

HPV and Adolescent Health Issues


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Objectives

- Discuss relevant sexual health issues among adolescents
- Describe sexual health-seeking behaviors of the youth
- Describe the pathogenesis of Human Papillomavirus and relate it to the sexual behavior of adolescents
- Discuss pointers in discussing sexuality issues with young patients

Youth Risk Behavior Survey (USA)

- Rates of adolescents who have ever had sexual intercourse has decreased

54%  46.7%
(1991) (2003)

By age 13, 7.4% have initiated sex


10.4% - males

4.2% - females

BY age 20, 71% have had sex

(Philippines)

- Rates of adolescents who have ever had sexual intercourse is increasing

17.8%  23.1%
(1994) (2002)

15 – 19 yr. old 11.8%

20 – 24 yr. old 40.3%

Avg. age of initiation – 18 yrs.

Youth Risk Behavior Survey

USA

Between 1991 and 2001
condom use increased
then leveled off

Of teens who become
sexually active, one in
four acquires an STD
annually

Gonorrhea rates began
rising after a 13-yr
decline

Chlamydia rates showed
37% increase

Philippines

Increase in use of
contraception between
1994 and 2002

Among 15-19 yrs.

38.5% use condoms

31.5% use withdrawal

Gonorrhea remains as most
common STD among
youth

Contraceptive Knowledge and Use In Developing Countries

- Over 90% of adolescents are aware of at least one contraceptive method
- Adolescents' knowledge depended largely on what method is endorsed in the country
- There was wide variation of condom knowledge but obvious lack of knowledge of its benefits existed with many misconceptions
- Among Filipino unmarried adolescents, only 21% used any kind of contraception

Llanto and Raymundo

Adolesc Med 16 (2005) 645-663

Socio-cultural and economic milieu of adolescents in Developing Countries

- **Gender inequality** – decision making, mobility, education job opportunities, access to health care
- **Gender roles** – affects timing of sexual intercourse, and negotiation for contraception
- **Poverty and reproductive health** – more likely to enter into early marriage and childbearing, less likely to use contraceptives and use maternal health services

Llanto and Raymundo

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Barriers to achieving Healthy Sexuality

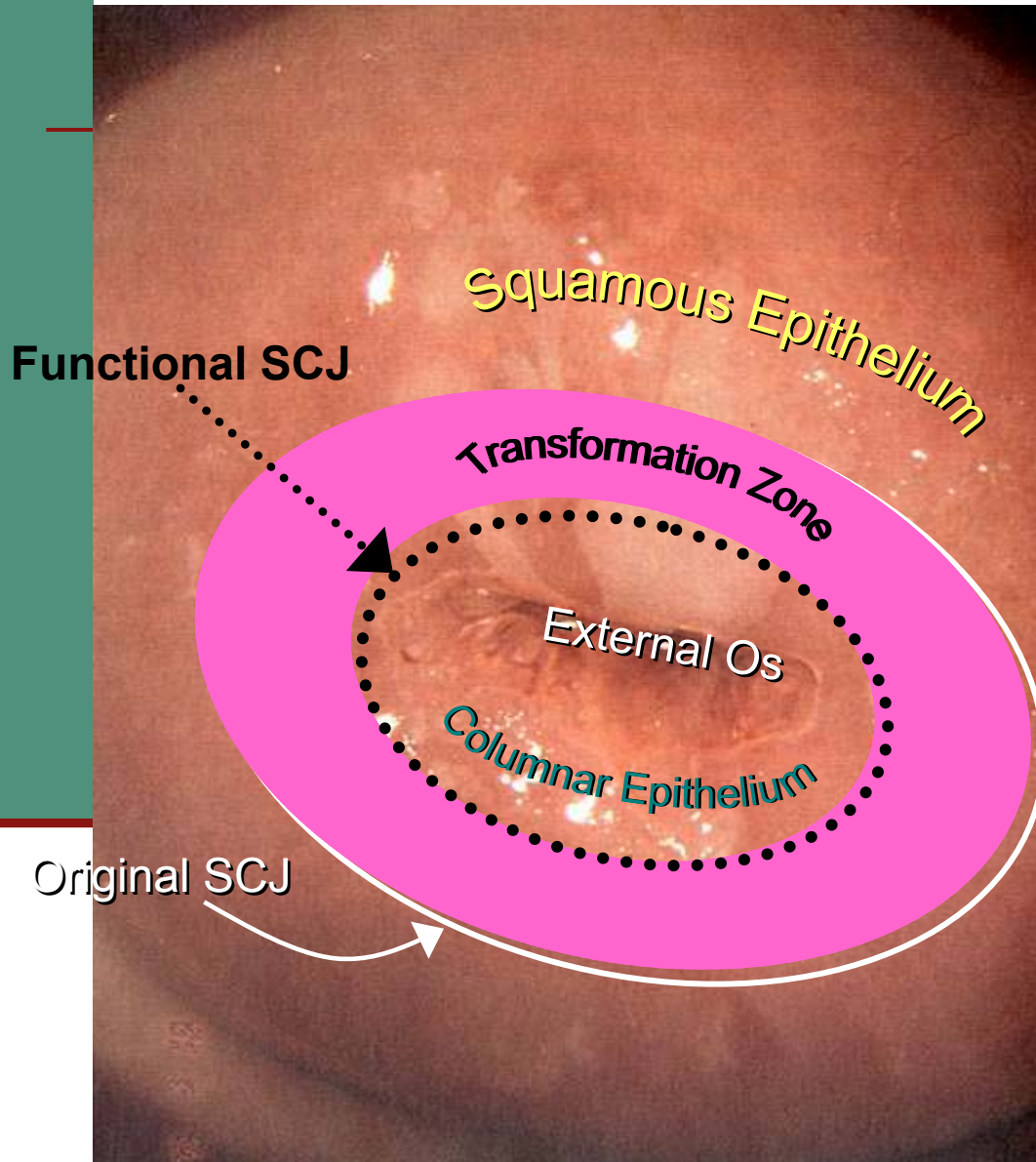
Developmental Barriers

- The adolescent mindset “it can’t happen to me”
- Early and middle adolescents are still concrete thinkers and lack the ability to foresee consequences

Biologic Barriers

- Prominent exocervix serves as breeding ground for Chlamydia, HPV, etc

The Cervical Transformation Zone



- Adolescents are at particular risk because of the immature cervix and the normal process of squamous metaplasia
- Most centers have found an increase in abnormal Pap smears in adolescents and young women

Emans and Goldstein, 1994

Barriers to achieving Healthy Sexuality

Cultural Barriers

- Fear of disclosure of sexual activity to parents
- Misperception of risks
- Conflicts between personal, family, or religious values and beliefs over use of contraceptives

Cultural sensitivity

- Culture plays a central role in shaping people's identity, values, beliefs, social roles, and behaviors;
- BUT, it is misleading to assume a definitive set of cultural attributes, values, and practices to all people
- SO, for health practitioners, it is important to focus on the young person as an individual with their own perceptions, identity, and beliefs.

Factors associated with Teens who are More Likely to have Sexual Intercourse

- Low self-esteem
- Low academic achievement
- Learning problem
- Social/emotional/behavioral problems
- Low income families
- Ethnic minorities
- Victims of sexual or physical abuse
- In families with marital discord
- In families with less parental supervision

Essentials of Adolescent Medicine 2005
Greydanus, Patel and Pratt

Risk Factors for Early Initiation of Sexual Activity

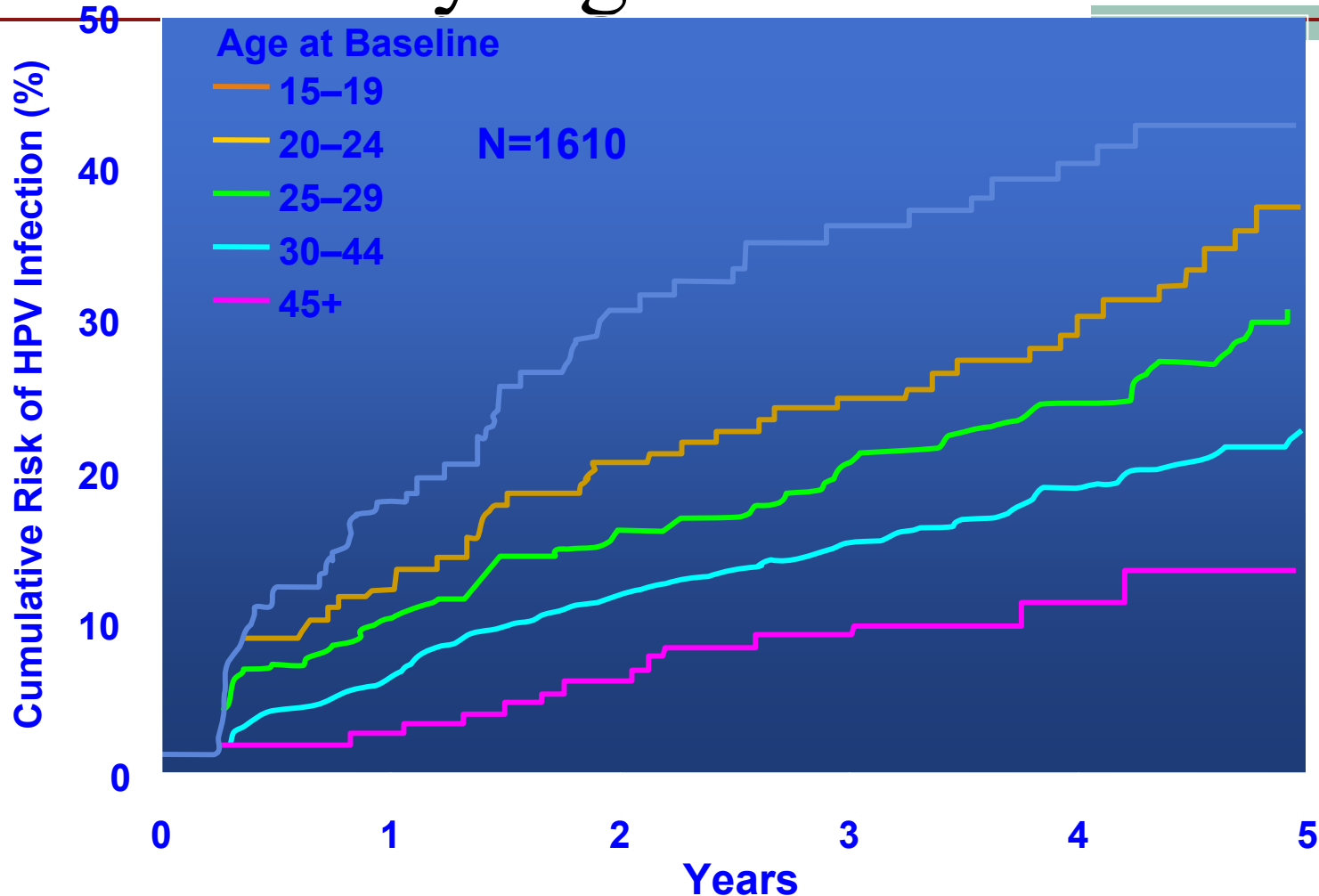
- Being male
- Living in low income family
- Nonsupportive parents with little supervision
- Lack of connectedness to school
- Less religiosity
- Use of drugs and alcohol
- Easily influenced by peers
- Long-term dating relationships, esp. younger ones
- Having peers who have sex, use drugs/alcohol
- Victims of sexual or physical abuse

Adolescent Sexuality and the Media

- Youth today are bombarded with ambiguous messages about their sexuality
- 2/3 of prime television shows contain sexual content
In a study of 522 African American females aged 14-18, 29.7% have seen x-rated films and exposure was associated with
 - more negative attitudes toward condom use
 - multiple sexual partners
 - to have sex more frequently
 - to have not used contraception in last 6 months
 - to have strong desire to conceive

Wingood, et al, Pediatrics 2001

Cumulative Risk of Any HPV Infection by Age in Women*,1



*In a cohort of Colombian women

1. Muñoz N, Méndez F, Posso H, et al. *J Infect Dis.* 2004;190:2077–2087.

Determinants of HPV Infection

Women

- Young age (peak age group 20–24 years of age)¹
- Lifetime and recent number of sex partners²
- Early age of first sexual intercourse^{*,3}
- Male partner sexual behavior³
- Smoking^{*,4}
- Oral contraceptive use^{*,4}
- Uncircumcised male partners^{5,6}

Men

- Young age (peak age group 25–29 years of age)¹
- Lifetime number of sex partners⁷
- Being uncircumcised^{6,7}

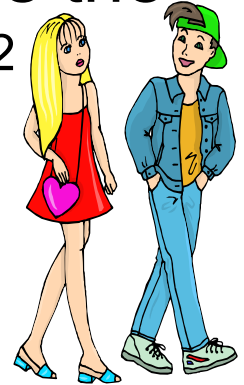


*Findings not consistent across studies

1. Insinga RP, Dasbach EF, Myers ER. *Clin Infect Dis*. 2003;36:1397–1403. 2. Burk RD, Ho GY, Beardsley L, Lempa M, Peters M, Bierman R. *J Infect Dis*. 1996;174:679–689. 3. Murthy NS, Mathew A. *Eur J Cancer Prev*. 2000;9:5–14. 4. Winer RL, Lee S-K, Hughes JP, Adam DE, Kiviat NB, Koutsky LA. *Am J Epidemiol*. 2003;157:218–226. 5. Schiffman M, Castle PE. *Arch Pathol Lab Med*. 2003;127:930–934. 6. Castellsagué X, Bosch FX, Muñoz N, et al. *N Engl J Med*. 2002;346:1105–1112. 7. Svare EI, Kjaer SK, Worm AM, Osterlind A, Meijer CJ, van den Brule AJ. *Sex Transm Infect*. 2002;78:215–218.

Current Approaches to Prevention of HPV Infections

- Total abstinence from all genital contact is the most effective HPV prevention method.^{1,2}
- Lifetime mutual monogamy^{2,3}
 - However, if one partner has not been monogamous, both are at risk.³
- Condom use may help reduce risk, but is not fully protective.^{4,5}
- Risk of HPV infection is reduced among circumcised men.⁶



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- **Vaccination** will provide a revolutionary approach to the prevention of **HPV infections** and **Cervical Cancers** which affect countless women all over the world

Role of the Clinician

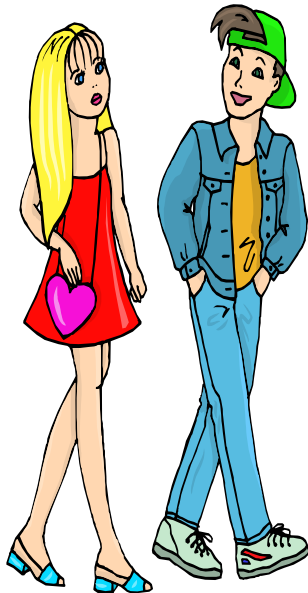
- Clinicians should help parents become more involved in the sexual education of their children
- Physicians should become more involved in advocacies in schools, communities
- Physicians should address issues of risk behaviors, sexuality, and other psychosocial risk factors with their adolescent patients

Role of Clinicians

- Physicians should become more proactive and find opportunities to engage more in preventive health care
- Physicians should assist adolescents in responsible decision making

Missed Opportunities

- The YOUTH want more information about sexually transmitted diseases and pregnancy.
- Physicians have missed opportunities to ask on these topics during office visits (Kappahn et al, 1999)



For Girls - Menstruation

- Are your periods regular? Cramps, no cramps?
- Duration of flow?
- Any vaginal discharge?
- Have you ever had sex when you said “NO”?
- Has anyone forced himself on you?



For Boys

- Have you had any penile discharge? Any pain?
- Any problems with erection or ejaculation?
- Are you having any wet dreams ever?



Sexual Practices

- Have you ever had sex?
- What did you use for protection?
- If condoms are used, did you use them sometimes, always, or most of the time?
- What about a second method of contraception?

Gender questions

- Are you attracted to guys, girls, or both?
("I ask everyone this question, don't be embarrassed; I ask so that I can best counsel you on your health")
- Have you had sexual intercourse with same sex?
- What modes of intercourse do you use?

Sexual Abuse and Violence

- Has anyone ever done anything to you sexually that made you uncomfortable? Tell me about that.



STD's and Pregnancy

- Have you ever had a sexually transmitted disease?
- Have you undergone any treatment for STD?
- Have you self-medicated for a possible discharge without seeking consult?
- Have you ever been pregnant?
- Have you ever tried to abort a fetus? How do you feel about it?

Education and Counseling

- **Genital HPV infection is a viral infection that is common among sexually active adolescents and young adults.**
- **Incubation period is variable and it is often difficult to determine the source of infection. Sex partners are usually infected by the time of patient's diagnosis.**
- **Natural history of genital warts is usually benign and usually not associated with cervical cancers.**
- **Because genital HPV is common among persons who are sexually active and because duration of infectivity is unknown, the value of disclosing a past diagnosis of genital HPV infection to future partners is unclear.**

Issues Surrounding HPV Vaccination

- 1. Duration of immunity
- 2. Effect on sexual behavior – will it encourage adolescents to initiate sexual activity at an earlier age?
- 3. Acceptance of HPV vaccine
- 4. Cost of vaccine

Steinbrook R. The Potential of Human papillomavirus vaccines 1109-1112
NEJM, March 2006

Other Issues

- ❑ **Age to give the vaccine**
 - when would be the right time?
 - convincing the parent to allow the vaccination
- ❑ **Overcoming the barriers**
 - misperceptions of risks
 - conflicting values and cultural practices
 - adolescent mindset

Conclusion

- Adolescence is an exciting and dynamic period in a person's life
- Adolescence remains one of the most vulnerable periods for the acquisition of HPV
- Health practitioners have an obligation to foster optimal health in adolescent patients by utilizing effective communication, early preventive health screening and management, and a lot of good sense and caring.

Thank you

