

# FINALIST SHOWDOWN BEST INNOVATORS AND RESEARCHERS

National  
**Conference 2023**

**SEXUAL AND REPRODUCTIVE  
HEALTH AND RIGHTS IN  
BANGLADESH**

SHOWCASING RESEARCH THROUGH  
IDEAS, INGENUITY AND INNOVATIONS

## The "push" to stop unnecessary C-section by taking control of labour pain: TEntrol Study

Name: Sahar Raza

Designation: Research Trainee

Organisation: icddr,b

Event Partners:



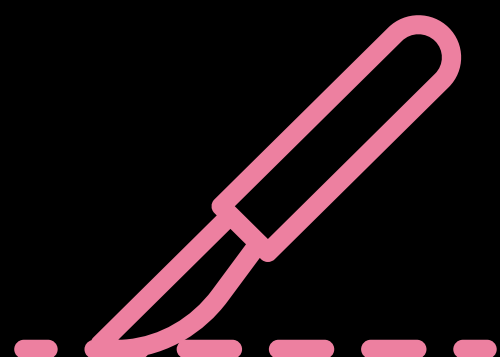
Share-Net  
Bangladesh



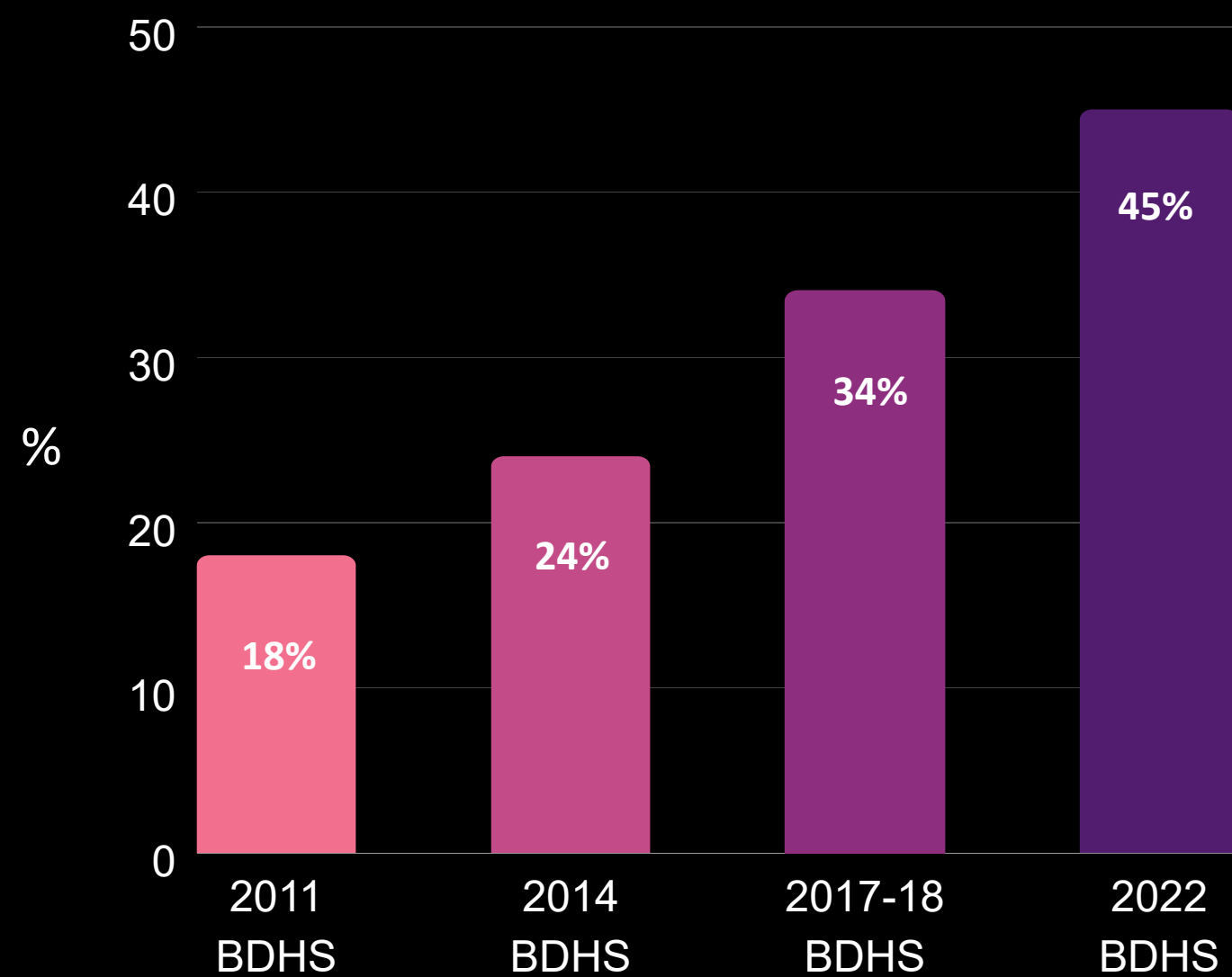
*The "push" to stop unnecessary C-section by taking  
control of labour pain:*

**TEN**trol **S**tudy

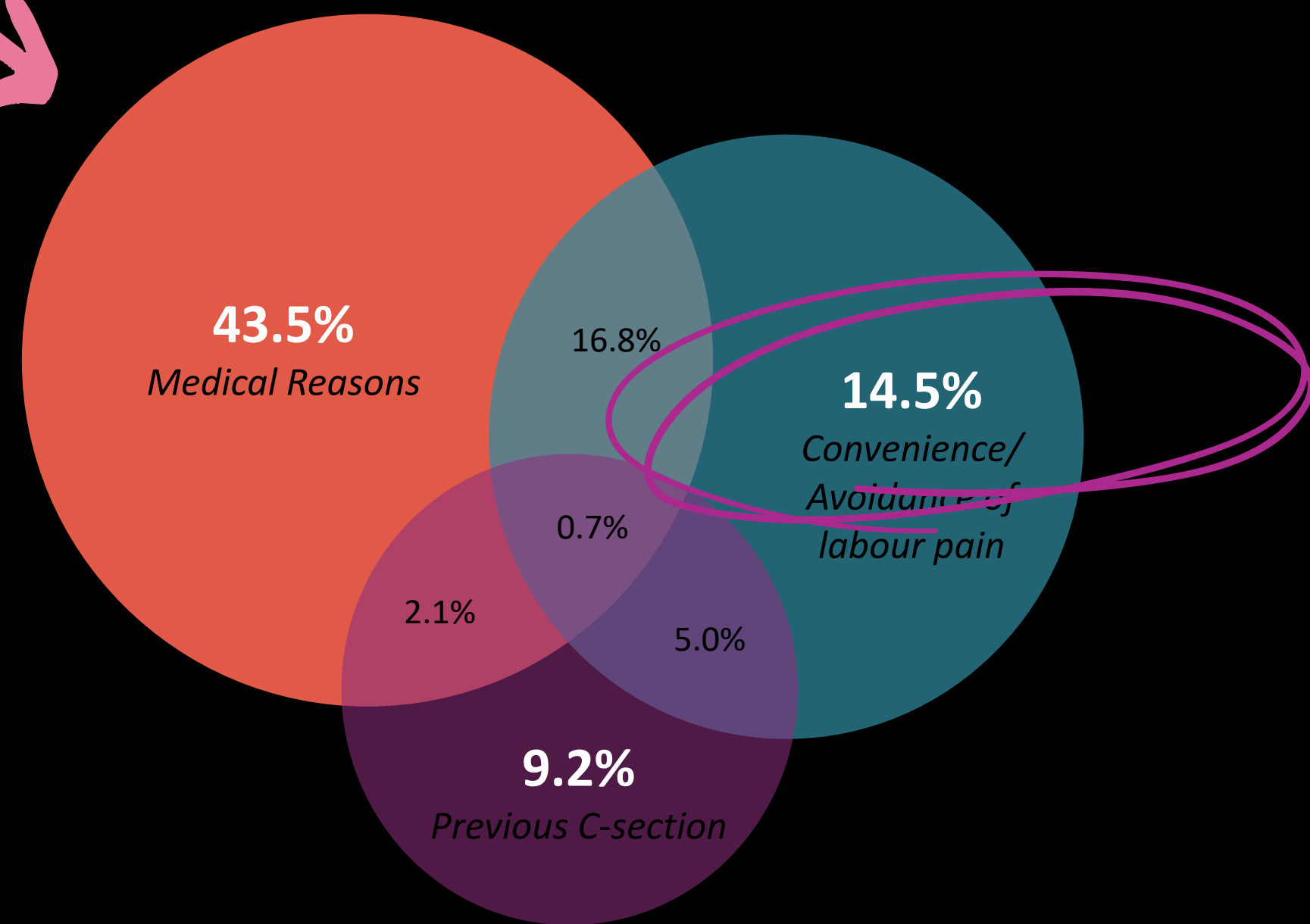




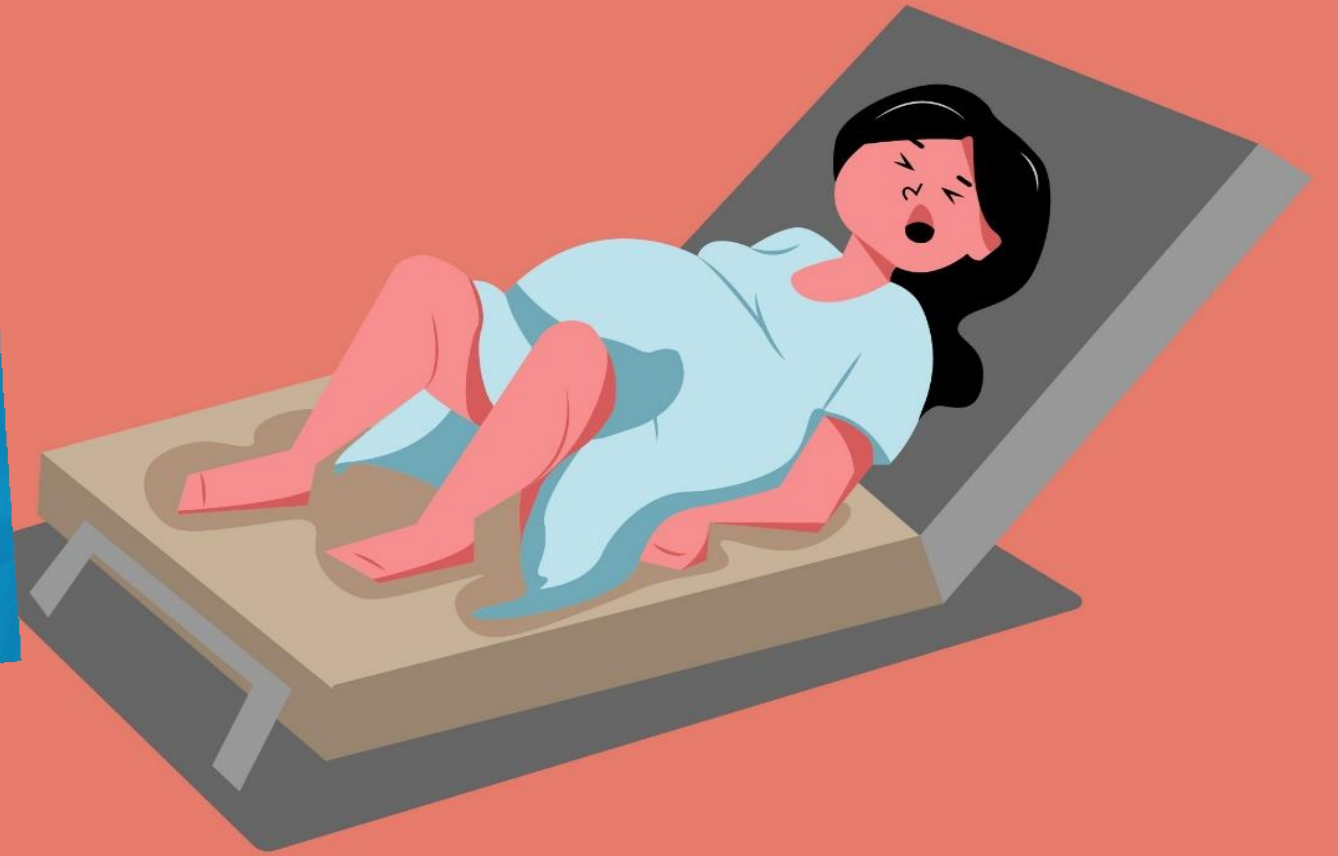
*Caesarean section epidemic in*

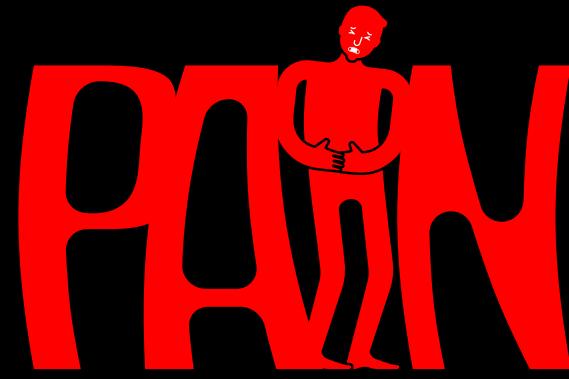


*Figure 1: Percentage of C section Births (BDHS)*



*Figure 2: Women's reported reasons for having a Caesarean section*





Management is a

Management is a

*Human right*  
*Woman's right*

বাচ্চা হওয়ার সময় ব্যাথ্যা তো হবেই।  
সবারই হয়, আমাদেরও হইছিলো। কষ্ট করে  
বাচ্চা না হইলে বাচ্চা আর মায়ের মধ্যে  
নাড়ির টান থাকে না। একটু কষ্ট করে মা। -  
Aunt of pregnant women who supported  
during delivery

ব্যাথ্যা ছাড়া বাচ্চা হয় নাকি! ব্যাথ্যা  
যত বাড়বে বাচ্চা তত তাড়াতাড়ি  
হবে। ব্যাথ্যা হইলে করার কিছু নাই,  
বেশি করে হাঁটো। -SSN of DH, Kushtia



World Health  
Organization

Pharmacological AND  
non-pharmacological  
methods of pain  
management

*for*

*a positive childbirth  
experience*



**Bangladesh Maternal Health  
Strategy**

Does not acknowledge pain  
management as a critical issue  
in rendering birth services

**Health facilities**

Do not always have resources  
and expertise to provide  
epidural

TENS





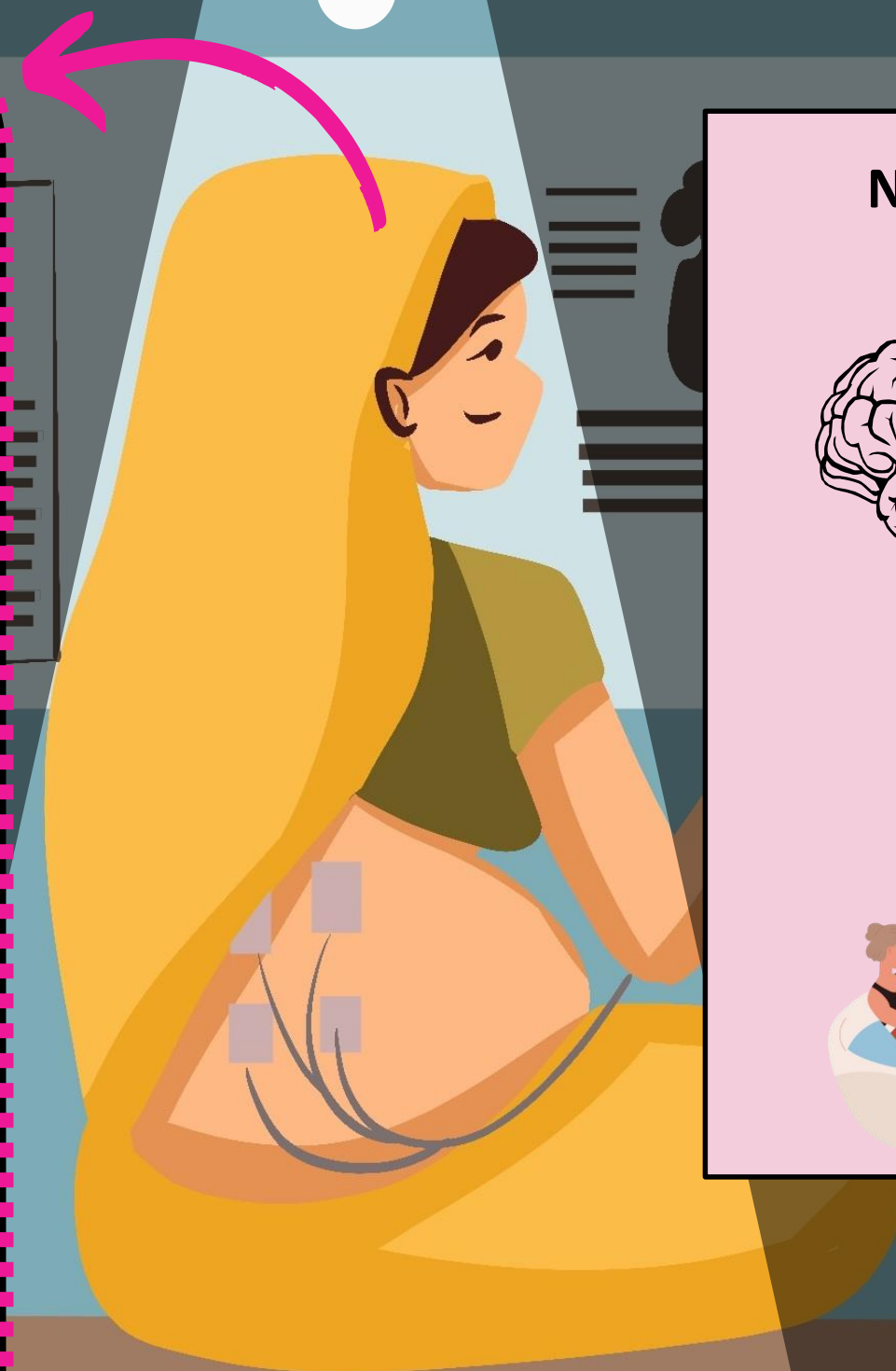
## Positive childbirth experience



*Sense of control and  
pain management  
option*



*Decrease anxiety and  
fear*



### Non-pharmacological approaches



Hypnobirth



TENS  
machine



Water birth

### Pharmacological approaches



Gas and Air  
(Entonox)



Epidural  
anesthesia



Opiates





## TENS

*(Transcutaneous electrical nerve stimulation)*



*Safe*

*Non-invasive*

*Low cost (\$80-\$100)*

*Portable*

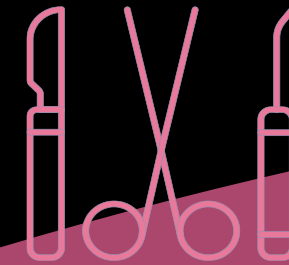
*Reusable*

*Easy to set up and self operated*

*Allows movement*

*Low-voltage electrical impulses through electrodes using the Gate Theory of pain*





Midwives can offer women effective aid

Women experience childbirth experience with less fear and anxiety and potentially reduce unnecessary c-sections

Introducing TENS in health facilities



# Research Questions



## Safety

→ Number of adverse events

## Acceptability

→ Interest to use it by women

→ Agree to recommend it to others after use

## Feasibility

→ Perceived easy of use by women and health care providers

→ Number of malfunction events

## Benefit

→ Severity of pain

→ Sense of control during labour

→ Satisfaction in pain relief during labour

→ Satisfaction with child-birth experience

# Outcome of Interests



Quasi-experimental  
before-after design:  
In two Upazila  
Health Complex

## Study Design



- **Process Documentation**
- **Interview after enrollment:**  
Interview of women with labor pain immediately coming to the health facility
- **Interview during labour:**  
Interview of women during labour/ giving birth
- **Exit Interview:**  
Interview of women after giving birth before leaving the hospital

## Data Collection Methods

12  
months

Month 1-3  
Preparation  
IRB  
Formative Research

Month 4-6  
Baseline assessment

- ☐ *Severity of pain*
- ☐ *Sense of control during labour*
- ☐ *Satisfaction in pain relief during labour*
- ☐ *Satisfaction with child-birth experience*

Month 7-9  
Implementation  
Training and Trouble  
Shooting

Month 10-12  
Endline assessment

- ☐ *Interest to use it by women*
- ☐ *Agree to recommend it to others after use*
- ☐ *Perceived easy of use by women and health care providers*
- ☐ *Number of malfunction events*
- ☐ *Severity of pain*
- ☐ *Sense of control during labour*
- ☐ *Satisfaction in pain relief during labour*
- ☐ *Satisfaction with child-birth experience*

USD  
33,000

