Method Choice:
What do we know about what users really want?

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Historically...

- Contraceptive development has been driven by technical feasibility
- “Acceptability” assessed in the context of clinical trials
- Limited input from potential users/market research
**GOAL:** To assess potential end-user preferences for six long-acting contraceptive technologies in various stages of development to inform and guide ongoing product development and introduction (Burkina Faso and Uganda)

### Quantitative Phase

Contraceptive acceptability module added to female questionnaire of PMA2020 survey
- 2,743 women
- 2,403 women

### Qualitative Phase

Data collected from 5 regions per country
- 50 focus groups, 398 women
- 10 focus groups, 78 men
- 37 interviews with providers
- 15 key informant interviews

Technologies:
- Smaller Copper IUD
- New single-rod implant
- New biodegradable implant
- New longer-acting injectable
- New approach to non-surgical permanent contraceptive
Important method characteristics

Q. In choosing a contraceptive method, what are the things about the method that are important to you?*

Effectiveness | Duration | Few side effects | Cost | Access | No effect on menses | Not painful | Doesn't affect sex | Immediate fertility return | Partner approves | Can use secretly
---|---|---|---|---|---|---|---|---|---|---
64% | 52% | 37% | 33% | 29% | 31% | 24% | 27% | 20% | 19% | 18% | 16% | 13% | 10% | 10% | 5% | 9% | 12% | 9%

*More than one response possible; response options not read aloud
User preferences for long-acting technologies

Method characteristic ranking – Burkina Faso (n=20 FGDs)

% FGDs with **women** in which item ranked among top or bottom 3 cards

- **% In Top 3**
- **% In Bottom 3**

** Ranked Among Top 3 Cards:**
1. Fewer side effects (40%)
2. Partner likes it (40%)
3. Immediate return to fertility (35%)
4. Causes regular menstruation (30%)

** Ranked Among Bottom 3 Cards:**
1. Causes Amenorrhea (55%)
2. Does not require pelvic exam/insertion (50%)
3. Forgettable (35%)
4. Lasts for more than 6 months (35%)
User preferences for long-acting technologies

Method characteristic ranking – Uganda (n=30 FGDs)

% FGDs with women in which ranked among top or bottom 3 cards

% In Top 3 % In Bottom 3

Ranked Among Top 3 Cards:
1. Causes Regular Menstruation (53%)
2. Recommended by provider (37%)
3. Used postpartum/breastfeeding (33%)
3. Fewer side effects (33%)
3. Partner likes it (33%)

Ranked Among Bottom 3 Cards:
1. Causes Amenorrhea (53%)
2. Forgettable (40%)
3. Recommended or used by friends/family (30%)
Preferred method duration

Q. If you could choose how often to take your contraceptive method, would you choose a method that you would take: every day, every time you have sex, every month or few months, every year or every few years, once (it is permanent), other?

**BURKINA FASO**
- Every year or few years: 58%
- Every month or few months: 29%
- Permanent: 3%
- Coitally: 3%
- Daily: 6%
- Other: 2%
- Mean: 3.8 years
- Range: 1-20 years

**UGANDA**
- Every year or few years: 48%
- Every month or few months: 33%
- Permanent: 12%
- Coitally: 4%
- Daily: 3%
- Other: 0.5%
- Mean: 3.6 years
- Range: 1-15 years

**User preferences for long-acting technologies**
Interest in using the new methods

Q. If this method were available, would you be interested in using it? (% reporting YES)

“Interested” includes women who responded they “definitely” or “probably” would use a method.
Substantial interest in new methods in both countries:

- Among **current and recent users** nearly 75% would choose one of the new methods.

- Among **non-users**, at least 90% would choose one of the new methods over continuing not to use.
Microneedle patches for contraception

Targeting contraceptive steroid hormones to the dermal versus subcutaneous space

Microneedle patch is applied to skin

Microneedles dissolve and release the contraceptive

Sharps-free backing is removed and discarded

Adapted from Micron Biomedical and Mark Prausnitz
User preferences for a contraceptive microneedle path

**Goal:** Incorporate end-user feedback into product design decisions for a contraceptive microneedle patch (MNP)

**Study objectives:**
- Explore acceptability and potential barriers to use
- Define desired qualities and design characteristics
- Quantify relative importance of various contraceptive microneedle patch attributes

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**Qualitative Phase**

**INDIA**
- 10 focus groups, 44 women
- 10 interviews with women
- 10 interviews FP providers

**NIGERIA**
- 10 focus groups, 50 women
- 10 interviews with women
- 10 interviews FP providers

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**Quantitative Phase**

**Discrete Choice Experiment (DCE)**
- to quantify the relative importance of cMNP attributes

**INDIA, N=496**
- 22% never used a method
- 28% sterilized, never used
- 50% ever used a method

**NIGERIA**
- Sample 1, N=530
  - 50% never used a method
- Sample 2, N=416
  - 50% never used a method
## Attributes and levels included in the DCE survey

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain at application</td>
<td>No pain, Like light pin prick, Like hard pin prick</td>
</tr>
<tr>
<td>Skin reaction at application</td>
<td>Rash for one day, Rash for three days</td>
</tr>
<tr>
<td>Location of application</td>
<td>Wrist, Knee, Top of foot</td>
</tr>
<tr>
<td>Size of cMNP</td>
<td>Small, Medium, Large</td>
</tr>
<tr>
<td>Duration of effectiveness</td>
<td>One month, Three months, Six months</td>
</tr>
<tr>
<td>Effect on menstruation</td>
<td>No effect, Irregular period, Amenorrhea</td>
</tr>
</tbody>
</table>
User preferences for a contraceptive microneedle path

Relative importance of attributes

India

Pain 8%
Rash 8%
Location 9%
Size 8%
Duration 14%
Menstruation 53%

Menstruation should not impact
“A lot of time when you take contraceptive methods, it affects the menstruation of that woman. So some gets less bleeding and some bleed a lot. This shouldn’t happen.”
—Woman, age 26, never used contraception

Preference for Longer Duration
“If any mother uses this then she would like to be free [of worry about contraception] for six months she doesn’t want to go every month to doctor...”
—Family Planning Provider

Nigeria

Sample 1
6 attributes

Pain 14%
Rash 4%
Location 8%
Size 8%
Duration 24%
Menstruation 42%

Sample 2
5 attributes

Pain 24%
Rash 10%
Location 10%
Size 12%
Duration 44%
Menstruation 42%
User interest in a longer-acting injectable

Qualitative Research in Rwanda and Kenya

- Strong support for a longer-acting injectable
- Product characteristic priorities may vary by geographic, service delivery or participant context

Findings reinforced the TPP:

- High effectiveness
- Use while breastfeeding
- Side effects not worse than current injectables; ideally better
- Immediate or well-defined, predictable return to fertility
- Self-administration possible
- Low cost

Tolley, McKenna, Mackenzie et al. GHSP, 2014
Leveraging human-centered design methodologies to facilitate insight-driven ideation, for generating new product ideas in women’s contraceptive technology

1. Rapid field research including IDIs, FGDs, stakeholder interviews, and intercepts

2. Development of context “collateral” including user profiles over the reproductive life span

3. Ideation Workshops

4. New method concepts...
Conclusions

❖ Market research is crucial

❖ Women want NEW effective methods, but we must address side effects!

❖ Value in iterating on duration and delivery, but must also move toward game-changing innovation

❖ Continued focus on expanding choice
References


