Government of the District of Columbia
Department of Health
HIV/AIDS, Hepatitis, STD, and TB Administration

2015 Grantee Forum

Disease Reporting & Public Health Information System

Garret R. Lum, Deputy Chief

June 26, 2015

WE ARE WASHINGTON DC

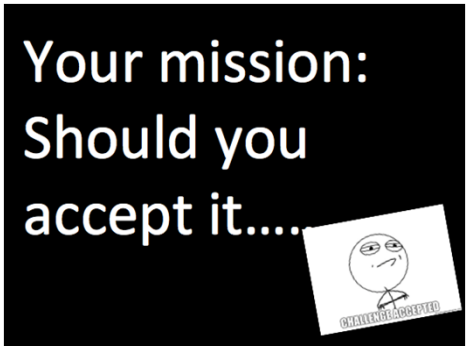
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DOH
DEPARTMENT OF HEALTH
PROMOTE. PREVENT. PROTECT.

HAHSTA

- Senior Deputy Director's Office (SDD)
  - Grants Management and Administrative Services Division (GMASD)
  - Care, Housing and Support Services Division (CHSSD)
  - Prevention and Intervention Services Division (PISD)
  - Capacity Building, Partnership and Community Outreach Division (CBPCOD)
  - Strategic Information Division (SID)
    - Disease Surveillance and Investigation – Data Collection
    - Epidemiology – Data Management and Analysis

SID Mission and Goals

- National HIV/AIDS Strategy
  - Reduce the number of new infections
  - Increase access to care and improving health outcomes
  - Reduce disparities and health inequities
  - Achieve a more coordinated response
- DC Plan
- Surveillance and Epidemiology
  - Collect demographic, clinical and epidemiological information of infected individuals for population trends
  - Epidemiologic analysis and information dissemination



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 socioeconomic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.

Reducing new infections

- Intensify HIV prevention efforts in communities where HIV is most heavily concentrated
- Expand targeted efforts to prevent HIV infection using a combination of effective, evidence-based approaches
- Educate all Americans about the threat of HIV and how to prevent it

Increasing Access to Care and Treatment

- Establish a seamless system to immediately link people to continuous and coordinated quality care when they learn they are infected with HIV
- Take deliberate steps to increase the number and diversity of available providers of clinical care and related services for people living with HIV
- Support people living with HIV with co-occurring health conditions and those who have challenges meeting their basic needs, such as housing

Reducing Health Disparities and Health Inequalities

- Reduce HIV-related mortality in communities at high risk for HIV infection
- Adopt community-level approaches to reduce HIV infection in high risk communities
- Reduce stigma and discrimination against people living with HIV

Achieving a More Coordinated Response

- Increase the coordination of HIV programs across the Federal Government and between Federal agencies and State, territorial, local, and tribal government
- Develop improved mechanisms to monitor and report on progress toward achieving national goals

Transmission Cascade

General Population

GOAL
Increase access to testing and condoms, promote routine testing and prevention among all District residents.

GRANTS PER FEDERAL PARTNER
CDC: 3

High Risk Populations

GOAL
Reduce incidence of disease by decreasing the risk behaviors of those most vulnerable to infection, and increasing their knowledge base, healthy habits and utilization of risk mitigation resources.

GRANTS PER FEDERAL PARTNER
CDC: 7
HRSA: 1
SAMHSA: 1
NIH: 1 - contract

Diagnosed Positives

GOAL
Increase disease interruption efforts via targeted programs and services for newly diagnosed individuals testing positive for HIV, TB, STD, and/or Hepatitis in the District.

GRANTS PER FEDERAL PARTNER
CDC: 5
HRSA: 1
SAMHSA: 1

Linkage to Care

GOAL
Promote early entry into and continuity of care.

GRANTS PER FEDERAL PARTNER
CDC: 3
HRSA: 1
SAMHSA: 1
NIH: 1

Engaged in Care

GOAL
Increase the percentage of positive individuals living in the District receiving routine, continuous primary care and support services.

GRANTS PER FEDERAL PARTNER
CDC: 2
HRSA: 2
SAMHSA:1

Treatment

GOAL
Provide appropriate and effective treatment to those infected with HIV, TB, STD, and Hepatitis.

GRANTS PER FEDERAL PARTNER
CDC: 4
HRSA: 1

Reduced Transmission

GOAL
Reduce transmission of communicable disease from diagnosed individuals.

GRANTS PER FEDERAL PARTNER
CDC: 4
HRSA: 1

Monitoring and Evaluation

National Strategy

Reducing New Infections

Reducing New Infections

Increasing Access to Care and Improving Health Outcomes

Reducing Disparities and Health Inequalities

Achieving a More Coordinated Response

WE ARE DC

HIPAA

- Section 164.512 Uses and Disclosures for Which Consent, and Authorization or Opportunity to Agree or Object Is Not Required
  - A public health authority authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including but limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of **public health surveillance**, **public health investigations**, and **public health interventions**

HIPAA

Federal Register

Thursday,
December 28, 2000

Part II

Department o
Health and H
Services

Office of the Secretary

45 CFR Parts 160 and 164
Standards for Privacy of Ir
Identifiable Health Informa
Rule

Section 164.512(b)—Uses and Disclosures for Public Health Activities

The NPRM would have allowed covered entities to disclose protected health information without individual authorization to: (1) A public health authority authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions; (2) a public health authority or other appropriate authority authorized by law to receive reports of child abuse or neglect; (3) a person or entity other than a governmental authority that could demonstrate or demonstrated that it was acting to comply with requirements or direction of a public health authority; or (4) a person who may have been exposed to a communicable disease or may otherwise be at risk of contracting or spreading a disease or condition and was authorized by law to be notified as necessary in the conduct of a public health intervention or investigation.

information required by the legal demands or reporting requirements listed in the definition of "required by law." Covered entities will not be sanctioned under this rule for responding in good faith to such legal process and reporting requirements. However, nothing in this rule affects, either by expanding or contracting, a covered entity's right to challenge such process or reporting requirements under other laws. The only disclosures of protected health information compelled by this rule are disclosures to an individual (or the personal representative of an individual) or to the Secretary for the purposes of enforcing this rule.

Uses and disclosures permitted under this paragraph must be limited to the protected health information necessary to meet the requirements of the law that compels the use or disclosure. For example, disclosures pursuant to an administrative subpoena are limited to the protected health information authorized to be disclosed on the face of the subpoena.

Section 164.512(b)—Uses and Disclosures for Public Health Activities

The NPRM would have allowed covered entities to disclose protected health information without individual authorization to: (1) A public health authority authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions; (2) a public health authority or other appropriate authority authorized by law to receive reports of child abuse or neglect; (3) a person or entity other than a governmental authority that could demonstrate or demonstrated that it was acting to comply with requirements or direction of a public health authority; or (4) a person who may have been exposed to a communicable disease or may otherwise be at risk of contracting or spreading a disease or condition and was authorized by law to be notified as necessary in the conduct of a public health intervention or investigation.

In the final rule, we broaden the scope of permissible disclosures pursuant to item (1) listed above. We narrow the scope of disclosures permissible under item (3) of this list, and we add language to clarify the scope of permissible disclosures with respect to item (4) on the list. We broaden the scope of allowable disclosures regarding item (1) by allowing covered entities to disclose protected health information not only to U.S. public health authorities but also, at the direction of a public health authority, to an official of a foreign government agency that is acting in collaboration with a public health authority. For example, we allow covered entities to disclose protected health information to a foreign government agency that is collaborating with the Centers for Disease Control and Prevention to limit the spread of infectious disease.

We narrow the conditions under which covered entities may disclose protected health information to non-government entities. We allow covered entities to disclose protected health information to a person subject to the FDA's jurisdiction, for the following activities: to report adverse events (or similar reports with respect to food or dietary supplements), product defects or problems, or biological product deviations, if the disclosure is made to the person required or directed to report such information to the FDA; to track products if the disclosure is made to a person required or directed by the FDA to track the product; to enable product recalls, repairs, or replacement, including locating and notifying individuals who have received products regarding product recalls, withdrawals, or other problems; or to conduct post-marketing surveillance to comply with requirements or at the direction of the FDA.

The terms included in § 164.512(b)(iii) are intended to have both their commonly understood meanings, as well as any specialized meanings, pursuant to the Food, Drug, and Cosmetic Act (21 U.S.C. 321 *et seq.*) or the Public Health Service Act (42 U.S.C. 201 *et seq.*). For example, "post-marketing surveillance" is intended to mean activities related to determining the safety or effectiveness of a product after it has been approved and is in commercial distribution, as well as certain Phase IV (post-approval) commitments by pharmaceutical companies. With respect to devices, "post-marketing surveillance" can be construed to refer to requirements of section 522 of the Food, Drug, and Cosmetic Act regarding certain implanted, life-sustaining, or life-supporting devices. The term "track" includes, for example, tracking devices under section 519(e) of the Food, Drug, and Cosmetic Act, units of blood or other blood products, as well as trace-backs of contaminated food.

In § 164.512(b)(iii), the term "required" refers to requirements in statute, regulation, order, or other

DCMR Chapter 22-B
Public Health and Medicine
Communicable and Reportable Diseases

- Section 200: General Provisions
- Section 201: Communicable Diseases
- Section 202: Reporting Occurrences
- Section 205: Test for Syphilis and Gonorrhea Required During Pregnancy
- Section 206: Human Immunodeficiency Virus (HIV) Infection
- Section 210: Investigations and Enforcement

SID Obligations to the Feds

- National HIV Infection Surveillance System
  - eHARS maintenance
  - Reporting of deidentified surveillance data
  - Completeness and timeliness of data
- National HIV Behavioral Surveillance
  - Survey rotations of 3 cycles: MSM, IDU, high risk heterosexual
  - http://www.cdc.gov/hiv/statistics/systems/nhbs/

Disease Surveillance

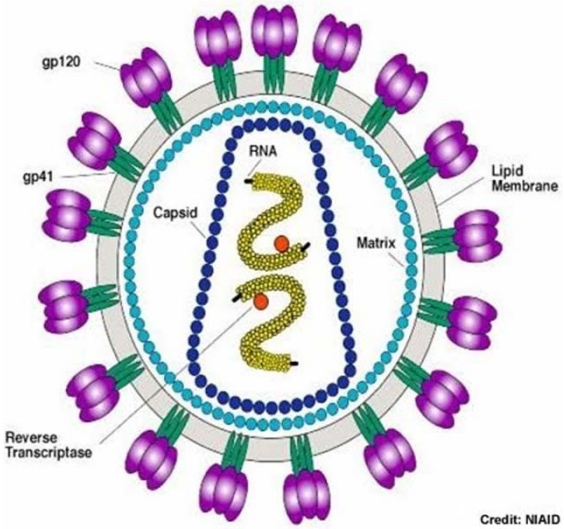
- Providers and/or persons in charge of a case are obligated to provide notification of a suspected or confirmed infection to the health department within 48 hours
- Laboratory reports (from labs) are secondary to provider reports for disease notification
- Disease investigators have 7 days from notification to gather and forward specific information for preventive actions
- Prevention personnel have 30 days to complete their actions: partner services, linkage to care

Regulatory Enforcement (under review)

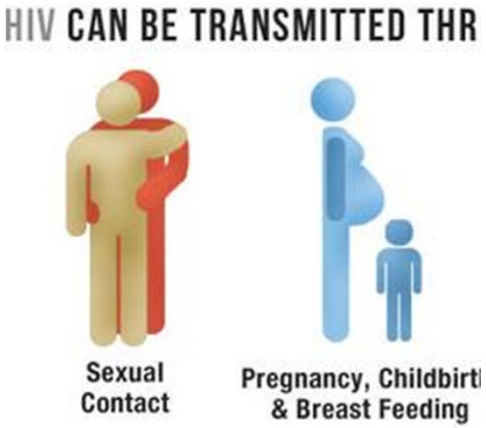
- Cooperation with surveillance investigators is expected within 7 days after receipt of a notification – if not, then exercise authority to assess penalties
- If non-compliance is greater than 14 days, exercise authority to assess additional penalties
- If non-compliance is greater than 21 days, exercise authority to assess additional penalties
- If non-compliance is great than 30 days, exercise authority to take legal actions

Disease Surveillance Request

- Please notify your Investigator liaison of an infection that is "new" to you



Credit: NIAID



Minimum Information for a Notification

- Patient's first and last name
- Sex
- Race
- Home address
- Telephone
- Name of communicable disease
- Identity of person making the report
- Name of physician or other person in charge

Investigation after Notification

- The investigator liaison assigned to your location will make contact to attempt to collect the remaining demographic and epidemiologic information needed to complete a surveillance record
- Prefer to review medical records to glean the needed information – average of 15 minutes per record
- Newly identified infections will be forwarded for prevention and intervention services

Investigator Liaisons

- Volta Asbury – (202) 671-4943
- Deontrinese Henderson – (202) 671-4905
- Sabaina Lofinmakin – (202) 671-4914
- Luckeya McCarroll – (202) 671-4907
- Sabrina Nettles – (202) 671-4959

- Supervisor, Garret Lum – (202) 671-4916

Data Systems

- District of Columbia Public Health Information System (DC-PHIS) AKA Maven (SID)
- Enhanced HIV/AIDS Reporting System (eHARS) – CDC (SID)
- CareWare – HRSA (CHSSD)
- Evaluation Web – CDC (PISD)

Maven Update

- Single data system
- Challenges
- Current direction

DC-PHIS (AKA Maven) Overview

- Integrated Surveillance, Monitoring and Evaluation Tool
- To bring together individualized data from disparate systems
- To provide more robust data for public health actions towards disease interruption and improved health outcomes

MAVEN Architecture

MAVEN Production Cluster

https://10.201.7.10/maven [URL: https://dcphis.dc.gov/maven]
W2K8 – 64bit 2vCPU 6vGB
[Cookie based Cluster Load Balance via ISA server IP: 10.198.2.77 maintained by OCTO]
https://10.201.7.11/maven [URL: https://dcphis.dc.gov/maven]
W2K8 – 64bit 2vCPU 6vGB

MAVEN UAT Environment

http://10.201.7.12/
W2K8 – 64bit 2vCPU 6vGB

http://10.201.7.13/DC-HIV
W2K8 – 64bit 2vCPU 6vGB

http://10.201.7.13: 81/DC-TB4.1.7
W2K8 – 64bit 2vCPU 6vGB

http://10.201.7.13 : 82/DC-PHIS
W2K8 – 64bit 2vCPU 6vGB

MAVEN Development Environment

http://10.201.7.14/
W2K8 – 64bit 2vCPU 6vGB

http://10.201.7.15
W2K8 – 64bit 2vCPU 6vGB

Virtual Machine

PROD

MS SQL Server 2008 10.1.145.56/ MvnDCPHIS2

UAT

MS SQL Server 2008 Requested Database

10.1.145.53/hivdev HIV4.1

10.1.145.53/hepatitisdev TB4.1.7

10.1.145.53/dcphisdev DCPHIS

DEV

MS SQL Server 2008 Requested Database

SQL Server Farm(Octo)

Environment

Maven TB 4.1.7 Running Production MvnDCPHIS2

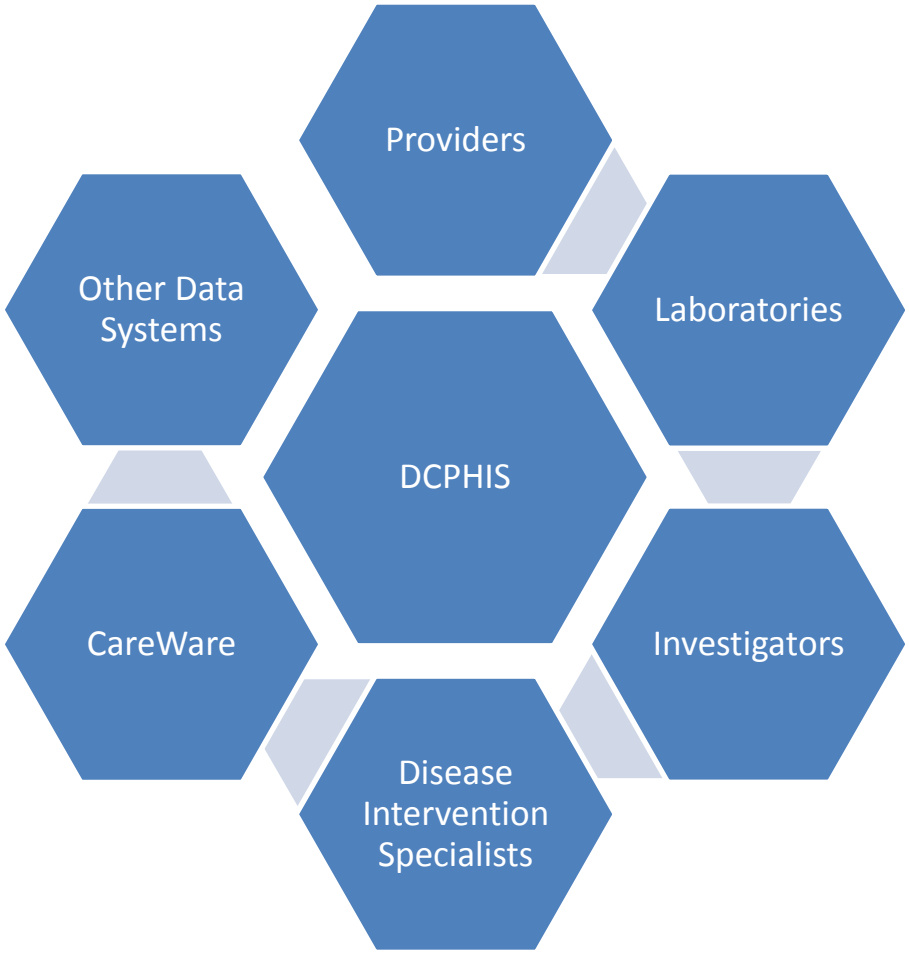
STDMIS Data Conversion

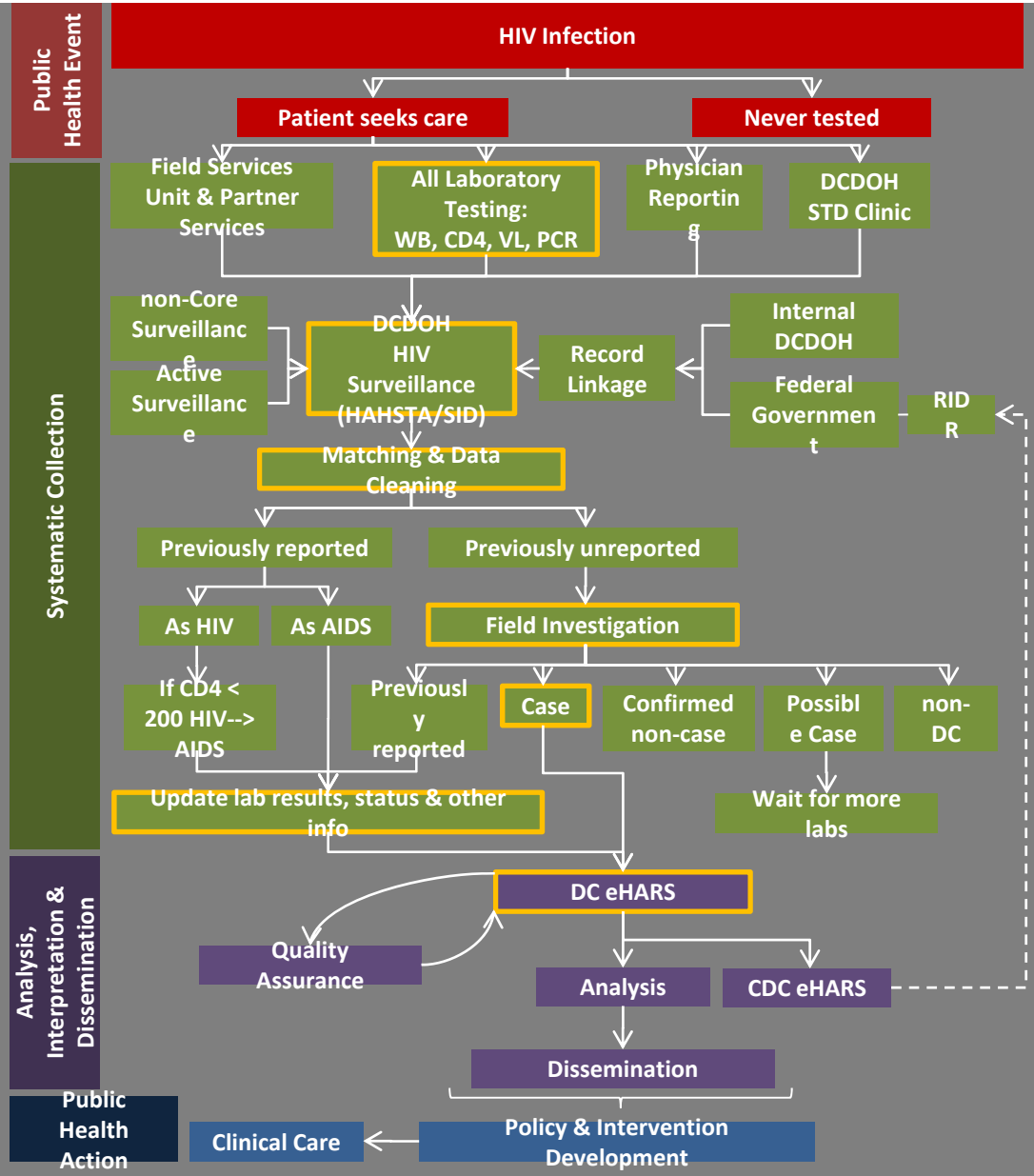
HIV UAT Testing

TB UAT Testing

STDMIS, Model Manager & ELR Testing

Information System Inputs





WB = Western blot test; VL = Viral load test; PCR = polymerase chain reaction; RIDR = Routine Interstate Deduplication Review; eHARS = Enhanced HIV/AIDS Reporting System; DCDOH = District of Columbia Department of Health; HAHSTA = HIV/AIDS, Hepatitis, STD and TB Administration; SID = Strategic Information Division.

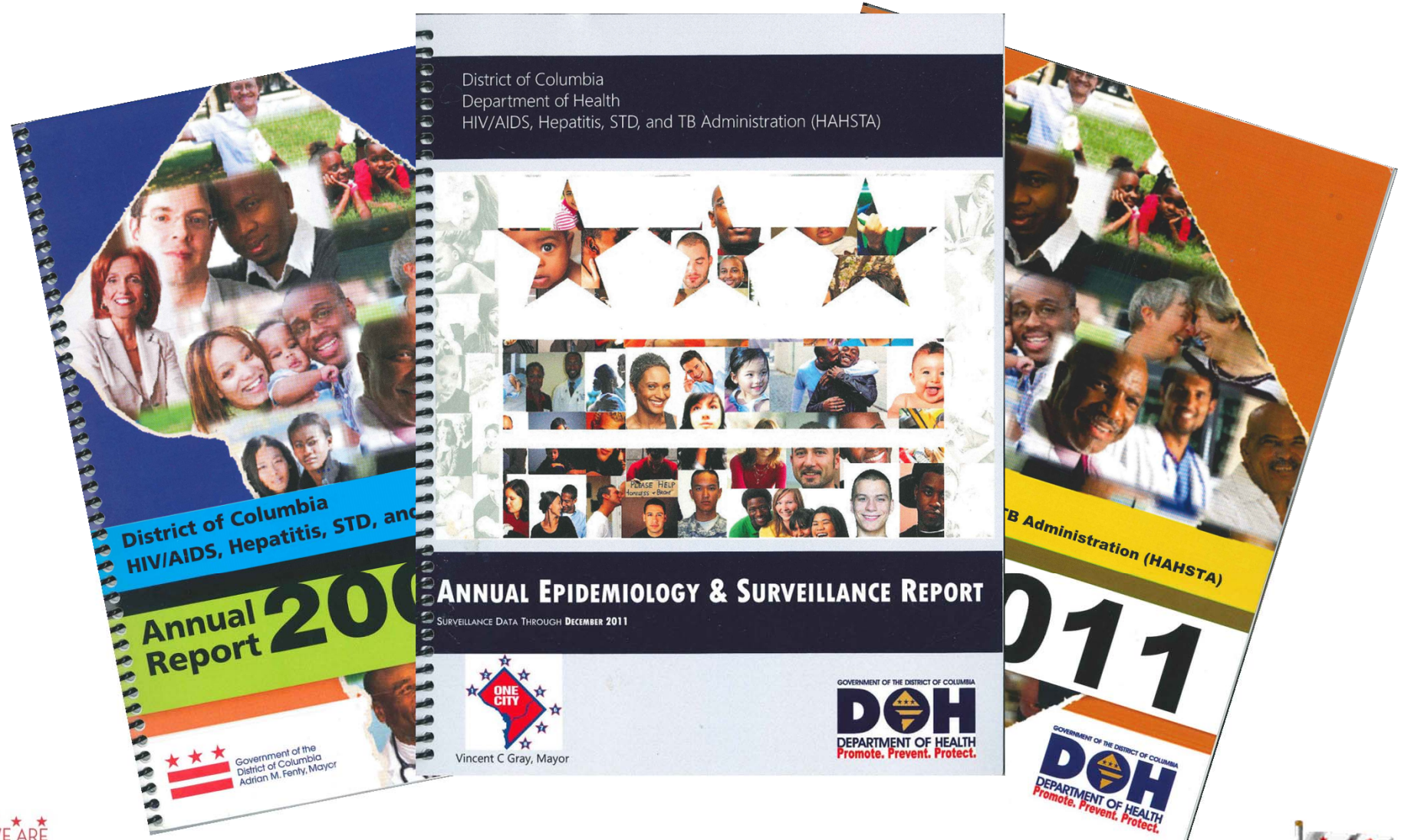
Current Status

- TB Surveillance and prevention
- STD Surveillance and prevention
- HIV surveillance
- Hepatitis surveillance
- Planned Interfaces with CareWare and Evaluation Web
- Planned data exchanges with Medicaid, Behavioral Health

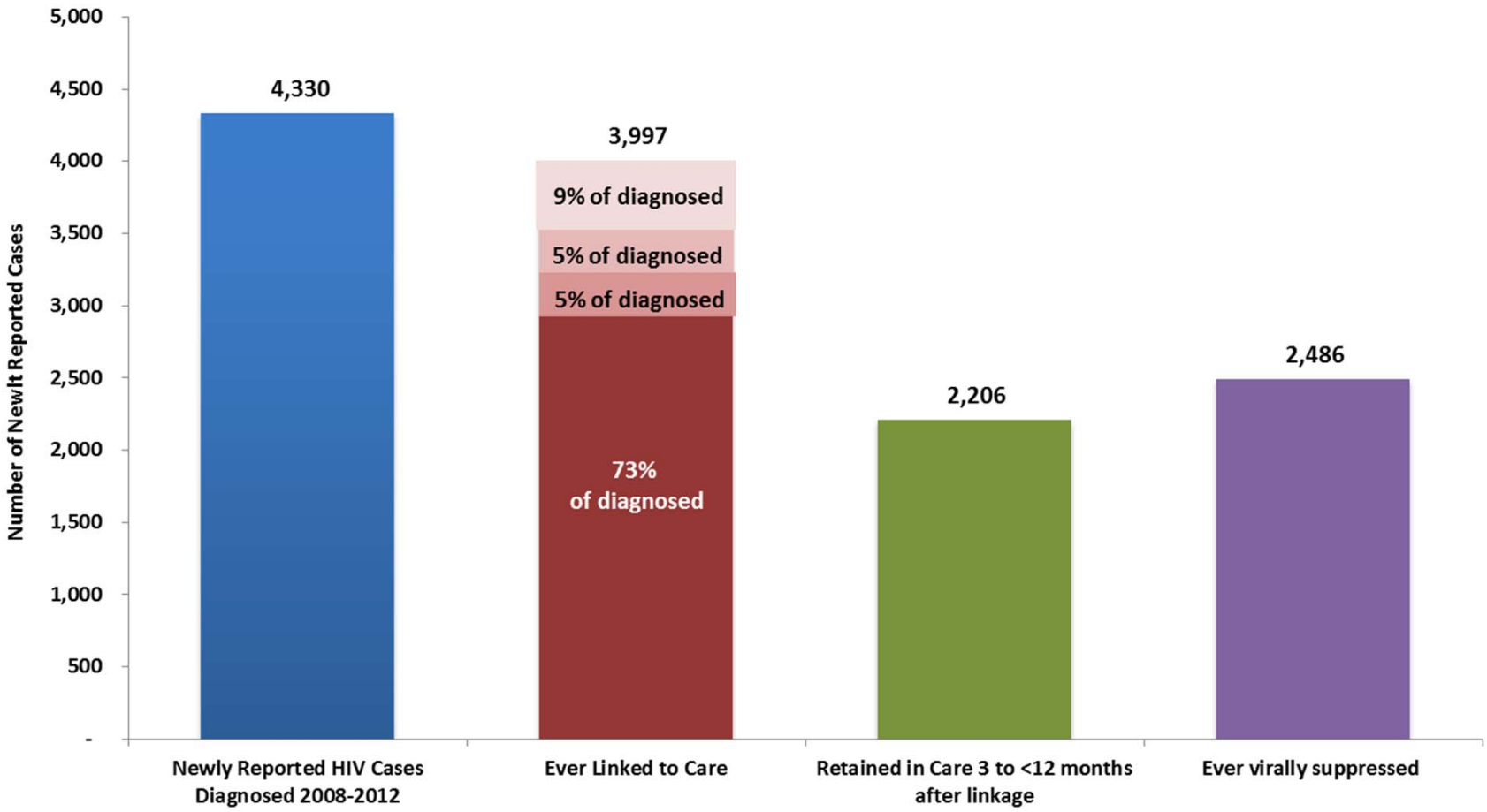
Products

- Annual Epidemiology Report
- Care Continuum
- Out of care/re-engagement in care
- Outcomes monitoring
- PrEP monitoring

Annual Epidemiology Report



Care Continuum



Data to Care

- Using data to alert us of persons who may be out of care
- Re-engagement in care efforts
- Multiple and/or repeated STIs for intervention/prevention

Outcomes

- HIV Disease staging (≥6 year of age)
  - Stage 0: negative within 180 days before 1st positive
  - Stage 1: CD4 count ≥500 cells/µL
  - Stage 2: CD4 count 200-499 cells/ µL
  - Stage 3: CD4 count <200 cells/ µL
- Viral suppression
  - Undetectable or <200 copies/mL

HIV Infection Stage based on age

Age on date of CD4+ T-lymphocyte test						
	<1 yr		1-5 yrs		≥6 yrs	
Stage	Cell/µL	%	Cell/µL	%	Cell/µL	%
1	≥1,500	≥34	≥1,000	≥30	≥500	≥26
2	750-1,499	26-33	500-999	22-29	200-499	14-25
3	<750	<26	<500	<22	<200	<14

Revised Surveillance Case Definition for HIV Infection – United States, 2014

Challenges

- Data Lag
- Reporting Compliance
- Data Compatibility

Looking Ahead

- Integrated Surveillance System
- Interfacing with other data systems
- Improve the completeness and timeliness of surveillance data
- More robust care continuum analysis
- Data to Care efforts
- Fewer new infections
- Increase viral suppression