Unintended Pregnancy and Long Acting Reversible Contraception (LARC)

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Dr. Erica Gibson
Assistant Clinical Professor of Adolescent Medicine
University of Vermont Children's Hospital

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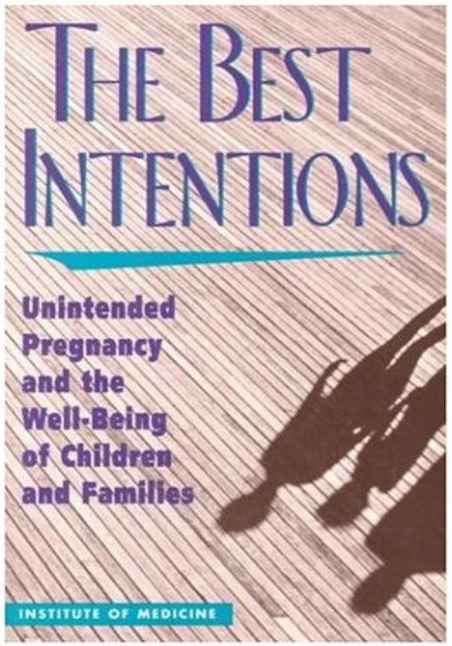
Objectives

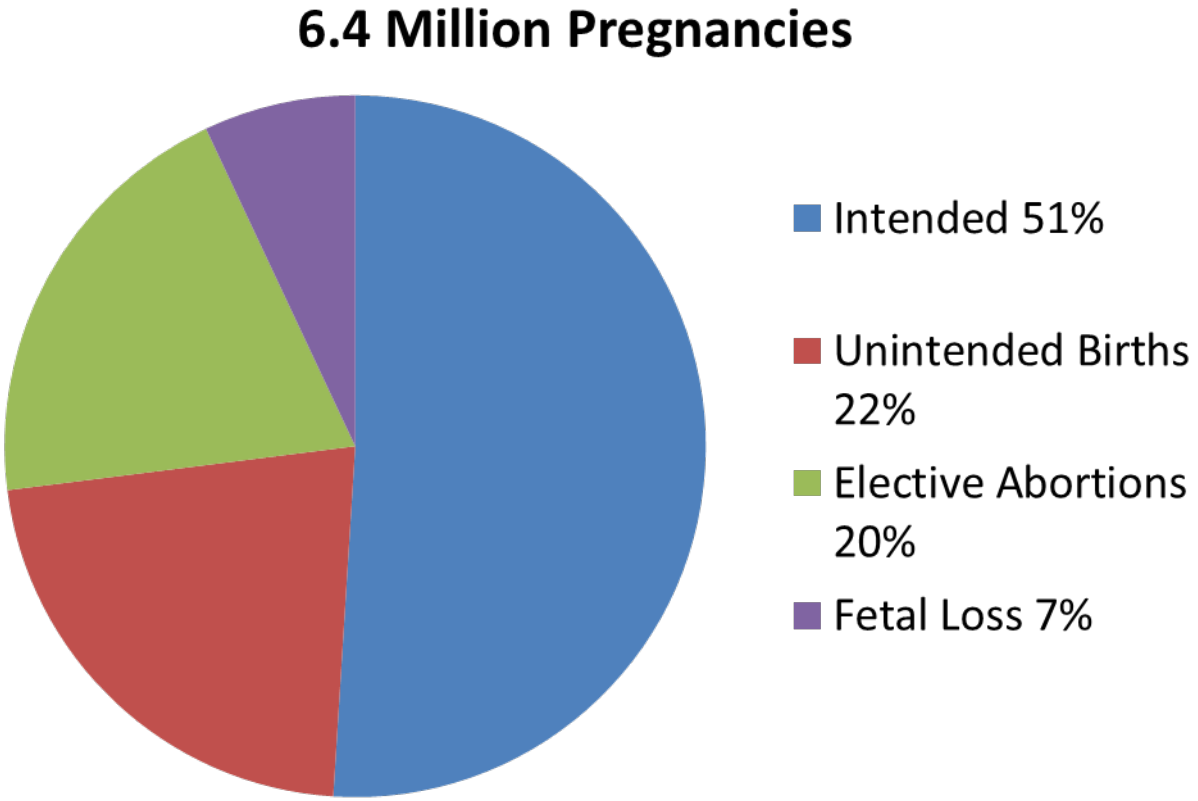
- Understand the high rates of unintended pregnancy in the United States and Vermont
- Understand current trends sexual activity and contraceptive use
- Understand LARC methods and how they work

Unintended Pregnancies

- Institute Of Medicine Report (1995)
  - Unintended pregnancies
    - Mistimed or Unwanted
- Associated with adverse maternal and child health, social, and economic outcomes

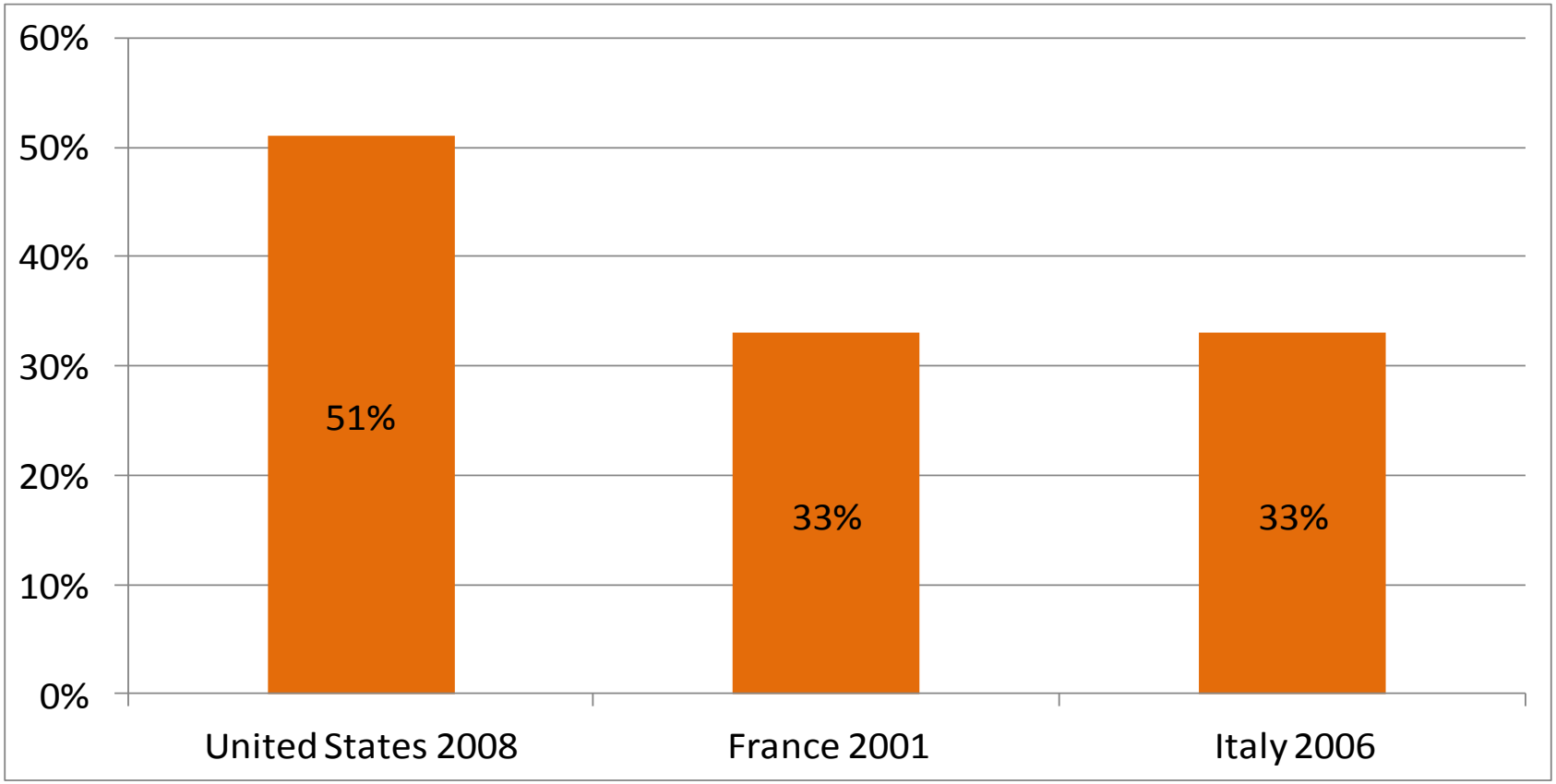


Unintended Pregnancy in the U.S. - Overall



Finer LB, et al. *Persp Sex Reprod Health*. 2006.

U.S. Percent of Unintended Pregnancies is High



Finer and Zolna 2011; Bajos 2003; Carbone 2009

Dr. Jeffrey Peipert, Oct 2015

Unintended Pregnancy in VT

- 46% of all pregnancies are unintended
  - VT PRAMS Data 2012: 39.8%
- 74% of unplanned births are publicly funded
- VT spends $30 million per year on unintended pregnancies
- Pregnancy and delivery services yield highest potentially avoidable costs

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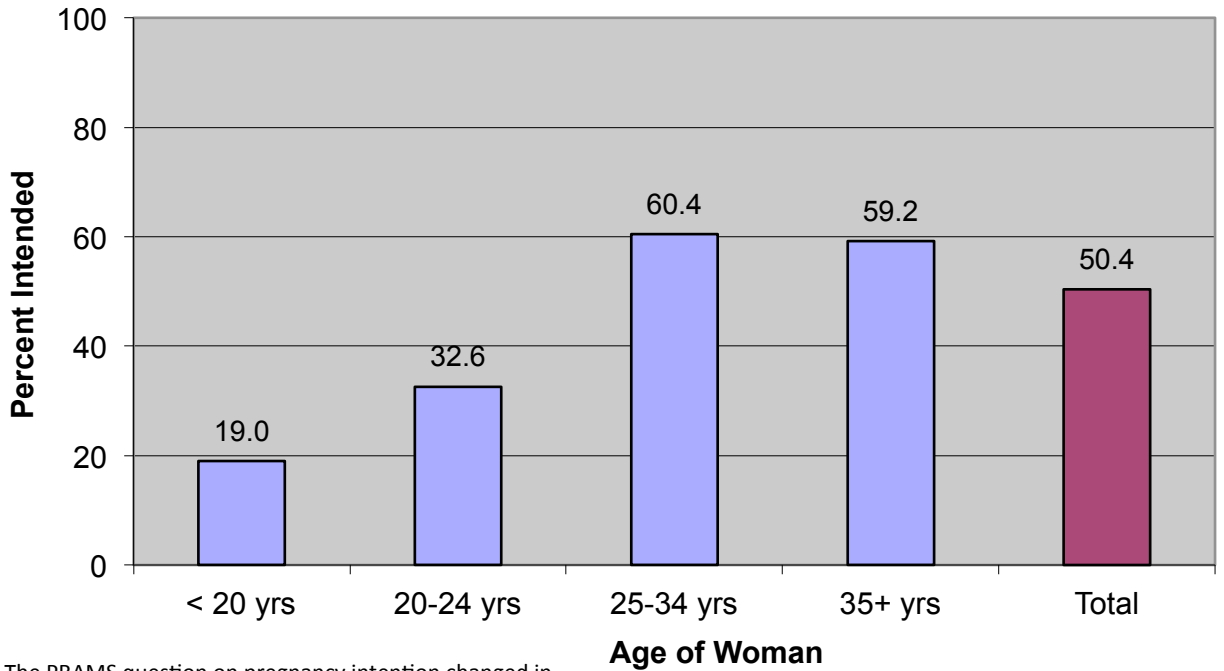
Sources: Guttmacher 2010-2015, Medicaid Maternal & Infant Health Initiative 2015, Brandeis Report 2014.
PRAMS 2012: Preg Risk Assessm Monitoring System

Intended Pregnancies in Vermont

Figure 4. Percent of Pregnancies to Vermont Resident Women in 2012*^ That Were Intended, by Age



^ The PRAMS question on pregnancy intention changed in 2012, so 2012 data is not directly comparable to previous years.

*preliminary

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Teen Pregnancy in the U.S. 2010

State	Pregnancy Rate per 1000 Females 15-19	Rank Among United States
New Hampshire	28	1
Vermont	32	2
Oregon	47	13
New York	63	37
New Mexico	80	50
U.S.	57	

****VT 2013 Teen Preg Rate: 21.9 (VDH Vital Statistics)**

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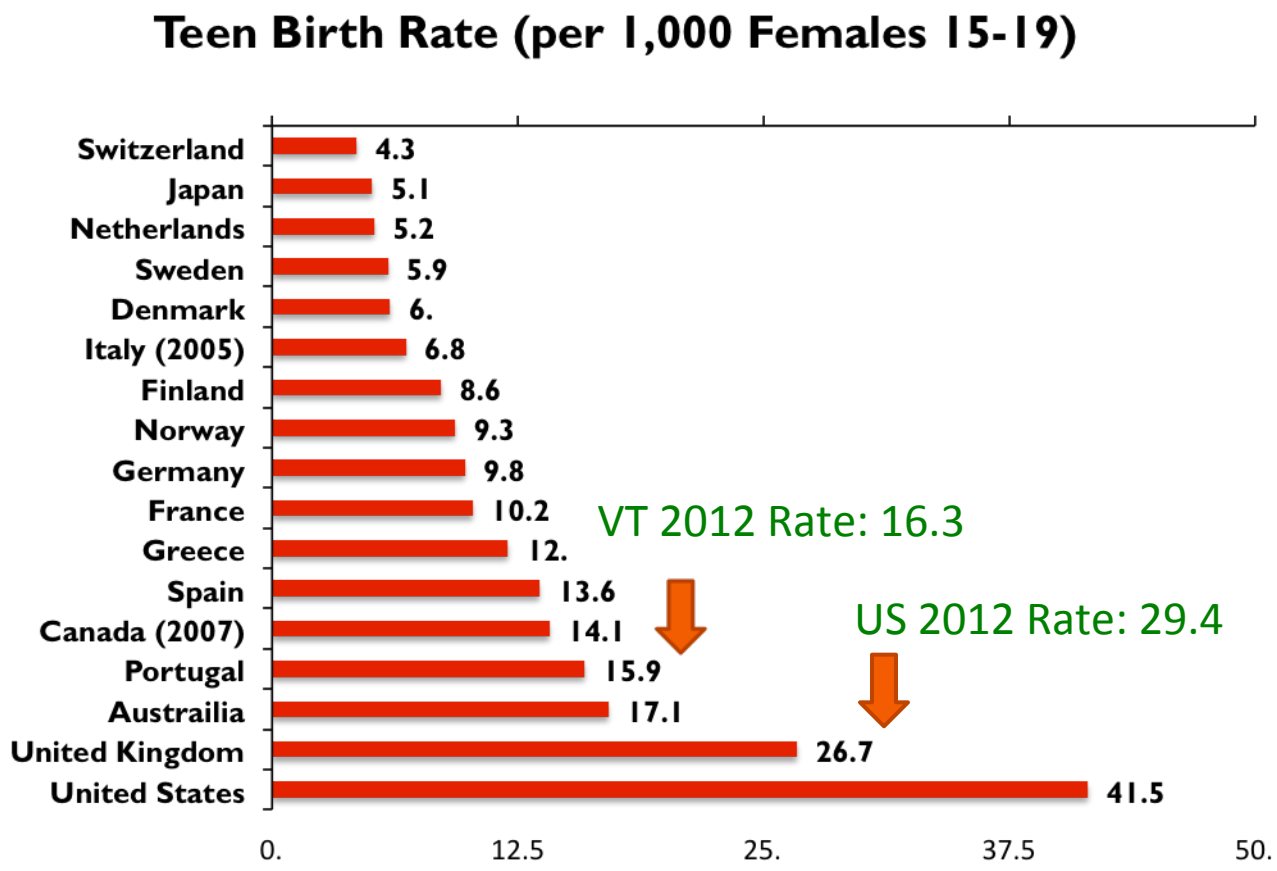
The National Campaign to Prevent Teen and Unplanned Pregnancy 2014

Comparing Teen Birth Rates Internationally . 2008



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What accounts for lower rates in other developed countries?

- Culture
- Education
- Access
- Confidentiality
- Affordability
- Knowledge of medical providers
- Comfort of medical providers

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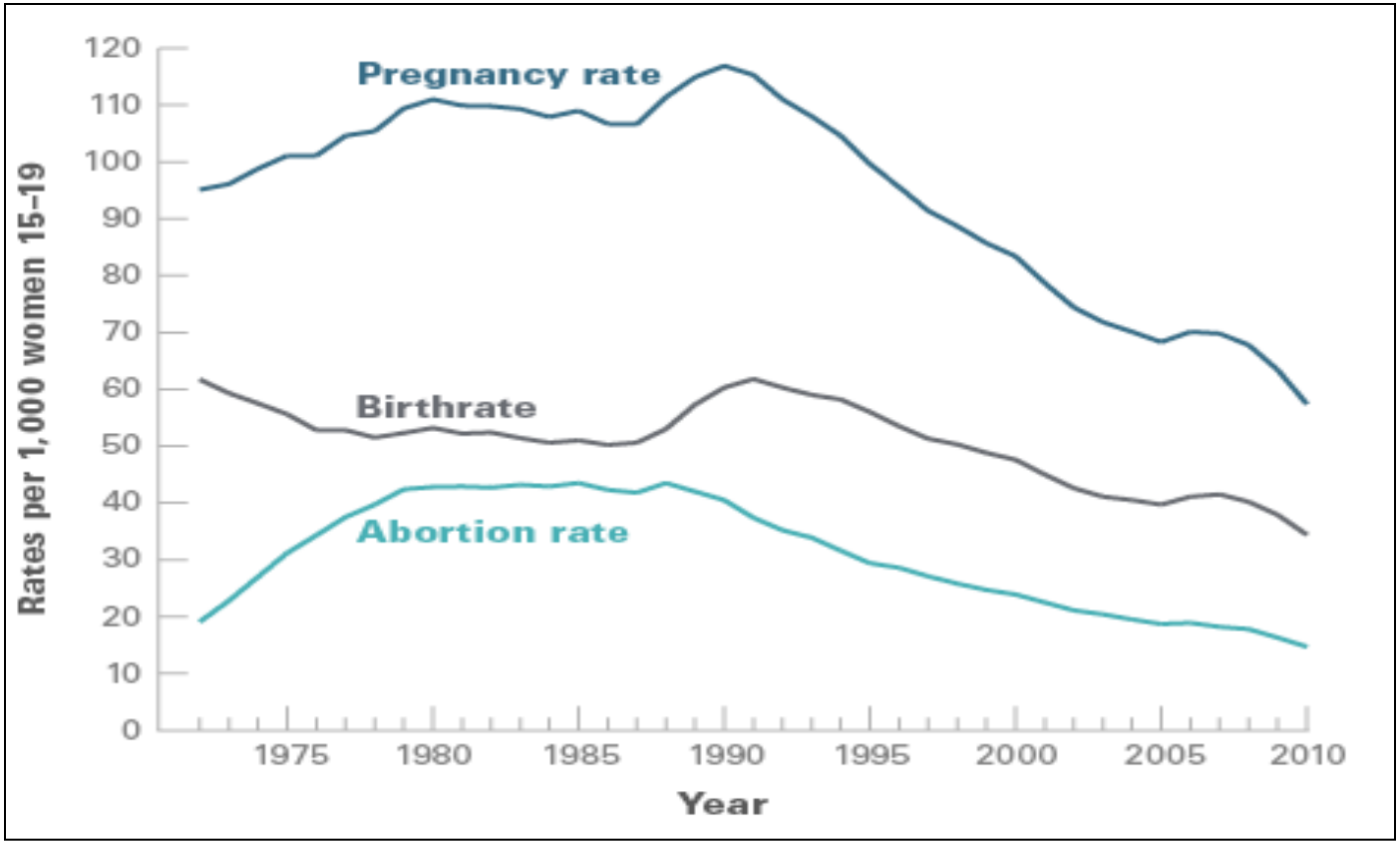
Santell et al: 2007

Teen Pregnancy, Birth, and Abortion Rates Are Declining (15-19 year olds)



Kost K and Henshaw S, *U.S. Teenage Pregnancies, Births and Abortions, 2010: National and State Trends by Age, Race and Ethnicity*. Guttmacher Institute 2014.

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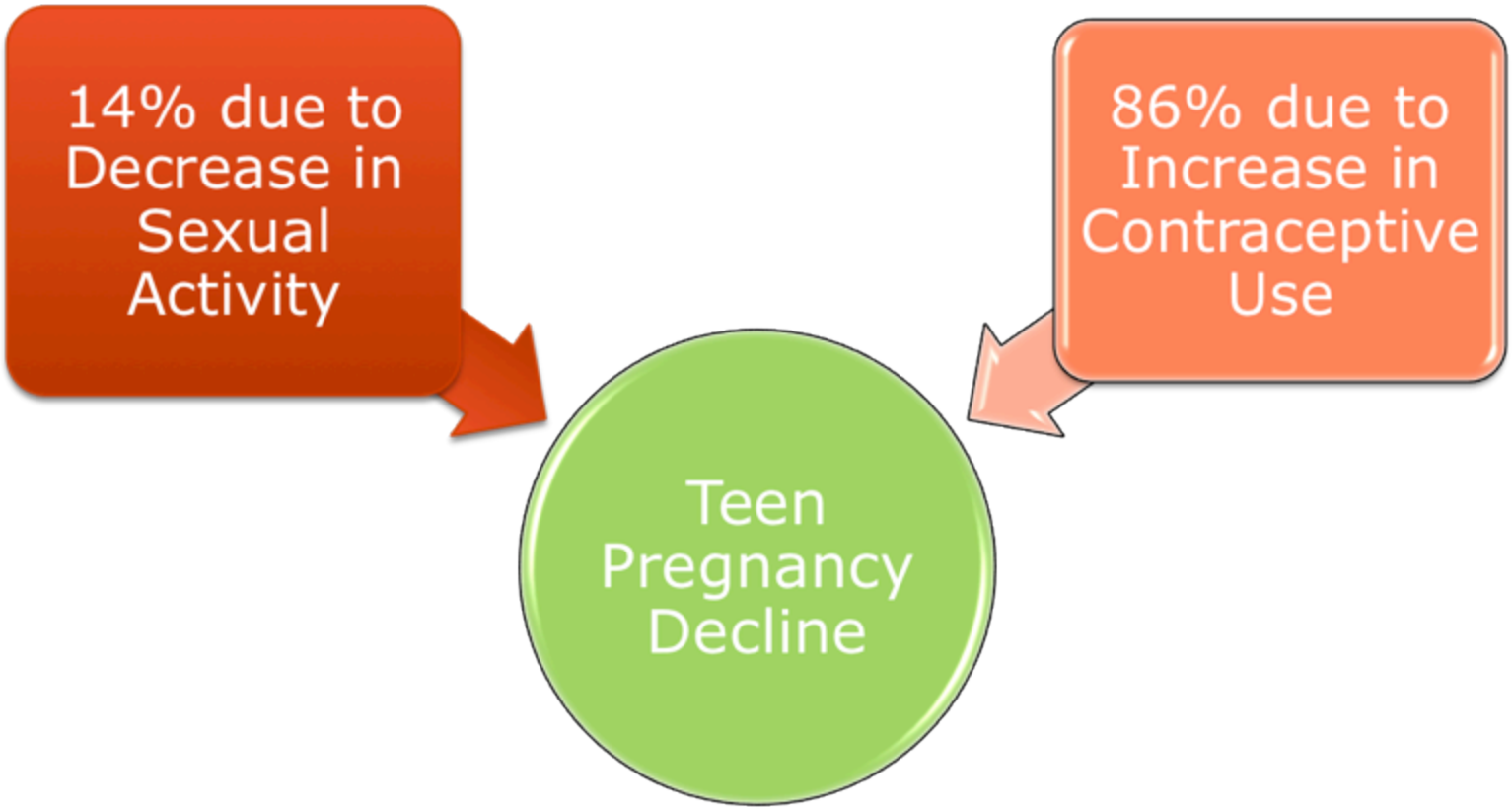
Why are teen pregnancy rates declining?



Santelli et al; AJPH, 2007

Current Contraceptive Methods Available

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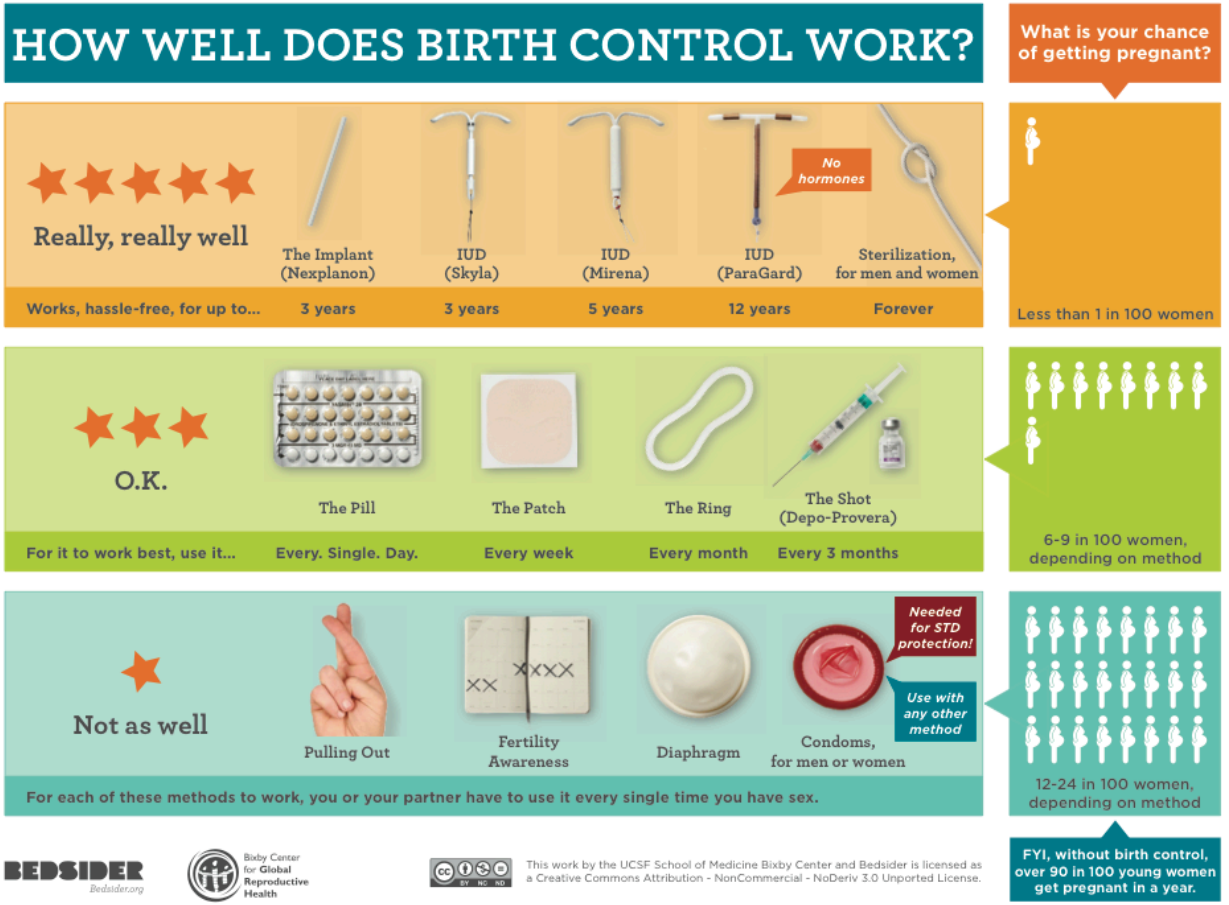
Effectiveness of Contraceptive Methods

Extremely effective	Very effective	Moderately effective	Effective
Prevents pregnancy >99% of the time	Prevents pregnancy 91-99% of the time	Prevents pregnancy 81-90% of the time	Prevents pregnancy up to 80% of the time
Sterilization LARCS Implant IUDs	Injection Ring Patch Pill Diaphragm	Condoms Withdrawal Sponge	Fertility Awareness Spermicide

Tiered Counseling by Effectiveness



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Factors affecting contraceptive choice …

Do any of my friends use it?

Will my parents or partner find out?

Will it hurt me?

Will I be able to afford it?

How will it help me?

What have I heard about it?

Do I want to prevent pregnancy?

Cost of Contraceptive Methods

Method	%Failure1st Year Use		% Continuing Use at 1 Year	Cost
	Typical Use	Perfect Use		
No method	85	85		N/A
Condoms	15	2	53	20¢ to $2.50 each
COCs	8	0.3	68	$30-50/ month
Patch	8	0.3	68	$30-50/month
Ring	8	0.3	68	$30-50/month
DMPA	3	0.3	56	$30-$75 /injection + visit
IUD Copper	0.8	0.6	78	$250-$300 /10 yrs + visit
Progestin	0.2	0.2	80	$300-$400/5 yrs + visit
Nexplanon	0.05	0.05	84	$300-$350 / 3 yrs + visit

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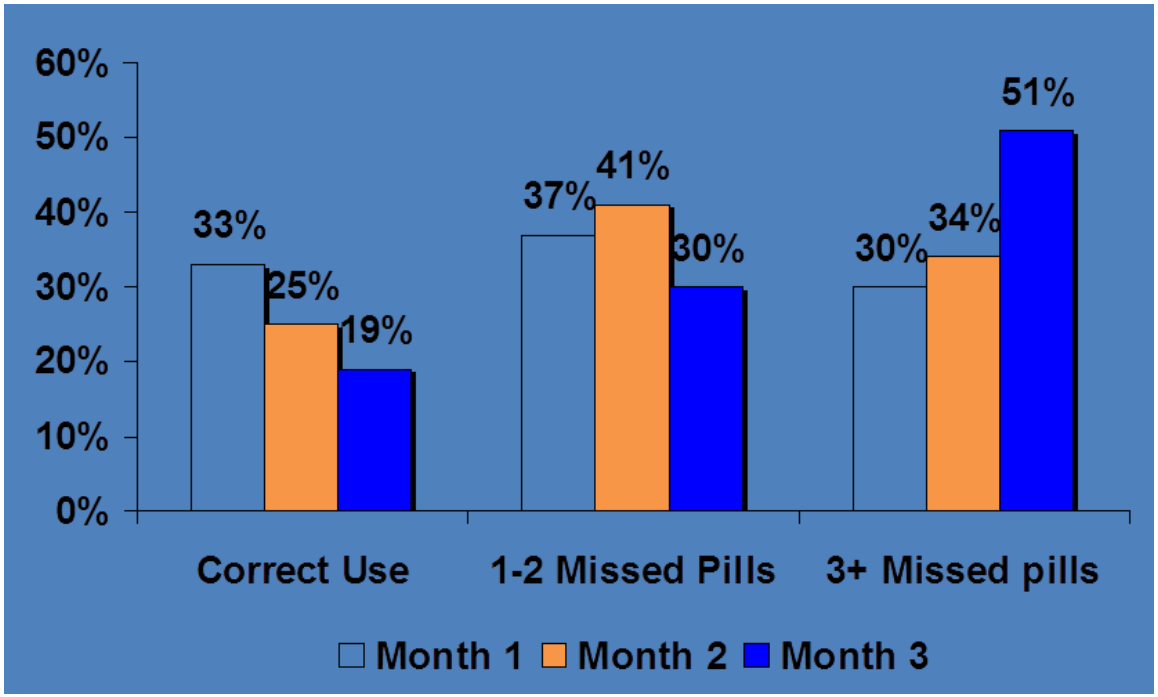
ACA covers 18 contraceptive methods with **no cost sharing for the patient

Imperfect Use

- Women frequently miss pills
  - Navy Contraception Handout:

    "OCPs are an exceedingly failure prone method in the Navy"



Potter, FPP 1996

Youth Risk Behavior Survey (YRBS) Data . High School Students 15-19yo

YRBS Question	VT 2015	US 2013
% students ever had sex	41% (2013 43%)	47%
% students who used a condom at last sex	58% (2013 62%)	59%
% students who used prescription birth control at last sex	47% (2013 44%)	19%
% students who used BOTH a condom and prescription birth control at last sex	19% (2013 18%)	9%

2015 Vermont YRBS Data . High School Students 15-19yo

YRBS Question	VT 2015
Primary method of pregnancy prevention in students who had sex in the **last 3 months:**	
birth control pills	35% (2013 35%)
shot, patch, ring	6% (2013 6%)
iud, implant	6% (2013 3%)

What is LARC?

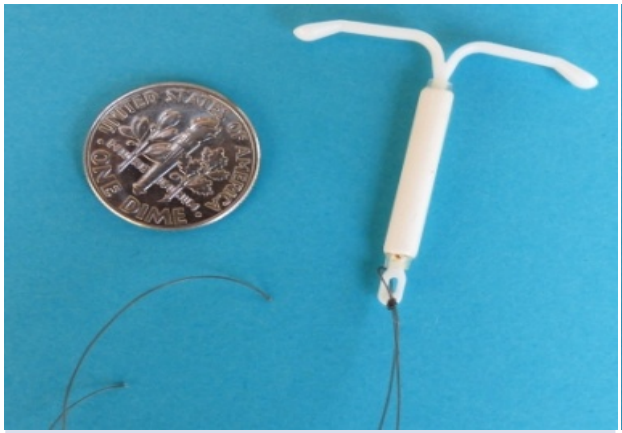
Long-

Acting

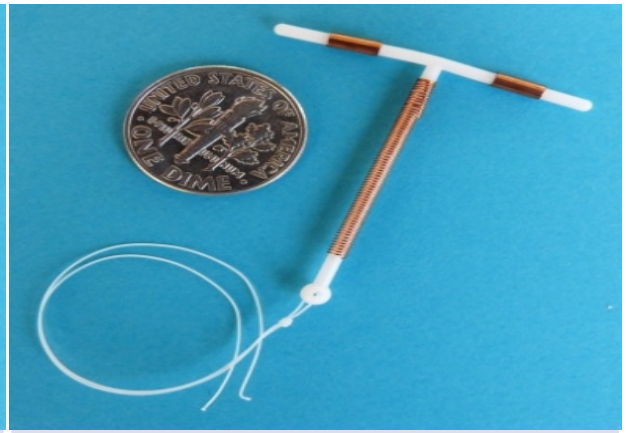
Reversible

Contraception

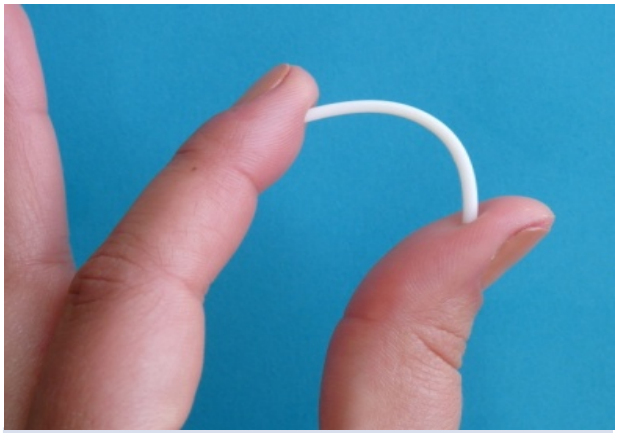
What are LARCS?



LNG-IUS
- 99% effective
- 20 mcg levonorgestrel/day
- Up to 5 years



Copper T IUD
- 99% effective
- Copper ions
- Up to 10 years



Subdermal Implant
- 99% effective
- 60 mcg etonogestrel/day
- Up to 3 years

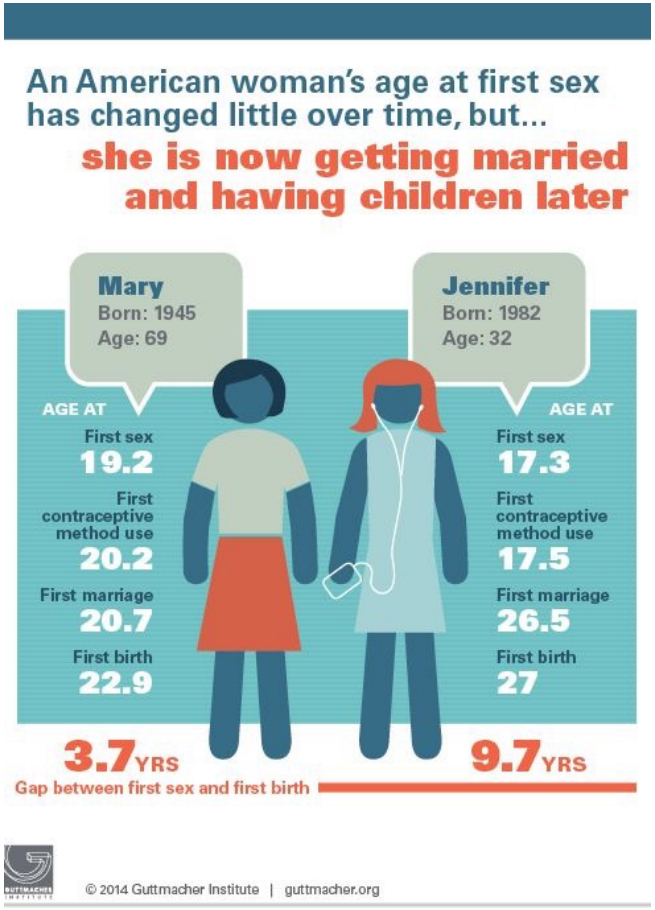
Source: Peipert, Jeff. CHOICE Project Presentation, UVM Grand Rounds, March 2015.

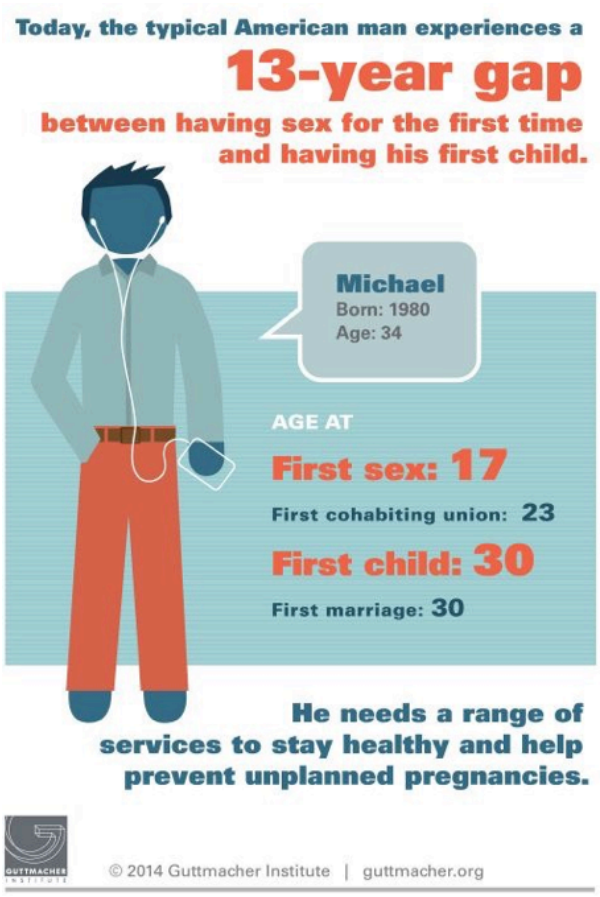
Long-Acting Reversible Contraception (LARC)

- Most effective methods: >99%
- Safest
  - No estrogen
  - Contraindications rare
- Highest patient satisfaction
  - (80% LARC vs 50% short acting)
- Highest continuation rates
  - (86% LARC vs. 55% short acting)
- Long-term protection—lasts 3-12 years
- Rapid return of fertility
- Most cost effective

Secura GM. The Contraceptive Choice Project. Am J Obstet Gyn. 2011.

Another reason Long Acting is appealing…





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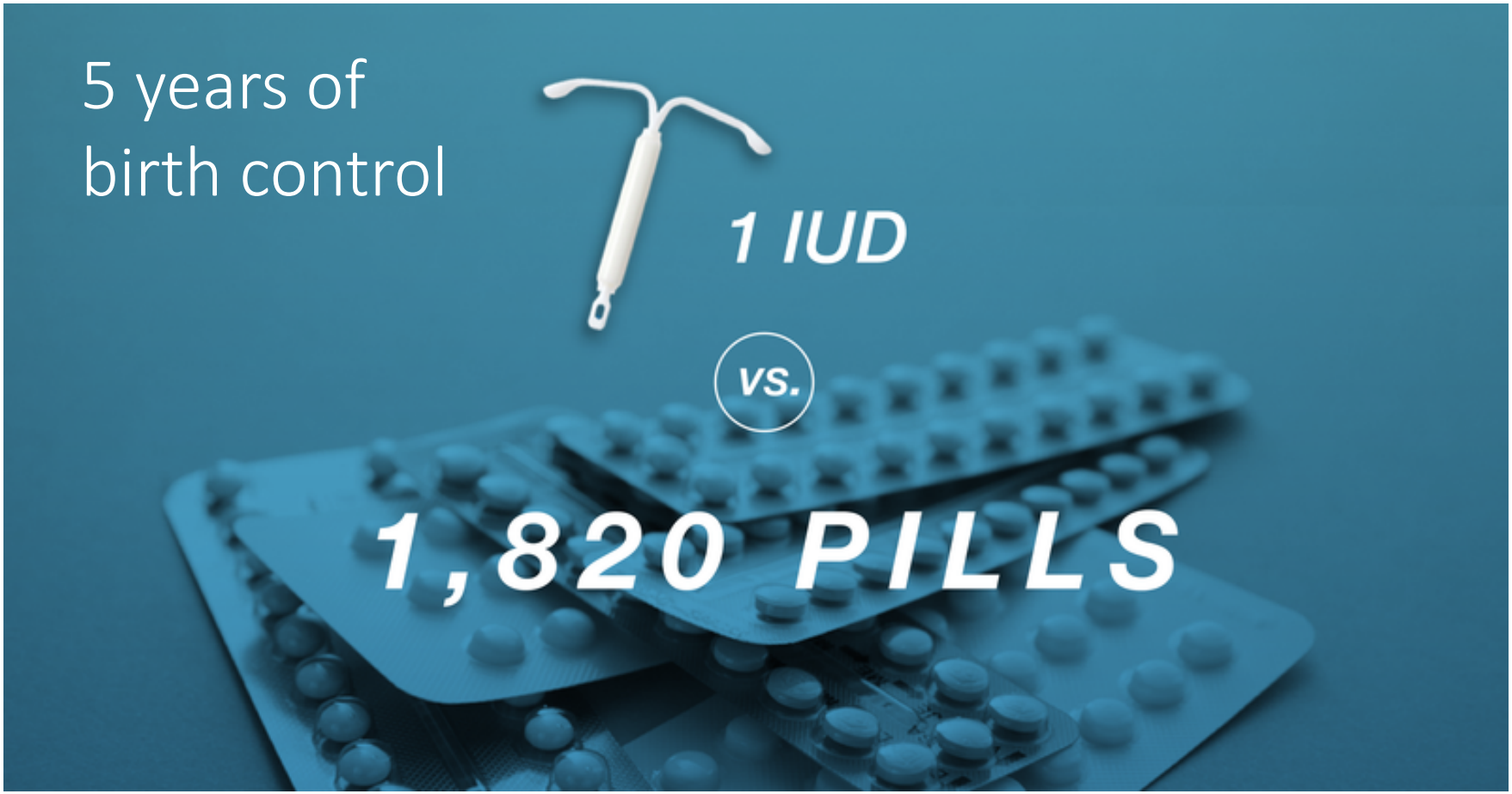
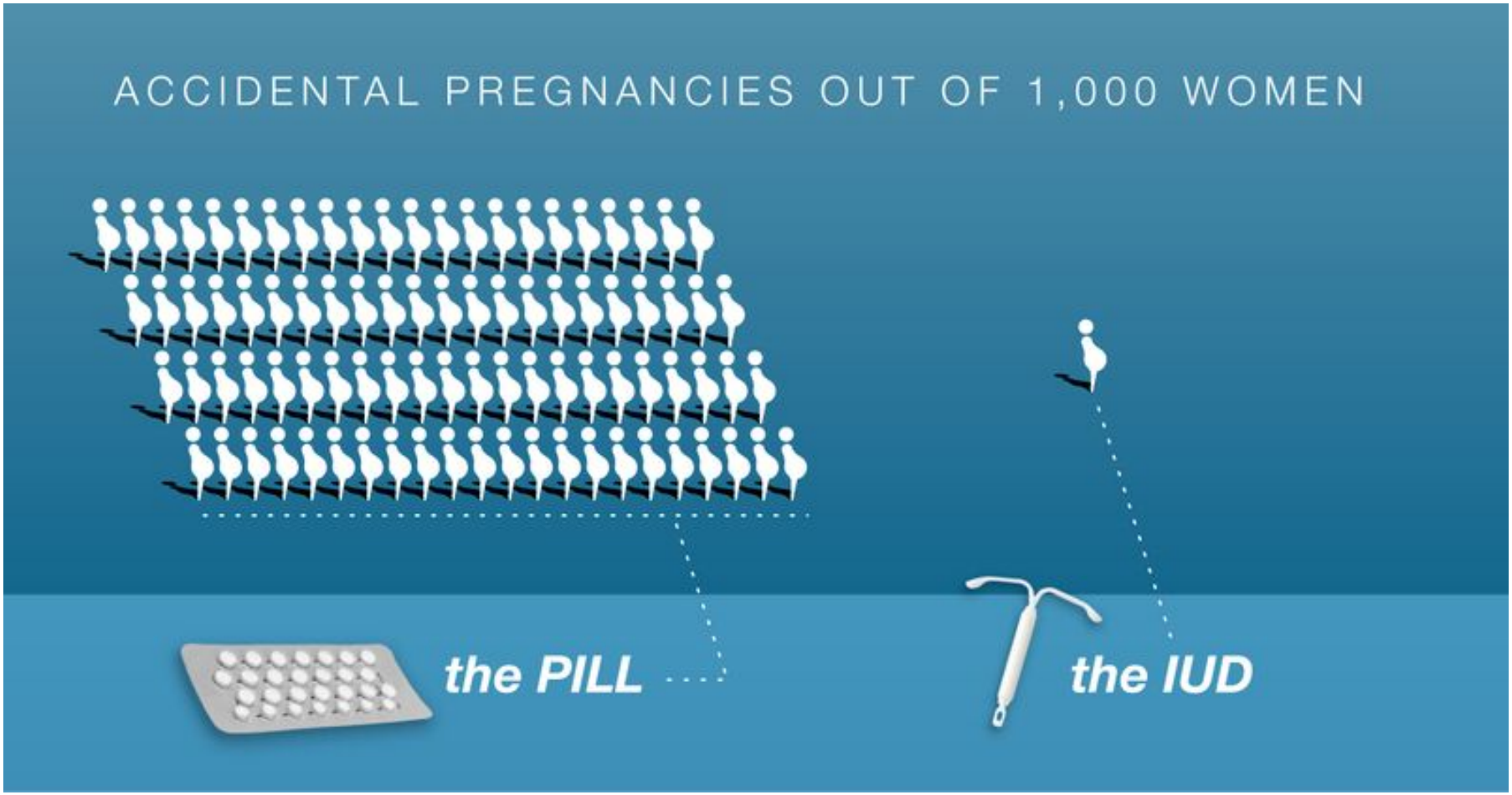
LARCs are Easy to Use



LARCs are 99% Effective



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Source: Birth Control Guide, US Food and Drug Administration, June 2014.

LARCs are Safe

AAP

CMS

ACOG

HHS

CDC

CHIP

WHO

FDA

Support for LARCS

U.S. Selected Practice Recommendations for Contraceptive Use, 2013: Adapted from the World Health Organization Selected Practice Recommendations for Contraceptive Use, 2nd Edition

Recommendations and Reports
June 21, 2013 / 62(RR05);1-46

Prepared by

Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion

Support for LARCS

- "With top-tier effectiveness, high rates of satisfaction and continuation, and no need for daily adherence, LARC methods should be **first-line recommendations for adolescents.**"
- "Intrauterine devices do not increase an adolescent's risk of infertility."
- "Intrauterine devices may be inserted without technical difficulty in most adolescents and nulliparous women."

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THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS • WOMEN'S HEALTH CARE PHYSICIANS • 1951

ACOG
THE AMERICAN CONGRESS OF OBSTETRICIANS AND GYNECOLOGISTS

Support for LARCS

- "Given the efficacy, safety, and ease of use, LARC methods should be considered **first-line contraceptive choices for adolescents.**"

- "Pediatricians should be able to educate patients about LARC methods…"

American Academy of Pediatrics. Policy Statement. Contraception for Adolescents. 9/29/2014

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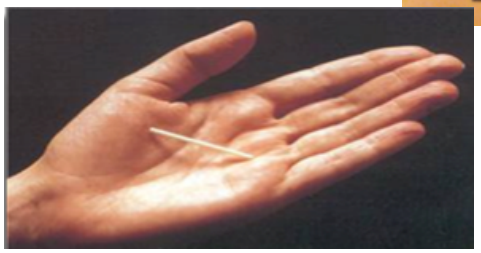
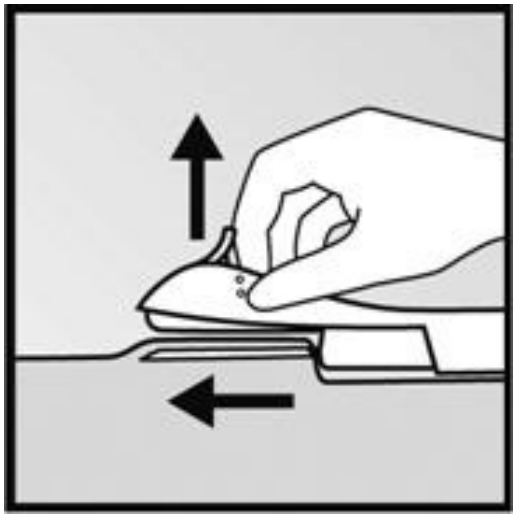
The Implant: Nexplanon

- Single 4cm long implant
- Contains etonogestrel progestin only
- Effective for 3 years
- Main Mechanism: Inhibits ovulation
- Side effects: unpredictable bleeding, irregular vs. amenorrhea



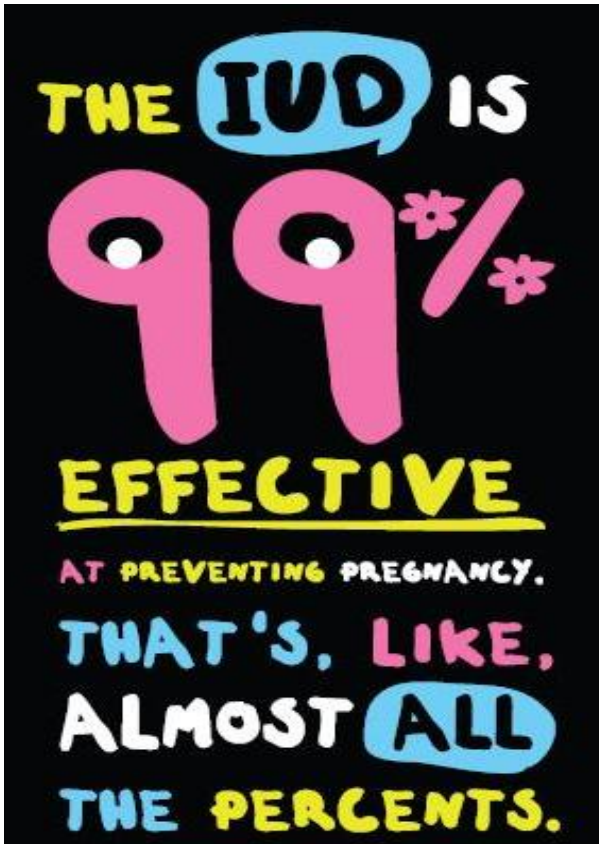
The Implant: Nexplanon

- FDA approved in 2006
- Implanted in the upper arm
- Inserted and removed by a clinician



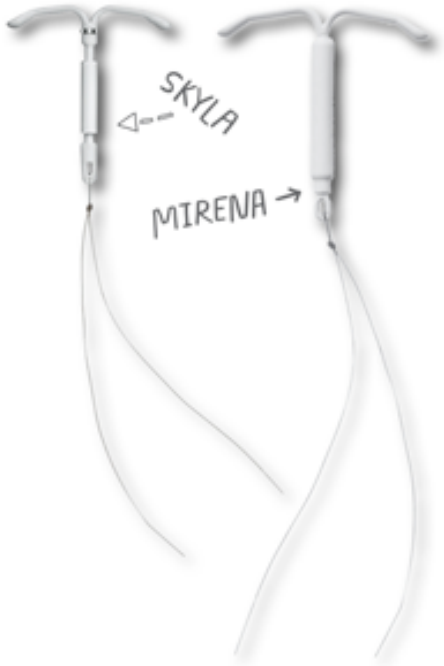
IUDs: 2 General Types

- Copper IUD
- Progestin IUD



The Progestin IUD: Mirena/Skyla

- Fertilization inhibition:
  - Cervical mucus thickened
  - Sperm motility and function inhibited
  - Weak foreign body reaction induced
  - Ovulation inhibited (in 5%–15% of cycles)
- Requires normal uterus and office visit every
  - 5y for Mirena
  - 3y for Skyla
- Patient must be able to tolerate
  - Pelvic exam and insertion
  - Cramping/bleeding after insertion



The IUD: Mirena

- 20 mcg levonorgestrel/day
- 5-7 years use
- Amenorrhea in ~40% of users by 1 year

The IUD: Skyla

- Mirena's "little sister": narrower, smaller
- FDA approved on January 9, 2013
- 14mcg/day of levonorgestrel, progestin only
- Designed to prevent pregnancy for up to **3 years**
- Only 6% with amenorrhea at 1yr

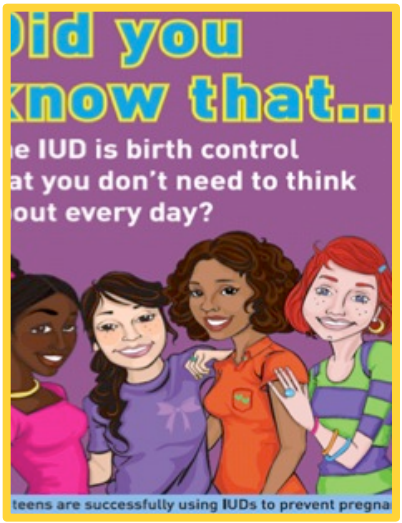
The IUD: Paragard/Copper

- Copper ions: cytotoxic inflammatory reaction toxic to sperm and ova
- No hormones
- 10-12 years of use
- Can be used as EC also

- Benefits: No hormones, regular menses

The IUD: Dispelling Old Myths

- ***Can*** be used by nulliparous women
- ***Can*** be used by women who have had an ectopic pregnancy
- ***Can*** be used by women with multiple partners
- ***Can*** be used by women with h/o sexually transmitted infection (STI)/pelvic inflammatory disease (PID)
- ***Do not*** need to be removed for PID treatment
- ***Can*** be used by teens



Who Cannot Use IUDs?

- Current PID or untreated symptomatic infection
- Post abortion/partum infection in past 3 mo.
- Current or suspected pregnancy
- Anatomically distorted uterine cavity
- Known cervical, breast or uterine cancer
- Genital bleeding of unknown etiology
- Wilson's disease (Paragard)

What are the barriers to LARC use?

Patients & Providers:

- Lack of knowledge
- Lack of comfort

Providers:

- Lack of training to provide
- Systemic barriers
- Insurance barriers

Resources

- In-service UCSF Bixby Center LARC training: bixbycenter.ucsf.edu/research/cd_and_fp/larc.html
- www.acog.org/About-ACOG/ACOG-Departments/Long-Acting-Reversible-Contraception
- www.love-my-larc.org/live/larc-awareness-week
- www.teensource.org/birth-control/long-acting-reversible-methods
- www.safeandeffective.org/pages
- bedsider.org/methods/iud#details_tab

Resources

- www.advocatesforyouth.org Advocates for Youth
- www.aap.org American Academy of Pediatricians
- www.aclu.org/reproductive-freedom ACLU Reproductive Freedom Project
- www.acog.org American College of Obstetricians and Gynecologists
- www.arhp.org Association of Reproductive Health Professionals
- www.cahl.org Center for Adolescent Health and the Law

Resources

- www.guttmacher.org Guttmacher Institute
- janefondacenter.emory.edu Jane Fonda Center at Emory University
- www.msm.edu Morehouse School of Medicine
- www.naspag.org North American Society of Pediatric and Adolescent Gynecology
- www.prh.org Physicians for Reproductive Health

Resources

- www.siecus.org Sexuality Information and Education Council of the United States
- www.adolescenthealth.org Society for Adolescent Health and Medicine
- www.plannedparenthood.org Planned Parenthood Federation of America
- www.reproductiveaccess.org Reproductive Health Access Project