



**CT Innovation Lab**

Imagining the future of women's contraception

Project Report / March 2018

# Context Setting

The project was conducted by multiple partners:

**FHI 360**, a non-profit organization dedicated to improving lives in lasting ways by advancing integrated, locally driven solutions.

**Quicksand**, a design-thinking and innovation consultancy based in India and working across the global south.

**Pabla van Heck**, a freelance social intrapreneur who helps organizations navigate the fuzzy front end of social innovation for (women in) emerging markets.

This work was funded by **The Bill & Melinda Gates Foundation** whose goal is to give people the tools to lead healthy productive lives.

**Leveraging human-centered design methodologies to facilitate insight-driven ideation, for generating new product ideas in women's contraceptive technology.**

**What you can use this document for?**



## Why Contraceptive Ideation?

The unmet need for contraception among women is high, which has led to a global commitment by governments and non-governmental organizations to add 120 million modern contraceptive users by 2020.

Barriers to contraceptive use result in:

- discontinuation / non-use of existing contraceptive products owing to dissatisfaction and side effects;
- dissatisfaction / switching among users of existing products;
- incremental modifications or improvements of existing drugs and delivery systems with limited new-to-the-world products in the pipeline.

All of the above ladder to a BIG OPPORTUNITY to look for disruptive technologies that add to the contraceptive product pipeline.

## Why Human-Centered Design?

We wanted to take a new approach to contraceptive development - one that started with a deep understanding of user needs and allowed for divergent, disruptive thinking. So, we adopted a human-centered design (HCD) methodology. HCD is new to the contraceptive field. It involves:

- starting with user insights and needs;
- bringing together a diverse set of experts;
- using methodologies designed to stimulate out-of-the-box solutions to address user needs.

Our goal was to create a large volume of product concepts that explore novel options for new drugs, mechanisms of action and delivery systems that can ultimately provide products that users will demand.

***Driving ideation for a future world with unknown contours is challenging. HCD seeks to create a shared understanding of the context, needs, perspectives of the people (as users) we are designing for.***

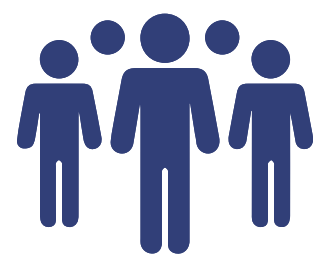
***It allows us to go from the existing conditions of ‘what is’ to the future-making potential of ‘what if’.***

## Why Kenya + India?

In seeking to develop new contraceptive technologies that address the needs of women in low-resource settings, the team aligned on Kenya and India as regional 'bellwethers' for (East) Africa and (South) Asia. Selection criteria included a number of factors ranging from economic access to cultural norms and healthcare provision. Kenya and India were strategically selected to generate insights that when compared and contrasted would help represent the broad needs of women in developing contexts and result in technologies that will resonate beyond geographic borders.

***Kenya and India as regional 'bellwethers' for (East) Africa and (South) Asia.***

Kenya and India were chosen as representing two very different contexts in scale, median age, economic realities, epidemiological profiles, socio-cultural contexts, access to information, health sectors and access to contraception.



Scale

**K** ~ 47 million | **In** ~ 1.3 billion

Kenya is less than 1/5 the size of India (224,081 cubic miles compared with 1.3 million cubic miles)

Average HH size (ArcGIS) -  
**K** - 4.4 members (2015)  
**In** - 4.9 members (2016)

**K** - Median age is 20, 60% of the population is under 24, 40% is under 15.  
**In** - Median age is 28, 45% of the population is under 24, 27% is under 15.



Access to information

Both countries are considered 'innovators' in their respective regions, have high levels of mobile phone penetration and relatively high internet usage, especially when compared with their regional neighbors. Access to multiple information sources, from TV to radio and newspapers, is also high.

% Pop Using:  
Internet: **K** ~ 26%, **In** ~ 29.5% (CIA Worldbook)  
Mobile phones : **K** ~ 83%, **In** ~ 89% (CIA Worldbook, est.2016)



Economic Realities

Per capita Income<sup>1</sup>: **K** ~ \$1380, **In** ~ \$1680

Unemployment Rates<sup>2</sup>: **K** 2013 ~ 40%, **In** 2015 ~ 8.5%

% Pop below poverty line:  
**K** 2012 ~ 43.4%, **In** 2011 ~ 21.9%

1. GNI, US \$ - Atlas - World Bank; est. 2016
2. Informal sector/'grey' economy work is challenging to capture

Socio-cultural Contexts

Societal factors, from the importance/influence of extended families and prevalence of early marriage in India to pronatalism, female-headed households and normalization of multiple partners in Kenya, have all had an enormous impact.

**K** - Three predominant religions- Christian 83%, Muslim 11.2%, Traditionalists 1.7% (2009 est.)  
**In** - Four predominant religions- Hindu 79.8%, Muslim 14.2%, Christian 2.3%, Sikh 1.7%





### Health

Most Kenyans receive healthcare through public sector dispensaries or health centers as well as private for-profit clinics, chemists and missionary hospitals.

India's health system is relatively well-developed with several efforts made to also strengthen frontline staff, from public-sector ASHAs and ANMs to private sector RMPs and chemists.

Total Health Expenditures:  
**K** ~ 6.8% of GDP (2012-13)  
The private sector supports 2/5th of Kenya's health sector.  
**In** ~ 4.02% of GDP (2013-14)  
Govt. expenditures on health is only 1.15% of GDP>

Physician Density:  
**K** ~ 0.2 /1000 population (est. 2013)  
**In** ~ 0.6 /1000 population (est. 2014)



### Epidemiological Profile

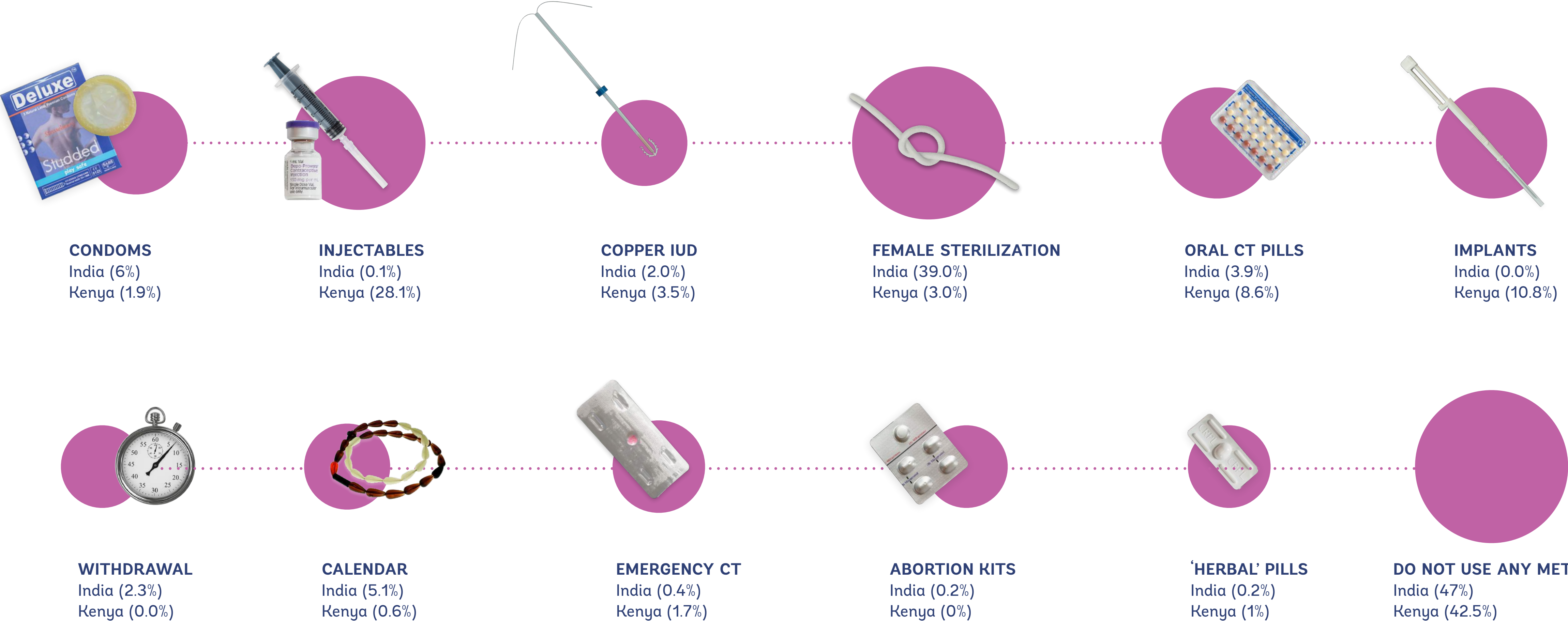
The visibility and threat of HIV is greater in the Kenyan context. This has had an important impact on SRH campaigns targeting dual prevention of pregnancy and HIV, and it has helped shape perceptions around partner fidelity and the appropriateness of certain contraceptive methods, all of which are less apparent in India.



### Access to Contraception

In Kenya, contraceptive use is common (56% use a modern method) and a range of contraceptive methods, from LARCs to short-acting, are available, with injectables the most commonly used (28%).

For Indian women, a limited contraceptive portfolio is a greater barrier than access to methods. Historically, sterilization has been the main method, but it does not address delaying or spacing needs.



Percentages here represent the estimates of contraceptive prevalence of these methods among married or in-union women aged 15-49.  
Source: United Nations, Department of Economic and Social Affairs, Population Division (2015) - Trends in Contraceptive Use Worldwide 2015, NFHS 4

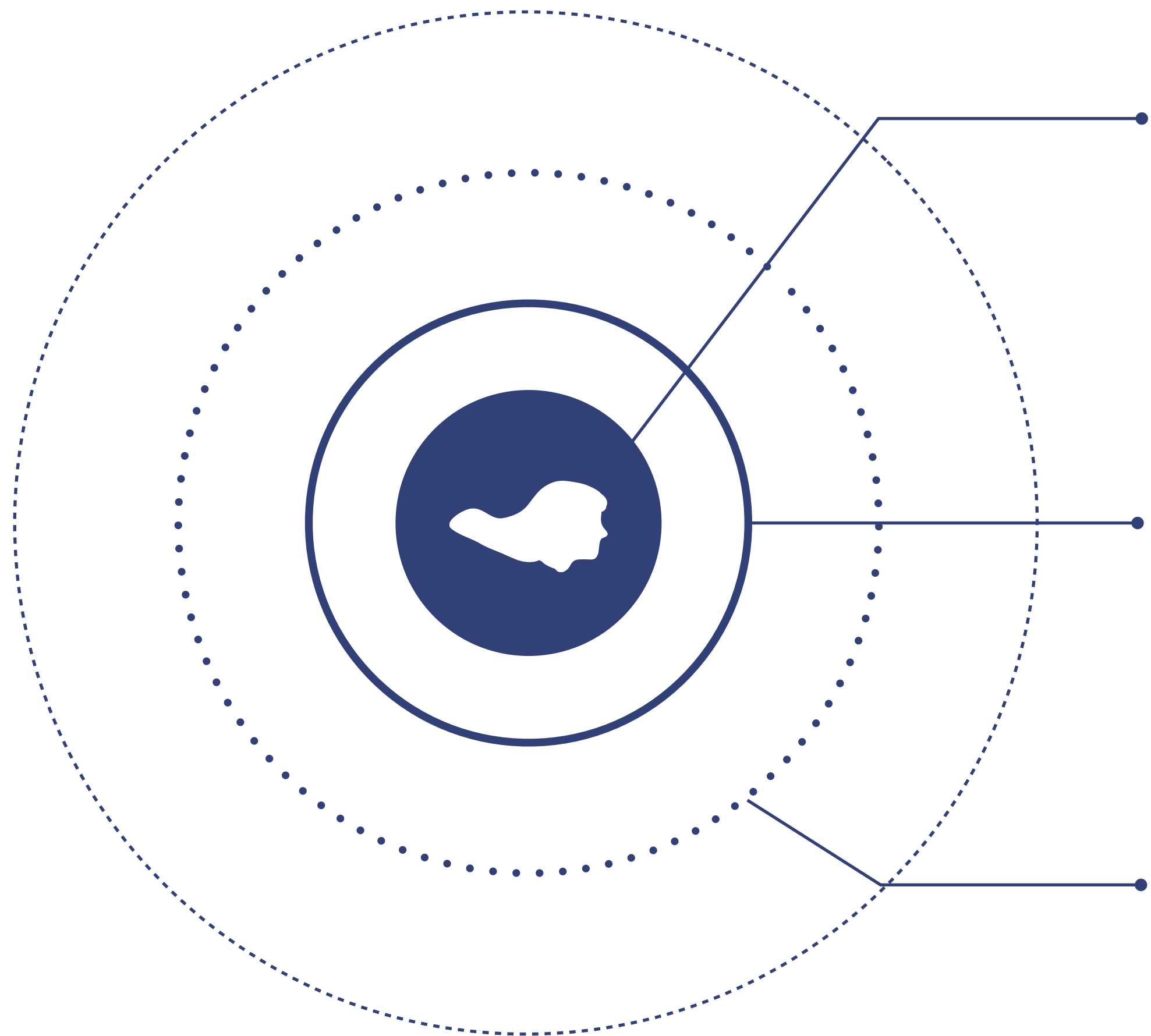
KENYA

<p><b>pros</b> : easily available, low cost, no side effects, on-demand</p> <p><b>cons</b> : requires partner’s cooperation</p>	<p><b>pros</b> : easily available</p> <p><b>cons</b> : easy to forget, nausea, headaches</p>	<p><b>pros</b> : discreet, quick application</p> <p><b>cons</b> : amenorrhoea, heavy menses, easy to forget follow-up dosage</p>	<p><b>pros</b> : hassle free, long acting</p> <p><b>cons</b> : low libido weight gain/loss, irregular menses, invasive, dizziness</p>	<p><b>cons</b> : vaginal insertion</p>	<p><b>cons</b> : very invasive</p>	<p>not available in Kenya</p>	<p><b>pros</b> : natural</p> <p><b>cons</b> : difficult to calculate, easy to forget</p>			<p><b>pros</b> : easy to access, on-demand</p> <p><b>cons</b> : expensive, can be misused</p>
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Condom	OCP	Injectable	Implant	IUD	Female Sterilization	Abortion Kit	Calendar	Withdrawal	Vaginal Suppository	EC Pill

<p><b>pros</b> : easily available, low cost, no side effects</p> <p><b>cons</b> : fear of breaking, reduces pleasure</p>	<p>One of the commonly used methods</p> <p><b>pros</b> : easily available, regulates periods</p> <p><b>cons</b> : difficult to adhere to (might forget to take daily), initial side effects - nausea and headaches, weight gain</p>	<p>Not available to a majority of the population. Steps are taken by the govt. to make it available through govt. channels</p>	<p>Not available in India</p>	<p><b>pros</b> : long-term spacing</p> <p><b>cons</b> : heavy bleeding &amp; pain, fear of it traveling in the body, white discharge, against religious beliefs, backache, Infection</p>	<p><b>pros</b> : permanent assurance</p> <p><b>cons</b> : three-month rest period, fear of operation, against religious beliefs, discomfort</p>	<p>Easily available over the counter</p>	<p>Preferred by women/ couples who do not like using modern methods</p>	<p>Preferred by couples who do not like using modern methods</p> <p><b>pros</b> : natural (no harm to body/ feeling / no side effects)</p>	<p><b>pros</b> : easily available</p>	<p><b>pros</b> : easily available</p>
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INDIA



## Who Did We Research?

### WOMEN (Age 16 and upwards)

Spanning **users, non-users and discontinuers of contraceptive technology**, across various types of demographic profiles, primarily in lower socio-economic segments.

### ECOSYSTEM OF INFLUENCERS

Spanning **social** (family, relatives, friends, co-workers); **cultural** (community heads, spiritual leaders, markets); **institutional** (teachers, family planning clinics); **health** (health centers, pharmacists, midwives) and related influencers in their immediate ecosystem.

### CONTRACEPTIVE VALUE CHAIN

Macro ecosystem of providers who contribute to the last mile delivery of contraceptive technology, communication and support systems - from **women empowerment programs; family planning and contraceptive health agencies**; to different **supply chains** (clinics, pharmacies).



KENYA

29



In-depth Interviews

104 in 25 groups



Focus Group Discussions

22



Stakeholder Interviews

31



Intercepts

INDIA

27



96 in 22 groups



29



20







**Younger women > Age 16-24\***

**Women in the midst of family planning > Age 25-34**

**Women limiting their family size > Age 35-50**

Our research primarily focused on women whose needs are not fulfilled by the current portfolio of contraceptive technologies. We also spoke to women who were already informed about family planning and had agency over their contraceptive use, as a way to get a glimpse into the future.

In addition to end users, we met partners, other family members and healthcare providers for their perspectives.

\* In India, under the research protocols we only spoke with women under the age of 18 if they were married.





In **Kenya**, we conducted research in **Nairobi**, **Nakuru** and **Kisumu**. In **India**, the locations included **New Delhi** along with **Kolkata** and **Shantiniketan in West Bengal**.

In both the countries, the locations were picked to allow us access to a range of contexts - across factors such as city size, development stages, occupations, access to healthcare and cultural practices. Nairobi and New Delhi, for example, for the big city perspective, whereas Kisumu and Shantiniketan are smaller towns that gave us access to people from rural areas.



# Ethics and Consent

**IRB Approvals** – To conduct research in Kenya and India, we sought both FHI and local Institutional Review Board (IRB) approvals (e.g., FHI - OIRE, Kenya - KEMRI, and India - Sigma) to ensure our approach met local guidelines for the protection of respondents.

In India, the IRB strictly limited our use of identifiable participant imagery to the ideation workshop. As a result, neither this report nor any other materials disseminated outside of the ideation workshops contain photographs of the actual participants we met in India.

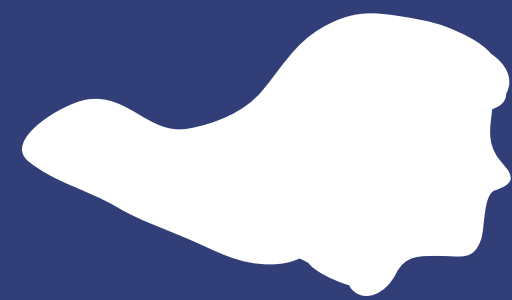
**Ethics Training** – Prior to the research, our team of international and local researchers underwent research ethics training and certification.

**Consent Process** – Before each interview and focus group discussion we made sure that we allocated enough time to walk respondents through the consent forms and ensure signed permission. This helped orient respondents to the research, engender trust and empower the respondents to opt out at any point.

For many respondents, the research was a positive experience, and they were happy to participate. There was a sense of contributing to something greater than themselves and an opportunity to further women’s empowerment.

**All photographs used in this report are anonymized and are of users who have given full consent or are of other representative users who were not part of our research.**





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