

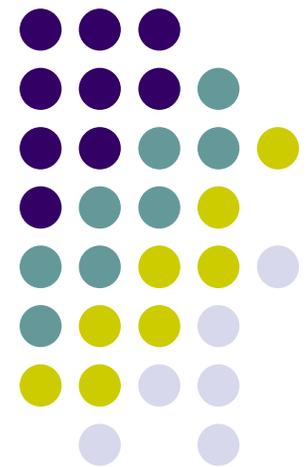
# Preventive Services for Young Women

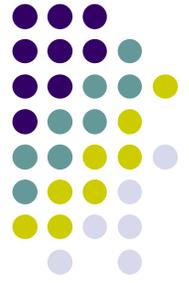
John Santelli, MD, MPH

Society for Adolescent Health and Medicine

IOM Committee of Preventive Services for Women

Nov 16, 2010



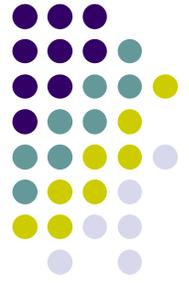


# Why Prevention is a Hard Sell

*Harvey Fineberg (IOM) at Columbia*

1. Success is invisible
2. Lack of drama
3. Statistical lives
4. Long delay before rewards appear
5. Benefits often do not accrue to the “investor” or payer
6. Persistent behavior change may be required
7. Bias against errors of commission
8. Acceptance of avoidable harm as “normal”
9. Double standard of evaluation for prevention compared to treatment
10. Conflicts with commercial interests
11. Conflicts with personal preferences
12. Conflicts with religious and cultural beliefs

# Patient Protection and Affordable Care Act



For adolescents and young adults

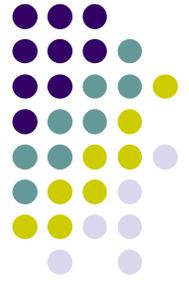
- 1 Expands insurance coverage & access to care
- 1 Marvelous opportunity to expand prevention services
  - 1 In clinical programs and in community settings
- 1 New investments in prevention: guided by strong science and broad vision of “what works”
- 1 Science base for many interventions is strong
- 1 Science base for others is underdeveloped



# Youth and Prevention

- 1 Morbidity & mortality among youth driven by health risk behaviors and mental health issues
- 1 Mortality: unintentional and intentional injuries
- 1 Morbidity: alcohol and other drug use, depression, sexual behaviors, unhealthy diet and exercise patterns
- 1 Life long implications
- 1 Synergies between clinical and community-based prevention

# Professional Recommendations: on Prevention Services/ Effective Prevention



- 1 Guide to Clinical Preventive Services (USPSTF)
- 1 Advisory Committee on Immunization Practices
- 1 Professional medical associations: AMA, AAP, ACOG, AAFP
- 1 Guidelines for Adolescent Clinical Preventive Services (AMA)
- 1 Bright Futures (AAP and HRSA)
- 1 Guide to Community Preventive Services
- 1 Emerging Answers, 2007 (NCTPTUP)



# Immunizations (ACIP)

- 1 USPSTF defers to CDC's Advisory Committee on Immunization Practices (ACIP) for recommendations on immunizations for children and adults
- 1 Efficacious STI vaccines for young women:
  - 1 Hepatitis B, Hepatitis A
  - 1 MMR
  - 1 Human Papilloma Virus
  - 1 Influenza

# Screening

## Sexually Transmitted Infections (USPSTF)



### 1 **Chlamydia (2007)**

- 1 Grade A: Screen women 24 yrs and younger if sexually active and older pregnant women who are at increased risk

### 1 **Gonorrhea (2005)**

- 1 Grade B: Screen all sexually active women, including those who are pregnant, for gonorrhea infection if they are at increased risk for infection.

### 1 **Syphilis (2004)**

- 1 Grade A: USPSTF strongly recommends that clinicians screen persons at increased risk for syphilis infection

### 1 **Genital Herpes (2005)**

- 1 Grade D: USPSTF recommends against routine serological screening for HSV in asymptomatic adolescents and adults.

### 1 **Human Papilloma Virus (2003)**

- 1 Grade N/A: Insufficient evidence to recommend for or against

# Screening and Counseling Mental Health/Substance Abuse (USPSTF)



## 1 **Illicit Drug Use (2008)**

- 1 Grade N/A: there is insufficient evidence to assess the balance of benefits and harms of screening adolescents, adults, and pregnant women for illicit drug use.

## 1 **Smoking (2003)**

- 1 Grade A: screening for all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products
- 1 Grade A: Screening for all pregnant women for tobacco use and provide augmented pregnancy-tailored counseling to those who smoke
- 1 Grade N/A: there is insufficient evidence to recommend for or against routine screening for tobacco use or interventions to prevent and treat tobacco use and dependence among children or adolescents.

## 1 **Suicide Risk (2004)**

- 1 Grade N/A: there is insufficient evidence to recommend for or against routine screening by primary care clinicians to detect suicide risk in the general population

# Screening and Counseling Mental Health/Substance Abuse (USPSTF)



## 1 Alcohol Misuse (2004)

- 1 Grade B: screening and behavioral counseling interventions to reduce alcohol misuse by adults, including pregnant women, in primary care settings.
- 1 Grade N/A: there is insufficient to recommend for or against screening and behavioral counseling interventions to prevent or reduce alcohol misuse by adolescents in primary care settings

## 1 Depression (2009)

- 1 Grade B: screening of adolescents for major depressive disorder when systems are in place to ensure accurate diagnosis, psychotherapy, and follow-up.

# Screening and Counseling Injury (USPSTF)



## 1 **Family Violence (2004)**

- 1 Grade N/A: there is insufficient evidence to recommend for or against routine screening for physical abuse or neglect

## 1 **Motor Vehicle Occupant Restraints (2007)**

- 1 Grade N/A: there is insufficient evidence to recommend for or against routine counseling for use of motor vehicle occupant restraints

# Screening and Counseling Metabolic and Nutritional (USPSTF)



## 1 **Exercise (2002)**

- 1 Grade N/A: there is insufficient evidence to recommend for or against behavioral counseling in primary care settings to promote physical activity

## 1 **Healthy Diet (2003)**

- 1 Grade N/A: there is insufficient evidence to recommend for or against routine behavioral counseling to promote a healthy diet in unselected patients in primary care settings.
- 1 Grade B: intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease.

## 1 **Obesity (2010)**

- 1 Grade B: screening children aged 6 years and older for obesity and offer them or refer them to comprehensive, intensive behavioral interventions to promote improvement in weight status.

# The Community Guide

## (Guide to Community Preventive Services)



- 1 Addresses programs and policies to improve health and prevent disease in community settings
- 1 Conducts systematic reviews of available evidence
- 1 Adolescent recommendations:
  - 1 Youth violence, alcohol use and MVA, sexual risk behaviors
- 1 Parenting skills (2008)
  - 1 Recommends person-to-person interventions intended to modify adolescents' risk and protective behaviors by improving their caregivers' parenting skills
  - 1 Sufficient evidence of effectiveness in reducing adolescent risk behaviors
  - 1 Interventions: face-to-face or by telephone; outside of clinical settings

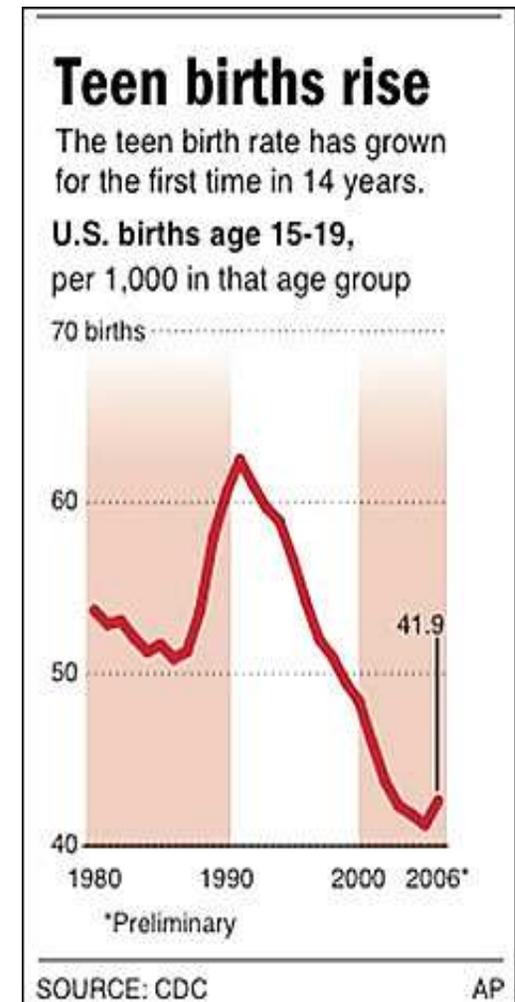
# Pregnancy and STI/ HIV Among Youth in the U.S.



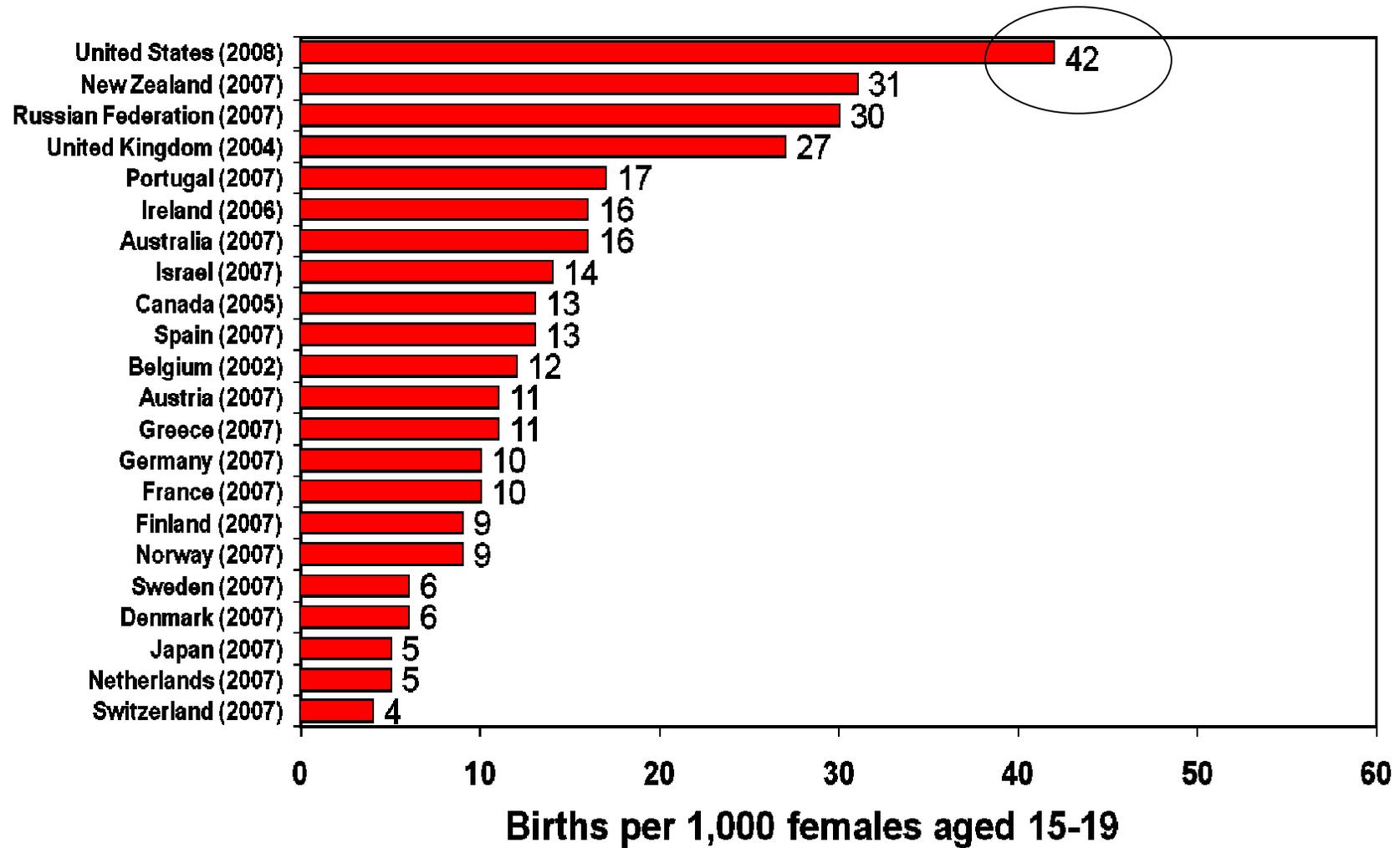
- 1 **750,000 pregnancies among teens (2006)**
  - 1 80-90% are unplanned or mistimed
  - 1 ~ 1/2: no contraceptive use
  - 1 Impact on health/ social wellbeing of mother and child
- 1 **9.5 million STIs among youth**
  - 1 ~ 1/2 new infections are under 25 years
- 1 **HIV infection high among young gay men**
- 1 **Effective clinical and community interventions**
- 1 **Limited recommendations in USPSTF**

# Teen Birth Rates 1991-2008

- **Teen birth rates declined 1991-2005**
  - Improved condom and contraceptive primary determinants
- **Teen birth rates rose 2005-2007**
  - Coincident with deterioration in condom and contraceptive use
- **Teen births declined 2% in 2008**



# Teen Birth Rates: Selected Countries, Latest Year



SOURCE: Statistical Office, United Nations. 2004 Demographic Yearbook; CDC/NCHS, National Vital Statistics System

# **Why Are U.S. Rates So High?**

Compared to European Teen Birth Rates

## **Behavioral differences:**

- Sexual activity, contraceptive use?

## **Social differences:**

- More equitable income distributions?
- Societal acceptance of contraceptive use/ adolescent sexuality?
- Higher fertility among adult women?

## **Public policy differences:**

- HIV prevention and sexuality education?
- Access to contraception?

# Why Are U.S. Rates So High?

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# Professional Medical Associations: AMA, ACOG, AAP, AAFP

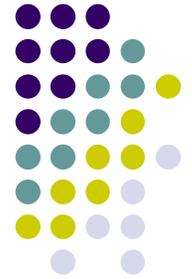


## Strong endorsements for:

- 1 Reproductive health services including
  - 1 Improved access to condoms and contraception
  - 1 Counseling, STI screening, immunizations
  - 1 HIV counseling and testing
- 1 Comprehensive sexuality education
  - 1 Medically accurate, developmentally appropriate, K-12 education that promotes abstinence and contraception

# The Community Guide

## (Guide to Community Preventive Services)



### 1 Comprehensive Risk Reduction Interventions (2010) for Adolescents

- 1 Evidence sufficient to recommend CRR interventions promote behaviors that prevent or reduce the risk of pregnancy, HIV, and other sexually transmitted infections (STIs)
  - 1 Reducing self-reported risk behaviors, including sexual activity, # of partners
  - 1 Increasing the self-reported use of protection against pregnancy and STIs
  - 1 Reducing the incidence of self-reported or clinically-documented STIs
  - 1 But, limited direct evidence of effectiveness for reducing pregnancy and HIV

### 1 Abstinence Education (2010)

- 1 Evidence insufficient to recommend group-based abstinence education delivered to adolescents to prevent pregnancy, HIV and other sexually transmitted infections (STIs)

# Summary:

## Preventive Services for Young Women



- 1 ACIP and USPSTF a good start
- 1 Good data on community-based prevention
- 1 Look to synergies between the clinic and the community
- 1 Improve the research data base
- 1 Fix the curious gap in identifying condoms and other contraception as effective prevention

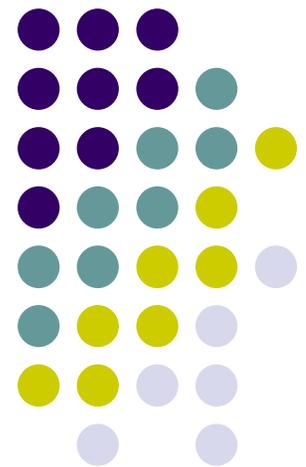
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# STIs, HIV, and Teen/ Unintended Pregnancy in the U.S.



## STIs

- 1 Highest rates among youth and young adults
- 1 U.S. - higher rates than other developed countries

## HIV

- 1 Considerable continued transmission
- 1 Rising among women, higher in African Americans

## Teen/ Unintended Pregnancy

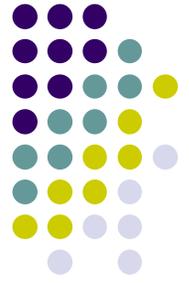
- 1 ~ half of U.S. pregnancies, 40% end in abortion
- 1 Teen pregnancy much higher than developed world

# Highly Effective Contraception



- 1 Reintroduction of the IUD
- 1 Implanon
- 1 Longer acting hormonal methods
  
- 1 Unintended pregnancy
  - 1 Half the result of contraceptive nonuse
  - 1 Half the result of contraceptive failure

# Address Barriers to Condom and Contraceptive Use



## Reasons for inconsistent or non-use of contraception include:

### 1 Intrapersonal reasons

- 1 Low perceived risk of pregnancy; lack of knowledge, attitudes and beliefs around contraception; concern over real or perceived side effects; and unexpected or unplanned sex;

### 1 Partner Influences

- 1 Partner's pregnancy intentions and a partners' knowledge, attitudes and beliefs about contraception

### 1 Sociocultural influences

- 1 Family, religion, and media

### 1 Access and Structural Reasons

- 1 Inability to afford contraception and lack of access to healthcare providers for prescription contraceptives

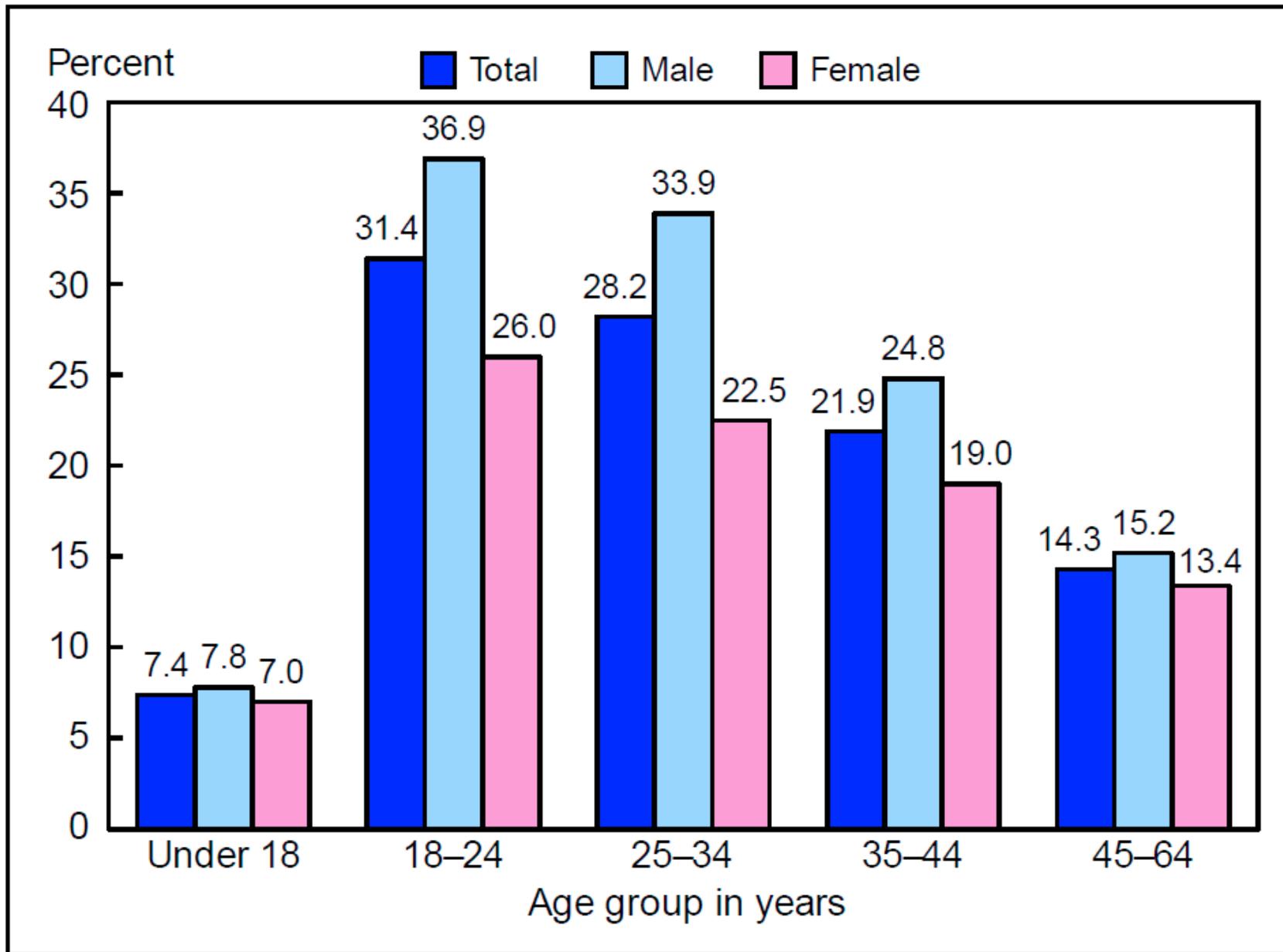


Figure 2. Percentage of persons under age 65 years without health insurance coverage at the time of interview, by age group and sex: United States, January–March 2010

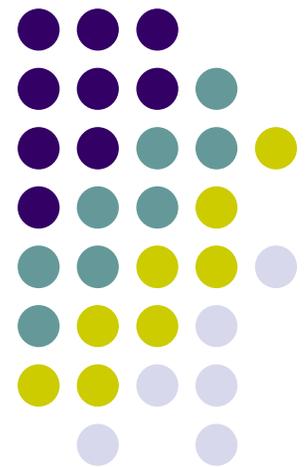
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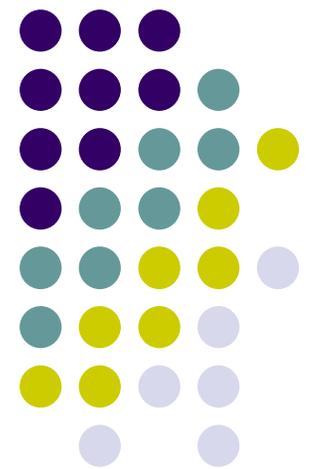
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# Extra slides

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# Guidelines for Adolescent Preventive Services (GAPS)



- 1 GAPS covers the primary health conditions affecting adolescent health including sexual behaviors
- 1 Key areas for prevention
  - 1 Promoting parents' ability to respond to the health needs of their adolescents
  - 1 Behavioral screening
  - 1 Health guidance/ counseling
  - 1 Physical assessment
  - 1 Laboratory screening
  - 1 Immunization
- 1 Specific recommendations regarding sexual behaviors
  - 1 promoting adjustment to puberty and adolescence;
  - 1 promoting healthy psychosexual adjustment and preventing the negative health consequences of sexual behaviors;
  - 1 preventing infectious diseases.

# Expedited Partner Therapy (EPT)



- 1 EPT is the delivery of medications or prescriptions by persons infected with an STD to their sex partners without clinical assessment of the partners.
- 1 Clinicians provide patients with sufficient medications directly or via prescription for the patients and their partners.
- 1 CDC supports EPT as a “useful option” to further partner treatment, particularly for male partners of women with chlamydia or gonorrhea.



## Proximate variables

## Biopsychosocial factors



### Intercourse variables:

Timing of first intercourse  
Percent of women who ever had intercourse  
Time spent in marriage (separation, divorce)  
Frequency of intercourse

### Conception variables:

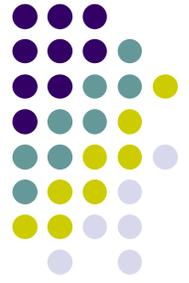
Contraceptive use  
Sterilization  
Infertility/ fecundity

### Pregnancy outcome (gestational) variables:

Miscarriage and stillbirth  
Induced abortion

**Live birth**

## An Integrated Framework for Understanding Teen Fertility And Unplanned Pregnancy



## 10 Characteristics of Effective Programs to Reduce Sexual Risk Behaviors (Kirby)

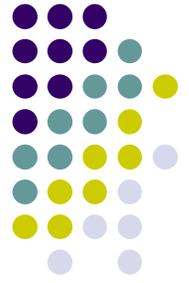
1. Focus on reducing high-risk sexual behaviors
2. Base practice on theoretical approaches that have been effective
3. Develop and reinforce a clear message about
4. Provide basic, accurate information about:
5. Include activities that address social pressures
6. Provide practice with communication, negotiation, and refusal skills
7. Use interactive teaching/help teens personalize information
8. Incorporate goals and methods that are appropriate to the age, sexual experience, and culture of the students
9. Provide enough time (more than a few hours)
10. Select teachers or peer leaders who believe in the program, and provide them with adequate training

# Key Behavioral Risk Factors STIs, HIV, and Unplanned Pregnancy



- 1 Initiation of sexual intercourse (adolescents)
- 1 Condom and contraception use
  - 1 Access to methods
  - 1 Efficacy of methods
  - 1 Barriers to use
- 1 Partnership factors (multiple concurrent partners)
- 1 Use of reproductive health services
  - 1 STI screening and treatment
  - 1 HIV testing and counseling

# Preventing Unintended and Teen Pregnancy



- 1 Increase abstinence
  - 1 Delay initiation
  - 1 Increase abstinence among sexual experienced
- 1 Increase effective contraception
  - 1 Promote use of any method
  - 1 Promote dual use
  - 1 Promote the use of more effective methods

# Making it work: Specific Recommendations



- 1. Increase access to STD/HIV screenings and treatment for adolescents and young adults.**
  - 1 Make these widely available through public/ private providers
  - 1 Assure insurance coverage for STI screening
  
- 2. Increase teen/young adult access to risk reduction information**
  - 1 Provide K-12, medically-accurate, comprehensive sexuality education, including the benefits of abstinence, partner risk reduction, condom use, and use of reproductive health care
  - 1 Develop a North Carolina sexuality education website for teens and young adults and promote this widely
  - 1 Provide a social market campaign via multiple channels including the Internet with comprehensive and consistent messages to promote the prevention of STD/HIV and unintended pregnancy
  - 1 Develop a state requirement for assuring medical accuracy in sexuality education

# Making it work: Specific Recommendations



## **3. Increase teen/young adult access to effective contraceptive methods**

- 1 Increase the availability of family planning services for the uninsured and underinsured**
- 1 Promote dual method use and make condoms widely available**
- 1 Make highly effective contraception widely available in public programs and by assuring insurance coverage for these methods**

## **4. Increase the number of health care professionals who assess and counsel patients to reduce risks for unintended pregnancies, STDs and HIV rates**

- 1 Develop programs for health care providers (including an academic detailing program) to promote risk reduction and use of appropriate and effective contraception**
- 1 Allow EPT via legal opinion or state law**

# Making it work: Specific Recommendations



- 5. Assure that adolescent girls are immunized against Hepatitis B and the Human Papilloma Virus per ACIP recommendations**
  - 1 Promote vaccinations via education of parents
  - 1 Allow sexually active teens to consent for STI vaccines
  - 1 Provide insurance coverage for vaccinations
  - 1 Provide vaccines to public providers
  
- 6. Promote neonatal male circumcision via changes in insurance coverage and outreach education to pregnant and postpartum mothers**

# Guide to Clinical Preventive Services



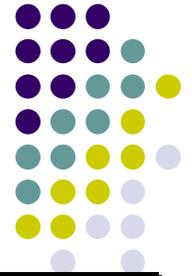
- 1 US Preventive Services Task Force (USPSTF) evaluates research in order to assess the merits of preventive measures.
- 1 Key practice recommendations regarding STI & HIV:
  - 1 Screening
  - 1 Immunizations
  - 1 Counseling

# Emerging Answers 2007

## Evaluations of Sexuality Education



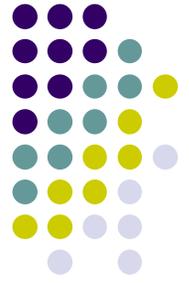
- 1 Comprehensive review of efficacy of comprehensive sexuality education, abstinence-only programs
- 1 Among 7 abstinence-only programs:
  - 1 0% showed strong evidence of behavior  $\Delta$
  - 1 1 program weak evidence  $\downarrow$  sexual initiation
  - 1 No impact: condom or contraceptive use, sexual risk-taking
- 1 Among 48 comprehensive sex ed programs:
  - 1 45%  $\downarrow$  initiation of sex, 0%  $\uparrow$  initiation
  - 1 43%  $\downarrow$  number of sexual partners (10/23), 0%  $\uparrow$
  - 1 45%  $\uparrow$  condom use, 0%  $\downarrow$  use
  - 1 45%  $\uparrow$  contraceptive use (4/9), 1  $\downarrow$  use
  - 1 63%  $\downarrow$  sexual risk  $\Delta$  in multiple behaviors (15/24)



# USPSTF Grading System

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small.	Offer or provide this service only if other considerations support offering or providing the service in an individual patient
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service

# STD Immunizations

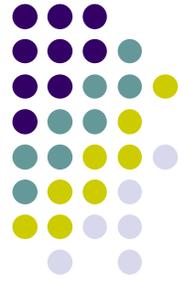


## Hepatitis B Vaccine

### ACIP recommends:

- 1 Newborns: All children should be vaccinated against Hepatitis B within 1 months of birth. Depending on the mother's Hepatitis B status, vaccination may be recommended at birth or within the first few days of life.
- 1 Adults: In settings in which a high proportion of adults have risks for HBV infection (e.g., sexually transmitted disease/human immunodeficiency virus testing and treatment facilities, drug-abuse treatment and prevention settings, health-care settings targeting services to IDUs, health-care settings targeting services to MSM, and correctional facilities), ACIP recommends universal Hepatitis B vaccination for all unvaccinated adults

# STI Immunizations



## HPV Vaccine

### ACIP recommends:

- 1 HPV is sexually transmitted and often acquired soon after onset of sexual activity, vaccination should ideally occur before sexual debut.
- 1 The recommended age for vaccination is 11--12 years; vaccine can be administered to females as young as age 9 years.
- 1 Catch-up vaccination is recommended for females aged 13--26 years who have not yet been vaccinated

## **GAPS:**

### **Annual health guidance regarding responsible sexual behaviors, including abstinence**



- 1 Health guidance for sexual responsibility includes the following:
  - 1 counseling that abstinence from sexual intercourse is the most effective way to prevent pregnancy and sexually transmissible diseases (STDs), including HIV infection;
  - 1 counseling on how HIV infection is transmitted, the dangers of the disease, and the fact that latex condoms are effective in preventing STDs, including HIV infection;
  - 1 reinforcement of responsible sexual behavior for adolescents who are not currently sexually active and for those who are using birth control and condoms appropriately;
  - 1 counseling on the need to protect themselves and their partners from pregnancy; STDs, including HIV infection; and sexual exploitation.
- 1 Latex condoms to prevent STDs, including HIV infection, and appropriate methods of birth control should be made available, as should instructions on how to use them effectively.

## **GAPS:**

# **Annual Screening for Sexual Behaviors Leading To Unintended Pregnancy, STDs, and HIV**



- 1 Sexually active adolescents should be asked about their use and motivation to use condoms and contraceptive methods, their sexual orientation, the number of sexual partners they have had in the past six months, if they have exchanged sex for money or drugs, and their history of prior pregnancy or STDs.
- 1 Adolescents at risk for pregnancy, STDs (including HIV), or sexual exploitation should be counseled on how to reduce this risk.
- 1 Sexually active adolescents should also be asked about their use of tobacco products, alcohol, and other drugs.

## GAPS: Sexually active adolescents should be screened for STDs



- 1 STD screening includes the following:
  - 1 Cervical culture, test of cervical fluid or urine leukocyte esterase analysis to screen for gonorrhea and chlamydia.
  - 1 Serologic test for syphilis if criteria met
  - 1 Evaluation for human papilloma virus by visual inspection (males and females) and by Pap test.
  - 1 If a presumptive test for STDs is positive:
    - 1 Tests to make a definitive diagnosis should be performed
    - 1 Treatment plan instituted according to guidelines developed by the Centers for Disease Control and Prevention
    - 1 Use of condoms encouraged.
  - 1 The frequency of screening for STDs depends on the sexual practices of the individual and the history of previous STDs.

## **GAPS: Adolescents at risk for HIV infection should be offered confidential HIV screening**



- 1 Risk status includes:
  - 1 Used intravenous drugs
  - 1 Had other STD infections
  - 1 Lived in an area with a high prevalence of STDs and HIV infection
  - 1 More than one sexual partner in the last six months
  - 1 Exchanged sex for drugs or money
  - 1 Male and having engaged in sex with other males
  - 1 Had a sexual partner who is at risk for HIV infection.
- 1 Testing should be performed only:
  - 1 After informed consent is obtained from the adolescent
  - 1 In conjunction with both pre- and post-test counseling
- 1 The frequency of screening for HIV infection should be determined by the risk

## **GAPS: Sexually Active Females should be screened annually for cervical cancer**



- 1 Adolescents with a positive Pap test should be referred for further diagnostic assessment and management.

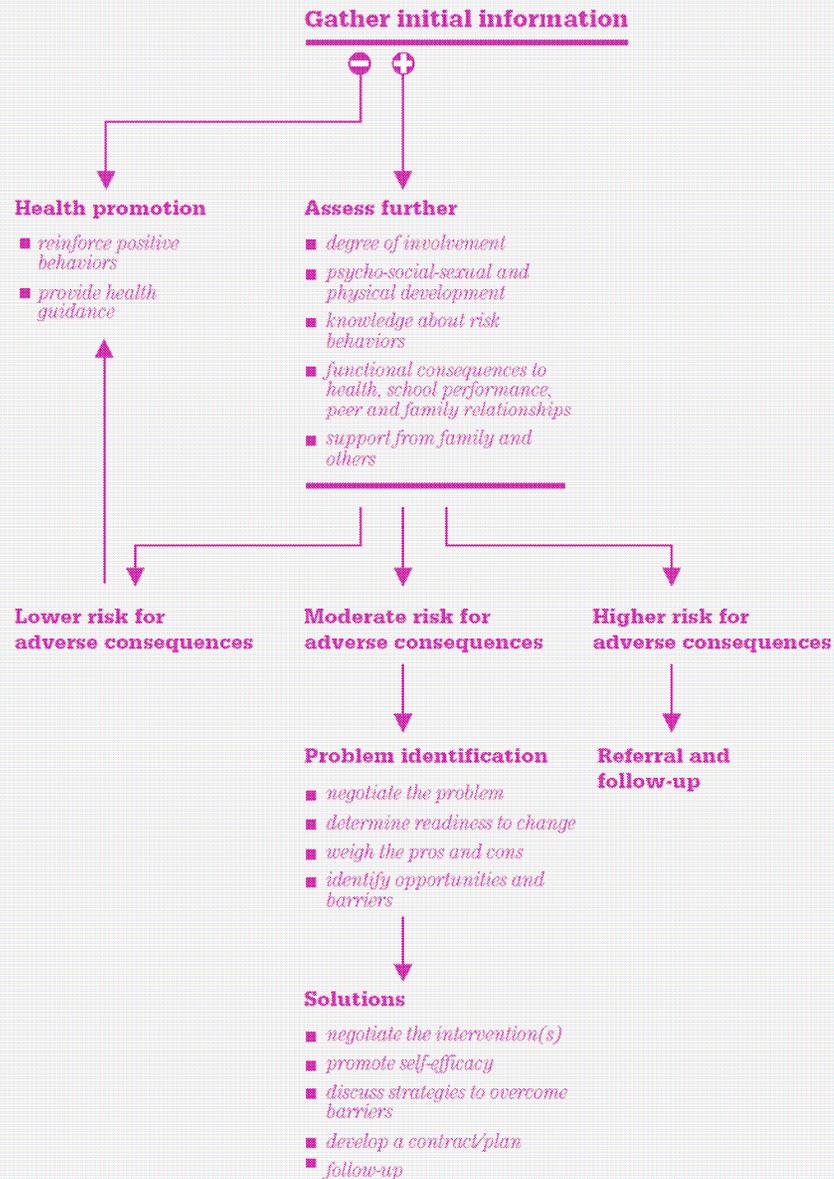


# GAPS Key Services

## 1 Behavior screening/counseling

The Guidelines for Adolescent Preventive Services (GAPS) approach is a model that uses a systematic strategy for screening and health guidance by primary care physicians.

## Steps for preventive screening and health promotion



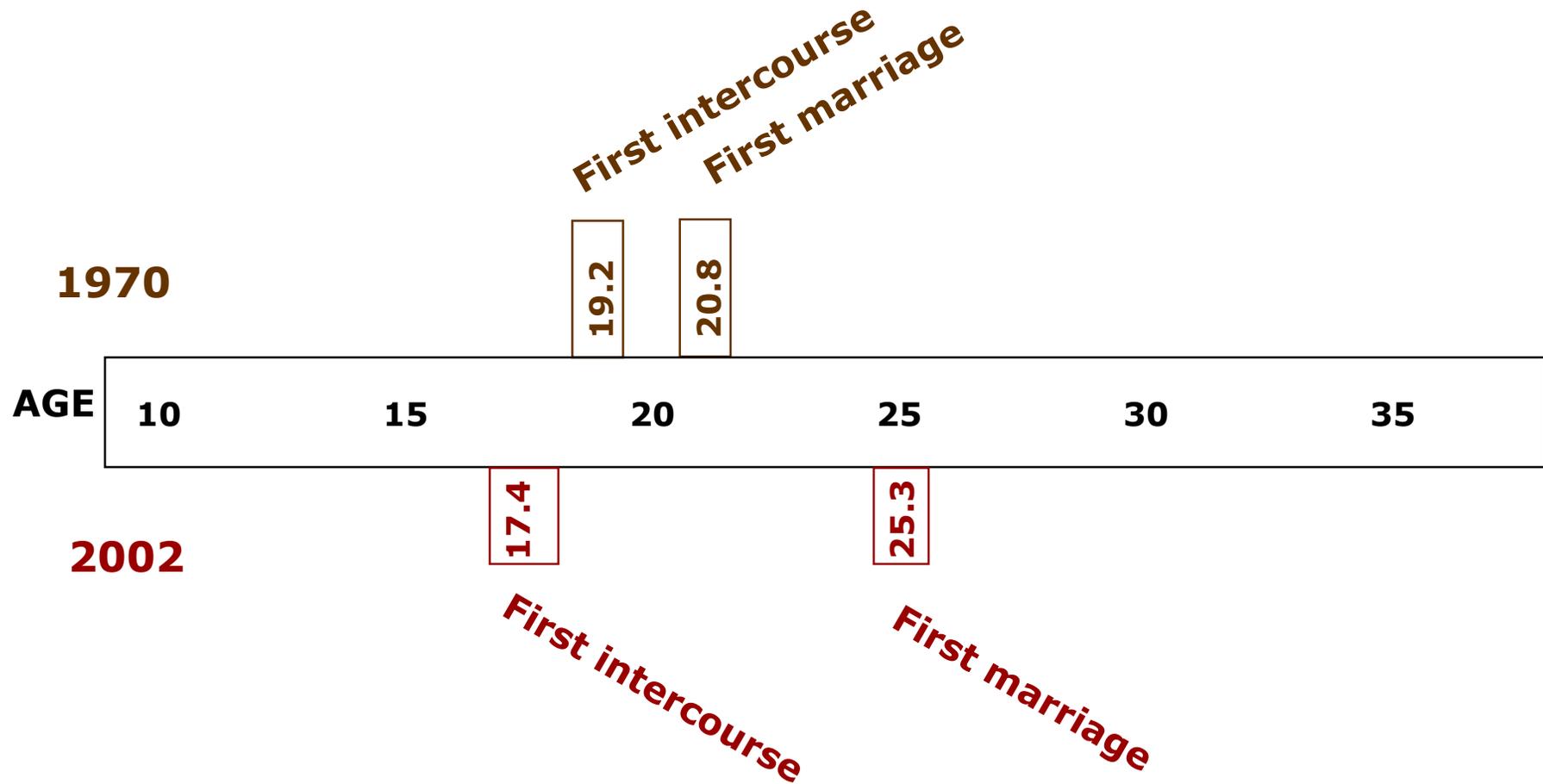
# GAPS: Screening and Health Promotion Steps



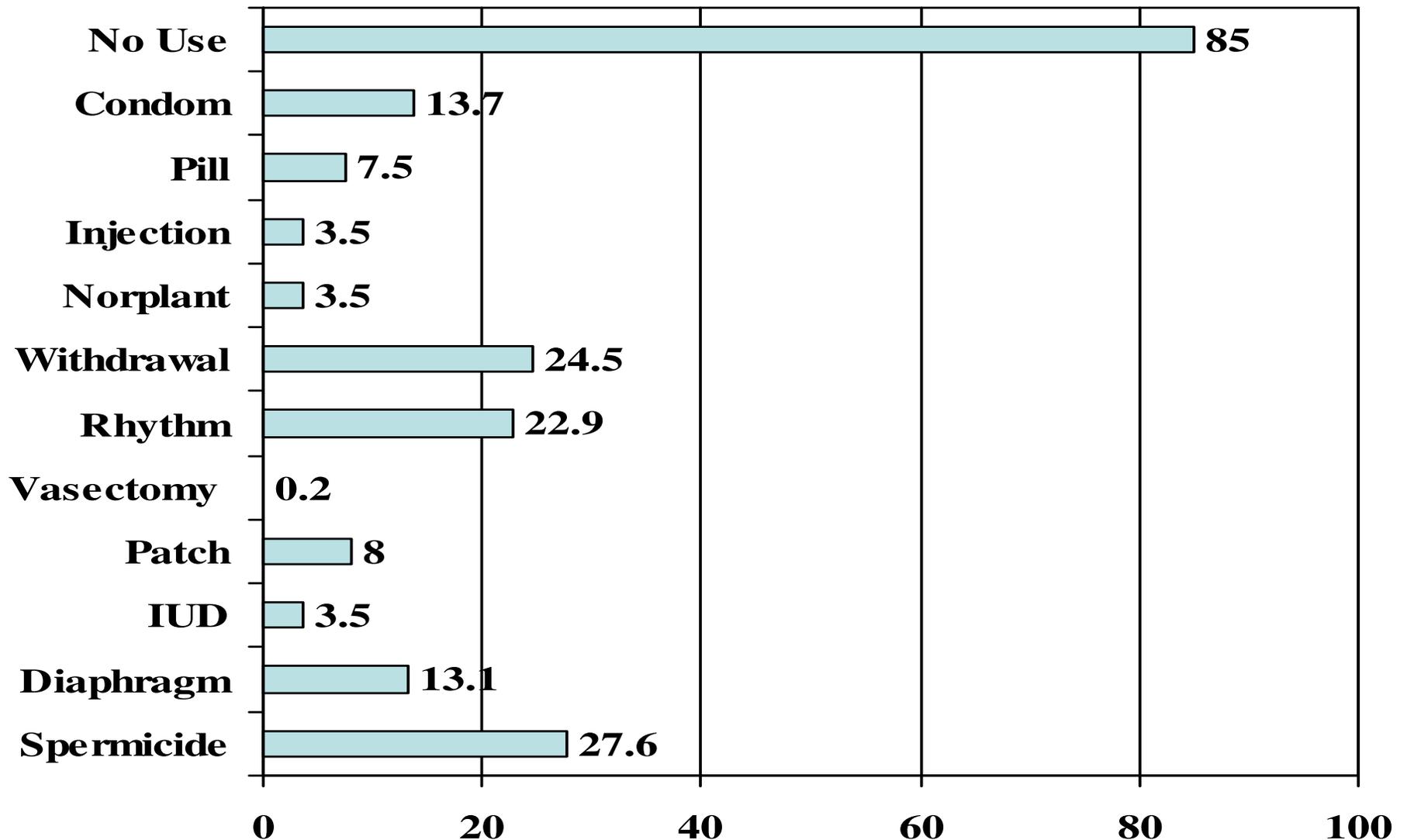
# Contraceptive Failure Rate

<b>Contraceptive method</b>	<b>Perfect use</b>	<b>Typical use</b>
Implant	0.05%	0.05%
Male sterilization	0.10%	0.15%
Pill	0.1%	5.0%
Injectable (Depo-Provera®)	0.3%	0.3%
Female sterilization	0.5%	0.5%
Intrauterine device	0.6% <sup>†</sup>	0.8% <sup>†</sup>
Condom (male)	3.0%	14.0%
Withdrawal	4.0%	19.0%
Diaphragm	6.0%	20.0%
Spermicides	6.0%	26.0%
Periodic abstinence	9.0% <sup>§</sup>	25.0%

# Age of First Intercourse & First Marriage in Women: 1970, 2002



# Typical Use, Contraceptive Failure Rates, NSFG



# Science-Based Approaches

## (Division of Reproductive Health, CDC)



- 1 Use interventions with **proven efficacy** and take the next step to measure effectiveness in real world settings.
- 1 Examine the research literature on specific **risk factors** and think about how to address these.
- 1 Use a **logic model** to guide your community activities, not simply do activities that seem to make sense or meet funders' needs.
- 1 Recognize an **empirical basis** for our prevention work, and use evidence to challenge unfounded assertions.
- 1 **Listen to evaluation evidence**, especially when it challenges you own beliefs. Change your approach, based on the evidence.