

# LEAP Initiative: A mixed-method, longitudinal study in Nigeria



May 2020



## Research objectives

The goal of this research was to generate evidence on the user population of the LNG-IUS through an improved understanding of their profiles and experiences

1

To describe LNG-IUS acceptors compared to women choosing other LARCs or injectables

2

To describe factors affecting uptake of the LNG-IUS from clients' perspectives

3

To estimate method-specific 6- and 12-month LARC continuation rates and assess women's satisfaction using these methods



## Summary: Key Take-Aways



**Demographics:** There were few socio-demographic differences among clients in the study choosing different LARCs.

**Previous method use:** A sizable proportion of women choosing LARCs, including 23% of LNG-IUS acceptors, were new users. Among LNG-IUS users, 56% of women used a short-acting method as their last method prior to the LNG-IUS.

**Reasons for method choice:** The most common reasons for choosing a method were similar across LARCs including “right for body,” long-acting, effectiveness, few/manageable side effects, recommended by provider, and recommended by friends/family. A smaller but sizable proportion of LNG-IUS acceptors were attracted by reduced bleeding and treatment of heavy or painful periods.

**Method preference if the LNG-IUS had not been available:** Among LNG-IUS acceptors, 44% would have opted for another LARC and 14% for a short-acting method, and 26% would have left with no method.

**Demand-generation:** Awareness of the LNG-IUS was generally limited among women who chose other methods. Providers were the main source of information about the LNG-IUS. The relatively high price of the method can be a challenge for women.

**Continuation rates:** Over the course of the study, 34 LNG-IUS, 34 Copper IUD, and 42 implant users reported they stopped using their methods. Continuation rates for the LNG-IUS were 94% at six months and 87% at 12 months.

**Satisfaction with method use:** Overall satisfaction with the method and with the bleeding pattern experienced were higher with the LNG-IUS relative to other LARCs after 6 months, but results are more similar with those for the copper IUD in the 12-month sample.

**Perceptions of bleeding changes:** 55% of LNG-IUS users in the 12-month sample who said they had experienced reduced bleeding reported that reduced bleeding had had a positive impact on their lives overall. However, acceptability of amenorrhea was mixed.

**Menstrual hygiene management:** More LNG-IUS users reported a reduction in the amount of menstrual products used compared to before they received their method relative to users of other LARCs.

**Removals:** Across methods, 70-77% of women never considered getting their method removed and 5-10% thought about removing their method but never went to a provider to ask to get it removed. Close to a quarter of women who consulted a provider about a removal kept their method, and counseling was an important factor in decision-making.



## Mixed-method study across 40 social franchise clinics across 18 states



### Quantitative component

Prospective, longitudinal survey with 888 social franchise clients

#### Phone interviews

- Baseline survey with women choosing the LNG-IUS, copper IUD, implant or three-month injectable - within 100 days of method uptake (June-November 2018)
- Follow-up surveys with LARC users\* - 6 and 12 months after baseline

\*Injectable users were not followed up over time or included in the qualitative sample because the primary focus of the study was on comparing client experiences with the LNG-IUS to experiences with other LARCs.



### Qualitative component

Follow-up in-depth interview (IDI) with 32 survey participants

In-person IDIs with subset of survey participants who chose the LNG-IUS, copper IUD or implants\*

- Selected from 2 states: Kaduna (North) and Oyo (South)
- IDI within 16 weeks of baseline survey

 Inclusion criteria and sampling for the phone survey

Women were recruited with the assistance of service delivery providers, then consented and interviewed on the phone by research assistants. Inclusion criteria were:

- **Age:** 18-49 years old
- **Location of service:** One of the 40 social franchise clinics in SFH's Healthy Family Network with providers who participated in the first SFH clinical training on LNG-IUS service provision in May-June 2017
- **Method received:** LNG-IUS, copper IUD, implant or three-month injectable. Only LARC users were eligible for follow-up interviews
- **Phone information:** Have access to a phone and agree to provide phone contact details at the time of recruitment



The dates at which women received their method were extracted from clinic records. Only women who had **received their method 0-100 days prior to the baseline interview** were retained for the final analyses.

# Profile of study participants



## PHONE SURVEY WITH CLIENTS\* (n=888)

Baseline method					
LNG-IUS		266	Implant		295
Copper IUD		274	Injectable**		53
Age (mean = 33)					
18-24 years		25-34 years		35-49 years	
8%		49%		43%	
Marital Status		Parity (mean = 3.3 )			
Single	4%	0	2%		
Married	95%	1-2	31%		
Other	2%	3-4	47%		
		5+	20%		
Highest Education Completed (3% = no education or < primary)		Urban Wealth Index			
	Primary 12%		Lowest = 2%		
	Secondary 45%		Second = 8%		
	> Secondary 40%		Middle = 12%		
			Fourth = 21%		
			Highest = 58%		

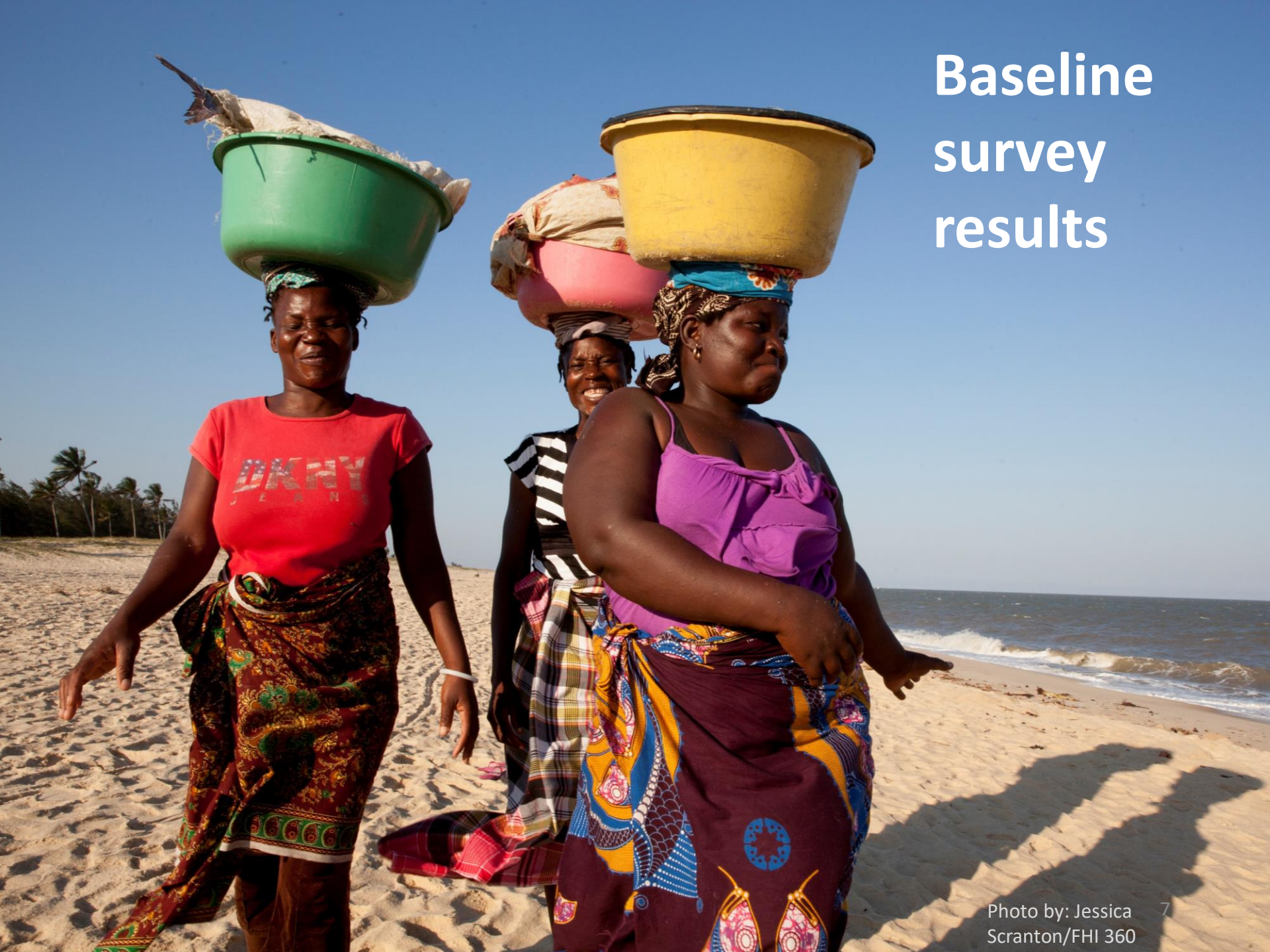
## FOLLOW-UP In-depth interviews (IDIs)



- 17 women who chose the LNG-IUS
- 11 women who chose an implant
- 4 women who chose the copper IUD





\*Note: Clients included in the final survey sample come from 39 facilities. Numbers may not add to 100 due to rounding.  
 \*\*Injectable users were not followed up over time.


# Baseline survey results




 Socio-demographic characteristics



Baseline method	LNG-IUS 	Copper IUD 	Implant 	Injectable 
Mean age	33	34	32	32
Married	97%	96%	93%	89%
Mean parity	3	3	3	3
Want to limit	35%	42%	31%	32%
Completed secondary or higher	86%	86%	84%	79%
Full-time or self-employed	74%	73%	65%	70%
Urban wealth index upper quintile	60%	61%	54%	49%

 n=888

 LNG-IUS and copper IUD acceptors are not very different. Compared to women who chose the implant or the injectable, they were slightly older, more were in the upper wealth quintile, more reported full-time or self-employment and more wanted to limit childbearing.

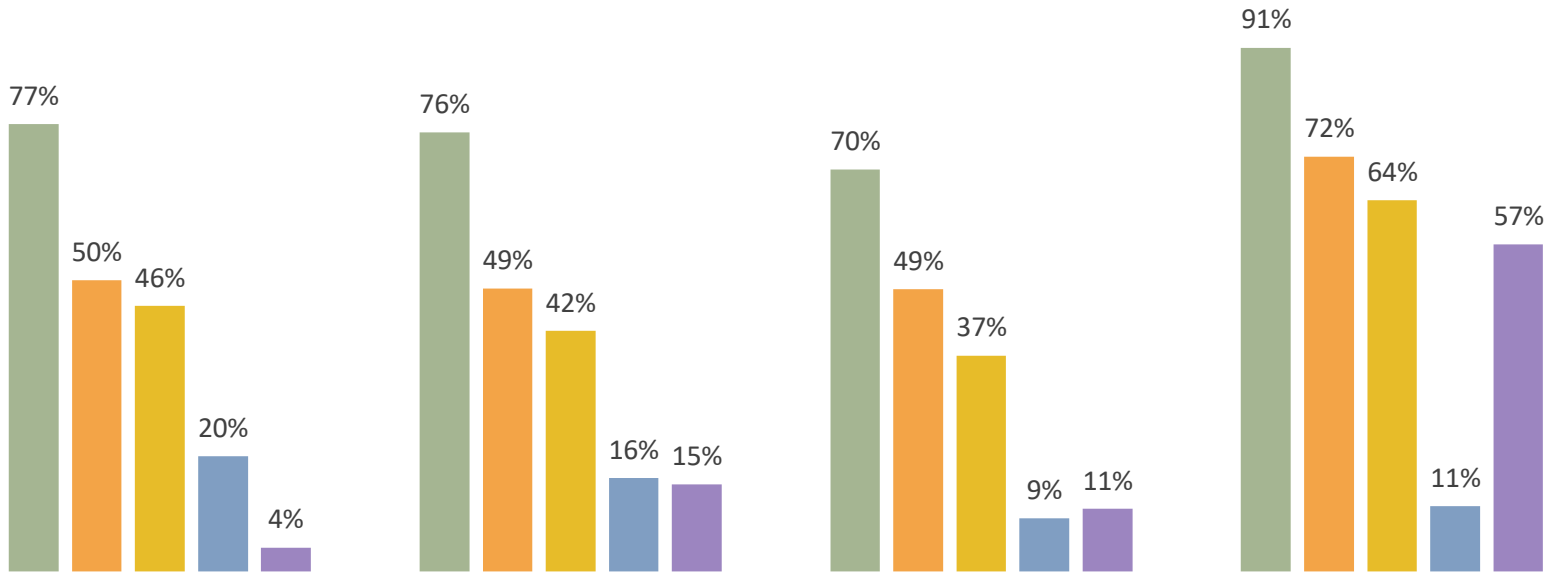


Contraceptive use history



**Prior use of contraception**

■ Modern method\* 
 ■ Hormonal method 
 ■ LARC 
 ■ IUD 
 ■ Current method



Baseline method



n=888

\* Modern methods include LNG-IUS, copper IUD, implant, injectables, pills, EC and condoms

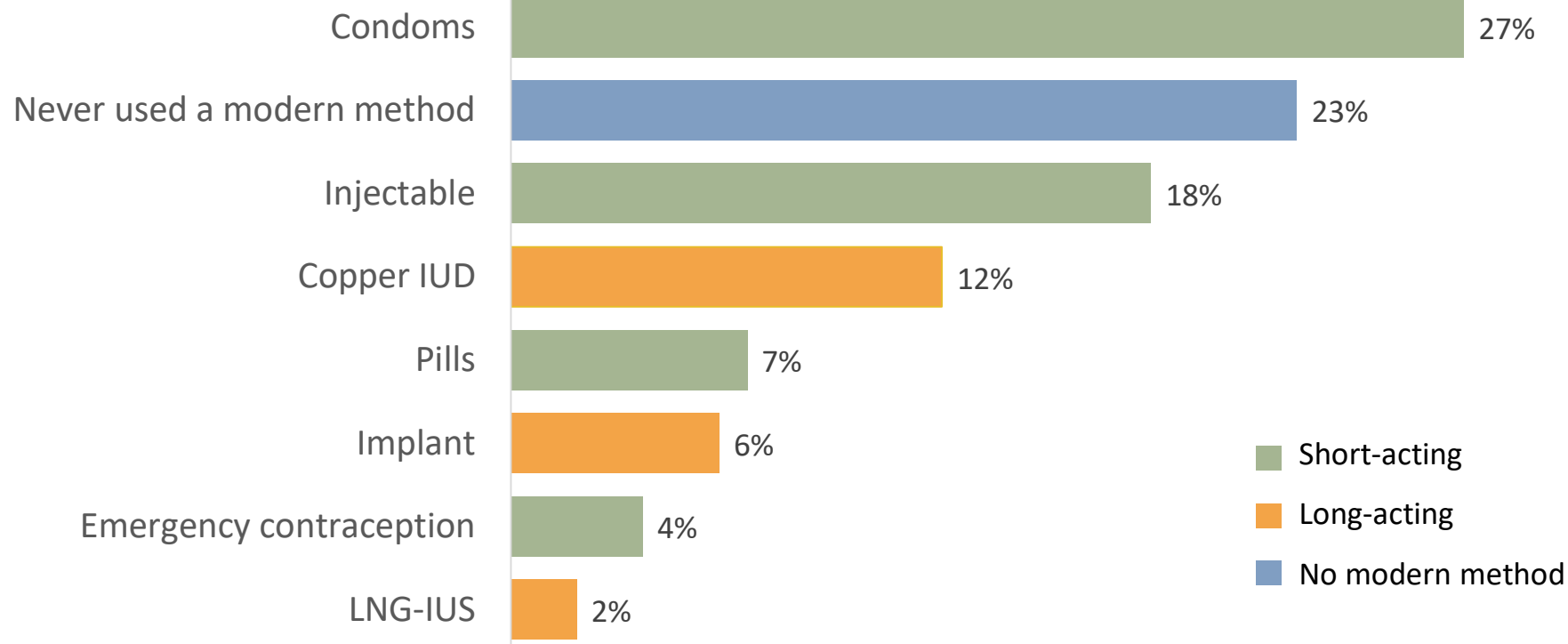


70-77% of LARC acceptors had ever used a modern method. Prior IUD use was highest among LNG-IUS and copper IUD acceptors. 15% or fewer of LARC users had ever used the same method before.

## Last method used (among LNG-IUS acceptors)



Baseline method



n=266



23% of LNG-IUS acceptors were new users. The most common method LNG-IUS acceptors reported last using were male condoms, injectables and the copper IUD. 56% of women were using a short-acting method as their last method prior to the LNG-IUS.



## Awareness of and demand for the LNG-IUS



Had heard about LNG-IUS at time of survey



N/A



28%



25%



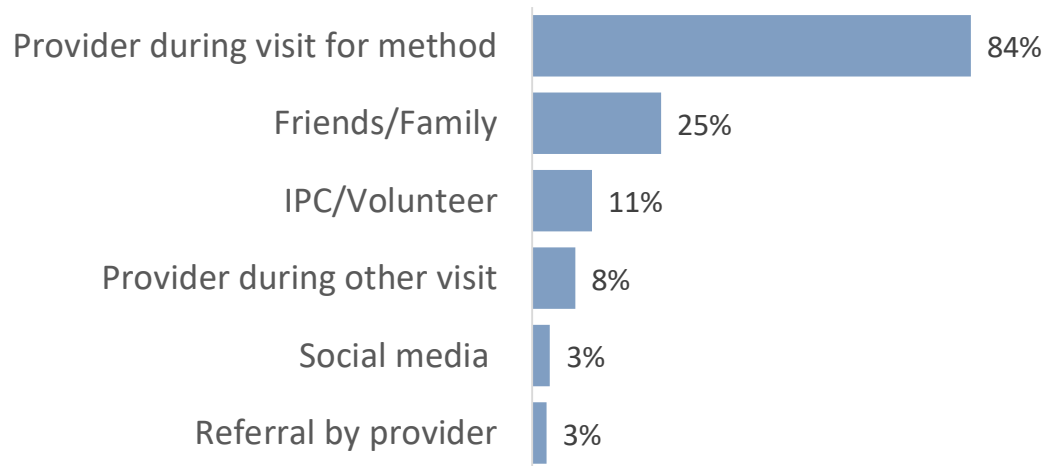
36%

Baseline method



n=622

### Sources of information about the LNG-IUS among women who had heard about the method, including LNG-IUS users\*



\* Multiple responses possible



n=437



Awareness of the LNG-IUS was generally limited among women who chose other methods. Providers were the main source of information about the LNG-IUS.



# Contraceptive decision-making



Baseline method	Knew method they wanted before visit	Chose method without being influenced by others*	Partner knows they are using method
	50%	70%	89%
	59%	76%	91%
	60%	78%	91%
	74%	83%	81%

\* Primary source of influence among women who reported being influenced by others (n=85)

- Friends/colleagues (47%)
- Providers (22%)
- Other family members (15%)
- Partners (14%)

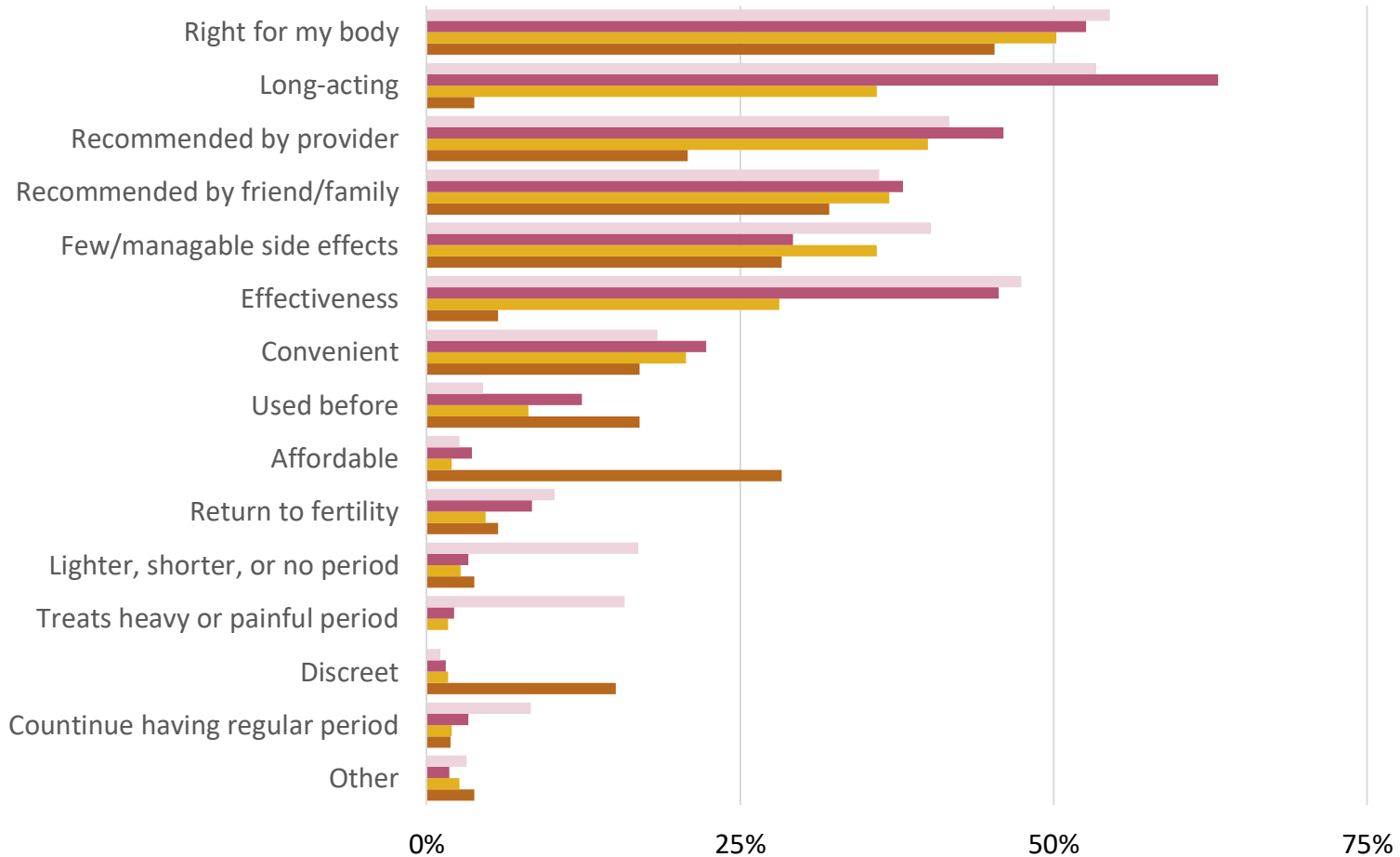
n=888



Half of LNG-IUS acceptors already knew the method they wanted before their visit, which is less than for other methods. Most women reported choosing the method on their own. Partner awareness of method use was higher among LARC users compared to injectable users.

Reasons for method choice\*

Baseline method    



n=888

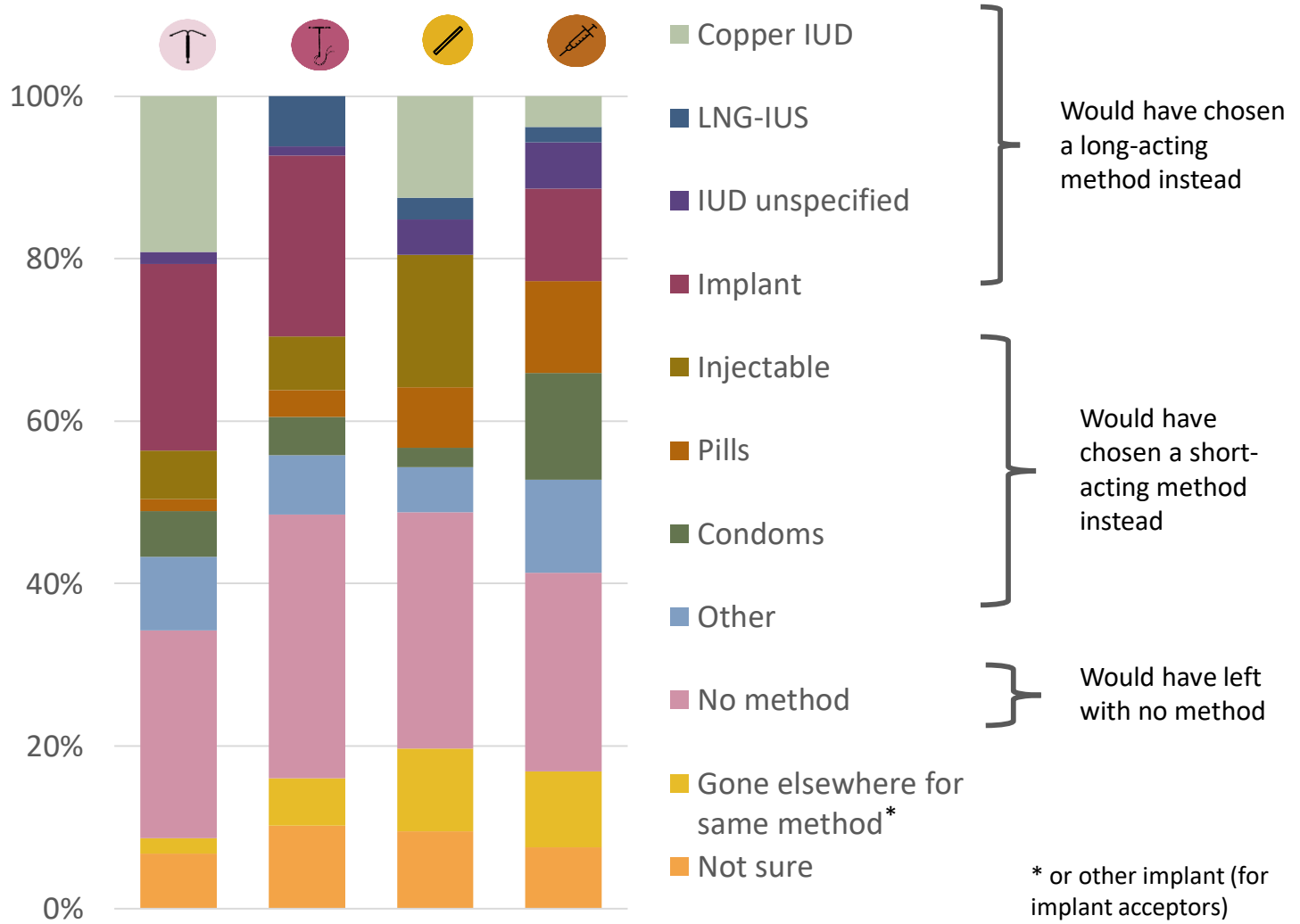
\* Multiple responses possible

The most common reasons for choosing a method were similar across LARCs, including “right for body,” long-acting, effectiveness, few/manageable side effects, recommended by provider, and recommended by friends/family. A smaller but sizable proportion of LNG-IUS acceptors cited reduced bleeding and treatment of heavy or painful period.



# Method client would have chosen if method received not available

Baseline method



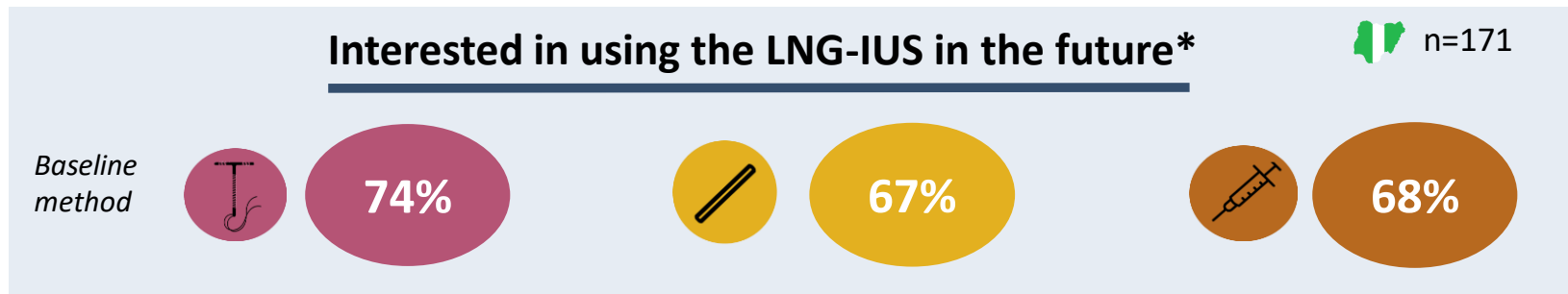
n=888

\* or other implant (for implant acceptors)








Overall, 29% of women would have walked away without a method if the method they received had not been available. Among LNG-IUS acceptors, 44% would have opted for another LARC and 14% for a short-acting method, and 26% would have left with no method.

# Interest in LNG-IUS among women who chose other methods



**Reasons not interested in using the LNG-IUS in the future among women who were not sure or not interested in using the LNG-IUS (top reasons\*\*)** n=51

-  **27%** Fear of insertion procedure
-  **10%** Concerned about side effects
-  **8%** Concerned about bleeding disturbances
-  **8%** Has hormones
-  **8%** Afraid will travel in body

\* Among those who had heard about the method





\*\* Multiple responses possible




Between 2/3 and 3/4 of copper IUD, implant and injectable acceptors said they may be interested in using the LNG-IUS at some point in the future. Among those who were not interested, the main reason was fear of the insertion procedure.

# Service delivery experiences



Baseline method	LNG-IUS 	Copper IUD 	Implant 	Injectable 
Told about other methods	90%	85%	87%	91%
Told about bleeding changes and/or side effects	85%	84%	83%	68%
Correctly reported duration of protection*	90%	77%	80%	93%
Told can remove at any time	98%	97%	96%	NA
Felt privacy sufficient	94%	94%	93%	98%
Had problem when received method	33%	33%	26%	8%
Median price paid for method (Naira)	3000	1500	1500	500

 n=888

\*n=804; 31 implant clients did not know the type of implant they had and were excluded from this calculation



Many but not all women recalled being counseled on other methods, bleeding changes and/or side effects, and, for LARCs, on when to get a removal. 26-33% of LARC acceptors reported problems with method insertion.



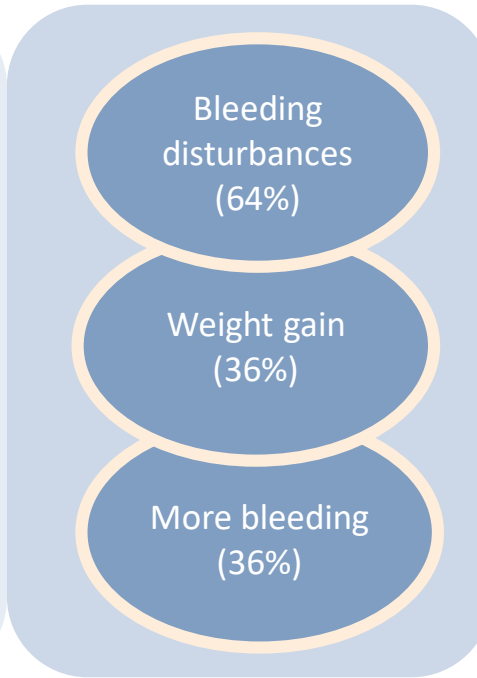
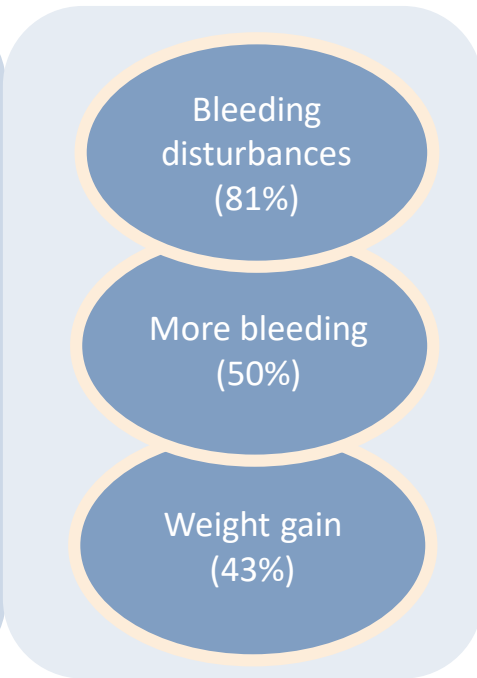
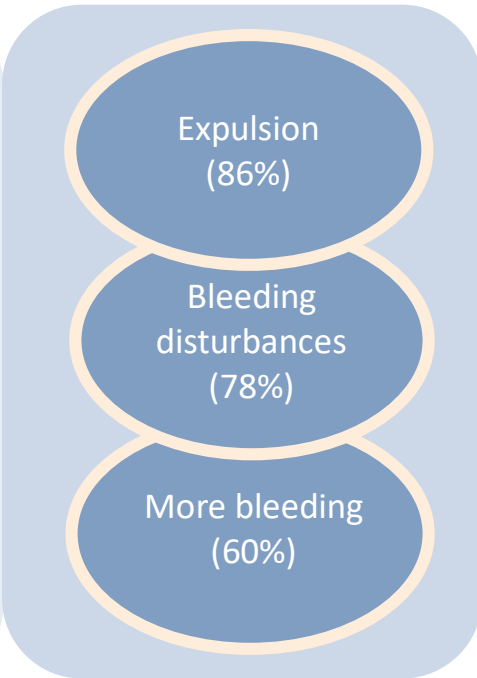
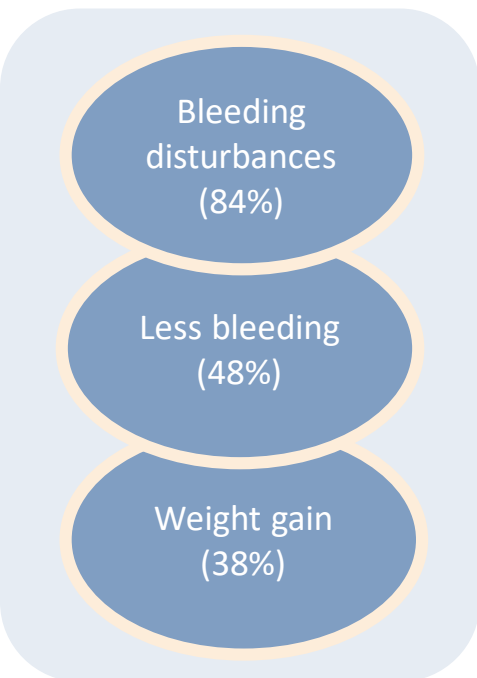


# Counseling on bleeding changes and side effects for method received (top 3)



As reported by clients among women counseled\*

*Baseline method*



n=737

\* Multiple responses possible



The most commonly reported counseling messages were around bleeding changes. Based on women's reports, there may be some gaps in the amount and quality of counseling on both bleeding changes and side effects.



**In-depth  
interviews**



## Facilitators to LNG-IUS uptake emerging from IDIs with women



Like other LARCs, **the LNG-IUS offers:**

- Peace of mind during sex
- Freedom to focus on work and on raising children properly
- Convenience of fewer clinic visits and reduced user involvement



**Reduced bleeding and treatment of menorrhagia are attractive**, especially for prior copper IUD users, because of reduced use of pads and washing of blood and greater freedom to go about activities



**Experiential input by others on potential side effects** is important but some women are also prepared to give methods “a try”



**Method presentation by provider** is influential



## Facilitators to LNG-IUS uptake emerging from IDIs with women



*I am enjoying it because I am seeing my period normal, and before, when I was using [the copper] IUD, my period used to rush. But this one, it maintained the period, I can walk with pants without putting anything now...Before, I used three pads and now I only use pants, so it's very important.*

- LNG-IUS user



*It was the nurse that told me about it, she told me that they have brought a new one (method) and that it may be better than the other ones then I said okay let me just use it and see.*

- LNG-IUS user



*I like it and now that I don't want to have another baby if not because of it I could have another pregnancy but now I am free any time any moment my husband come. I don't have any fear on my mind so I like it. – LNG-IUS user*



## Barriers to LNG-IUS uptake emerging from IDIs with women



Some women have **concerns about intrauterine placement**, although **among those, some choose the LNG-IUS anyway**



**Acceptability of amenorrhea is mixed** due to myths around “dirt” accumulating in the body, concerns about being pregnant, and a perception that periods are natural and part of women’s identity



Provider **messaging** about LNG-IUS-induced bleeding changes can sometimes be confusing to women; messages can be **inconsistent** or contradictory



The price at which the LNG-IUS is offered through SFH clinics is higher than the price of other methods. Women **did not bring enough** money or faced **challenges raising money** to pay for the LNG-IUS



## Barriers to LNG-IUS uptake emerging from IDIs with women



*If the period is not flowing regularly as it should, then it is not good...I would prefer the lesser flow at least to not having the flow at all...I would prefer to see it because it makes me feel like a woman and normal.*

- Implant user



*I was not told anything, except that my period will come and leave as and when due*

-LNG-IUS user



*I didn't have the money that day and I told [the provider] I will go back and when I get the money, I will come back. When I got the money, I came back, she removed this other one and inserted this one.*

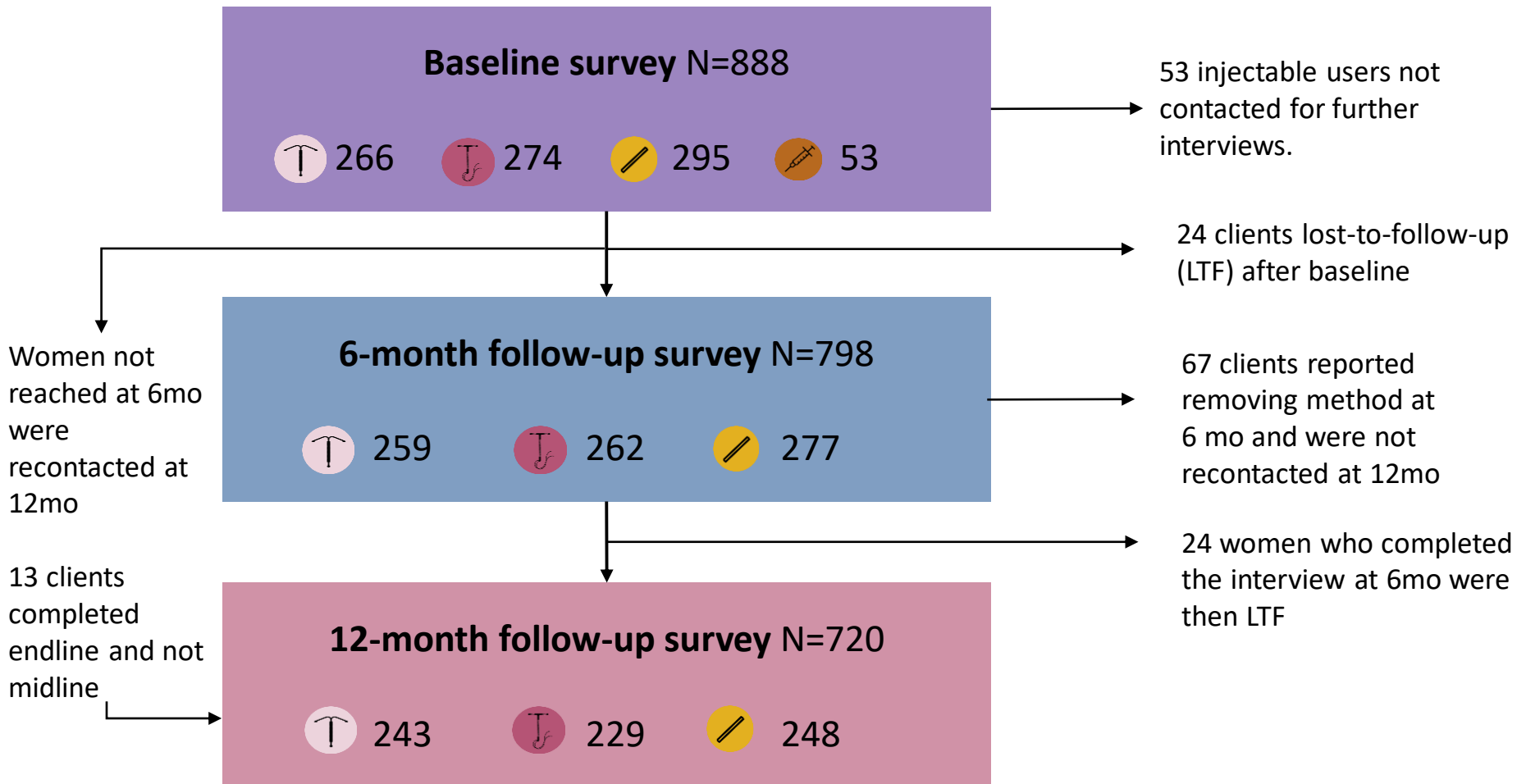
-LNG-IUS user


# Continuation results



Photo by: Jessica  
Scranton/FHI 360

## Longitudinal design



 **Direct comparisons between 6 month and 12 month outcomes** (such as concluding that a certain factor increased or decreased over time) **should be avoided** because of the differences in the two samples.





## Continuation rates


**6 month continuation rates**  **n= 752**
**Estimate (95% CI)**


LNG-IUS



Copper IUD



Implant

94.3% (90.7%-96.5%)

92.4% (88.5%-95.0%)

91.6% (87.7%-94.3%)

**12 month continuation rates**  **n=675**
**Estimate (95% CI)**


LNG-IUS



Copper IUD



Implant

86.8% (82.1%-90.4%)

86.9% (82.1%-90.4%)

85.0% (80.2%-88.7%)



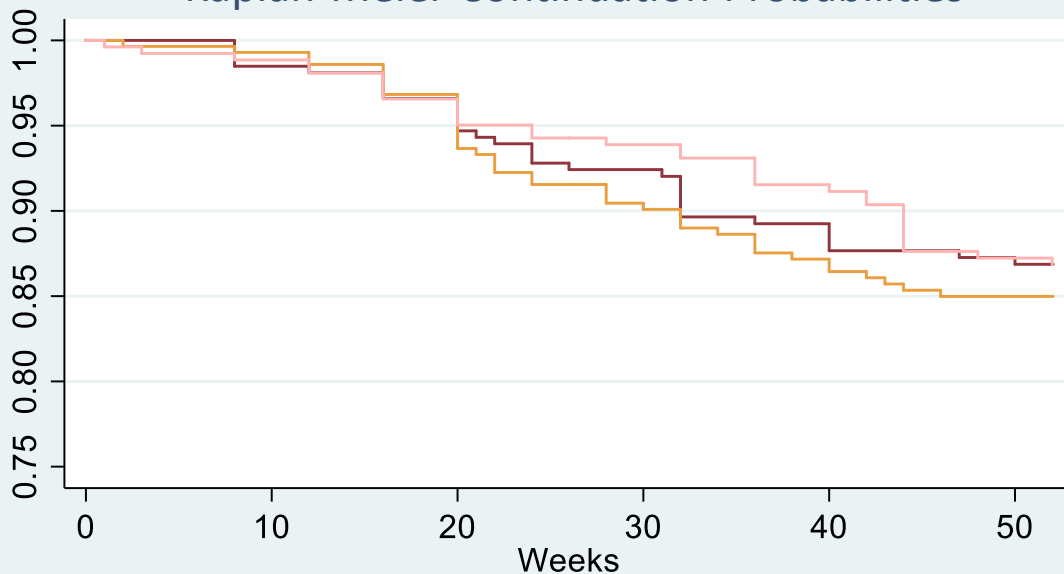
Over the course of the study 34 LNG-IUS, 34 Copper IUD, and 42 implant users reported that they stopped using their methods. Continuation rates for the LNG-IUS were 94% at six months and 87% at 12 months.






# Continuation rate curves



Kaplan-Meier Continuation Probabilities



Number at risk

	Baseline	6 months	12 months
	273	245	219
	266	247	223
	295	260	230

## Log-rank test for equality\*

method	events observed	events expected
Copper IUD	34	35.65
LNG-IUS	34	36.18
Implant	42	38.17

chi2 = 0.6  
p-value = 0.7419



\*This test has **low power** (large type II error) because sample sizes were calculated to estimate method-specific continuation rates rather than comparisons.



No statistically significant differences were found in the survival curves across the three methods.

# Satisfaction with methods



At 6 months n=798

At 12 months n=720

Baseline method



Satisfied with method

97%	94%	93%
-----	-----	-----

98%	100%	96%
-----	------	-----



Happy with bleeding pattern

90%	81%	73%
-----	-----	-----

88%	93%	84%
-----	-----	-----



Recommended method to someone else

89%	86%	81%
-----	-----	-----

93%	95%	94%
-----	-----	-----



Advised someone else not to use method

2%	3%	5%
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5%	5%	6%
----	----	----



Overall satisfaction with the method and with the bleeding pattern experienced are higher with the LNG-IUS relative to other LARCs after 6 months but results are more similar with those for the copper IUD in the 12 month sample.



# Self-reported positive aspects of method use



Baseline method



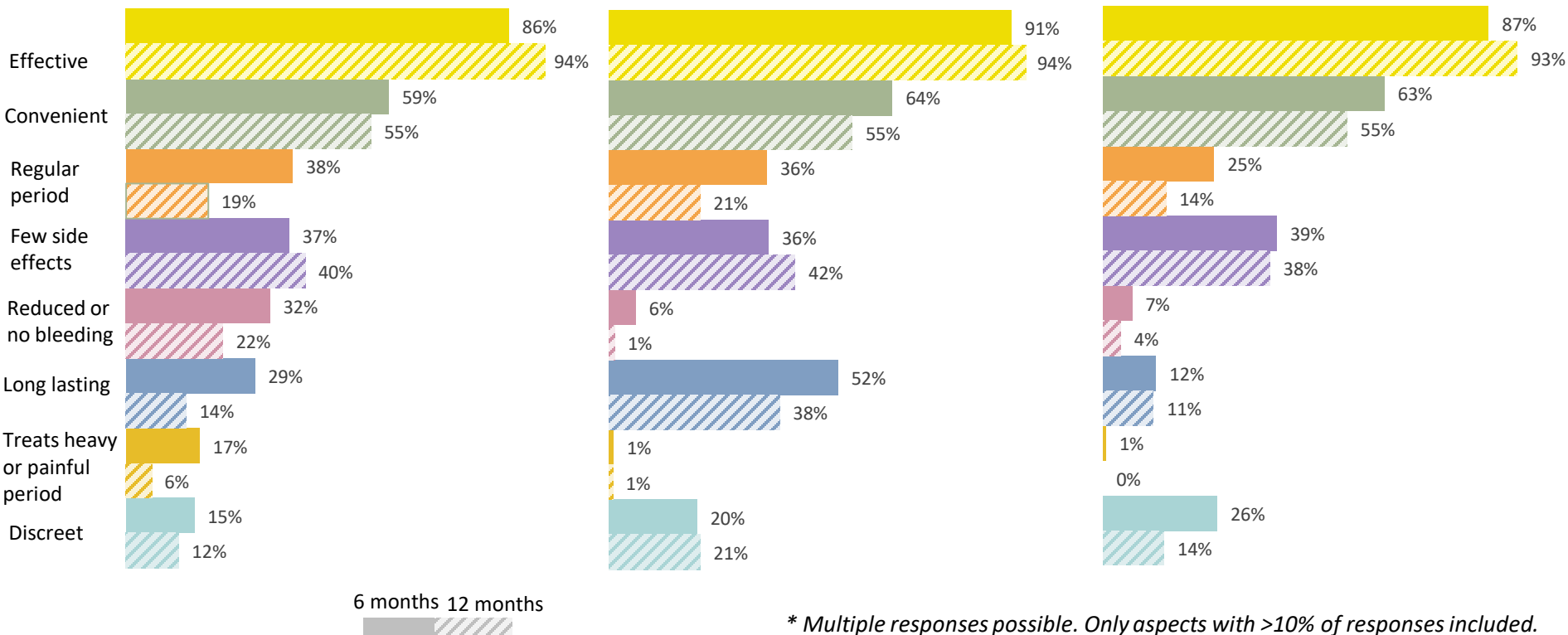
n=259  
n=243



n=262  
n=229



n=277  
n=248

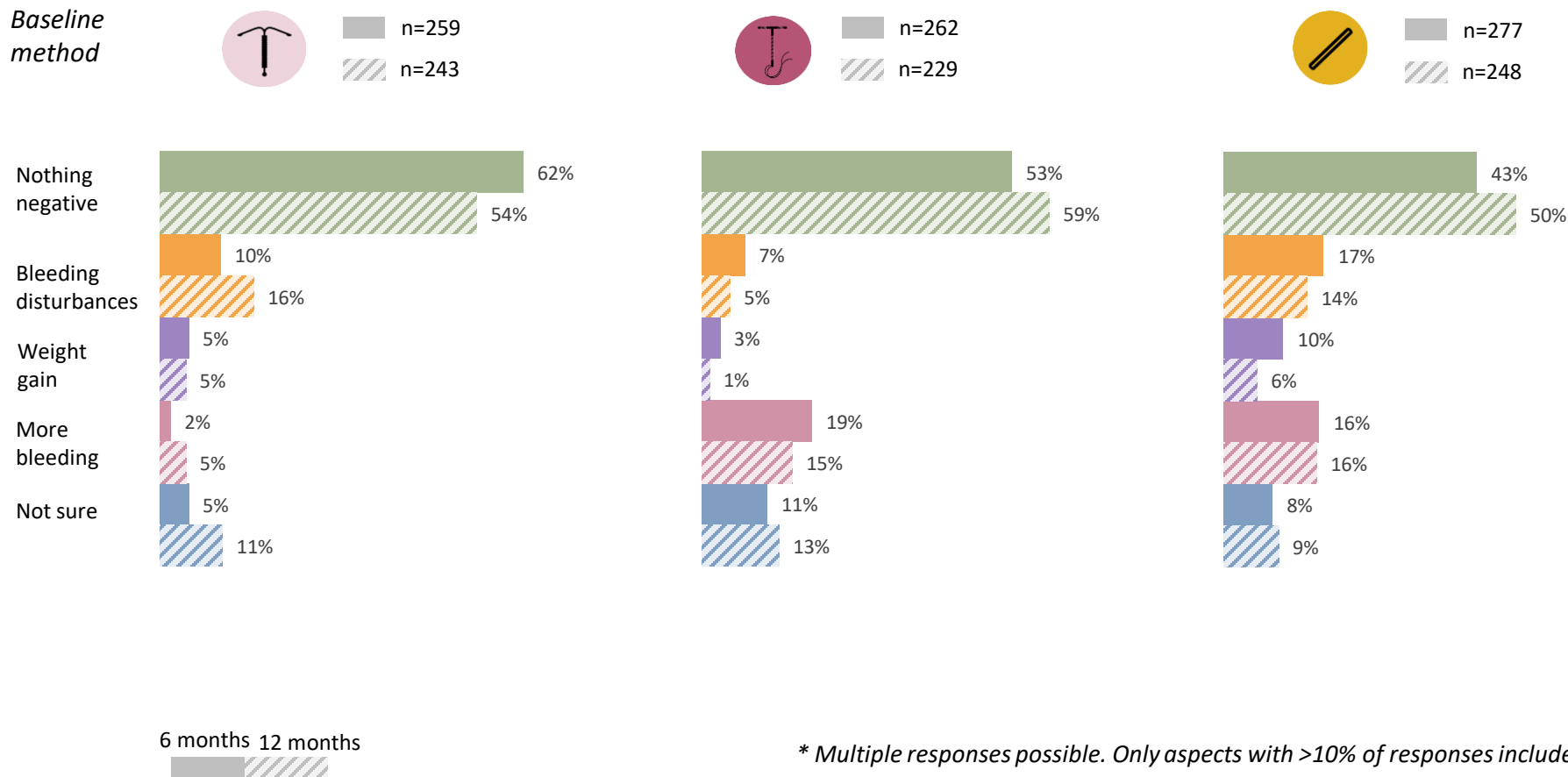


\* Multiple responses possible. Only aspects with >10% of responses included.



Perceived positive aspects of the LNG-IUS shared with other methods were similar in the 6 and 12 month samples. They included effectiveness, convenience and few side effects. A sizable proportion of LNG-IUS also reported reduced bleeding as a benefit.

# Self-reported negative aspects of method use



Many women reported experiencing nothing negative about their method. The most commonly reported negative aspect associated with the LNG-IUS was bleeding disturbances, whereas for copper IUD and implant users, it was increased bleeding.

Most commonly reported side effects (other than bleeding changes)\*



Baseline method



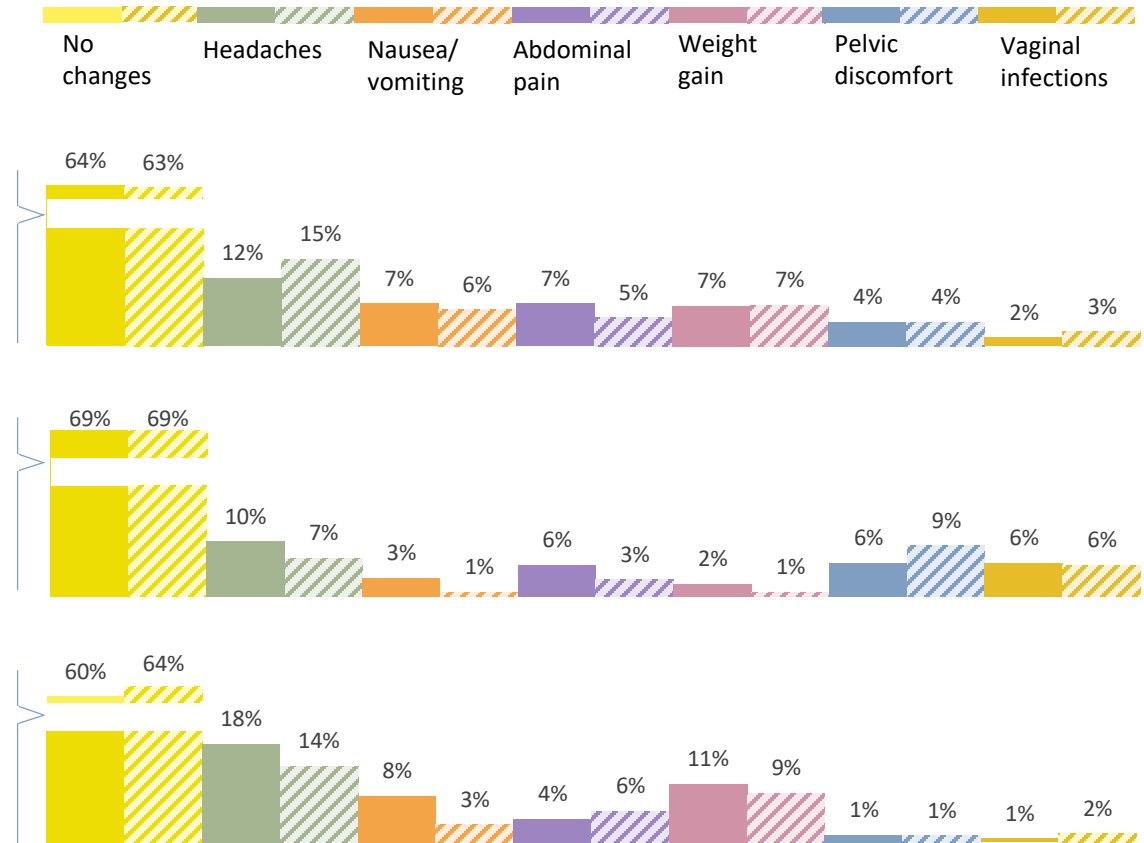
n=259  
n=243



n=262  
n=229



n=277  
n=248



6 months 12 months

\* Multiple responses possible

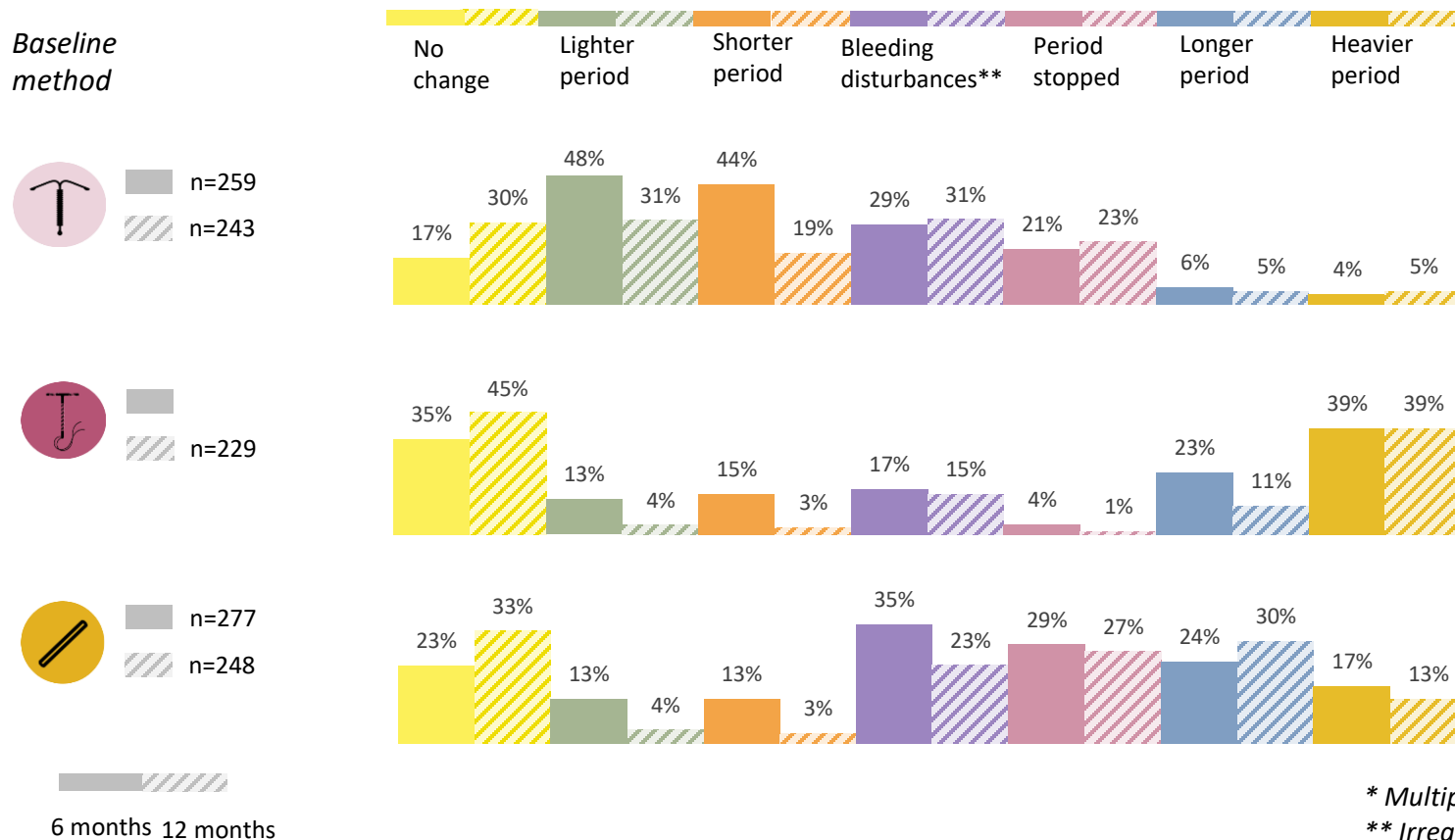


Across methods and time points, the majority of women reported not having experienced side effects. Headaches were the most commonly reported side effect.



# Most commonly reported bleeding changes\*

6 months n=798 12 months n=720



\* Multiple responses possible  
 \*\* Irregular period, spotting



The most commonly reported bleeding changes with the LNG-IUS were lighter and/or shorter period. More implant users reported amenorrhea compared to LNG-IUS users, while more copper IUD reported heavier bleeding compared to women using other methods.

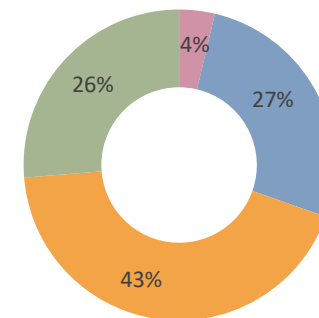
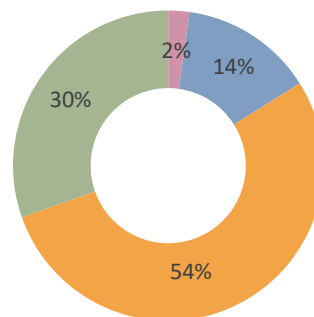
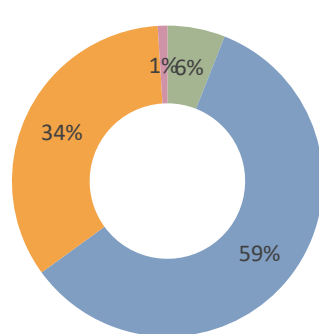
# Menstrual hygiene management



Menstrual product use at time of survey compared to before starting their method

■ More products    
 ■ Same amount    
 ■ Fewer products    
 ■ Different products

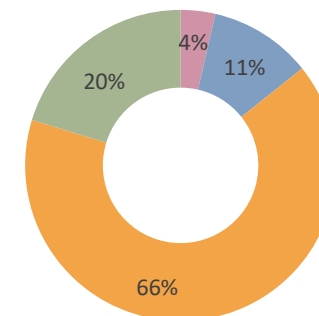
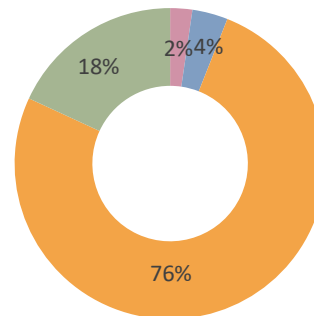
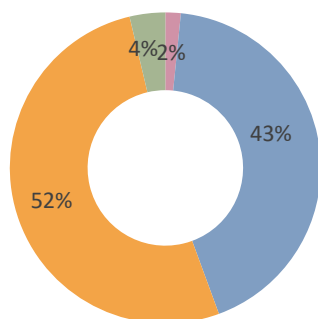
6 months



Baseline method



12 months



6 months n=765 12 months n=674; Only asked to continuers. 66 clients at ML and 75 clients and EL refused to answer this question.



Over 3/4 of women reported primarily using disposable pads to manage their period across methods and time points. More LNG-IUS users reported a reduction in the amount of menstrual products used compared to before they received their method relative to users of other LARCs.





# Perspectives on impact of reduced bleeding on aspects of women's lives

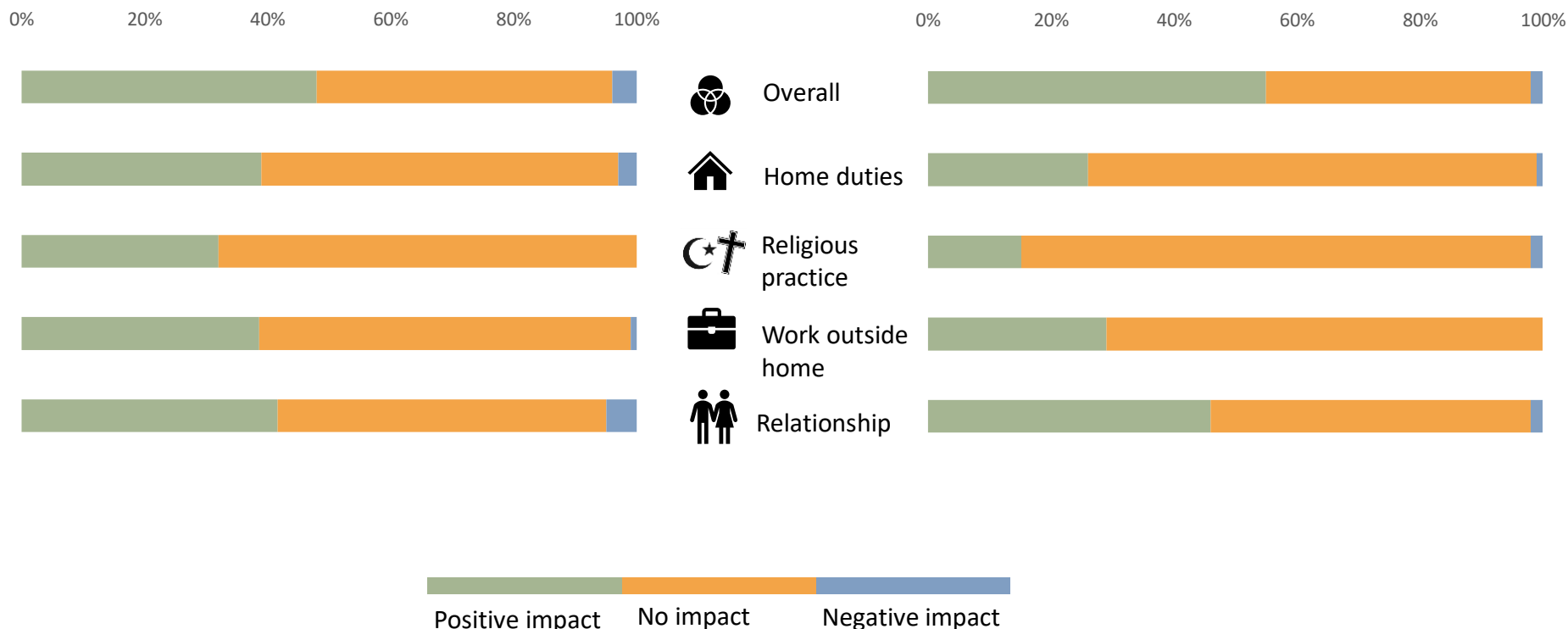
(among LNG-IUS users who experienced a lighter period, shorter period and/or no period)



**6 months**  
n=137



**12 months**  
n=89

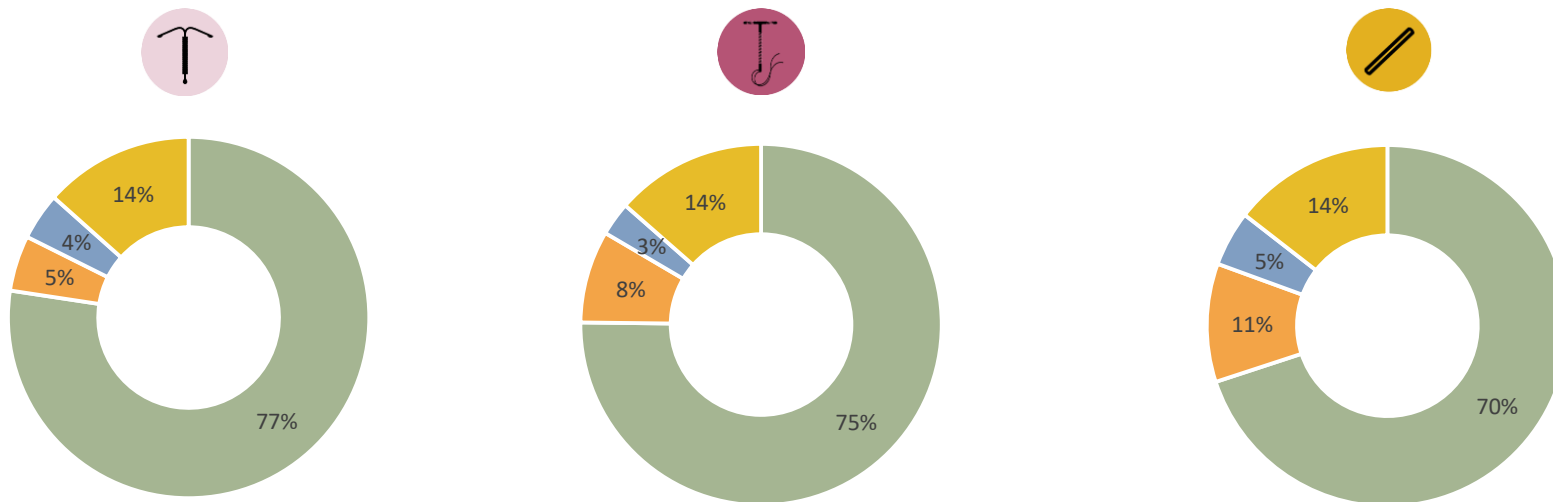


48-55% of LNG-IUS users who said they had experienced reduced bleeding reported that reduced bleeding had had a positive impact on their lives overall. When asked about specific aspects of their lives, the proportion of women reporting a positive impact was highest for relationship with partner.

# Removal intention outcomes



Baseline method



N=811



**Main reasons kept method among those wanting removal (n=33)**

**LNG-IUS:** provider counselled to keep (n=9/11)

**Copper IUD:** provider counselled to keep (n=7/8)

**Implant:** provider counselled to keep (n=12/14)

**Main reasons never tried to get removal among those wanting removal (n=65)**

**LNG-IUS:** 5 changed their mind, 4 had a partner who wanted it kept, 3 had side effects/bleeding changes that improved

**Copper IUD:** 8 had no time, 6 changed their mind, 5 had side effects/bleeding changes that improved

**Implant:** 12 changed their mind, and 12 had side effects/bleeding changes that improved



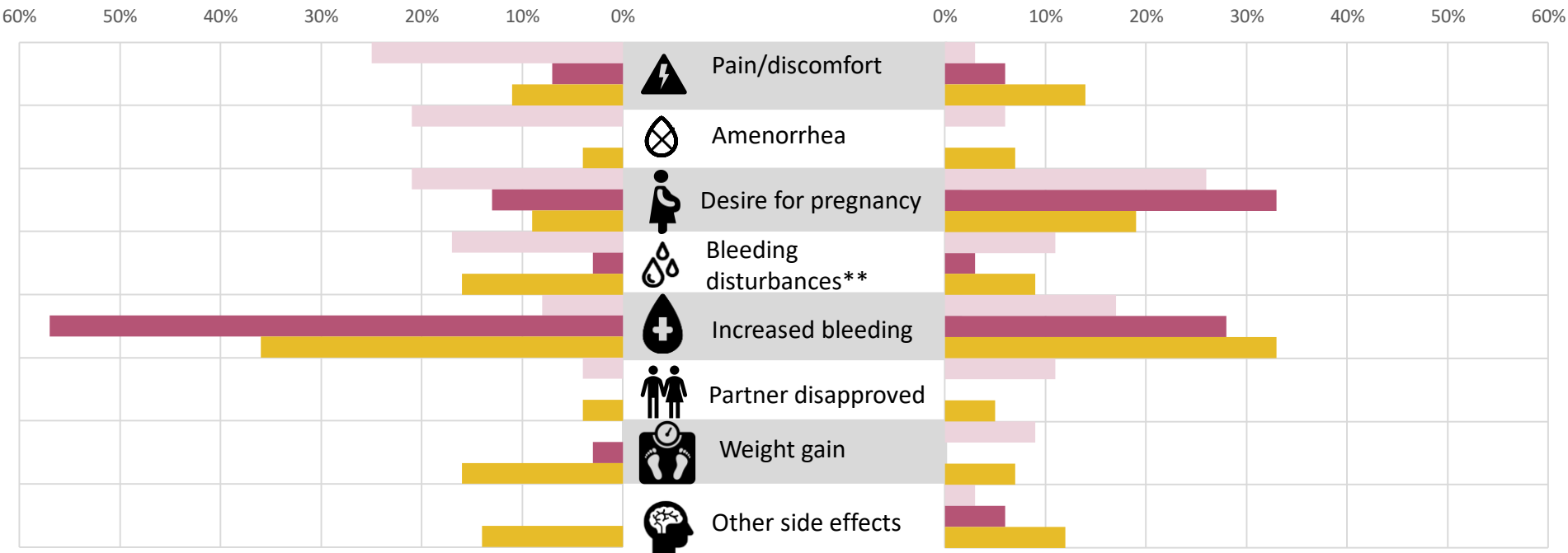
Across methods, 70-77% of women never considered getting their method removed and 5-10% thought about removing their method but never went to a provider to ask to get it removed. Close to a quarter of women consulted a provider about a removal but kept their method.

Reasons for wanting removals\*



Among those who kept method  
n=98

Among those who removed method  
n=113



Baseline method



\* Multiple responses possible  
\*\* Irregular period, spotting



The main reasons for wanting a removal among women who removed their method were desire for pregnancy and increased bleeding across methods. Among women who kept their method, reasons varied based on the method.

## LEAP Partners & Project Team



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...Creating Change, Enhancing Lives

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