What’s New in Contraception?

Evelyn Kieltyka, Maine Family Planning, ekieltyka@mainefamilyplanning.org
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Evelyn Kieltyka, MSN, MS, FNP
U.S. Medical Eligibility Criteria for Contraceptive Use, 2010
Adapted from the World Health Organization
Medical Eligibility Criteria for Contraceptive Use, 4th edition
CONTRACEPTIVES FOR TEENS: THE NEW PARADIGM

- **Combined Hormonal Contraceptives**
  - Oral Contraceptives (the pill), Patch, Ring

- **Continuous Progestin Contraceptives**
  - Progestin-only pill,
  - Injectable (Depo-Provera—DMPA)
  - Implant (contraceptive implant)

- **Intrauterine Contraception**
  - IUD/IUS—Copper T, Mirena, Skyla

- **Barrier Methods**
HOW WELL DOES BIRTH CONTROL WORK?

Really, really well

- The Implant (Nexplanon)
  - Works, hassle-free, for up to: 3 years

- IUD (Skyla)
  - 3 years

- IUD (Mirena)
  - 5 years

- IUD (ParaGard)
  - 12 years

- Sterilization, for men and women
  - Forever

Less than 1 in 100 women

O.K.

- The Pill
  - For it to work best, use it... Every. Single. Day.

- The Patch
  - Every week

- The Ring
  - Every month

- The Shot (Depo-Provera)
  - Every 3 months

6-9 in 100 women, depending on method

Not as well

- Pulling Out

- Fertility Awareness

- Diaphragm, for men or women

12-24 in 100 women, depending on method

For each of these methods to work, you or your partner have to use it every single time you have sex.

FYI, without birth control, over 90 in 100 young women get pregnant in a year.
WHY LARC* METHODS?

*LONG ACTING REVERSIBLE CONTRACEPTION

- They are “forgettable”
  - Single act for insertion
  - Don’t require episodic (daily, weekly, monthly, etc.) user initiative
  - No need for refills or risk of not refilling on time
  - Continuous (24/7/365) contraceptive protection
  - Long term protection (3-10 years)
**WHY LARC* METHODS?**

*LONG ACTING REVERSIBLE CONTRACEPTION*

- Most effective reversible methods available
- Among the safest contraceptive methods
- Superior continuation rates
- Highest patient satisfaction among methods
- An alternative to surgical sterilization
- Most cost effective and cost saving methods
**Implant**

- **Brand name:** Nexplanon
- **Contains:** Etonogestrel (ENG)/progestin-only
- **Length of Effectiveness:** 3 years
- **Effectiveness in preventing pregnancy:** 99%
  
  (less than 1 per 100 women become pregnant)
- **How it works:** prevents ovulation, thickens cervical mucus, thins uterine lining
- **Inserted:** sub-dermally between biceps & triceps by a trained clinician

*Sources:
Nexplanon insert. Raymond, E, Contraceptive Technology, 2010*
IMPLANT: WHO SHOULD USE IT

- Women who want continuous pregnancy protection for 2-3 years
- Breastfeeding women and those unable to use combined hormonal contraceptives (with estrogen)
- Accepting of unpredictable vaginal bleeding patterns

Precautions:
- known or suspected pregnancy
- current or past history of blood clots
- liver disease
- known or suspected breast cancer
- hypersensitivity to any component of the implant

Sources:
Nexplanon insert. Raymond, E. Contraceptive Technology, 2010
Bleeding patterns: Implant users during the first 2 years of use.

<table>
<thead>
<tr>
<th>Bleeding pattern</th>
<th>Definition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amenorrhea</td>
<td>No bleeding and/or spotting in 90 days</td>
<td>22%</td>
</tr>
<tr>
<td>Infrequent</td>
<td>Less than three bleeding and/or spotting episodes in 90 days (excluding amenorrhea)</td>
<td>34%</td>
</tr>
<tr>
<td>Prolonged</td>
<td>Any bleeding and/or spotting episode lasting more than 14 days in 90 days</td>
<td>18%</td>
</tr>
<tr>
<td>Frequent</td>
<td>More than five bleeding and/or spotting episodes in 90 days</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Source: Nexplanon insert*
**LNG* INTRAUTERINE CONTRACEPTION (aka IUD)**

**Levonorgestrel**

- **Brand name:** Mirena®
- **Contains:** 20 mcg levonorgestrel/day
- **Effectiveness:** 5 years
- **Effectiveness in preventing pregnancy:** 99% (less than 1 per 100 women become pregnant)
- **How it works:** inhibits ovulation, increases viscosity of cervical mucus
- **Inserted:** vaginally in uterus by a trained clinician

**Sources:**
COPPER-T IUD

- **Brand name:** Paraguard®
- **Contains:** Copper ions (no hormones)
- **Length of effectiveness:** 10 years
- **How it works:** inhibits conception
- **Effectiveness in preventing pregnancy:** 99%
  (less than 1 per 100 women become pregnant)
- **Inserted:** vaginally in uterus by a trained clinician

*Sources:*
Contraceptive Technology, 2010
CHARACTERISTICS OF INTRAUTERINE CONTRACEPTION

- Highest patient satisfaction among methods
- Rapid return of fertility
- Safe
- Immediately effective
- Long-term protection
- Highly effective
- Can be used by nulliparous (never been pregnant) women

Sources:
**IUDs: Safe and Effective for Teens**

American College of Obstetricians and Gynecologists said IUDs and contraceptive implants should now be considered one of the best birth control options for teens because they are reliable and reversible.

- Don’t have to remember to take a pill at the same time daily
- Minimal – if any – complications
- Provide years of worry-free birth control
- Ensure higher levels of privacy: don't require frequent follow-up appointments and can't be "discovered" in a teen's room (as pills might be)
- Cost effective, and in the long run, costs less than other birth control methods
- Fewer menstrual cramps, lighter periods
PRE-IUD INSERTION SCREENING

Evidence supports no routine screening tests

- Chlamydia & Gonorrhea if high risk sexual behaviors or <26 years old and annual screening Chlamydia has not been done
- Pregnancy test: only if pregnancy suspected
- Pap smear: only if due for a routine Pap
- Hematocrit test: only if anemia suspected
- Any indicated screening test can be done on the day of IUD insertion
## The Contraceptive CHOICE Project

<table>
<thead>
<tr>
<th>Method</th>
<th>N</th>
<th>1 year Continuation %</th>
<th>% Very Satisfied</th>
<th>% Not Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mirena</td>
<td>1,890</td>
<td>88%</td>
<td>70%</td>
<td>14%</td>
</tr>
<tr>
<td>Paraguard</td>
<td>434</td>
<td>84%</td>
<td>66%</td>
<td>20%</td>
</tr>
<tr>
<td>Implant</td>
<td>522</td>
<td>83%</td>
<td>55</td>
<td>21</td>
</tr>
<tr>
<td>Depo-Provera</td>
<td>313</td>
<td>56%</td>
<td>42</td>
<td>46</td>
</tr>
<tr>
<td>Oral Contraceptives</td>
<td>478</td>
<td>55%</td>
<td>41</td>
<td>46</td>
</tr>
<tr>
<td>Patch</td>
<td>99</td>
<td>49%</td>
<td>35</td>
<td>56</td>
</tr>
<tr>
<td>Ring</td>
<td>431</td>
<td>54%</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>LARC</td>
<td>2,846</td>
<td>86%</td>
<td>67%</td>
<td>16%</td>
</tr>
<tr>
<td>Non-LARC</td>
<td>1,321</td>
<td>55%</td>
<td>43%</td>
<td>47%</td>
</tr>
</tbody>
</table>
COMBINED HORMONAL CONTRACEPTIVES
(PILLS, PATCH & VAGINAL RING)

- All 3 methods have similar:
  - Contraceptive Efficacy: 6-12 pregnancies per 100 women
  - Menstrual bleeding patterns
  - Side effects
  - Contraindications/complications
  - Monthly cost

- Major difference: the delivery system
  - Daily (combined oral contraceptive pills)
  - Weekly (Ortho Evra: the patch)
  - Monthly (NuvaRing)
## Oral Contraceptive Pills Cycle Variations

<table>
<thead>
<tr>
<th>Regimen</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Start</td>
<td>Allows for immediate use any time during the cycle</td>
</tr>
<tr>
<td>Shortened hormone free interval (HFI) with 24 days on/4 days off</td>
<td>More forgiving of late pill start and may improve efficacy</td>
</tr>
<tr>
<td>Extended cycle</td>
<td>Fewer menstrual cycles and fewer symptoms* from hormone free days</td>
</tr>
<tr>
<td>84 days on/7 days HFI (Seasonale®) 84 days on/7 days estrogen Seasonique®</td>
<td>4 menstrual periods per year</td>
</tr>
<tr>
<td>365 days on Lybrel®</td>
<td>No menstrual periods for 1 year</td>
</tr>
</tbody>
</table>

* bloating, breast tenderness, mood swings, monthly menstrual migraine or other headaches, menstrual seizures
EMERGENCY CONTRACEPTION

- Plan B/One Step & Next Choice: available over-the-counter
- No age restriction
- Cost:
  - $40-$50 at the pharmacy
  - $0-$43 at Family Planning (sliding fee scale based on income)
  - Covered by insurances and Mainecare
- Can be taken up to 5 days after unprotected sex (efficacy greater the sooner you take it)
- Will not stop or harm a pregnancy if fertilization and implantation has already occurred
- Can be purchased by a partner or parent
The Knowledge for Health (K4Health) Project is supported by USAID's Office of Population and Reproductive Health, Bureau for Global Health, under Cooperative Agreement with the Johns Hopkins University.
OTHER FORMS OF EMERGENCY CONTRACEPTION

○ Ella®
  - Recommended for women with BMI > 25 or if more than 3 days after unprotected sex
  - Doesn’t decrease in effectiveness over the 5 days
  - RX required—not available OTC

○ Copper IUD: inserted within 5 days after unprotected sex reduces risk of pregnancy by more than 99%

○ Combined oral contraceptives or progestin-only pills (regimen varies depending on the type)
**Injectable**

**Depo Medroxyprogesterone Acetate (DMPA)**

- **Brand name:** Depo-Provera®
- **Length of effectiveness:** 3 months
- **How it works:** inhibits ovulation, thickens cervical mucus, anti-estrogen prevents sperm penetration, alters uterine lining
- **Effectiveness in preventing pregnancy:** 96-99%
- **Disadvantages:**
  - Increase weight gain (not consistent for all women)
  - Menstrual cycle disturbances (70% in first year but as low as 10% after first year)
  - Side effects and return to fertility not immediate after discontinuation of the method
DMPA AND BONE DENSITY LOSS

- Women using DMPA experienced bone mineral density loss in the first 2 years of use (loss of MMD slows after 2 years)
- Bone loss is reversible when DMPA is stopped
- No added risk of fractures due to DMPA use
- No restriction on duration of DMPA use
- Women with higher risk of osteoporosis and fracture (family history or anorexia) may not be good candidates for long term DMPA use
**Body Weight and Contraception**

<table>
<thead>
<tr>
<th>Weight Gain</th>
<th>OC</th>
<th>Patch</th>
<th>DMPA</th>
<th>Implant</th>
<th>IUD</th>
<th>Tubal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Gain</td>
<td>No</td>
<td>No</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Increased failure rate in obese women</td>
<td>No Δ</td>
<td>Yes #</td>
<td>No Δ</td>
<td>No Δ</td>
<td>No Δ</td>
<td>No Δ</td>
</tr>
<tr>
<td>Medical risk in obese women</td>
<td>DVT</td>
<td>No studies</td>
<td>None</td>
<td>None</td>
<td>Difficult insertion</td>
<td>Surgical complications</td>
</tr>
<tr>
<td>WHO-MEC</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Not rated</td>
</tr>
</tbody>
</table>

*Mainly in obese adolescents and those who experience a ≥ 5% body weight increase within 6 months of DMPA initiation

# In women who weigh ≥ 90 kg, increase of 2-4 failures/100 couples/year
Hormonal contraception & interaction with other medications

- No evidence that antibiotics will reduce effectiveness in a significant way or increase pregnancy rates

- Recommendations:
  - No need to recommend back up method if a hormonal contraceptive user is on short or long term antibiotics
  - However, drugs can react in other ways, so you should always tell a medical provider all of the medications you are taking!
NEW GUIDELINES FOR IMPROVING CONTRACEPTIVE CARE

- Pelvic Exams no longer required before prescribing most methods
- Provide more, not less: 6-12 months at office visits
- Make the case for long-acting reversible contraceptives (implant and IUDs)
- Use quick start to encourage continuation
- Move away from every-day regimens
- Prescribe EC in advance
- Screen for STDs
- Encourage dual use: birth control + condoms
Reproductive Life Planning

At the beginning of a visit, practitioners are approaching contraceptive counseling of all potentially fertile women by asking a simple question: “Are you hoping to become pregnant in the next year?”

This approach encourages the patient to look long-term and to create a reproductive life plan. It’s very efficient, because the woman’s response will focus the practitioner’s focus when figuring out which birth control methods would be most effective for her particular reproductive life plan.
What do we want students to know about birth control?

- Facts about BC methods (including abstinence, withdrawal, and condoms)
- What they are
- How they work
- Their effectiveness rates
- How often you need to remember them
- Where to get them—clinical services
ADDRESSING ATTITUDES AND ASSUMPTIONS

Processing Questions

- What do you think are the best methods of birth control? Why?

- Are there any myths you’ve heard about certain methods? Do you need to get more information about what’s true or what’s a myth?

- What are the factors you need to consider when choosing a birth control method?

- What do you think is the best way to prevent pregnancy and STDs?

- Who is responsible for buying and making sure birth control is used? What can a guy do to help prevent pregnancy?
GOALS AND ASPIRATIONS

- Reproductive Life Planning
  “Are you hoping to become pregnant in the next year?”

- Create a Timeline of Goals—how pregnancy/parenting might challenge those goals?
## Impacts of Parenting

### Education and Career

<table>
<thead>
<tr>
<th>Positive Changes</th>
<th>Negative Changes</th>
</tr>
</thead>
</table>

### Friends and Social Life

<table>
<thead>
<tr>
<th>Positive Changes</th>
<th>Negative Changes</th>
</tr>
</thead>
</table>

### Finances and Money

<table>
<thead>
<tr>
<th>Positive Changes</th>
<th>Negative Changes</th>
</tr>
</thead>
</table>

### Daily Routine and Leisure

<table>
<thead>
<tr>
<th>Positive Changes</th>
<th>Negative Changes</th>
</tr>
</thead>
</table>
SKILL-BUILDING ACTIVITIES

- How to find and make an appointment at a Family Planning Clinic
- How to choose a birth control method
- Communication with partners
Online Lesson Plans

FLASH Lesson Plans
Comprehensive sexuality education curriculum

teachingsexualhealth.ca
comprehensive, accessible, innovative
TEACHER PORTAL

BIG DECISIONS
Making Healthy, Informed Choices about Sex
Maine law allows teens to receive confidential sexual health information and services.

With the passage of the ACA, preventive health services are available with no copay or coinsurance to the patient, including birth control, HIV/STD screening and prevention counseling.

Un- or under-insured at-risk youth may qualify for no- or low-cost sexual health services and testing at Family Planning and other health sites (funded by Maine CDC).
Got Questions? We’ve Got Answers.

latest news
Want a birth control method you don’t have to think about?
Visit one of Maine’s family planning clinics and ask about long-lasting, reversible birth control implants.
Contact Information:
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www.mainefamilyplanning.org