





Reinvigorating the Postpartum Intrauterine Device Using a Low-Cost Simulation Model

Introduction

The Laerdal-Jhpiego Mama-U simulation model, which represents a postpartum uterus, is a low-cost, portable and realistic training tool to ensure fundal placement of the intrauterine device (IUD) immediately after birth. It reduces expulsion rates by improving the capacity, competence and confidence of frontline health workers in providing postpartum IUD (PPIUD) services—ensuring that women have access to safe and reliable contraception from the day they deliver.

Summary

- Our vision is that every midwife who attends birth is trained to provide immediate postplacental IUD services for those women who have been sufficiently counseled during the antenatal period.
- Within two years of identifying the need for such services, Jhpiego and Laerdal Global Health, supported by a Saving Lives at Birth seed award, accomplished the following:
 - Developed the Mama-U simulator through many iterations of prototypes, informed by on-theground providers of family planning (FP) services and trainers.
 - Demonstrated the value of rapidly training novice providers, using humanistic training approaches made possible by the Mama-U simulator, through a study in Pakistan.
 - Scaled up PPIUD training programs in 10 countries.
 - Made the Mama-U simulator available at the low cost of \$50.

Jhpiego believes that active engagement with industry at the very start of

omen Who Want to Avoid a Pregnancy 818 million 26% 74%

No method or traditional method

Modern method

the innovation development process—coupled with repeated iterations and validated through experience and novice providers—was key to rapid scaleup of product use.

Burden and Opportunity

- Each year, 95,000 maternal deaths could be prevented if women who desired to postpone or avoid childbearing used effective FP methods.
- **IUDs are one of the most effective, safe and reversible long-acting FP** methods; they can be safely inserted immediately after delivery of the placenta.

The Challenge: Underutilization of PPIUDs

- Providers' lack of confidence in PPIUD insertion skills
- Myths and misconceptions among clients and providers (related to IUD) eligibility criteria and side effects)
- Lack of realistic, low-cost training simulators

The Solution: A New, Low-Cost, Lightweight and Realistic PPIUD Simulation Model Value proposition of Mama-U:

- **Cost-effective:**
 - \$50 vs. \$815 for other models
- **Realistic/human-like:**
 - Spring and material for the cervix enable trainers and learners to practice elevating the uterus during insertion
- Integration and compatibility:
 - Enables training—and thus service delivery and counseling—to be pushed further out into the health system, allowing the most underserved populations to have access to the PPIUD as an option for postpartum FP (PPFP)
 - Can be used inside of the existing MamaNatalie birth simulator
- Portability
 - The Mama-U can fold down into a compact "ready-to-use" carrying case, easing transport burden on providers while also protecting the model.



Key Provider and Service Delivery Outcomes

Indicator	Assumptions for Target and Clarifications	Target	Achieved
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Number of providers trained in PPIUD	Having a short-duration, high-frequency clinical skills training in PPIUD should increase the number of providers who will be trained in PPIUD.	60	88
Number of health facilities offering PPIUD services by providers trained on PPIUD using the new model	This model should have the ability to be pushed out further into the health system; therefore, it is important to track the availability of PPIUD services in project areas that might not be reached otherwise.	9	15
Proportion of providers who report having increased confidence in providing PPIUD services	One of the objectives of this training is to increase the confidence of providers in providing PPIUD services.	80%	92%
Proportion of providers who report that the training model is user-friendly and acceptable	This updated prototype should be more user-friendly; this will be measured through provider interviews.	80%	91%

Acceptability of Training Approach

Providers' Feedback (n=88)		Neutral %	Disagree %
Goals and objectives of training were achieved	93.2	6.8	0
Mama-U model was a good tool to use to teach the PPIUD insertion technique	94.3	5.7	0
Had enough time to practice with the simulator	93.2	5.7	1.1
Mama-U model was easy to use	90.9	5.7	3.4

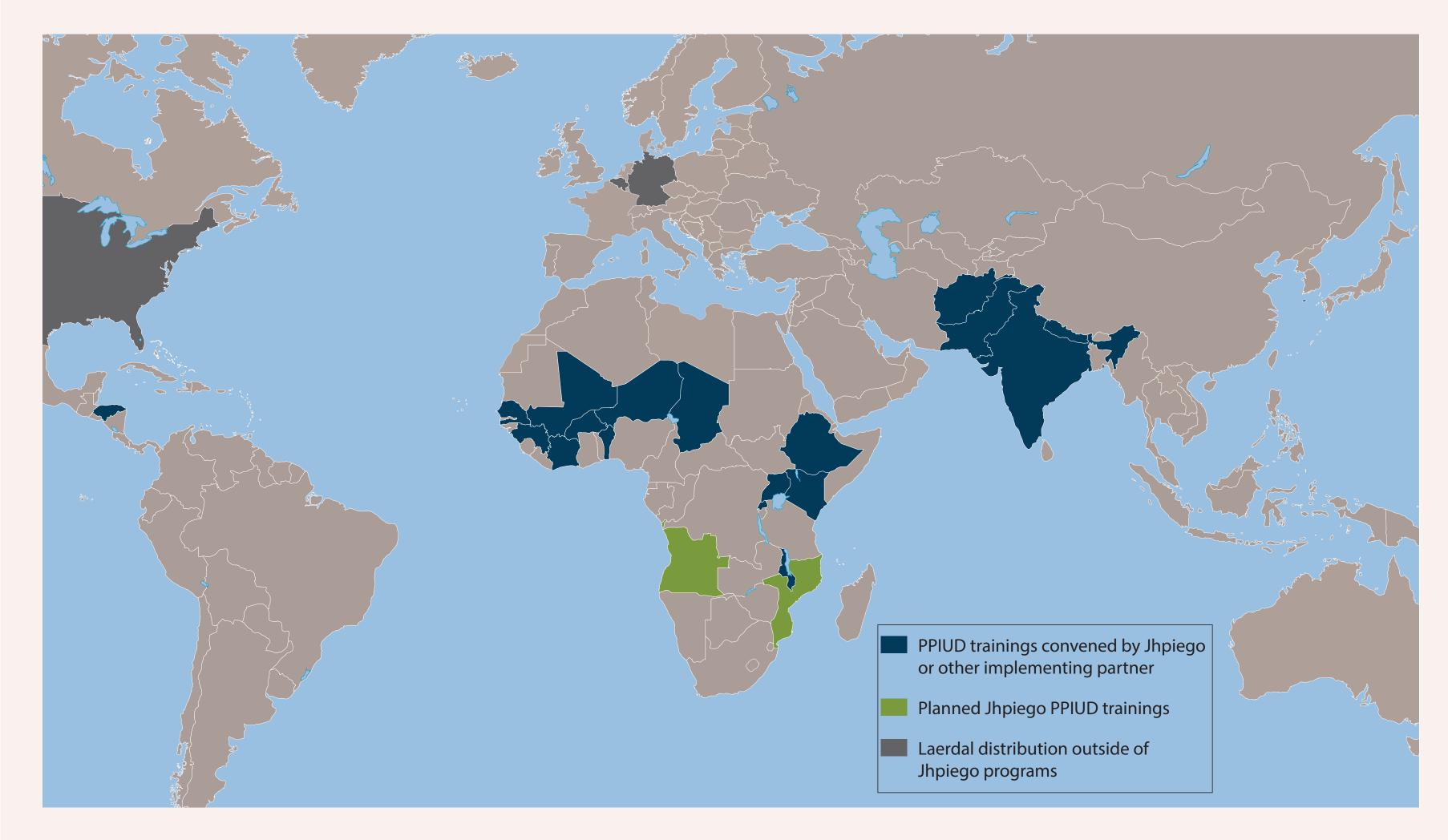
Directly Observed Performance Standards for PPIUD Services

Providers' Feedback (n=88)	Percentage of Providers Who Met PPIUD Insertion Standards
At end of training	75%
During follow-up three months after training	85%

- Performance standards are directly observed by an independent observer at the end of training and at three months.
- All participants are encouraged to practice on the Mama-U model periodically to maintain competency.

Sustainability and Rapid Scale-Up: Leveraging Jhpiego's PPFP Program

- PPIUD trainings convened by Jhpiego or other implementing partner in Afghanistan, Benin, Burkina Faso, Chad, Côte d'Ivoire, Ethiopia, Guinea, Honduras, India, Kenya, Malawi, Mali, Nepal, Niger, Pakistan, Rwanda, Senegal, Uganda
- Planned Jhpiego PPIUD trainings in Angola and Mozambique
- Laerdal distribution outside of Jhpiego programs: United States, Germany, Belgium



Through our existing PPFP program and partnership with host country governments, local partners, donors and manufacturers, Jhpiego can rapidly disseminate project results and initiate scale-up.

Quotes from Focus Group Discussions with Acceptors of PPIUD

On making the choice: "My in-laws think there should be no birth control, but I believe every child should get his right in these difficult financial circumstances."

~ Mother of three children, Lahore

On why she is choosing a PPIUD: "We don't have any family planning facility." ~ Mother of three children, Lahore

On the model:

"Yes, it [the model] was good. All the myths and fear of IUD are gone. After seeing it, now I am satisfied."

~ Mother of three sons, Lahore

On feeling safe once again:

"I have undergone three repeated terminations in the past as nobody told me about any contraceptive that can be given immediately after delivery. It is only this time my Baji [Lady Health Visitor] told me and I was so happy that I am going back home safe!"

During Seed Project Period

The model was tested at **15 facilities in Pakistan** currently involved in the **PPFP program with Jhpiego** funded by the David and **Lucile Packard Foundation** and with local partners supporting the project: **Greenstar Social Marketing**, National Committee for **Maternal Newborn and** Child Health, Pakistan **Institute of Medical Sciences** and Population Welfare **Department-Punjab.**

After Seed Project (1 Year)

Broader adoption of this innovative training model is potentially anticipated at **100 Community Midwifery** Schools and 21 Public Health Nursing Schools in Pakistan.

Long-Term Scale-Up

As seen with MamaNatalie and **NeoNatalie, Laerdal Global Health** has the capability to manufacture the PPIUD simulation model in large quantities and sell at low cost to developing countries.

Beyond Pakistan, Jhpiego is rapidly scaling up use of the model in existing and new PPFP programs in India, Bangladesh, Nepal and Guinea, and is also expanding to many other countries in Africa. At least five other development partners are using this training model.

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