

Working with Adolescents and Young Adults For STD/HIV Prevention

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Disclosures

- In the past 12 months, Dr. Hsu has had the following significant financial interests or other relationships with manufacturer(s) of product(s) or provider(s) of service(s) that will be discussed in this presentation:
 - Gilead Sexual Health Consultation, April 2017 – unpaid, reimbursed for travel only
- This presentation will include discussion of pharmaceuticals or devices that have not been approved by the FDA.
 - “Off-label” use of extra-genital (rectal and pharyngeal) nucleic acid amplification tests (NAATs) for gonorrhea and chlamydia

Objectives

- Review key interview strategies for adolescents/young adults
- Understand adolescent risk-taking in the context of normal adolescent development
- Utilize normative adolescent development to inform adolescent/young adult STI/HIV prevention strategies
 - Re-screening prior STI positives
 - HIV PrEP
 - Re-channeling risk-taking



Acknowledgments

- To adolescent health colleagues
 - Liz Alderman
 - Gale Burstein
 - Susan Gray
 - Erin Livensparger
 - Arik Marcell
 - Christina Nordt
- To pediatric ID colleagues
 - Rana Chakraborty and AAP Committee on Pediatric AIDS
 - Ellen Cooper
 - Carole Moloney
 - Steve Pelton
 - Zoon Wangu



Case History

18 y.o. Latino male presents to urban pediatric ED 3 days prior

CC: HA, nasal congestion, sore throat, myalgia, retro-orbital pain x 1 wk (8/2011)

Hx: Painless hematochezia; divulges confidentially to pediatric resident that he has sex with men

PMH: Major depression and self-mutilating behaviors @ age 14, chlamydia epididymitis @ age 17, negative HIV rapid test 6 mo ago

Exam: T 99°F, BP 102/66, HR 86, RR 18, HEENT tonsillar erythema, nasal congestion, otherwise reported as nonfocal

Labs:

- Stool cx SSYCE negative
- Urine & throat NAAT GC and CT negative; **rectal NAAT GC neg, CT pos**
- RPR NR
- HIV antibody test not done
- **HIV viral load 2.4 million copies/ml**

Pedi ED attending calls Pedi ID service...

Back to our case ...

After discussion between Pedi ID and ED teams, and discussion about possible phone scenarios, pediatric ID fellow calls patient back on his private cell.

She introduces herself as a physician calling back from the medical center, asks patient if he can speak for a few minutes confidentially, and tells him he should come in for follow-up of lab test results.

He says “It’s positive, isn’t it.”

Fellow reiterates that is very important to speak in person.

He says “I know you have to say that but I think my test is positive.” He reluctantly agrees to come the next morning to see her in the Adolescent Center.



Approach to the Adolescent

Key Interview Strategies

- Assess developmental level
- Discuss confidentiality with adolescent/parent
- Appropriately ensure confidentiality, time alone
- Brief risk assessment at most visits
- Systems for follow-up of confidential results
- Make the teen comfortable
 - Developmentally appropriate questions
 - Non-judgmental
 - Poker face
 - Confidentiality
 - Spend time with the teen alone
 - Normalize

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Confidentiality

- The key to getting adolescents to talk



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Confidentiality and STI*

- All 50 states and the District of Columbia allow minors to consent to STI services
- 11 states require that a minor be a certain age (12 or 14) to consent
- 31 states include HIV in package of STI services to which minors may consent
- 18 states allow but do not require physicians to inform parents that a minor is seeking or receiving STI services
 - Exception: Iowa requires parental notification for positive HIV test

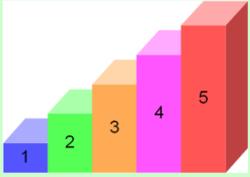
Nature of these health issues is such that some minors would choose to forgo treatment rather than seek parental consent.

*www.guttmacher.org/statecenter/spibs/spib_MASS.pdf

Exceptions to Provision of Confidential Health Services

- Suspected physical, sexual or emotional abuse
- At risk for harm to self or others
- Confidential reporting of STIs to health department

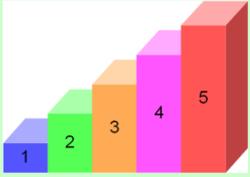
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How many of you think he showed up the next day?

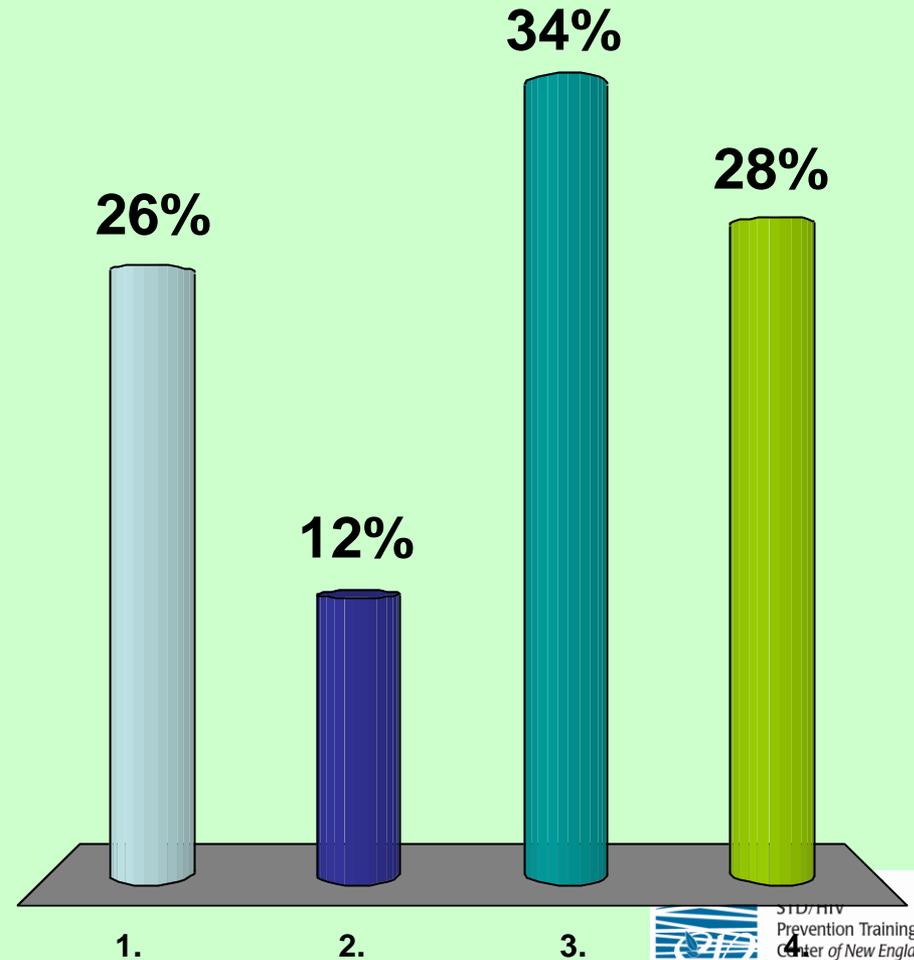
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2. He didn't show, but called
3. He didn't show or call
4. He didn't show or call, and his cell was no longer in service

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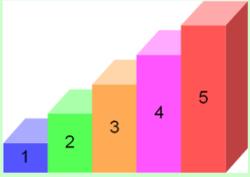


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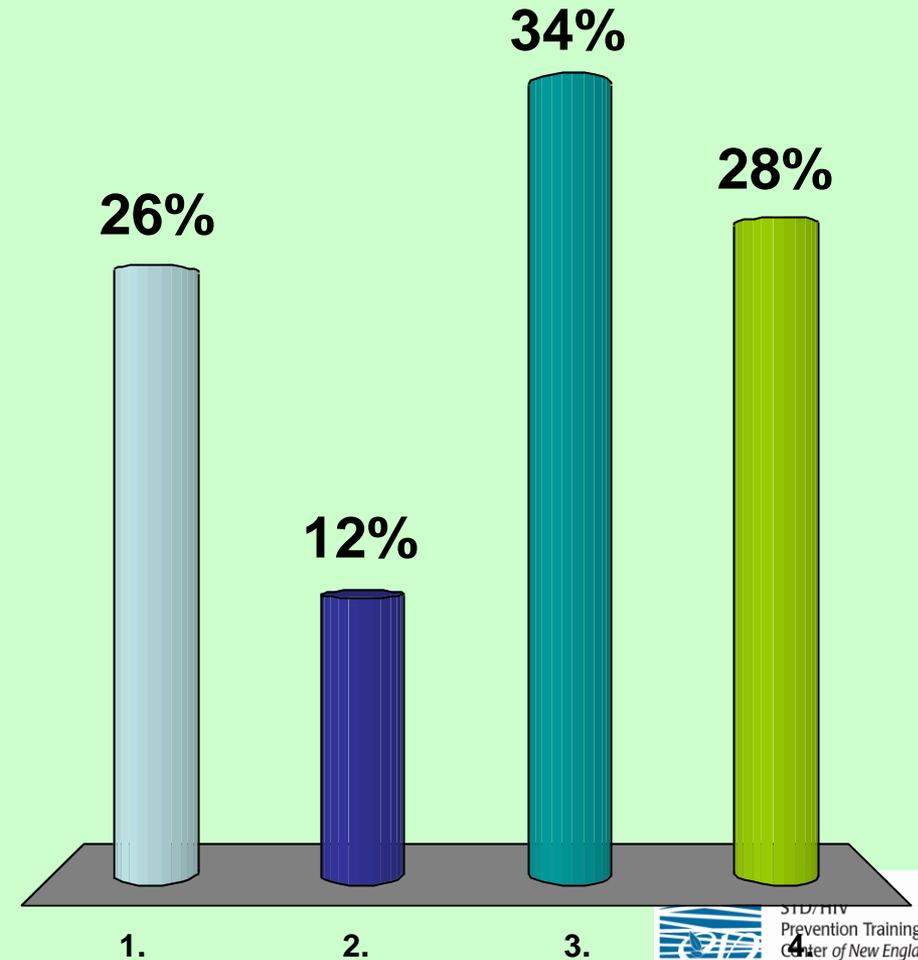


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Development of Adolescent as Health Consumer

- Respect adolescent's evolving autonomy
- Facilitate collaborative decision-making



Barriers to Care

- Health care providers more likely to view structural barriers as important
 - Finances, transportation, family care (58%)
 - Substance abuse (49%)
- Patients more likely to describe emotional barriers as important
 - Fear of HIV medication side effects (82%)
 - Fear of people knowing (58%)
 - Stigma (55%)

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We underestimate the impact of emotional vs. circumstantial barriers to testing, care, and treatment.

Ways We Misinterpret Denial

- Someone “in denial”
 - Doesn’t know that negative consequences could result from their behavior
 - Isn’t working on behavior change
- We think another person’s denial has something to do with us

~~Ways We Misinterpret Denial~~

- ~~• Someone “in denial”~~
 - ~~– Doesn’t know that negative consequences could result from their behavior~~
 - ~~– Isn’t working on behavior change~~
- ~~• We think another person’s denial has something to do with us~~

Instead ...

- Think about denial as the psychological mechanism we use to manage the pain and fear of “knowing” (Joan Garrity)
- Teens are *not* trying to give you a hard time...they’re *having* a hard time

Still the next day ...

Fellow calls him, he answers, states he is feeling much better, and he doesn't want to come back.

Fellow reiterates that she herself will be present, that we have important results to share, we can work with him, inquires about his schedule the next day, and extracts a promise that he will show the next day.



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Becoming a Surrogate Frontal Lobe

- You have to protect them, but if you overprotect, they never learn self-regulation
- Goal: create a relationship in which young people are willing to **risk** using us as a resource in their own change and growth



The **DECISION** Model

- D** Determine reason for visit
- E** Evaluate feelings about test result
- C** Confirm result
- I** Identify personal circumstances
- S** Discuss **Support** services
- I** Address **Immediate** concerns
- O** Offer a timeline
- N** Next steps



5 Days Post-ED Visit (1)

Pediatric ID inpatient consult team is paged by front desk, fellow meets patient immediately after registration and he is roomed

Patient brings his best friend, a girl and fellow 18 y.o. to whom he is “out” and with whom we may share all information.

Ground rules:

- Confidentiality established up front
- Patient requests we not ask questions about his sexual history, and asks to keep visit short (complains of prior prolonged visits)
- Fellow agrees, states we will discuss plan shortly, but asks patient to describe a little more about his home life and what he might do this weekend, if the HIV test is positive versus negative

Additional history:

- Mother from Puerto Rico, patient born in U.S.
- Lives 2 blocks away with mom, one older brother, and one younger sister, with whom he is close, but not enough to discuss worries about HIV, nor is he “out” to them
- Dropped out of middle school

5 Days Post-ED Visit (2)

- Visit highlights
 - Discussion of chlamydia test results (transmission is possible although he is asymptomatic) and high viral load in the absence of antibody/antigen testing (acute HIV likely but further testing required; clinical improvement not surprising but this does not exclude HIV; we will know Ab/Ag results by early next week)
 - Encouragement to patient and his friend to develop a plan for the weekend (he plans *never* to have sex again, but particularly not this weekend; no SI/Hi)
 - Once patient understands and agrees, fellow introduces the pediatric HIV team NP and ID attending who reinforce her messages (briefly)
- Nurse administers 1 g azithromycin for chlamydia proctitis
- Patient goes to lab

RE-SCREENING FOR STIs IN THOSE PREVIOUSLY INFECTED, REACHES THOSE AT HIGHEST STI RISK



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Repeat Testing after an STD infection

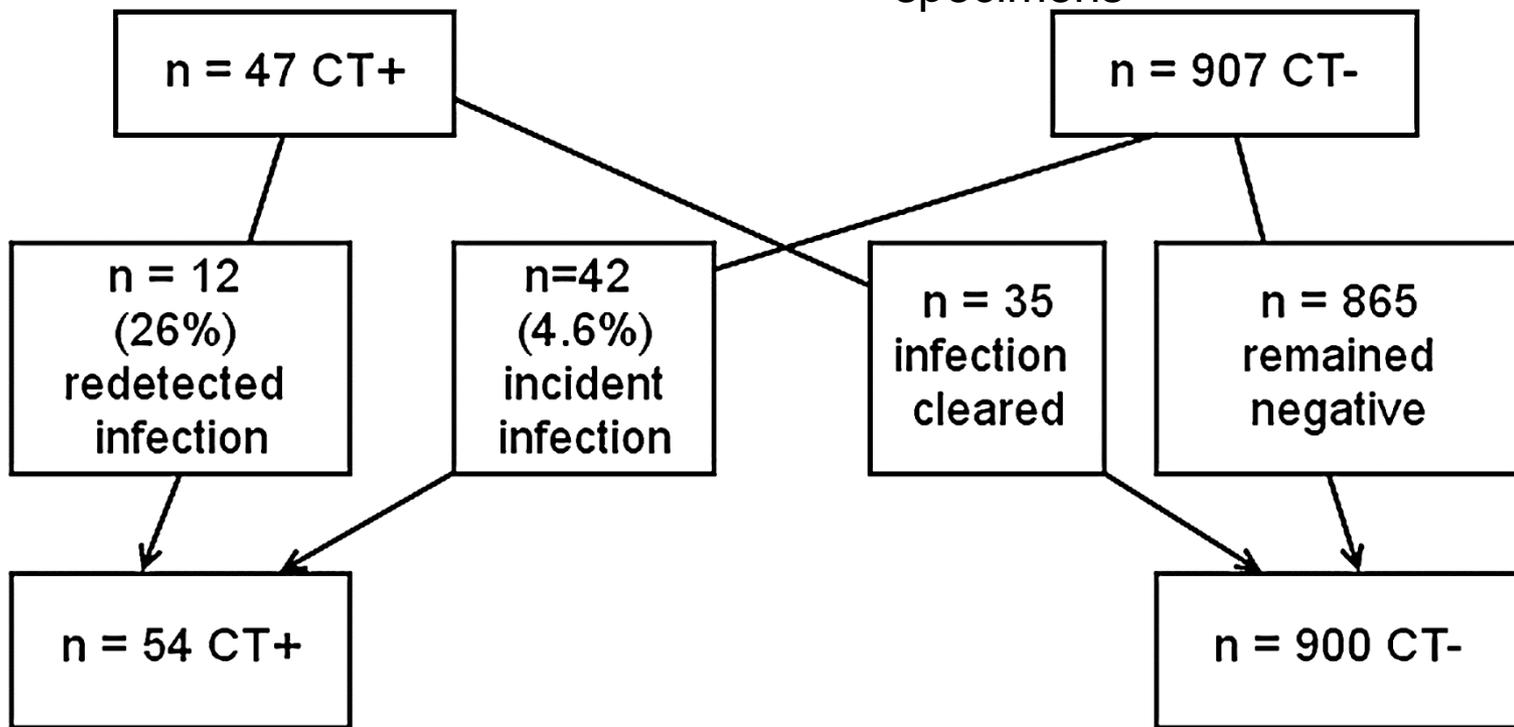
- Current CDC STD screening guidelines for GC and CT recommend screening persons at-risk, including those with a prior STD
- Among sex workers with baseline GC, CT or trichomonas infection, the adjusted HR for any of these at follow up was 2.6 (95% CI 2.1-3.1) (Turner 2010)
- Project RESPECT in US STD clinic patients:
 - 25.8% of women had 1 or more new infections with CT, GC, or Trich at one year of follow up.
 - 14.7% of men had a new GC or CT infection.
 - Conclusion: patients with GC/CT or trich infections should return at 3 months because they are at high risk for new infections (Peterman 2006)

Frequency and risk factors for incident and redetected *Chlamydia trachomatis* infection in sexually active, young, multi-ethnic women: a community based cohort study

Adamma Aghaizu,^{1,2} Fiona Reid,¹ Sally Kerry,³ Phillip E Hay,⁴ Harry Mallinson,⁵ Jorgen S Jensen,⁶ Sarah Kerry,¹ Sheila Kerry,¹ Pippa Oakeshott¹

- Sexually active female students 15-27 years old, enrolled in the British Prevention of Pelvic Infection (POPI) trial between 2004-06, who self-collected 2 vaginal swab specimens

**Baseline
(n = 954)**



**Follow up
(11 - 32
months)**

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**Baseline
(n = 954)**

n = 47 CT+

n = 907 CT-

n = 12
(26%)
redetected
infection

n=42
(4.6%)
incident
infection

n = 35
infection
cleared

n = 865
remained
negative

**Follow up
(11 - 32
months)**

n = 54 CT+

“One in four women with chlamydia infection at baseline retested positive, supporting recent recommendations to routinely retest chlamydia positives.”

n = 900 CT-

Repeat Screening After STD Infection

- *Women with CT, GC or trich should be rescreened at 3 months after treatment.*
- *Men with CT or GC should be rescreened at 3 months after treatment.*
- *Patients diagnosed with syphilis should undergo follow up serologic serology per current recommendations.*

Effective Practice Changes to Increase Uptake of Re-Screening

- Implementation of pop-up reminders at six large family planning clinics in California
 - retesting rates for chlamydia and gonorrhea among those patients who returned to the clinic increased by 23% (from 70 to 86%)
- Western New York, University at Buffalo student health clinic implemented a three-step Treatment-Letter-Reminder (email, phone calls) in those with chlamydia infection
 - re-testing rates went from 16 to 89%

Not in time for this case, but useful for highest risk adolescents ...

HIV PREVENTION INCLUDES PREP FOR THOSE AT HIGHEST RISK FOR ACQUISITION

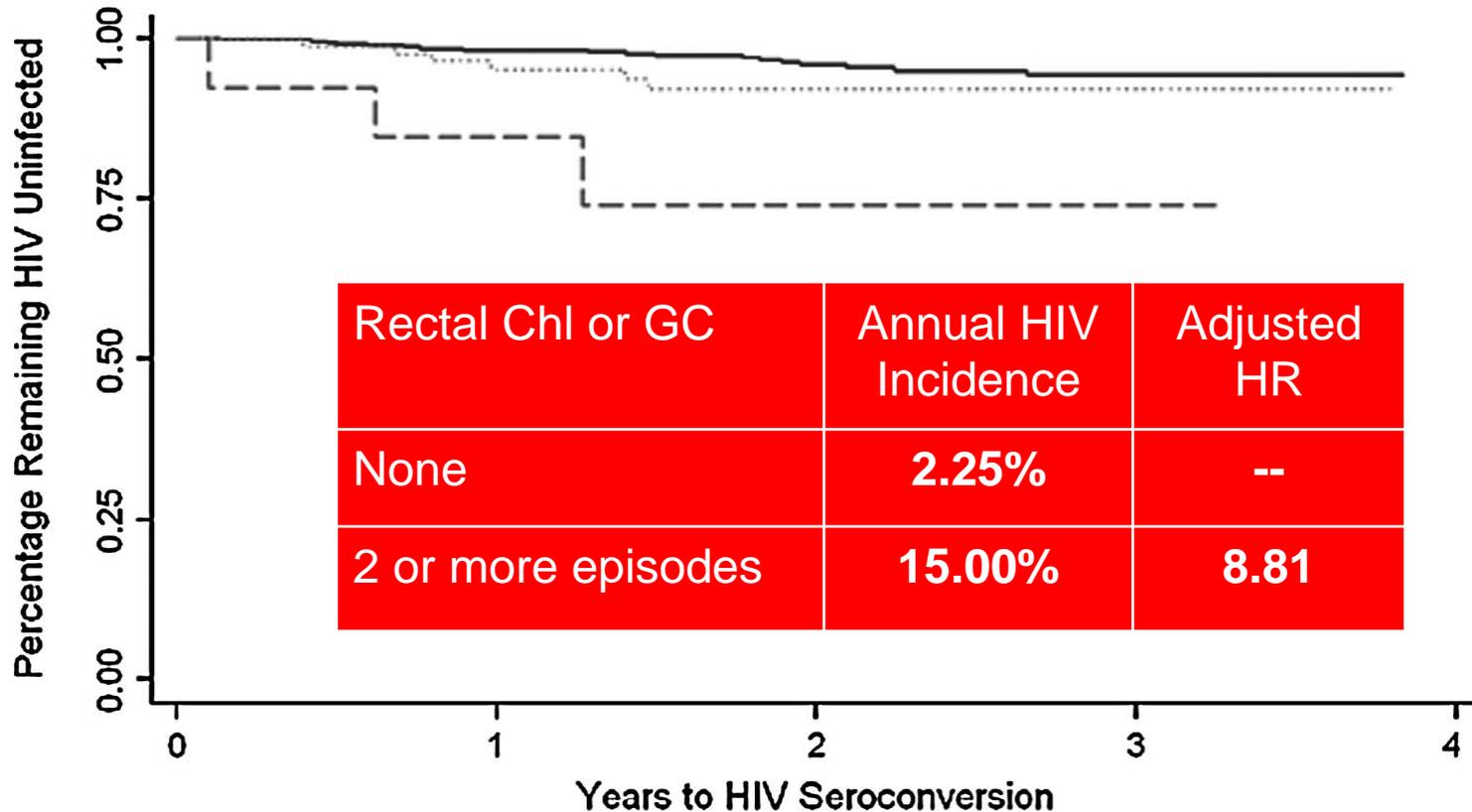


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MSM in SF City Clinic Diagnosed with Rectal Chlamydia or Gonorrhea 2003-05

HIV Seroconversion by Number of Prior Rectal Infections

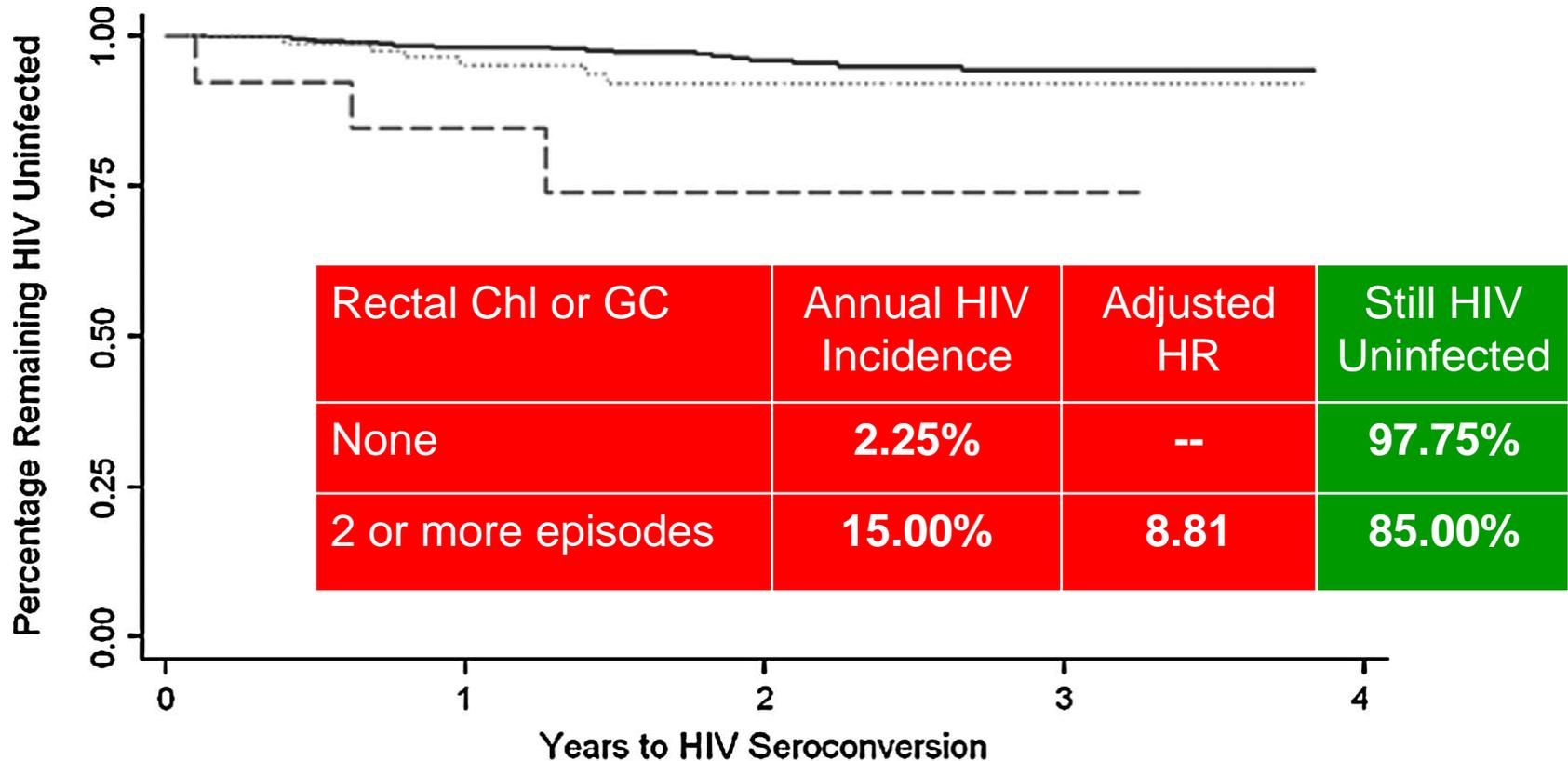


— No Prior Rectal Infections One Prior Rectal Infection
 - - - Two Prior Rectal Infections



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HIV Treatment as Prevention

Antiretroviral treatment should be offered to all HIV-infected persons not only to provide benefit to individual health but also to reduce transmission to sex partners.

HIV pre-exposure prophylaxis should be available to HIV-negative men and women who are sexually active or injecting illicit drugs who are at substantial risk of HIV infection. All clients requesting PrEP should be counseled that high levels of adherence are needed for the best efficacy.

NEW REFERENCE: CDC, USPHS. Pre-exposure prophylaxis for the prevention of HIV infection in the U.S. – 2014. A Clinical Practice Guideline.

<http://www.cdc.gov/hiv/prevention/research/prep/>



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Prescribing PrEP: CDC Guidance for MSM, Heterosexual Couples, IDUs

<u>Component</u>	<u>Recommendation</u>
Risk assessment	<ul style="list-style-type: none">▪ PrEP indicated for those at high HIV risk▪ FDA-approved for those ≥ 18 years
Eligibility	<ul style="list-style-type: none">▪ HIV negative, adequate renal function
Dosing	<ul style="list-style-type: none">▪ 1 tenofovir/emtricitabine tablet, once daily
Follow-up	<ul style="list-style-type: none">▪ Testing for HIV/STI every 3 mos, even if asymptomatic▪ Counseling on risk reduction and testing creatinine at 3 mos and then annually
Discontinuation	<ul style="list-style-type: none">▪ PrEP not meant for lifelong administration but rather for periods of highest risk

CDC. MMWR 2011;60:65-68.

CDC. MMWR 2012;61:586-589.

CDC. MMWR 2013;62:463-465.

Epilogue (1)

- **Visit #2 – 10d post-ED**
 - “Out” to family who accompany him to visit; brother already openly gay
 - Labs
 - HIV Ag/Ab positive, Western blot indeterminate, HIV1 diagnostic PCR positive, HIV2 EIA negative
 - VL 2 million copies/ml, CD4 242 (21%)
- **No show – 17d post-ED visit**
- **Visit #3 – 3 wks post-ED visit**
 - Started on emtricitabine-tenofovir, atazanavir + ritonavir (with convincing)
 - Referred to psych for depression follow-up; vaccines: HepB, PCV13
- **Visit #4 – 7 wks post-ED visit**
 - Med compliance/tolerance assessed – despite jaundice, continues meds
 - Labs: VL 3223 copies/ml, CD4 345 (26%)
- **Visit #5 – 3 mths post-ED visit**
 - Med compliance/tolerance assessed – jaundice resolved, few missed doses
 - Refused MDPH partner services & peer support group; vaccines: Tdap, MCV, HepA



Epilogue (2)

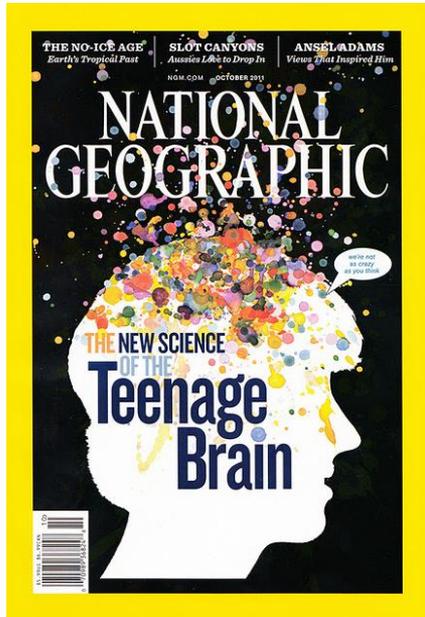
- **1 year later...**
 - Labs: **VL undetectable, CD4 500 (30%)**; completing HPV vaccine series
 - Secondary syphilis s/p treatment; LGSIL on rectal pap smear with extensive condylomata pending excision
 - Continued struggles with meth use, unprotected oral sex and self-acceptance
- **1.5 years later...**
 - Labs: **VL undetectable, CD4 616 (27%)**, med compliance good
 - Extensive anal condylomata resected in OR in 12/2012
 - Social situation:
 - Moved to suburbs
 - Last missed pedi ID appt was in 4/2012, almost a year ago!
 - Still trying to obtain GED, unsure about employment
 - Last sexual encounter ~1/4 year ago, protected
 - Last meth use ~1/4 year ago, before move
 - Last THC use ~1 month ago (prior was daily or weekly use)
 - Has not yet accepted his attraction to males, intermittently struggles with guilt regarding his HIV status, no appts with psych & no psych meds since 12/2011

Questions

- Would you have done anything differently if he were 15 or 25 years old?

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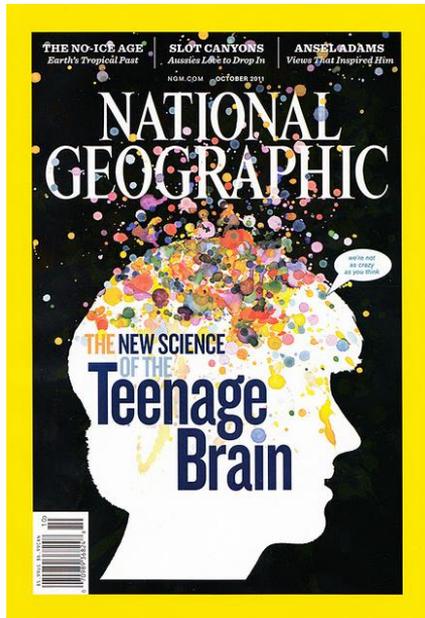


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Questions

- Would you have done anything differently if he were 15 or 25 years old?
 - Concepts of early, mid and late adolescence
 - Work-in-progress being replaced by adaptive-adolescence theories



- » Love of novelty leads directly to useful experience; hunt for sensation provides the inspiration needed to "get you out of the house" and into new terrain
- » Risk-taking occurs because more weight is given to payoff, particularly new social rewards/relationships, not because less weight is given to risk (risk-taking is necessary to move out of the home into less secure situations)
- » Douglas Fields, NIH neuroscientist, "This makes the period when a brain area lays down myelin a sort of crucial period of learning—the wiring is getting upgraded, but once that's done, it's harder to change."



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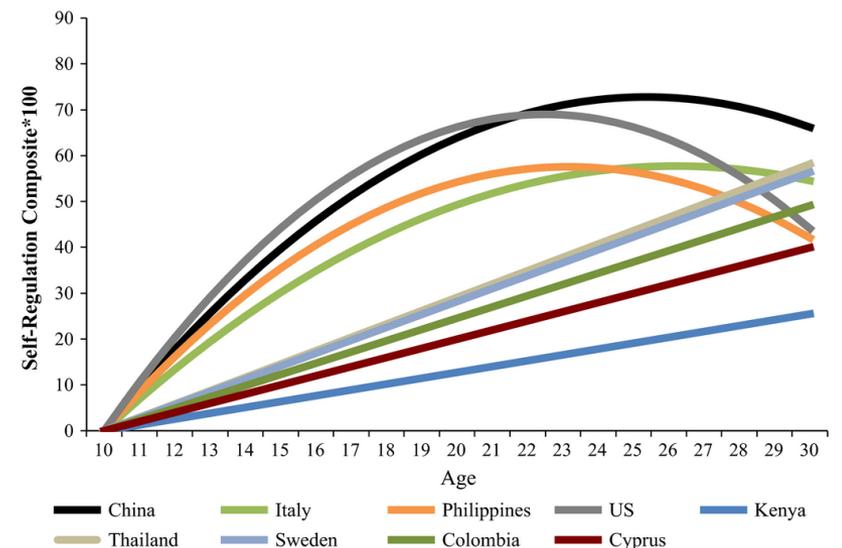
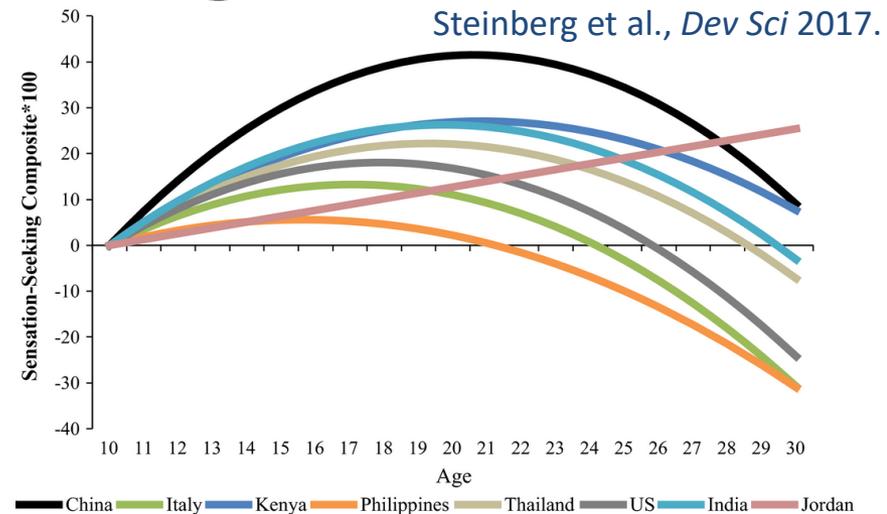
Adolescents Worldwide: Heightened Sensation-Seeking vs. Immature Self-Regulation

- Ongoing study of parenting across cultures
- ~500 individuals/country, 11 countries chosen for differences in parental disciplining methods
 - Diverse soc. dem. and psych. constructs (individualism vs. collectivism; youth indulgence vs. restraint)
- Recruitment via flyers in neighborhoods, school, ads in newspapers, word of mouth
- 6 outcome variables
 - Sensation-seeking: Iowa Gambling Task, self-reported sensation seeking, Stoplight Game
 - Self-regulation: Stroop task, self-reported planning, Tower of London task



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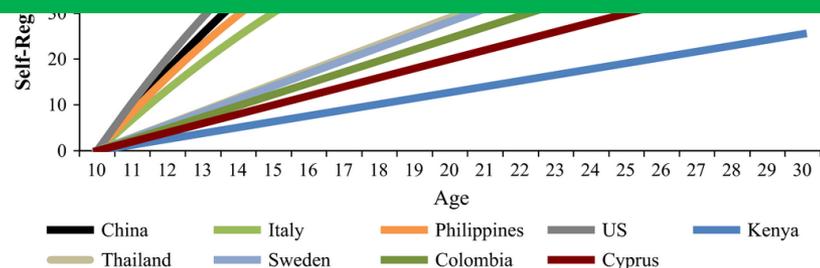
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500 individuals/country, 11



- Sensation-seeking increased between pre-adolescence and late adolescence, peaked at age 19, declined thereafter
- Self-regulation increased steadily from pre-adolescence to young adulthood, plateaued between 23-26
- When countries had patterns differing from overall, difference was in degree rather than in shape of trend

- Sensation-seeking: Iowa Gambling Task, self-reported sensation seeking, Stoplight Game
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RE-FRAME COUNSELING TO INCLUDE ALTERNATIVE [SAFER/HEALTHIER] RISKS YOUTH CAN TAKE



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“Rather than trying to eliminate adolescent risk taking via abstinence programs or training in social skills or social norms – strategies that have not proven successful to date – a better tactic might be to reduce costs of adolescent risk taking by limiting access to particularly harmful risk-taking situations, while providing opportunities to engage in risky and exciting activities under circumstances designed to lessen changes for harm.”

Sexual Exploration

- We don't teach infants to crawl or walk by moving their limbs for them
 - although they are inefficient at first, this is something they have to do for themselves
- Of course, we want to minimize risk
 - *"if crawling is unsafe because the floor is dirty or littered with broken glass, the appropriate response is not to confine and restrict the child from crawling, but to clean up the mess."*

Adolescent STI/HIV Prevention

“Clean up the floor” by encouraging immunizations, including HPV, HAV and HBV, and offering HIV PrEP e.g. to young MSM at high-risk for HIV acquisition

Provide information on STI/HIV infection, screening, transmission, implications of infection, and prevention to all adolescents as part of health care

Integrate sexuality education into clinical practice

USPSTF recommends hi-intensity STD prevention behavioral counseling for all sexually active adolescents

Re-channel adolescent risk-taking into safer avenues

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