

LANDSCAPE & PROJECTION  
OF REPRODUCTIVE HEALTH  
SUPPLY NEEDS

LEAP

# A LEAP into tomorrow's supply story

**September 16, 2021**

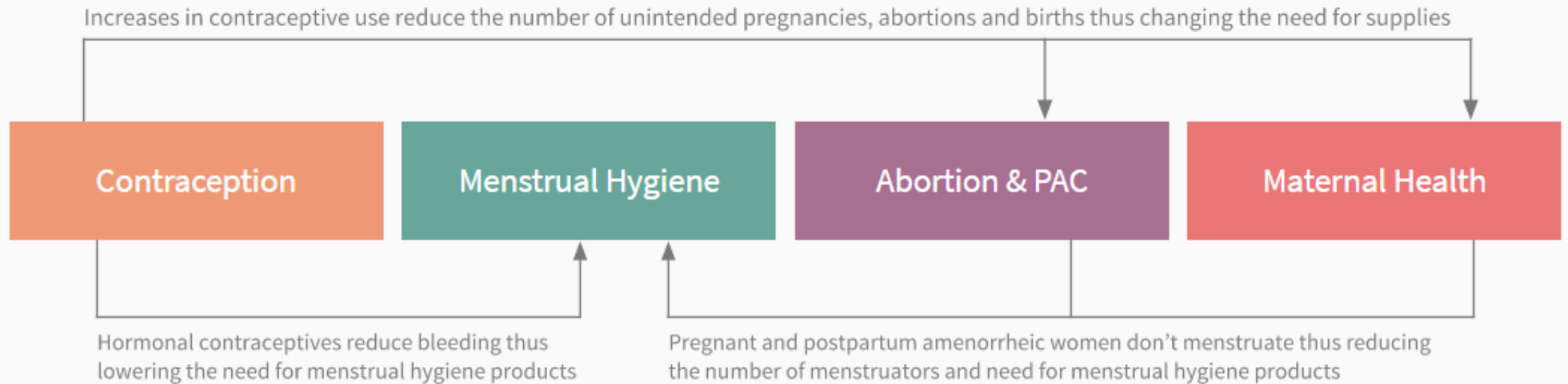
- John Skibiak, RHSC
- Michelle Weinberger, Avenir Health
- Nicole Bellows, Avenir Health
- Rachel Sanders, Avenir Health
- Meghan Reidy, Avenir Health

- **Overview of LEAP**
- **Contraception Key Findings**
- **Menstrual Hygiene Key Findings**
- **Maternal Health Key Findings**
- **Abortion & PAC Key Findings**
- **Question & Answer**

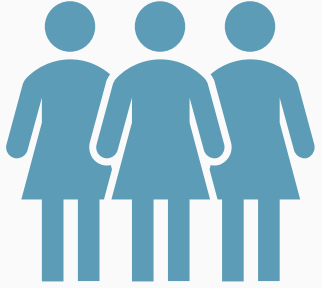


Please put your questions & comments in the chat and we will address them during the Q&A.

# Four unique stories, one big picture



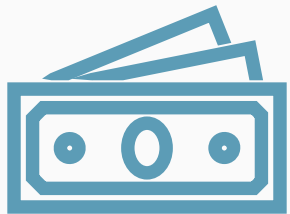
## What?



People needing and using key reproductive health products



Quantities of drugs and supplies used

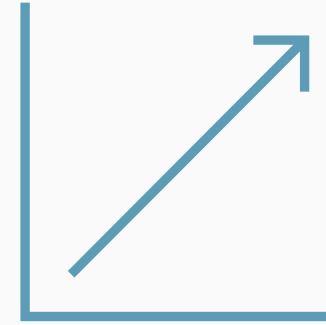


Cost of drugs and supplies



## When?

Current Landscape



Changes Ahead (2025, 2030)

## Where?



129 low- and middle-income countries

Results presented by income group:

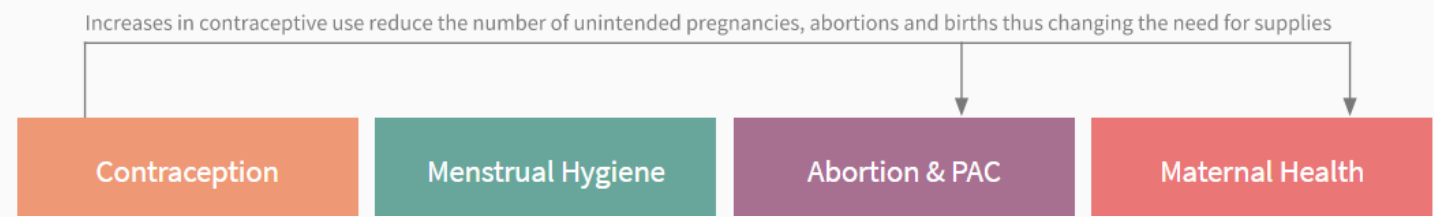
- Low-income (29 countries)
- Lower-middle-income (49 countries)
- Upper-middle-income (51 countries)

## Introduction: Expanding our Focus Across RH Supply Needs

In 2001 the Reproductive Health Supplies Coalition published what would become the first in a series of the Commodity Gap Analysis. At its foundation, the Gap Analysis had a narrow focus; covering only contraceptives and looking only at donor supported countries and predominantly public sector supplies. Over the last two decades the scope has expanded to encompass a wider set of low-and-middle-income countries, focus on the public and private sectors, provide insights into the role of subsidy within the private sector, project further into the future, and make the data and information more accessible through an interactive and online platform. All of those changes have offered the reproductive health supplies community a rich set of findings that have helped to inform critical discussions.

The expansion of the Gap Analysis, however welcomed, left a critical gap. The data only captured a sub-set of the supplies that women need to meet their reproductive health needs. This year, we break new ground by expanding to encompass three additional areas: [menstrual hygiene](#), [abortion & post-abortion care \(PAC\)](#), and [maternal health](#). Given the expansion in health areas, we have termed this new assessment LEAP for Landscape and Projection of Reproductive Health Supply Needs. We believe this new name captures the large movement forward in this year's report and better captures the breadth of the analyses included.

By expanding to these new areas, we are able to capture the synergies between them – our future projections of contraceptive use inform our estimates of how many women will experience pregnancy, which in turn inform our estimates of how many women will not be menstruating due to being pregnant or post-partum. In addition, we are able to account for the impact of the use of hormonal methods on menstruation, leading some women to need fewer or no menstrual hygiene supplies.





Overall

Overview of LEAP

Definitions

LEAP Resources

**Income Groups**



Data Sources

Timeframe

Future Scenarios

Country Groups

Relative vs Absolute

Rounding

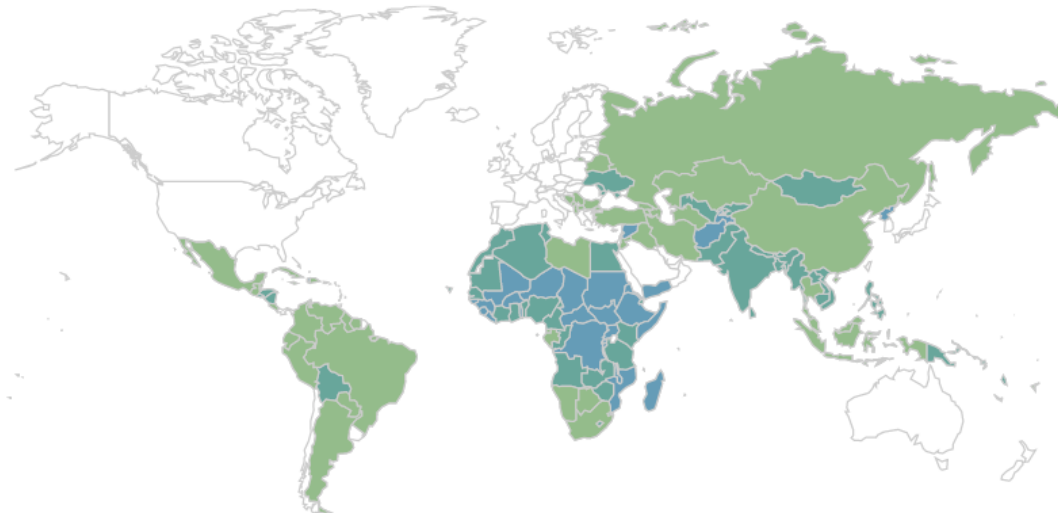
Contraception

Menstrual Hygiene

## Income Groups

LEAP includes 129 low- and middle-income countries<sup>[2]</sup>. For the landscape reports these countries are further segmented into three income groups as defined by the World Bank: low-income countries (29 countries), lower-middle-income countries (49 countries), and upper-middle-income countries (51 countries). Countries are segmented based on their Gross National Income per capita<sup>[3]</sup>. This segmentation allows for visibility into differential patterns across each income group and can help focus discussions on the different needs of countries at different income levels. For future projections, results are aggregated based on a country's current income group; we recognize however that countries may shift between income groups in the future.

Map of Countries by Income Group



# Innovative use of range of data sources

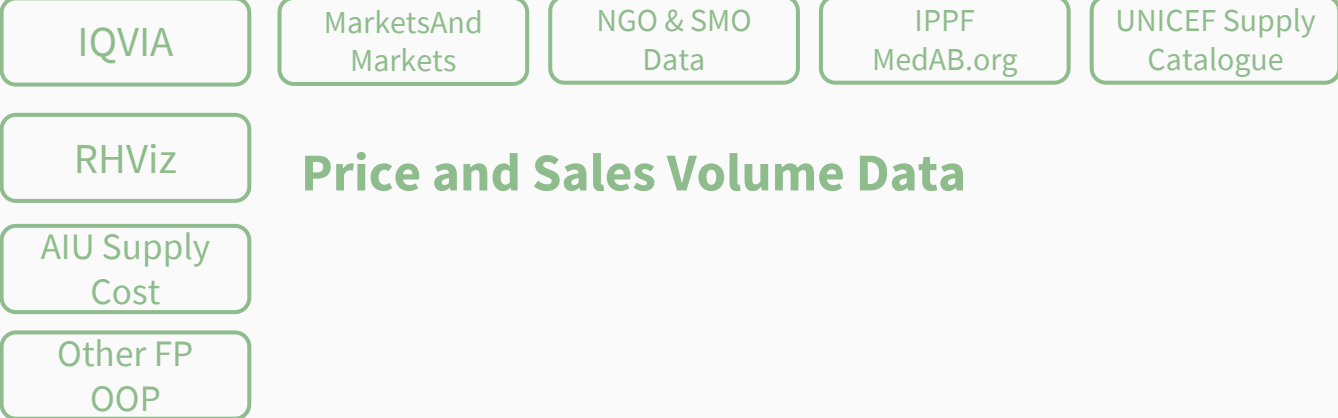
## UN Pop Division Projections



## Research and Models



## Household Surveys



## Price and Sales Volume Data



Contraception

Menstrual Hygiene

Abortion & PAC

Maternal Health





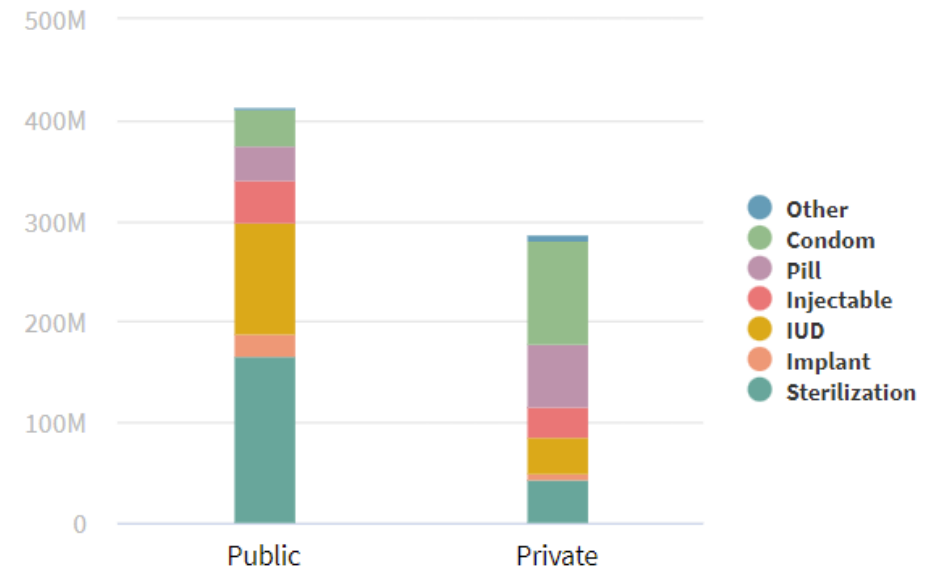
# Currently there are 703 million contraceptive users across low- and middle-income countries.

- Just over half use short-acting methods
- Sterilization is most widely used method
- Nearly 60% obtain their method from the public sector
  - Most public sector users rely on long-acting and permanent methods
  - Most private sector users use short-acting methods

FIGURE 1

## Contraceptive Users by Method

By Sector, 2019



Income group

All

ABSOLUTE

RELATIVE



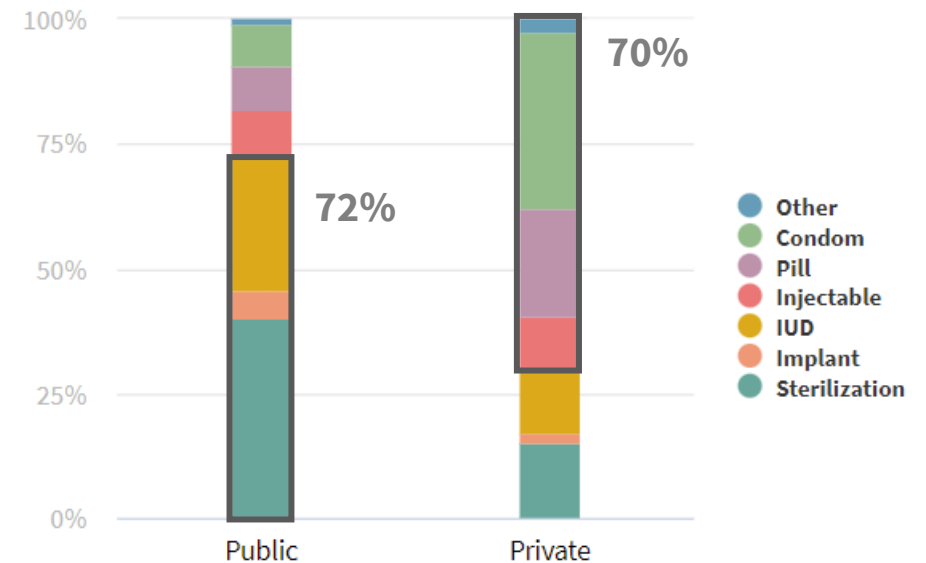
# Currently there are 703 million contraceptive users across low- and middle-income countries.

- Just over half use short-acting methods
- Sterilization is most widely used method
- Nearly 60% obtain their method from the public sector
  - Most public sector users rely on long-acting and permanent methods
  - Most private sector users use short-acting methods

FIGURE 1

## Contraceptive Users by Method

By Sector, 2019



Income group

All

ABSOLUTE

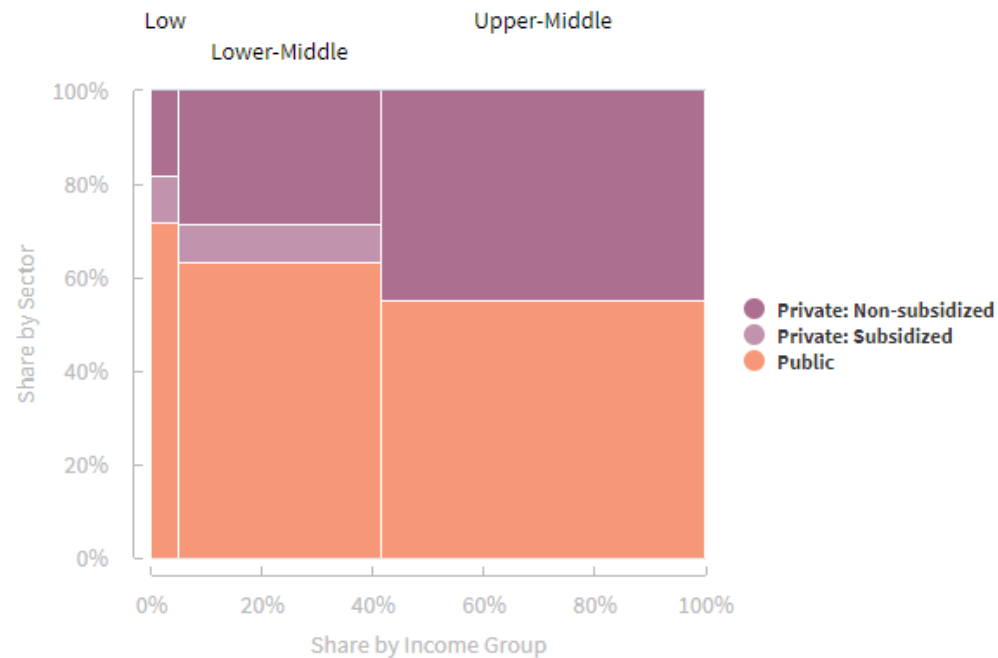
RELATIVE



FIGURE 3

### Share of Contraceptive Users by Sector

By Income Group, 2019



Method  
All

- Most contraceptive users (58%) live in upper-middle-income countries; followed by lower-middle-income (36%) and low-income (5%) countries.
- In all income groups, the majority of users get their method from the public sector; but its role diminishes.

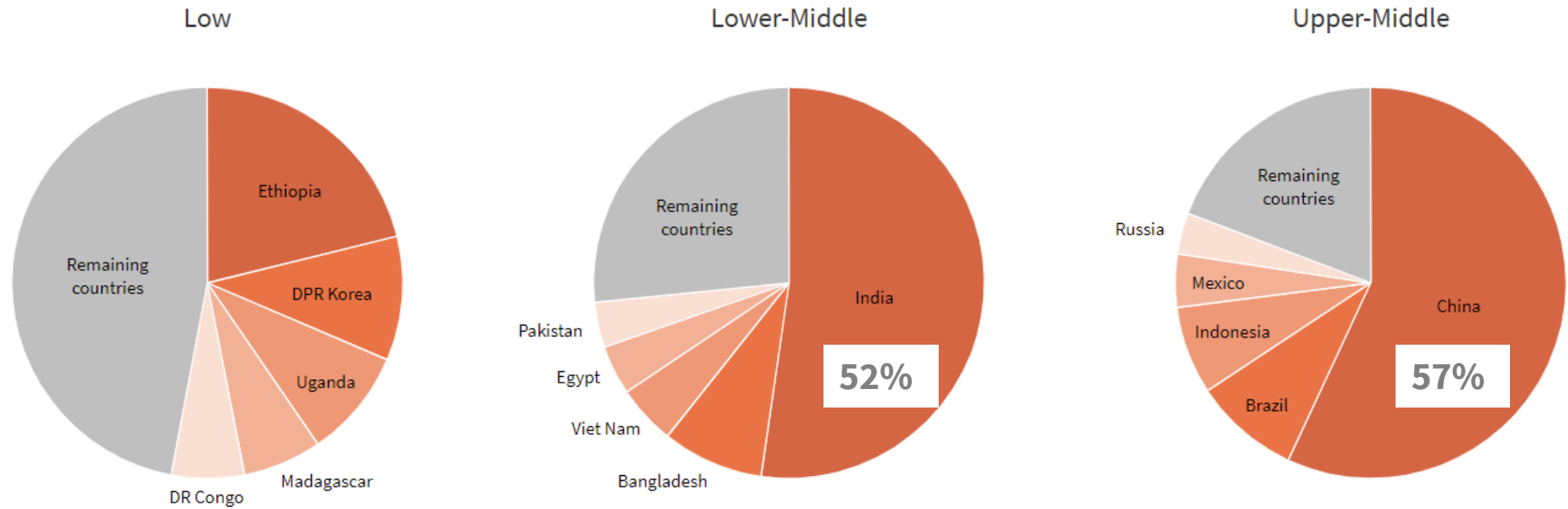


# In lower-middle-income and upper-middle-income countries, a single country accounts for more than half of the users in that income group.

FIGURE 5

## Contraceptive Users

Top Five Countries in Each Income Group, 2019



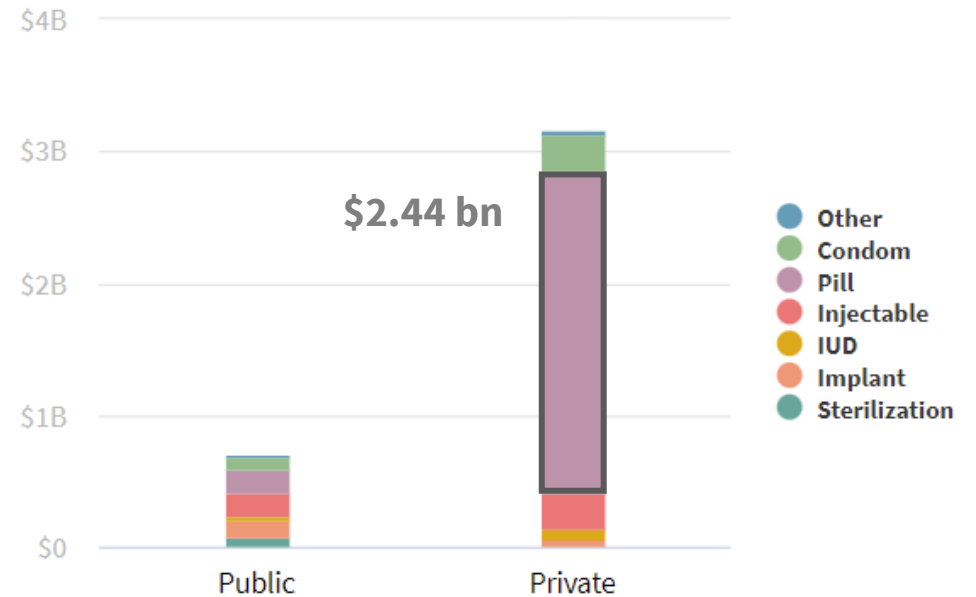
**\$3.87 billion on contraceptive supplies.**

The vast majority is from users purchasing pills from private sector providers.

**FIGURE 6**

### Contraceptive Supply Costs by Method

*By Sector, 2019*



Income group

All

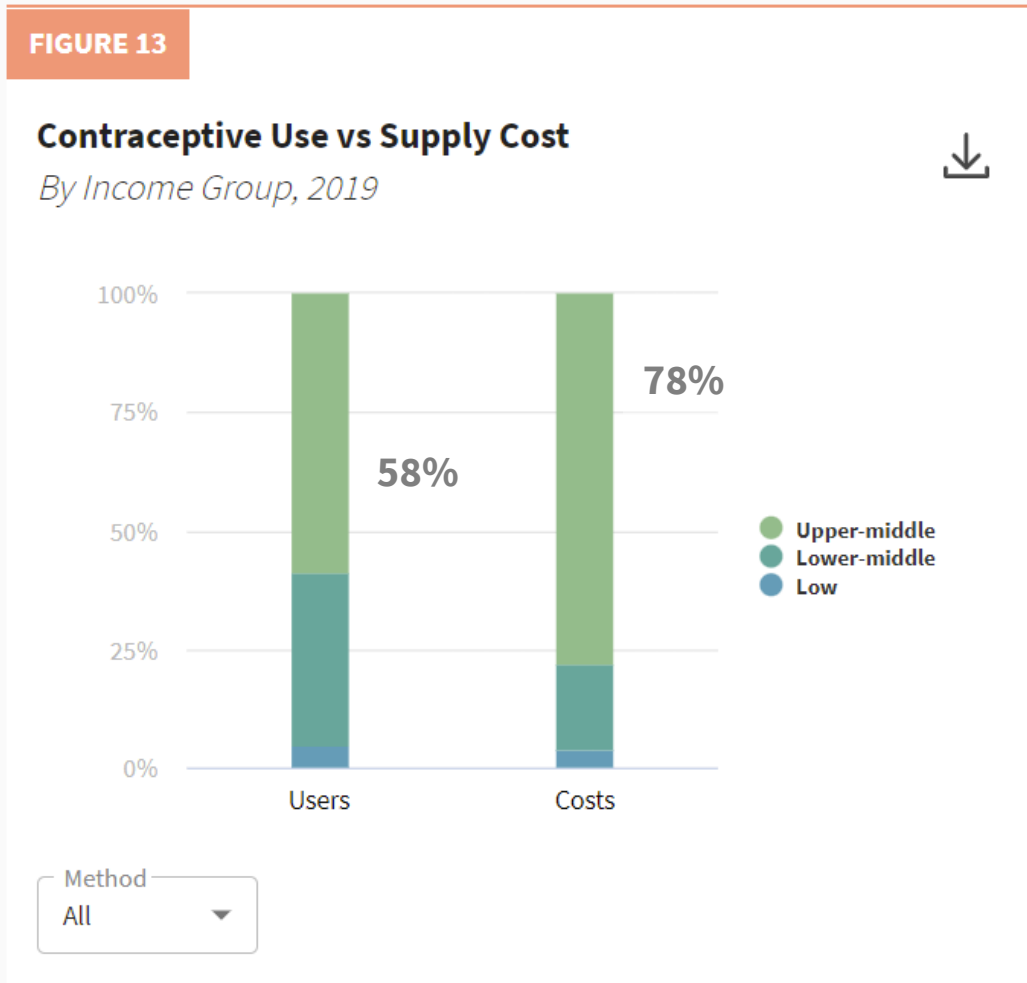


ABSOLUTE

RELATIVE



# Costs are highly concentrated in upper-middle-income countries.



Cost is not simply a function of use:

- Greater use of private sector
- Method mix differences
- Relatively higher cost of methods

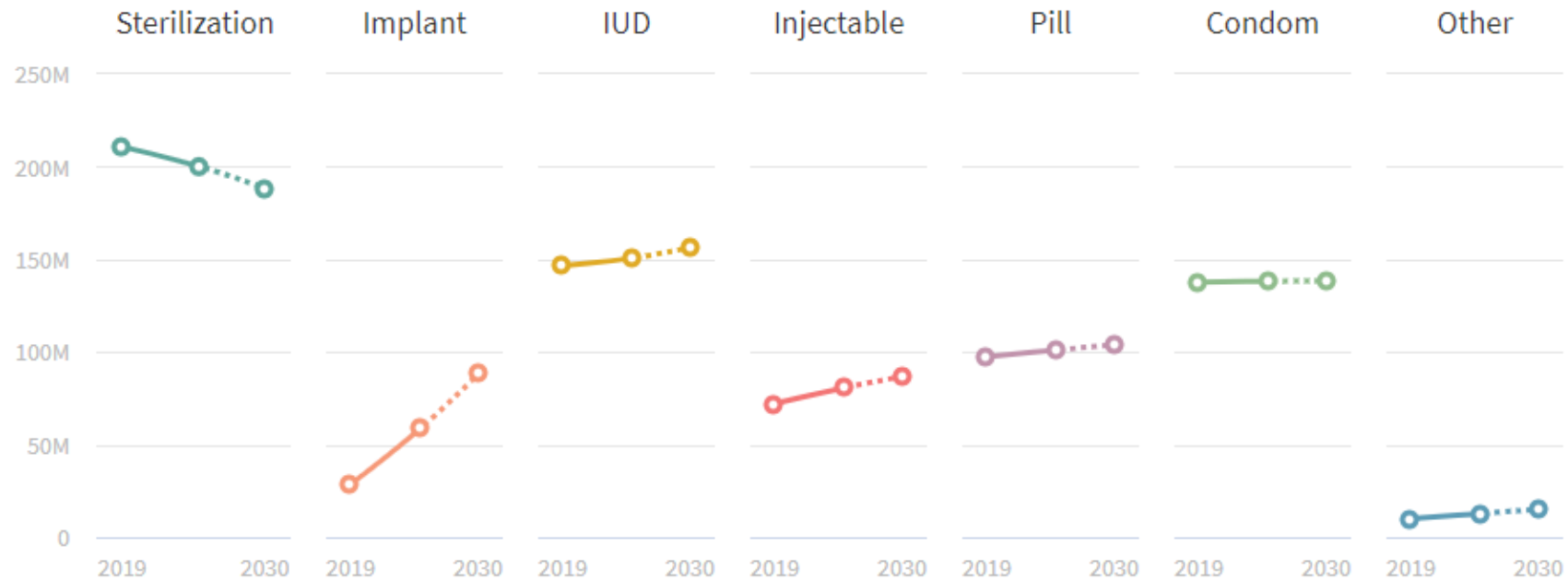


If current patterns continue, implants would see the most rapid increase in both absolute (+60.2 million) and relative (+213%) terms.

FIGURE 14

Change in Contraceptive Users

By Method, 2019-2030

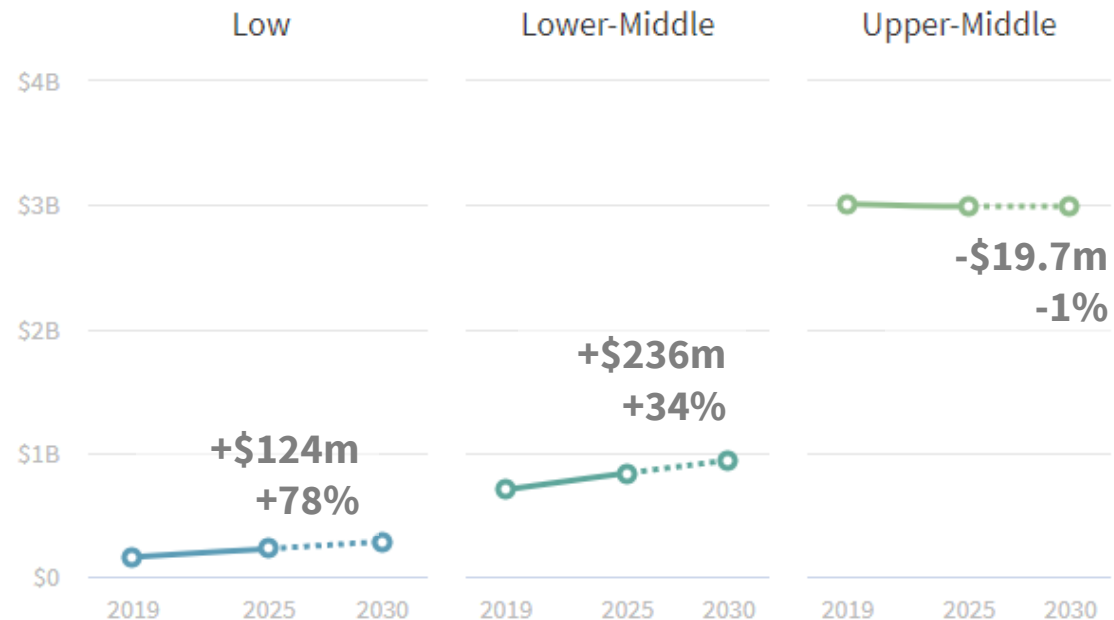


If current patterns continue, low-income countries would see the fastest increase in relative terms (+78%), while lower-middle-income countries would see the largest increase in absolute terms (+236 million).

FIGURE 18

### Change in Contraceptive Supply Costs

By Income Group, 2019-2030





Contraception

Menstrual Hygiene

Abortion & PAC

Maternal Health



# Currently there are an estimated 1.67 billion menstruators across low- and middle-income countries.

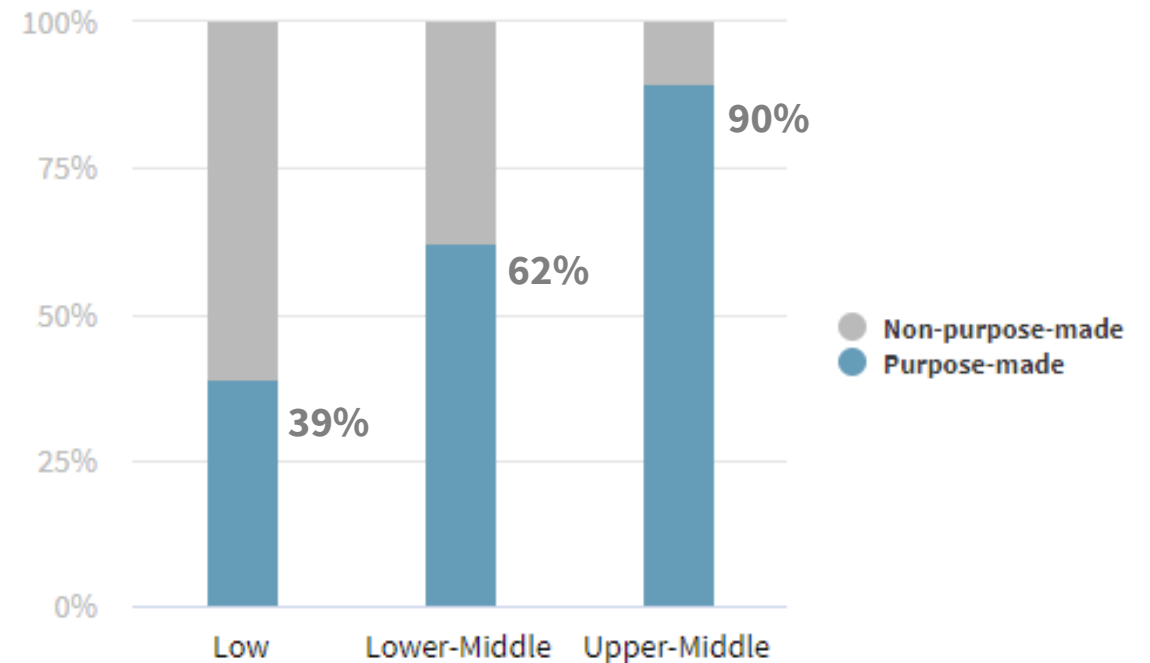
For this analysis, purpose-made menstrual hygiene products include:

- Disposable pads
- Disposable tampons
- Reusable pads and underwear
- Reusable cups

FIGURE 1

## Use of Menstrual Hygiene Products

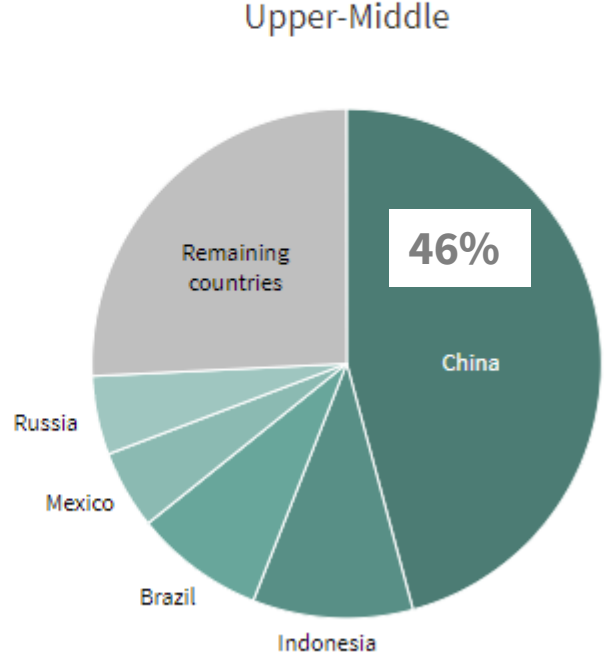
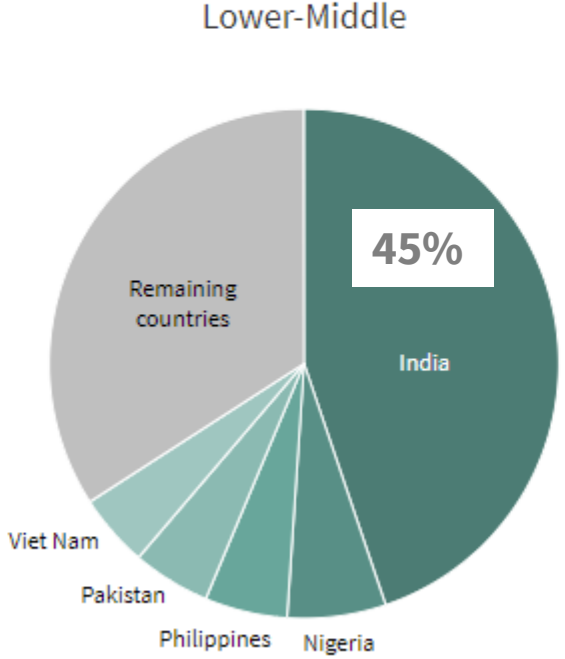
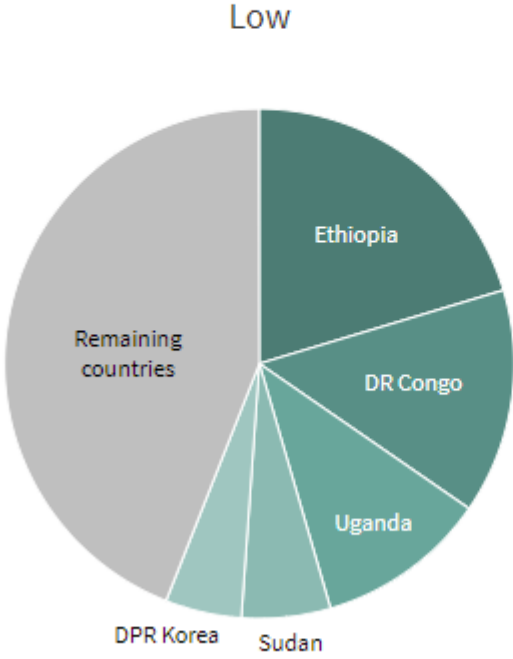
*By Income Group, 2019*



# India and China make up a large share of purpose-made menstrual hygiene product use.

**FIGURE 2**

**Use of Purpose-Made Menstrual Hygiene Products**  
*Top Five Countries in Each Income Group, 2019*

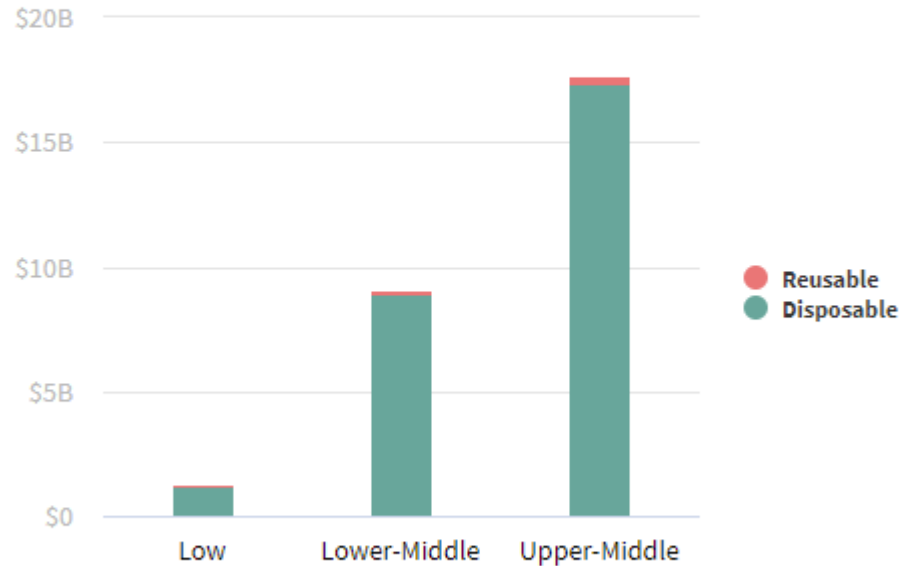


# The costs of purpose-made products are primarily for disposable products, with highest costs in upper-middle income countries.

FIGURE 3

## Cost of Purpose-Made Menstrual Hygiene Products

By Income Group, 2019



ABSOLUTE

RELATIVE

- Based on the little data available on reusable products, we assume 5% of purpose-made product use is for reusable products.
- Annual costs are lower for reusable products, resulting in current estimates of ~2% of total costs for reusable products and 98% for disposable.



## In generating projections to 2030, we looked at three potential scenarios:

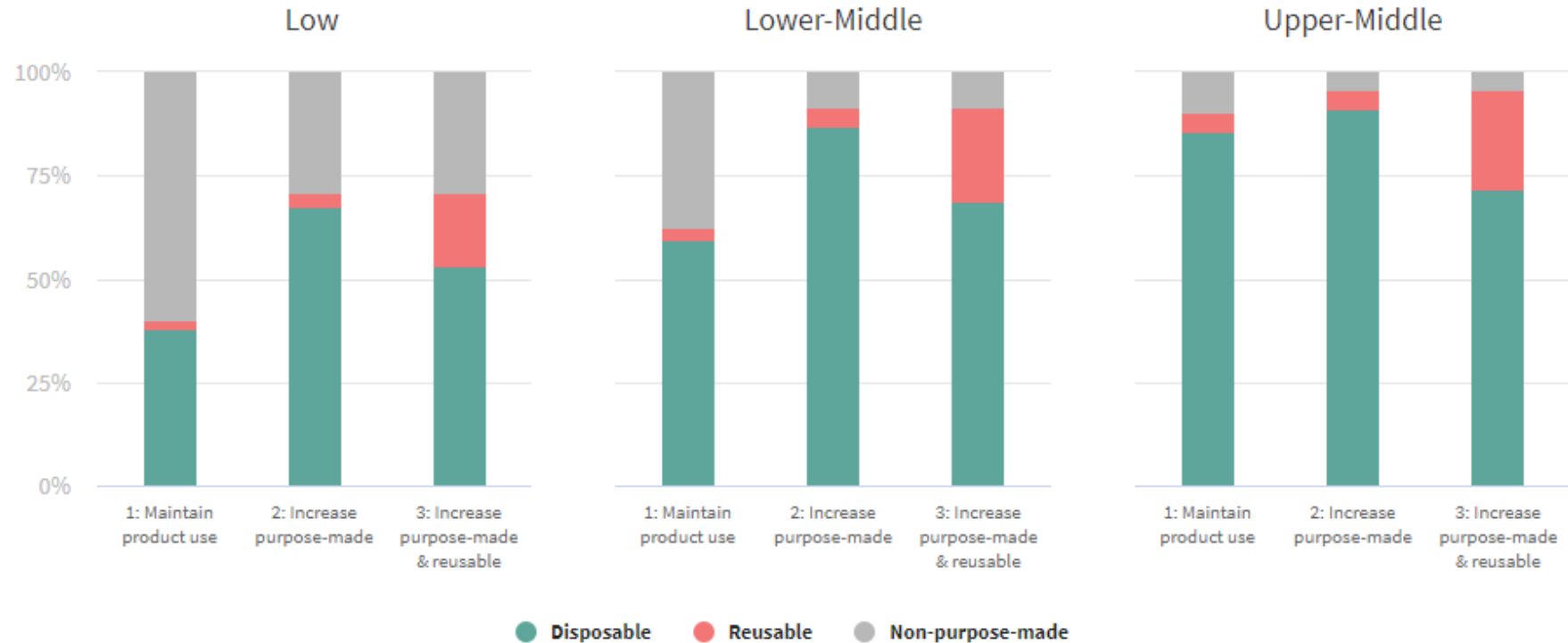
- 1. Maintain product use:** No changes in the proportion of purpose-made product use; changes in demographic, contraceptive use, and fertility rates.
- 2. Increase purpose-made use:** Increase in access and use to purpose-made products within a region; where low-income achieves lower-middle income use rates by 2030 and lower-income achieves upper-middle income use. Upper-middle income countries make modest gains.
- 3. Increase purpose-made and reusable use:** Same increases as specified above, but with a shift towards reusable products where 25% of menstruators are using reusables by 2030.



# The proportion of menstruators using purpose-made products in 2030 increases in scenarios 2 and 3, particularly for low-income countries.

FIGURE 6

**Future Use of Menstrual Hygiene Products**  
*By Future Scenario and Income Group, 2030*

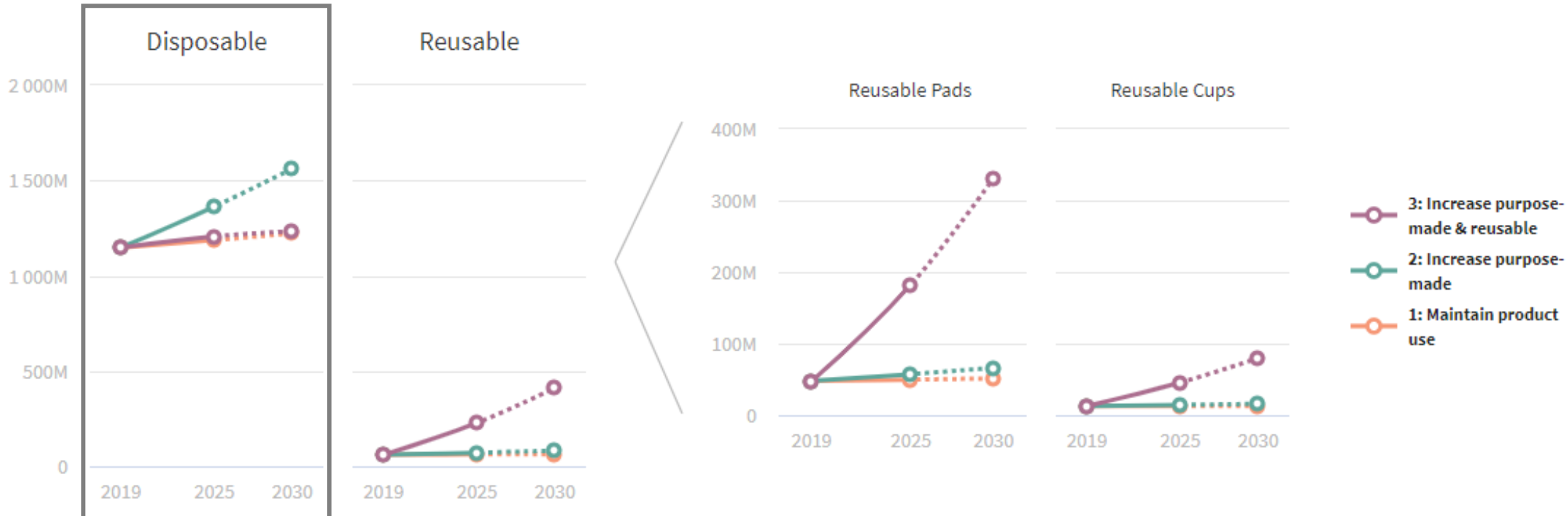


# Shifting to 25% reusables by 2030 ameliorates the increase in the number of disposables needed when increasing purpose-made use.

FIGURE 8

## Change in Menstruators Using Purpose-Made Menstrual Hygiene Products

By Future Scenario and Product Type, 2019-2030



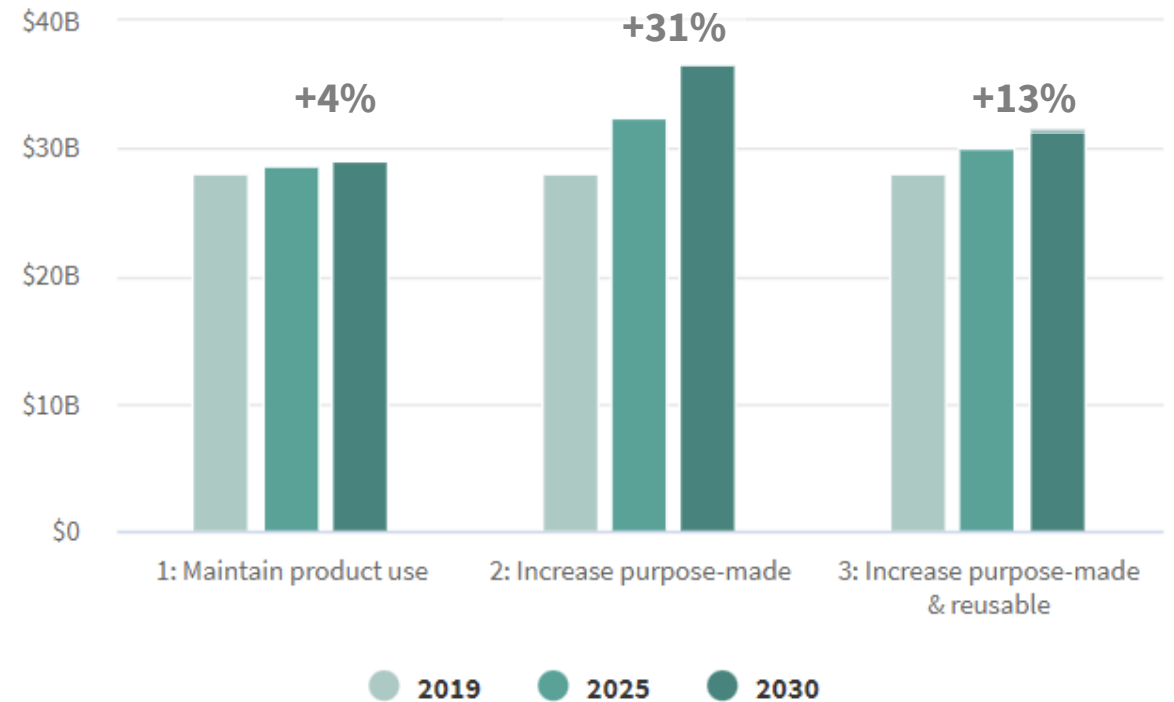
- Total costs increase substantially in Scenario 2
- Scenario 3 recovers some of the increase in costs due to the shift to the lower cost reusable products

FIGURE 9

## Change in Cost of Purpose-Made Menstrual Hygiene Products



*By Future Scenario, 2019-2030*



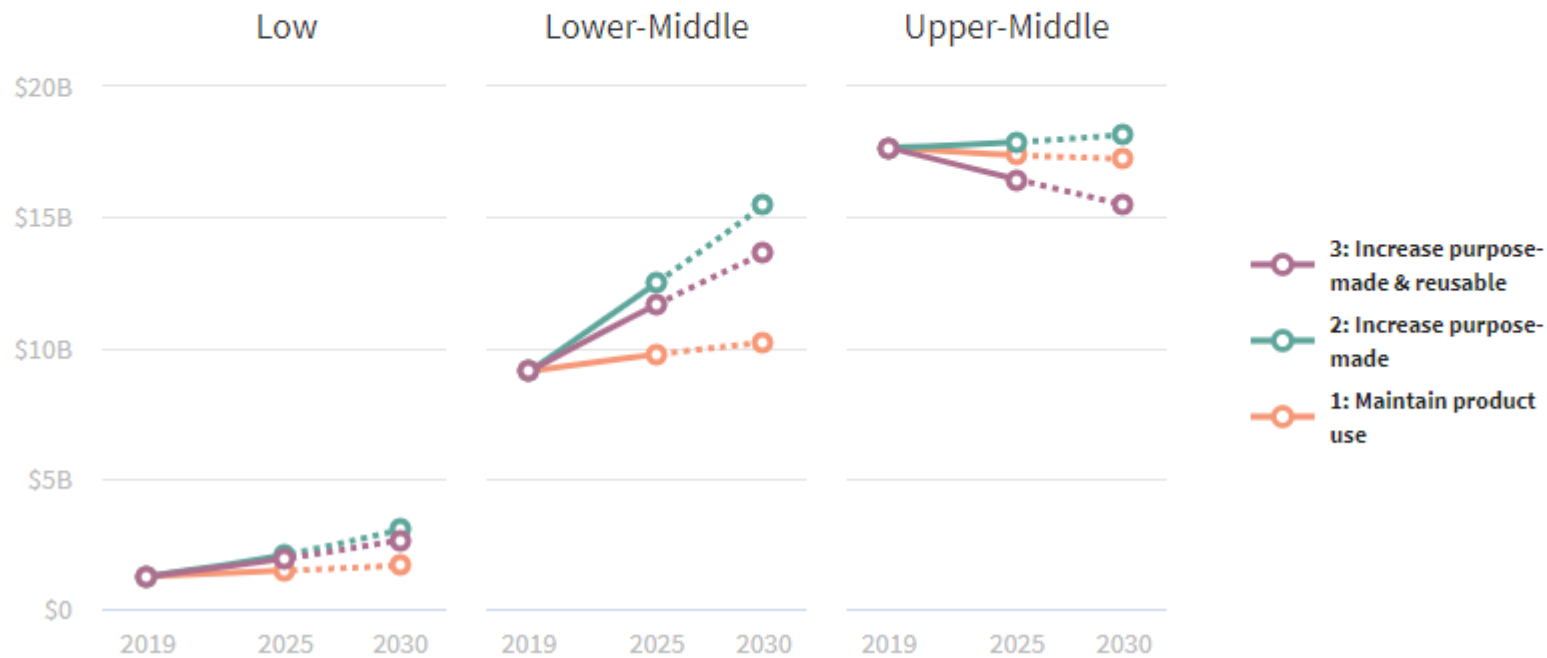


# Largest cost increases projected for lower-middle income countries. Decreased costs projected for upper-middle income countries under scenarios 1 & 3.

FIGURE 10

## Change in Cost of Purpose-Made Menstrual Hygiene Products

By Future Scenario and Income Group, 2019-2030



Contraception

Menstrual Hygiene

Abortion & PAC

Maternal Health

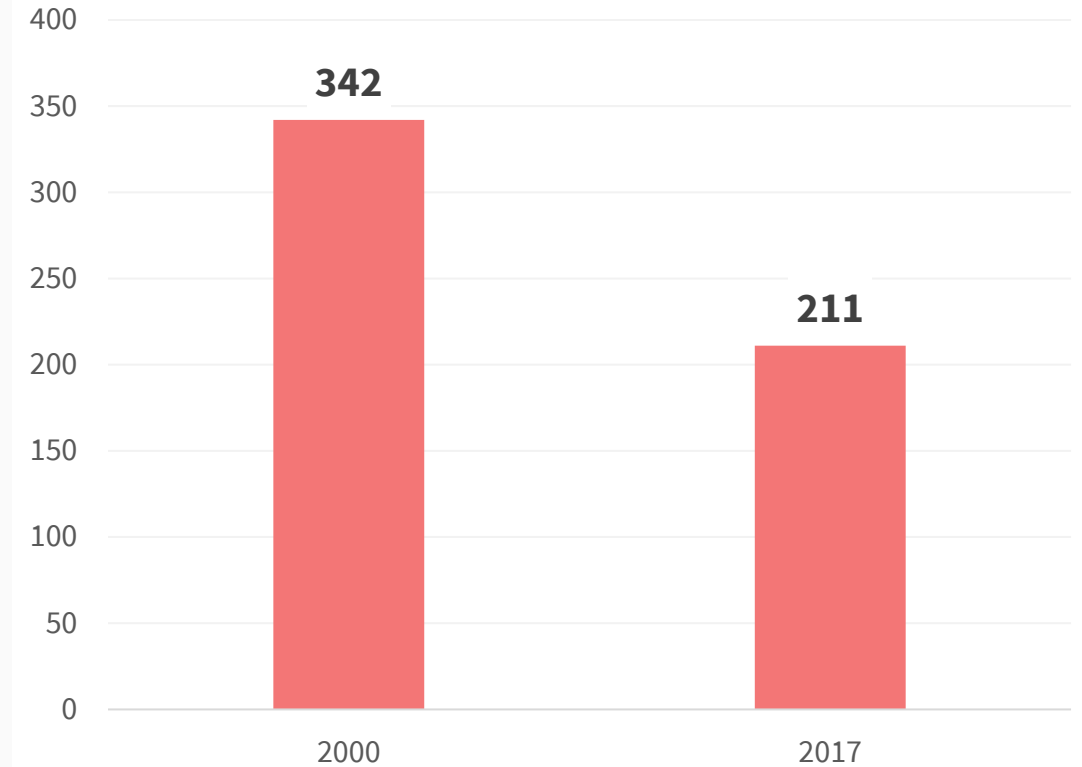


## Despite gains, maternal mortality remains high

- In 2017, the global Maternal Mortality Ratio (MMR) was 211 maternal deaths per 100,000 live births.
- Sustainable Development Goal (SGD) 3.1 sets the target of reducing global MMR to less than 70 per 100,000 live births by 2030.

### Maternal mortality ratio

*Global, 2000 and 2017*



# This analysis focuses on priority maternal health drugs to reduce maternal mortality

Drug	Interventions included
<b><i>Seven Priority Maternal Health Drugs</i></b>	
■ Iron and folic acid (IFA)	Iron and folic acid supplementation during pregnancy
■ Hydralazine (antihypertensive)	Acute hypertension event management
■ Methyldopa (antihypertensive)	Acute, chronic and gestational hypertension management
■ Magnesium Sulfate	Pre-eclampsia and eclampsia treatment
■ Oxytocin (uterotonic)	Induction, augmentation, postpartum hemorrhage (PPH) prevention and treatment
■ Misoprostol (uterotonic)	Induction, PPH prevention and treatment
■ Metronidazole (MTN)	Infection treatment
<b><i>Two Emerging drugs</i></b>	
■ Heat-stable carbetocin (HSC) (uterotonic)	PPH prevention
■ Tranexamic acid (TXA)	PPH treatment



# There is variation in the number of cases requiring and receiving each drug.

**TABLE 3**

## **Total Cases Needing and Receiving Seven Priority Maternal Health Drugs**

*By Income Group, 2019*

	<b>Iron-folic acid</b>	<b>Antihypertensives</b>	<b>Magnesium sulfate</b>	<b>Uterotonics</b>	<b>Metronidazole</b>
Low	3,560,000	115,000	143,000	8,610,000	515,000
Lower-Middle	23,500,000	469,000	646,000	35,600,000	2,350,000
Upper-Middle	18,500,000	543,000	776,000	35,500,000	2,050,000
<b>Total</b>	<b>45,600,000</b>	<b>1,130,000</b>	<b>1,570,000</b>	<b>79,800,000</b>	<b>4,910,000</b>



## In generating projections to 2030, we looked at three potential scenarios:

- 1. Maintain coverage:** This scenario accounts for changes in the number of pregnancies and births and maintains current levels of intervention coverage. Provides a baseline for comparison.
- 2. Increase coverage:** This scenario accounts for the same changes in the number of pregnancies and births as in Scenario 1 but increases coverage of included interventions.
- 3. Increase coverage and scale-up emerging drugs:** This scenario is the same as Scenario 2 but incorporates scale up of heat-stable carbetocin and tranexamic acid.

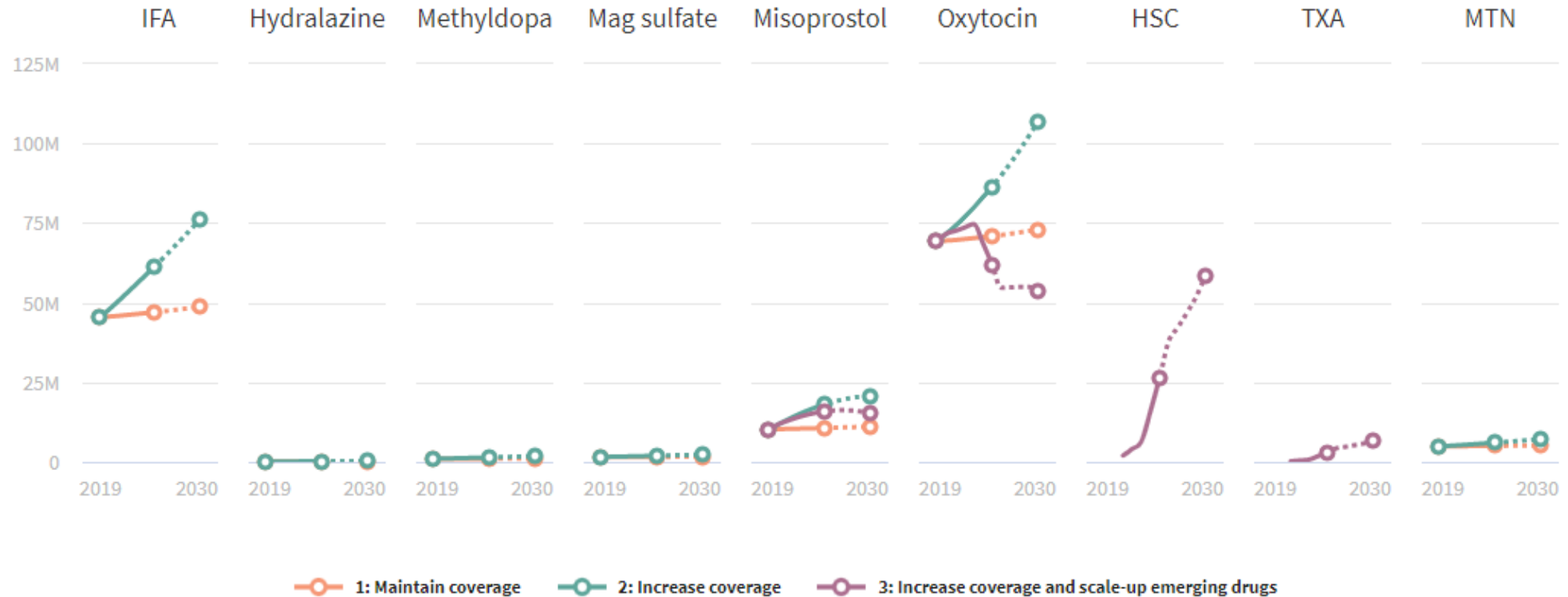


Changes in the number of cases that require and receive each drug will vary; oxytocin would see the largest increase under scenario 2, however this would be more than offset by the scale up of heat-stable carbetocin under scenario 3.

FIGURE 8

### Change in Cases that Receive Seven Priority Maternal Health Drugs Plus Two Emerging Drugs

By Future Scenario and Drug, 2019-2030

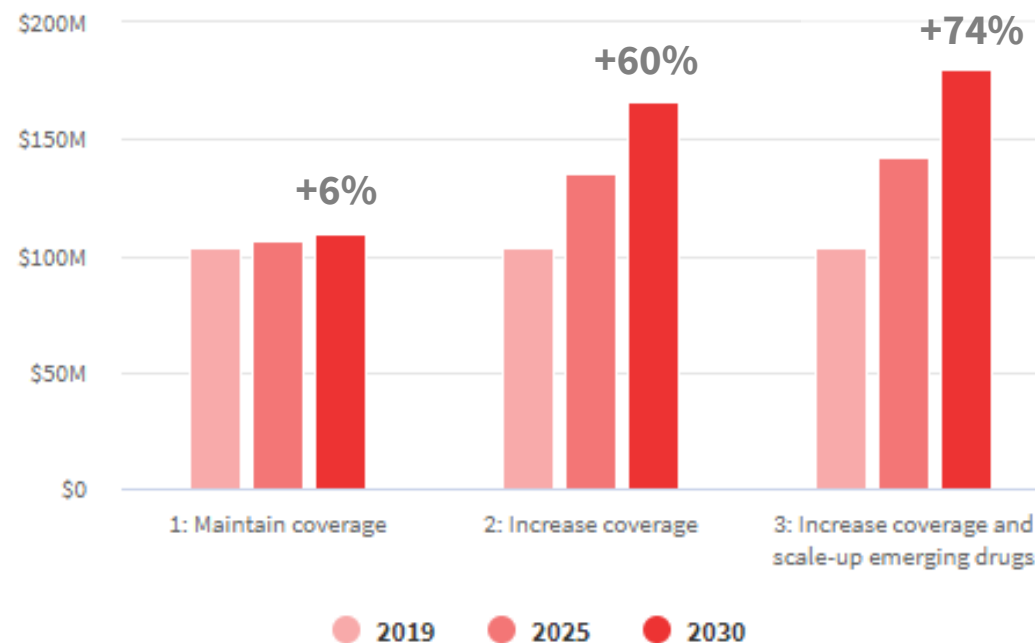


- Limited cost increases seen in Scenario 1, due to increasing numbers of pregnancies and births.
- Substantial cost increase (+60%) associated with the coverage increases seen in Scenario 2.
- The inclusion of emerging drugs increases costs by an additional 14 million, a 74% increase from 2019.

FIGURE 9

### Change in Cost of Seven Priority Maternal Health Drugs Plus Two Emerging Drugs

By Future Scenario, 2019-2030



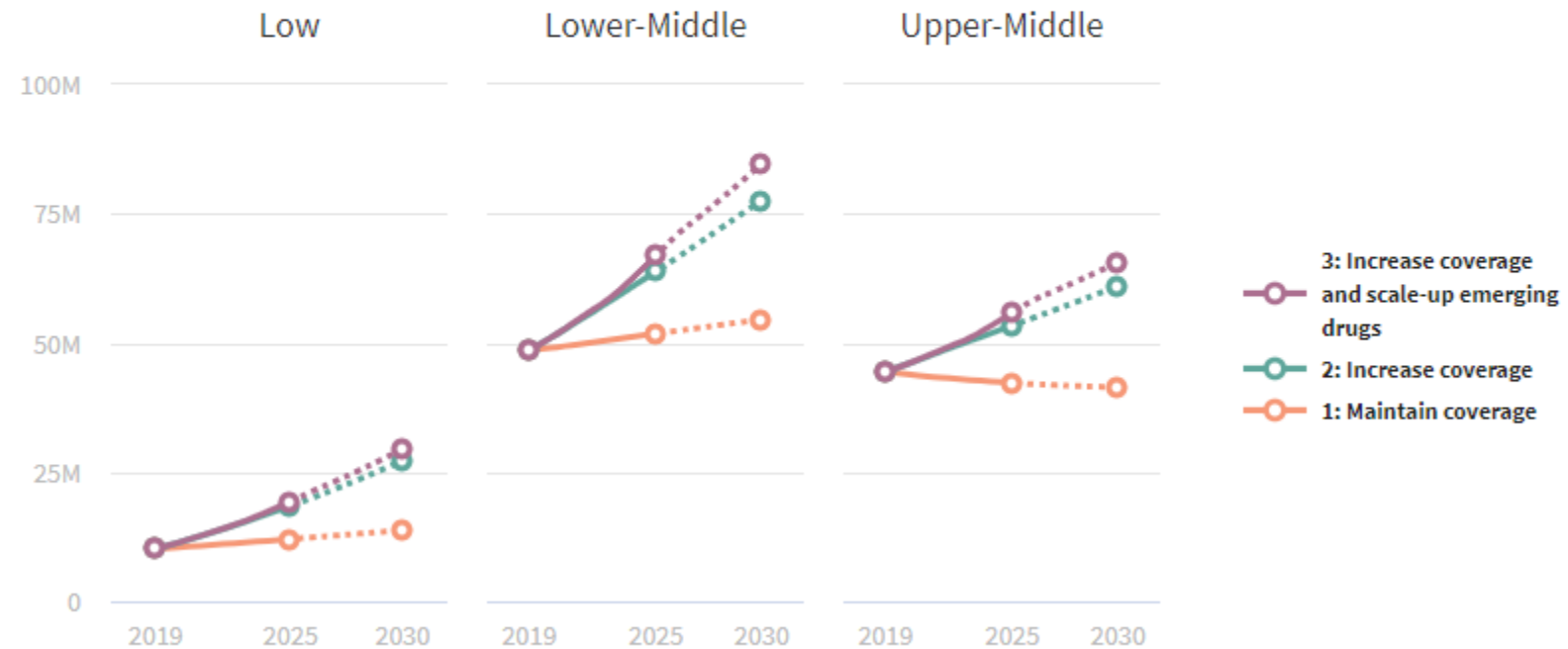


# Largest absolute cost increase would be in lower-middle-income countries due to coverage expansion and numbers of pregnancies and births.

FIGURE 10

## Change in Cost of Seven Priority Maternal Health Drugs Plus Two Emerging Drugs

By Future Scenario and Income Group, 2019-2030



Contraception

Menstrual Hygiene

Abortion & PAC

Maternal Health



## LEAP costed services:

- **Safe & least safe abortions using:**
  - Medical – misoprostol with or without mifepristone
  - Surgical – vacuum aspiration (manual or electric)
- **Post-abortion care (PAC) services using:**
  - Medical – misoprostol only
  - Surgical – vacuum aspiration (manual or electric)

## Services not costed in LEAP:

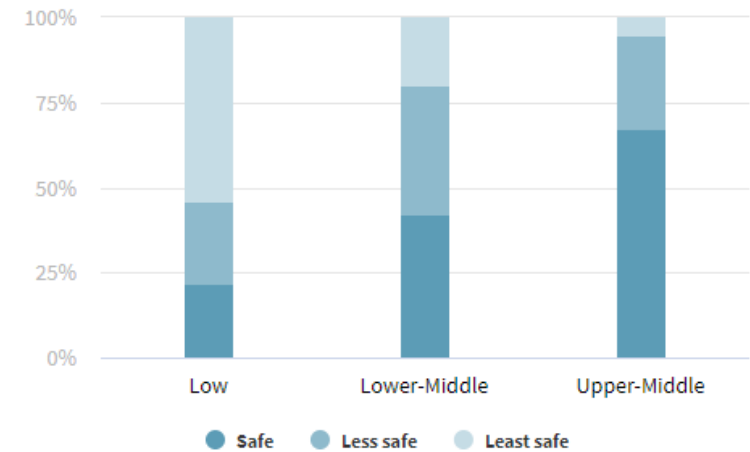
- Least safe abortions
- Surgical services using dilation & curettage, dilation & evacuation

## WHO classifies abortions into 3 categories:

- Safe
- Less safe
- Least safe

FIGURE 1

### Abortion Safety Profile By Income Group



Source: [Ganatra et al 2017](#) Global, regional, and subregional classification of abortions by safety, 2010–14: estimates from a Bayesian hierarchical model. Lancet 2017 Nov 25;390(10110):2372–238



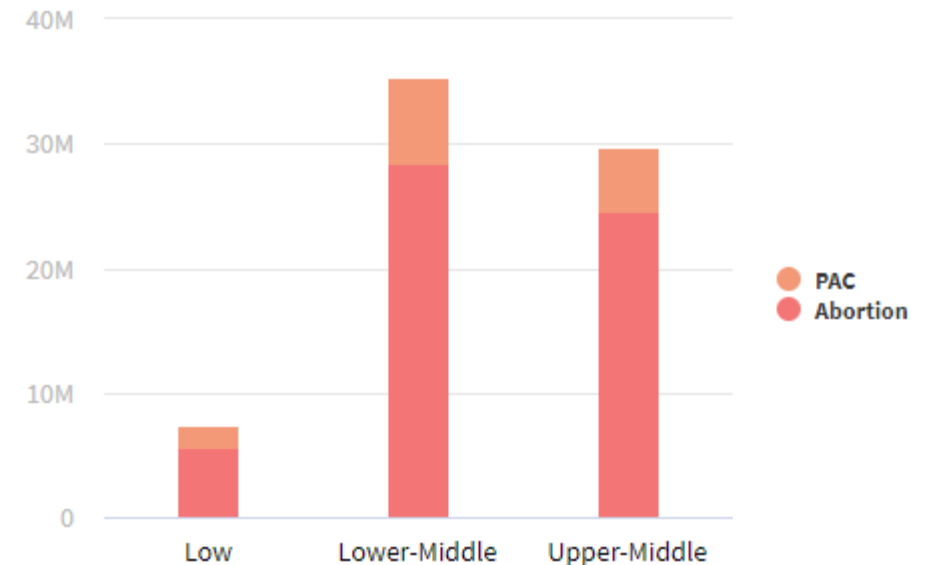
# In 2019 there were 72.5 million abortion & PAC services across low-and middle-income countries.

- Including all safety types and methods
- Broadly reflects distribution of women of reproductive age across income groups
- The vast majority (81%) are abortion services; with some variation by income group.

FIGURE 2

## Abortion and PAC Services by Type

By Income Group, 2019



ABSOLUTE

RELATIVE



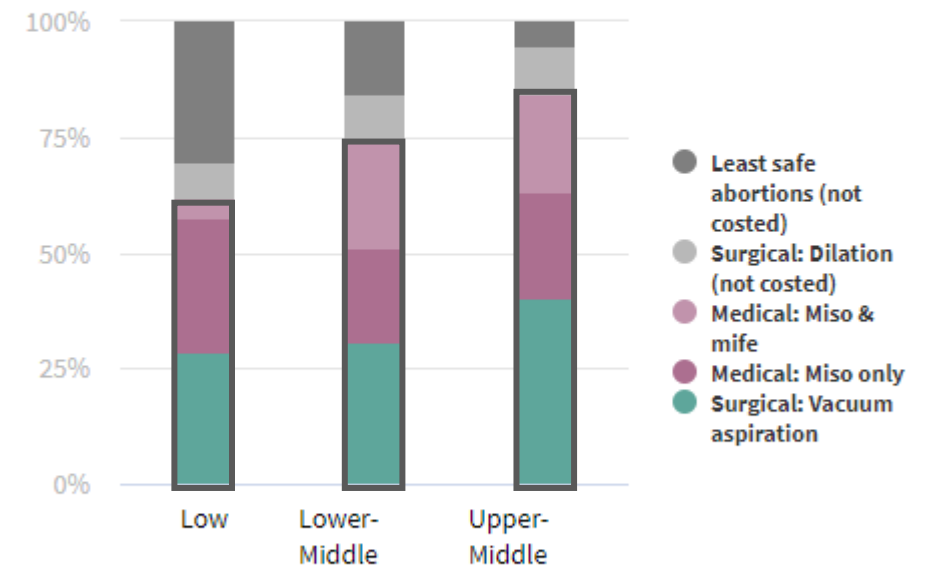
# There is variation in the types of methods used across income groups.

- Share of 'costed' services increases across each income group
- Least safe abortions account for 30% of services in low-income countries but only 5% in upper-middle-income
- Medical methods make up the largest share of services in all income groups

FIGURE 3

## Abortion and PAC Services by Method

By Income Group, 2019



ABSOLUTE

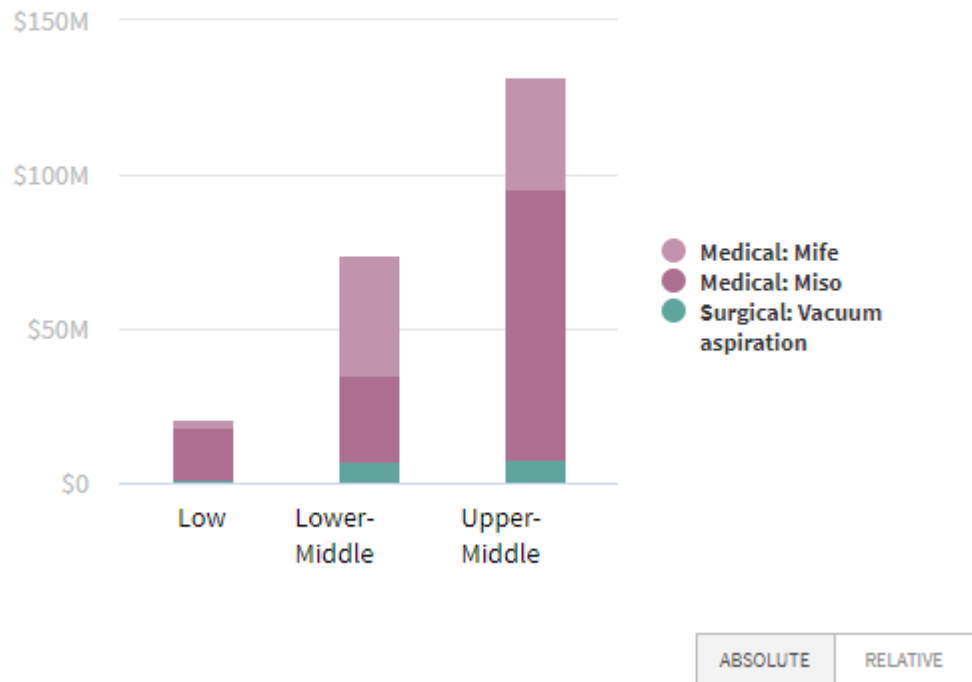
RELATIVE



FIGURE 4

### Cost of Abortion and PAC Supplies by Method

By Income Group, 2019



## \$226 million in supply costs primarily driven by cost of misoprostol

- Medical methods account for 90% or more of total supply costs.
- Vacuum aspiration only includes cost of MVA kit.
- Wide regional variation in price of misoprostol, if all misoprostol were to cost \$0.16 (median for Asia) total cost of supplies would decrease by 43%.



## In generating projections to 2030, we looked at three potential scenarios:

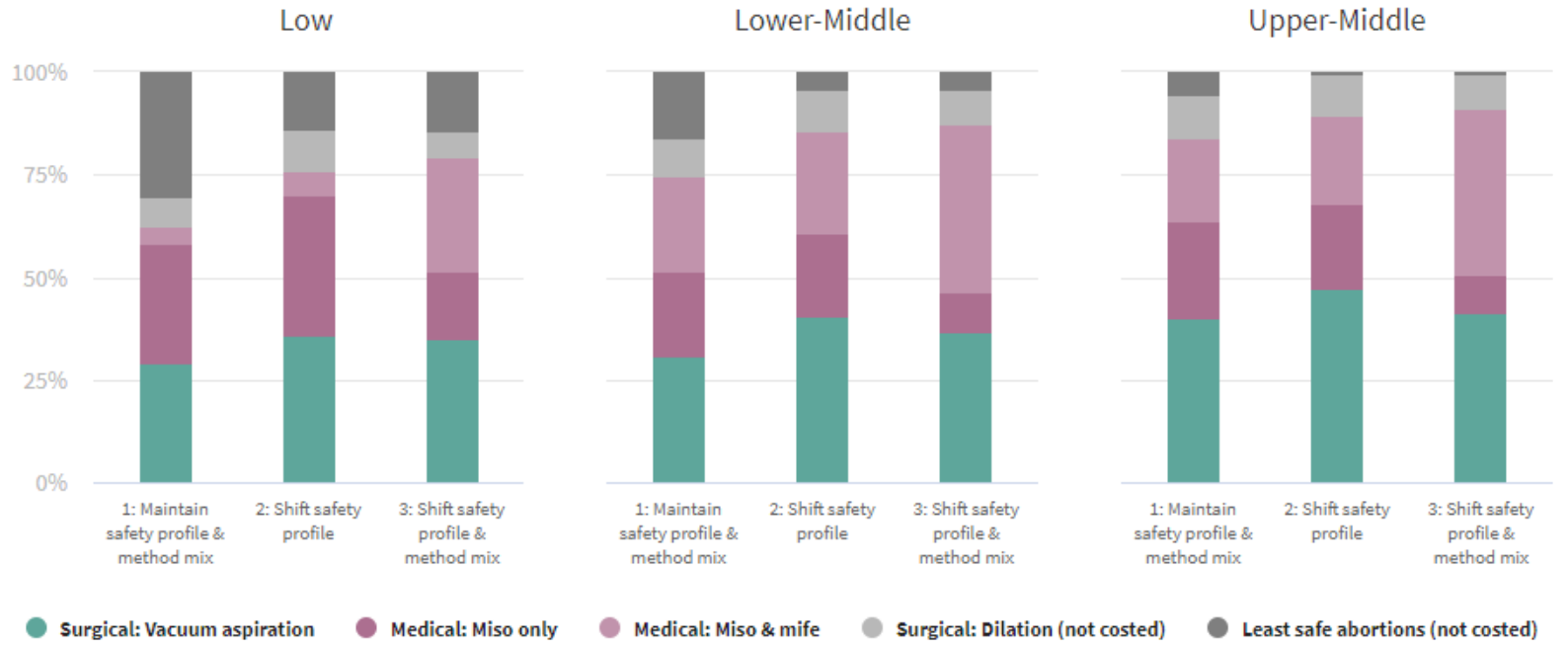
- 1. Maintain safety profile & method mix:** No changes to the distribution of the safety profile of abortion services or mix of surgical and medical methods
- 2. Shift safety profile:** Improves the safety profile of services by matching the proportion of abortion services that are safe/less safe/least safe to the average pattern seen in the next highest income group
- 3. Shift safety profile & method mix:** Includes safety improvements from Scenario 2, as well as a shift to greater use of medical (especially combined use of misoprostol and mifepristone) rather than surgical methods among safe and less safe abortions



# The share of services that are least safe abortions in 2030 decreases in scenarios 2 and 3, particularly for low-income countries.

**FIGURE 5**

**Future Abortion and PAC Services by Method**  
*By Future Scenario and Income Group, 2030*



ABSOLUTE    RELATIVE



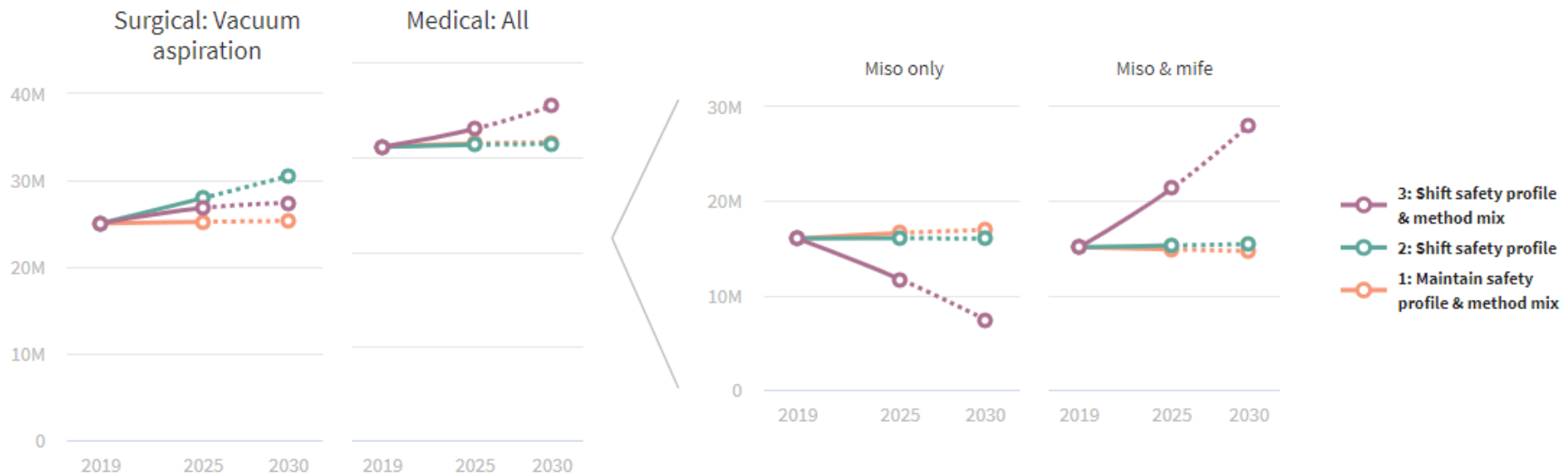


The total number of abortion & PAC services will remain relatively similar across all low-and-middle-income countries; however, the number of costed services and the methods used would change greatly under scenarios 2 & 3.

FIGURE 7

**Change in Costed Abortion and PAC Services**

*By Future Scenario and Method, 2019-2030*



Income group  
All

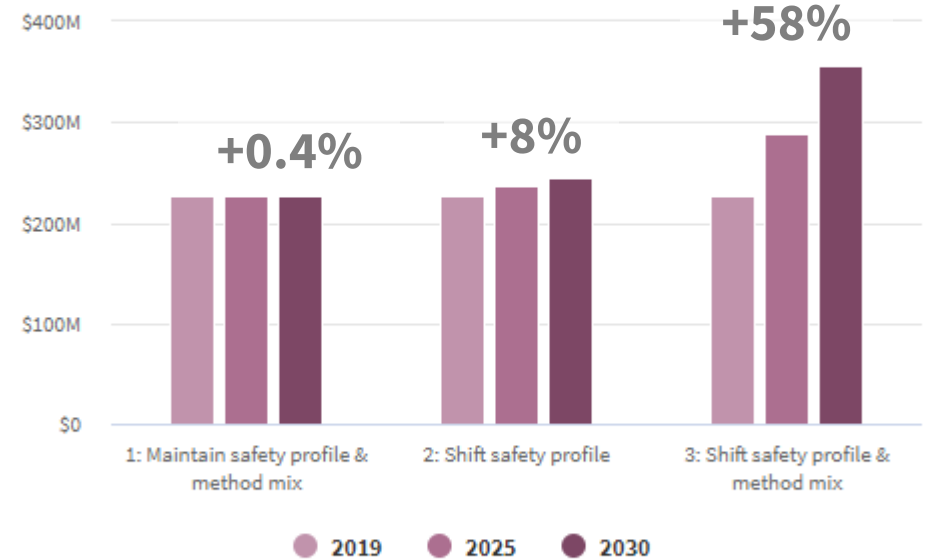


- Shifts in safety and method mix (Scenario 3) could lead to higher costs, without decreases in the price of mifepristone.
- Future improvements in availability and competition could mitigate costs of mifepristone.

FIGURE 8

### Change in Cost of Abortion and PAC Supplies

By Future Scenario, 2019-2030

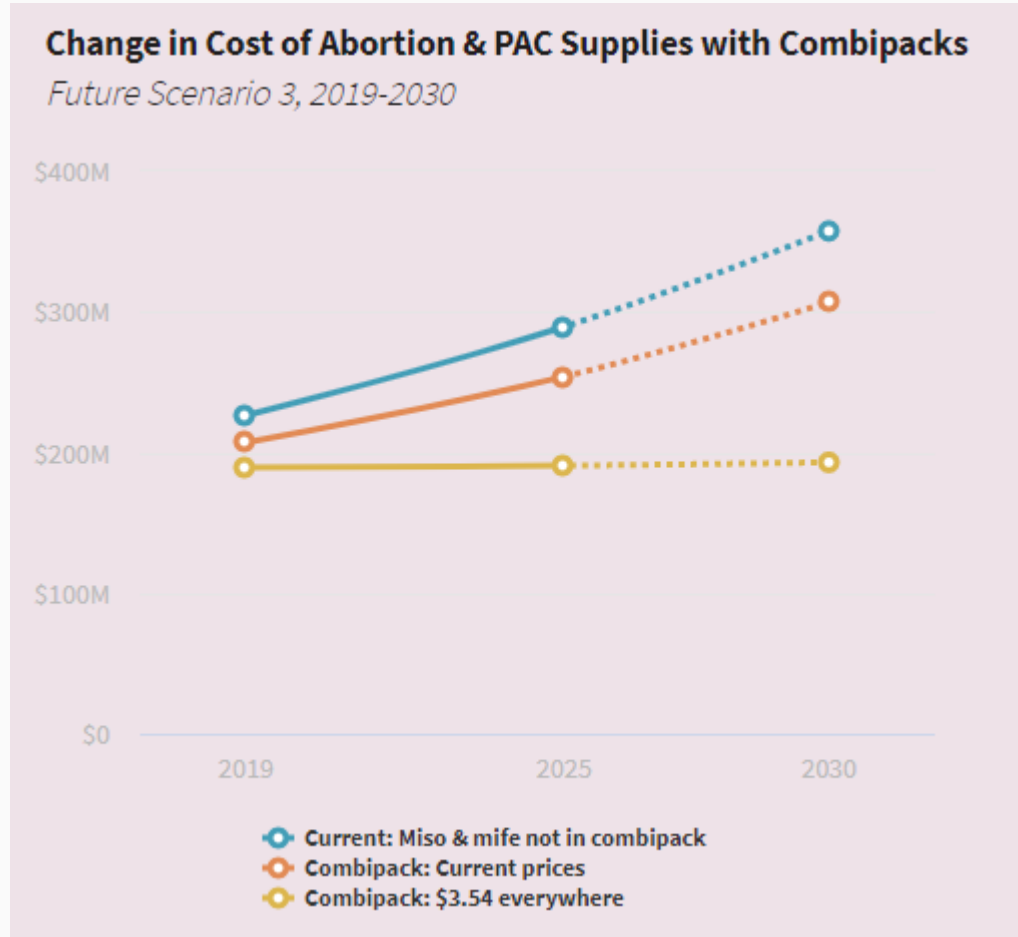


Income group

All



# Co-packaged misoprostol and mifepristone in “combipacks” have the potential to reduce costs.



- As demand for mifepristone and combipacks increase, prices are likely to decline.
- If \$3.54 combipacks were available everywhere the 2030 supply cost for services using misoprostol and mifepristone would be cut in half.



Contraception

Menstrual Hygiene

Abortion & PAC

Maternal Health





Visit: <https://leap.rhsupplies.org>

**Explore the full landscapes online for each health area for more detailed results and to interact with the data.**



# Custom Reports feature coming soon, allowing users to explore country and regional results



**Landscape for a single country or region**



**Compare across countries or regions**



**Deep dive into a single supply or drug**



# Question & Answer



Please put your questions  
& comments in the chat.



LANDSCAPE & PROJECTION  
OF REPRODUCTIVE HEALTH  
SUPPLY NEEDS

LEAP

# Thank you!



For more information contact: [leap@rhsupplies.org](mailto:leap@rhsupplies.org)