

# Postpartum Uterus Model

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## EXECUTIVE SUMMARY

The Postpartum Uterus Model is designed to be a highly affordable, portable and realistic training tool. It will help improve the capacity, competence and confidence of frontline health workers in providing postpartum care. The model is particularly helpful for training insertion of IUD and uterine balloon tamponade in the postpartum period.

## BACKGROUND

### Need

95,000 maternal deaths could have been prevented every year if women who desired to postpone or avoid childbearing had used effective family planning (1,2). Another 100,000 deaths could have been prevented if birth attendants trained in how to prevent postpartum hemorrhage were present at birth (3).

To prevent these unnecessary maternal deaths, there is an urgent need to train large numbers of health providers in postpartum uterus care and postpartum IUD (PPIUD) insertion, all the way from front line health workers to higher-level health providers.

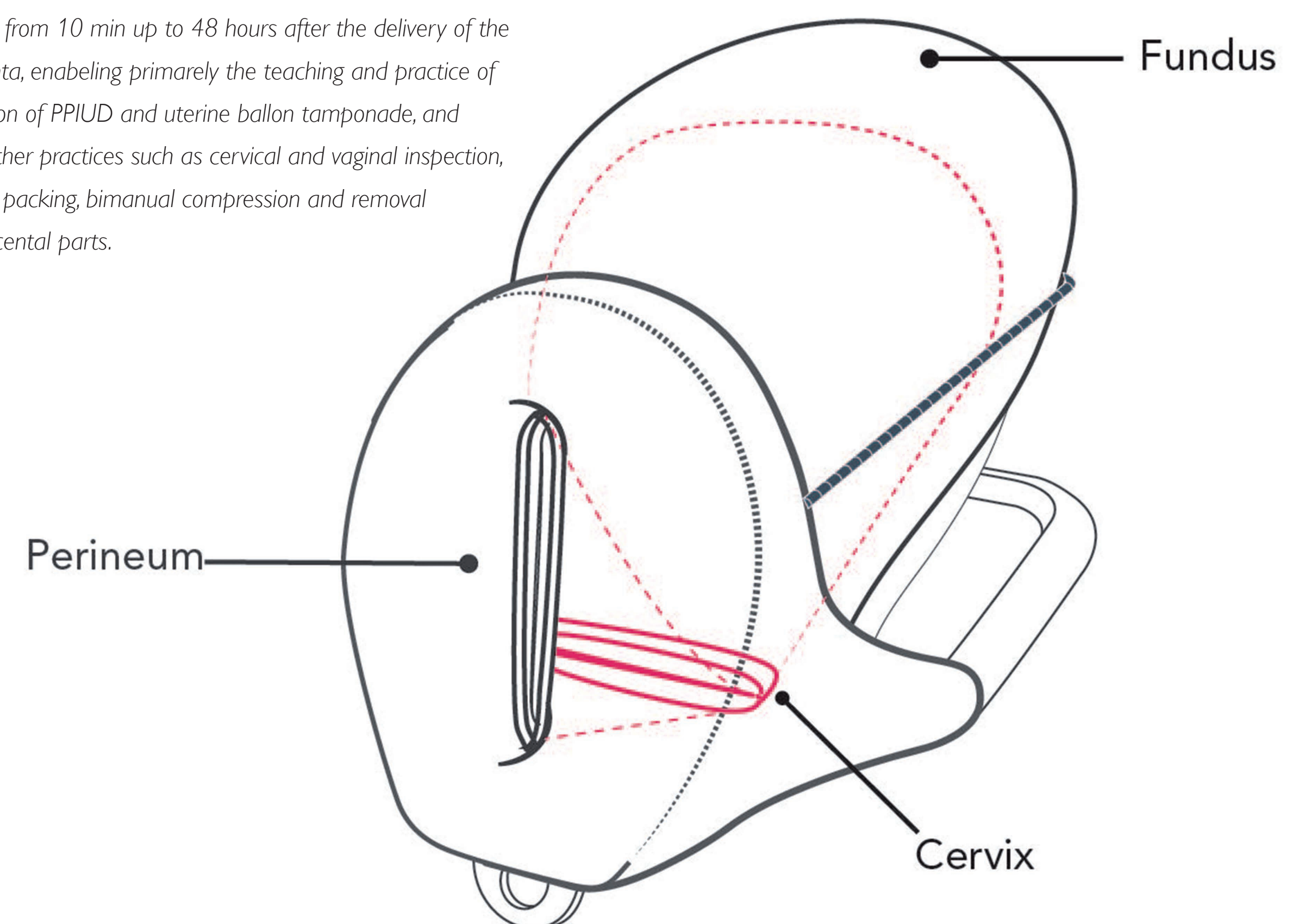
### Challenges with current uterus models

- Do not accurately simulate postpartum uterine positions, which can lead to low IUD placements and increased expulsion rates
- Expensive (typically USD 800+), heavy and not designed to withstand wear and tear of repeated use
- Due to high cost, providers cannot bring models back to their site for on-the-job practice or client counseling, leaving expensive, conventional training as the only option
- Design of current models precludes "low-dose, high-frequency training," which limits coverage and quality of PPIUD-trained providers

## PRODUCT QUALITIES



The Product represents an anatomically correct postpartum uterus from 10 min up to 48 hours after the delivery of the placenta, enabling primarily the teaching and practice of insertion of PPIUD and uterine balloon tamponade, and also other practices such as cervical and vaginal inspection, gauze packing, bimanual compression and removal of placental parts.



### Relevant and humanlike design

- The Product has realistic representation of the anatomy and physiology of a post-partum uterus, particularly in feeling of the fundus and vagino-uterine angle, allowing learners to practice the technique for correct placement of PPIUD by reducing the vagino-uterine angle. This technique has proven to lead to extremely low expulsion rates (4).

### Facilitates effective simulation training

- Can be used as a table-top task trainer, or inside a low-cost birthing simulator to enable an enhanced, integrated simulation experience that also facilitates communication training
- Provides learners with objective feedback (e.g. after PPIUD insertion, the learner can lift the cover of the uterus and see where the IUD was placed)
- Allows the instructor to actively interact with the learners and observers during hands-on practices, obtaining instant feedback from the uterine cavity and the adjustable vagino-uterine angle

### Affordable, portable, durable and easy to use

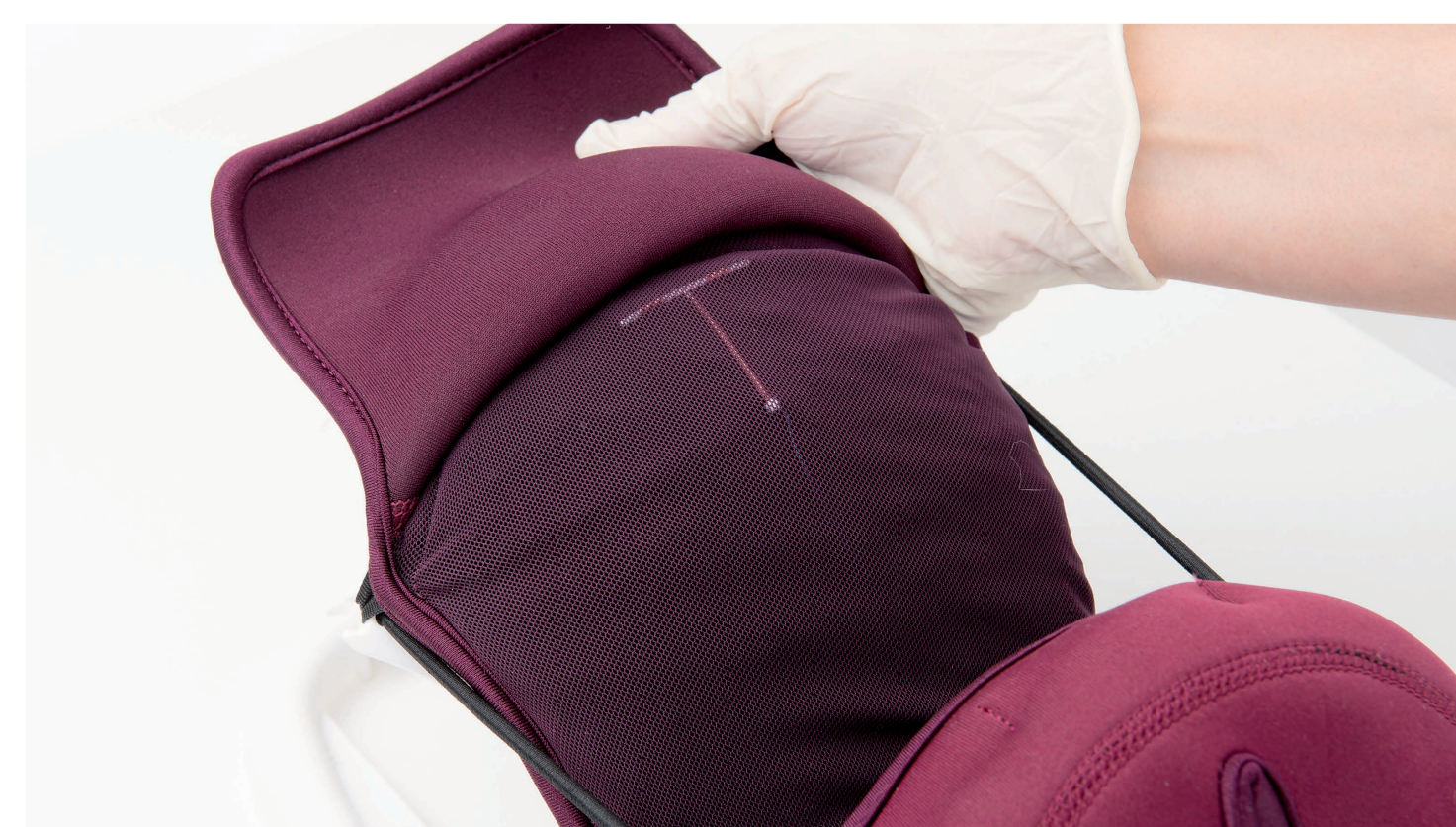
- Has a low purchase price (not-for-profit price: USD 50)
- Can be flat packed and is easy to transport
- Has a highly durable design, made of materials that require no maintenance over the Product's lifetime
- Is prepared for use by one simple and quick step
- Is operated manually and can be used in any setting (no electricity required)

### Supports maintenance of competence and confidence

- The affordability enables the Product to be purchased and distributed in large quantities. Thereby, high numbers of health providers in even the most rural areas can access the Product for the important "low-dose, high-frequency" refresher training that will enable them to maintain skills learnt during the initial training course
- The portability also makes the Product a suitable tool for use in ongoing, supportive supervision, further contributing to maintenance of competence and confidence over time.



Change uterine angle by applying pressure to the model.



Practice "blinded" placements and lift cover of the uterus to evaluate placement.



Ultra-portable in the compact shoulder bag and easy to use for on-site training

### Saving Lives at Birth-grant to support field test in Pakistan

The Product, as a part of Jhpiego's project "Reinvigorating the PPIUD using a low cost simulation model", won a prestigious Saving Lives at Birth grant. The grant is to support a field test of the Product in Pakistan (5).

The field test is expected to be completed 2014.



Use inside low-cost birthing simulator for complete birth and postpartum simulation training

### References

1. <http://www.impatientprimists.org/Posts/2013/10/1/Family-Planning-to-Prevent-Pregnancy-After-Childbirth>
2. Cleland et al. 2006. Lancet Series, Sexual and Reproductive Health Volume 368, Number 9549, 18 November 2006; Recovering Bangkok 2007-2010. Progress made and lessons learned in scaling up FP/INCH best practices in the Asia and Middle East Region
3. Countdown to 2015. Maternal, Newborn & Child Survival. 2012 Report.
4. MCHIP Year Two Annual Report, Reporting Period: October 1, 2009-September 30, 2010, p. 36. December 21, 2010. Jhpiego, Baltimore, USA.
5. Presentation of the project "Reinvigorating the Postpartum IUD using a low-cost simulation model" at Grand Challenges Development Xchange 2012: <http://www.savinglivesatbirth.net/summaries/196>