Contraception for Adolescents: What’s New?

US Medical Eligibility Criteria for Contraceptive Use

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Objectives

• Understand trends in teen pregnancy and contraceptive use
• Describe the current evidence-based recommendations about the safety of contraceptive methods for teens
• Describe current contraceptive methods available to teens, including LARCs
Pregnancy, birth and abortion rates for teens 15-19 years

Figure 1. Pregnancy, birth and abortion rates for teenagers 15-19 years: United States

Kost et al., Guttmacher Institute 2012
Most teens use contraception: Use among sexually experienced females 15-19 years


Use of contraception at first sex among females 15-19 years

Figure 2. Use of contraception at first sex among females aged 15–19, by method used: United States, 2006–2010

1Includes Lulelle injectable, emergency contraception, and contraceptive patch in 2002; adds contraceptive ring (Nuva-Ring) and Implanon implant in 2006–2010.

NOTE: See Table 11.
So why are teen pregnancy rates so high?

- 46% due to non-use of contraception
- 54% due to contraceptive failure
  - Effectiveness of method
  - Consistent and correct use

Santelli et al., 2006
Typical Effectiveness of Family Planning Methods

More effective
Less than 1 pregnancy per 100 women in 1 year

Long acting reversible contraceptives (LARCs)

- Implants
- IUD
- Female sterilization
- Vasectomy

Injectables
- LAM
- Pills
- Patch
- Vaginal ring

Less effective
About 30 pregnancies per 100 women in 1 year

- Male condoms
- Diaphragm
- Female condoms
- Fertility awareness methods
- Withdrawal
- Spermicides

Adapted from: WHO. Family Planning: A Global Handbook
Long Acting Reversible Contraception (LARC)

- “Forgettable contraception”
- Not dependent on compliance/adherence
- Available in US:
  - IUDs: copper and hormonal
  - Implant
- “expanding access to LARC for young women has been declared a national priority” (IOM)
- “Encourage implants and IUDs for all appropriate candidates, including nulliparous women and adolescents.” (ACOG 2009)
Method choice

Use of contraception at last sex among females ages 15-19, who had sex in the last 3 months, 2006-2010

<table>
<thead>
<tr>
<th>Method</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any method</td>
<td>86</td>
</tr>
<tr>
<td>Condoms (Tier 3)</td>
<td>52</td>
</tr>
<tr>
<td>Pills (Tier 2)</td>
<td>31</td>
</tr>
<tr>
<td>Other hormonals (Tier 1-2)</td>
<td>12</td>
</tr>
<tr>
<td>Other methods (Tier 1-4)</td>
<td>11</td>
</tr>
<tr>
<td>No method</td>
<td>17</td>
</tr>
</tbody>
</table>

Martinez et al., Vital Health Stat 23(31), 2011.
Contraceptive Methods for Adolescents: What’s New?

• US Medical Eligibility Criteria for Contraceptive Methods
• Contraceptive methods and adolescents
U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

Adapted from the World Health Organization
Medical Eligibility Criteria for Contraceptive Use, 4th edition
US MEC

- Evidence-based recommendations on the use of contraceptive methods among women with medical conditions or other characteristics (age)
- Adapted from global guidance, World Health Organization
- Purpose of recommendations:
  - To assist health care providers in counseling about contraceptive method choice
  - To serve as source of clinical guidance
- Health care providers should always consider individual clinical circumstances
MEC Categories

1. A condition for which there is no restriction for the use of the contraceptive method.

2. A condition where the advantages of using the method generally outweigh the theoretical or proven risks.

3. A condition where the theoretical or proven risks usually outweigh the advantages of using the method.

4. A condition which represents an unacceptable health risk if the contraceptive method is used.
### Smoking and Contraceptive Use

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>CHC</th>
<th>POP</th>
<th>DMPA</th>
<th>IMP</th>
<th>Cu-IUD</th>
<th>LNG-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SMOKING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Age&lt;35</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>b) Age≥35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) &lt;15 cigarettes/day</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(ii) ≥15 cigarettes/day</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Method</td>
<td>COC, Patch, Ring</td>
<td>POP</td>
<td>Implant</td>
<td>Barrier</td>
<td>Injection</td>
<td>IUD</td>
</tr>
<tr>
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<td>---------</td>
<td>---------</td>
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<td>------</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 40</td>
<td>All ages</td>
<td>All ages</td>
<td>All ages</td>
<td>&lt;18</td>
<td>&lt; 20</td>
</tr>
<tr>
<td>MEC</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

1. No restriction
2. Generally can use
3. Generally do not use
4. Do not use
Tier 1 Methods
“Very Effective”

- Levonorgestrel-releasing intrauterine system
- Copper IUD
- Implant
Levonorgestrel-releasing intrauterine system (IUS)

- Effective for at least 5 years
- Side effects: irregular bleeding
- US MEC
  - For ages < 20: 2
  - For nulliparous women: 2
  - For increased risk of STIs: 2/3
- Does not protect against sexually transmitted infections (STIs)
Copper intrauterine device (IUD)

- Effective for at least 12 years
- Side effects: irregular bleeding, heavy bleeding
- US MEC
  - For ages < 20: 2
  - For nulliparous women: 2
  - For increased risk of STIs: 2/3
- Does not protect against STIs
Contraceptive implant

- Effective for at least 3 years
- Side effects: irregular bleeding
- US MEC for all ages: 1
- Does not protect against STIs
Tier 2 Methods
“Effective”

- Injectable (DMPA)
- Pill
- Patch
- Ring
Contraceptive injection: Depo medroxyprogesterone acetate (DMPA)

- One injection every 3 months
- Reliable contraception for 3 months, but effects may last up to 9 months
- Side effects: irregular bleeding
- US MEC for ages < 18: 2
  - Bone mineral density
  - Weight
- Does not protect against STIs
Contraceptive pills

- Combined pills contain estrogen and progestin
  - US MEC for age < 40: 1
  - Side effects: hormone-related side effects
- Progestin-only pills contain only progestin
  - US MEC 1 for all ages
  - Side effects: irregular bleeding
- Do not protect against STIs
Contraceptive patch

- Releases estrogen and progestin, so similar to combined pills
- One patch per week for 3 weeks, then 1 patch-free week
- Side effects: similar to COCs
- US MEC for age < 40: 1
- Does not protect against STIs
Contraceptive vaginal ring

• Releases estrogen and progestin, so similar to combined pills
• One ring for 3 weeks, then 1 ring-free week
• Side effects: similar to COCs
• US MEC for age < 40: 1
• Does not protect against STIs
Tier 3

“Moderately Effective”

- Condoms (male and female)
- Diaphragms, cervical cap, sponge
- Fertility awareness-based methods
Tier 4
“Less Effective”

- Withdrawal
- Spermicidies
DUAL PROTECTION
Condoms

- US MEC for all ages: 1
- Male latex condoms reduce risk of STIs, including HIV, when used correctly and consistently

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate (per 100,000 population)</th>
</tr>
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<tbody>
<tr>
<td>10-14</td>
<td>129.9</td>
</tr>
<tr>
<td>15-19</td>
<td>205.6</td>
</tr>
<tr>
<td>20-24</td>
<td>498.9</td>
</tr>
<tr>
<td>25-29</td>
<td>1240.6</td>
</tr>
<tr>
<td>30-34</td>
<td>498.9</td>
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<tr>
<td>35-39</td>
<td>205.6</td>
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<tr>
<td>40-44</td>
<td>85.8</td>
</tr>
<tr>
<td>45-54</td>
<td>30.9</td>
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<tr>
<td>55-64</td>
<td>8.4</td>
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<tr>
<td>65+</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>585.6</td>
</tr>
</tbody>
</table>

CDC, 2008
Dual Protection

Use of dual methods (condom and hormonal method) among 15-19 year olds, who had sex in 3 months prior to interview

Abma et al., NSFG, 2010.
Emergency contraceptive pills

• Take up to 120 hours after unprotected sex

• Current products: levonorgestrel
  – Without prescription: ages 17+
  – Prescription: ages < 17

• New formulation: ulipristal acetate
  – Marketed in late 2011
  – May be more effective than levonorgestrel beyond 48 hours
  – Prescription only
Take Home Messages

• Rates of adolescent pregnancy in the US are decreasing, but remain high
• Adolescents who are at risk of unintended pregnancy need access to highly effective contraceptive methods
• Adolescents are eligible to use all methods of contraception – there is no contraceptive method that an adolescent cannot use based on age alone
• Long-acting, reversible contraception (LARCs) may be particularly suitable for many adolescents – IUDs – Implants
• Dual protection should be encouraged among adolescents
Resources

  http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5904a1.htm?s_cid=rr5904a1_w

• CDC evidence-based family planning guidance documents:
  http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm
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