

## Addressing HIV among Incarcerated Populations



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National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention  
Office of Director



## Why should I give this presentation?

- Certified Corrections Nurse Manager
- Previous work experience with USMS, FBOP, IHS, County Jails, State Prisons
- Professional: ACA, ASCA, AJA, ACHSA, NCCHC,
- Agency: DHHS, DOJ, BJS



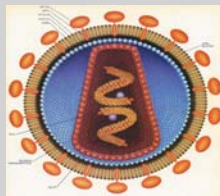
*"To eliminate disparities, we must know enough (research); do enough (deliver the outcomes); care enough (commitment); and persevere enough (don't get discouraged)."* –

David Satcher, MD, PhD



## Overview

- Brief Epidemiology of HIV Infection
- US Correctional Landscape
- CDC & the Intersection of HIV and Corrections
- Nursing Implications
  - Ask questions throughout
  - Open Discussion

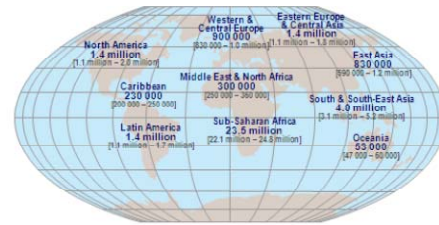


## Current Situation: Snapshot

- Globally
- United States



## Adults and children estimated to be living with HIV | 2011



7 | WHO - HIV department | November 9, 2011



UN AIDS | E. unicef

## Goals of Treatment

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



26 agents FDA approved as of November 2013

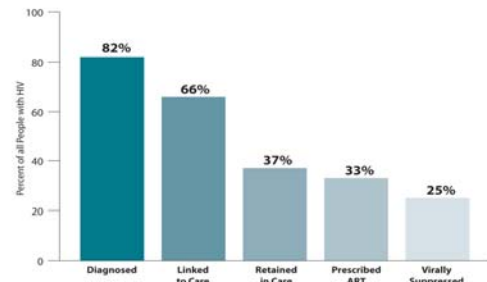


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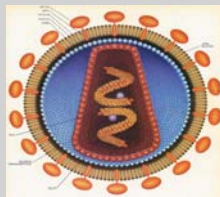


## HIV Stages of Care

OVERALL: Of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.



CDC 2012. <http://www.cdc.gov/nchhstp/newsroom/docs/2012/Stages-of-CareFactSheet-508.pdf>



## Current Situation: Snapshot

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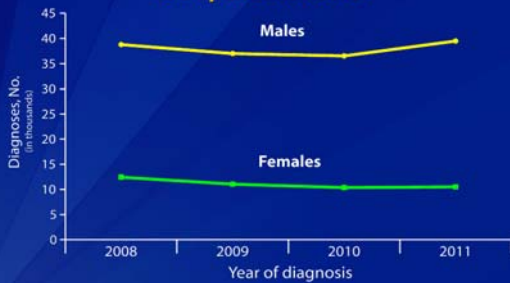
## Epidemiology of HIV Infection through 2011

National Center for HIV/AIDS, Viral Hepatitis, STD & TB Prevention

Division of HIV/AIDS Prevention



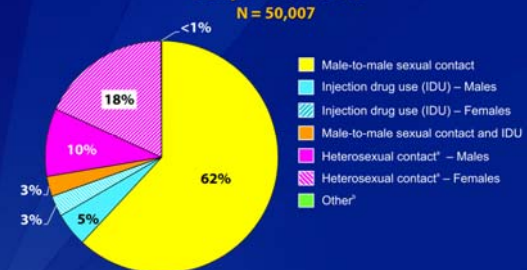
### Diagnoses of HIV Infection among Adults and Adolescents, by Sex, 2008–2011—United States and 6 Dependent Areas



Note: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. All displayed data have been statistically adjusted to account for reporting delays, but not for incomplete reporting.



### Diagnoses of HIV Infection among Adults and Adolescents, by Transmission Category, 2011—United States and 6 Dependent Areas

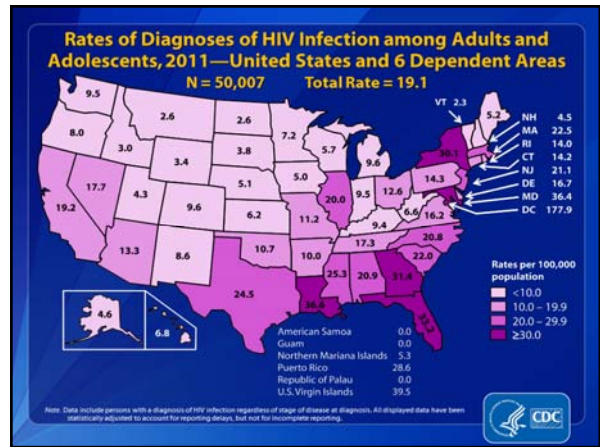
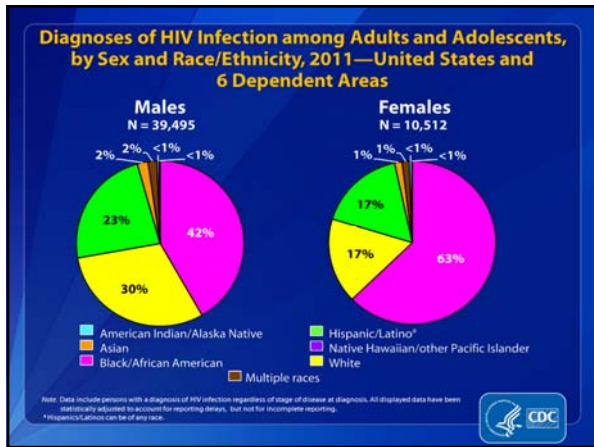
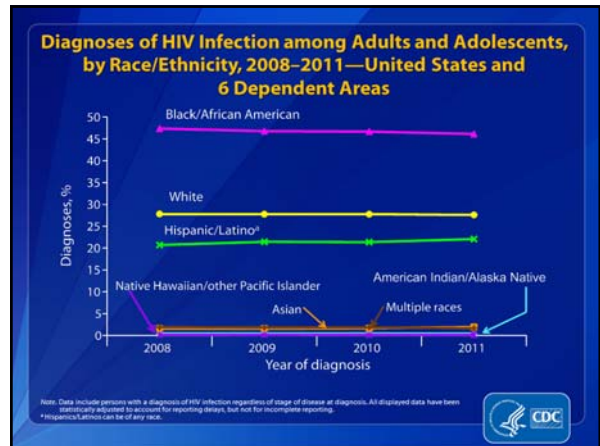
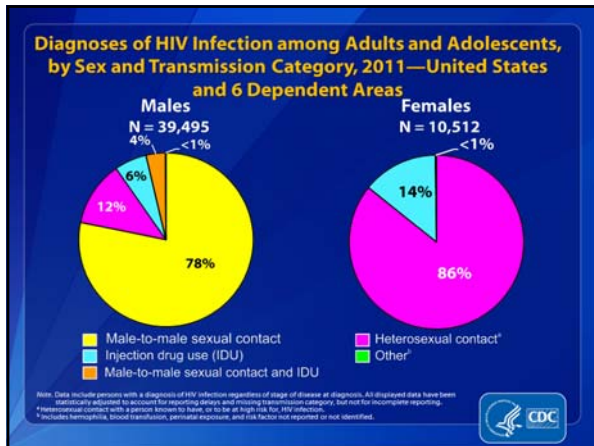


Note: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. All displayed data have been statistically adjusted to account for reporting delays and missing transmission category, but not for incomplete reporting.

\*Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

†Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.



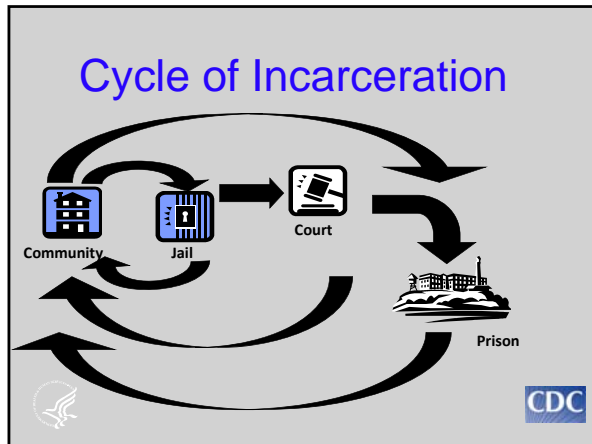


## Background

- Introduction to Corrections
- Introduction to the Problem of HIV in Corrections

## US CORRECTIONAL LANDSCAPE

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention  
Place Division name here



- ### Organization: Multiple, inter-related systems
- **Federal:** Jurisdiction over federal crimes
    - Prisons (primarily); some jail space, other space rented.
    - Probation
    - Post-prison supervision (term of supervised release)
  - **State:** Jurisdiction over state crimes
    - Prisons
    - Parole
    - Combined prison/jail
  - **Local:**
    - Jail
    - Probation/Parole
- CDC

- ## Total Correctional population
- The U.S. incarcerates about 1 out of every 100 adults (Pew, 2008), about 1 in every 47 adults are under community supervision (probation and parole) (Glaze, Bonczar, & Zhang, 2010), so in other words 1 out of 31 adults are under some form of correctional supervision (i.e., prison, jail, probation, and parole) (Pew, 2009)
  - Specifically, 7.3 million adults are under some form of correctional supervision (Glaze & Bonczar, 2009)
  - About 1.6 million of these individuals are incarcerated in state or federal prisons (West & Sabol, 2010).
  - About 750,000 individuals are incarcerated in local or county jails (Minton, 2011)
- CDC

- ## U.S. Correctional Landscape
- **Institutional corrections**
    - Jails: Multiple functions; hold defendants awaiting trial or sentencing; hold sentenced offenders; serving a sentence that is usually less than 1 year, or awaiting transfer to other facilities after conviction. Approx. 50% are out in 48hrs.
    - Prisons: Generally hold sentenced offenders; confinement in a state or federal correctional facility to serve a sentence of more than 1 year average sentence: 12 years; average length of stay: 25-30 months.
  - **Community corrections**
    - Probation: Type of sentence or sanction; supervision in the community, generally as an alternative to prison or jail.
    - Parole: Distinction between supervision (post-prison) and release decision.
- CDC  
Source: <http://hs.nip.usdoj.gov>

### What is the difference between a prison and a jail?

Place for those serving long sentences for felonies

**Prison**

For those awaiting trial or serving sentences less than 1-year.

**Jail**

CDC

### What is the difference between a jail and prison?

...at a Single Point in Time: June 2008

**Long sentences**

**Prison**  
N = 1.6 Million

**Short stay**

**Jail**  
N = 0.8 Million

On one day, prisons hold twice as many persons as jails

CDC  
Source: Bureau of Justice Statistics (2007-8 data)

## What's the difference between Probation and Parole?

- "Probation is a court-ordered period of correctional supervision in the community generally as an alternative to incarceration. In some cases probation can be a combined sentence of incarceration followed by a period of community supervision" (Glaze, Bonczar, & Zhang, 2010, p. 1).
- "Parole is a period of conditional supervised release in the community following a prison term" (Glaze, Bonczar, & Zhang, 2010, p. 1)



## Individuals under Community Supervision

- **5.0 million of these individuals are under community supervision (Glaze, Bonczar, & Zhang, 2010)**
  - About 4.2 million of these individuals are under probation supervision
  - About 800,000 of these individuals are under parole supervision



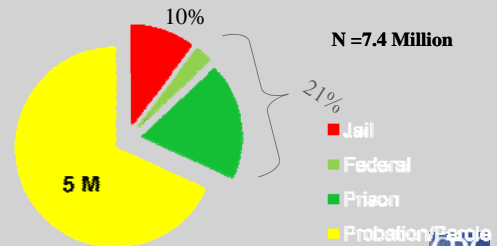
## Completion Rates

- 65% of probationers successfully completed or received early dismissal from probationary supervision (Glaze, Bonczar, & Zhang, 2010)
  - 16% of probationers were incarcerated for subsequent violations or new crimes
- 51% of parolees completed their supervision or received early dismissal
  - 14% of parolees were incarcerated for subsequent violations or new crimes
- Among about 300,000 prisoners released in 15 states in 1994, 68% were rearrested within 3 years, about 47% reconvicted, and 25% resented to a subsequent prison term (Langan & Levin, 2002)



## Where Are Offenders in the U.S. Criminal Justice System?

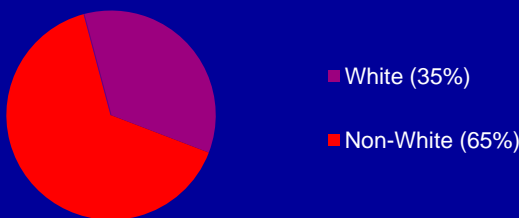
June 2008: 2.4 million persons behind walls



Source: Bureau of Justice Statistics (2007-8 data)

## Who Is Incarcerated in the US?

Out of 2.4M Inmates



Source: Bureau of Justice Statistics



## Health Care in Corrections

- In the US, the legal foundation for reasonable medical care behind bars is the case of *Estelle vs. Gamble in 1976*.
  - Prisoners entitled to : 1) access to care for diagnosis and treatment; 2) a professional medical judgment; 3) and administration of the treatment prescribed by the physician.
- Access to health care
- Health screening
- Health assessment
- Mental health screening & evaluation
- Sick call
- Chronic Care clinics/Infirmary Care/hospice service.



## Health Needs

- Substance Abuse
  - 85% of jail detainees are substance-involved (CASA, 2010)
  - 70% of jail detainees have symptoms of mental disorders, 16% considered serious mental illness (James & Glaze, 2006)
  - 65% of prisoners meet diagnostic criteria for abuse of alcohol or other drugs, seven times the rate of the general population (CASA, 2010)
  - Less than 20% of inmates with drug dependency receive formal treatment (TRI, 2011)
- Mental Health
  - Two-to-three times as many people with mental illness in the criminal justice system as in the general population (Hammett, Roberts, & Kennedy, 2002)
  - 16% of state prison and local jail inmates have a serious mental illness (Ditton, 1999)
  - Though we have talked mostly about adults, mental illness is particularly prevalent with juvenile offenders at 50 – 75% with 20% believed to suffer from serious mental illness (OJJDP, 2001)



## Drug-crime Nexus

- It is well known a relationship exist between substance abuse and criminal behavior, drug abusers are 3-4 times more likely to commit a crime than non-drug-abusers (Bennett, Holloway, & Farrington, 2008)
- Substance abuse involvement has been implicated in 78% of individuals serving time for violent crime and 83% of those incarcerated for property crimes (CASA, 2010)



## Co-occurring and Medical disorders

- Co-occurring disorders are prevalent with many substance abusers also suffering from mental health issues.
- Co-occurring disorders have been found to range from 13% to 74% of inmates (TRI, 2011)
- Other medical disorders also exist as many inmates lacked preventive health care prior to incarceration (TRI, 2011), with some estimates around 40% (Maruschak, 2008)



## Co-occurring and Medical disorders

- Inmates are more likely to suffer from hypertension, arthritis, cervical cancer, and hepatitis (Binswanger et al., 2009)
- AIDS cases of incarcerated individuals in state and federal prisons is twice the rate of the normal population (Maruschak & Beavers, 2009) with 15% being diagnosed with hepatitis and HIV/AIDS; 1.5% diagnosed with HIV/AIDS specifically
- Compared to the general population, inmates released to the community are twice as likely to die from cardiovascular disease and cancer (Binswanger et al., 2007).



## The Bottom-line

- Despite high incarceration rates, most people (over 90%) in prison will return to the community
- People in prison (as a population) are relatively unhealthy; many are stabilized while incarcerated
- People come into prisons with higher rates of infectious diseases (e.g. HIV, Hepatitis C, Tuberculosis)
- Prison medical care and health programs represent an opportunity to improve community health



## HIV and Correctional Settings

- The rate of HIV among prisoners is 3x's higher than in the general U.S. population
- Nationally, 1.5% of *prisoners* are known HIV positive.
- A blinded seroprevalence study in the NYC jail revealed that routine testing identified 11.5% of unknown positives.<sup>4</sup>

Sources:  
CDC- October 3, 2008 MMWR, HIV Prevalence Estimates  
BJS - HIV in Prisons, 2007-08  
Begier EM et al. JAIDS 2010;54:93-101



## Question of the Day?

*“As a rational society, what can we do for public benefit through attention to our captive population, a population that is disproportionately minority, under-educated, with a high burden of risk and illness.”*

Bob Greifinger –Excerpt from his book, “Public Health Behind Bars.”



## Vision, National HIV/AIDS Strategy

*“The United States will become a place where new HIV infections are rare and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.”*



## The National HIV/AIDS Strategy

- National HIV/AIDS Strategy - three primary goals:
  - Reducing the number of people who become infected with HIV
  - Increasing access to care and optimizing health outcomes for people living with HIV
  - Reducing HIV-related health disparities



## AAA Leadership Initiative (AAALI)

- A partnership between CDC and 19 leading national organization
- Represents populations hardest hit by HIV, including African Americans, Latinos, and Black gay, bisexual and other men who have sex with men
- 400 Chapters participating across the country



Learn more at [www.actagainstaids.org](http://www.actagainstaids.org).



## Return on Investment: Expanded Testing Initiative

- Over 3 years, \$102 million to 25 jurisdictions having more than 140 AIDS diagnoses among African Americans in 2005
- HIV testing and linkage to care in clinical and non-clinical settings:
  - 2.8 million persons tested for HIV
  - 18,432 persons newly diagnosed with HIV
    - 70% African American; 12% Latino
  - \$1.1 billion in direct medical costs were saved
  - For each dollar the health system<sup>1</sup> invested, \$1.97 in medical costs was saved



Huang et al. JAMA 2012; Mar 14;307(11):1214-1216. Return on public health investment: CDC's Expanded HIV Testing Initiative.



## HIV Testing Implementation Guidance for Correctional Settings, 1/2009

- Based on HIV testing recommendations for medical settings, 9/2006
- Developed by external consultants and CDC (Dept. of Corrections, HDs, Medical providers, researchers)
- Recommends routine opt-out screening during medical evaluation



## Seek ...and Test

- Identifying which demographic groups have highest incidence helps direct prevention efforts.
- Newly infected persons, who have not achieved viral set point, are more infectious.
- Awareness of diagnosis changes behavior.
- For the individual patient, entering care earlier results in better health outcomes.



## .....FOCUS ON JAILS



## CDC HIV Screening Recommendations

### •The CDC has published recommendations on HIV testing and prevention efforts:

- Opt-out screening for patients in all health care facilities
- Annual screening for high-risk persons
- Screening for all persons with TB and STIs

#### Implications for Correctional Settings

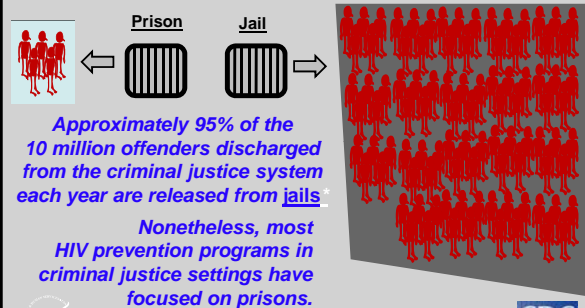
Inmates and prisoners may be more likely to be categorized as "at risk" for HIV and other STIs than the general population; however, correctional health care facilities rarely have sufficient resources to adopt the universal screening approach advocated by the CDC.



Source: Branson, BM et al. "Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings." *MMWR*. 55(RR14): 1-17. September 22, 2006.

## Rapid Turnover in Jails

Number of Individuals Discharged from Prisons and Jails Across One Year



Source: Spaulding, PLoS One 2009

## HIV in Jails

- Most of 14% of persons with HIV in the US that annually leave a correctional facility pass through just a jail.<sup>1</sup>
- High concentration of cases:
  - E.g., A third of all HIV+ tests in RI found in RI jail screening<sup>2</sup>
- Jails → High admissions, high turnover
  - Local jails had 13 million admissions in 2007.<sup>3</sup>
  - On average, half of all admissions leave within 48 hours.
  - If HIV screening among detainees, need to screen rapidly.



Source: 1. Spaulding PLoS 2009; 2. Desai 3. BJS.

## Importance of Jail-based HIV Testing

- Jail screening finds HIV earlier in the disease course than screening at other sites
- Risk behaviors decline post-diagnosis.
- Linking persons to care and starting medication earlier improves HIV management and lessens transmission.



Source: 1. Salo et al. CROI 2011. 2. CDC HIV Surveillance Supplement, April 2011.



### Why Use Rapid Testing?

- Rapid testing in jails is a "match made in heaven"\*
  - On-site, no need for licensing training
  - Orasure: \$12.50 per test kit
    - 20 minutes
  - Unigold: \$8.50
    - 20 minutes
  - INSTI: \$6.49/kit

\* Source: Spaulding, Sexually Transmitted Diseases 2009

### ORIENTATION TO FULTON COUNTY JAIL:

- Upstairs (Floors 4-7)**  
Length of Stay: After 3 days until stay completed
- 2nd Floor**  
Length of Stay: 2-3 days
- Right off the street into INTAKE (1st floor)**  
Length of Stay: 4-24 hours

### ORIENTATION TO FULTON COUNTY JAIL: % ENTRANTS STILL AROUND?

- Upstairs (Floors 4-7)**  
50%
- 2nd Floor**  
75%
- Right off the street into INTAKE (1st floor)**  
100%

### ORIENTATION TO FULTON COUNTY JAIL: % ENTRANTS STILL AROUND?

- Upstairs (Floors 4-7)**  
50%
- Test at 2nd Floor**  
75%
- Test at Intake**  
100%

### ORIENTATION TO FULTON COUNTY JAIL: % ENTRANTS STILL AROUND?

- Upstairs (Floors 4-7)**  
50%

### RESULTS: HIV Rapid Testing:

14 month

The IIDDEAL Project: Funded by CDC- January 01, 2011-June 30, 2011 and August 15, 2011-March 15, 2012

```

    graph TD
      A[18,869 HIV Tests Offered] --> B[12,141 HIV Tests Performed]
      A --> C[6,728 Declined Testing Unable to consent or Unknown Positive Not Tested]
      B --> D[91 Rapid Tests Previous dx]
      B --> E[52 New Preliminary +]
      B --> F[12,089 Negative]
      D --> G[554 Known Positives]
      E --> H[617 Positive Identified Total, by testing or Self-Report]
      F --> H
      G --> H
      H --> I[Prevalence HIV: 617/18,869= 3.27%]
  
```

## Developing an Effective Program

- Offer HIV testing
  - Must be sensitive to environmental constraints
  - **Staff nurse-led rather than have outside team helicoptering in**
- Offer HIV medical care inside the jail
- Establish linkages with community medical providers
- Plan for post-release care
- Follow up clients post-release to determine whether linkages were made and maintain and to make further linkages



## NURSE IMPLEMENTED PROGRAM



### 1. What were the nurses most concerned about regarding implementing HIV testing at intake?

- Time that this procedure takes for intake nurses.
- Giving bad news if a positive result from the test.
  - *to deal with this issue: refer to mental health for assistance with how to take the bad news.*



### 2. What were the challenges associated with implementing the testing program?

- Client related: If afraid of taking the test for fear HIV+, then you have problems even gathering data.
- Actual testing procedures: proper work flow, conducting mouth swabs, and explaining the testing procedures and results.
- When we moved to finger stick: length of time to collect blood.
  - Solution: larger blade lancets
  - 1.5 mm gauge and 2.0 mm depth



### 3. Now that testing has been implemented, what do you think should be kept in mind before implementing.

- Testing at intake is the best place to catch people, waiting until the floor is too late.
- Training nurses: to be both comfortable and non-judgmental.
- Nurses should "stick with it and talk to vet nurses".
- Shorten testing time:
  - 20 minute Orasure and Uni-gold worked, but anticipation caused anxiety for the patient.
  - 60 second test: more customer satisfaction more inclined to take the test.



### 4. What impact do you feel testing has on the inmates? Medical staff?

- On inmates:
  - If in a good mood then they really appreciate and want their test results.
  - Not offered: when client is hostile, combative, or incompetent.
- On nurses:
  - helps us be better nurses--this is a teaching opportunity for the medical staff.
  - Offering testing eliminates the "in and out, who cares" attitude clients may develop.
  - Can convey: "HIV is real and affects our lives".



### 5. Were there enough resources provided for the jail inmates? Healthcare and staff? Custody Staff?

- Inmates: Don't give paper handout to everyone—just gets thrown away. Occasional need a list/print out of services in the community for both follow-up and future testing purposes.
- Nurses: Having peer navigator, program manager, and the infection control nurse serve as back ups have been helpful.
- Custody: Have enough resources. If an inmate is taking the test badly, it is treated as a "mental health issue" and officers have protocol for dealing this—healthcare staff does not need to disclose test result.



### 6. In the ongoing program, what mistakes have been made? How can other jails avoid them?

- Properly document everything (this includes the education information, as well as, the details for the client).
- Use the most sensitive, faster test.
- Implementing computers should help eliminate some of the documentation mistakes.
- Use preprinted stickers—if available.



### 7. Are there any significant differences between testing male/female inmates?

- Females take the testing procedures much more seriously by asking more questions during the process, being more educated for their monogamous relationship, or for their clientele in prostitution cases.



- Males on the other-hand take the test in a more casual manner and use jokes to downplay the seriousness of the test.



### 8. Did the staff find it surprising that inmates eventually began to request HIV testing?

- Yes the staff found this exciting and surprising! Especially if this was the only free testing the clients had access to.



## Goals of Treatment

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



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## Tools to Achieve Treatment Goals

- Selection of Antiretroviral Treatment (ART) regimen
- Pretreatment resistance testing
- Maximizing adherence

\*courtesy of SEATEC



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## Improving Adherence

- Support and reinforcement
- Simplified dosing strategies
- Ongoing patient education
- Trust in primary care provider
- Once released:
  - Reminders, alarms, timers, and pillboxes

 courtesy of SEATEC  
February 2013

[www.aidsctc.org](http://www.aidsctc.org)



## Issues to Consider

- Impact of public health policy on incarceration
- Public health opportunities- to enhance the safety and health of the community
- Collaboration essential for Corrections, Public Health and Community Health
- Missions of public health and corrections agencies are complementary
- Ethical and legal obligations
- Role of liaisons



## Questions and Answers

