

### Progress Review Webinar: Sexually Transmitted Diseases and HIV

August 1, 2017













# Healthy People 2020 Progress Review: Diagnosis, Prevention, and Treatment of Syphilis and HIV

Don Wright, MD, MPH
Acting Assistant Secretary for Health
U.S. Department of Health and Human Services









#### **Agenda and Presenters**



#### Chair

 Don Wright, MD, MPH, Acting Assistant Secretary for Health, U.S. Department of Health and Human Services

#### **Presentations**

- Charles Rothwell, MBA, MS, Director, National Center for Health Statistics
- Gail Bolan, MD, Director, Division of STD Prevention, CDC
- Eugene McCray, MD, Director, Division of HIV/AIDS Prevention, CDC
- Heather Hauck, MSW, LICSW, Deputy Associate Administrator, HRSA

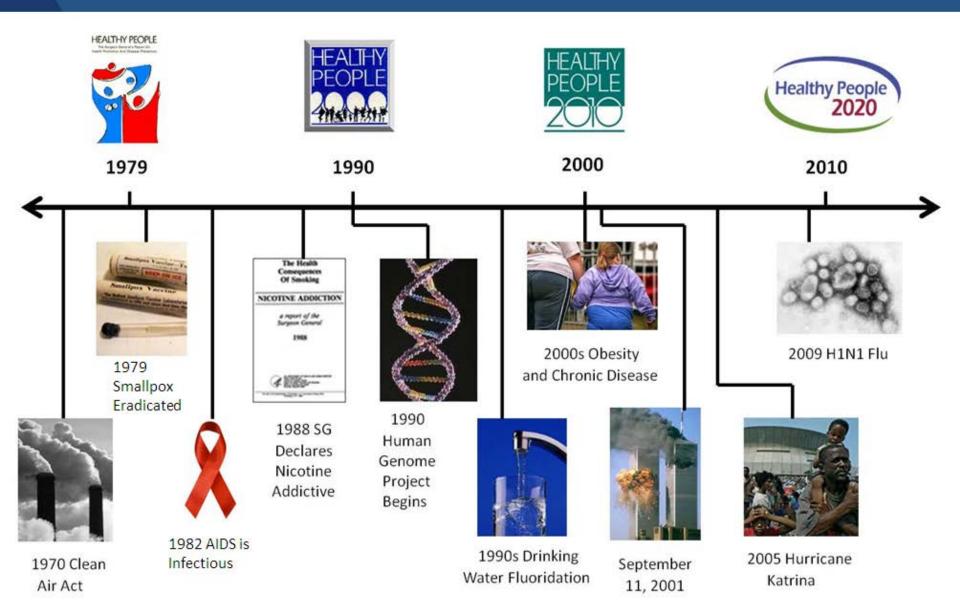
#### **Community Highlight**

 DeAnn Gruber, PhD, Director, Bureau of Infectious Diseases, Louisiana Department of Health, Office of Public Health, New Orleans, Louisiana



### Healthy People at the Forefront of Public Health





### **Evolution of Healthy People**



	Target Year	1990  HEATHY PEOPLE Transmission and the second and	2000  HEALTHY PEOPLE	2010 HEALTHY PEOPLE 2010	2020 Healthy People 2020
	Overarching Goals	Decrease mortality: infants—adults     Increase independence among older adults	Increase span of healthy life     Reduce health disparities     Achieve access to preventive services for all	Increase quality and years of healthy life     Eliminate health disparities	<ul> <li>Attain high-quality, longer lives free of preventable disease</li> <li>Achieve health equity; eliminate disparities</li> <li>Create social and physical environments that promote good health</li> <li>Promote quality of life, healthy development, healthy behaviors across life stages</li> </ul>
•	#Topic Areas	15	22	28	42
	# Objectives/ Measures	226	312	1,000	~1,200

### **Understanding Sexually Transmitted Diseases**



- STDs refer to more than 35 infectious organisms that are transmitted primarily through sexual activity.
- Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States.
- There are approximately 20 million new STD infections each year. Almost half of them among young people ages 15 to 24.



### The Burden of Sexually Transmitted Diseases in the United States



- The cost of STDs to the U.S. health care system is estimated to be as much as \$16 billion annually.
- Undiagnosed and untreated STDs are estimated to cause at least 20,000 women in the United States each year to become infertile.



#### **Understanding HIV**

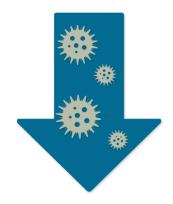


- Human Immunodeficiency Virus (HIV) if untreated can lead to acquired immunodeficiency syndrome (AIDS)
- HIV can be spread:
  - Through body fluids from sexual contact
  - By sharing needles to inject drugs
  - From mother to baby during pregnancy or birth
- There is effective no cure for HIV
- HIV can be controlled with proper medical care which includes treatment

#### **Achieving Viral Suppression**



- The ultimate goal of HIV treatment is to achieve viral suppression.
- Viral suppression means decreasing the amount of virus in the body to an undetectable level.
- Sustained viral suppression:
  - Improves immune function
  - Prolongs life
  - Reduces illness
  - Prevents HIV transmission to others



A goal of HIV treatment is to **decrease** your viral load, ideally to an undetectable level.

### The NEW ENGLAND JOURNAL of MEDICINE

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#### Prevention of HIV-1 Infection with Early Antiretroviral Therapy

Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H., Theresa Gamble, Ph.D., Mina C. Hosseinipour, M.D., Nagalingeswaran Kumarasamy, M.B., B.S., James G. Hakim, M.D., Johnstone Kumwenda, F.R.C.P., Beatriz Grinsztejn, M.D., Jose H.S. Pilotto, M.D., Sheela V. Godbole, M.D., Sanjay Mehendale, M.D., Suwat Chariyalertsak, M.D., Breno R. Santos, M.D., Kenneth H. Mayer, M.D., Irving F. Hoffman, P.A., Susan H. Eshleman, M.D., Estelle Piwowar-Manning, M.T., Lei Wang, Ph.D., Joseph Makherna, F.R.C.P., Lisa A. Mills, M.D., Guy de Bruyn, M.B., B.Ch., Ian Sanne, M.B., B.Ch., Joseph Eron, M.D., David Burns, M.D., Taha E. Taha, M.B., B.S., Karin Nielsen-Saines, M.D., Vanessa Elharrar, M.D., David Burns, M.D., Taha E. Taha, M.B., B.S., Karin Nielsen-Saines, M.D., David Gelentano, S.C.D., Max Essex, D.V.M., and Thomas R. Fleming, Ph.D., for the HPTN 052 Study Team\*

### The Burden of HIV in the United States



- In 2014, 37,600 new HIV infections occurred.
- Gay, bisexual, and other men who have sexual contact with men represented 70% of new HIV infections in 2014.
- About 15% of the estimated 1.1 million persons living with HIV at the end of 2014 were unaware of their infection.
- In 2014, HIV infection was the 8<sup>th</sup> and 9<sup>th</sup> leading cause of death among persons aged 25-34 and 35-44, respectively.
- Lifetime HIV treatment costs \$449,000 (in 2015 dollars).

SOURCES: HIV/AIDS Basic Statistics, CDC/NCHHSTP available at: <a href="https://www.cdc.gov/hiv/basics/statistics.html">https://www.cdc.gov/hiv/basics/statistics.html</a>; Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data-United States and 6 dependent areas, 2015; HIV/AIDS HIV Cost-effectiveness, CDC/NCHHSTP available at: Farnham PG, Gopalappa C, Sansom SL, Hutchinson AB, Brooks JT, Weidle PJ, Marconi VC, Rimland D. Updates of lifetime costs of care and quality-of-life estimates for HIV-infected persons in the United States: late versus early diagnosis and entry into care. J Acquir Immune Defic Syndr 2013; 64: 183-189.



# Charles Rothwell, MBA, MS Director, National Center for Health Statistics Centers for Disease Control and Prevention













#### **Presentation Overview**



Tracking the Nation's Progress

Sexually Transmitted Diseases (STD)

HIV

### Tracking the Nation's Progress



- 14 Measurable HP2020 Sexually Transmitted Diseases Objectives:
  - 2 Target met
  - 4 Improving
  - 4 Little or no detectable change
  - 4 Getting worse
- 17 Measurable HP2020 HIV Objectives:
  - 3 Target met
  - 9 Improving
  - 4 Little or no detectable change
  - 1 Baseline data only

NOTES: Measurable objectives are defined as having at least one data point currently available, or a baseline, and anticipate additional data points throughout the decade to track progress. For a complete description of each progress status, please see National Center for Health Statistics. Chapter III: Overview of Midcourse Progress and Health Disparities. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016 <a href="https://www.cdc.gov/nchs/data/hpdata2020/HP2020MCR-B03-Overview.pdf">https://www.cdc.gov/nchs/data/hpdata2020/HP2020MCR-B03-Overview.pdf</a>.

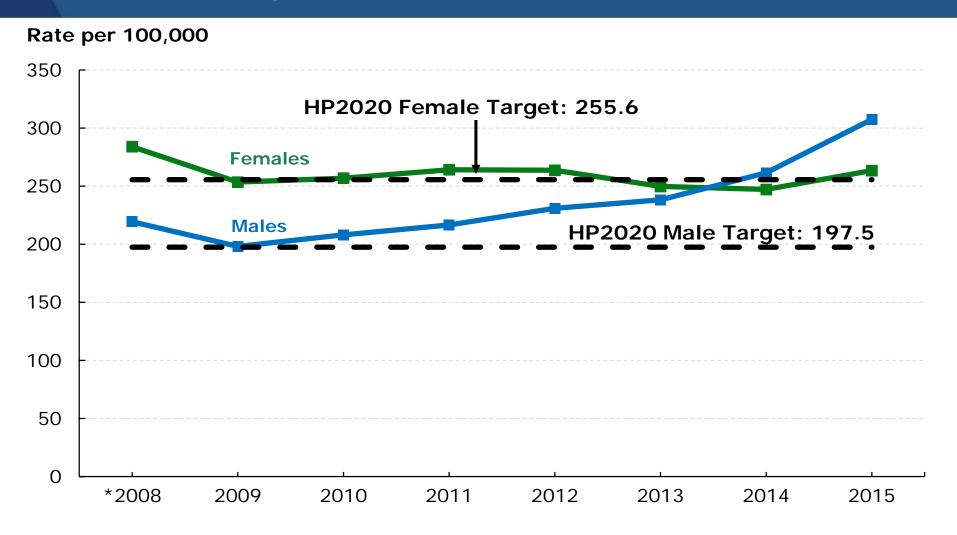
#### **Presentation Overview**



- Tracking the Nation's Progress
- Sexually Transmitted Diseases
  - Gonorrhea
  - Primary and Secondary Syphilis
  - Congenital Syphilis
- HIV

### Gonorrhea Among Females and Males Aged 15 to 44 Years



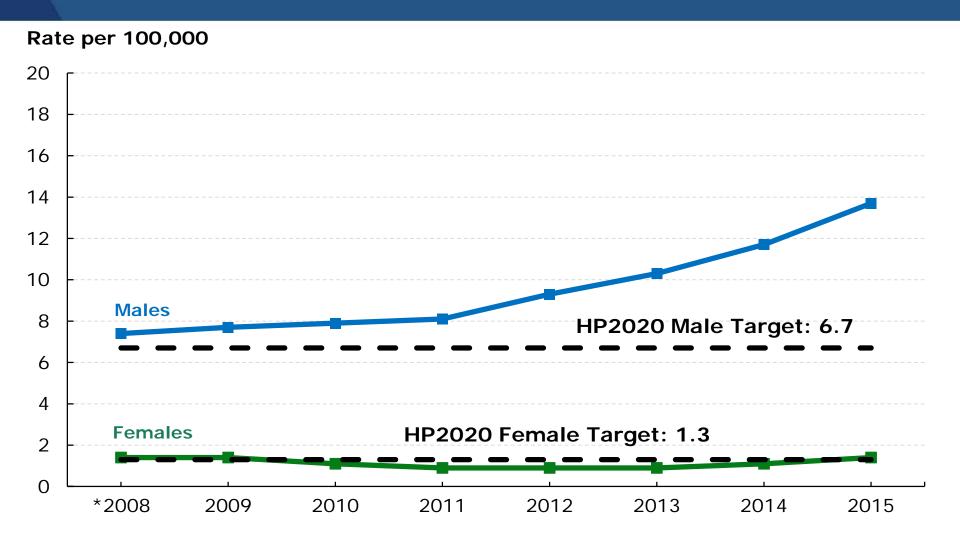


NOTES: \*2008 = HP2020 baseline.

SOURCES: STD Surveillance System (STDSS), CDC/NCHHSTP; Population Estimates, US Census Bureau.

### Primary and Secondary Syphilis Among Females and Males



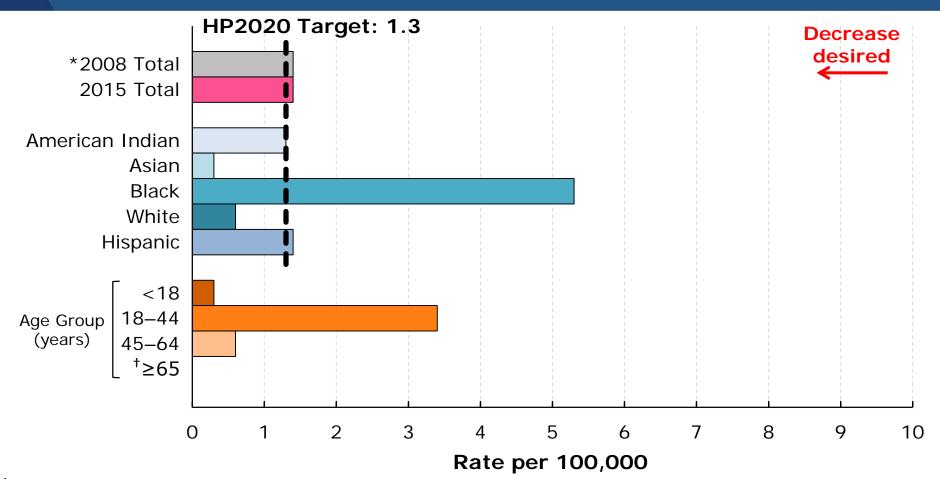


NOTES: \*2008 = HP2020 baseline.

 $SOURCES: \ STD \ Surveillance \ System \ (STDSS), \ CDC/NCHHSTP; \ Population \ Estimates, \ US \ Census \ Bureau.$ 

### Primary and Secondary Syphilis Among Females, 2015



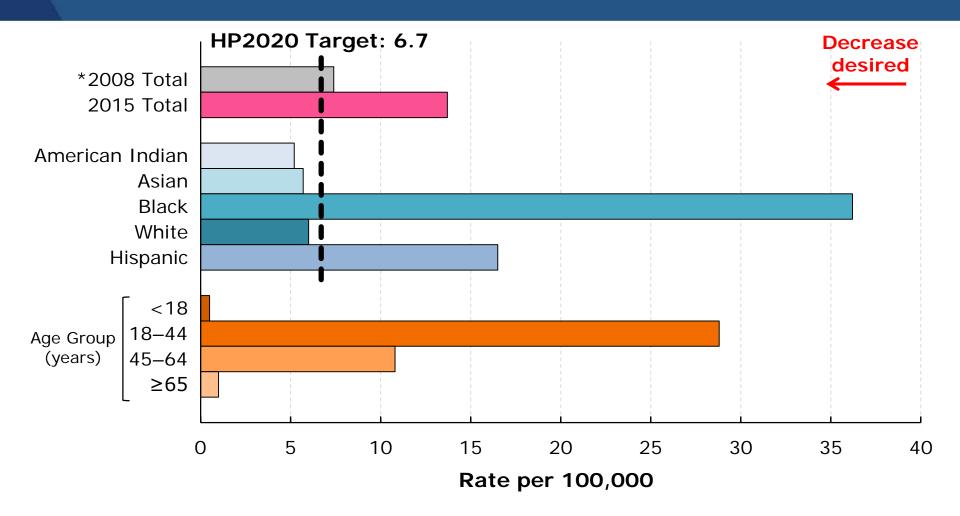


<sup>&</sup>lt;sup>†</sup> The rate for females 65 years and over was 0.0 per 100,000 population.

NOTES: \*2008 Total = HP2020 baseline. American Indian includes Alaska Natives. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. The HP2020 target does not apply to the age groups. SOURCES: STD Surveillance System (STDSS), CDC/NCHHSTP; Population Estimates, US Census Bureau.

### Primary and Secondary Syphilis Among Males, 2015





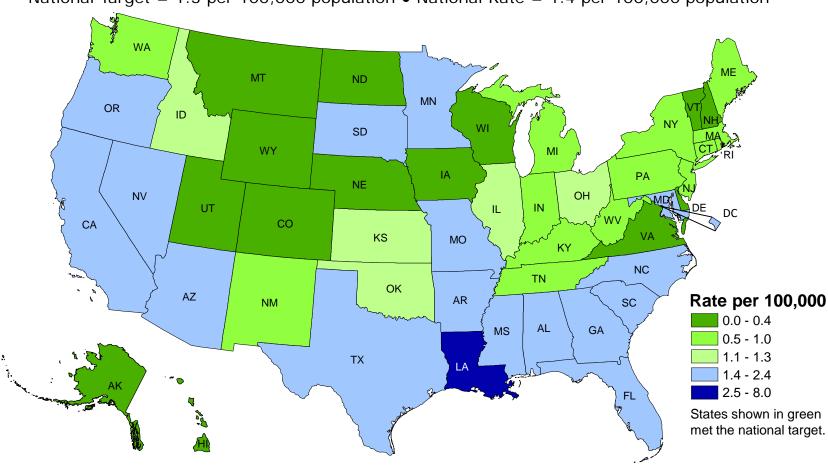
NOTES: \*2008 Total = HP2020 baseline. American Indian includes Alaska Natives. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. The HP2020 target does not apply to age groups.

SOURCES: STD Surveillance System (STDSS), CDC/NCHHSTP; Population Estimates, Census.

## Primary and Secondary Syphilis Among Females, 2015



National Target = 1.3 per 100,000 population ● National Rate = 1.4 per 100,000 population



NOTES: Data are displayed by a modified Jenks classification for U.S. states. For more information, see National Center for Health Statistics. Appendix A: Technical Notes. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

https://www.cdc.gov/nchs/data/hpdata2020/HP2020MCR-D01-Technical-Notes.pdf

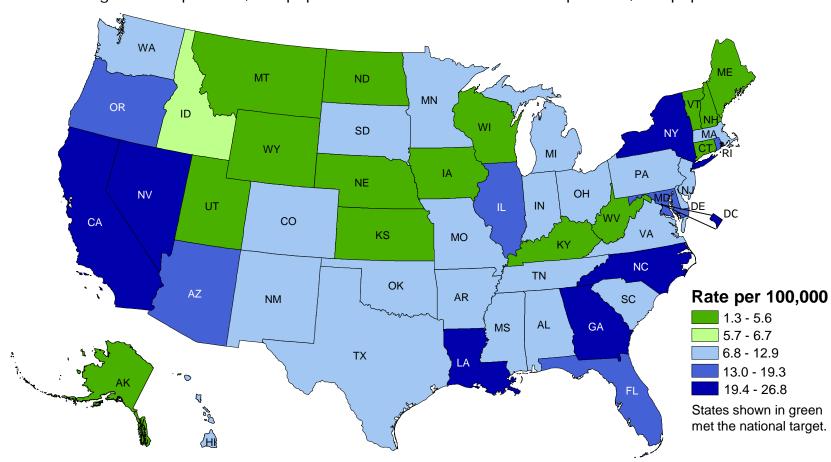
SOURCES: STD Surveillance System (STDSS), CDC/NCHHSTP; Population Estimates, Census.

Obj. STD-7.1
Decrease desired

## Primary and Secondary Syphilis Among Males, 2015



National Target = 6.7 per 100,000 population ● National Rate = 13.7 per 100,000 population



NOTES: Data are displayed by a modified Jenks classification for U.S. states. For more information, see National Center for Health Statistics. Appendix A: Technical Notes. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

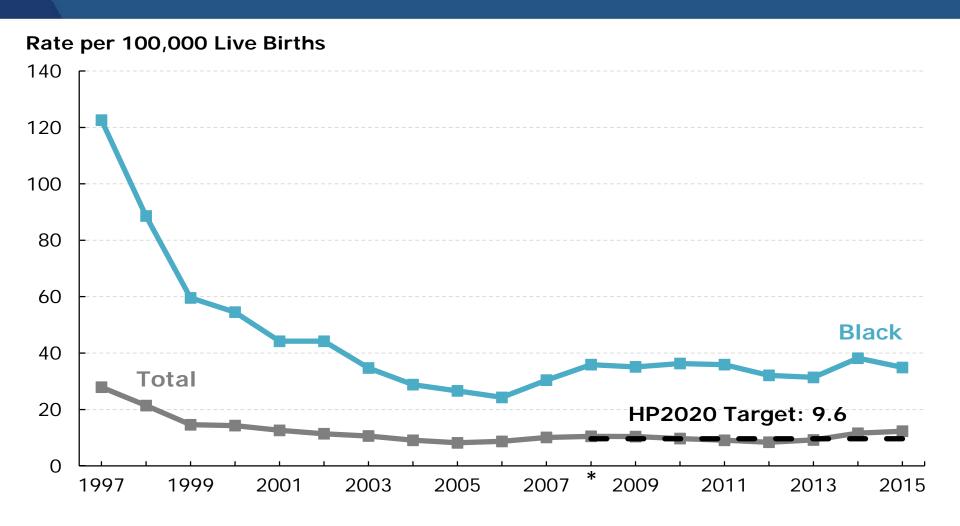
https://www.cdc.gov/nchs/data/hpdata2020/HP2020MCR-D01-Technical-Notes.pdf

SOURCES: STD Surveillance System (STDSS), CDC/NCHHSTP; Population Estimates, Census.

Obj. STD-7.2
Decrease desired

### Congenital Syphilis





NOTES: \*2008 = HP2020 baseline. Black excludes persons of Hispanic origin.

SOURCES: STD Surveillance System (STDSS), CDC/NCHHSTP; National Vital Statistics System-Natality (NVSS-N), CDC/NCHS.

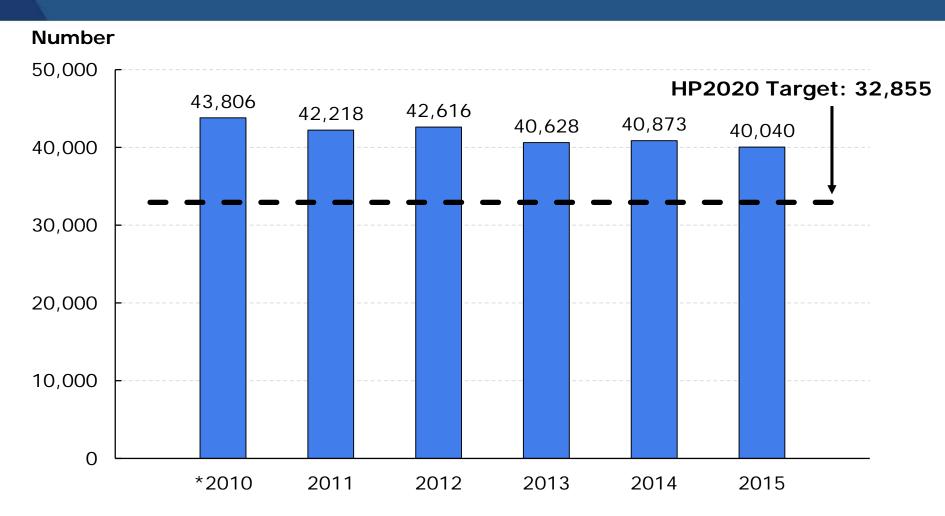
#### Presentation Overview



- Tracking the Nation's Progress
- Sexually Transmitted Diseases
- HIV
  - Annual Diagnoses
  - HIV Testing and HIV Serostatus Awareness
  - Access to Medical Care
  - Viral Suppression

### Annual HIV Diagnoses





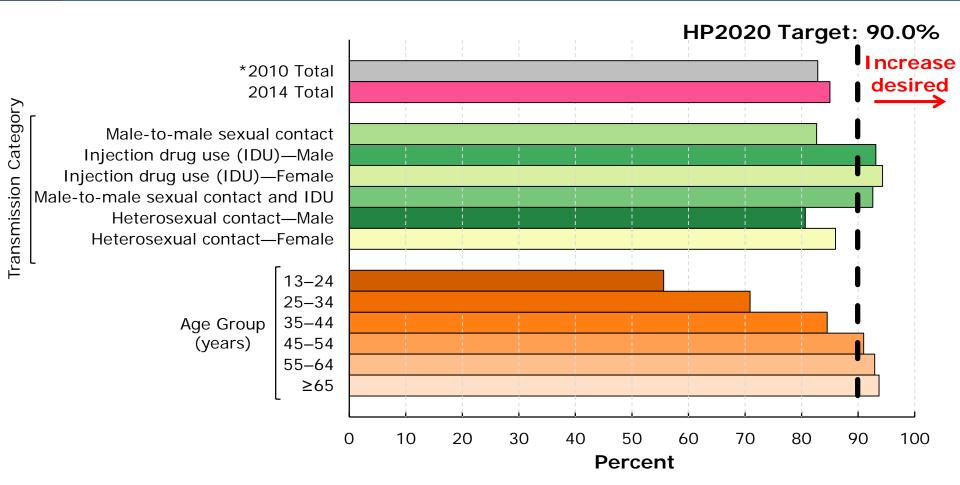
NOTES: \*2010 = HP2020 baseline. Data are the number of new HIV diagnoses in the United States by diagnosis year. The data collected on HIV diagnoses are used to monitor progression of disease after diagnosis and receipt of care and to estimate prevalence and incidence of HIV infection.

SOURCE: National HIV Surveillance System (NHSS), CDC/NCHHSTP.

**Obj. HIV-1**Decrease desired

## HIV Serostatus Awareness Among Persons Living with HIV, 2014



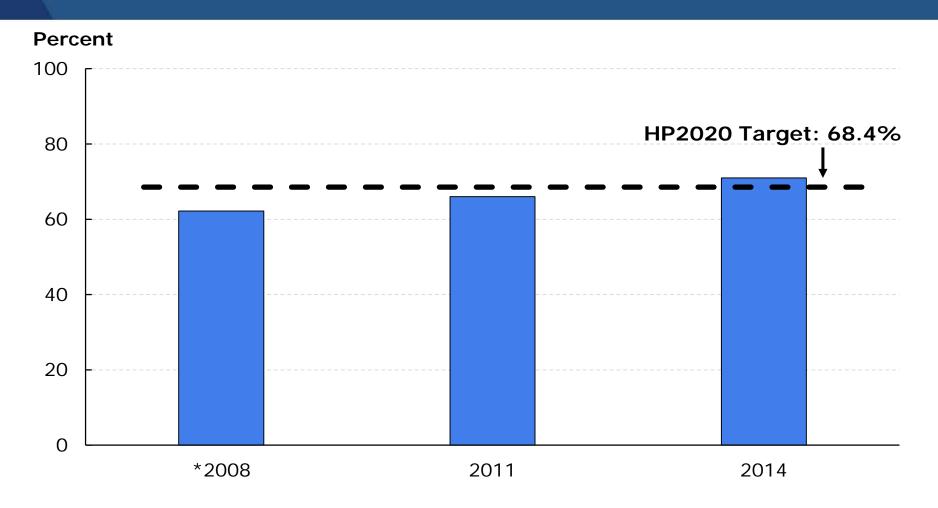


NOTES: \*2010 Total = HP2020 baseline. Data are for persons aged 13 years and over who were aware of their HIV infection. Data are statistically adjusted to account for cases without sufficient risk factor information. Transmission categories are based on reported risk behavior that increase the risk of acquiring HIV and are mutually exclusive. Persons whose transmission category is classified as "heterosexual contact" are persons who have ever had heterosexual contact with a person known to have, or to be at high risk for, HIV infection (e.g., a person who injects drugs).

SOURCE: National HIV Surveillance System (NHSS), CDC/NCHHSTP.

### HIV Testing in the Past 12 Months Among Men who Have Sex with Men





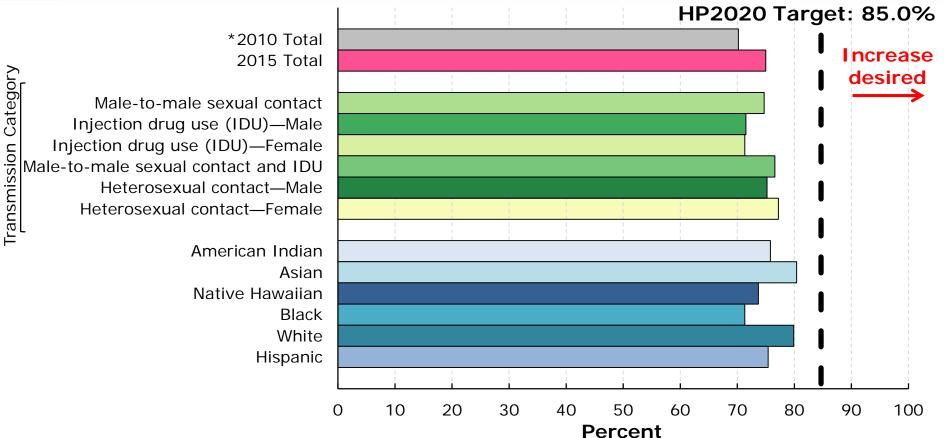
NOTES: \*2008 = HP2020 baseline. Data are for men aged 18 years and over who reported having sex with a man in the past 12 months and reported having an HIV test in the same time period. The National HIV Behavioral Surveillance System collects behavioral data among persons at high risk for HIV infection including gay, bisexual and other men who have sex with men.

Source: National HIV Behavioral Surveillance System (NHBS), CDC/NCHHSTP.

Obj. HIV-14.2 Increase desired

### Linkage to HIV Medical Care Within 1 Month of Diagnosis, 2015



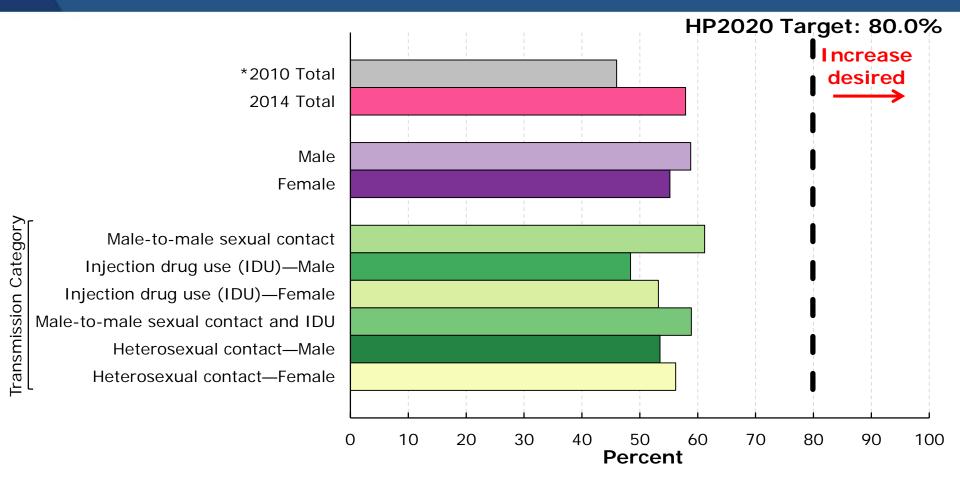


NOTES: \*2010 Total = HP2020 baseline. Data are for persons aged 13 years and over who had a routine HIV medical visit within 1 month of HIV diagnosis. Linkage to medical care is defined as having a documented test result for a CD4 count or viral load. Transmission categories are mutually exclusive. Persons whose transmission category is classified as "heterosexual contact" are persons who have ever had heterosexual contact with a person known to have, or to be at high risk for, HIV infection (e.g., a person who injects drugs). American Indian includes Alaska Natives. Native Hawaiian includes other Pacific Islanders. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. This measure includes data from jurisdictions with complete lab reporting as follows: 14 (2010); 38 (2015). In 2015, the 38 jurisdictions accounted for 71.9% of persons living with Obj. HIV-19 diagnosed HIV.

SOURCE: National HIV Surveillance System (NHSS), CDC/NCHHSTP.

### Viral Suppression Among Persons Living with Diagnosed HIV, 2014



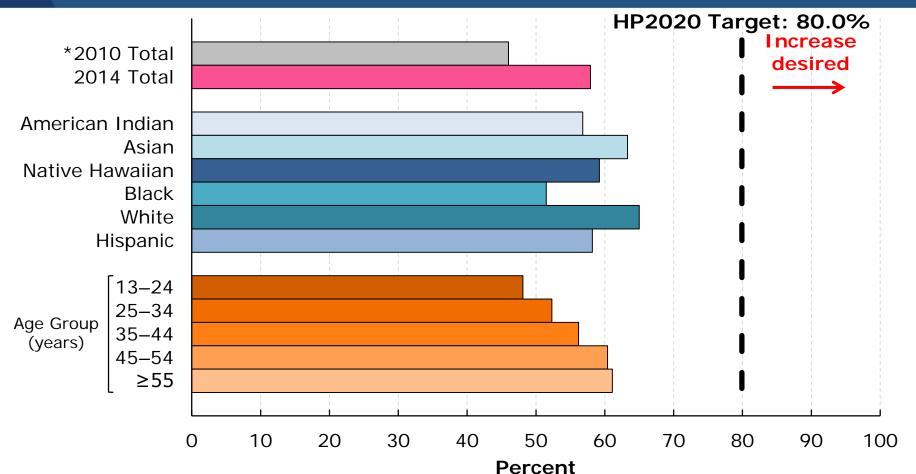


NOTES: \*2010 Total = HP2020 baseline. Data are for persons aged 13 years and over with diagnosed HIV infection whose most recent viral load test in the past 12 months showed that HIV viral load was suppressed. Viral suppression is defined as a viral load test of less than 200 copies/mL at the most recent viral load test. Persons whose transmission category is classified as "heterosexual contact" are persons who have ever had heterosexual contact with a person known to have, or to be at high risk for, HIV infection (e.g., a person who injects drugs). Transmission categories are mutually exclusive. This measure is obtained from jurisdictions with complete lab reporting as follows: 19 (2010); 38 (2014).

Source: National HIV Surveillance System (NHSS), CDC/NCHHSTP.

### Viral Suppression Among Persons Living with Diagnosed HIV, 2014





NOTES: \*2010 Total = HP2020 baseline. Data are for persons aged 13 years and over with diagnosed HIV infection whose most recent viral load test in the past 12 months showed that HIV viral load was suppressed. Viral suppression is defined as a viral load test of less than 200 copies/mL at the most recent viral load test. American Indian includes Alaska Natives. Native Hawaiian includes other Pacific Islanders. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Transmission categories are mutually exclusive. This measure is obtained from jurisdictions with complete lab reporting

as follows: 19 (2010); 38 (2014).

Source: National HIV Surveillance System (NHSS), CDC/NCHHSTP.

Obj. HIV-22.1

### Key Takeaways – Sexually Transmitted Diseases



- The rate of new cases of gonorrhea was higher among females 15-44 years than males from 2008 to 2013; however, for 2014 and 2015, the rate among males was higher than females.
- The rate of new cases of primary and secondary syphilis among males increased between 2008 and 2015. The rate remained relatively constant for females between 2008 and 2013 but increased slightly between 2014 and 2015 returning to the baseline.
- For both males and females, disparities in primary and secondary syphilis exist by state and by racial/ethnic groups.
- The rate of new cases of congenital syphilis continued to decrease from 2008 to 2012 and steadily increased between 2013 and 2015.
- Disparities among racial/ethnic groups remain, with the highest rate of new congenital syphilis cases among Blacks annually since 1997.

#### Key Takeaways – HIV

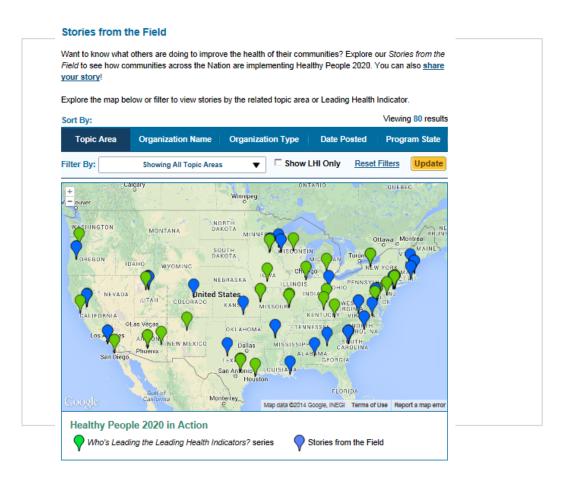


- Overall, the number of annual HIV diagnoses decreased between 2010 and 2015, although slight increases occurred in 2012 and 2014.
- The percentage of persons aware of their HIV serostatus increased between 2010 and 2014, moving toward the HP2020 target.
- HIV testing of males reporting male-to-male sexual contact has increased since the 2008 baseline, exceeding the HP2020 target in 2014.
- The percentage of persons with diagnosed HIV who were linked to medical care within one month of diagnosis increased between 2010 and 2015, moving toward the HP2020 target. However, no group met the national target in 2015.
- Viral suppression among persons living with diagnosed HIV increased between 2010 and 2014, moving towards the HP2020 target. But, no group met the national target in 2014.

#### Healthy People 2020 Stories from the Field



A library of stories highlighting ways organizations across the country are implementing Healthy People 2020



#### **Healthy People in Action**



# Healthy People 2020 Progress Review: Diagnosis, Prevention, and Treatment of Syphilis and HIV

Gail Bolan, MD

Director, Division of STD Prevention

Centers for Disease Control and Prevention













### **Outline**



- CDC's STD Prevention Overview
- STDs: a Public Sector Responsibility
- Resurgence of Syphilis in the US
- What CDC is doing to reverse these trends









### CDC's STD Prevention Strategic Plan



A society where people are empowered to **VISION** protect themselves and others from STDs and achieve sexual health **MISSION** To maximize the impact of STD prevention through program, science, and policy Decrease morbidity, disparities and **GOALS** incidence of STDs **PRIORITY AREAS** Adolescents and young adults, MSM, pregnant women and health care systems **PRIORITY DISEASES** Syphilis, Gonorrhea, and Chlamydia



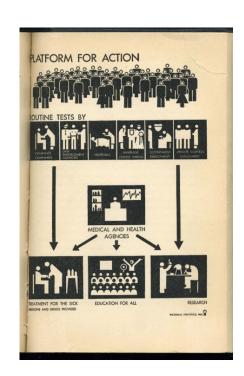




## STD Control in the US: The Approach from 1937



- Public Health Service Act expanded in 1917
  - Authority to do STD control
- Health education and promotion
- Identify and treat infected people through:
  - Targeted screening of key populations
  - STD clinics (funded by states and localities) mainly for symptomatic care and contacts
  - Health Department contact tracing
- Individually-based interventions
- Public sector responsibility









## The Role of Federal, State and Local Governments in STD Prevention



STD prevention in the U.S. is funded by federal, state, and local governments

#### **Federal Government Supports:**

- Surveillance and outbreak response
- Evidence-based, high impact prevention interventions through science and policies
- Guidelines, tools and resources to assure recommended screening and treatment
- Health care provider training and technical assistance

### State and Local Health Departments Support:

- Surveillance
- STD preventive service delivery through:
  - STD clinics or other clinical settings to provide specialized, confidential, sameday STD services
  - Contact tracing and linkage to care
  - Health education and promotion





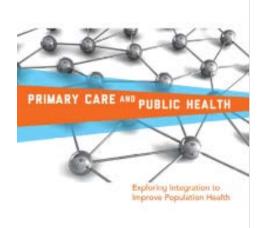




#### Rationale for Integration of STD Prevention in Primary Health Care



- Most sexually transmitted infections are without symptoms
- Most STDs are identified and reported in primary care setting, not STD clinics
- Rapid detection and timely treatment is a core STD prevention strategy



INSTITUTE OF MEDICIN









# Resurgence of Syphilis in the U.S.





#### **Stages of Untreated Syphilis**



#### **Early Syphilis**

Primary Secondary Latent





**Late Syphilis** 

**Tertiary** 



~ 3 weeks after infection



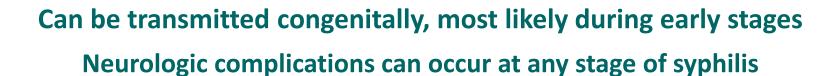
~ 6 weeks after infection



Weeks to years after infection



Years to **Decades after** infection



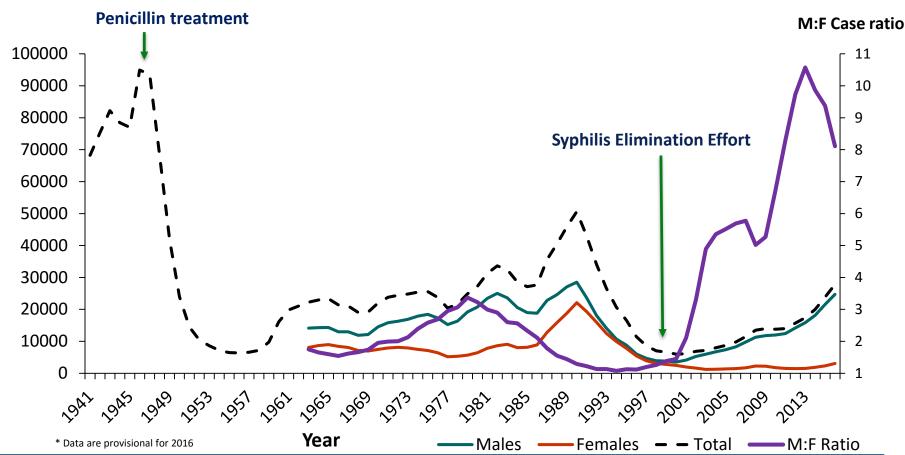




#### Syphilis rates continue to increase



Primary and Secondary Syphilis — Reported Cases, United States, 1941–2016 \*





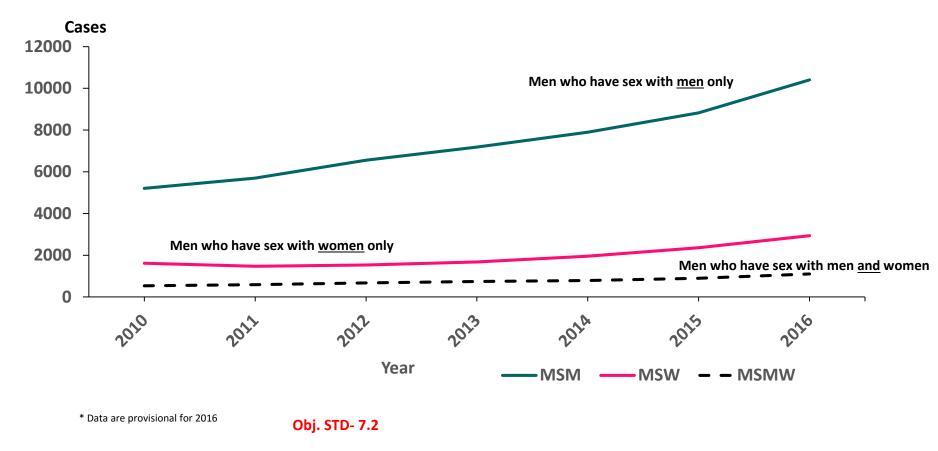




### Primary and Secondary Syphilis Among Men — Reported Cases by Sex of Sex Partner, 30 States United States, 2010–2016\*



In 2016, 80% of male cases with known sex of sex partner had sex with men











## What is CDC doing to reverse these trends?





#### **CDC STD Treatment Guidelines**



- Authoritative, evidence-based source for STD clinical management
- Uses IOM principles for "Clinical Practice Guidelines We Can Trust"
- Recommended regimens preferred over alternative regimens
- Available at www.cdc.gov/std
- Wall charts, pocket guides, eBook, webinars, podcasts
- STD Treatment Mobile App for Apple devices (iPhone & iPads) and Droid devices (phones & tablets).



Morbidity and Mortality Weekly Report

Sexually Transmitted Diseases Treatment Guidelines, 2015









CLIDELNES

Clinical Practice Guidelines We Can Trust

Robin Graham, Michelle Mancher, Dianne Miller Wolman, Sheldon Greenfield, and Earl Steinberg, Editors; Committee on Standards for Developing Trustworthy Clinical Practice Guidelines; Institute of Medicine

ISBN: 0-309-16423-0, 300 pages, 6 x 9, (2011)

This PDF is available from the National Academies Press at: http://www.nap.edu/catalog/13058.html

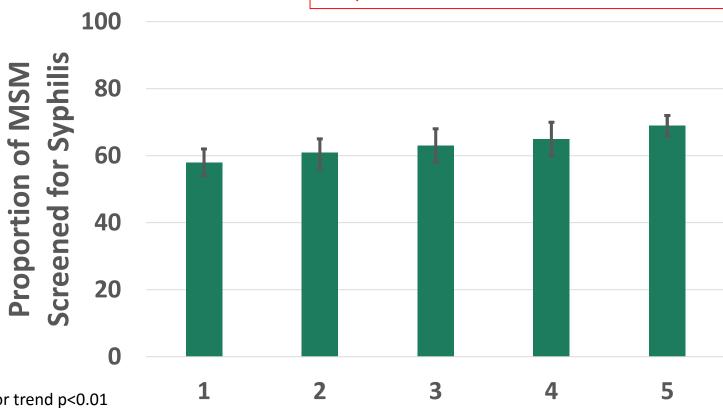




#### Proportion of Sexually Active HIV-Infected MSM in Medical Care Screened for Syphilis in the Prior 12 Months, Medical Monitoring Project 2009-2013



Syphilis screening of MSM with HIV is slowly improving, but as of 2013, still under 70%



Test for trend p<0.01

Obj. STD- 7.2

Ref: Mattson CL, et al. Increased STD testing among sexually active persons receiving medical care for HIV infection in the United States, 2009 - 2013, Clin Infect Dis. Dec. 2016







### National Network of STD Clinical Prevention Training Centers

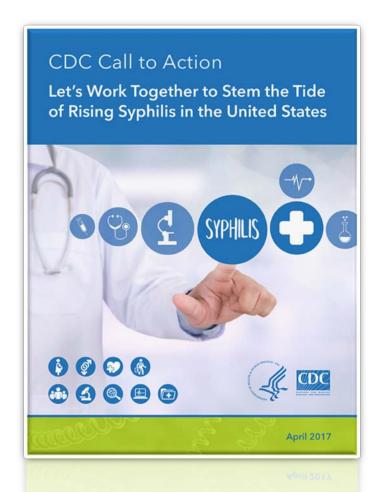




STD Clinical Consultation Network (STDCCN) www.STDCCN.org

### CDC is Taking Action to Address Increasing Syphilis in All Populations





- Convened Syphilis Summit with national experts
- Issued a Syphilis Call to Action that includes:
  - Congenital syphilis
  - Syphilis among MSM; and
  - Biomedical advancements for syphilis







### CDC is Taking Action to Address Increasing Syphilis in All Populations



- Developing models and CDS to assure recommended frequency of screening and timely treatment in pregnant females and among MSM
- Using molecular epidemiology techniques to study transmission dynamics and high impact interventions
- Creating a specimen repository to support technological developments in diagnostics, therapeutics and vaccines







#### Summary



- STDs are a collective responsibility.
- There has been increasing trends of both congenital syphilis and syphilis among MSM.
- CDC is working with other federal agencies, health departments, health care providers, medical and healthcare organizations, decision makers, scientists, industry and communities to take action and reverse these trends.

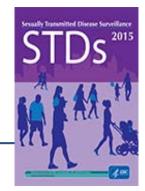




#### Resources



- CDC's STD Prevention Program website
  - o <a href="https://www.cdc.gov/std/">https://www.cdc.gov/std/</a>
- Syphilis Call to Action
  - https://www.cdc.gov/std/syphilis/SyphilisCalltoActionApril2017.pdf
- 2015 Surveillance Report
  - o <a href="https://www.cdc.gov/std/stats15/STD-Surveillance-2015-print.pdf">https://www.cdc.gov/std/stats15/STD-Surveillance-2015-print.pdf</a>
- Spotlight on CDC's STD Prevention Work
  - https://www.cdc.gov/std/dstdp/dstdp-stakeholder-reportdesign\_web.pdf









#### HIV Prevention in US

Eugene McCray, MD
Director, Division of HIV/AIDS Prevention
Centers for Disease Control and Prevention







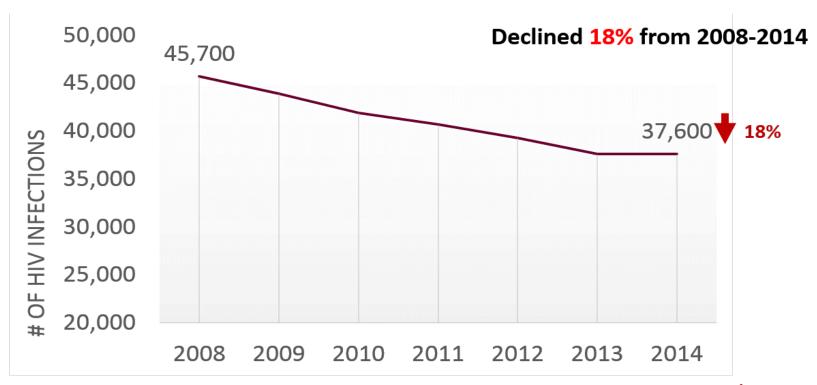








#### **Estimated Annual HIV Infections in the U.S.**



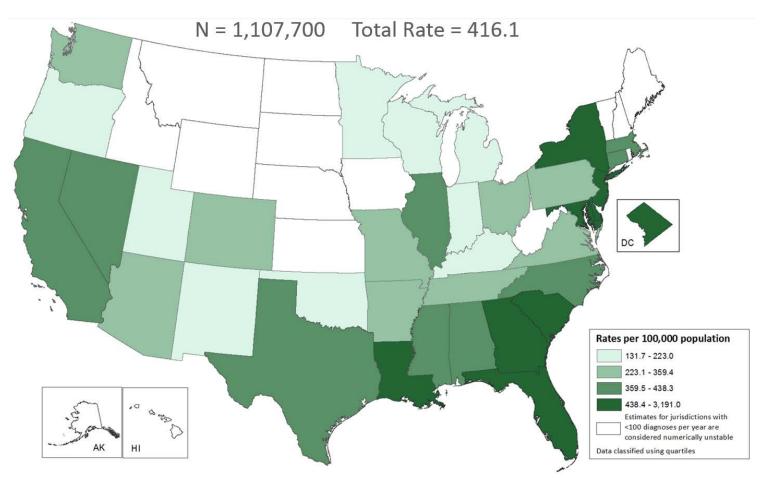
Prevented 33,200 cases at estimated cost savings for medical care of \$14.9 billion





# Estimated Rates of Adults and Adolescents Living with HIV Infection, By Area of Residence, Year-end 2014—United States





Note. Estimates were derived by using HIV surveillance data for persons aged ≥13 years at diagnosis in the 50 states and the District of Columbia.







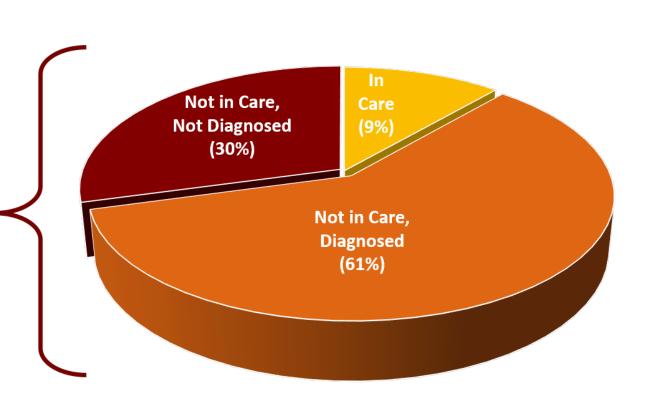
#### **HIV Transmissions**

from People by Care Status, United States



91% of new U.S.

HIV infections are transmitted from people not diagnosed or diagnosed but not in care



Skarbinski, JAMA 2015





#### **CDC's HIV/AIDS Prevention Priorities**













## Increase Knowledge of HIV Status





#### **CDC's HIV Testing Efforts**



- Increased, Targeted Testing and Screening:
  - Approximately 3.0 million CDC-funded HIV testing events were conducted in 2015\*
    - 12,547 (0.4%) persons -newly diagnosed HIV-positive
    - 13,528 (0.4%) persons previously diagnosed
      - Almost 90% out of care
- Increase efforts to implement guidelines
  - In clinical and non-clinical settings
- Improved testing methods
- Testing Campaigns (Act Against AIDS)
  - Providers
  - General population & most at-risk populations



\*In the 61 CDC-funded jurisdictions in the United States, Puerto Rico, and the U.S. Virgin Islands. From: https://www.cdc.gov/hiv/pdf/library/reports/cdc-hiv-funded-testing-us-puerto-rico-2015.pdf







# Prevent New HIV Infections





#### **HIV Risk Reduction Tool**



- Launched at the 2015 National HIV Prevention Conference
- The first comprehensive update of ALL HIV prevention messages for ALL audiences
- Addresses two of four national HIV prevention goals:
  - Goal 1- Reducing new HIV infections
  - Goal 2- Increasing access to care and improving health outcomes for people living with HIV.



https://wwwn.cdc.gov/hivrisk





#### Preventing New HIV Infections: PrEP



#### **PrEP: Pre-exposure Prophylaxis for HIV Prevention**

1.2 M

Persons who might benefit from PrEP

33,273

Persons prescribed PrEP in 2015

Only 3%

Who could benefit from PrEP are using it

CDC efforts:







Provider Education

Reducing Barriers

90%

Daily PrEP can reduce the risk of sexually acquired HIV by more than 90%.



70%

Daily PrEP can reduce the risk of HIV infection among people who inject drugs by more than 70%.



1 in 3 1 in 3 primary care doctors and nurses haven't heard about PrEP.

HIV-1

CDC. Vital Signs November 2015
CDC. HIV Supplemental Surveillance Report 2017;22(No.2)
CDC. PrEP Clinical Practice Guidelines, 2014

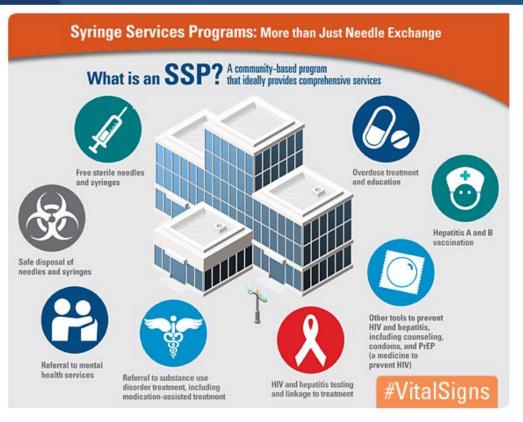






### Syringe Services Programs (SSPs) for HIV Prevention





- SSPs are proven effective and cost-saving
- HHS released new guidance for SSPs in 2016
- CDC can support some SSP costs















# Reduce Transmission of HIV





#### **Achieving Viral Suppression**



Persons who are virally suppressed are 96% less likely to transmit HIV

96%



ACHIEVING VIRAL SUPPRESSION

Individuals on HIV treatment who achieve viral suppression are healthier



Ultimate goal of HIV treatment is to achieve viral suppression



Getting people living with HIV into medical care is essential for achieving and maintaining viral suppression



Using HIV Surveillance Data to Support the HIV Care Continuum

#### Linkage/Retention in Care:

- Collection of interventions and strategies\*
- Demonstration projects to determine best practices to support linkage/retention in care
- Capacity building support for implementation

\*Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention

Data to care - https://effectiveinterventions.cdc.gov/en/HighImpactPrevention/PublicHealthStrategies/DatatoCare.aspx









# Rapidly Detect and Interrupt Active HIV Transmission





### Cluster Detection, Investigation and Response



CDC analyzes HIV genetic sequences and other surveillance data to identify growing clusters that represent active transmission

#### Texas Cluster Investigation:



#### Implemented prevention efforts:

- oldentified persons in cluster not in care for HIV, and attempted to re-engage in care
- Re-tested all HIV negative partners
- oEducated health care providers about recommended testing algorithm and PrEP
- OState increased funding to expand testing and PrEP in affected area

Monterosso A, Minnerly S, Goings S, et al. Identifying and investigating a rapidly growing HIV transmission cluster in Texas. . Conference on Retroviruses and Opportunistic Infections; 2017; Seattle, WA.





#### Summary



- Dramatic progress in reducing new HIV infections
- Testing is the gateway to care or prevention services
- Linkage to care is integral to achieve viral suppression
- HIV prevention toolbox is better than ever
- By focusing on the four HIV priority areas, the goal of no new HIV infections seems within reach







#### Resources



- CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data- United States and 6 dependent areas, 2015. HIV Surveillance Supplemental Report 2017; 22 (No.2).
- Cohen, et al. Prevention of HIV-1 Infection with Early Antiretroviral Therapy. N Engl J Med 2011;365:493-505
- HIV Risk Reduction Tool: <a href="https://wwwn.cdcgov/hivrisk">https://wwwn.cdcgov/hivrisk</a>
- PrEP -- <a href="https://www.cdc.gov/hiv/basics/prep.html">https://www.cdc.gov/hiv/basics/prep.html</a>







### Thank you







### Ryan White HIV/AIDS Program Overview

Heather Hauck, MSW, LICSW
Deputy Associate Administrator
HIV/AIDS Bureau
Health Resources and Services Administration













#### HRSA HIV/AIDS Bureau



#### Vision

Optimal HIV/AIDS care and treatment for all.

#### Mission

Provide leadership and resources to assure access to and retention in high quality, integrated care, and treatment services for vulnerable people living with HIV/AIDS and their families.



#### Ryan White HIV/AIDS Program



- Provides comprehensive system of HIV primary medical care, medications, and essential support services for low-income people living with HIV
  - More than half of people living with diagnosed HIV in the United States more than 500,000 people – receive care through the Ryan White HIV/AIDS Program
- Funds grants to states, cities/counties, and local community based organizations
  - \$2.32 Billion annual investment (2016)
  - Grant Recipients determine service delivery and funding priorities based on their local needs and planning process
- Payor of last resort statutory provision: RWHAP funds may not be used for services if another state or federal payor is available





#### Ryan White HIV/AIDS Program



- Parts A (cities), B (states), C (clinics and community based organizations), and D (community based organizations for women, infants, children, and youth) services to people living with HIV:
  - Medical care, medications, and laboratory services
  - Clinical quality management and improvement
  - Support services including case management, medical transportation, and other services
- Part F Services include:
  - Clinician training, dental services, and dental provider training
  - Development of innovative models of care to improve health outcomes and reduce HIV transmission among hard to reach populations

**Objective HIV-20** 





#### Demonstrating Effectiveness of Program Investments



- Parts A, B, C, & D represent the majority of RWHAP resources
  - Program data needed to measure program effectiveness
- Ryan White Services Report (RSR):
  - Annual data on clients served by RWHAP Parts A-D
  - Services funded and provided
  - Client characteristics and health outcomes, i.e., viral suppression
- RSR data links improved health outcomes to RWHAP services
  - Viral suppression is a primary outcome that demonstrates RWHAP effectiveness
  - Also identifies health disparities and areas for improvement

**Objective HIV-22** 





#### Ryan White HIV/AIDS Program Clients



## Ryan White HIV/AIDS Program Client Fast Facts







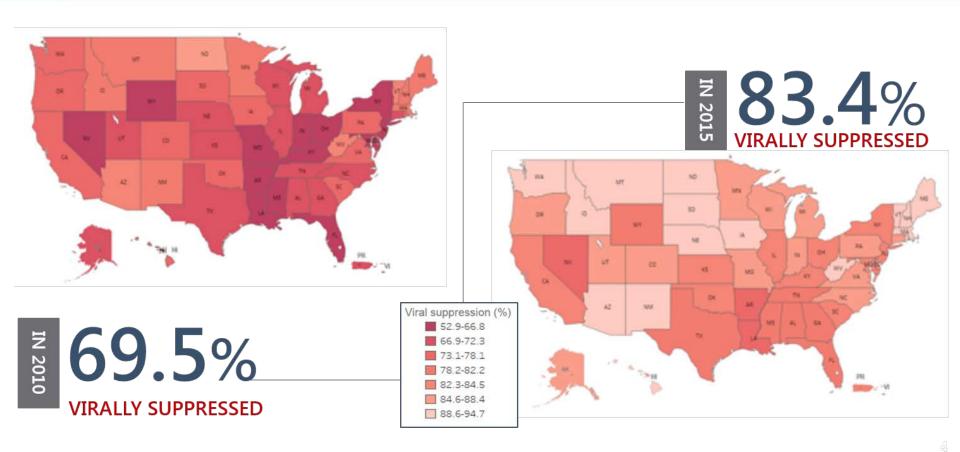
83.4%
ARE VIRALLY
SUPPRESSED





# Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by State, 2010–2015—United States and 2 Territories<sup>a</sup>





Viral suppression: ≥1 OAMC visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL. <sup>a</sup> Puerto Rico and the U.S. Virgin Islands. Due to low numbers, data for Guam are not presented. Source: HRSA. Ryan White HIV/AIDS Program Services Report (RSR) 2015. Does not include AIDS Drug Assistance Program Data.

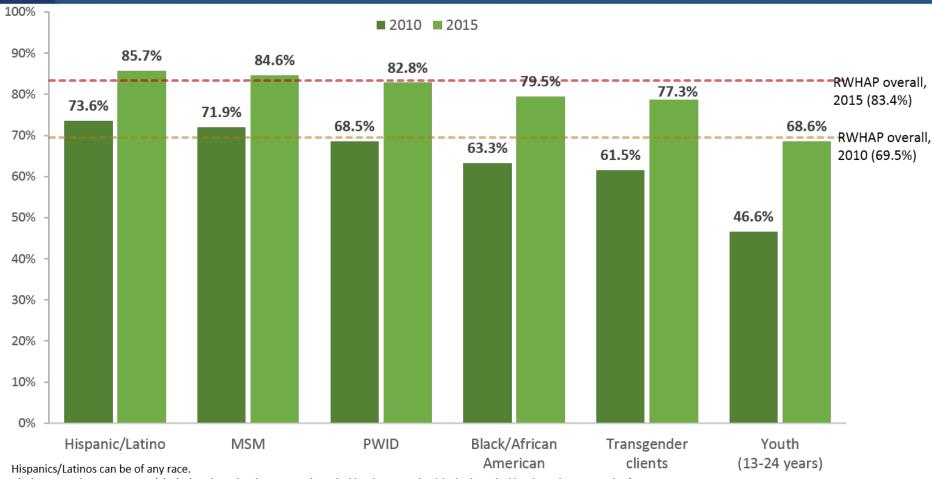
**Objective HIV-22** 





# Viral Suppression among Key Populations Served by the Ryan White HIV/AIDS Program, 2010–2015—United States and 3 Territories<sup>a</sup>





Viral suppression: ≥1 OAMC visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.

Source: HRSA. Ryan White HIV/AIDS Program Services Report (RSR) 2015. Does not include AIDS Drug Assistance Program Data.





Objective HIV 22.1-22.3

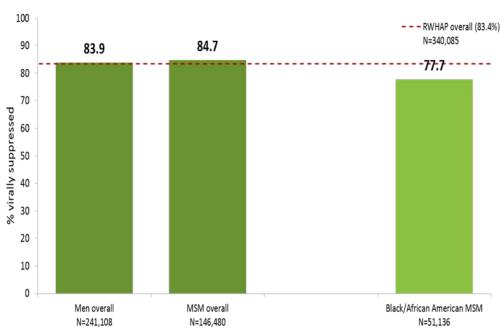
## Implementing Solutions: Improving Health Outcomes Among Black MSM





# Center for Engaging Black MSM Across the Care Continuum

His Health (<u>www.HisHealth.org</u>) and Well Versed <u>www.WellVersed.org</u>) websites launched Fall 2016 Viral Suppression among Men who have Sex with Men (MSM) Served by the Ryan White HIV/AIDS Program, 2015



N represents the total number of clients in the specific subpopulation. Viral suppression: ≥1 outpatient/ambulatory medical care visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

Source: HRSA. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2015. Does not include clients served by the AIDS Drug Assistance Program.





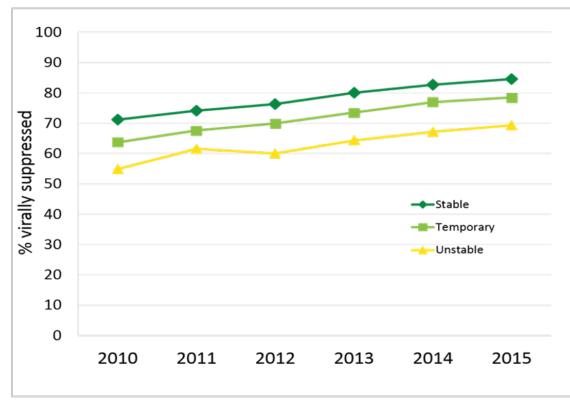
<sup>&</sup>lt;sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.

## Implementing Solutions: Focusing on Housing and Employment



Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by Housing Status, 2010–2015—United States and 3 Territories<sup>a</sup>

- HIV Care & Housing –
   Using Data Integration to
   improve Health
   Outcomes along HIV Care
   Continuum
- Outcomes through the Coordination of Supportive Employment and Housing Services



Source: HRSA. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2015. Does not include clients served by the AIDS Drug Assistance Program

Viral suppression: ≥1 OAMC visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL. <sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.





#### Identifying New Approaches to Improve Health Outcomes



- Implementation Center for HIV Clinical Quality Improvement
  - Provide training and technical assistance to grant recipients aimed at improving patient health outcomes
- Assessing client factors with detectable viral load (evaluation study)
  - Identify differences between PLWH who are virally suppressed vs. those who are not
  - Identify new strategies to achieve improved viral suppression

Objective HIV-20 and HIV-22.1





#### Identifying New Approaches to Improve Health Outcomes



- Dissemination of Evidence-Informed Interventions to Improve Health Outcomes Along the HIV Care Continuum
  - Four evidence-informed care and treatment interventions for linkage and retention
  - Based on evidence informed interventions: Jail, Outreach,
     Buprenorphine, and Re-Engagement and Retention initiatives
- Using Evidence Informed Interventions to Improve Health Outcomes among People Living with HIV
  - Improving HIV health outcomes for transgender women and black men who have sex with men
  - Integrating behavioral health with primary medical care for people living with HIV
  - Identifying and addressing trauma among people living with HIV





### Summary



- Ryan White HIV/AIDS Program (RWHAP) provides HIV care and treatment and support service to over half of the people diagnosed with HIV in the U.S.
- People living with HIV (PLWH) receiving RWHAP services have better viral suppression outcomes than the national average
  - Lowers HIV transmission
  - Improves the lifespan of the PLWH
- RWHAP utilizes data to develop innovative HIV care and treatment service delivery approaches in the U.S.



### Thank you!



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## Healthy People 2020 STD/HIV Objectives: Progress in Louisiana

DeAnn Gruber, PhD Director, Bureau of Infectious Diseases August 1, 2017

## Louisiana Department of Health Office of Public Health STD/HIV Program

HIV/AIDS Program and STD Control Program merged in January 2011

#### **Vision**

Achieve a state of awareness that promotes personal and sexual health, ensures universal access to care, and eliminates new STD and HIV infections.

#### **Mission**

SHP's mission is to lead the effort to build a holistic, integrated and innovative system of STD and HIV prevention, care and education that eliminates health inequities. We will do this by utilizing quality data and technology to inform and direct policy and programs around personal and sexual health.



#### Organizational Structure - Units and Core Functions

#### Surveillance

- General case ascertainment
- Perinatal surveillance
- HIV Incidence surveillance
- Behavioral surveillance

#### Regional Ops

- HIV/Syphilis partner services
- Provider outreach/education
- Outbreak response
- ICCR

#### Prevention

- STD/HIV testing
- Linkage to care programs
- Wellness centers
- Condom distribution
- Capacity building/community mobilization
- Social media/marketing
- PrEP education/support

#### STD/HIV Program

#### Admin/Fiscal

#### Evaluation

- Continuous Quality Improvement/ Performance Measures
- Targeted Evaluation Plans

#### Data Mgmt/Analysis

- Data entry/cleaning/management
- Data matching/analyses/reports

#### Services

- HIV drug assistance program
- Health insurance program (Premium/co-pays)
- Case management/supportive services
- Housing assistance

#### STD Clinical

- Clinician training/consultation
- Collaborate with/support clinics for STD tx



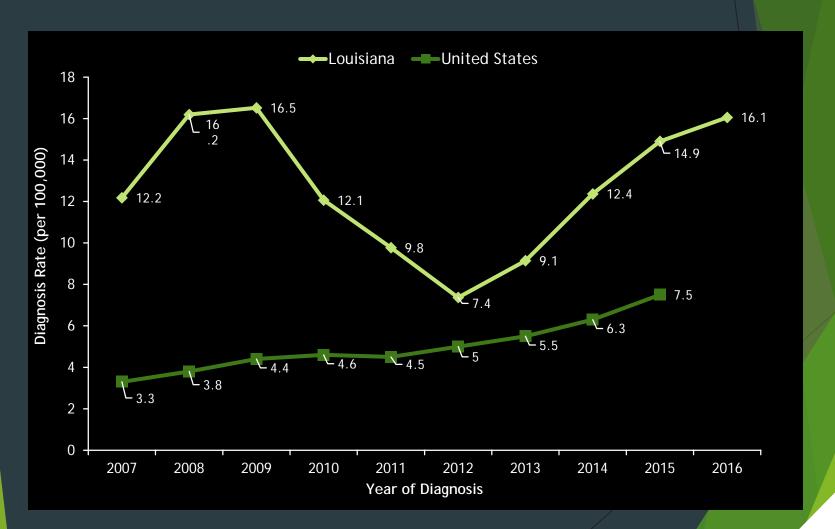
### Louisiana STD and HIV National Rankings

	2015		
	Ranking	# Cases	Rate
P&S Syphilis	<b>1</b> st	696	15.0*
Congenital Syphilis	1 <sup>st</sup>	54	83.9**
Gonorrhea	<b>1</b> st	10,282	221.1*
Chlamydia	2 <sup>nd</sup>	32,325	695.2*
HIV	2 <sup>nd</sup>	1,131	24.2*



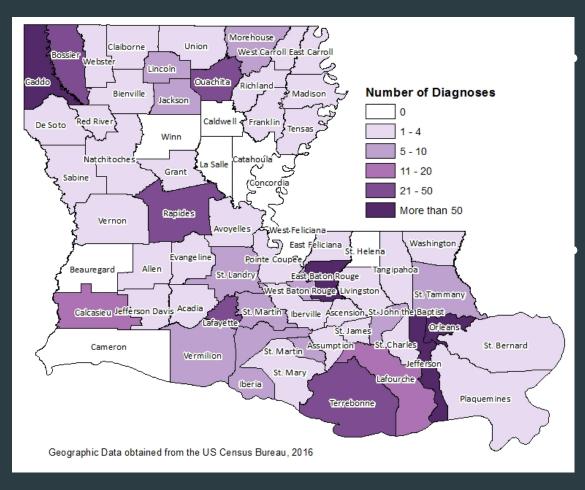
<sup>\*</sup> Rate per 100,000\*\* Rate per 100,000 live births

## Primary and Secondary Syphilis Diagnosis Rates Louisiana and the United States, 2007-2016





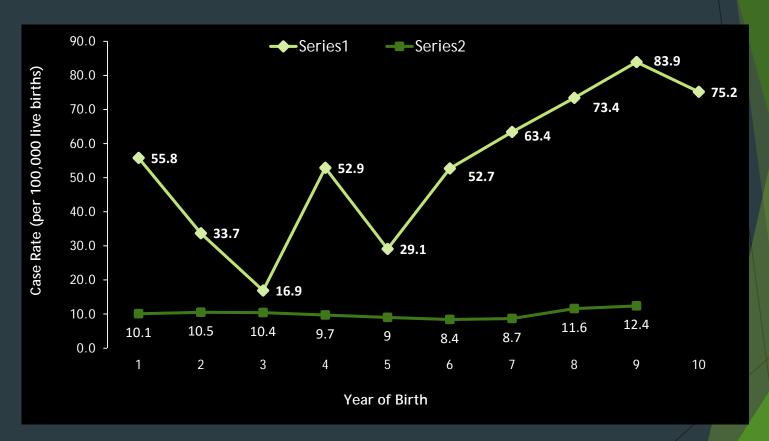
## Number of P&S Syphilis Diagnoses by Parish Louisiana, 2016



75% of all P&S syphilis diagnoses in the state took place in 9 parishes. 55% of all diagnoses took place in just 4 parishes.



## Congenital Syphilis Rates Louisiana and the US, 2007-2016



- Louisiana had 48 congenital syphilis cases in 2016, a decrease from 54 cases in 2015.
- In 2015, Louisiana ranked 1<sup>st</sup> in the U.S. for CS case rate with a rate of 83.9 cases per 100,000 live births and was over six times the national rate of 12.4 cases per 100,000 live births.
- In 2016, Louisiana's case rate decreased to 75.2 cases per 100,000 live births. 2016 national data have not yet been released.
- HP 2020 STD-8



## STD/HIV Reduction Strategy Successes

- ▶ Tripled the number of syphilis tests performed at community-based organizations in 2016 (6,536) compared to 2015 (2,117)
- ▶ Increased the number of primary and secondary syphilis cases that were treated within 14 days of specimen collection in public health clinics to 93.5% in 2016 compared to 78.6% in 2015
- Implemented extra-genital GC/CT testing at 4 public health clinics in 2016; more than 165 cases would have been missed if dependent on urogenital testing alone
- Implemented Congenital Syphilis Case Review process to identify missed opportunities and educate prenatal care providers
- ▶ Supported the establishment of 13 PrEP clinics across the state in 2016, an increase from three clinics in 2015

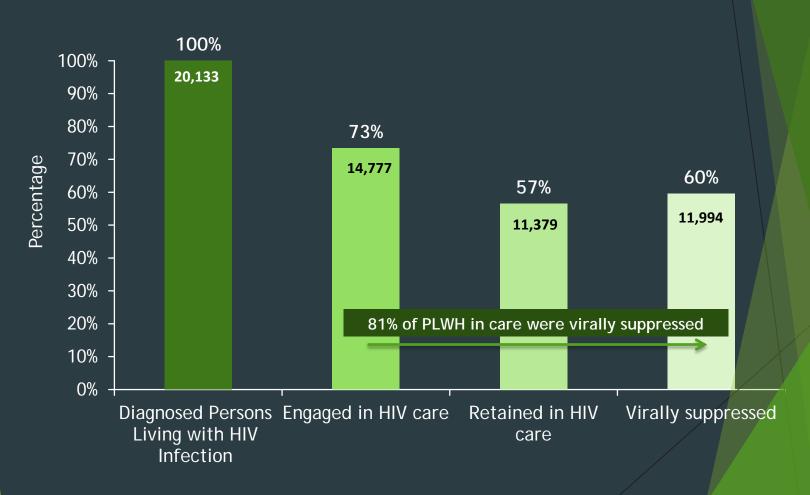


## HIV and Syphilis Co-infection in Louisiana, 2016

- ▶ 29% of all P&S syphilis diagnoses in 2016 were coinfected with HIV (211 co-infected cases/ 750 P&S syphilis cases)
  - ▶ In some regions, it is much higher
    - ▶ New Orleans: 47% (102/216)
    - ▶ Baton Rouge: 40% (40/117)
  - ▶ In other regions, much lower
    - ► Monroe: 15% (11/73)
    - ► Hammond/Slidell: 10% (2/20)

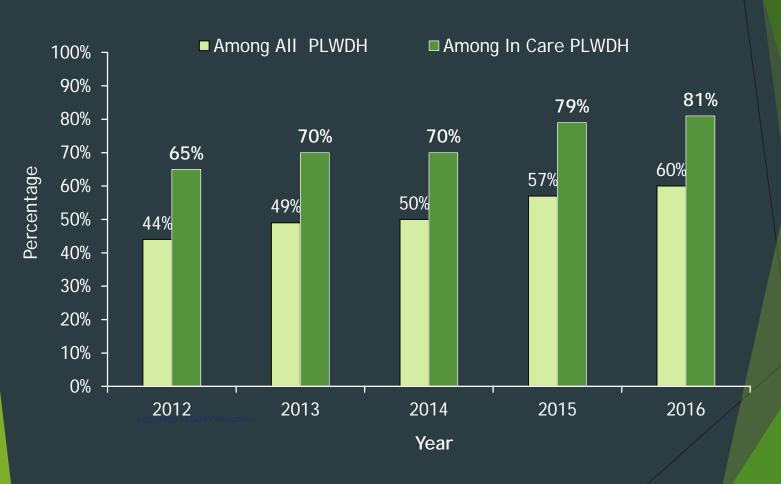


### HIV Continuum of Care Louisiana, 2016



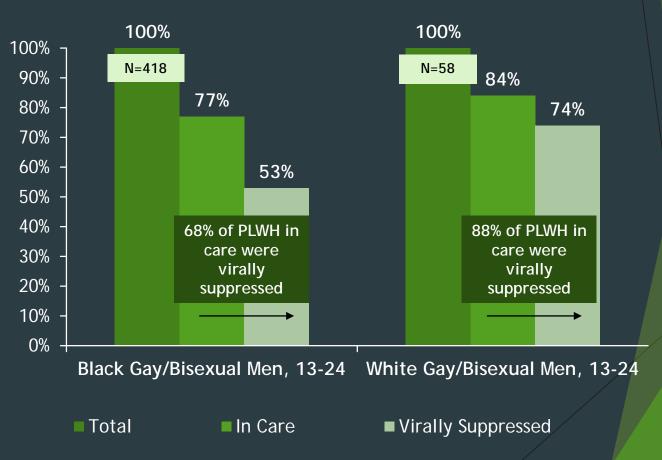


## Percent Virally Suppressed among All PLWDH and PLWDH in Care by Year, Louisiana





## HIV Continuum of Care Gay/Bisexual Men, 13-24, by Race, 2016





### HIV Testing Highlights

- ▶ Percent of persons living with HIV and diagnosed has increased from 75.4% in 2010 to 80.9% in 2014
- ► HIV testing has increased from almost 96,000 tests in 2013 to 112,827 tests in 2016
- Overall positivity ~1% each year
  - ▶ In 2016, 0.4% were new positives
    - ▶ 0.3% at routine medical testing sites (emergency departments, clinics)
    - ▶ 0.9% at community-based organizations that serve priority populations
- HIV linkage to care within 90 days has increased from 69% in 2013 to 83% in 2016



### Linkage to Care Strategies

#### Louisiana Links

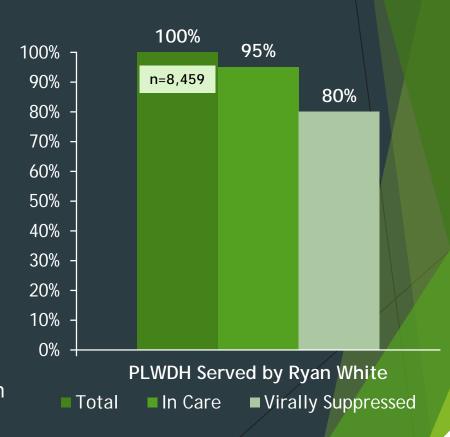
- ► Utilizes surveillance data to identify PLWH who are:
  - Newly diagnosed and not linked to care
  - Previously diagnosed who need reengagement
  - ▶ In care, but experiencing high viral load
- Linkage to Care Coordinators (LCCs) provide extensive services above and beyond the scope of traditional case management
- Between September 2013 March 2017, 1102 PLWH have been enrolled and 849 (77%) have been successfully linked to medical care





## Louisiana HIV Continuum of Care: Ryan White Services, 2016

- Funds to support direct services to Persons Living with HIV
  - Medications Assistance
  - ► Health Insurance Support
  - Oral Health Care
  - Substance Use/Mental Health Services
  - Case Management
  - Transportation
- Viral Suppression
  - 60% among all PLWDH in Louisiana
  - ▶ 80% among PLWDH who received Ryan White Services in Louisiana





#### Summary

- ➤ To address high HIV and STD case rates, Louisiana has implemented specific strategies that are reflecting success:
  - Increased STD and HIV testing activities to identify persons who are undiagnosed and need linkage to care/treatment
  - Decreased number of congenital syphilis cases for the first time in five years
  - Implemented linkage to care activities using HIV surveillance data to identify persons who are not linked to HIV-related care
  - Provided direct services to persons living with HIV using Ryan White funds to increase coordinated and comprehensive care
  - ► Continued upward trend of proportion of persons diagnosed with HIV who are virally suppressed
    - ▶ 60% in 2016 compared to 44% in 2012



### Acknowledgements

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- ► Kira Radtke Friedrich, SHP Services Manager
- ► Catherine Desmarais, SHP Epidemiologist Supervisor
- ► Ashley Hoover, SHP Perinatal Supervisor
- ▶ Julie Fitch, SHP STD/HIV Testing Supervisor
- Jacky Bickham, SHP Linkage to Care Supervisor
- ▶ Joy Ewell, CDC Lead PHA
- ► Mohammad Rahman, CDC Epidemiologist
- ► Terri Gray, CDC PHA



### **Questions?**

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### Roundtable Discussion

Carter Blakey
Deputy Director, Office of Disease
Prevention and Health Promotion





#### Save the Date!

Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030

September 6-7, 2017 (in-person)

Registration will be available soon on www.HealthyPeople.gov





## Online Public Comment

Send Healthy People your written comments on the proposed framework for Healthy People 2030.

Visit www.HealthyPeople.gov from June 27, 2017 – September 29, 2017



#### **Progress Review Planning Group**



- Norma Harris (CDC/NCHHSTP)
- Katrina Jackson (HRSA)
- Tanya Geiger (HRSA)
- Lori Elmore (CDC/NCHHSTP)
- Jennifer Ludovic (CDC/NCHHSTP)
- Stan Lehman (CDC/OD)
- Emily DeCoster (HRSA)
- Irma Arispe (CDC/NCHS)
- David Huang (CDC/NCHS)
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- Cheryl Rose (CDC/NCHS)
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- Ayanna Johnson (HHS/ODPHP)
- Yen Lin (HHS/ODPHP)



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