

# Levonorgestrel Intrauterine System (LNG IUS)

**David Hubacher, PhD**  
**Senior Epidemiologist**

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# Mirena<sup>®</sup> - A Levonorgestrel Intrauterine System

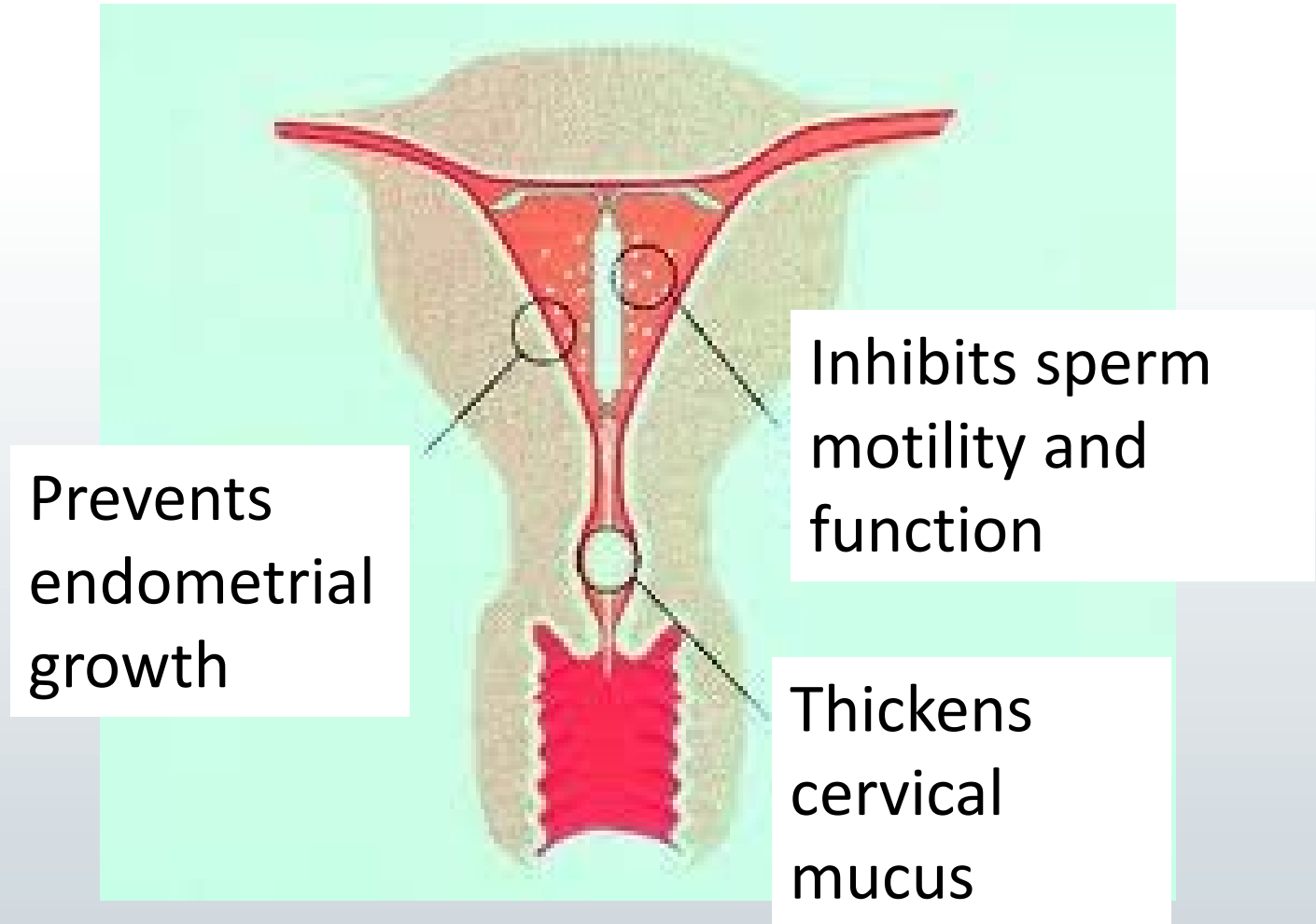


- Basic technology is 40 years old
- 1990 (Finland), 1990s (Europe), December 2000 (USA)
- 2009: USFDA approved Mirena as treatment for heavy menstrual blood loss

# Profile of LNG IUS

- 99+ % effective
  - WHO top tier of effectiveness
- Lasts for 5+ years, 80% continuation rate at 1 yr.
- Easy to insert/remove
  - No scalpel or lidocaine needed
- Numerous non-contraceptive benefits
  - Generally reduces menstrual blood loss
  - Increases hemoglobin
  - Likely alleviates or prevents anemia
  - Effective treatment for menorrhagia
  - Reduces blood loss from uterine fibroids

# How the LNG IUS Prevents Pregnancy

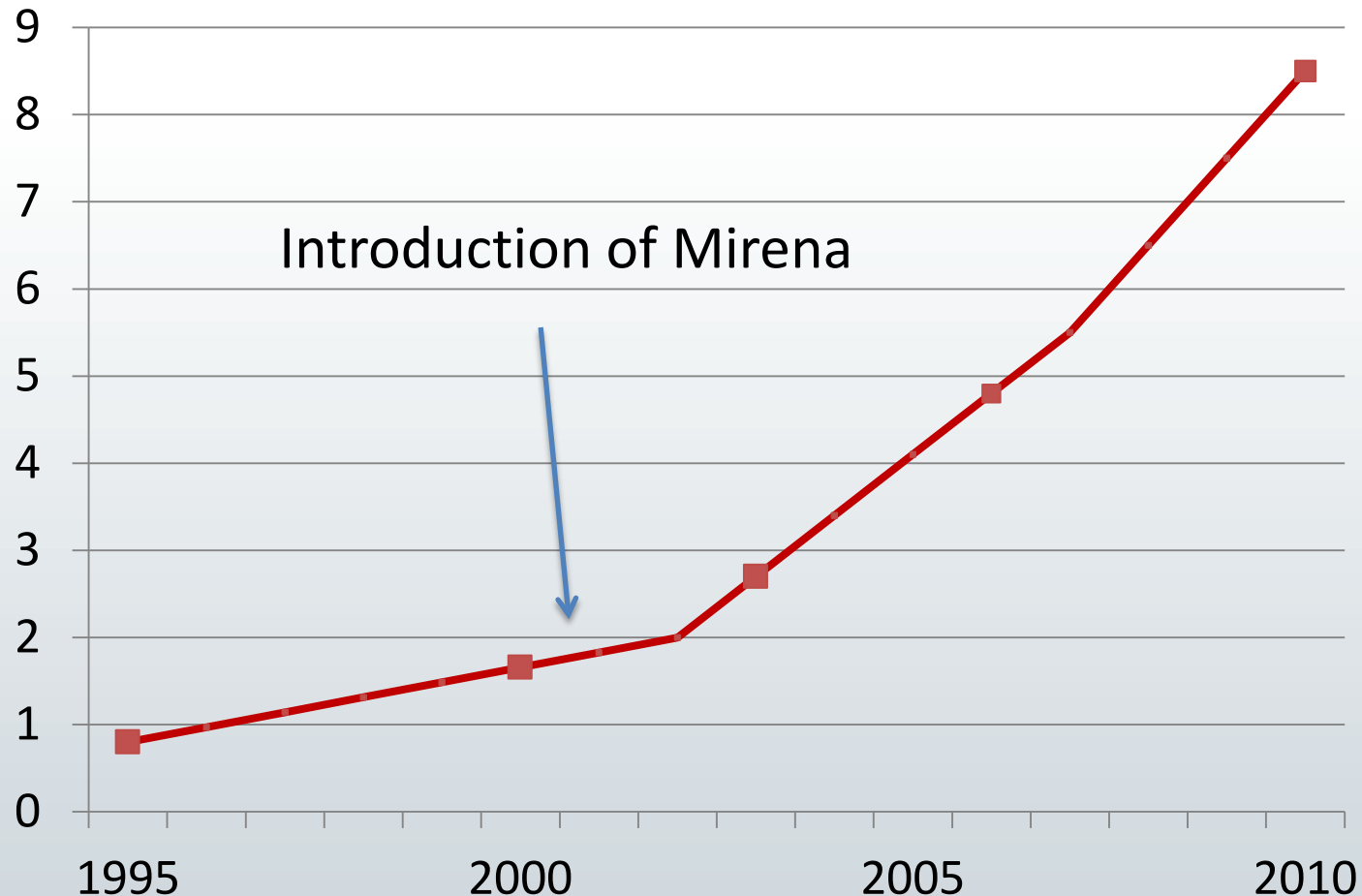


# Key to Technology: Localized release of LNG

- 20 mcg per day release in uterus
- Not systemic like other hormonal methods
- No peaks and troughs of LNG in plasma
  - steady, low release
- Small amounts of LNG in bloodstream
  - Oral contraceptives: 10 times more
  - Norplant: 2 times more
- Concentration of LNG in plasma: 125-200 pg/ml
  - Maintained over 5 years and beyond

# Impact of Mirena in USA – Women Like It

Percent of US contraceptors using an IUD



# Perspective on Impact

- Never has any contraceptive in last 20 years come remotely close to Mirena on the US stage in terms of pace of uptake and sustained use:
  - DMPA, patch, NuvaRing, Implanon

Question:

The technology is 40 years old so why can't women in other countries have it?

# Cost as a Barrier for Donor Procurement

- Current price: \$850 in US, \$155 in India (Rs 7,000)
- Donor discounted price: Non-existent
- ICA Foundation (International Contraceptive Access)
  - Partnership between PopCouncil and Bayer)
  - Mirena in old inserter system = LNG IUS
  - Donated 40,000 units in 15 countries since 2004
  - Goodwill “teaser” donations
  - Bangladesh, Dominican Republic, Ecuador, El Salvador, Ethiopia, Ghana, Indonesia, Kenya, Nigeria, South Africa, Zambia



# Dispelling Myths on IUDs

- Myth: In many countries, women do not like IUDs
- Fact: Provider training/attitude are the key in any country
  - Urban Health Initiative in India: successful
  - In Africa: MSI and PSI have remarkable uptake
  - Legacy IUD countries: Egypt, Vietnam, Mexico, China
- Fact: Not all women will choose an IUD when offered an array of options
- Fact: Women need more long-acting reversible methods and alternatives to sterilization

# Conclusions

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- LNG IUS: proven technology
- Unique combination of features: high appeal
- Traditional barriers to widespread use
  - Cost and provider bias
- New opportunities in India
  - IUD is acceptable
  - LNG IUS now made locally