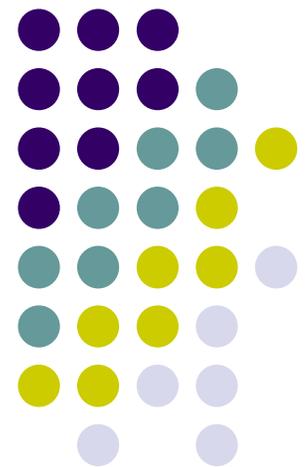
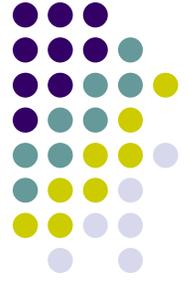


Sexual and Reproductive Health Promotion: What Works, How and Why it Works, Making it Work!

John Santelli, MD, MPH

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Why Prevention is a Hard Sell

Harvey Fineberg, IOM

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

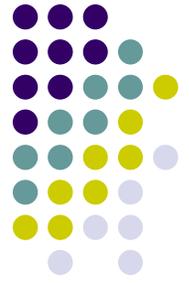
Science-Based Approaches

(Division of Reproductive Health, CDC)



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

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



STIs

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

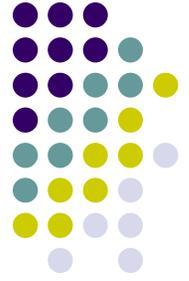
HIV

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

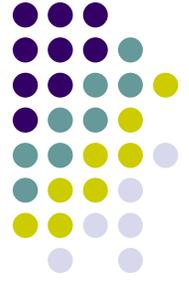
Teen/ Unintended Pregnancy

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

Outline of my talk today



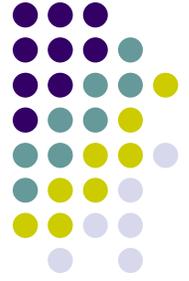
- What Works
- How and Why it Works
- Making it Work!



What Works

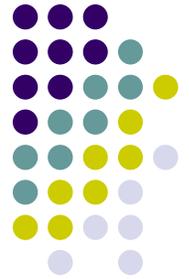
- Guide to Clinical Preventive Services
- Advisory Committee on Immunization Practices (ACIP)
- Emerging Answers (2007)
- Professional medical associations: AMA, ACOG, AAP, AAFP
- AMA's Guidelines for Adolescent Clinical Preventive Services

Role of Scientific Advisory Committees



- Ensure that policy is based on current scientific understanding
- Separate scientific fact from fallacy
- Create consensus statements that offer authoritative recommendations informed by scientific research
- Membership is based on scientific accomplishments
- Groups use a variety of methods to reach consensus
 - Literature reviews, formal meta-analysis, clinical experience
- Methods used to reach recommendation are often explicitly defined in written documents

Cervical Cancer Screening

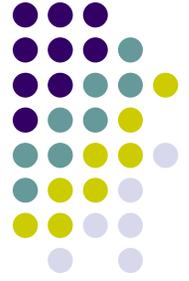


- **USPSTF strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix (GRADE A)**
- USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of the human papillomavirus (HPV) testing as a primary screening test for cervical cancer

STD Screening (USPSTF)

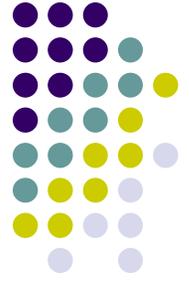


- **Chlamydia**
 - Grade A: Screen women 24 yrs and younger if sexually active and older pregnant women who are at increased risk
- **Gonorrhea**
 - Grade B: Screen all sexually active women, including those who are pregnant, for gonorrhea infection if they are at increased risk for infection.
- **Syphilis**
 - Grade A: USPSTF strongly recommends that clinicians screen persons at increased risk for syphilis infection
- **Genital Herpes**
 - Grade D: USPSTF recommends against routine serological screening for HSV in asymptomatic adolescents and adults.



Immunizations (ACIP)

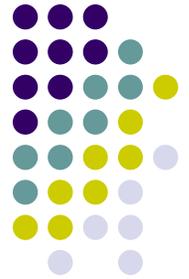
- The USPSTF defers to CDC's Advisory Committee on Immunization Practices (ACIP) for recommendations on immunizations for children and adults
- Several excellent STI vaccines:
 - Hepatitis B
 - Hepatitis A
 - Human Papilloma Virus



HIV Screening

- USPSTF strongly recommends that clinicians screen for HIV in all adolescents and adults at increased risk for HIV infection (Grade A).
 - Increased risk group includes:
 - Men who have sex with men (after 1975)
 - Men and women having unprotected sex with multiple partners
 - Past or present injection drug users
 - Men and women who exchange sex for money or drugs or have sex partners who do
 - Individuals whose past or present partners were HIV-infected, bisexual, or injection drug users
 - Persons being treated for STDs
 - Persons with a history of blood transfusion between 1978 and 1985

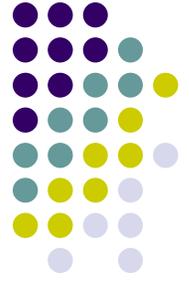
Professional Medical Associations: AMA, ACOG, AAP, AAFP



Strong endorsements for:

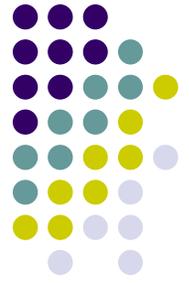
- Reproductive health services including
 - Improved access to condoms and contraception
 - Counseling, STI screening, immunizations
 - HIV counseling and testing
- Comprehensive sexuality education
 - Medically accurate, developmentally appropriate, K-12 education that promotes abstinence and contraception

Guidelines for Adolescent Preventive Services (GAPS)



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

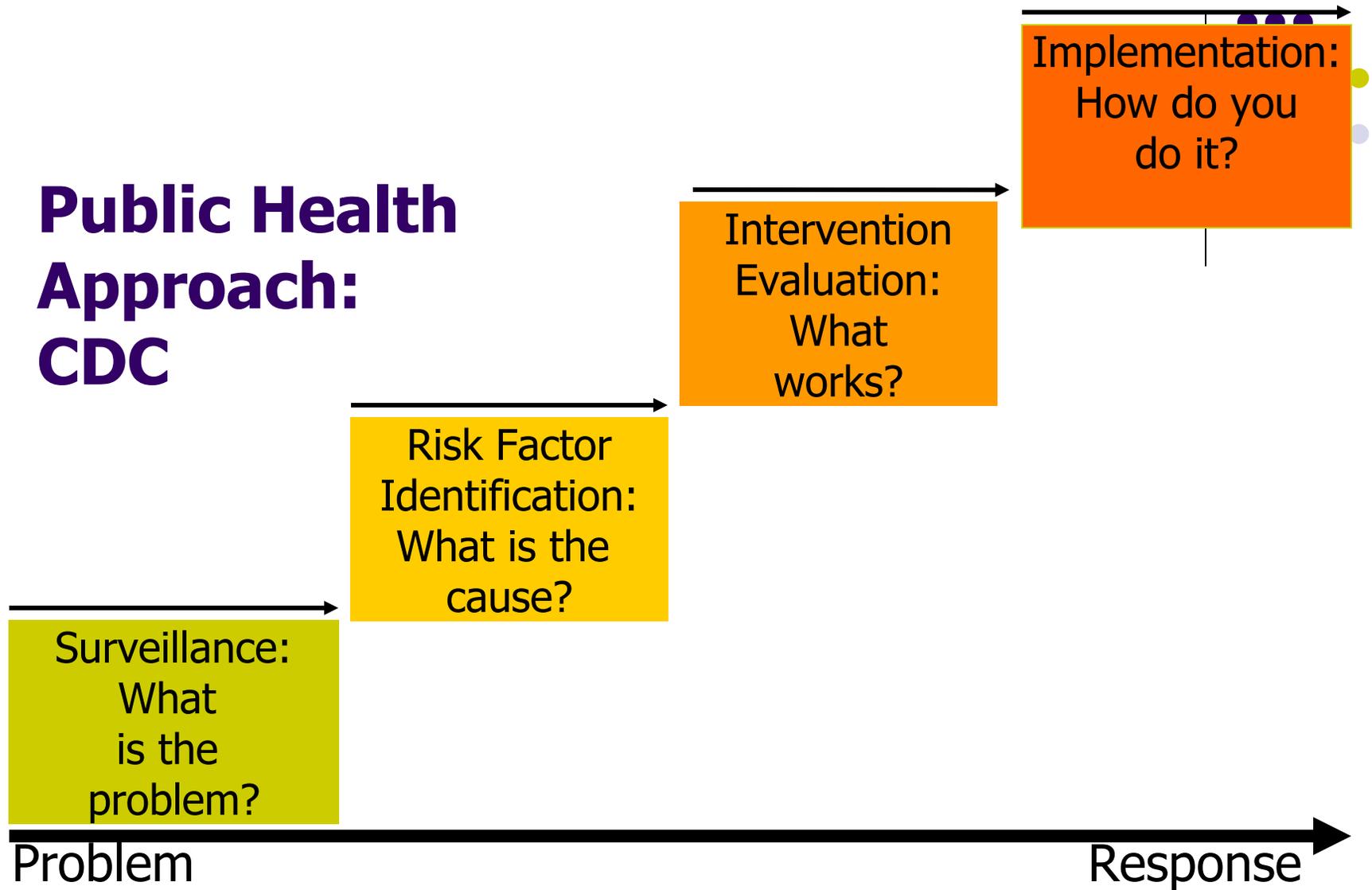
CDC Approach to STD Control



Key strategies:

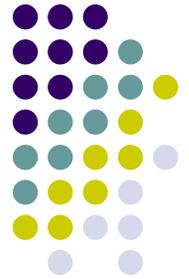
1. Education and counseling of persons at risk on ways to avoid STDs through changes in sexual behaviors
2. Identification of asymptomatically infected persons and of symptomatic persons unlikely to seek diagnostic and treatment services
3. Diagnosis and treatment of infected persons
4. Evaluation, treatment, and counseling of sex partners of persons who are infected with an STD
5. Increasing access to barrier contraception
6. Vaccination of persons at risk for vaccine-preventable STD

Public Health Approach: CDC



Emerging Answers 2007

Evaluations of Sexuality Education



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



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

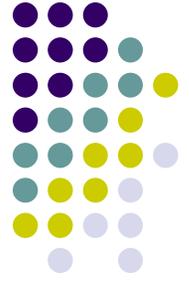
1. Focus on reducing high-risk sexual behaviors
2. Base practice on theoretical approaches that have been effective
3. Develop and reinforce a clear message about
4. Provide basic, accurate information about:
5. Include activities that address social pressures
6. Provide practice with communication, 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

Critiques of U.S. Abstinence-Only Policies and Programs



- Not medically accurate, promote misinformation
- Poorly designed, lack program efficacy
- Inconsistent with demographic realities
- Withhold life-saving information from youth
- Insensitive/ unresponsive to LGBTQ & other youth
- Inconsistent with parent preferences
- Counter to medical ethics

Promising “New” Strategies



- Expedited partner treatment
- Male Circumcision
- Highly effective contraceptive methods

Expedited Partner Therapy (EPT)



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



Male Circumcision

- Multiple observation studies: HIV and STI rates lower among circumcised men and their partners
- Recent data from 3 randomized clinical trials in Africa
 - 60% reduction of HIV transmission to men
- World Health Organization: *Male circumcision should be part of a comprehensive HIV prevention package*
- Other health benefits of neonatal circumcision
- Caveats
 - No evidence of protection for women in Rakai trial
 - Weak evidence of efficacy among MSM
 - Concerns about behavioral disinhibition
 - Needs to be accompanied by other strategies: partner reduction, condom use, etc.

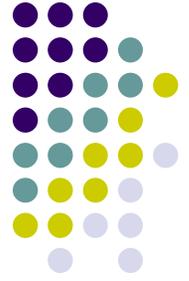
Highly Effective Contraception



- Reintroduction of the IUD
- Implanon
- Longer acting hormonal methods

- Unintended pregnancy
 - Half the result of contraceptive nonuse
 - Half the result of contraceptive failure

How and Why It Works: Organize Your Thinking



- Address key risk/ protective factors
- Understand pathways/influences
- Clearly define program goals
- Acknowledge barriers



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:

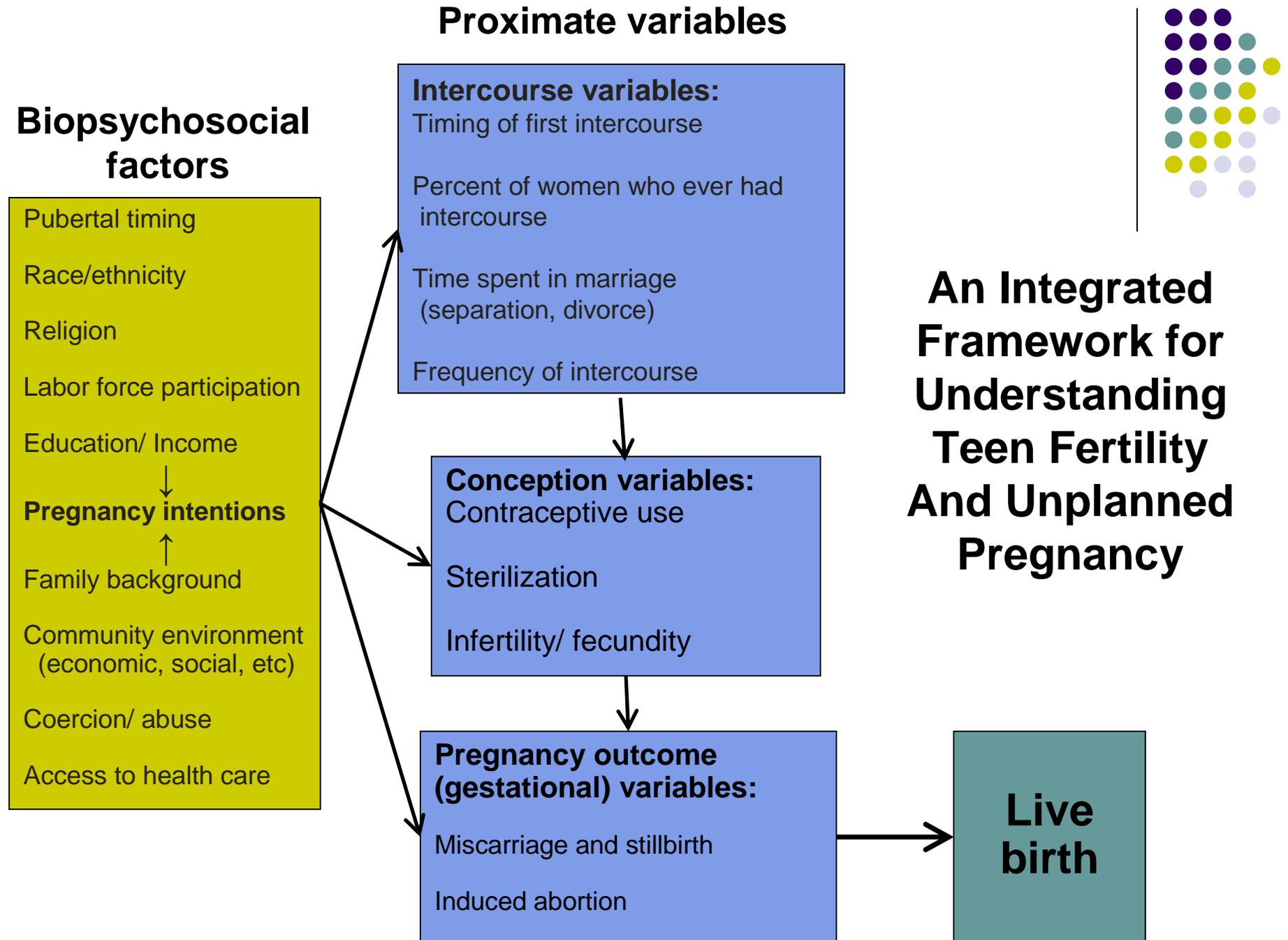
Contraceptive use
Sterilization
Infertility/ fecundity

Pregnancy outcome (gestational) variables:

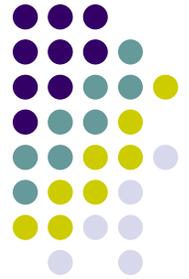
Miscarriage and stillbirth
Induced abortion

Live birth

An Integrated Framework for Understanding Teen Fertility And Unplanned Pregnancy

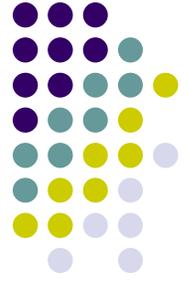


Key Behavioral Risk Factors STIs, HIV, and Unplanned Pregnancy



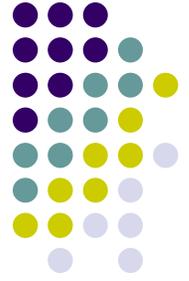
- Initiation of sexual intercourse (adolescents)
- Condom and contraception use
 - Access to methods
 - Efficacy of methods
 - Barriers to use
- Partnership factors (multiple concurrent partners)
- Use of reproductive health services
 - STI screening and treatment
 - HIV testing and counseling

Preventing Unintended and Teen Pregnancy



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

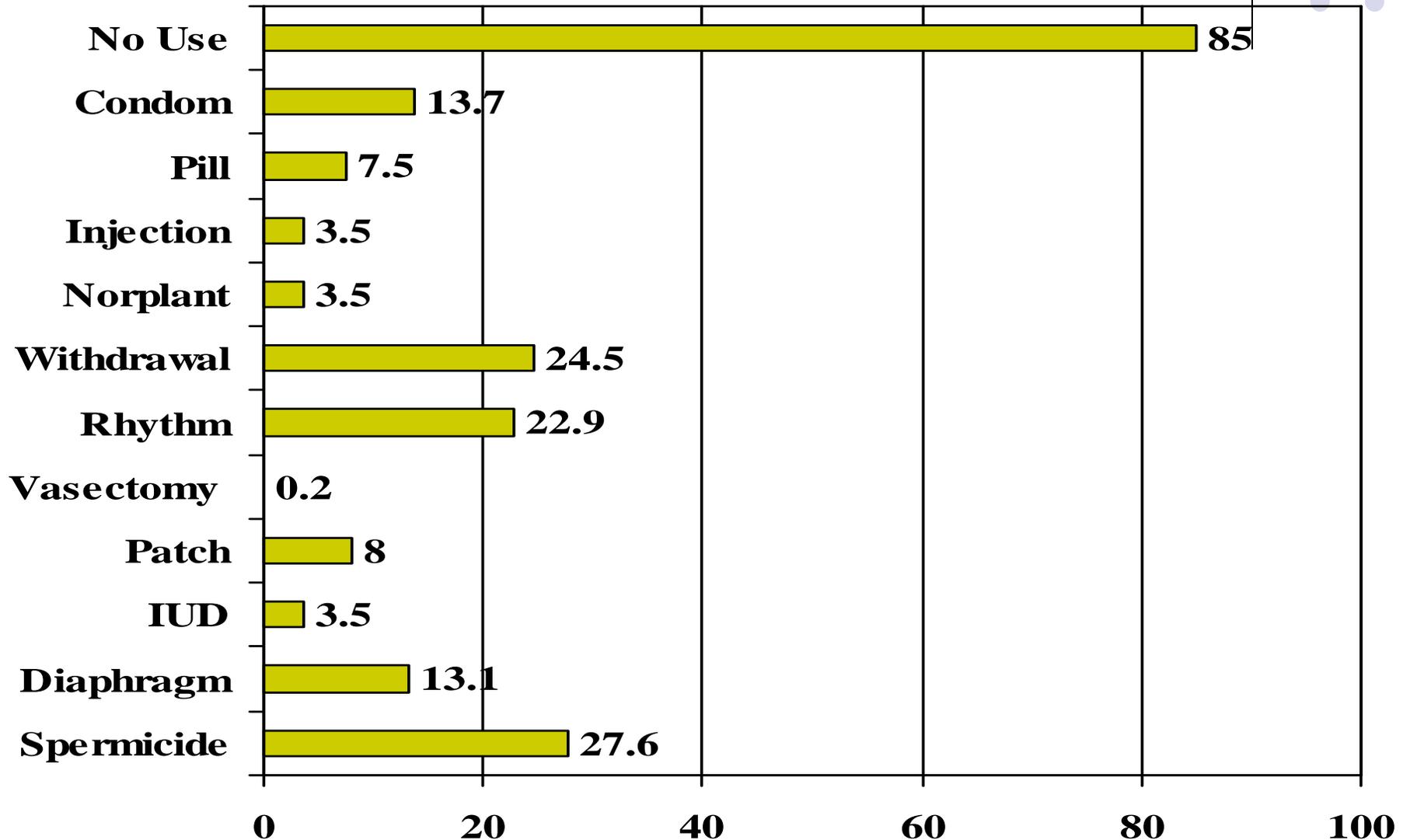
Address Barriers to Condom and Contraceptive Use



Reasons for inconsistent or non-use of contraception include:

- **Intrapersonal reasons**
 - 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;
- **Partner Influences**
 - Partner's pregnancy intentions and a partners' knowledge, attitudes and beliefs about contraception
- **Sociocultural influences**
 - Family, religion, and media
- **Access and Structural Reasons**
 - Inability to afford contraception and lack of access to healthcare providers for prescription contraceptives

Typical Use, Contraceptive Failure Rates, NSFG

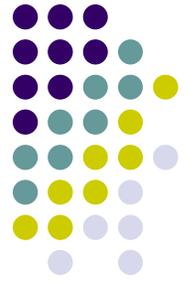


European Teens Compared to the U.S. Teens (Godeau et al, Santelli et al 2008)



- Teen pregnancy much lower in western Europe
- Age at initiation of sex similar in U.S. and Europe
- The condom and the pill are the most common choices among European and US youth
- Pill use more common among European youth
 - Many European teenagers opted for the “double Dutch” method of using both condoms and the pill
- Contraceptive use among young teenagers is particularly high (and pregnancy low) in countries like the Netherlands that are strongly accepting of teenage contraceptive use and that insure adolescent access to contraception and sex education

Deal with Myths/Ideologies



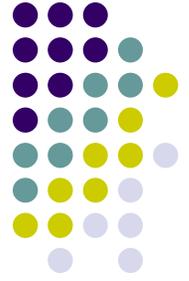
- Sex education and access to contraception **do not** cause teenagers to have sex
- Teaching about abstinence and protection is **not** a mixed message
- Describing the limitations of condoms and contraceptive methods will **not** stop teenagers from having sex

Making it Work: Organize Your Efforts



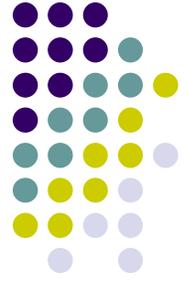
- Use science:
 - Implement effective programs
 - Understand the risk factors and pathways leading to STIs, HIV, unplanned pregnancy
- Provide political leadership and mobilize communities
- Reinforce and expand good efforts
- Be daring
 - Reduce sexual partners
 - 100% condom and contraceptive use
 - Promote highly effective contraception
 - 100% circumcision
- Deal with myths/ideologies
- Acknowledge disagreement

Making it work: Specific Recommendations



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

Making it work: Specific Recommendations



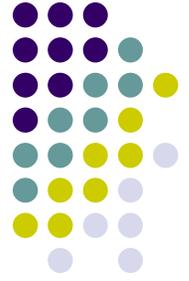
3. Increase teen/young adult access to effective contraceptive methods

- Increase the availability of family planning services for the uninsured and underinsured
- Promote dual method use and make condoms widely available
- 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

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

Making it work: Specific Recommendations



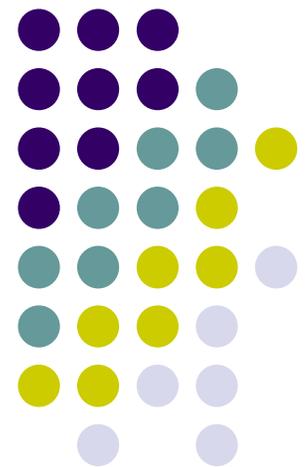
- 5. Assure that adolescent girls are immunized against Hepatitis B and the Human Papilloma Virus per ACIP recommendations**
 - Promote vaccinations via education of parents
 - Allow sexually active teens to consent for STI vaccines
 - Provide insurance coverage for vaccinations
 - Provide vaccines to public providers

- 6. Promote neonatal male circumcision via changes in insurance coverage and outreach education to pregnant and postpartum mothers**

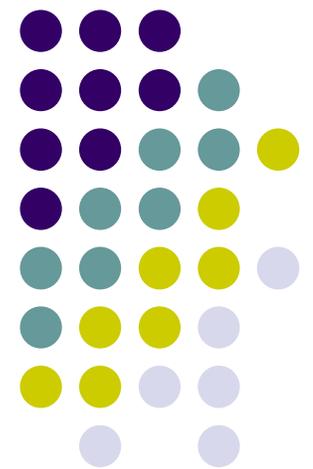
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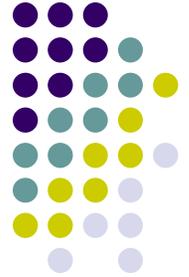
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Mailman School of Public Health
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Extra slides



Guide to Clinical Preventive Services



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



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



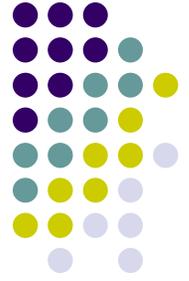
STD Immunizations

Hepatitis B Vaccine

ACIP recommends:

- Newborns: All children should be vaccinated against Hepatitis B within 1 month of birth. Depending on the mother's Hepatitis B status, vaccination may be recommended at birth or within the first few days of life.
- 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



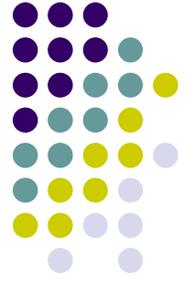
HPV Vaccine

ACIP recommends:

- HPV is sexually transmitted and often acquired soon after onset of sexual activity, vaccination should ideally occur before sexual debut.
- The recommended age for vaccination is 11--12 years; vaccine can be administered to females as young as age 9 years.
- 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



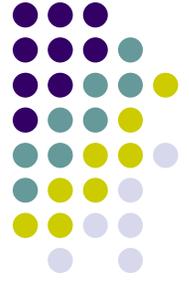
- Health guidance for sexual responsibility includes the following:
 - counseling that abstinence from sexual intercourse is the most effective way to prevent pregnancy and sexually transmissible diseases (STDs), including HIV infection;
 - counseling on how HIV infection is transmitted, the dangers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



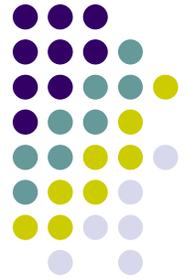
- Sexually active adolescents should be asked about their use and motivation to use condoms and contraceptive methods, their sexual orientation, the number of sexual partners they have had in the past six months, if they have exchanged sex for money or drugs, and their history of prior pregnancy or STDs.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

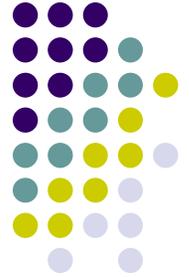
- **STD screening includes the following:**
 - Cervical culture, test of cervical fluid or urine leukocyte esterase analysis to screen for gonorrhea and chlamydia.
 - Serologic test for syphilis if criteria met
 - Evaluation for human papilloma virus by visual inspection (males and females) and by Pap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

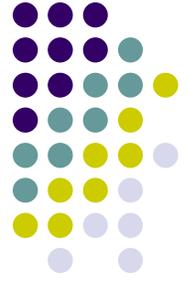


- Risk status includes:
 - Used intravenous drugs
 - Had other STD infections
 - Lived in an area with a high prevalence of STDs and HIV infection
 - More than one sexual partner in the last six months
 - Exchanged sex for drugs or money
 - Male and having engaged in sex with other males
 - Had a sexual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

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



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

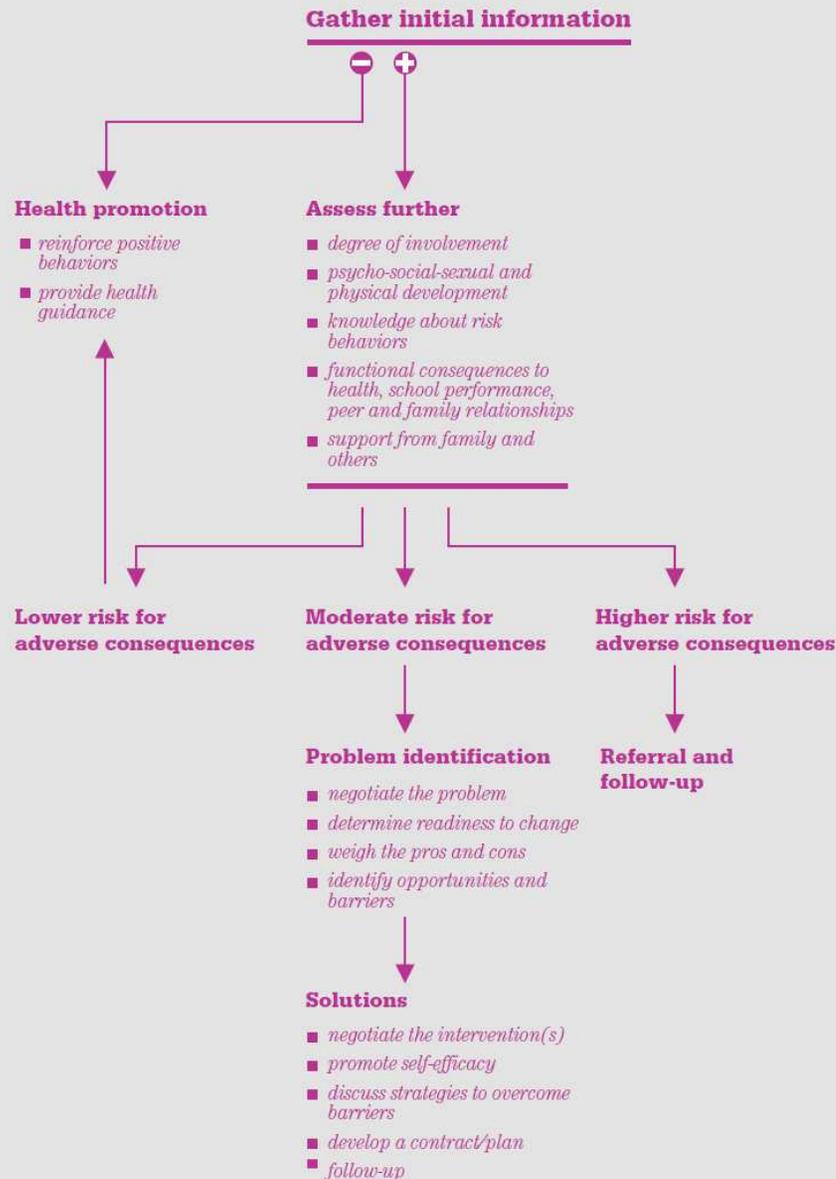


GAPS Key Services

- 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

Contraceptive method	Perfect use	Typical use
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% [†]	0.8% [†]
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% [§]	25.0%

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

