

# Beyond Plan B:

## Updates in emergency contraception

Holly Bullock MD, MPH  
University of Utah  
Department of Obstetrics and Gynecology  
Fellowship in Family Planning

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# Objectives

- Understand the prevalence of unintended pregnancy and indications for emergency contraceptive use
- Review all emergency contraceptive methods, highlighting the two best methods
- Discuss strategies to increase access to the two best methods

# What is emergency contraception?

- Emergency contraception (EC) consists of a device or drug used **after intercourse** to prevent pregnancy by:
  - Inhibiting ovulation and fertilization primarily
  - Used after unprotected intercourse, underprotected intercourse, or sexual assault

# Unintended Pregnancy in the U.S.

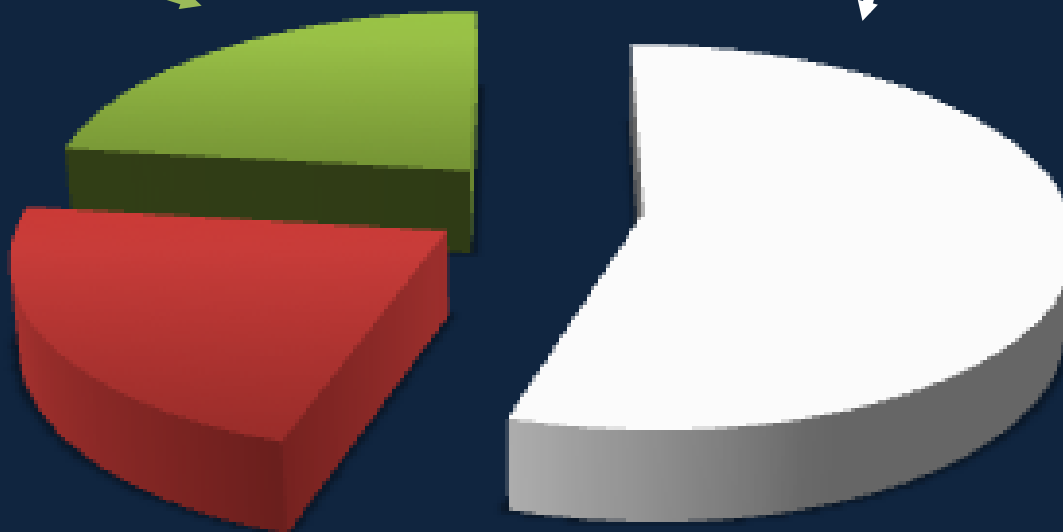
**Unintended: 45%**

**Intended: 55%**

Elective abortions: 23%

*1.1 million abortions/yr*

Unintended births: 22%



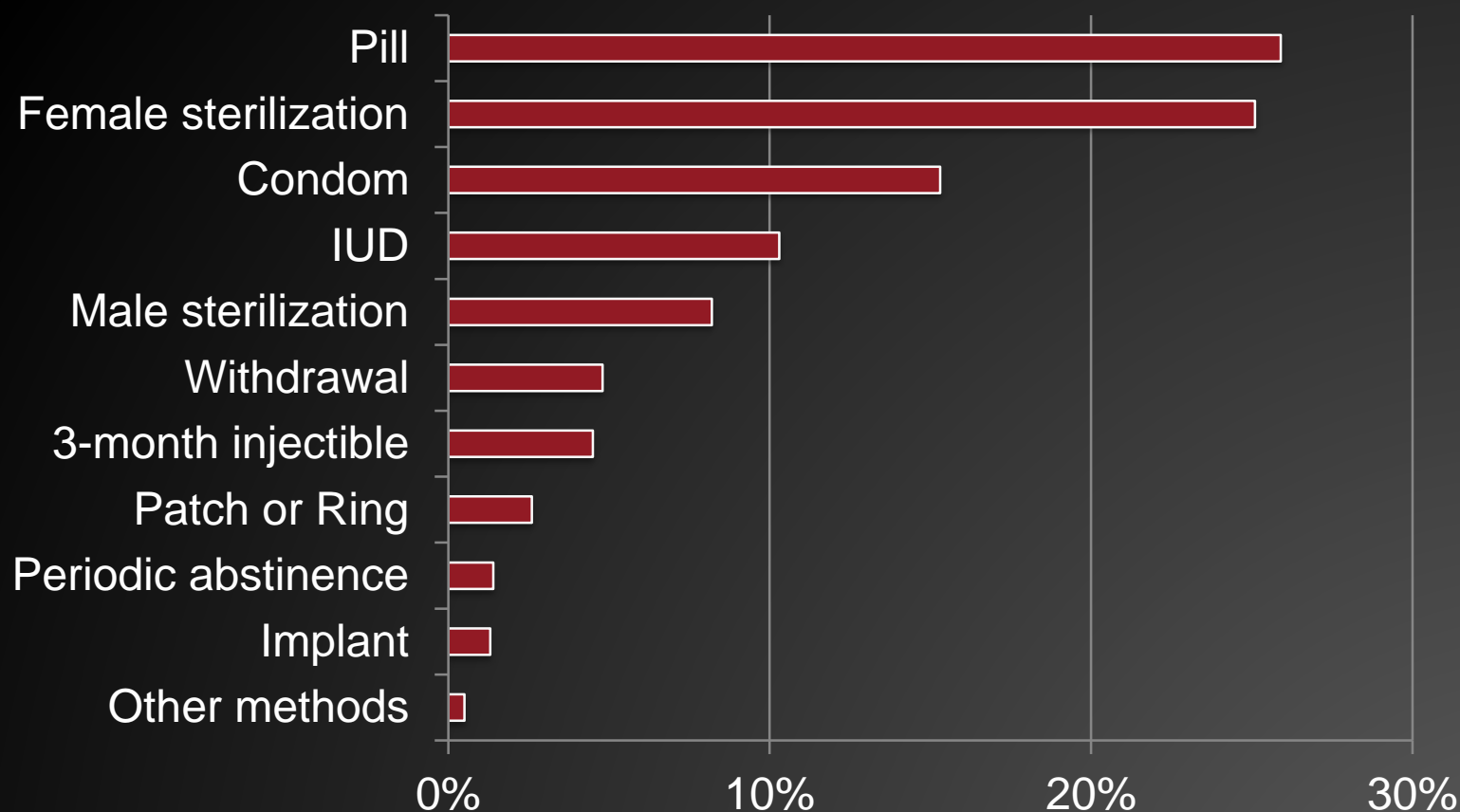
# What is the risk for unintended pregnancy?

- 4-6% following single act, up to 30%
- Fertile window lasts 6 days
- Sperm able to fertilize 5-6 days
- Ovulation can vary between cycles
- 2015 data indicates unprotected sex more likely during fertile window

# Even with contraception, pregnancy risk remains

- 99% of women report ever having used a method
  - Survey of Family Growth 2010 report
  - Most popular methods have high failure risk with typical use
- > 50% of women using contraception experience unintended pregnancy

## The majority of U.S. women use pill or condoms for short acting contraception



% of women (15-44 yrs) using contraception

# When is Emergency Contraception needed?

Method of Contraception	Indication
None	Always indicated
Lactation Amenorrhea Method (LAM)	Criteria for method no longer met and no use of additional methods
<b>Hormonal Methods:</b> Progestin-only contraceptive pills	Delay since last pill > 27 h Vomiting, diarrhea for > 48h Delay in starting new pill pack No backup method first 2d of method
Combined Oral Contraceptive pills	Two or more missed pills Delay in starting new pill pack by > 48h Vomiting and diarrhea for > 48h No backup method first 7d of method
Patch	Leaving the patch on for > 9d Delay in applying new patch > 48h No backup method first 7d of method
Ring	Leaving the ring in for > 35d Delay in inserting new ring > 3h No backup method first 7d of method
DMPA injection	Interval between injections > 15w No backup method first 7d of method

# Indication for Emergency Contraception

Method of Contraception	Indication
<b>Barrier Methods:</b>	
Male Condom	Slippage, leakage, breakage
Female Condom	Incorrect insertion, dislodgement
Diaphragm, Cervical cap	Incorrect insertion, dislodgement
Spermicide	Incorrect insertion, failure to melt
Withdrawal	Incorrect or uncertain usage
<b>Long Acting Reversible Methods:</b>	
Copper IUD	Concern for device expulsion Device beyond duration of efficacy
LNG IUD	Concern for device expulsion Device beyond duration of efficacy No backup method first 7d of method
Progestin Implant	Device beyond duration of efficacy No backup method first 7d of method

# Four Methods of Emergency Contraception

- Copper intrauterine device (IUD)\*
  - Paragard
- Oral Emergency Contraceptive Pills (ECPs)
  - Ulipristal Acetate (UPA)\*
    - Ella
  - Levonorgestrel ECPs
    - Plan B onestep, generics My Way, Next Choice, etc
  - Yuzpe Method
    - Combined OCPs

# Copper IUD (Paragard)- MOST EFFECTIVE

- Active component
  - 380mg copper ions
- Mechanism
  - Spermicidal action of Cu ions
  - Prevention of implantation
- When to place: first 120 hours
- Efficacy
  - Reduces pregnancy risk by 99.9%
  - 0-1 pregnancy per 1000 users



- Safety
- Side Effects

# Ulipristal acetate (UPA)- Most Effective Pill

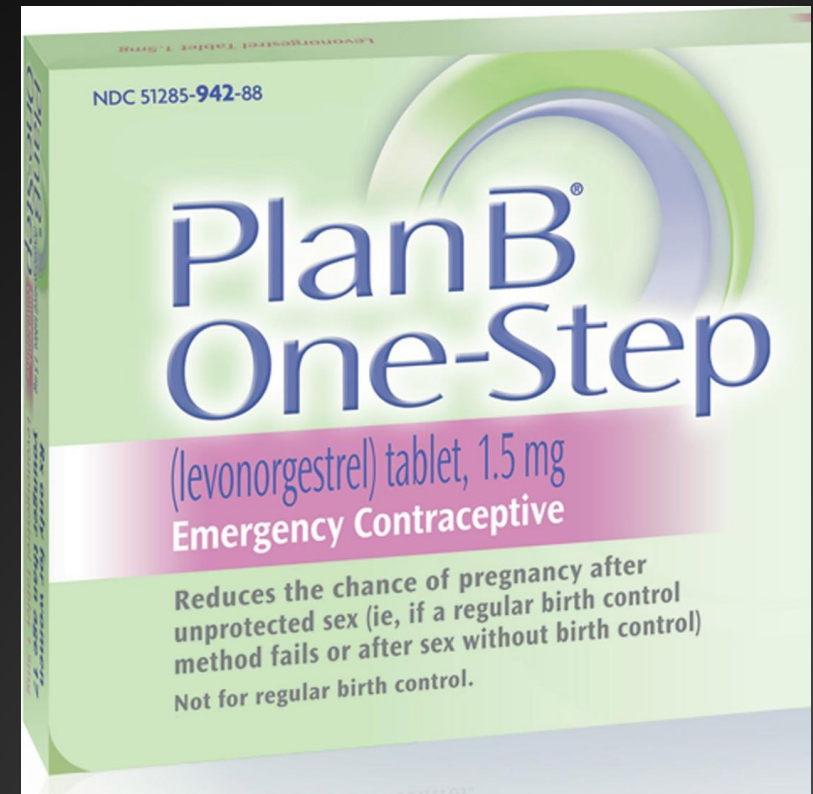
- Active component
  - 30mg ulipristal acetate
  - Progesterone receptor modulator
- Mechanism
  - Delays ovulation
  - Still effective after LH surge
- When to take: first 120 hours
- Efficacy
  - Reduces pregnancy risk by 85%
  - 5 pregnancies per 1000 users
  - Effective up to BMI of 35 kg/m<sup>2</sup>



- Safety
- Side effects
- Needs Rx, pharmacy availability

# Levonorgestrel ECPs

- Active component
  - 1.5mg levonorgestrel
- Mechanism
  - Delay ovulation by blocking LH surge
  - Delays follicle development
- When to take: first 72 hours, with some efficacy up to 120 hours
- Efficacy
  - Reduces pregnancy risk by 75%
  - 10 pregnancies per 1000 users
  - Effective to BMI 26 kg/m<sup>2</sup>



- Safety
- Side Effects
- Over-the-counter, generics need Rx

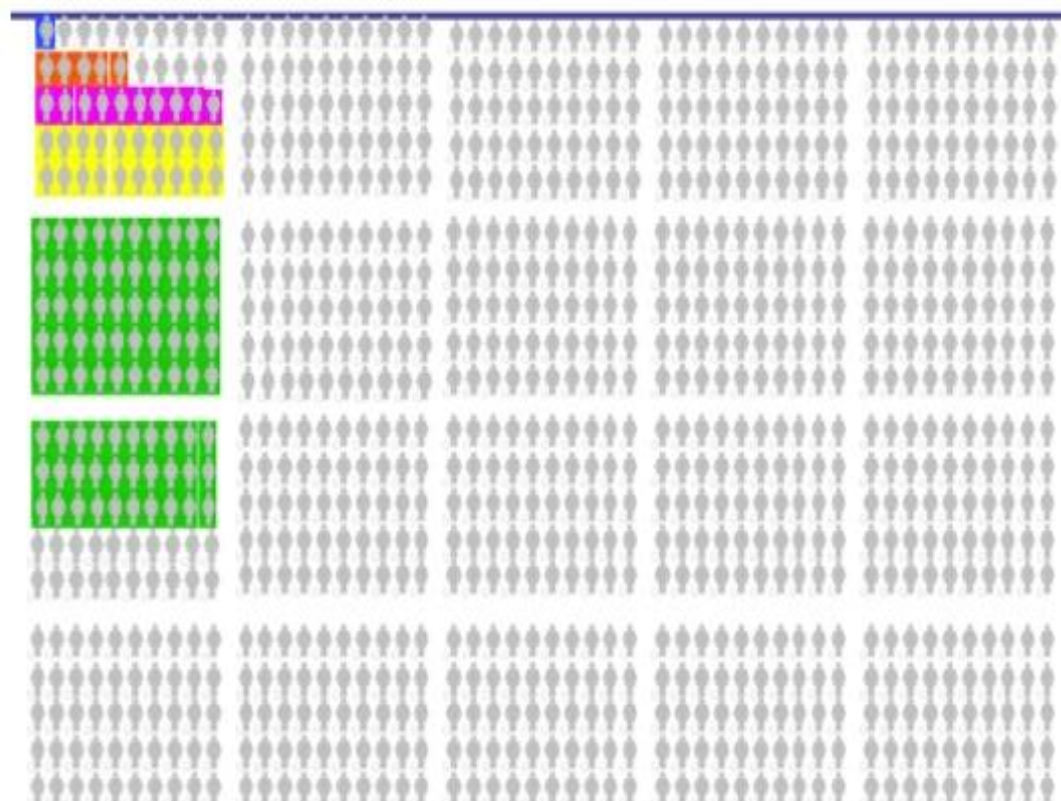
# Yuzpe method: combined OCPs

- Active components
  - 200mcg ethinyl estradiol
  - 1mg progestin
  - Administered in two doses
    - 1<sup>st</sup> dose within 72 hrs
    - 2<sup>nd</sup> dose follows 12 hrs later
- Mechanism
  - Prevents or delays ovulation
- Efficacy:
  - Reduces pregnancy risk by 62%
  - 20 pregnancies per 1000 users

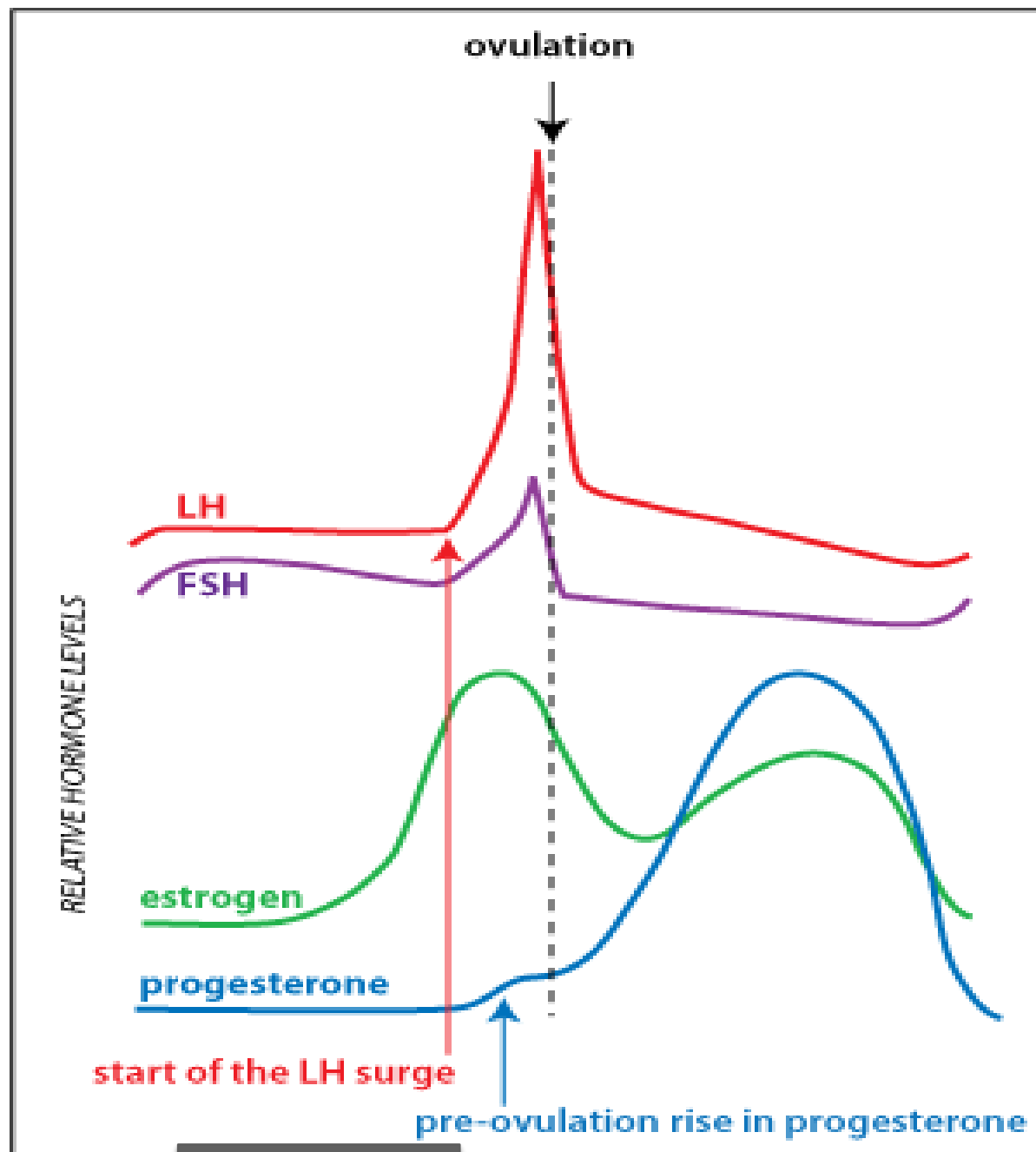


- Safety
- Side Effects

# Pregnancies per 1,000 women after unprotected intercourse



ParaGard, ella, Plan B/Next Choice, Yuzpe, Nothing



LNG ECP

UPA

Cu-IUD

# Why aren't Cu-IUD and UPA utilized more?

## ■ Cu- IUD barriers

- Lack of counseling on EC options
- Cost, insurance obstacles
- Provider discomfort with same-day insertion
- YET WOMEN ARE INTERESTED IN THIS METHOD!

## ■ UPA

- Requires Rx and a knowledgeable provider to write for it
- Lack of insurance coverage
- Lack of pharmacy availability
- Pharmacist misinformation

## ■ What about after sexual assault?

# Increasing Access:

- Integrate EC counseling into clinic visits for reproductive age women
- Provide advance prescriptions for EC
- Visits for EC are valuable teaching moment regarding LARCs- especially the Cu-IUD- and dual methods
- Sexual Assault

## Our To do list:

- Have the EC conversation with each patient
- Write advance rx for UPA and work with your local pharmacy to ensure that it is stocked
- Offer Cu-IUD for EC seeking patients or refer (quickly) to a provider who can insert device

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# QUESTIONS?

# Public Health Impact: Somewhat Mixed

- For proper use, risk for pregnancy must be recognized
  - Lack of understanding regarding fertile window
  - Advance provision alone does not ensure use
- Inconsistent evidence showing EC use decreased regular contraceptive use
  - Raymond et al
  - Weaver et al subanalysis
  - Raine et al and 2007 Cochrane review
- Advance provision of EC does increase its use but has not reduced pregnancy rates when compared to standard EC access

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