

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

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September 25, 2019



# 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



Smaller Copper IUD



Levonorgestrel intra-uterine system (LNG-IUS)



New single-rod implant



New biodegradable implant



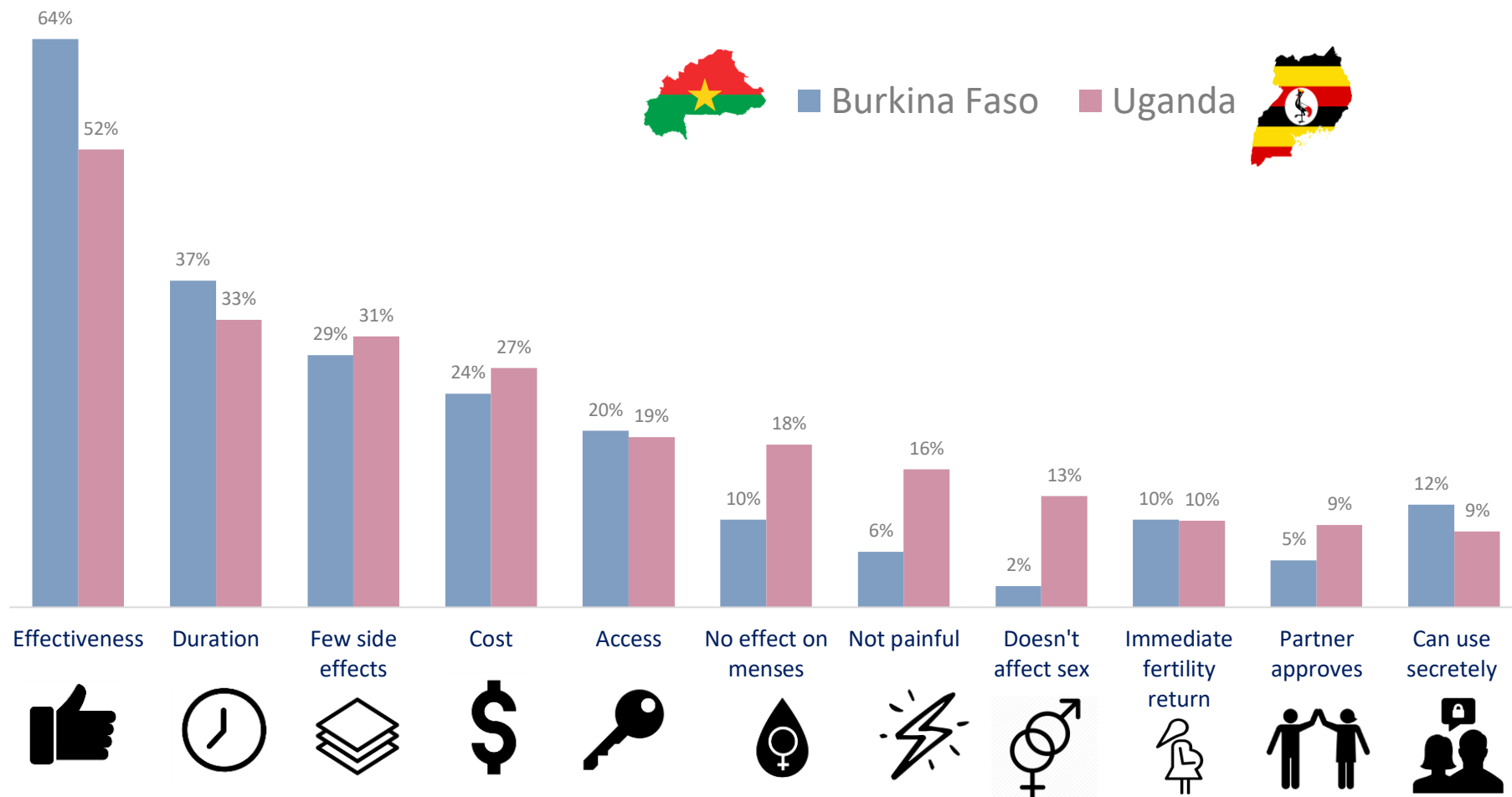
New longer-acting injectable



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?\*



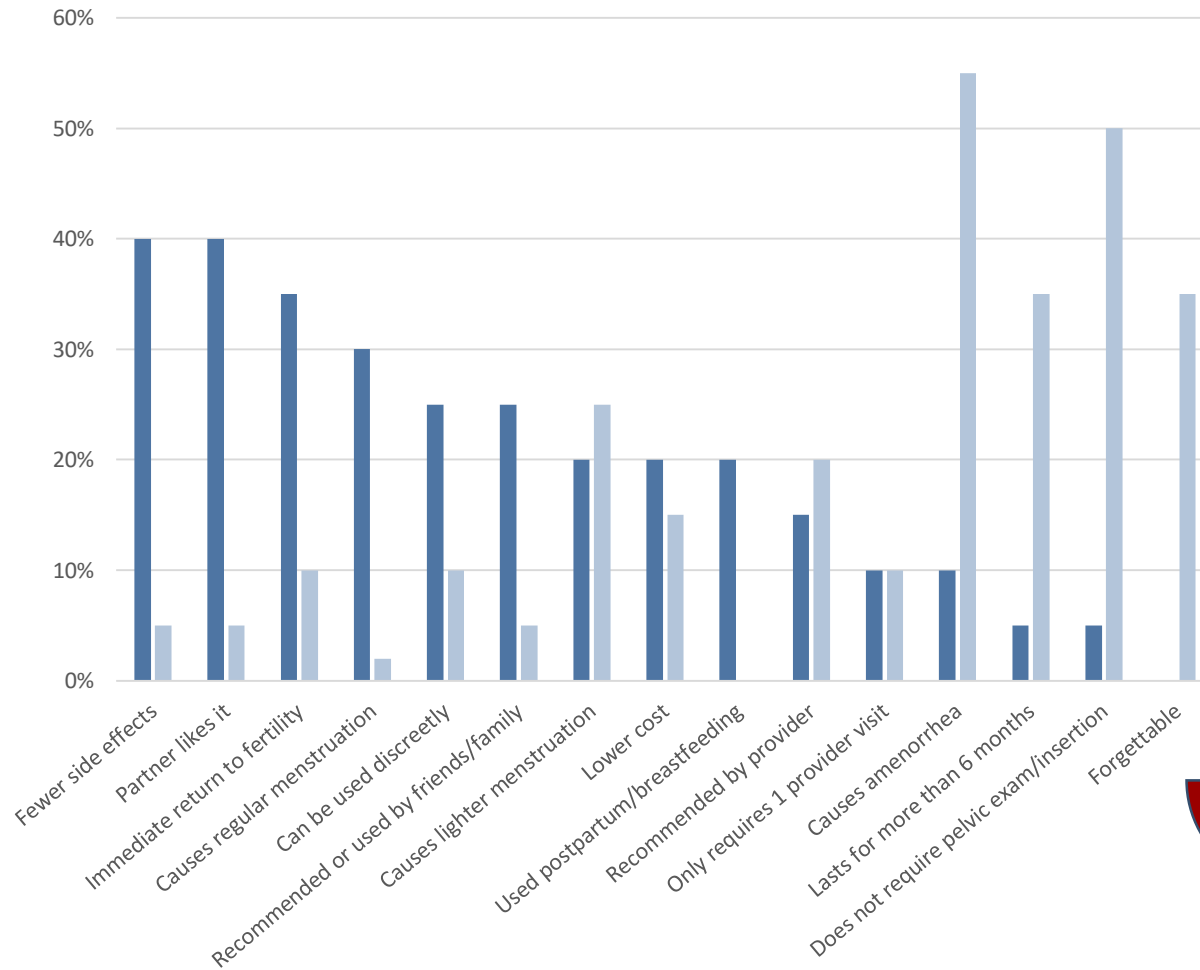
\*More than one response possible; response options not read aloud

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



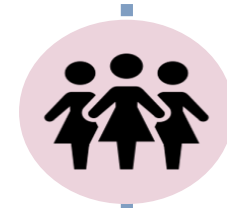
% FGDs with **women** in which item ranked among top or bottom 3 cards

■ % In Top 3   ■ % In Bottom 3



### Ranked Among **Top 3** Cards:

1. Fewer side effects (40%)
1. Partner likes it (40%)
2. Immediate return to fertility (35%)
3. Causes regular menstruation (30%)



### Ranked Among **Bottom 3** Cards:

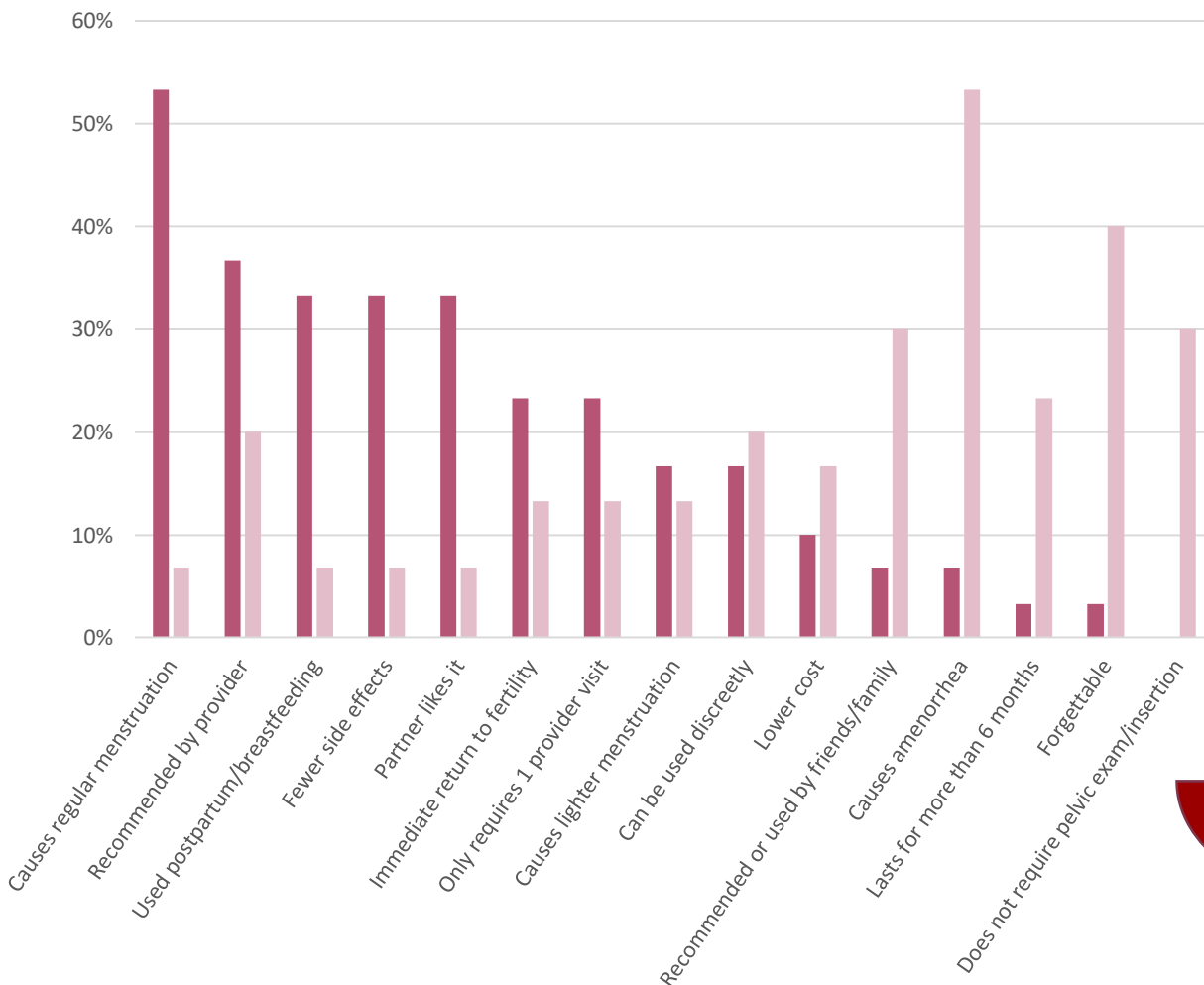
1. Causes Amenorrhea (55%)
2. Does not require pelvic exam/insertion (50%)
3. Forgettable (35%)
3. Lasts for more than 6 months (35%)

# Method characteristic ranking – Uganda (n=30 FGDs)



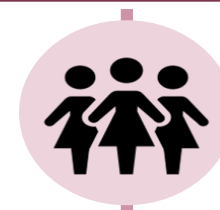
% FGDs with **women** in which ranked among top or bottom 3 cards

■ % 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:

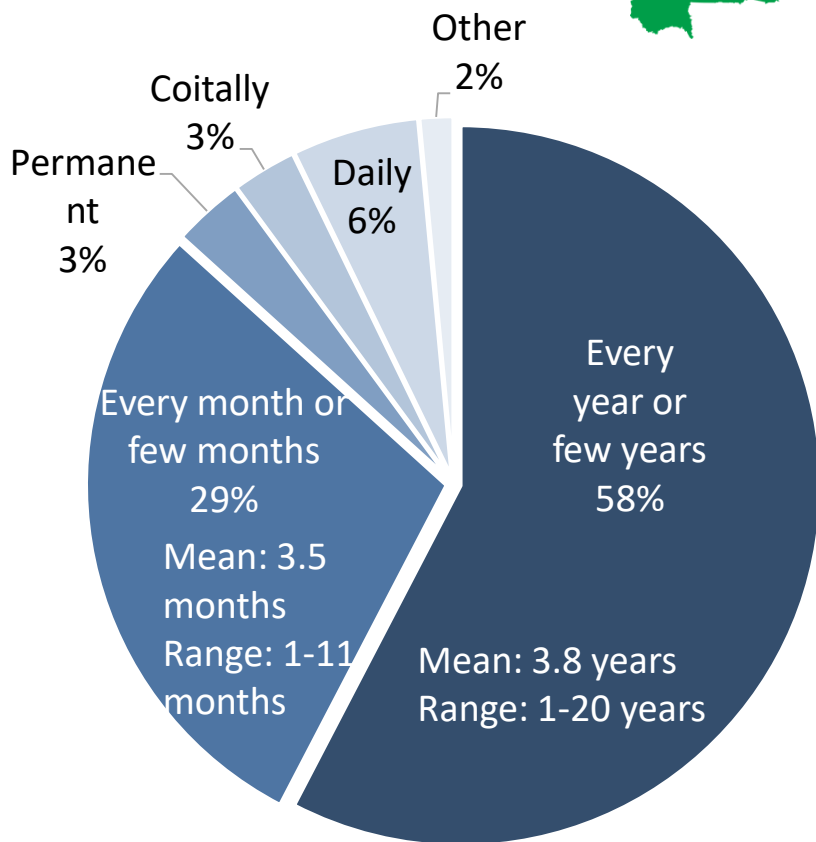
1. Causes Amenorrhea (53%)
2. Forgettable (40%)
3. Recommended or used by friends/family (30%)



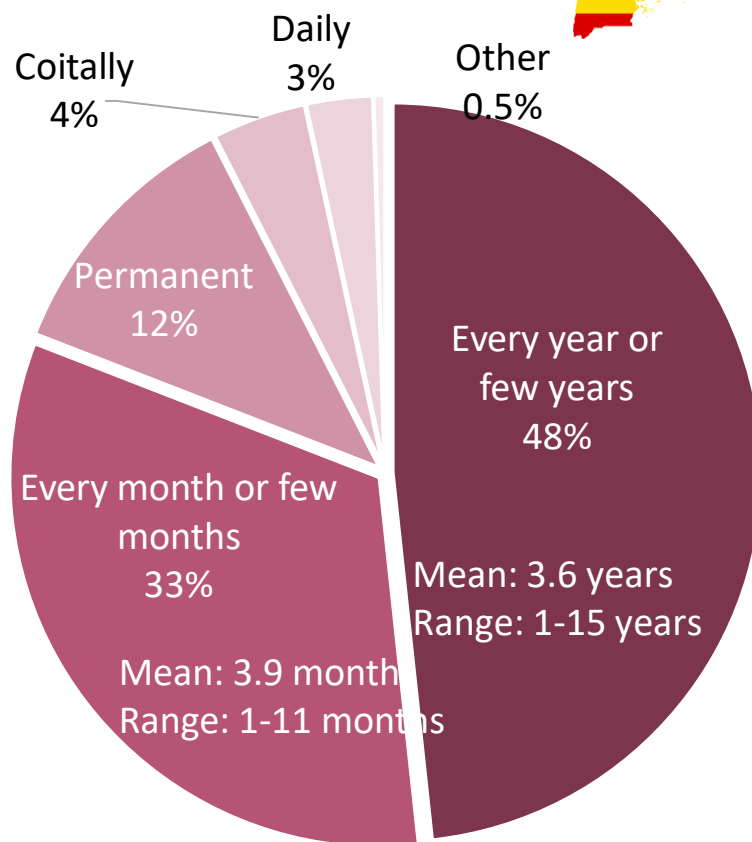
## Preferred method duration

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



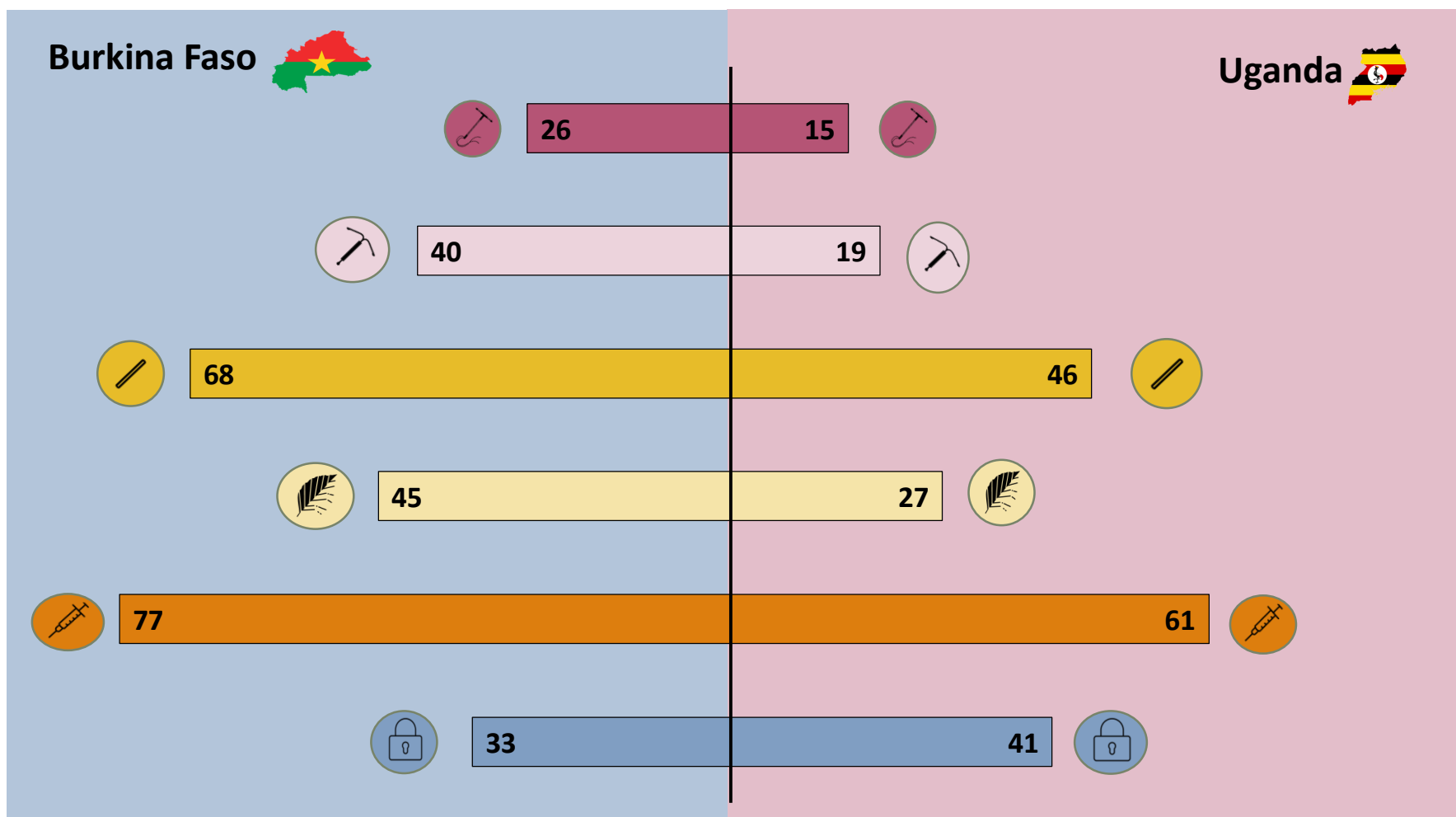
### UGANDA



## 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.





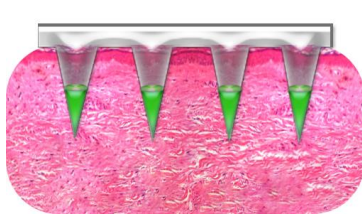
## Substantial interest in new methods in both countries:

- ❖ 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

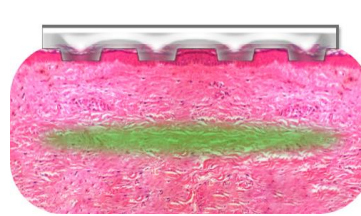


# Microneedle patches for contraception

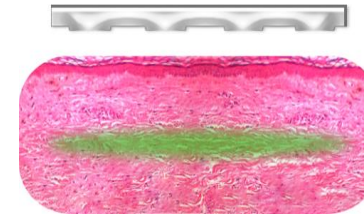
Targeting contraceptive steroid hormones to the dermal versus subcutaneous space



Microneedle patch is applied to skin

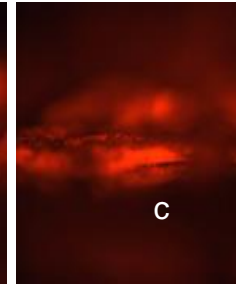
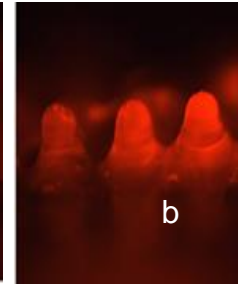
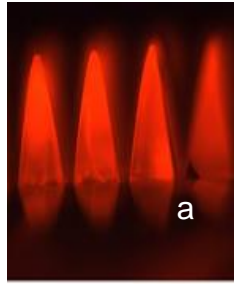
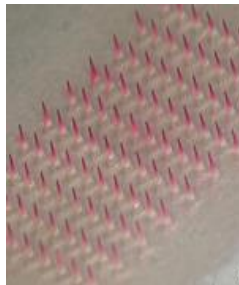


Microneedles dissolve and release the contraceptive



Sharps-free backing is removed and discarded

## Polymer Microneedles



# User preferences for a contraceptive microneedle path



## 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

## 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



**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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## Attributes and levels included in the DCE survey



### Pain at application

- No pain
- Like light pin prick
- Like hard pin prick



### Skin reaction at application

- Rash for one day
- Rash for three days



### Location of application

- Wrist
- Knee
- Top of foot



### Size of cMNP

- Small
- Medium
- Large



### Duration of effectiveness

- One month
- Three months
- Six months



### Effect on menstruation

- No effect
- Irregular period
- Amenorrhea



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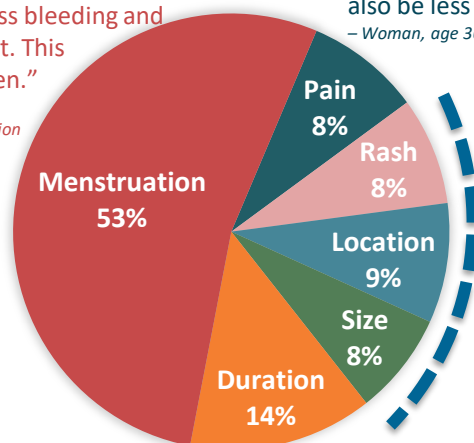
## Relative importance of attributes

### INDIA

#### Should not impact **Menstruation**

"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



"The smaller the better. It will leave a smaller mark...there will also be less pain with this..."

– Woman, age 36, never used contraception

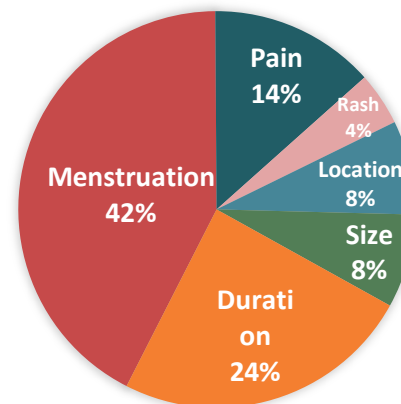
#### Preference for Longer **Duration**

"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..."

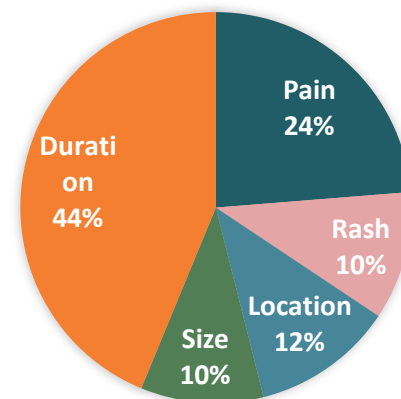
– Family Planning Provider

### NIGERIA

#### Sample 1 6 attributes



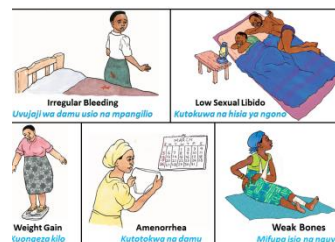
#### Sample 2 5 attributes



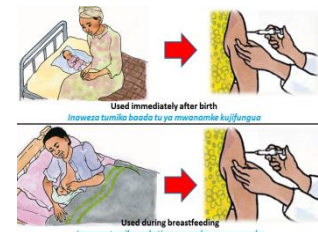


## Qualitative Research in Rwanda and Kenya

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



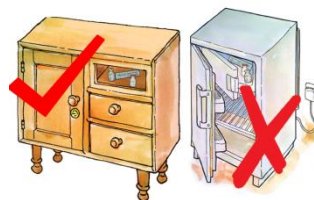
Side Effects



Use by breastfeeding/  
new moms

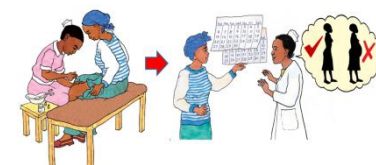
### Findings reinforced the TPP:

- 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



No Cold Storage

Assessed TPP  
using  
illustrated  
cards to allow  
ranking by  
potential users  
and providers



99% Effective



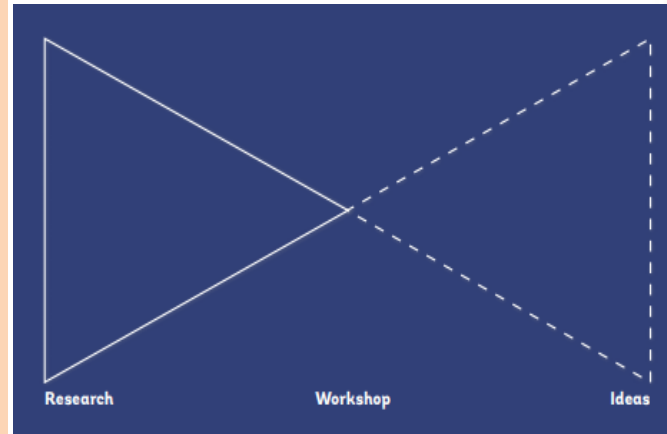
Community-based



Pre-packaged, single vial

**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

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