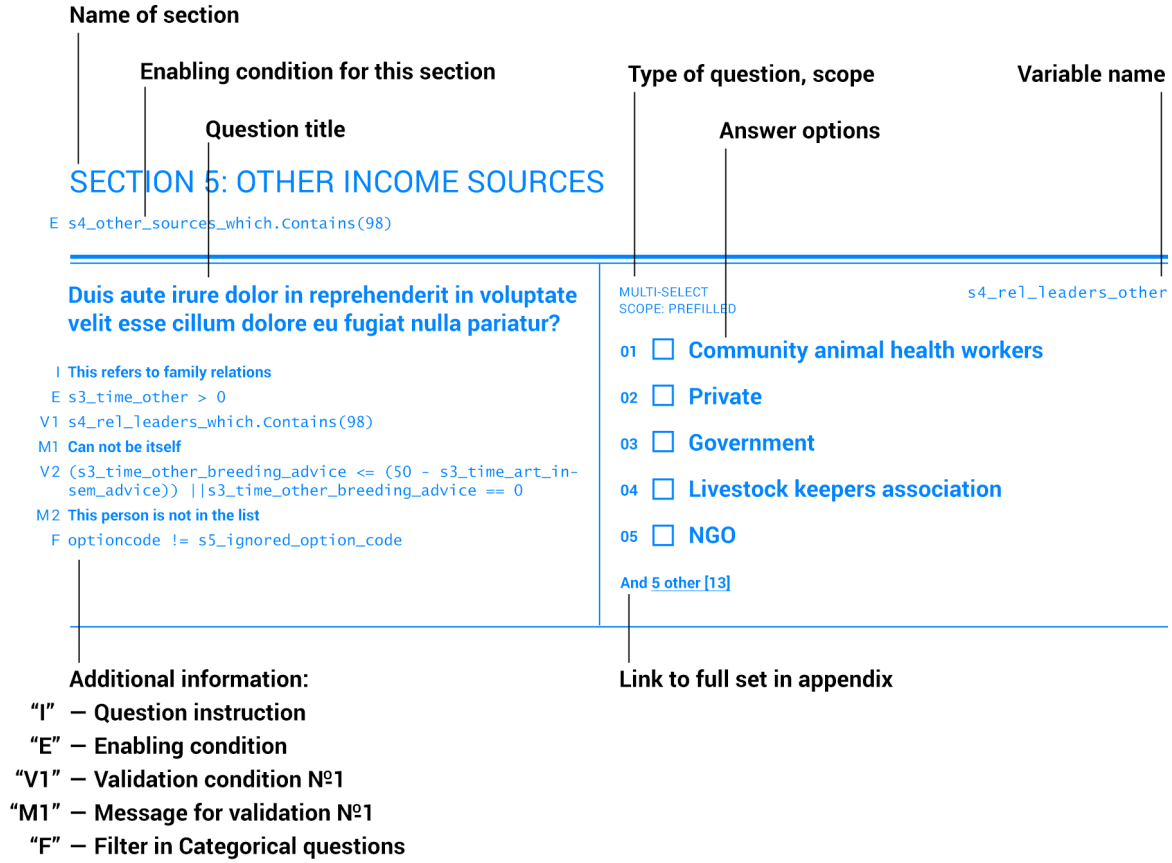
APPENDIX B — VARIABLES

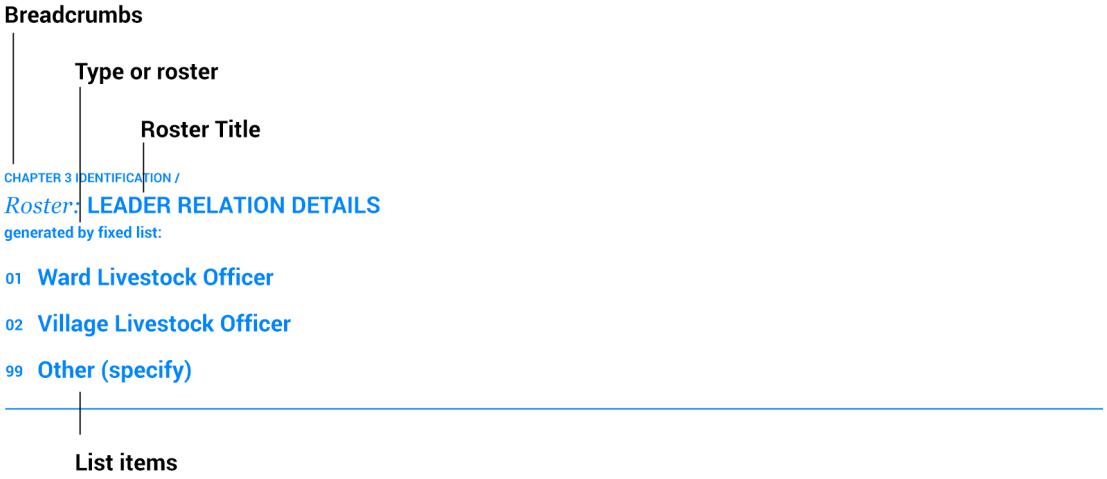
[1] renewed:

```
(larc_stillusing==1 && IsAnswered(larc_stillusing)) || ((sarc_stillusing_inje==1 && IsAnswered(sarc_stillusing_inje)) &&
(date_renewal_inje.InRange(datetime.Value.AddMonths(-2),datetime))) || ((sarc_stillusing_pill==1 && IsAnswered(larc_stillusing)) &&
(date_renewal_pill.InRange(datetime.Value.AddMonths(-2),datetime)))
```

LEGEND

Legend and structure of information in this file





Generated by parisottol, 10/19/2018 2:47:29 PM
Questionnaire created by parisottol, 10/19/2018 6:43:54 PM
Last modified by parisottol, 10/19/2018 6:46:41 PM

Not shared with anyone

Sections: 1, Sub-sections: 1, Questions: 35.
Questions with enabling conditions: 29
Questions with validation conditions:1
Rosters: 0
Variables: 3

HGOPY Follow up - 52 weeks

SURVEY IDENTIFICATION INFORMATION
QUESTIONNAIRE DESCRIPTION

INTERVIEW
Sub-sections: 1, No rosters, Questions: 35, Static texts: 7, Variables: 3.

APPENDIX A — ENABLING CONDITIONS

APPENDIX B — INSTRUCTIONS

APPENDIX C — VARIABLES

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title HGOPY Follow up - 52 weeks

INTERVIEW

Nom de la patiente

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

TEXT
SCOPE: IDENTIFYING
patient_name

La patiente a moins de 25 ans

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

SINGLE-SELECT
SCOPE: IDENTIFYING
adolescent

- 01 ○ Oui
- 00 ○ Non

Methode contraceptive choisie durant la visite a la FOSA

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

SINGLE-SELECT
SCOPE: IDENTIFYING
mc

- 01 ○ DUI
- 02 ○ Implant
- 03 ○ Pilule (COC ou POP)
- 04 ○ Injection (DEPO)
- 00 ○ Aucune

VARIABLE

```
(mc==1) ? "IUD" : (mc==2) ? "IMPLANT" : (mc==3) ? "PILL" : (mc==4) ? "INJECTABLE" : "NONE"
```

STRING
mc_string

Date de la visite a la FOSA

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

DATE
SCOPE: IDENTIFYING
date_visit

Niveau de satisfaction de la cliente lors du premier entretien telephonique

I Il s'agit d'une variable préremplie. Elle sera chargée dans la tablette av antl'entretien et ne sera pas affichée durant, sauf si elle est appellée d ans la construction d'une variable ou dans un texte.

TEXT
SCOPE: IDENTIFYING
agree_satisfied_past

S'il vous plait, pressez ce bouton pour commencer.

DATE: CURRENT TIME
datetime

STATIC TEXT

E `IsAnswered(datetime)`

S'il vous plait lisez cet information a voiz haute:

Bonjour, je m'appelle [...votre nom...], je travaille pour [...votre organization...] et je vous appelle de la part d'une equipe de chercheurs du Ministere de la Sante Publique et de la Banque Mondiale.

Avant de continuer, puis-je confirmer que je suis en train de parler avec %patient_name%?

I Si vous etes en train de parler a une personne autre que %patient_na me%, demandez a cette personne si vous pouvez parler avec %patient _name%. Selectionnez la touche "oui" uniquement lorsque vous serez And 40 other symbols [1]

E `IsAnswered(datetime)`

SINGLE-SELECT
speaking_to

- 01 ○ Oui
- -01 ○ La patiente n'est pas disponible en ce moment.
- -02 ○ La personne au telephone ne sait pas qui est la patiente.

STATIC TEXT

E `speaking_to==1`

" Veuillez lire cette déclaration à haute voix:

Vous vous rappelez peut-être qu'à la fin de votre visite à HGOPY, nous vous avions demandé si vous accepteriez de participer à une étude. À ce moment-là, vous avez dit oui et vous avez signé un formulaire de consentement et vous avez accepté de participer a trois courts entretiens téléphoniques.

Cet appel est le troisieme et dernier entretien téléphonique de cette étude. Si vous etes toujours d'accord de participer, je vais vous poser quelques questions a propos de vos experiences avec le planning familial et a propos de votre visite à la clinique. Cet appel ne devrait pas prendre plus de environ 10 minutes.

Votre participation à cette étude est entièrement volontaire. Les informations recueillies lors de cet entretien seront traitées comme privées et confidentielles. Les données seront anonymisées et personne ne pourra retracer vos réponses a vous. Si vous ne souhaitez pas répondre à une des questions posées lors de l'entretien, vous pouvez simplement le dire et l'intervieweur passera à la question suivante. Si à un moment quelconque de l'entretien vous souhaitez arrêter complètement, vous pouvez simplement en informer l'intervieweur et raccrocher. Vous n'aurez jamais à justifier votre refus, ni de participer à l'entretien ni de ne pas vouloir répondre à une question. Votre refus ou acceptation de participer à cette étude n'affectera pas les soins ou les services que vous recevrez à l'avenir, dans cette clinique ni dans aucune autre clinique.

Soyez assuré qu'il n'y a pas de bonne ou de mauvaise réponse et que ce sont vos veritables expériences et vos propres opinions don't l'étude va en beneficier le plus.

Etes vous toujours d'accord de participer à cette étude?

Si ce n'est pas un bon moment je peux vous rappeler quand cela vous conviendra mieux.

E `speaking_to==1`

SINGLE-SELECT `start`

02 ○ Est d'accord de participer maintenant
01 ○ Est d'accord de participer mais prefere qu'on rappelle a un autre moment
00 ○ Refuse de participer

STATIC TEXT

E `start==2`

Quelques questions que je vais vous poser aujourd'hui concernent votre visite à la clinique pour les services de planification familiale. Vous prefereriez peut etre completer cet entretien a un endroit prive, ou personne ne puisse entendre vos reponses que vous ne voulez pas. Je peux attendre afin que vous vous deplaciez a un endroit plus prive ou plus calme avant de continuer.

INTERVIEW
QUESTIONS

E `start==2`

Etes vous toujours en train d'utiliser le/la %mc_string%?

E `mc.InList(1,2)`

SINGLE-SELECT `larc stillusing`

01 ○ Oui
00 ○ Non
-99 ○ Refuse de repondre

Vous souvenez-vous de votre visite à HGOPY le %date_visit%, lorsque vous avez accepté de participer à cette étude? Depuis cette visite, êtes-vous déjà retourné dans une FOSA pour vous procurer une nouvelle réserve de pilules?

E `mc.InList(3)`

SINGLE-SELECT `sarc stillusing pill`

01 ○ Oui
00 ○ Non
-99 ○ Refuse de repondre

Vous souvenez-vous de votre visite à HGOPY le %date_visit%, lorsque vous avez accepté de participer à cette étude? Depuis cette visite, êtes-vous déjà retourné chez un FOSA pour recevoir une autre injection?

E `mc.InList(4)`

SINGLE-SELECT `sarc stillusing inje`

01 ○ Oui
00 ○ Non
-99 ○ Refuse de repondre

Approximativement, a quelle date fut la derniere fois que vous avez etee a une formation sanitaire pour un nouvel approvisionement de pilules?

E `sarc_stillusing_pill==1`

DATE `date_renewal_pill`

.....

Approximativement, a quelle date fut la derniere fois que vous avez etee a une formation sanitaire pour une nouvelle injection?

E `sarc_stillusing_inje==1`

DATE `date_renewal_inje`

.....

VARIABLE

```
(larc_stillusing==1 && IsAnswered(larc_stillusing)) || (
(sarc_stillusing_inje==1 && IsAnswered(sarc_stillusing_i
nje)) && (date_renewal_inje.InRange(datetime.Value.AddMo
nths(-2),datetime))) || ((sarc
```

And 123 other symbols [1]

BOOLEAN `renewed`

Globalement, etes vous satisfaite de %mc_string%?

E `mc.InList(1,2,3,4) && renewed==true`

SINGLE-SELECT `stillusing_satisfied`

05 ○ Très satisfaite
04 ○ Satisfaite
03 ○ Ni satisfaite ni insatisfaite
02 ○ Insatisfaite
01 ○ Tres Insatisfaite
-98 ○ Ne sais pas
-99 ○ Refuse de repondre

Avez-vous ressenti des effets secondaires avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.
E `mc.InList(1,2,3,4) && renewed==true`

MULTI-SELECT: YES/NO `stillusing_se_past`

01 ☐ / ☐ Saignement plus fort
02 ☐ / ☐ Saignement moins fort
03 ☐ / ☐ Saignment douloureux
04 ☐ / ☐ Gain de poids
05 ☐ / ☐ Perte de poids
06 ☐ / ☐ Maux de tête
07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
08 ☐ / ☐ Douleur abdominales
09 ☐ / ☐ Douleur au bras
10 ☐ / ☐ Changements d'humeur
11 ☐ / ☐ Dépression
12 ☐ / ☐ Acne
99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `stillusing_se_past.Yes.Contains(99)`

TEXT `stillusing_se_past_desc`

.....

Parmi les effets secondaires que vous venez de mentionner, en ressentez-vous encore quelques-uns?

I S'il vous plait lisez chaque option a voiz haute.
F stillusing_se_past.Yes.Contains(@optioncode)
E `stillusing_se_past.Yes.Length>0`

MULTI-SELECT: YES/NO `stillusing_se_prsnt`

01 ☐ / ☐ Saignement plus fort
02 ☐ / ☐ Saignement moins fort
03 ☐ / ☐ Saignment douloureux
04 ☐ / ☐ Gain de poids
05 ☐ / ☐ Perte de poids
06 ☐ / ☐ Maux de tête
07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
08 ☐ / ☐ Douleur abdominales
09 ☐ / ☐ Douleur au bras
10 ☐ / ☐ Changements d'humeur
11 ☐ / ☐ Dépression
12 ☐ / ☐ Acne
99 ☐ / ☐ Autres

Pour quelles raisons avez vous decider de ne plus utiliser %mc_string%?

E `renewed==false && ((IsAnswered(larc_stillusing) && larc_stillusing!=-99) || (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99) || (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_p` And 11 other symbols [1]

MULTI-SELECT `why_quit`

- 01 ☐ Effets secondaires
- 02 ☐ Oublié de renouveler
- 03 ☐ Trop cher
- 04 ☐ Discrétion
- 05 ☐ Pression du partenaire
- 06 ☐ Voudrais tomber enceinte
- 99 ☐ Autres
- -98 ☐ Ne sais pas
- -99 ☐ Refuse de repondre

Lesquels effets secondaires avez vous ressenti avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.

E `mc.InList(1,2,3,4) && renewed==false && why_quit.Contains(1)`

MULTI-SELECT: YES/NO `quit_because_se_past`

- 01 ☐ / ☐ Saignement plus fort
- 02 ☐ / ☐ Saignement moins fort
- 03 ☐ / ☐ Saignment douloureux
- 04 ☐ / ☐ Gain de poids
- 05 ☐ / ☐ Perte de poids
- 06 ☐ / ☐ Maux de tête
- 07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
- 08 ☐ / ☐ Douleur abdominales
- 09 ☐ / ☐ Douleur au bras
- 10 ☐ / ☐ Changements d'humeur
- 11 ☐ / ☐ Dépression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `quit_because_se_past.Yes.Contains(99)`

TEXT `quit_because_se_past_desc`

.....

Globalement, etes vous satisfaite de %mc_string%?

E `// Did not renew LARC/SARC AND mc.InList(1,2,3,4) && renewed==false // (reasons why quit answered & does not include side effects OR && ((IsAnswered(why_quit) && !why_quit.Contains(1)) //` And 150 other symbols [2]

SINGLE-SELECT `quit_satisfied`

- 05 ○ Très satisfaite
- 04 ○ Satisfaite
- 03 ○ Ni satisfaite ni insatisfaite
- 02 ○ Insatisfaite
- 01 ○ Tres Insatisfaite
- -98 ○ Ne sais pas
- -99 ○ Refuse de repondre

Avez-vous ressenti des effets secondaires avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.

E `mc.InList(1,2,3,4) && renewed==false && !why_quit.Contains(1)`

MULTI-SELECT: YES/NO `quit_nose_se_past`

- 01 ☐ / ☐ Saignement plus fort
- 02 ☐ / ☐ Saignement moins fort
- 03 ☐ / ☐ Saignment douloureux
- 04 ☐ / ☐ Gain de poids
- 05 ☐ / ☐ Perte de poids
- 06 ☐ / ☐ Maux de tête
- 07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
- 08 ☐ / ☐ Douleur abdominales
- 09 ☐ / ☐ Douleur au bras
- 10 ☐ / ☐ Changements d'humeur
- 11 ☐ / ☐ Dépression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `quit_nose_se_past.Yes.Contains(99)`

TEXT `quit nose se past desc`

Quelle methodes contraceptives utilisez vous en ce moment?

E `// did not renew AND did not quit because patient wants to get pregnant renewed==false && !why_quit.Contains(6)`

SINGLE-SELECT `mc new`

- 00 ○ Aucune
- 01 ○ DUI
- 02 ○ Implant
- 03 ○ Pilule (COC ou POP)
- 04 ○ Injection (DEPO)
- 05 ○ Methode traditionelle
- 99 ○ Autre
- -99 ○ Refuse de repondre

Pouvez-vous s'il vous plait decrire cette methode?

E `mc_new==99 || mc_new==5`

TEXT `mc new other`

VARIABLE

`(mc_new==1) ? "IUD" : (mc_new==2) ? "IMPLANT" : (mc_new==3) ? "PILL" : (mc_new==4) ? "INJECTABLE" : "NONE"`

STRING `mc_new_string`

Globalement, etes vous satisfaite de %mc_string%?

E `mc_new.InList(1,2,3,4)`

SINGLE-SELECT `mc new satisfied`

- 05 ○ Très satisfaite
- 04 ○ Satisfaite
- 03 ○ Ni satisfaite ni insatisfaite
- 02 ○ Insatisfaite
- 01 ○ Tres Insatisfaite
- -98 ○ Ne sais pas
- -99 ○ Refuse de repondre

Avez-vous ressenti des effets secondaires avec %mc_string%? Je lirai une liste d'effets secondaires et vous me direz oui / non si vous les avez ressenti.

I S'il vous plait lisez chaque option a voiz haute.

E `mc_new.InList(1,2,3,4)`

MULTI-SELECT: YES/NO `mc_new_se`

- 01 ☐ / ☐ Saignement plus fort
- 02 ☐ / ☐ Saignement moins fort
- 03 ☐ / ☐ Saignment douloureux
- 04 ☐ / ☐ Gain de poids
- 05 ☐ / ☐ Perte de poids
- 06 ☐ / ☐ Maux de tête
- 07 ☐ / ☐ Vertiges/Etourdissements/Désorientation
- 08 ☐ / ☐ Douleur abdominales
- 09 ☐ / ☐ Douleur au bras
- 10 ☐ / ☐ Changements d'humeur
- 11 ☐ / ☐ Dépression
- 12 ☐ / ☐ Acne
- 99 ☐ / ☐ Autres

S'il vous plait décrivez en plus de détail les autres effects secondaires ressentis

E `mc_new_se.Yes.Contains(99)`

TEXT `se new other`

Lors de notre dernier appel téléphonique, vous aviez indiqué que vous étiez %agree_satisfied_past% avec la qualité des services de PF reçus à HGOPY.

Selon vos souvenirs, laquelle des responses suivantes décrit le mieux votre niveau de satisfaction actuel vis-à-vis de la qualité des services de PF que vous avez reçus à HGOPY ?

I S'il vous plait lisez les reponses et en selectionnez une

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `agree satisfied`

- 05 ○ Tres satisfaite
- 04 ○ Satisfaite
- 03 ○ Ni satisfaite ni insatisfaite
- 02 ○ Insatisfaite
- 01 ○ Tres insatisfaite
- -98 ○ Ne sais pas/Ne se rappelle pas
- -99 ○ Refuse de repondre

Avec quelle probabilite pensez vous retourner a HGOPY pour les services de planning familial et de contraception?

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `likely return`

- 05 ○ Tres probable
- 04 ○ Probable
- 03 ○ Ni probable ni improbable
- 02 ○ Peu probable
- 01 ○ Tres peu probable
- -98 ○ Ne sais pas/Ne se rappelle pas
- -99 ○ Refuse de repondre

Utilisez vous d'autres formes de contraception?

E `(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))) || IsAn` And 56 other symbols [3]

MULTI-SELECT `mc other`

- 01 ☐ Preservatifs (hommes)
- 02 ☐ Preservatifs (femmes)
- 03 ☐ Methodes traditionelles

Etes vous enceinte en ce moment?

E `mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99) || (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99))`

SINGLE-SELECT `pregnant`

- 01 ○ Oui
- 00 ○ Non
- -98 ○ Ne sais pas/N'est pas sure
- -99 ○ Refuse de repondre

Meme si vous ne voulez pas participer a l'entretien telephonique d'aujourd'hui, est ce qu'on pourrais vous appeler dans 9 mois? Cet entretien sera tout aussi court.

E `start==0`

SINGLE-SELECT `call_3months`

- 01 ○ Oui
- 00 ○ Non

STATIC TEXT

E `start==0`

La patiente ne souhaite pas participter. Veuillez la remercier et raccrochez.

N'oubliez pas de compléter l'entretien sur la tablette.

Pourrions nous arranger sur un certaine date et heure pour rappeler et parler avec %patient_name%?

E `speaking_to==-1`

SINGLE-SELECT `call_back`

- 01 ○ Oui
- 00 ○ Non

STATIC TEXT

E `start==1 || (speaking_to==-1 && call_back==1)`

Veuillez arranger une heure et une date qui convient pour un autre rendez-vous telephonique. Une fois que vous avez accepté, veuillez remercier la personne et raccrocher.

N'oubliez pas de compléter l'entretien sur la tablette.

STATIC TEXT

E //// change back the start condition!!!!! speaking_to==0 || (start==2 && IsAnswered(start))

" *Veuillez lire cette déclaration à haute voix:*

Merci beaucoup d'avoir participé à cet entretien, c'est tout pour l'instant. Nous vous rappellerons dans 9 mois pour vous poser quelques questions supplémentaires, comme convenu auparavant. Rappelez-vous que si vous changez d'avis vous pourrez toujours refuser de participer quand on vous appellera.

Y a-t-il un numéro de téléphone où vous préféreriez que nous vous contactions?

NUMERIC: INTEGER phone

E //// change back the start condition!!!!! call_back==1 | | (start==2 && IsAnswered(start))

E1 (self>99999999 && self<1000000000) || self==-99

M1 Le numéro de téléphone doit comporter 9 chiffres!

SPECIAL VALUES

-99 Non

STATIC TEXT

E //// change back the start condition!!!!! call_back==0 || speaking_to==-2 || (start==2 && IsAnswered(start))

L'entretien est terminée. Merci de remercier le répondant et raccrochez.

N'oubliez pas de compléter l'entretien sur la tablette.

APPENDIX A — ENABLING CONDITIONS

[1] why_quit: Pour quelles raisons avez vous decider de ne plus utiliser %mc_string%?
Enablement Condition:

```
renewed==false &&
((IsAnswered(larc_stillusing) && larc_stillusing!=-99)
|| (IsAnswered(sarc_stillusing_inje) && sarc_stillusing_inje!=-99)
|| (IsAnswered(sarc_stillusing_pill) && sarc_stillusing_pill!=-99))
```

[2] quit_satisfied: Globalement, etes vous satisfaite de %mc_string%?
Enablement Condition:

```
// Did not renew LARC/SARC        AND
mc.InList(1,2,3,4) && renewed==false
//  (reasons why quit answered & does not include side effects   OR
&& ((IsAnswered(why_quit) && !why_quit.Contains(1))
//  reasons why quit include side effects & answered
|| (IsAnswered(quit_because_se_past) && why_quit.Contains(1) && IsAnswered(quit_because_se_past)))
```

[3] mc_other: Utilisez vous d'autres formes de contraception?
Enablement Condition:

```
(mc==0 || ((IsAnswered(larc_stillusing) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_inje) || larc_stillusing==-99)
|| (IsAnswered(sarc_stillusing_pill) || larc_stillusing==-99)))

|| IsAnswered(stillusing_se_past) || IsAnswered(quit_satisfied)
```

APPENDIX B — INSTRUCTIONS

[1] speaking_to: Avant de continuer, puis-je confirmer que je suis en train de parler avec %patient_name%?
Si vous etes en train de parler a une personne autre que %patient_name%, demandez a cette personne si vous pouvez parler avec %patient_name%. Selectionnez la touche "oui" uniquement lorsque vous serez en train de parler avec %patient_name%.

APPENDIX C — VARIABLES

[1] renewed:

```
(larc_stillusing==1 && IsAnswered(larc_stillusing)) || ((sarc_stillusing_inje==1 && IsAnswered(sarc_stillusing_inje)) &&
(date_renewal_inje.InRange(datetime.Value.AddMonths(-2),datetime))) || ((sarc_stillusing_pill==1 && IsAnswered(larc_stillusing)) &&
(date_renewal_pill.InRange(datetime.Value.AddMonths(-2),datetime)))
```

LEGEND

Legend and structure of information in this file