



# Emergency Contraception and Adolescents

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# Objectives

- ▶ Discuss the need for emergency contraception (EC) among adolescents
- ▶ Describe the clinical components of EC
- ▶ Understand the challenges and opportunities for increasing EC use at the patient, provider, and health systems level

# Case: Sophie



- ▶ Sophie is a 16-year-old girl who comes to you requesting EC
- ▶ She tells you the condom broke during sex with her boyfriend

# What Is Emergency Contraception (EC)?

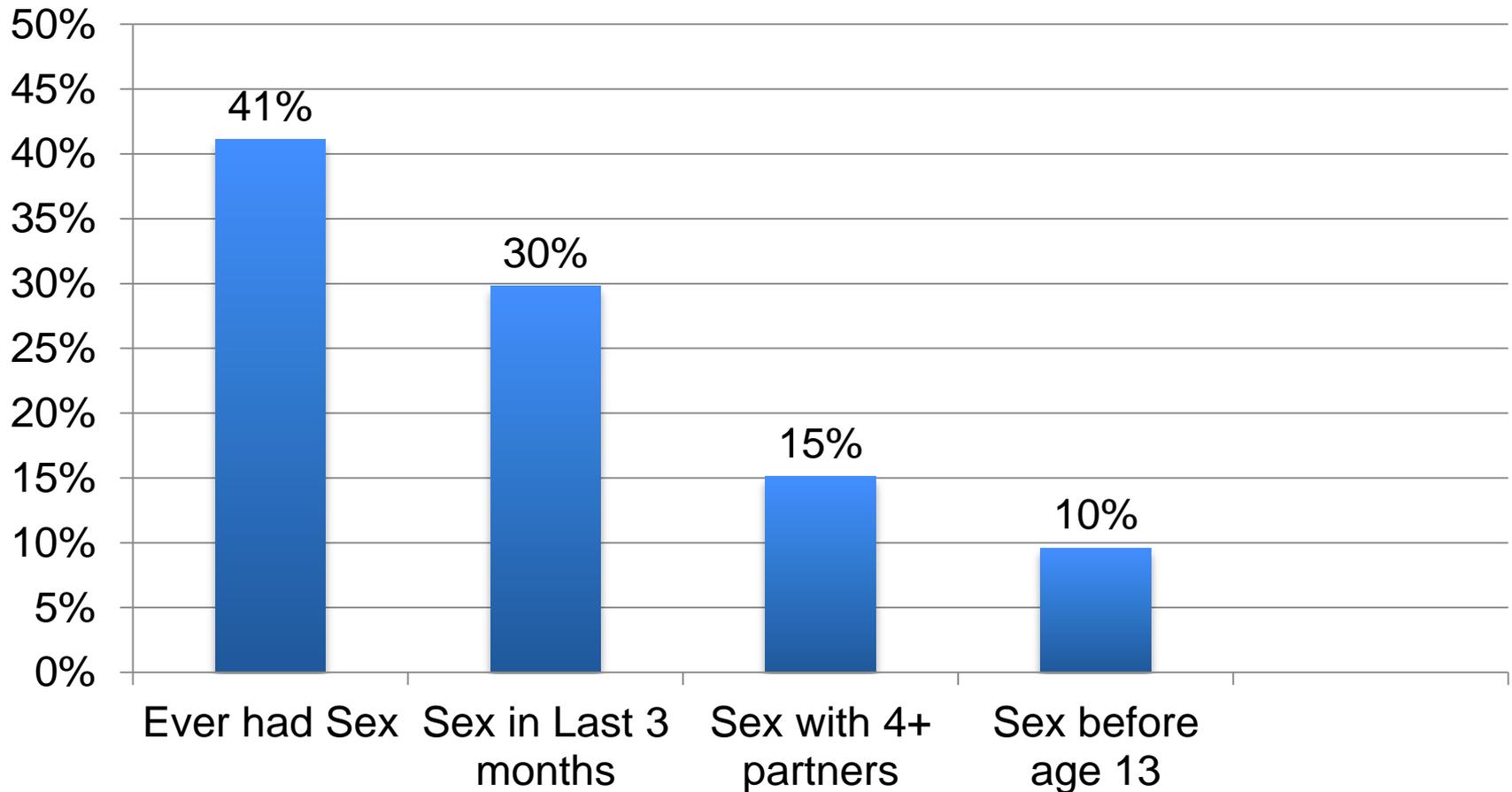
- ▶ A safe and effective way of preventing pregnancy in cases of:
  - ▶ Contraceptive failure
  - ▶ No contraceptive use
  - ▶ Unplanned or forced intercourse
  - ▶ Contraceptive sabotage
- ▶ Some methods very effective up to 120 hours after unprotected intercourse (UPI)

# Adolescents Need EC

- ▶ The U.S. has one of the highest teen pregnancy rates in the industrialized world.
  - ▶ 2008 Comparative:
    - U.S. **41.5** births per 1,000 girls 15-19yo
    - Japan & Netherlands **5** per 1,000
- ▶ 5% of teen pregnancies due to contraceptive failure
  - ▶ Effectiveness of method
  - ▶ Consistent and correct use

# US, High School YRBS, 2013

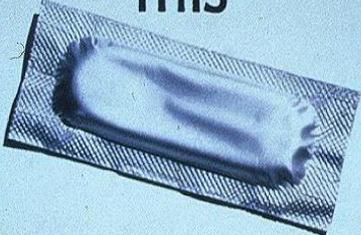
## American Indian/Alaska Native Students



# Youth Risk Behavior Survey, 2013

YRBS Question	U.S.
% students who used a condom at last sex	59%
% students who used birth control pills at last sex	19%
% students who used Depo-Provera, NuvaRing®, Implanon®, or any IUD before last sex	5%

**IF  
YOU  
FORGOT  
THIS**



**REMEMBER  
THIS**

Emergency contraception isn't just for the morning after - it can be started up to 3 days (72 hours) after unprotected sex. Emergency contraception is free and confidential - ask your doctor or family planning advisor for further information.



Produced as an educational service by NFP.

## Indications for Immediate EC

# Human Error

- ▶ No contraceptive use
- ▶ Failure of contraception
- ▶ Incorrect contraceptive use
- ▶ Inconsistent contraceptive use

# Methods of EC



# Branded EC Products in the U.S.



## Plan B OneStep®

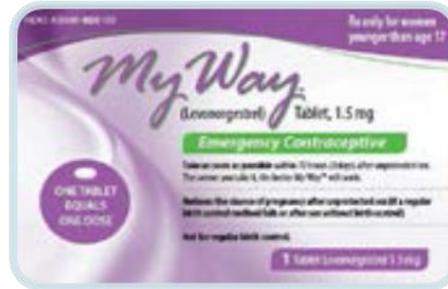
- Single dose
- 1.5 mg levonorgestrel
- Label: Up to 72 hrs after unprotected sex
- Recommend: Up to 120 hrs
- OTC for females and males any age



## ella®

- Single dose
- 30 mg Ulipristal acetate (UPA)
- Label: Up to 120 hrs after unprotected sex
- Prescription Only for females
- Can order online at [www.ella-kwikmed.com](http://www.ella-kwikmed.com)

# Generic EC Products in the U.S.



## Next Choice™ and My Way® One Dose LNg

- Generic
- Label: 1 dose of 1.5 mg levonorgestrel up to 72 hrs after unprotected sex
- Recommend: Up to 120 hrs
- OTC for females and males any age

## LNg Two Dose Tablets

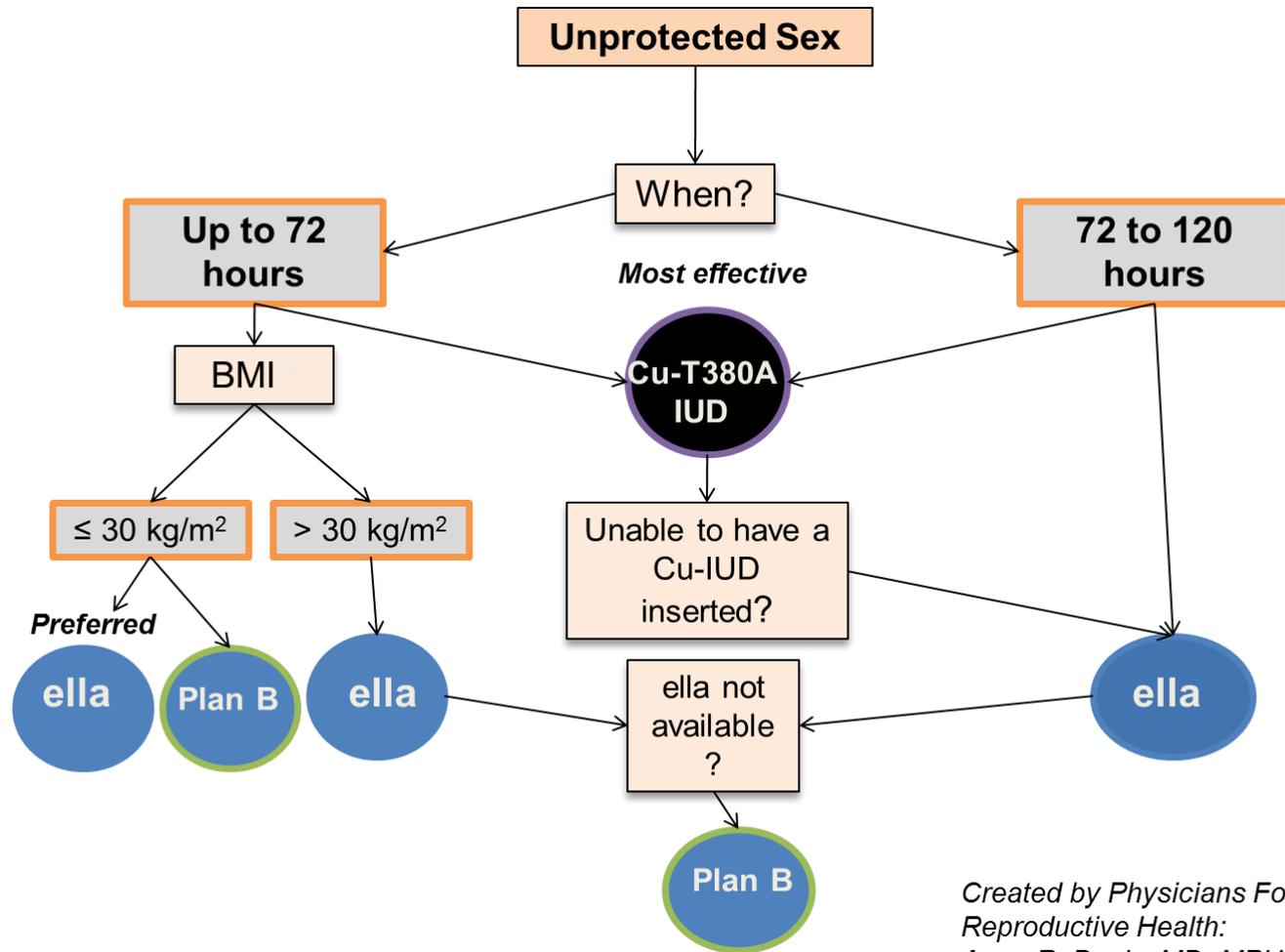
- Generic
- Label: 2 doses of 0.75 mg levonorgestrel up to 72 hrs after unprotected sex
- Recommend: 2 tablets at once up to 120 hrs
- OTC for ages 17 & older

# Case: Sophie



- ▶ Sophie tells you that it has been four days since the condom broke
- ▶ Her medical history also indicates that her BMI is 30
- ▶ Which EC options would you discuss with Sophie?

# Emergency Contraception Decision Tree



Created by Physicians For  
Reproductive Health:  
Anne R. Davis, MD, MPH

# ella®

- ▶ FDA approved August 2010 and entered market November 2010
- ▶ **Rx-only** for all ages; NOT OTC
- ▶ Effective 5 days after unprotected intercourse (UPI)
- ▶ Efficacy **does not diminish over time**
- ▶ Average failure rate of 2.1%
- ▶ **More effective for obese** women than levonorgestrel



# ella Is Available Online: Kwikmed

- ▶ No face-to-face is required to diagnose
- ▶ Allows patient to receive pills in a timely, discreet manner
- ▶ Resolves pharmacy access barriers
- ▶ Online physician consultation
- ▶ Highly cost efficient
- ▶ KwikMed is the only firm licensed to prescribe online

# ella-kwikmed.com

KwikMed is the **exclusive** online provider of ella<sup>®</sup>

Order Now

Buy Ella<sup>®</sup> Online



[Learn More About ella<sup>®</sup>](#)

Emergency contraception available by online prescription:

1. Order from the privacy of your home
2. Effective up to 5 days after intercourse
3. Confidential ordering, discreet packaging
4. FedEx Next Day delivery

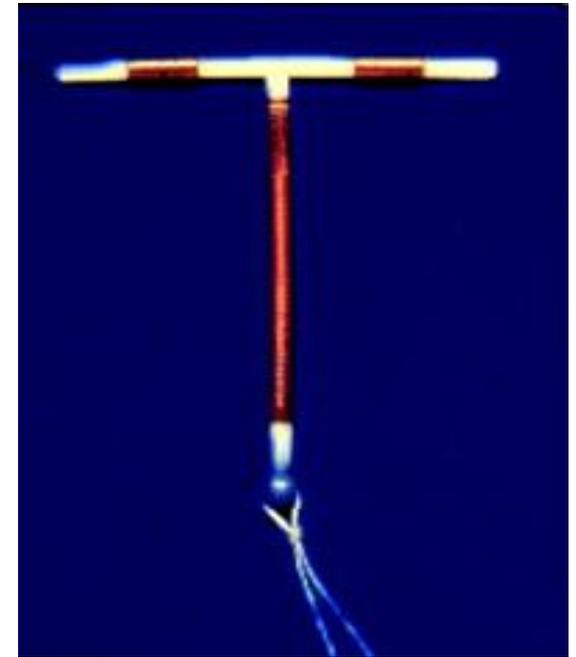
Potency	Quantity	U.S. Price	Order
30 mg	01 Tablet	\$59.00	<a href="#">Order Now</a>

Upon checkout, your order will be reviewed by a KwikMed Physician. If approved, your credit card will be charged and your ella<sup>®</sup> will be shipped in confidential packaging via FedEx. A signature is required upon delivery.

Online ella<sup>®</sup> orders are typically reviewed within 4 hours.

# Paragard® (Copper IUD) Off-Label Use

- ▶ Insert within five days after UPI
- ▶ Highly effective: Reduces risk of pregnancy by more than 99%
  - ▶ Efficacy doesn't decline over time
- ▶ Historically, rarely used for EC alone but this may change
- ▶ Cannot use levonorgestrel IUS (Mirena® or Skyla®) for EC



**Mechanism of Action**

# Dispelling Myths

- ▶ EC is not the abortion pill and does not cause an abortion
- ▶ EC does not harm an existing pregnancy
- ▶ UPA: No adequate large well-controlled studies in pregnant women
- ▶ EC does not affect future fertility

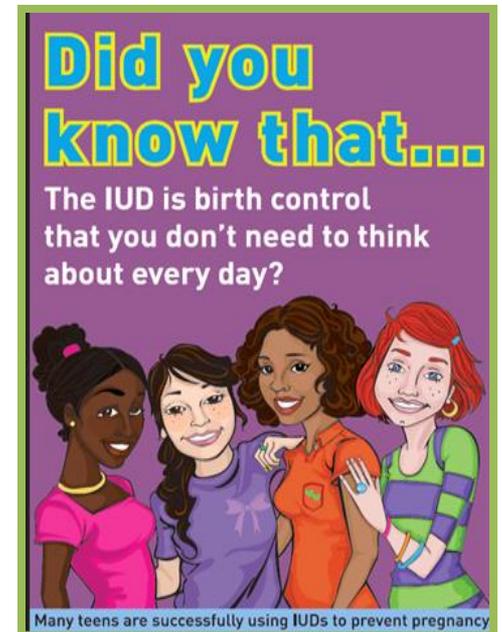
# Mechanism of Action

## Oral Methods

- ▶ Disrupt normal follicular development by delaying or inhibiting ovulation
- ▶ DO NOT prevent fertilization or implantation
- ▶ ECP are not effective once fertilization occurs

# Mechanism of Action: Copper IUD

- ▶ Releases copper that induces an inflammatory response
- ▶ Can inhibit fertilization or implantation of a fertilized egg



**Efficacy**

# How Do We Measure EC Efficacy?

- ▶ The reduction in pregnancy risk after a single coital act

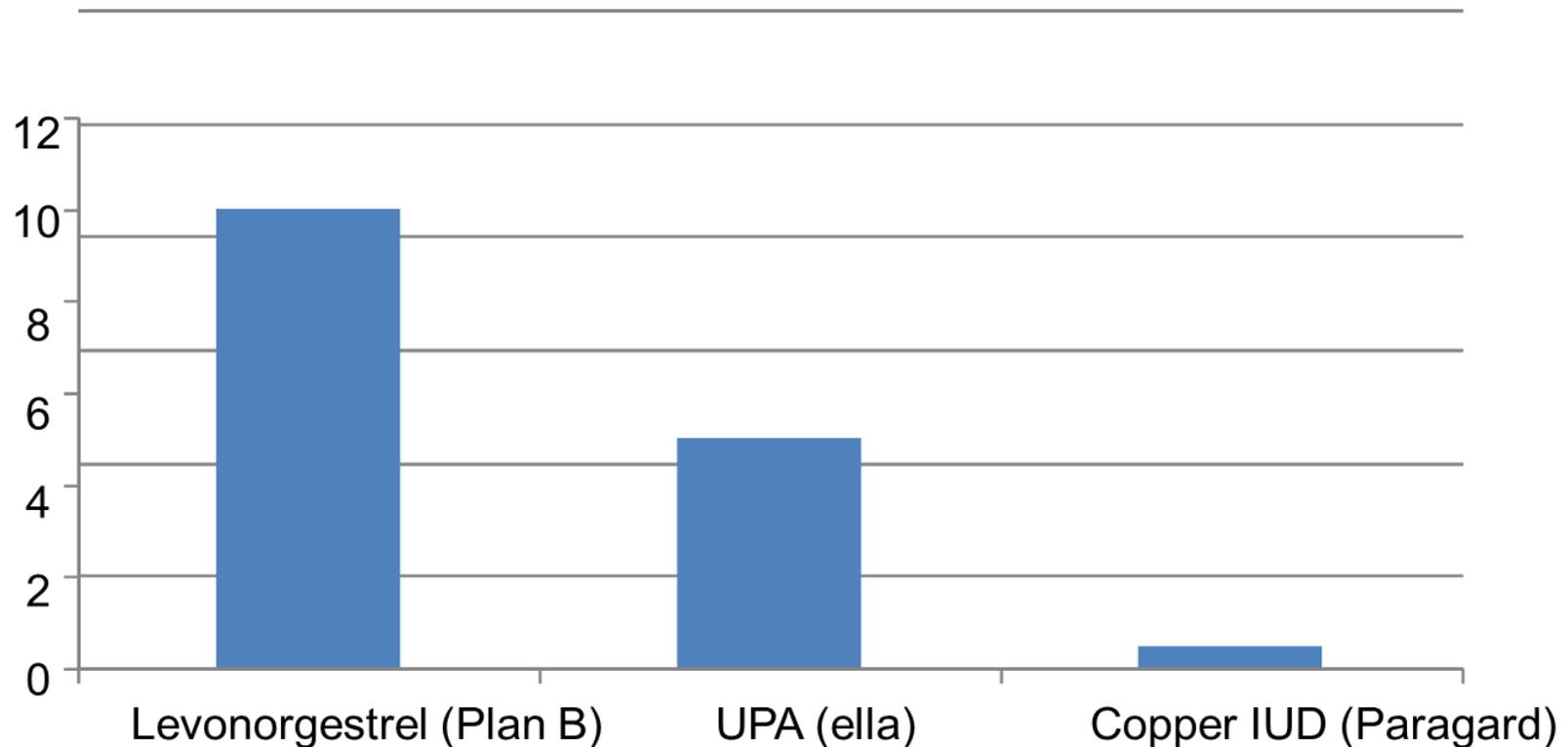
# Current Estimates of EC Pill (LNg) Efficacy

- ▶ Plan B® package (LNg regimen): 88%
- ▶ Published literature on regimen: 52%-100%



# Relative Effectiveness of EC by Method

Pregnancies expected per 1000 women who had unprotected sex in the last week



Raymond E, et al. 2004; Task Force on Postovulatory Methods of Fertility Regulation. 1998; Trussell J, Raymond EG 2011; Fine P, et al. 2010; Glasier AF, et al. 2010.

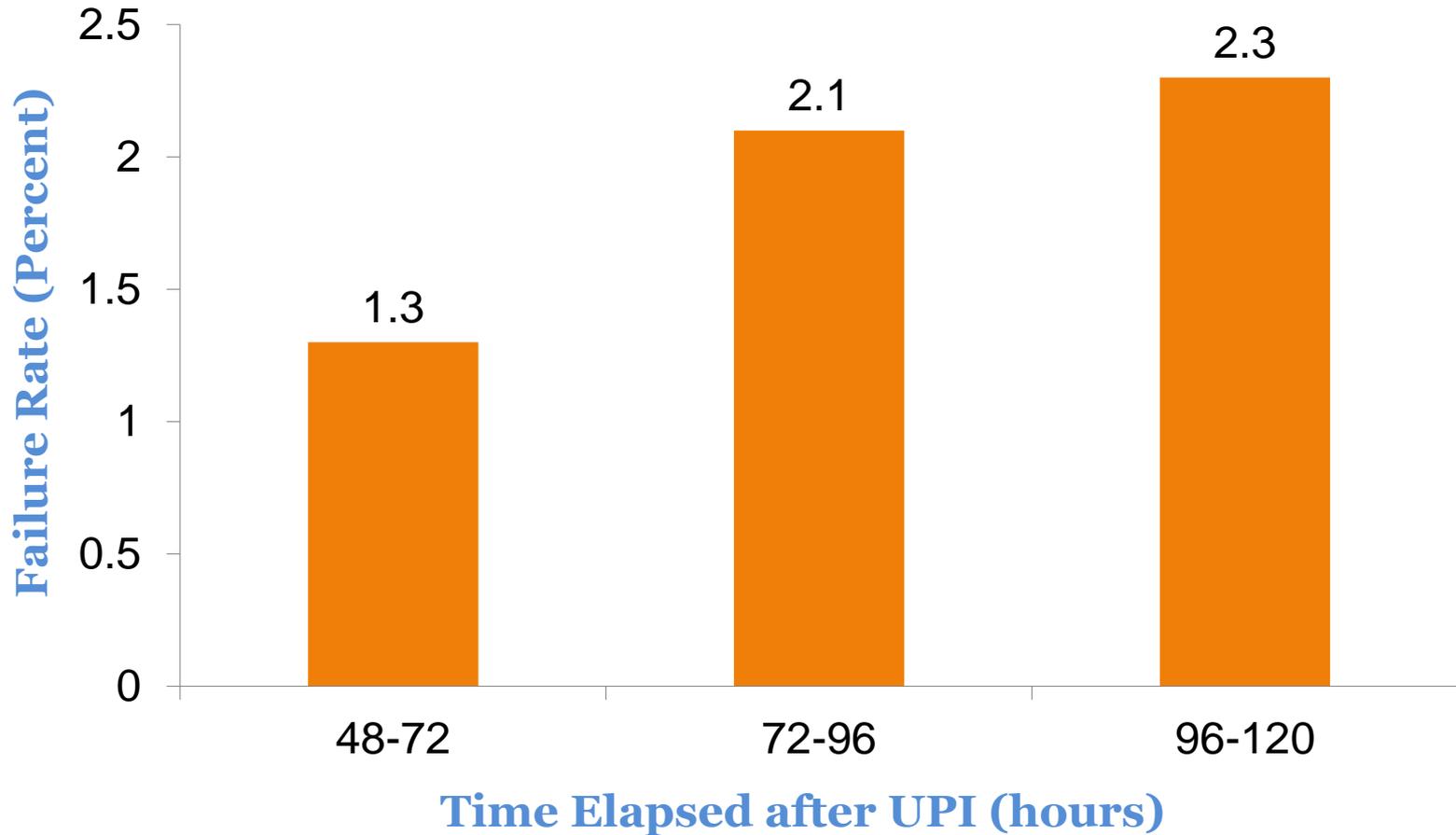
# UPA vs. LNg Effectiveness: Time Since Intercourse

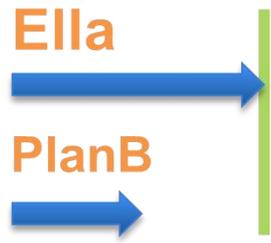
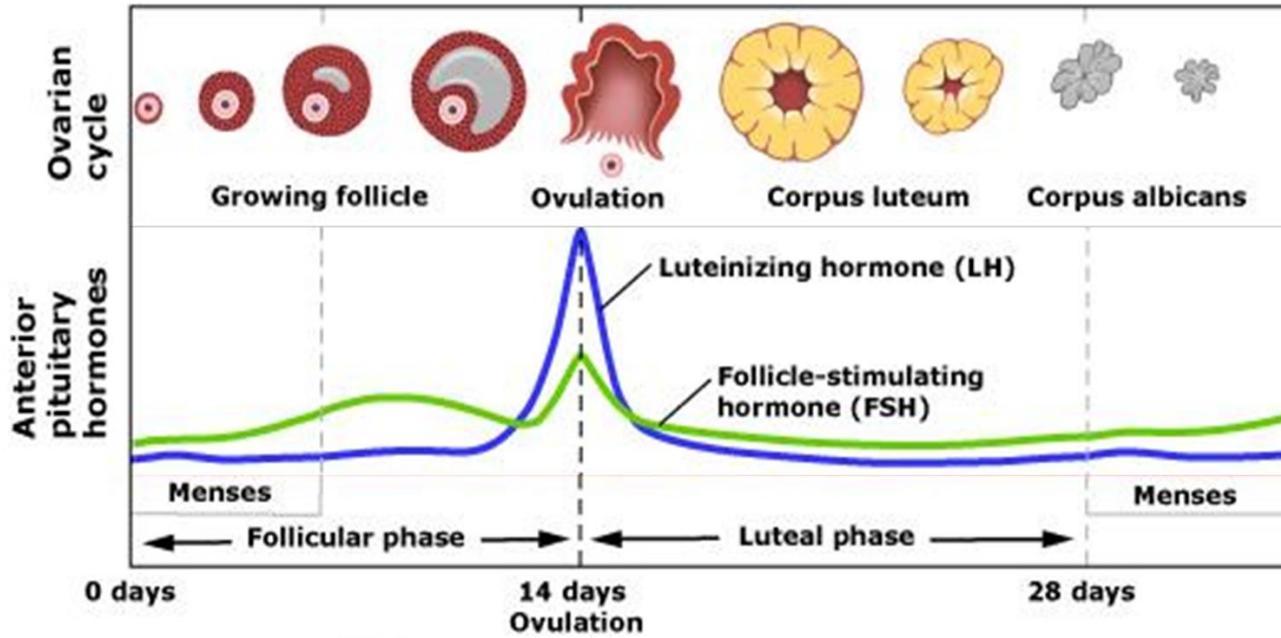
- ▶ In RCT, all 3 pregnancies with EC use at 73-120 hours after sex were in the LNg group
- ▶ Significantly more pregnancies were prevented in the UPA group ( $p = 0.037$ )

# UPA: Efficacy Decreases Over Time

\*but still more effective than LNg

Failure Rate of ella<sup>®</sup>





# EC Effectiveness Decreases with Repeated UPI

## Pregnancy Rates

Repeated UPI in same cycle	Ulipristal	LNg
No	1.0%	1.9%
Yes	5.6%	7.3%

Copper IUD provides BEST protection because ALL future episodes of sex will be protected

**BMI and Its Efficacy on EC**

# Special Population

## Obese and Overweight Women

- ▶ Higher oral EC failure rate in overweight and obese women
- ▶ Greater risk of pregnancy when UPI around ovulation regardless of EC type:
  - ▶ >3x for obese women (BMI  $\geq 30$ )
  - ▶ >1.5x for overweight women (BMI 25–30)
- ▶ Risk of pregnancy “more pronounced” with LNg than UPA

# Use UPA in Overweight & Obese Teens

## LNG EC Efficacy

- ▶ Less effective in overweight women (BMI 25–30)
- ▶ NOT effective in obese women (BMI >30)

## UPA Efficacy

- ▶ Equally effective in overweight women (BMI 25–30)
- ▶ Less effective in obese women (BMI >30)
- ▶ NOT effective in women with BMI >35

# Case: Sophie



- ▶ This is Sophie's fourth request for EC over the past three months.
- ▶ She's used birth control pills in the past but her mom found them and threw them away.
- ▶ What method could provide EC and long acting contraception?

# When to Consider Copper IUD for EC

- ▶ When EC medications may be less effective
- ▶ Obese or overweight women
- ▶ When UPI occurs around ovulation
- ▶ Interested and eligible without contraindications
- ▶ All adolescent and adult women

The Copper IUD is a great method for patients who have privacy concerns or who have partners who try to sabotage their contraception.

# Side Effects and Contraindications of EC

# Research

- ▶ Documented studies:
  - ▶ World Health Organization states that there are no situations in which “the risks of using EC outweigh the benefits”
  - ▶ Will not disrupt or harm an existing pregnancy
  - ▶ Is equally safe and effective for teen and adult women

# Side Effects and Contraindications

	Plan B One-Step®/ Other LNG EC pills	ella®	Paragard® T380A IUD
Possible Side Effects	<ul style="list-style-type: none"> <li>• Menstrual changes</li> <li>• Headache</li> <li>• Abdominal pain</li> <li>• Nausea</li> <li>• Fatigue</li> <li>• Dizziness</li> </ul>	<ul style="list-style-type: none"> <li>• Menstrual changes</li> <li>• Headache</li> <li>• Abdominal pain</li> <li>• Nausea</li> <li>• Fatigue</li> <li>• Dizziness</li> <li>• Dysmenorrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Irregular bleeding</li> <li>• Cramps</li> <li>• Pain</li> <li>• Heavier menses</li> </ul>
Absolute Contraindications	<ul style="list-style-type: none"> <li>• Pregnancy (will not harm an existing pregnancy and medication will be ineffective)</li> </ul>	<ul style="list-style-type: none"> <li>• Pregnancy (will not harm an existing pregnancy and medication will be ineffective)</li> </ul>	<ul style="list-style-type: none"> <li>• Pregnancy</li> <li>• Mucopurulent cervicitis</li> <li>• Active pelvic infection</li> <li>• Postpartum/ postabortal endometritis (in past 3 months)</li> <li>• Abnormalities of the uterus (distortion of uterine cavity incompatible with insertion)</li> <li>• Copper allergy</li> <li>• Wilson's disease</li> </ul>

Notes: Side effects usually do not occur for more than a few days after treatment and usually diminish within 24 hours; see advice below on "Nausea/Vomiting." Information retrieved from FDA product labeling.<sup>31-33</sup>

# Contraindication: Breastfeeding

- ▶ LNG ECP are NOT contraindicated during lactation
- ▶ Recommendation: Women who take UPA ECP express and discard breast milk for 36 hours post-UPA intake or use LNG ECP instead

# Contraindication: Pregnancy

- ▶ ECP do NOT affect an existing pregnancy
- ▶ ECP are not recommended for women with known or suspected pregnancy because it will be ineffective.

# Adolescent Access to EC: Challenges and Opportunities

# Few Young Women Are Aware of EC

- ▶ 28% of teen girls have heard of EC
- ▶ 40% of teens who know about EC understand that the pills should be taken after, not before, sex
- ▶ Since ella® has recently been approved, awareness of this drug is expected to be much lower

# Patient Misconceptions Create Barriers to EC Use

- ▶ Beliefs that EC functions as an abortifacient
- ▶ Fear that the drug would harm fetus
- ▶ Confusion over fertility cycle and timing

# Other Barriers

- ▶ Perceived lack of confidentiality
- ▶ Lack of money and/or insurance
- ▶ Lack of transportation
- ▶ Inability to locate a health care provider within the limited and effective timeframe
- ▶ Belief that pelvic examination is mandatory
- ▶ OTC exclusion of minors

# AAP Policy Statement on EC

- ▶ Officially endorses advance provision of EC
- ▶ Reinforces safety/efficacy of EC among adolescents
- ▶ Educates pediatricians/physicians on EC
- ▶ Encourages routine counseling of EC
- ▶ Provides current data on EC methods
- ▶ Emphasizes goal to reduce teen pregnancy

Providers Can Facilitate Use

# Providers Can Remove Clinical Barriers to EC

- ▶ No pelvic examination or pregnancy test required by ACOG or FDA
- ▶ Pregnancy test prior to EC treatment is recommended only if:
  - ▶ Other episodes of unprotected sex occurred that cycle
  - ▶ LMP (last menstrual period) was not normal in duration, timing, or flow

# Provide Supportive Counseling

- ▶ EC is responsible behavior
- ▶ If using a two-dose product, taking both doses at once may improve compliance without additional side effects or decreasing efficacy
- ▶ Counsel on other methods of birth control
- ▶ Provide STI/HIV counseling/testing if possible
- ▶ Provide condoms and review use
- ▶ Provide return appointment



# Crisis Management

# Intimate Partner Violence and Emergency Contraception

- ▶ Repeated requests for EC may indicate pregnancy coercion or birth control sabotage
  - ▶ Adolescent girls in physically abusive relationships were 3.5 times more likely to become pregnant than non-abused girls
  - ▶ Among teen mothers on public assistance who experienced recent abuse, 66% experienced birth control sabotage by a dating partner.
- ▶ Know what your resources are for ensuring patient safety while in your care

# Sexual Assault and EC

- ▶ >50% of all rapes occur in young women under 18 years old
- ▶ For teens, 5.3% of rapes lead to a pregnancy
- ▶ Emergency contraception should be offered to all survivors of sexual assault
- ▶ Only 16 states require hospitals to offer information and counseling about EC, and only 12 of those states also mandate that hospitals provide EC on-site to victims

# EC in the ER

- ▶ Each year, approximately 25,000 American women become pregnant as a result of sexual violence
- ▶ As many as 22,000 of those pregnancies could be prevented by using EC





Quick Start

# Starting Contraception After LNG EC

COCs/Progestin-  
only Pills



Start *immediately* after taking EC

Vaginal Ring/Patch



Start *immediately* after taking EC

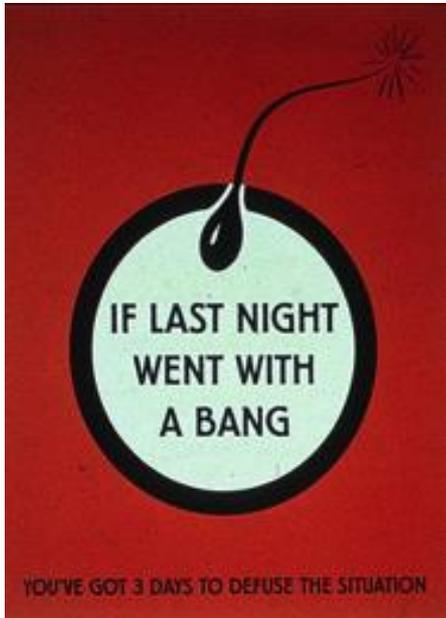
DMPA/Implants/  
IUCs



Start *immediately* after taking EC

**\*With ALL methods: abstain/use back-up protection for first 7 days**

**\*\*After taking ella: Can start contraception immediately;  
Abstain/Use Back-Up protection for first 2 weeks**



# Advanced Provision of EC

# Advanced Provision of EC

- ▶ Does NOT increase risk-taking behavior
  - ▶ Does not  condom use
  - ▶ Does not  contraceptive use
  - ▶ Does not increase number of sexual partners or increase risk for STIs
- ▶ DOES increase use of EC and increases earlier use when EC more effective
  - ▶ Risks are reduced from episodes of unprotected sex and/or contraceptive failure that occur

# Who Supports Advance EC?

- ▶ American Academy of Pediatrics
- ▶ Society for Adolescent Health and Medicine
- ▶ The American Medical Association
- ▶ American Academy of Family Physicians
- ▶ American Congress of Obstetricians and Gynecologists

# What Has Been Said About Male Involvement?

- ▶ “Special efforts should be made to emphasize men’s shared responsibility and promote their active involvement in responsible parenthood; sexual and reproductive behavior, including family planning; prenatal, maternal and child health; prevention of STDs, including HIV; prevention of unwanted and high-risk pregnancies...”
- ▶ Men less likely to know about EC

1994 International Conference On Development and Population

Nguyen, B., & Zaller, N. (2009). Male access to over-the-counter emergency contraception. *Women's Health Issues*, 19, 365-372.

# Wrap-Up

- ▶ Discuss all dedicated products, including UPA and copper IUD for EC
- ▶ Write advance prescription for EC or provide instructions on OTC access with all teens
- ▶ Check local pharmacies for available products and EC access policies for youth 16 and under
- ▶ Offer women with a BMI  $>30$  kg/m<sup>2</sup> UPA or copper IUD and offer those having UPI around time of ovulation a copper IUD

# Conclusions

- ▶ EC: safe and effective method of preventing pregnancy
- ▶ Can prevent pregnancies when taken within indicated window
- ▶ Should be readily available to all women, especially adolescents
- ▶ Advanced provision will not increase health risks for young women

# EC-Specific Resources

- ▶ [prh.org/resources/emergency-contraception-a-practitioners-guide](http://prh.org/resources/emergency-contraception-a-practitioners-guide): Physicians for Reproductive Health, Emergency Contraception: A Practitioner's Guide
- ▶ [www.not-2-late.com](http://www.not-2-late.com): Provides a list of local providers and answers to the most common questions about EC
- ▶ [www.cecinfo.org](http://www.cecinfo.org): International Consortium on EC
- ▶ [ec.princeton.edu](http://ec.princeton.edu): EC at Princeton University: a site aimed at patients with credible research sources
- ▶ [www.rhttp.org](http://www.rhttp.org): The Reproductive Health Technologies Project
- ▶ [www.backupyourbirthcontrol.org](http://www.backupyourbirthcontrol.org): Offers basic facts about EC; mainly intended for general public/section for providers
- ▶ [www.arhp.org/topics/emergency-contraception/clinical-publications-and-resources](http://www.arhp.org/topics/emergency-contraception/clinical-publications-and-resources)
- ▶ National Sexual Assault Hotline 1-800-656-HOPE Provides victims of sexual assault with free, confidential, around-the-clock services

# Additional EC Information

▶ [ecotc.tumblr.com](http://ecotc.tumblr.com)

▶ [americansocietyforec.org/uploads/3/2/7/0/3270267/a\\_sec\\_ec\\_access\\_report.pdf](http://americansocietyforec.org/uploads/3/2/7/0/3270267/a_sec_ec_access_report.pdf)

▶ EC on the Shelf: Real-World Access in the OTC Era

▶ [ec.princeton.edu/ASECPricingReport.pdf](http://ec.princeton.edu/ASECPricingReport.pdf)

▶ The Cost of EC: Results from Nationwide Survey 2013

# Provider Resources and Organizational Partners

▶ [www.advocatesforyouth.org](http://www.advocatesforyouth.org)—

Advocates for Youth

▶ [www.aap.org](http://www.aap.org)—

American Academy of Pediatricians

▶ [www.aclu.org/reproductive-freedom](http://www.aclu.org/reproductive-freedom)

American Civil Liberties Union Reproductive Freedom Project

▶ [www.acog.org](http://www.acog.org)—

American College of Obstetricians and Gynecologists

▶ [www.arhp.org](http://www.arhp.org)—

Association of Reproductive Health Professionals

▶ [www.cahl.org](http://www.cahl.org)—

Center for Adolescent Health and the Law

▶ [www.glma.org](http://www.glma.org)

Gay and Lesbian Medical Association

# Provider Resources and Organizational Partners

▶ [www.guttmacher.org](http://www.guttmacher.org)—

Guttmacher Institute

▶ [janefondacenter.emory.edu](http://janefondacenter.emory.edu)

Jane Fonda Center at Emory University

▶ [www.msm.edu](http://www.msm.edu)

Morehouse School of Medicine

▶ [www.prochoiceny.org/projects-campaigns/torch.shtml](http://www.prochoiceny.org/projects-campaigns/torch.shtml)

NARAL Pro-Choice New York

Teen Outreach Reproductive Challenge (TORCH)

▶ [www.naspag.org](http://www.naspag.org)

North American Society of Pediatric and Adolescent Gynecology

▶ [www.prh.org](http://www.prh.org)—

Physicians for Reproductive Health

# Provider Resources and Organizational Partners

▶ [www.siecus.org](http://www.siecus.org)—

Sexuality Information and Education Council of the United States

▶ [www.adolescenthealth.org](http://www.adolescenthealth.org)—

Society for Adolescent Health and Medicine

▶ [www.plannedparenthood.org](http://www.plannedparenthood.org)

Planned Parenthood Federation of America

▶ [www.reproductiveaccess.org](http://www.reproductiveaccess.org)

Reproductive Health Access Project

▶ [www.spence-chapin.org](http://www.spence-chapin.org)

Spence-Chapin Adoption Services

# Please Complete Your Evaluations Now

