Increasing the take-up of long-acting reversible contraceptives among adolescents and young women in Cameroon

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“How is this still a thing?”

- **Startling fact #1:**
  - “Currently, almost half of the 6.7 million pregnancies in the United States each year are unintended.” ([MDRC’s ICON project](#))

- **Even more startling fact #2:**
  - 48% of unintended pregnancies in the US occur in the same month when contraception is used ([Finer and Henshaw 2006](#))
Why is this important?

- Loss of welfare for the mother

- Low age at first birth ➔ negative impacts on the spacing of births & timing of future pregnancies.

- Reduced accumulation of human capital for both the mother & the child.
It’s not like the technology does not exist...

- Long-acting reversible contraceptives (LARCs) are close to 100% effective in preventing unintended pregnancies.

- But, no one is using them *(at least until very recently)*
  - Especially in developing countries
  - Even more true for:
    - Adolescent females
    - Unmarried women, and
    - Nulliparous women
Interventions to maximize human capital accumulation among adolescent females

- Of the interventions the World Bank supports (and others that you can think of), such as:
  - CCTs/UCTs,
  - Girls’ clubs,
  - Vocational training, etc.

- It’s quite possible that an effective intervention to increase the uptake of LARCs (& SARCs) would be the most cost-effective option…

  - But, what would such an intervention look like?
It’s a complicated problem...

- **Big picture:** There exists no contraceptive method that is highly effective, convenient to use, and has, on average, minimal side effects.
  - Worse, the side effects are highly idiosyncratic.
  - So are individual preferences…
  - A journey to find the right method for you (for a period of time)

- **Smaller picture:** Supply- and demand-side problems galore…
  - Lack of training and provider bias
  - Misinformation, fear, culture, religion
  - Cost
Tackling “provider bias”

- **Old/current paradigm for FP counseling:**
  - “An informed choice model in which individuals are given extensive information to make their own independent choices.”

- **New/destination paradigm:**
  - Shared decision-making based on the client’s goals, needs, and preferences
  - Still patient-centered (respectful, empathetic, and confidential), while hopefully more efficient and realistic (Hoyt et al. 2017)
FP3.0 - A Counseling “App”

- We developed a **tablet-based decision-support tool** for nurses to counsel female clients on modern contraceptive methods.

- Old model: “Tell the client about **ALL** the methods and let her make a decision.”

- New model: “Elicit client’s preferences, goals, needs, as well as her birth and medical history, and make a recommendation.”
The “app”

1. the health provider, confirm each of the following:

**INSTRUCTION**
You (the health provider) must complete each task below and confirm by checking the box next to it. You can only continue with the session after you have checked all three boxes.

- I welcomed the client, took steps to ensure a private setting for the counseling session, and commended her for coming in today
- I explained the purpose of the session, which is to talk about her life and goals, healthy families, pregnancy spacing, safe sex, and contraceptive methods
- I explained to the client that she can always ask questions and should speak freely, as this meeting is completely confidential. I also explained to her that she can stop this session at any time for any reason.

Are you ready to go on with counselling?
- yes
- No

**INSTRUCTION**
If the patient is currently pregnant, please count it in these pregnancies.

- 4

How many abortions have you had?

- 1

How many biological living children do you have?

- 3

What was the date of your most recent delivery (live or still)?

**INSTRUCTION**
If the client gives a range rather than an exact date, enter the most recent date of that interval

- 2018-12-10
The “app”

Consultation

What issues are you having with IUD?

- Inconvenient (forgot to take pill, facility far to refill)
- Side effects (headache, bleeding, acne, weight gain)
- Cost of method
- Other (not discrete, ineffective)

What are the side effects?

- Headaches (migraines)
- Bleeding
- Acne
- Weight gain
- Discomfort
- Others (not specified)

Consultation

Some women experience changes in their menstrual period after they start using a method of family planning. Other than rare occasions, these changes are normal, and are not a sign that the method is harmful to your health. Some women who use contraceptive implants and injectables stop having a menstrual period and this is not harmful either. None of the methods we will discuss affect your ability to conceive in the future: you can always stop using the method and try to get pregnant right away. Let’s talk about some of the more common things you may experience.

Some methods can cause increased menstrual bleeding and cramping, though this effect subsides for most women after the first three months. How important is it to you to minimize the chances of increased cramping or bleeding in the early stages of adopting a method?

Instruction

Please read out the answer choices to the patient

- NOT important
- Somewhat important
- Very important

Some methods cause decreased menstrual bleeding over time with some women eventually not having a period at all. As we mentioned before, absence of bleeding is definitely not harmful to your health. In fact, some women like you consider this to be convenient and it is an added health benefit. How important is it to you to maximize the likelihood of maintaining your period?
The “app”

### Consultation

**Are you taking any of the following drugs?**

**INSTRUCTION**

*Please answer this question to continue*

- [ ] Anti retroviral (ARV)
- [ ] TB drugs (such as rifampicin)
- [ ] Barbiturates (such as phenytoin)

**none**

**Do you experience unexplained vaginal bleeding?**

**INSTRUCTION**

*Record if client has unexplained vaginal bleeding*

- [ ] Yes
- [ ] No

**Allow us to take your blood pressure**

**INSTRUCTION**

*Enter SYSTOLIC BP reading*


### Method choice

**WARNING: the PILL - POP is contraindicated for this patient at this time**
- Patient is taking TB drugs or barbiturates

**WARNING: the PILL - COC is contraindicated for this patient at this time**
- Patient has a history of hypertension OR systolic bp=>140 OR diastolic bp =>90
- Patient is taking TB drugs or barbiturates

**WARNING: the INJECTABLE is contraindicated for this patient at this time**
- Patient has systolic bp=>160 OR diastolic bp=>100

**Method: IMPLANT**

Section not started

**COMPLETE INTERVIEW**
The “app”

OK, based on our conversation, there are two equally great methods that might fit your goals, needs, and preferences. However, is it ok if we start by discussing the IMPLANT, so that you can understand how it works, its advantages and disadvantages? If you don’t like the IMPLANT, then we can always talk about the other method. I am sure that we can find something suitable for you.

- Yes
- No

Pull the cue card for IMPLANT from the stack, and put it in front of you and the client, leaving the others on the table.

Go over the information on the front side of the cue card for the IMPLANT, discussing what is is, how it works, and emphasizing its effectiveness and advantages. Pause to see if the client is content with what she has heard about the IMPLANT so far and answer any questions she may have.

If the client is happy to continue, please turn over the cue card and go over the information on the back of it, emphasizing how it is used and administered, possible side effects, and reasons to return to the provider. Again, pause to see if the client is content with what she has heard about the IMPLANT so far and answer any questions she may have.

If at any point, the client no longer wants to hear about this method and rules out adopting it, please move to the next question, select “No, the client does not wish to adopt this method”, and record the main reason(s) why.
Advantages of FP3.0

- Makes the nurse’s job easier
- Empowers the client
- Amazingly rich data on client characteristics, preferences and outcomes
Small RCT at HGOPY *(partner hospital)*

- Trying to increase the uptake of LARCs – particularly among adolescents and nulliparous/unmarried women – by:
  - Offering discounts to learn about price elasticity of demand
  - Experiment with counseling methods (mimicking the old and the new paradigms)
  - Tailoring counseling to the client *(using contextual multi-armed bandit algorithms)*
  - Improving follow-up protocols to manage side effects, etc.
Setting
Larger (yet still nimble) RCT in the East

- **Improving provider care**
  - **FP training**: The Ministry of Health, after consultation with family planning experts in Cameroon, has designed a state-of-the-art, two-week family planning training program.
  - **Use of a job-aid (“app”)**: The working group has also developed a tablet-based “app”, or decision support tool, which assists the providers during family planning consultations.

- **Reducing prices**
  - **Increasing subsidies for LARCS**: The government will increase PBF subsidies paid to health centers for select FP indicators provided to adolescents, increasing the ratio of subsidies paid for LARCs relative to SARCs from 1.5/1 to 4/1.

- **Providing free LARCS**
  - **Mandating free provision**: Clinics will be asked to provide long-acting reversible contraceptive methods to adolescents (aged under 25) free of charge.
Study design

- **Method**: Cluster-randomized controlled trial, randomized at the health facility level;
- **Eligibility**: All health facilities in the East Region that provide contraceptive products and are under a PBF contract at the beginning of the study;
- **Sample**: Approximately 180 such facilities across the East region;
- **Duration**: 12 months; starting in Q2, 2019;
- **Phase-in design**: “Business as usual” and “FP training” will receive other treatments with a 12-month delay.
- **Allocation**: Factorial design with random allocation of health facilities into one of 3x3x2 cells.
Two (and a half) policy-pertinent Qs

- Cameroon’s health system largely operates under a performance-based financing (PBF) system
  - You can push interventions to health facilities through quarterly PBF contracts rather than designing parallel interventions…
1. Will training *(with or without the “app”)* increase numbers of LARCs administered to adolescent females?
2. If not, is a signal (through separate PBF payments for adolescents) to health facilities re: the importance of serving this population needed?
  - Finally, *should FP services for adolescents be free?*
Larger (yet still nimble) RCT in the East

- Each health facility is randomly allocated into one of the following 3x3x2 cells

<table>
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<tr>
<th>LARC Subsidies for Adolescents (LARC/SARC)</th>
<th>Free to set own prices</th>
<th>Supply-Side Interventions</th>
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<tr>
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<td>Provide LARCS to Adolescents for free</td>
<td>status quo</td>
<td>FP training</td>
</tr>
<tr>
<td>LARC Subsidies for Adolescents (LARC/SARC)</td>
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<td>10</td>
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<tr>
<td></td>
<td>Medium (2.7/1)</td>
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<tr>
<td></td>
<td>High (4/1)</td>
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<tr>
<td></td>
<td>Total</td>
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# Timeline

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Innovation

- Having nurses to use tablets to conduct FP counseling in ALL facilities – to produce continuous administrative data more conveniently, reliably, and faster.

- It works in HGOPY, which is in the capital of Cameroon, Yaoundé.
  - Will it work in remote rural clinics, where the conditions are less than ideal?
Setting

- Here the Family Planning nurses are conducting educational sessions and explaining the concept of Family Planning to entire corridors packed with primarily young mothers waiting for post-natal or gynecological services;
- The nurses go over some of the main concepts underlying family planning (e.g. a woman taking control over her own fertility), describing common methods and what to expect with them, and answering questions out in a classroom-style manner;
- The sessions are loud and friendly, with jokes, songs, and clapping games throughout. Many of the FP service clients end up frequenting the service because of these short sessions.