An Overview of HIV and HCV in Adolescents and Young Adults

Cathryn L. Samples, MD, MPH, AAHIVS
Director, Boston HAPPENS
Boston Children's Hospital

Presented at: Improving Care for Substance Use, HIV and HCV in Adolescents:
Effective Approaches to Assessing, Treating, and Engaging teens
Masantucket Pequot Museum

Learning Objectives

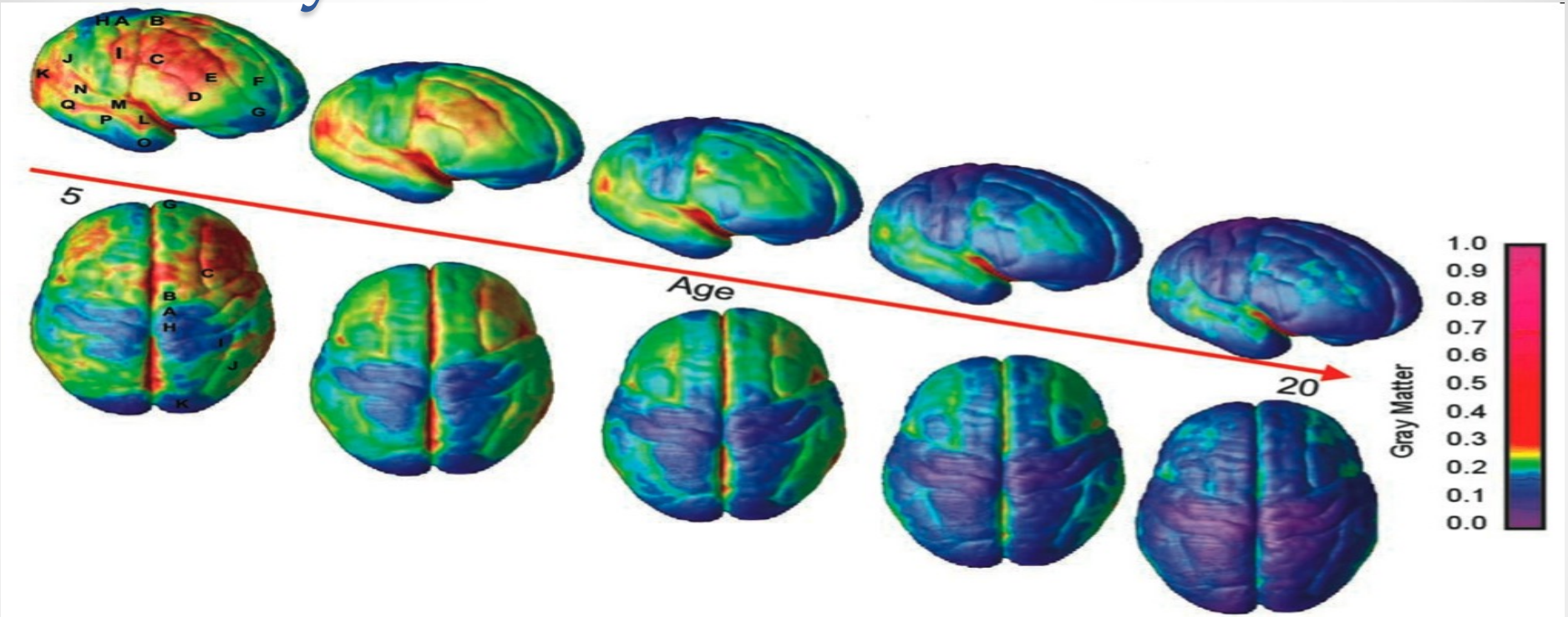
- Briefly describe the epidemics of HIV and HCV among US adolescents and young adults with regional examples.
- Describe the HIV continuum of care for Adolescents and Young Adults.
- Describe the value of HIV treatment, and current antiretroviral treatment guidelines and recent updates in care and treatment
- Discuss how to incorporate HIV and HCV prevention, screening and linkage to care into Your work with youth.

Why Youth are Different than Adults: Stages of Adolescence

Physical, Emotional, Cognitive, Family, Peer and Sexual Relationships

- Early (10-13) – Growth spurt, and the beginnings of sexual maturation. Young people starting to think abstractly, but still concrete.
- Mid (14-17) - Physical changes of puberty complete. Stronger sense of identity and relates more strongly to peer group. Thinking more reflective.
- Late (18-24) – "Emerging adulthood" is the new term. The body fills out and takes its adult form. The individual now has a distinct identity and more settled ideas and opinions. *Judgment more mature by mid-20's, but impaired by presence of peers.*

Why are Youth Brains Different?



- Youth rely more on their amygdala than their prefrontal cortex for making decisions, especially in the presence of peers or high levels of emotion.
- As the prefrontal cortex matures, teenagers and young adults can reason better, develop more control over impulses and make judgments better.
- After a period of pruning, Last areas to develop (in the mid-20's) are emotional control, planning, reasoning, and judgment.

Trends in Estimated HIV among Youth

U.S. Incidence (2010):

- 25.7% of people newly infected were age 13-24
- 57% African American ; 20% Latino; 20% White
- About 72% of new youth infections are in MSM

U.S. Prevalence Estimates (2009-2010):

- 69.5 (2.3-562.8) /100,000 13-24 year olds are living with HIV (LWH)
- 6.7% of all people LWH in US were age 13-24
- 59.5% unaware of their infection

CDC. Vital Signs: HIV Infection, Testing, and Risk Behaviors Among Youths —US. MMWR 61(47) 2012

MA Reports of HIV: Newly Diagnosed Youth

- 12% of newly diagnosed persons reported in MA 2009-2011 were age 13-24 at diagnosis
- Of those, 35% were non-Hispanic Black, 26% Latino
- 77% Male and 23% Female
- Mode of Transmission (for newly diagnosed youth):
  - 60% MSM (78% of Males)
  - 7% Heterosexual or Presumed Heterosexual
  - 4% IDU (1% of Males. 15% of females))
  - 17% Undetermined mode

Youth Living with HIV in MA

- About 2% of people known to be living with HIV in MA (410) are **now** (as of 12/2012) age 13-24 years

These known HIV+ 13-24 year olds are:

- 51% Male (50% of 13-19 y/o)
- 42% Black; 31% Latino (52% Black; 32% Latino of 13-19 y/o)
- Mode of transmission:
  - 23% MSM (35% of young men); 1%IDU
  - 59% of MA youth living with HIV were perinatally exposed (78%of those Black or Latino)
  - 92% of all 337 youth with perinatal infection are now 13-24 years old (31% 13-19, 40% 20-24, 21% age 25+)
  - These youth more likely to be female and non-white

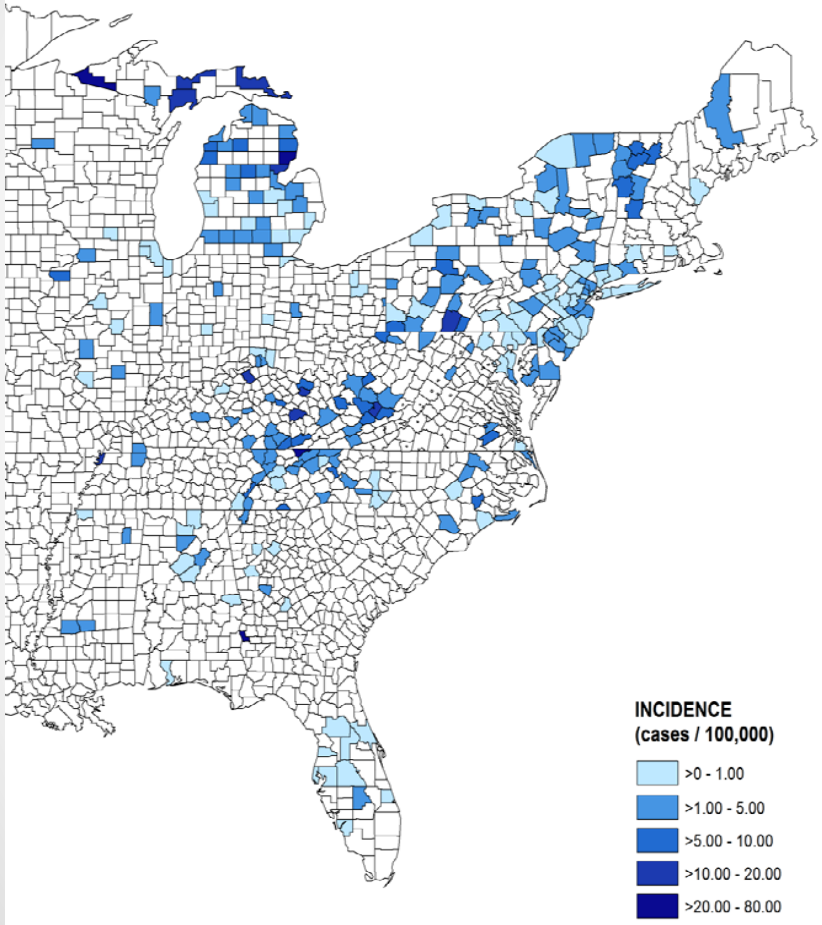
Source: MA DPH Fact Sheet 2013 (http://www.mass.gov/eohhs/docs/dph/aids/2012-profiles/adolescents-young-adults.pdf)

What About Hepatitis C?

HCV: It's not just for IDU and baby boomers any more, some unanswered questions.

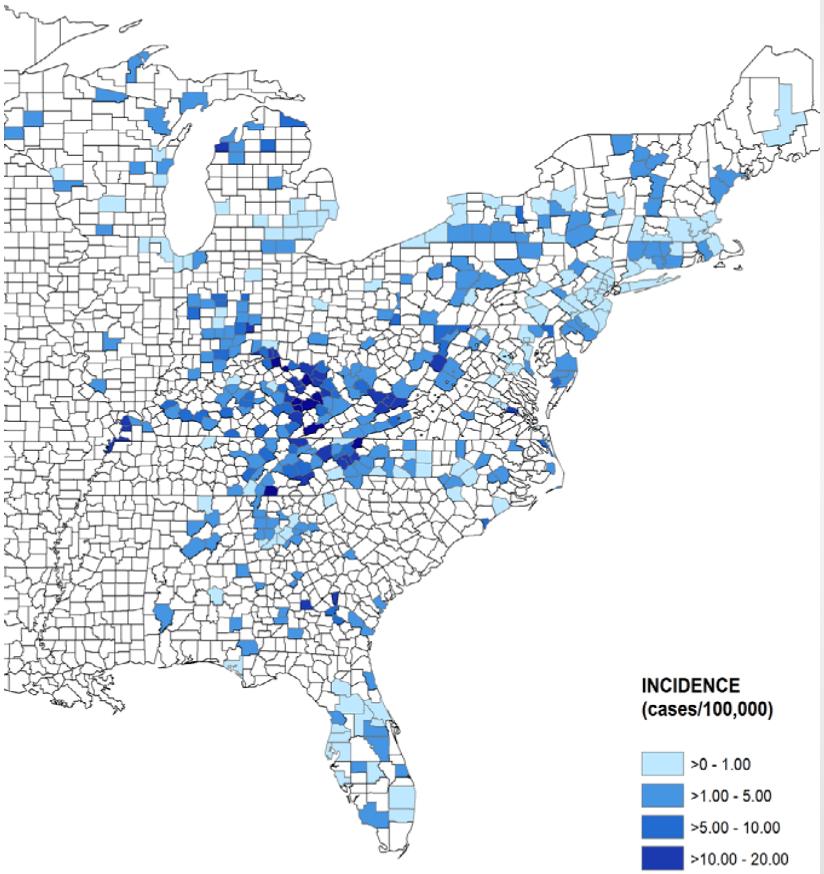
HCV Trends, 2006-2011

HCV Incidence by Eastern US County, 2006



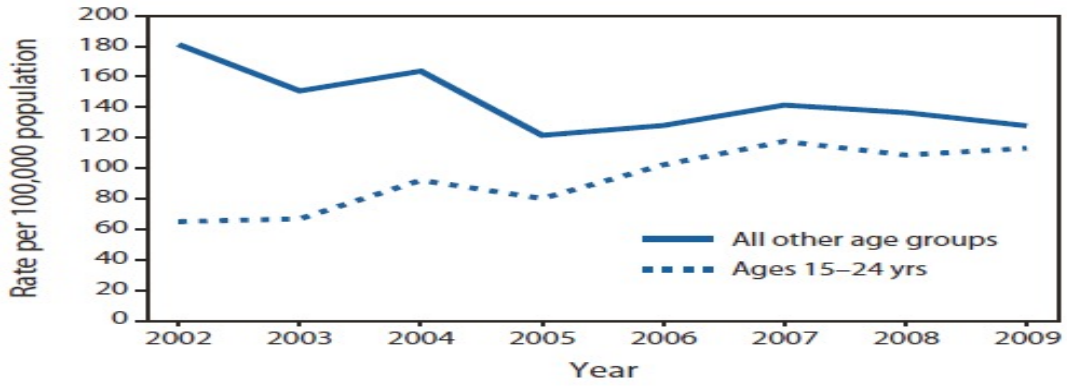
Source: National Notifiable Disease Surveillance System

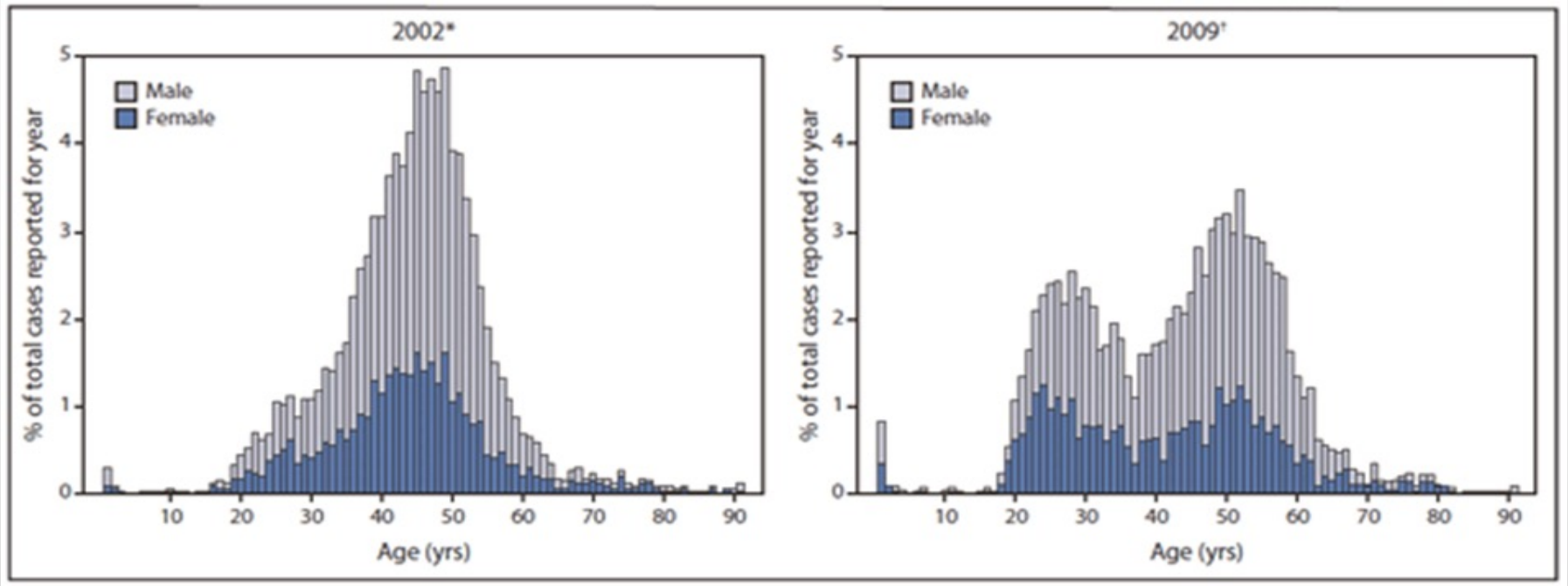
HCV Incidence by Eastern US County, 2011



Source: National Notifiable Disease Surveillance System

Age distribution of new HCV infection --- Massachusetts, 2002 and 2009





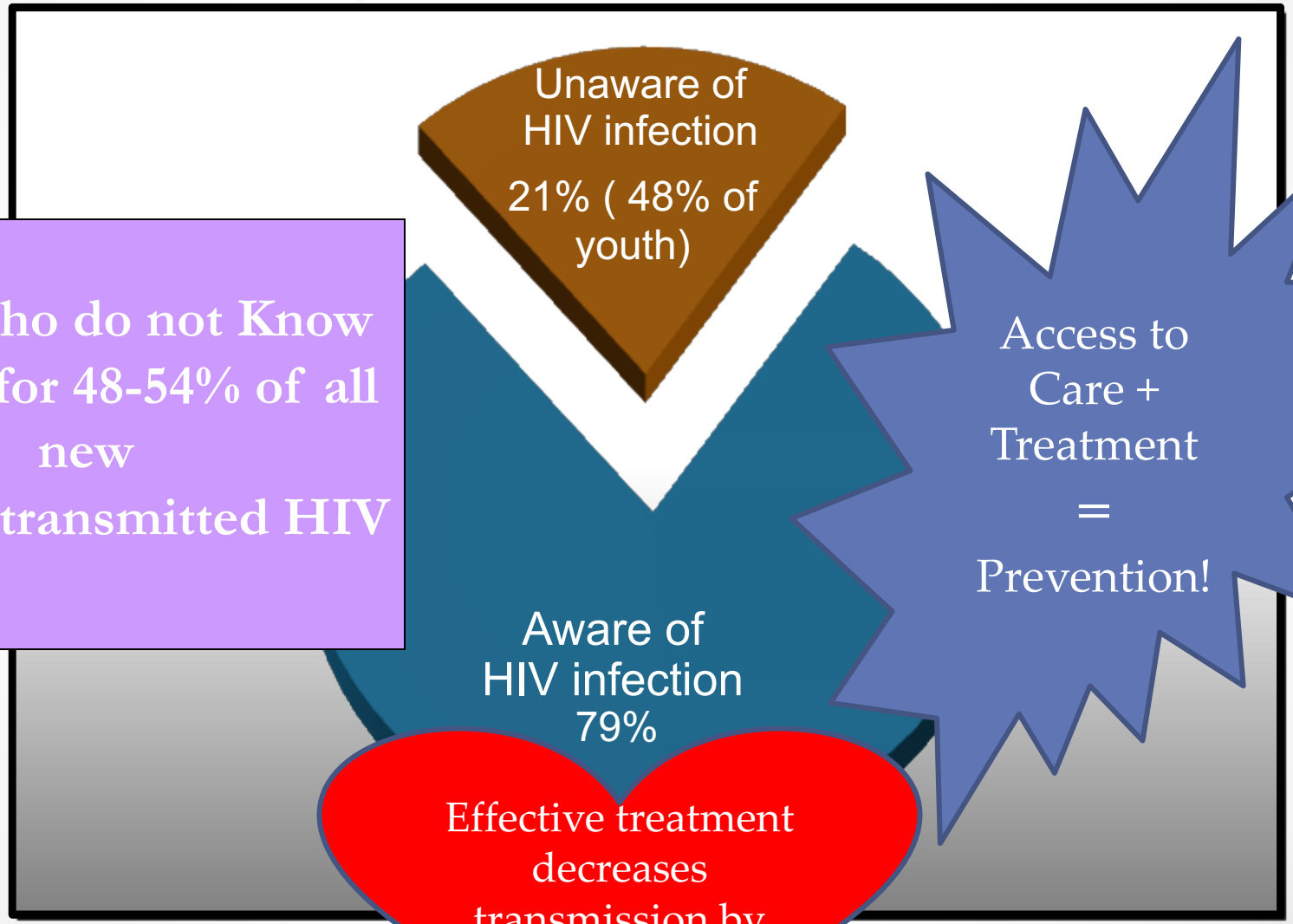
HCV Trends

- 2.9 – 3.9 million people living with chronic HCV in US
- 75% age 45-65 in 2012
- 45-85% of those living with HCV unaware
- Recent reports of increases in new infections among youth and young adults.
- Massachusetts, New York state, and Wisconsin have all reported increases and/or outbreaks of HCV among under-30-year-old injection drug users.
- Rhode Island: Increased prevalence of HCV among incarcerated 18-28 year olds
- Increased prevalence in suburban and rural youth
- Treatment improving, and cure with oral medications increasingly feasible
- MA DPH now offers combined HIV/HCV testing

Increased Risk for MSM?

- Case control study in Netherlands
- 82 **HIV+** MSM with new HCV compared to 131 HCV-uninfected HIV-positive MSM controls.
- Factors associated with the following magnitudes of likeliness of contracting hep C:
  - Ulcerative STI were 5.26 times as likely to contract hep C;
  - Receptive condomless anal intercourse, 5.05 times as likely
  - Sharing sex toys, 3.98 times as likely
  - Sharing straws when snorting drugs, 3.46 times as likely;
  - Having a lower CD4 count at last read before testing positive for hep C also linked to a raised risk of hep C
  - Douching, rectal bleeding, number of partners, IDU (small N of 12), group sex, not associated with increased risk in this study

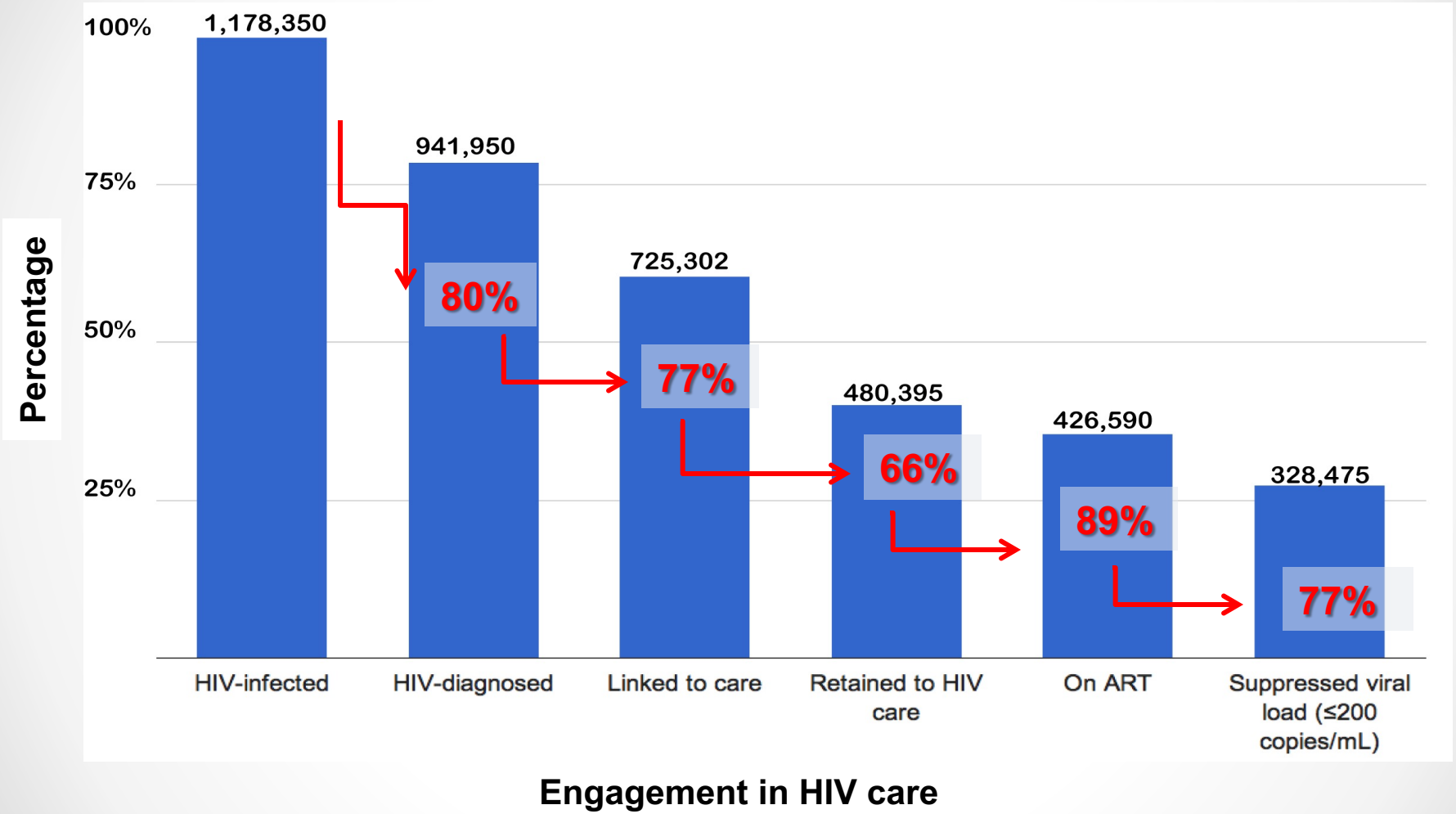
Why Screen for HIV?



Those who do not Know account for 48-54% of all new sexually transmitted HIV

Source: CDC. MMWR. 2008;57:1073-6.

The Continuum of HIV Care in the US

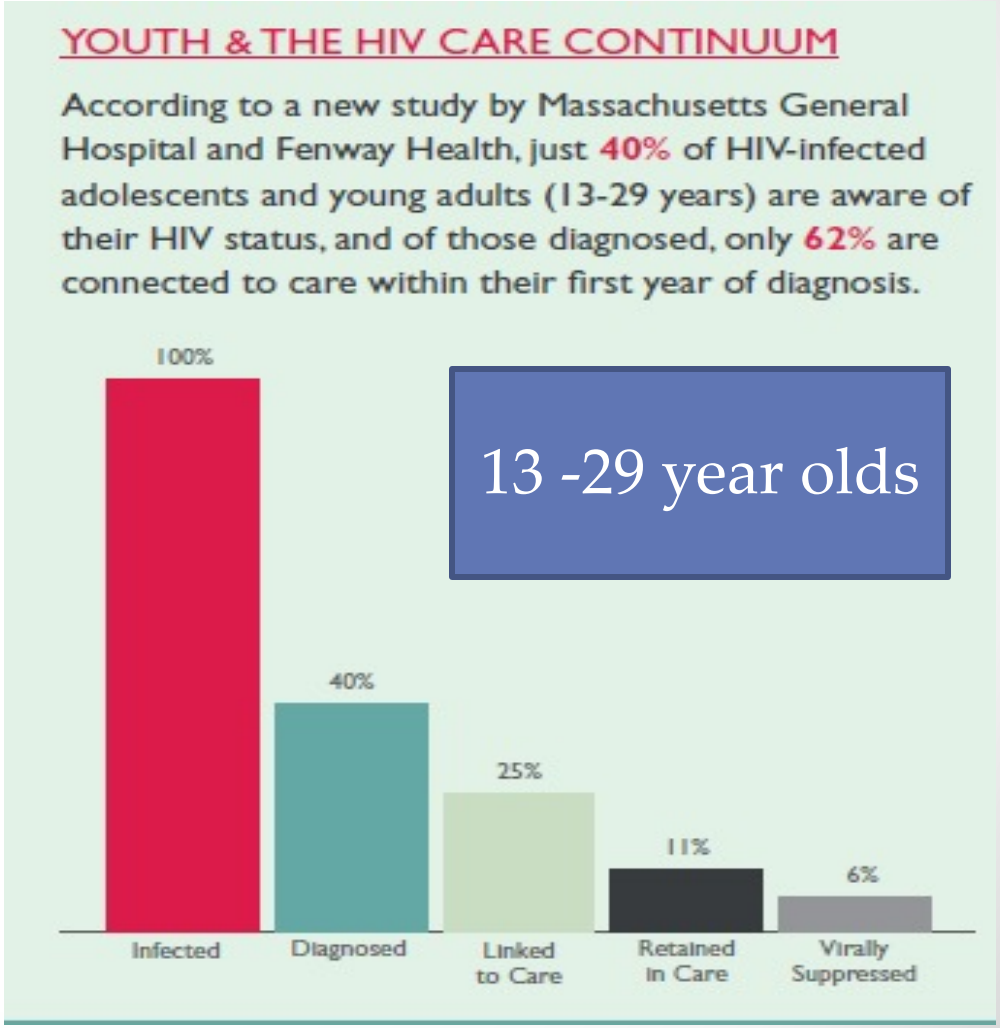


Of all with HIV infection, 850,000 individuals do not have suppressed HIV RNA (72%)

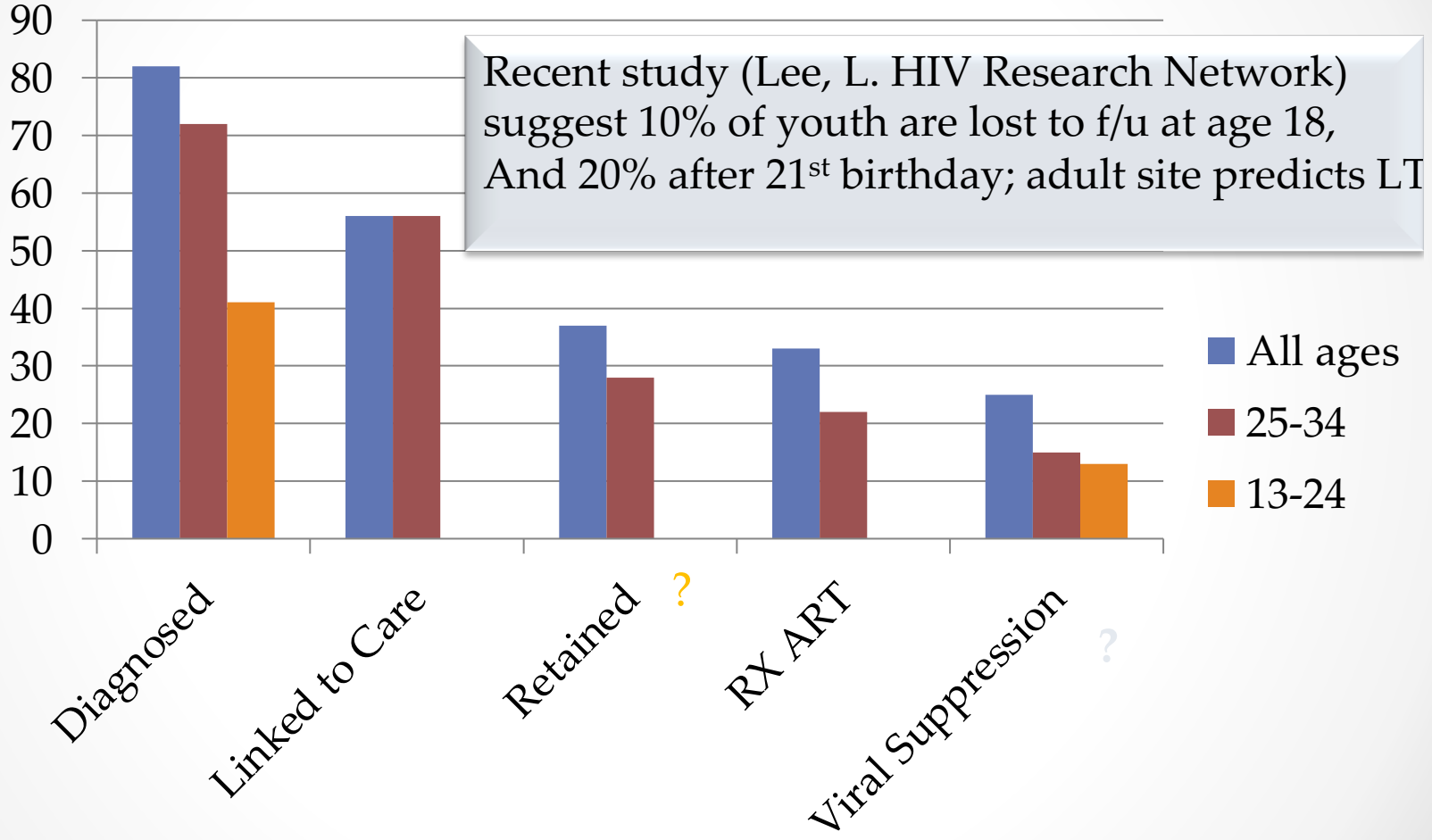
MMWR (60), 2011

Early Diagnosis Benefits All (If the Continuum Is Effective)

- Effective care and treatment improves health, longevity, and future options
- Awareness of status aids risk reduction
- Treatment decreases risk of transmission by 96%
- But, **youth** have more barriers to care



Continuum of Care: Is There Data on **Youth** Linkage and Retention?



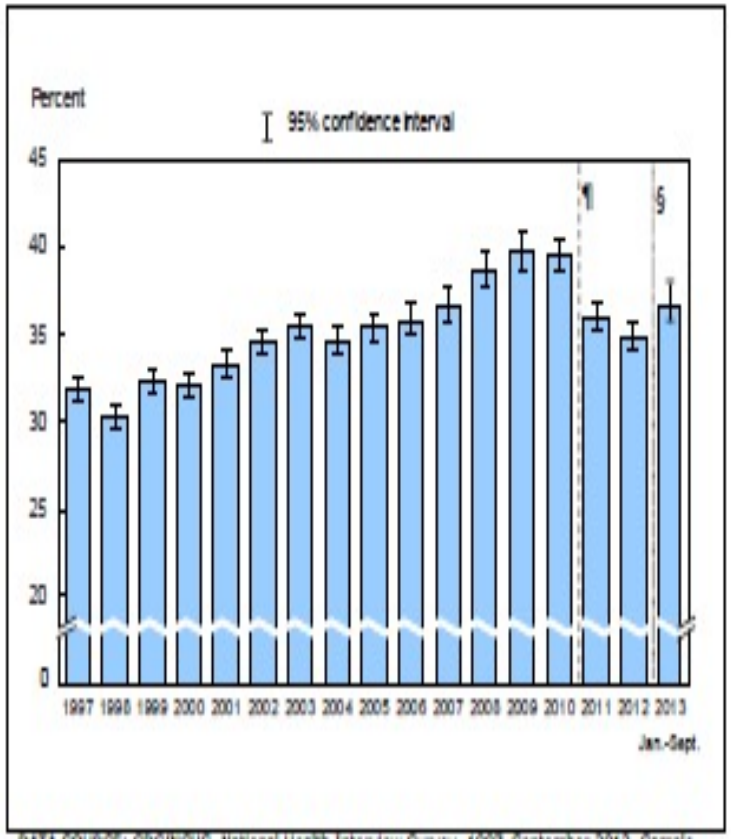
Extrapolated from Hall, HI et al. CDC. Contiuum of HIV Care: Differences in Care and Treatment. Presented at AIDS 2012

Current HIV Screening Recommendations

- **CDC 2006:** Routine opt-out voluntary screening for all patients age 13-64 yrs:
  - Unless prevalence <0.1%
  - All patients with TB, STI, pregnancy, Hepatitis B, regardless of age
  - Re-test high-risk persons at least annually; test new couples; test with STI
  - MSM at high risk
  - Increasing incidence
    - Youth of color
    - Young MSM

But Even Now, HIV Testing Is Still Not Universal

Figure 10.1. Percentage of adults aged 18 and over who had ever been tested for human immunodeficiency virus (HIV): United States, 1997–September 2013



DATA SOURCE: CDC/NCHS, National Health Interview Survey, 1997–September 2013, Sample Adult Core component.

- 38% of adults ever had HIV test by 2013
- Just 34% of 18-24 year olds had ever tested
- 26% of young men
- Testing rates higher among Black (57%) and Hispanic/Latino (39%) adults

CDC: Early Release of NHIS data, 3/27/2014

Other Recommendations

- **ACOG (2014):** Test all women 13-64 at least once, rescreen annually if at risk. Have a plan for immediate action if positive.
- **ACP (2009):** Adopt and encourage routine screening and rescreen based on risk
- **AAP (2011):** Routine Screening once by age 16-18 years, and routinely if at risk (youth consent enough)
- **USPSTF (April 2013):** Screen all 15-64 year olds, all pregnant women, and older and younger patients at risk. Category A now.

HCV Screening Recommendations

- **Born between 1945 and 1965*, one time screen.**
- **Other persons at risk (b/o behavior, exposure or other):**
  - Injection-drug use (current or ever, including once)
  - Intranasal illicit drug use
  - Long-term hemodialysis (ever)
  - Getting a tattoo in an unregulated setting
  - Occupational exposure
  - Children born to HCV-infected women
  - Prior recipients of transfusions or organ transplants, including persons who:
    - were notified that they received blood from a donor who later tested positive for HCV infection
    - Transfusion or transplant before July 1992
    - received clotting factor concentrates produced before 1987
  - Persons who were ever incarcerated

HCV Screening Recommendations

- *Other*
  - HIV infection
  - Unexplained chronic liver disease and chronic hepatitis
  - Solid organ donors (deceased and living)
- Annual Screening Recommended:
  - Injection Drug Users
  - HIV+ MSM
- Screening with Antibody unless:
  - History of prior HCV infection and suspect reinfection
  - Acute liver disease present and recent exposure
  - Immunodeficiency
- If screen positive, ensure quantitative RNA to see if infection present and counsel on need for expert staging, care and how to maintain health

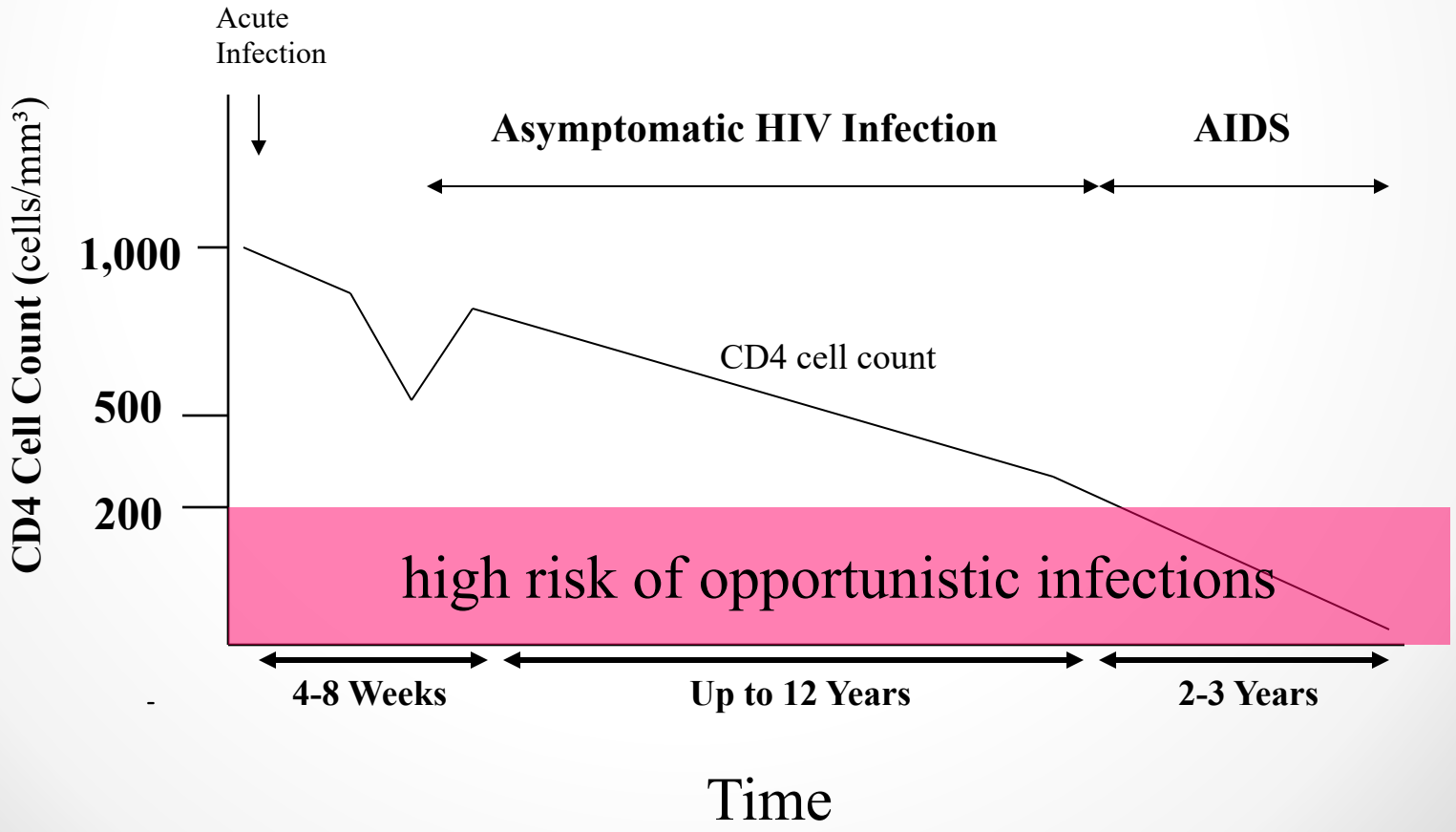
The HIV Test Is Positive: What does Care involve?

- **Medical history** (previous testing, reason for testing, symptom assessment, past medical and psychiatric history, medications, review of systems, growth and development, immunization, nutrition, when and how infected)
- **Coping - Social history** (living situation, social support, disclosure of status genogram, school, employment, legal status, entitlements, violence or abuse history)
- **Sexual risk assessment** (voluntary debut, recent and current sexual partners (gender, practices, use of barriers, disclosure status, contraceptive use and plans, sexually transmitted disease history, partner status)
- **Substance and tobacco use** and treatment history

What does the Team do Next?

- Support and Education and linkage to care
- Physical Exam
- Laboratory and other testing
- Prevention: Risk reduction, immunization, nutrition, physical activity, tobacco and substance use
- Time for Questions and Answers and Resources
- Client-centered Team approach helps

Explaining HIV



Treatment Alters HIV Course
(and maintains health and decreases transmission)

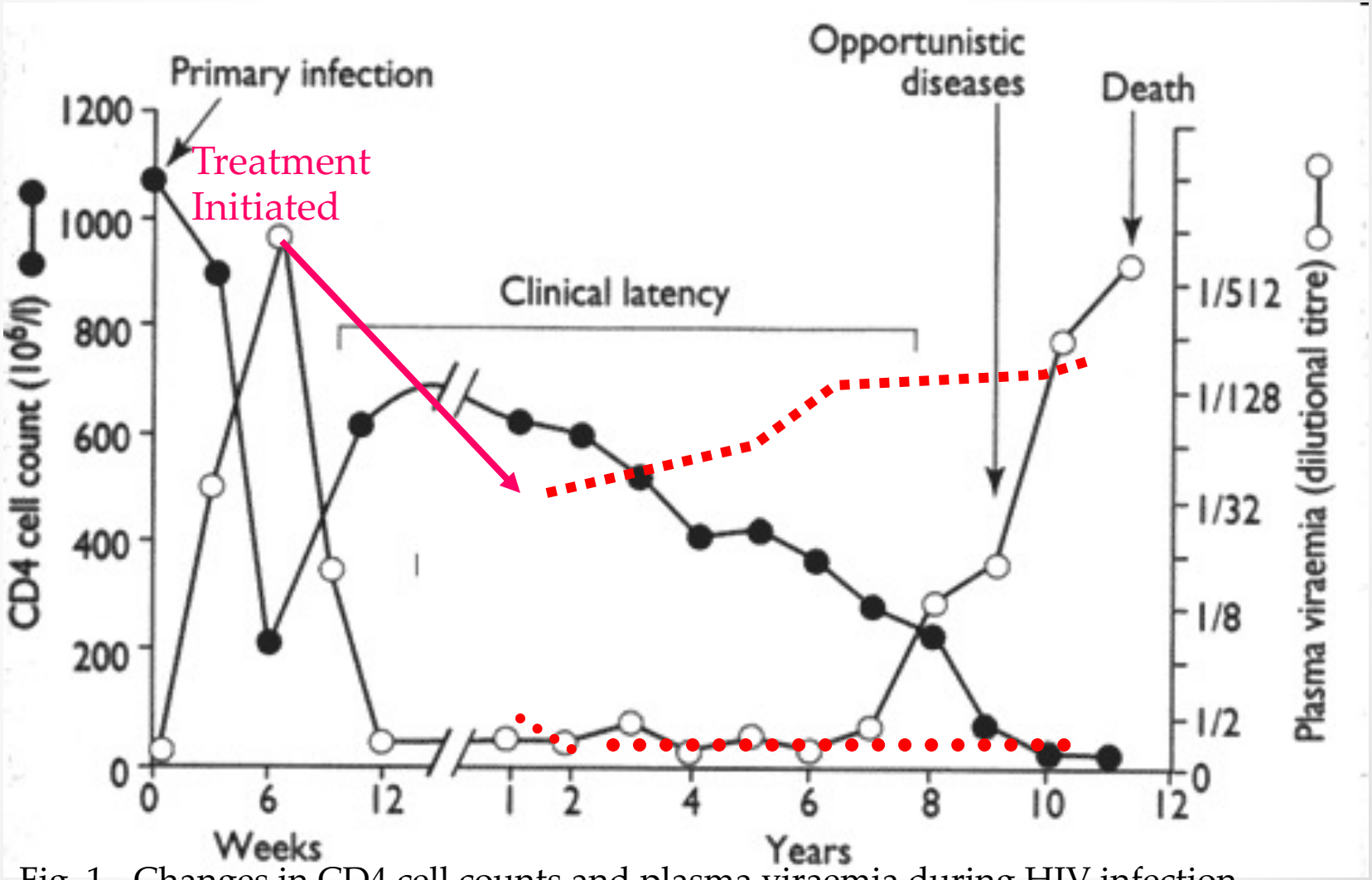


Fig. 1 - Changes in CD4 cell counts and plasma viraemia during HIV infection (modified
from Fauci(5) with permission).. Jolles, S. et al. BMJ 1996;312:1243-1244

Initial Care for HIV Infected Youth

- Assess and educate about immune function and viral load
- Assess presence/absence of symptoms and signs
- Assess presence of or risk for opportunistic infection (OI)
- Screen for coexisting active or latent conditions
  - Infections, STD's (all exposed sites), hepatitis B, C, toxoplasmosis
  - Substance use/abuse
  - Psychosocial issues
  - Treatment readiness
  - Barriers to care and adherence
- Staging and prognosis enable plan of care
- Psychosocial risk assessment, support and education promote engaging and staying in care

Initial Physical Exam

- Skin (seborrhea, acne, molloscum, fungal infection common)
- Lymph
- Oral (thrush, ulcers, herpes and other STI, gum and dental condition)
- Cardiovascular, respiratory, abdomen
- Genital (STD signs, vaginitis)
- Rectal (screen for STI if receptive anal sex)
- Neurological exam, mental status, screen for depression and anxiety

Lab Tests: Order and Explain

- **Confirmatory** HIV antibody test, if not already done
- **Immune function**: CD4 t-lymphocyte count and percent (t-cell profile)
- **Viral burden**: HIV-RNA testing (twice); Genotype (up to 30% of youth inherit resistant virus)
- Blood count, chemistries, urinalysis, antibody screens (toxoplasmosis, hepatitis B, C, varicella, CMV)
- STD **screening** for gonorrhea and chlamydia (site specific), vaginal wet preps, serologic test for syphilis, pregnancy test, HSV 2 serology
- Cervical **pap** smear for young women (annual once normal q/ 6 months twice). Anal pap smear for MSM, Others?
- Tuberculosis test (**PPD** skin test or x-ray if PPD positive)
- **Share Results and Follow-up Plan**

Primary Care: Prevention and Intervention

- Food safety and healthy nutrition
- Pet (especially cat) safety
- STI screening (all exposed sites); risk reduction
- Monitor for new co-infections (TB, CMV, HSV, Toxo, Hep C)
- Monitor for cardiovascular risk factors: obesity (BMI), lipids, lipodystrophy, hyperlipidemia, hypertension, insulin resistance
- Monitor for hepatotoxicity, renal dysfunction, reduced bone density (aseptic necrosis of hip can occur), vitamin D deficiency
- Encourage exercise and healthy lifestyle; peer support may aid some youth
- Smoking cessation very important

Treatment As Prevention (TAP)

Viral Load of HIV+ Partner (copies per mL)	**Risk for Transmission** (rate ratio: 95% CI)
≤ 3500	Referent (one)
3500-9999	5.80 (2.26-17.80)
10,000-49,999	6.91 (2.96-20.15)
≥ 50,000	11.87 (5.02-34.88)
Per log increment viral load	2.45 (1.85-3.26)
HPTN 052 [1763 serodiscordant couples: early vs late (<250 CD4) ARV treatment]	96 % less transmission in early treatment group. (P≤0.0001).

(Sources: Advancing HIV Prevention, the Science Behind the Initiative. CDC, 9/2003 and Quinn TC. NEJM 1996, and Cohen et al, NEJM 7/28/2011)

Goals of Therapy & Tools to Achieve Goals

GOALS

- Reduce HIV-related morbidity; prolong duration and quality of survival
- Restore and/or preserve immunologic function
- Maximally and durably suppress HIV viral load
- Prevent Transmission

TOOLS

- Selection of ARV regimen
- Maximizing adherence
- Pretreatment resistance testing
- Use of CD4 count to guide therapy decisions
- Use of HIV RNA (viral load, HIV-1) to guide therapy decisions and assess treatment efficacy

DHHS Guidelines: Changing Criteria for Initiating ART

CD4+ Count, cells/mm^3	1998	2001	2006	2008	2009	2013
> 500	Offer if VL > 20,000	Offer if VL > 55,000	Consider if VL ≥ 100,000	Consider in certain groups	Consider	Treat
350-500	Offer if VL > 20,000	Consider if VL > 55,000	Consider if VL ≥ 100,000	Consider in certain groups	Treat	Treat
200-350	Offer if VL > 20,000	Offer, but controversy exists	Offer after discussion with patient	Treat	Treat	Treat
< 200 or symptomatic disease	Treat	Treat	Treat	Treat	Treat	Treat

Source: Clinical Care Options-HIV

May 2014 Recommendations

- Antiretroviral therapy (ART) is recommended for all HIV-infected individuals to reduce the risk of disease progression.
  - The strength of and evidence for this recommendation vary by pretreatment CD4 T lymphocite (CD4) cell count: CD4 count <350 cells/mm^3 **(AI)**; CD4 count 350–500 cells/mm^3 **(AII)**; CD4 count >500 cells/mm^3 **(BIII)**.
- ART also is recommended for HIV-infected individuals for the prevention of transmission of HIV.
  - The strength of and evidence for this recommendation vary by transmission risks: perinatal transmission **(AI)**; heterosexual transmission **(AI)**; other transmission risk groups **(AIII)**.
- Patients starting ART should be willing and able to commit to treatment and understand the benefits and risks of therapy and the importance of adherence **(AIII)**. Patients may choose to postpone therapy, and providers, on a case-by-case basis, may elect to defer therapy on the basis of clinical and/or psychosocial factors.

Summary Indications for Initiating ART: 2014 Guidelines for Asymptomatic HIV

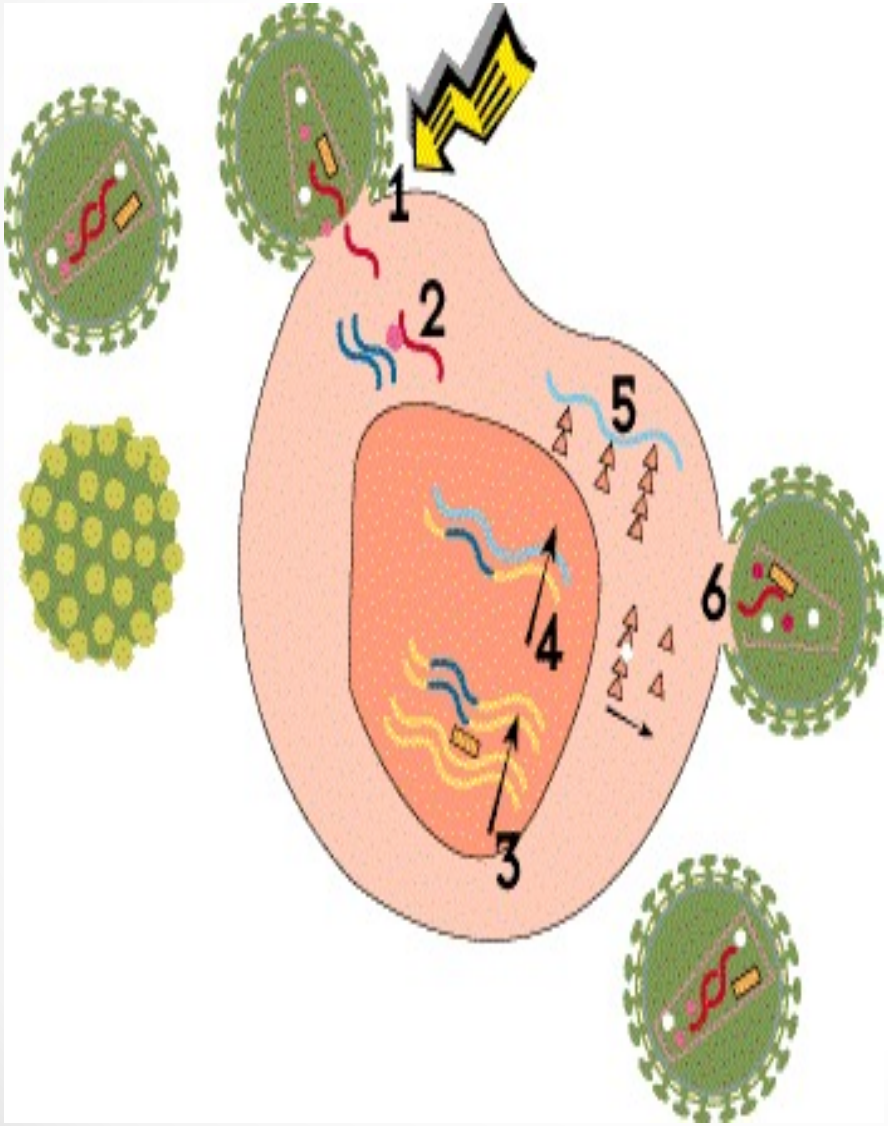
Category and/or CD4 Count	Recommendation

• CD4 < 350 cells/mm³ (AI)
• CD4 350-500 (AII)
• CD4 > 500 cells/mm³ (BIII)
 	
• Prevention of transmission
  • Pregnant women (AI)
  • Sexual transmission
  • Heterosexual (AI)
  • Other sexual (AIII)
	Initiate ART
	
	(**If** ready, willing and able, and life circumstances permit)

Clinical or personal factors may support waiting to start

- If CD4 count is low, deferral should be considered only in unusual situations, and with close follow-up
  - Keep clients engaged in care if they refuse ART
- When there are significant barriers to adherence
- If co-morbidities or their treatment complicate or prohibit ART
- "Elite controllers" and long-term non-progressors
  - Case Examples

ARV (antiretroviral) Drugs: Now Work on Four Different HIV Life Cycle Stages



1. Binding **(Entry Inhibitors)**
2. Reverse Transcription **(NRTI, NNRTI)**
3. Integration **(Integrase Inhibitors)**
4. Transcription
5. Translation
6. Viral Assembly and Maturation **(Protease Inhibitors)**

Current ARV Medications (26)

NRTI

- Abacavir (ABC)
- Didanosine (ddI)
- Emtricitabine (FTC)
- Lamivudine (3TC)
- Stavudine (d4T)
- Tenofovir (TDF)
- Zidovudine (AZT, ZDV)

NNRTI

- Delavirdine (DLV)
- Efavirenz (EFV)
- Etravirine (ETR)
- Nevirapine (NVP)
- Rilpivirine (RPV)

PI

- Atazanavir (ATV)
- Darunavir (DRV)
- Fosamprenavir (FPV)
- Indinavir (IDV)
- Lopinavir/r (LPV/r*)
- Nelfinavir (NFV)
- Ritonavir (RTV)
- Saquinavir (SQV)
- Tipranavir (TPV)

*r= Ritonavir booster

Integrase Inhibitor (II)

- Raltegravir (RAL)
- **Elvitegravir **(EVG)**
- **Dolutegravir*** (DTG)**

Fusion Inhibitor

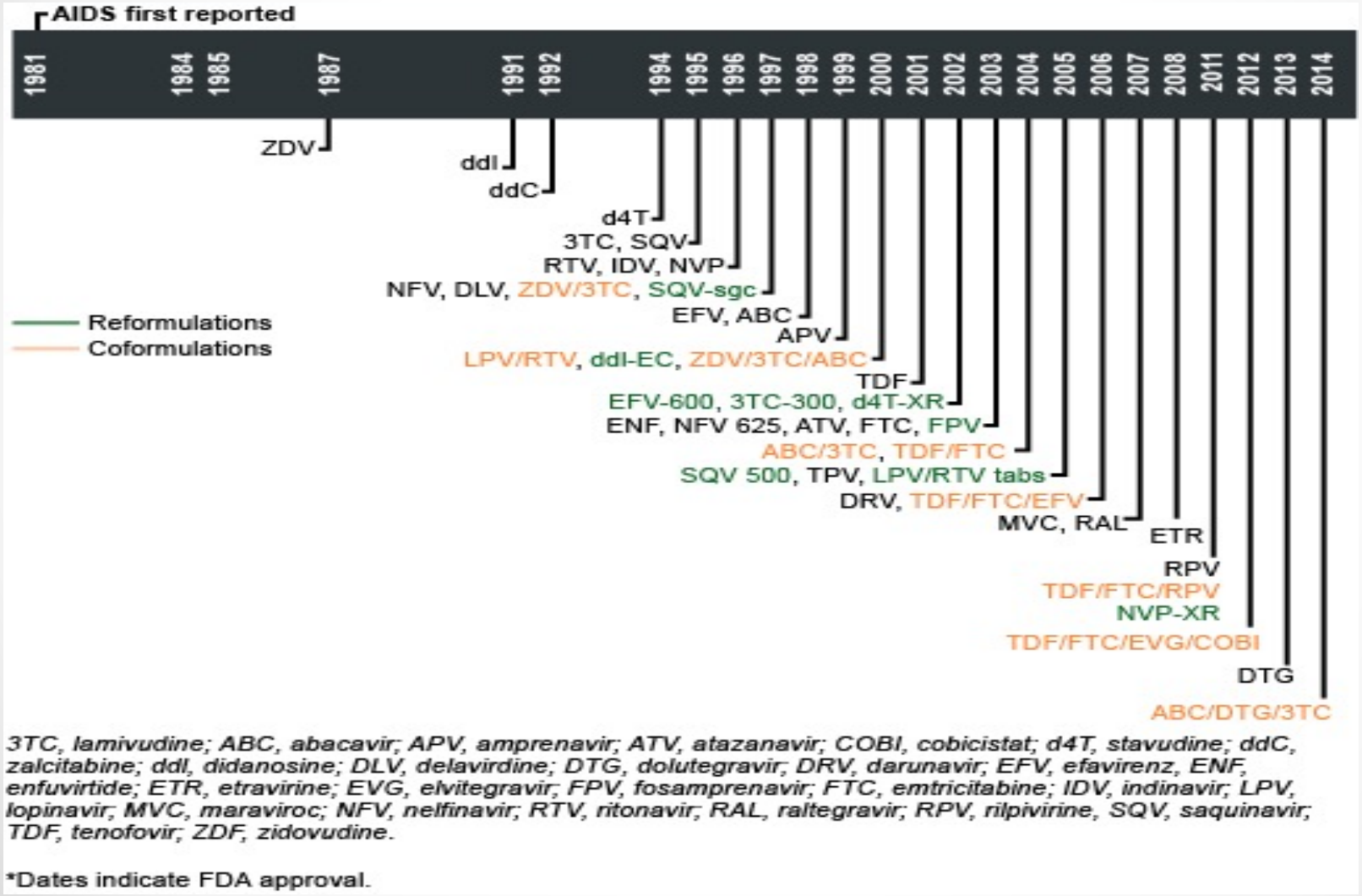
- Enfuvirtide (ENF, T-20)

CCR5 Antagonist

- Maraviroc (MVC)

** EVG currently available only in coformulation with cobicistat (COBI)/TDF/FTC

Drug Development Timeline (Plus 2 more coformulations in 3/2015!)



2015

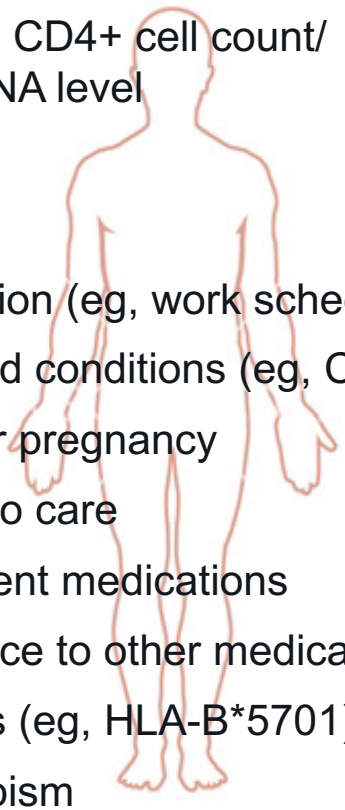
COBI/DAR

ATV/COBI

Considerations When Selecting First-line Antiretroviral Therapy

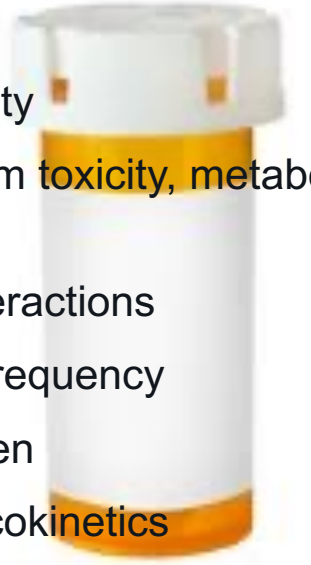
Patient/Viral Factors

- Baseline CD4+ cell count/ HIV-1 RNA level
- Age
- Sex
- Occupation (eg, work schedule)
- Comorbid conditions (eg, CV risk)
- Plans for pregnancy
- Access to care
- Concurrent medications
- Adherence to other medications
- Genetics (eg, HLA-B*5701)
- Viral tropism
- Disclosure



Antiretroviral Drug Factors

- Efficacy
- Baseline drug susceptibility/ resistance
- Tolerability
- Long-term toxicity, metabolic effects
- Drug interactions
- Dosing frequency
- Pill burden
- Pharmacokinetics
- Cost / Insurance coverage/ copays?



Source: CCOHIV Slideset, Practical Skills…

2014 Guidelines: Preferred Initial Regimens

(There are alternative and acceptable ones too)

NNRTI based 	➢EFV/TDF/FTC[1,2] **1 pill once a day**
PI based  	➢ATV/r[3] + TDF/FTC[2] **3 pills once daily** ➢DRV/r (QD) + TDF/FTC[2] **3 pills once daily**
II based   	➢ RAL bid + TDF/FTC once daily

1. Avoid if planned pregnancy or non-contraception **2.** FTC and 3TC interchangeable in efficacy
3. Not with omeprazole

More Preferred Initial Regimens

Integrase Inhibitors	
	**EVG/COB/TDF/FTC** (once daily with food -fixed dose) [IF good renal function]
	**DTG + ABC/3TC** (was 2 pills once daily, now 1) [IF HLA-B*5701 negative]
	**DTG + TDF/FTC** (2 pills once daily)

Also Recommended, but only IF Viral Load < 100,000

NNRTI-Based Regimens:	
	• EFV[1] + ABC/3TC [IF HLA-B*5701 negative]
	• RPV + TDF/3TC [IF CD4 Tcell >200]
PI-Based Regimens	
	• ATV/r +ABC/3TC [IF HLA-B*5701 negative]

2014 DHHS Alternative Initial ARV

PI based	• (DRV/r + ABC/3TC[2,3] 3 pills once a day)  • LPV/r (800/200 QD if not pregnant)+ (ABC/3TC or TDF/FTC) (5 pills once a day) 1 pill of 200/50 at right 4 X  +  or  [LPV/r must be 400/100 bid if pregnant]
II based	• RAL bid + ABC/3TC 1/day  

Preventing HIV Transmission While Attempting Conception

- Inform HIV-infected women of options to prevent sexual transmission of HIV while attempting conception
- Possible interventions
  - Start maximally suppressive ART
  - Consider PrEP in discordant couples
  - Artificial insemination, including self-insemination
- Counsel about reproductive issues on an ongoing basis

24. DHHS Guidelines for Antiretroviral Therapy in Adults and Adolescents. February 2013.
25. DHHS Perinatal Guidelines. July 2012.

The HCV Screen is Positive

- Educate about risk of transmission and safe needle use
- Confirm whether virus present with a PCR (viral load), check genotype if viremia
- Refer to a specialist if symptomatic, liver dysfunction, or measurable viral load
- Monitor for coinfections, including HIV
- Acute HIV and Acute HCV can look alike.
- Some youth clear infection on their own, but reinfection can occur with repeated risk
- Youth with active virus present need monitoring, and assessment for possible teratment

Hepatitis C Treatment

- New better tolerated drugs can CURE infection for many
- Success rate depends on genotype of the virus
- SVR (sustained virologic response) possible in most
- Cost is a major factor
- Timing of treatment often linked to advancement of liver disease versus the Treat early to prevent body damage and transmission in HIV
- Much research in progress – watch for new developments

Treatment vs Delay Considerations

- ✓Ready for treatment?
- ✓No? Motivational Interviewing may help
- ✓Who knows dx?
- ✓Lifestyle and schedule
- ✓Tolerable drug interactions, side effects
- ✓Able to reach for follow-up and communication?
- ✓Access to care, insurance, transportation
- ✓Access to prescriptions
- ✓Able to swallow pills?

What Are Barriers to Screening Youth?

Practice Tips

- Anticipatory Guidance as part of all adolescent encounters: see 2008 USPSTF Guidelines on sexually transmitted infection prevention
- Know local resources for intensive science-based prevention and risk reduction counseling
- Discuss confidentiality (and exceptions) with patient and parent at **first** visit as teen (or age 12+); provide privacy and identify confidential counseling and care resources
- Sample adolescent billing and coding tips and case vignettes at http://www.adolescenthealth.org/clinicalcare.htm

Coding Guide

Can use with RHCM CPT codes or problem visits or Preventive Medicine Codes (99381-99397, 99401-999412).

Screening

- V74.5: Screen for STI
- V01.6: Contact with or exposure to STI
- V65.45: Counseling on other STI (non-specific)
- V65.44: HIV counseling (if provided during the test or results visit)
- V73.89: Visit specifically for HIV testing (special viral screening)

Rapid Test (POCT) in office (if billing for the test)

- 86703 +92 modifier (Antibody; HIV-1 and HIV-2, single assay)

HIV positive

- V08: Asymptomatic HIV (positive results
- 042: HIV Disease (AIDS or symptomatic

HCV

- 86803 (+92 modifier if rapid);
- Screening codes: 070 (symptoms), V69.8 (lifestyle), V02.6, V01.79

Available at http://aahivm.org/images/stories/pdfs/brochure_reimburse_guide_routinehivtest.pdf.
ICD-10 codes available in new 5/14/14 CDC PrEP guidelines (see refs)

Readiness Steps: Make HIV Screening Routine in Your Practice or Program?

1. Know state laws, regulations and institution policies re: consent, reporting and partner notification

(National HIV/AIDS Clinicians' Consultation Center web resource):

http://www.nccc.ucsf.edu/consultation_library/state_hiv_testing_laws

2. Discuss and choose what test(s) you will offer and how to document and fund the test and/or link youth to free testing sites by referral or co-location

What Technology is Available? (and What's at Your Lab?)

- Preferred non-rapid test is now a 4th generation Antigen/Antibody test (p24 Antigen if negative HIV1 and HIV 2 Antibody) detects HIV after 2-3 weeks. No confirmation required, if positive.
- Antibody immunoassay (3rd generation)
  - EIA or CIA (HIV 1 / 2)
  - Requires Reflex Western Blot (may be pos, neg or Indet)
- Rapid Testing (6 now licensed; 4 POCT)
  - Requires CLIA waiver, QC protocols. Preliminary results in 10-20 minutes, if reactive→
  - Confirmatory test (preferably 4th Gen), very sensitive
- Home Rapid Testing: OraQuick In-Home HIV Test (approved July 2012) for **age ≥17**.
  - Like a POCT rapid test, confirmatory test (and support) essential

What Mode of Testing is Available?

Routine medical

- Provider ordered tests
  - In office rapid POCT
  - In house lab
  - Reference lab
- Opt-out screenings offered by support staff at urgent or well visits
- Payment, insurance, confidentiality issues
- Know which test(s) are offered

Publicly funded

- Now mainly 4th generation to improve surveillance for acute HIV
- Integrated screening models (PICSR)
- Combined screening for HCV and HIV (MA)
- Know resources:

http://www. gettested.cdc.gov/

http://www.cdc.gov/actagainstaids/

How to Make HIV/HCV Screening Routine? Bring it UP!

- Research local HIV/AIDS care and service providers and youth-friendly HIV specialists and support providers

  Resources: Ryan White funded programs, HIV Specialist registries: American Academy of HIV Medicine (AAHIVM), and HIV Medical Association (HIVMA) websites http://hab.hrsa.gov/gethelp/index.html and the www.aids.gov locater can identify local resources

- Contact local publicly funded HIV and HCV screening and care providers to learn how to access screening and /or services quickly (and their comfort with youth)

How to Make HIV, HCV Screening, Prevention and Linkage to Care Routine?

- Plan/develop a referral process for: linkage to care and treatment, support, partner notification and mental health, substance abuse services
- Use a negative test as a trigger for risk reduction; some clients need intensive prevention (including behavioral or biologic such as nPEP, PrEP, needle exchange)
- Behavioral health services can incorporate and normalize prevention and referral for screening and care

MA Public Health Approaches

- Phasing out public health funding of Rapid Testing
- Linking HIV 4th generation and Hepatitis C Antibody testing
- Should more rapidly identify new positives and allow planning for care and treatment capacity
- What is happening in your state?

Incorporate Risk Assessment and STI/ Hepatitis C Screening and Treatment into Urgent Care and Sexual Health Services

- STI screening or Family Planning an opportunity for behavior-specific prevention
- Identification and treatment of STI (including extragenital STI) decreases transmission risk
- Risk assessment for substance use aids harm reduction
- Counsel about NPEP and PrEP when applicable

HIV Transmission Risk

Risk Factor/Sex Act	Relative Risk of Getting HIV
Insertive Oral	1
Receptive Oral	2
Insertive Vaginal	10
Receptive Vaginal	20
Insertive Anal	13
Receptive Anal	100
Condom Use?	
YES	1
NO	20

(Modified from Varghese)

Living with HCV? Counsel on Transmission Risk

- Avoid sharing toothbrushes and dental or shaving equipment
- Cover any bleeding wound
- Stop using illicit drugs and enter substance abuse treatment
- Those who continue to inject drugs should be counseled to:
  - Avoid reusing or sharing syringes, needles, water, cotton, and other drug preparation equipment;
  - Use new sterile syringes and filters and disinfected cookers;
  - Clean the injection site with a new alcohol swab;
  - Dispose of syringes and needles safely
- Know not to donate blood and to discuss HCV serostatus prior to donation of body organs, other tissue, or semen.
- Persons with HIV and /or multiple sexual partners or sexually transmitted infections should be encouraged to use barrier precautions to prevent sexual transmission. Other persons with HCV infection should be counseled that the risk of sexual transmission is low and may not warrant barrier protection.
- Household surfaces and implements contaminated with visible blood should be cleaned using a dilution of 1 part household bleach to 9 parts water. Gloves should be worn when cleaning up blood spills.

The Test is Negative: Risk Reduction Opportunities

- Safer sex counseling, safer injection practices, harm reduction, motivational interviewing
- Individualized plan for re-testing based on risk and circumstances
- Linking infected partners to effective treatment and care
- Diagnosing and treating STI, substance abuse, mental health issues
- Advocating for access to health care services
- Work to eliminate stigma and health disparities
- Educate about symptoms of Acute HIV and HCV, and methods of biological HIV prevention (nPEP, PrEP) in select circumstances; vaccine and microbicide trials
-

Pre-Exposure Prophylaxis (HIV PrEP)

Before PrEP

- Document negative HIV status
- Confirm that patient is at risk
- Document the pregnancy intention of the patient
- Determine method of contraception
- Prescribe 90-day supply of PrEP medication
- Hepatitis B: screen and vaccinate
- Screen and treat for STIs
- Ensure renal function adequate (PrEP contraindicated if CrCl<60)
- Discuss plan of care

During PrEP

- HIV-antibody test every 2–3 months
- Evaluate medication adherence at each visit
- Assess risk behaviors and provide risk-reduction counseling and condoms every 2–3 months
- Test and treat for STI

Discontinuing PrEP

- D/C if patient requests, safety issues or HIV+
- Test for ARV resistance and refer for care, if HIV +
- Continue risk-reduction counseling, if HIV negative

ACOG Committee Opinion 595-May2014. and CDC Interim Guidance. MMWR Morb Mortal Wkly Rep 2012;61:586–9.

CDC New PrEP Guidelines (5/14/2014)

- "Preexposure Prophylaxis for the Prevention of HIV Infection in the US – 2014 Clinical Practice Guidelines"
  - Available at http://www.cdc.gov/hiv/pdf/PrEPguidelines2014.pdf
  - Clinical Providers' Supplement (checklist, MSM screen, and patient fact sheets on PrEP and acute HIV) http://www.cdc.gov/hiv/pdf/PrEPProviderSupplement2014.pdf
- Includes risk and eligibility criteria, and Rx, lab, and F/U schedule
  - Rx maximum of 90 day supply; HIV test and risk reduction before PrEP and every 3 months
  - Assess Hep B status (and vaccinate if susceptible) prior to initiation
  - 3 site STI screen baseline and 6 months
  - Renal function at 0,3,6, and every 6 months
  - Coding Guide with new relevant ICD-10 codes compared to old ICD-9

Offer Hope, Support

- HIV+ Youth diagnosed early and able to access care and treatment and support CAN:
  - Have a long life
  - Control their virus and Avoid immunodeficiency
  - Safely have children, be parents
- HCV+ youth have new opportunities for treatment and possibility of cure
- But their success is impaired by their youth and environment, by trauma and stigma, and by social inequities and systems that provide barriers, so age-appropriate risk reduction, support and care is needed
- Thank you for working on this issue and for Bringing it Up through risk assessment, screening and linkage to care!

Links to Specialized Care: Our Services

- Free HIV Rapid testing; Linked HCV/HIV 4th Gen. Testing
- Free STI screening (DPH funding)
- MD/NP for Primary Care, Consultation and rapid entry to HIV Care, Urgent Care 617-355-2735
- Case Management and Support, team approach
- Integrated Mental Health with onsite LICSW
- Risk Reduction counseling, STI and Rapid HIV screening for partners
- Pageable staff
- Post-Exposure Prophylaxis (NPEP) and follow-up for discordant partners and sexual assault survivors; education and access to PrEP and nPEP
- Individual and Group Therapy (Life Skill focus)
- Competency building and training for providers, pediatric residents
- Assistance with transitions from Pediatric to Adolescent and Adolescent/Young Adult to Adult care systems

http://www.childrenshospital.org/happens

Resources

- National AIDS Education and Training Center: (See the AETC NRC Web Site for the most current version of slides on treatment guidelines, nPEP and transition) http://www.aids-etc.org
- Local provider education from New England AIDS Education and Training Center http://www/neaetc.org
- Treatment Guidelines, Drug information and interactions, and treatment fact sheets and glossaries available from http://www.aidsinfo.nih.gov
- Immunization recommendations: http://hab.hrsa.gov/deliverhivaidscare/clinicalguide11/cg-304_immunizations.html#t-1

  And: http://www.aidsetc.org/aidsetc?page=cg-304_immunizations
- Primary Care manual: HRSA Guide for HIV/AIDS Clinical Care http://www.aidsetc.org/aidsetc?page=cg-00-00
- Hepatitis C Recommendations: http://www.hcvguidelines.org/full-report/testing-and-linkage-care-box-summary-recommendations-testing-and-linkage-care