

# Preventing Perinatal HIV Transmission Institute

## Session 1: Where Are We Now?

Wednesday, December 12, 2018

HIV/AIDS Bureau (HAB)  
Health Resources and Services Administration (HRSA)

Division of HIV/AIDS Prevention (DHAP)  
Center for Disease Control (CDC)



# Disclosures

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# Learning Objectives

**At the conclusion of this activity, the participant will be able to:**

- **Understand the current data for perinatal HIV in the US using surveillance and RHWAP data**
- **Explain perinatal cascade and its impact on health care delivery system**
- **Examine different ways recipients have combined funding streams for service delivery**

# Obtaining CME/CE Credit

If you would like to receive continuing education credit for this activity, please visit:

<http://ryanwhite.cds.pesgce.com>



# Health Resources and Services Administration (HRSA) Overview

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- Supports more than 90 programs that provide health care to people who are geographically isolated, economically or medically vulnerable through grants and cooperative agreements to more than 3,000 awardees, including community and faith-based organizations, colleges and universities, hospitals, state, local, and tribal governments, and private entities
- Every year, HRSA programs serve tens of millions of people, including people living with HIV/AIDS, pregnant women, mothers and their families, and those otherwise unable to access quality health care



# HIV/AIDS Bureau Vision and Mission

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## 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 550,000 people – receive care through the Ryan White HIV/AIDS Program
- Funds grants to states, cities/counties, and local community based organizations
  - Recipients determine service delivery and funding priorities based on local needs and planning process
- Payor of last resort statutory provision: RWHAP funds may not be used for services if another state or federal payer is available
- 84.9% of Ryan White HIV/AIDS Program clients were virally suppressed in 2016, exceeding national average of 55%



Source: HRSA. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2016; CDC. HIV Surveillance Supplemental Report 2016;21(No. 4)



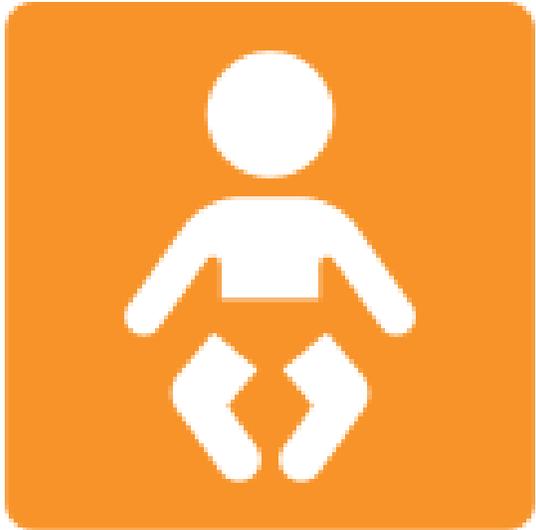
# Women, Pregnant Women and Infants Served by the RWHAP



10% of all RWHAP Clients  
Women, 18-44 years old



.05% of all RWHAP Clients  
Pregnant Women



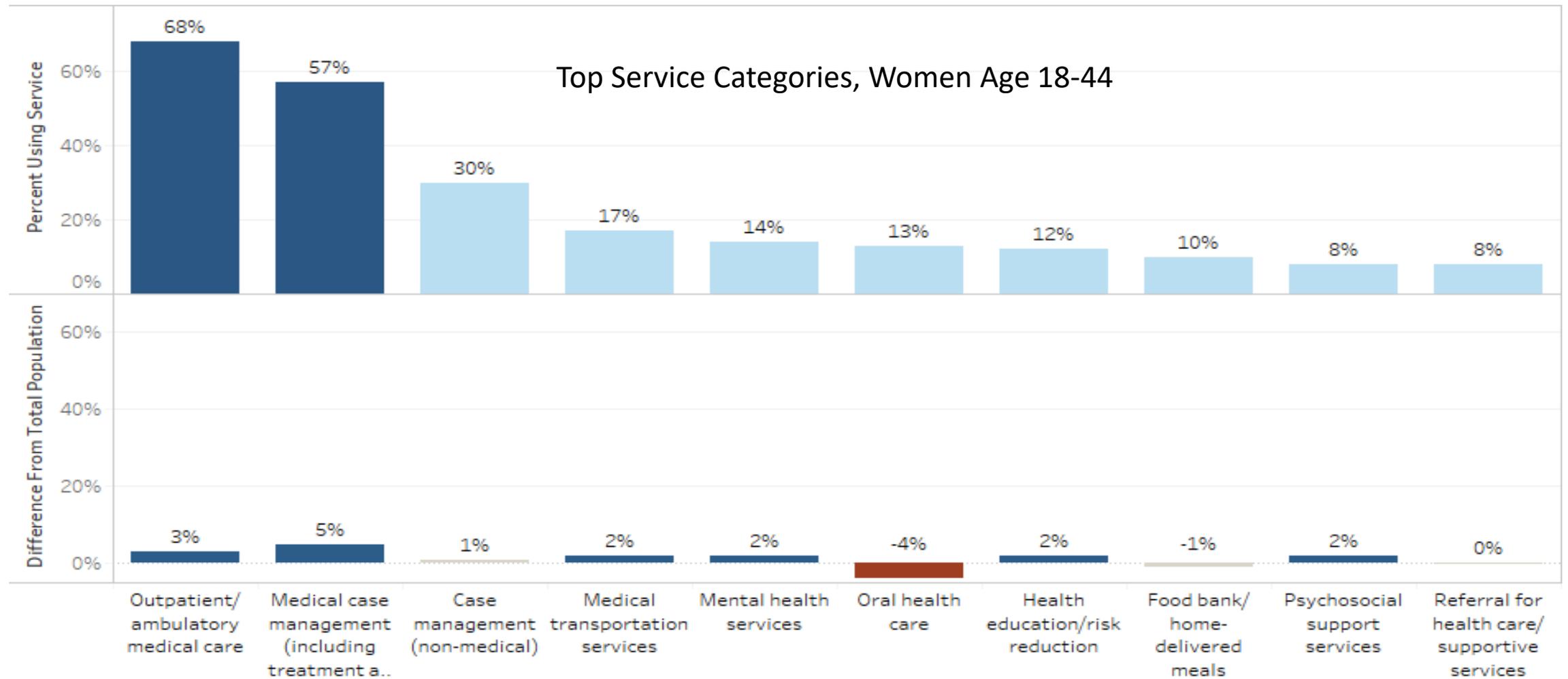
<1% of all RWHAP Clients  
Infants, < 1 year old



Source: HRSA. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2016



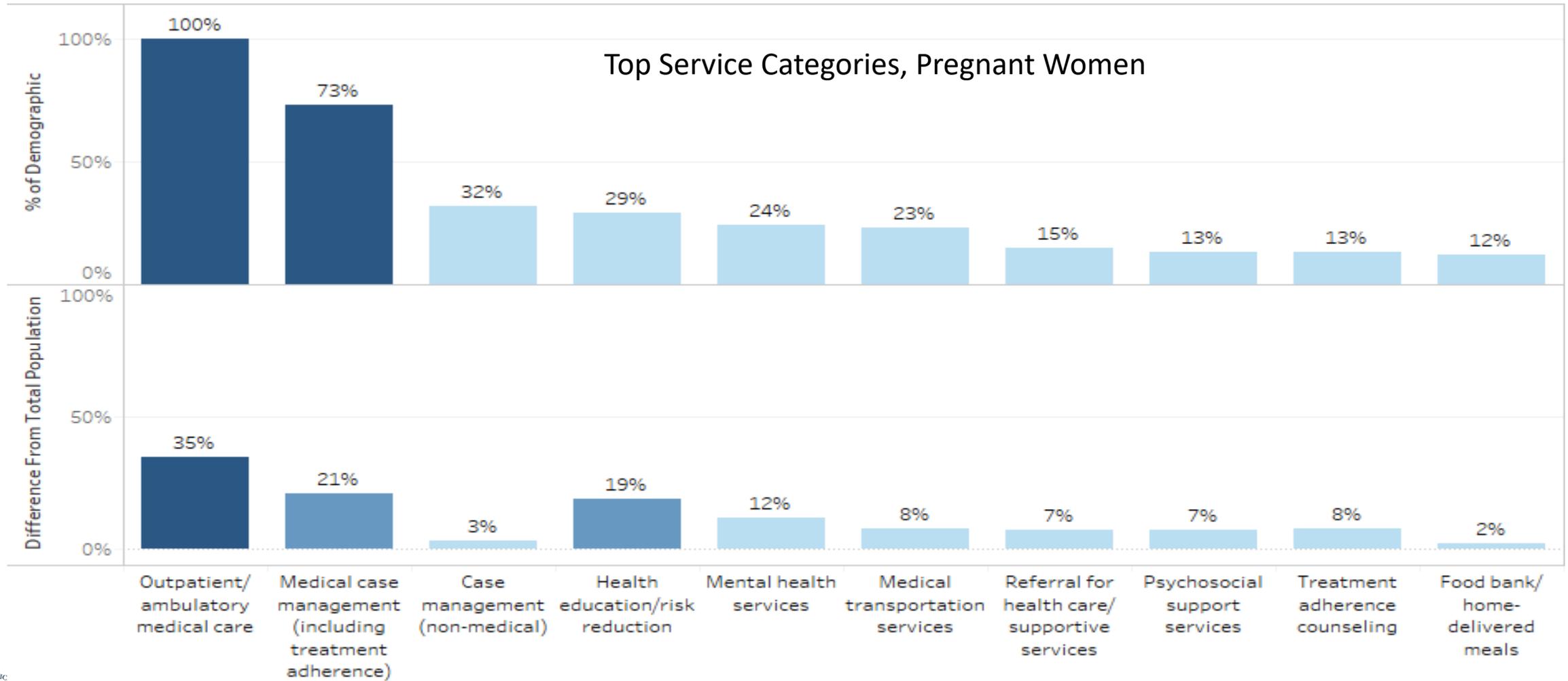
# RWHAP Service Utilization Comparison with total clients



Women, Ages 18-44 Service Mix: Difference from Total RWHAP Client population



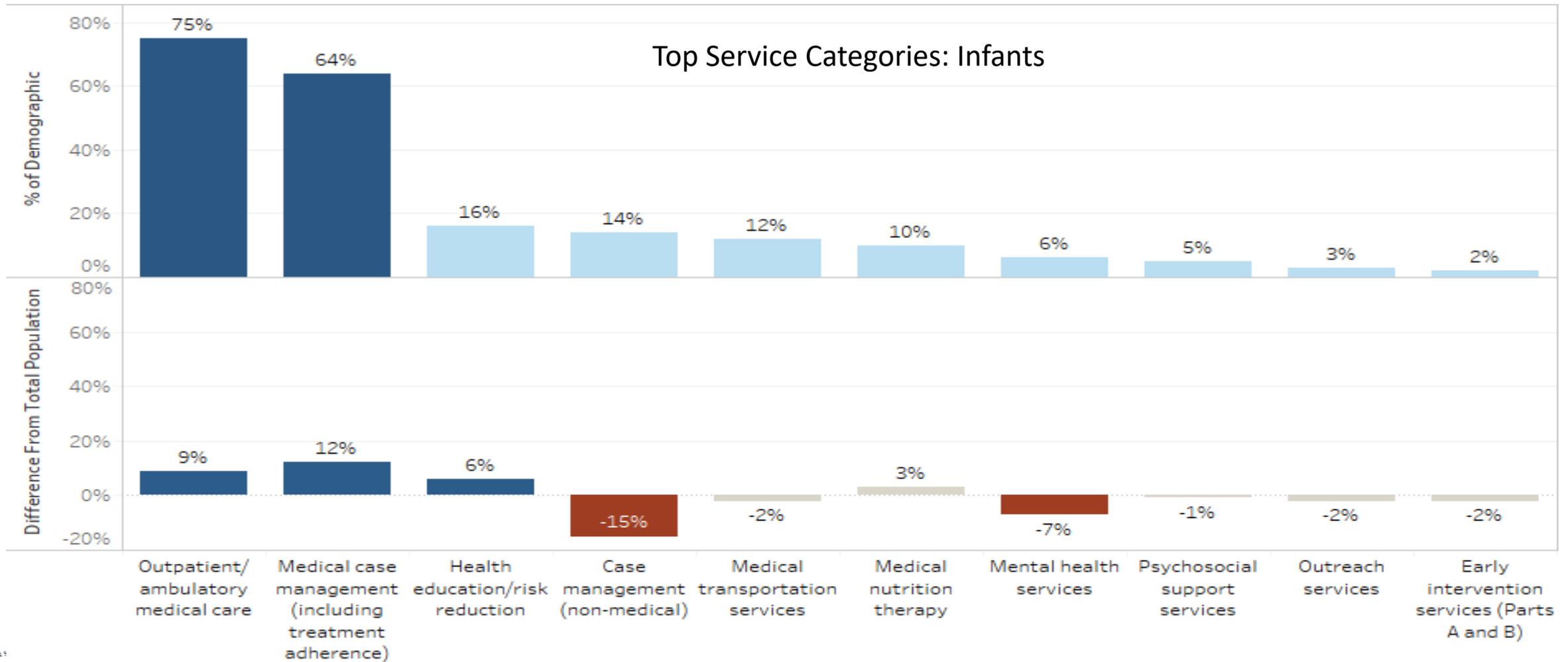
# RWHAP Service Utilization Comparison Pregnant Women



Pregnant Women Service Mix: Difference from Total RWHAP Client Population



# RWHAP Service Utilization by Infants



Infants Service Mix: Difference from Total RWHAP Client Population



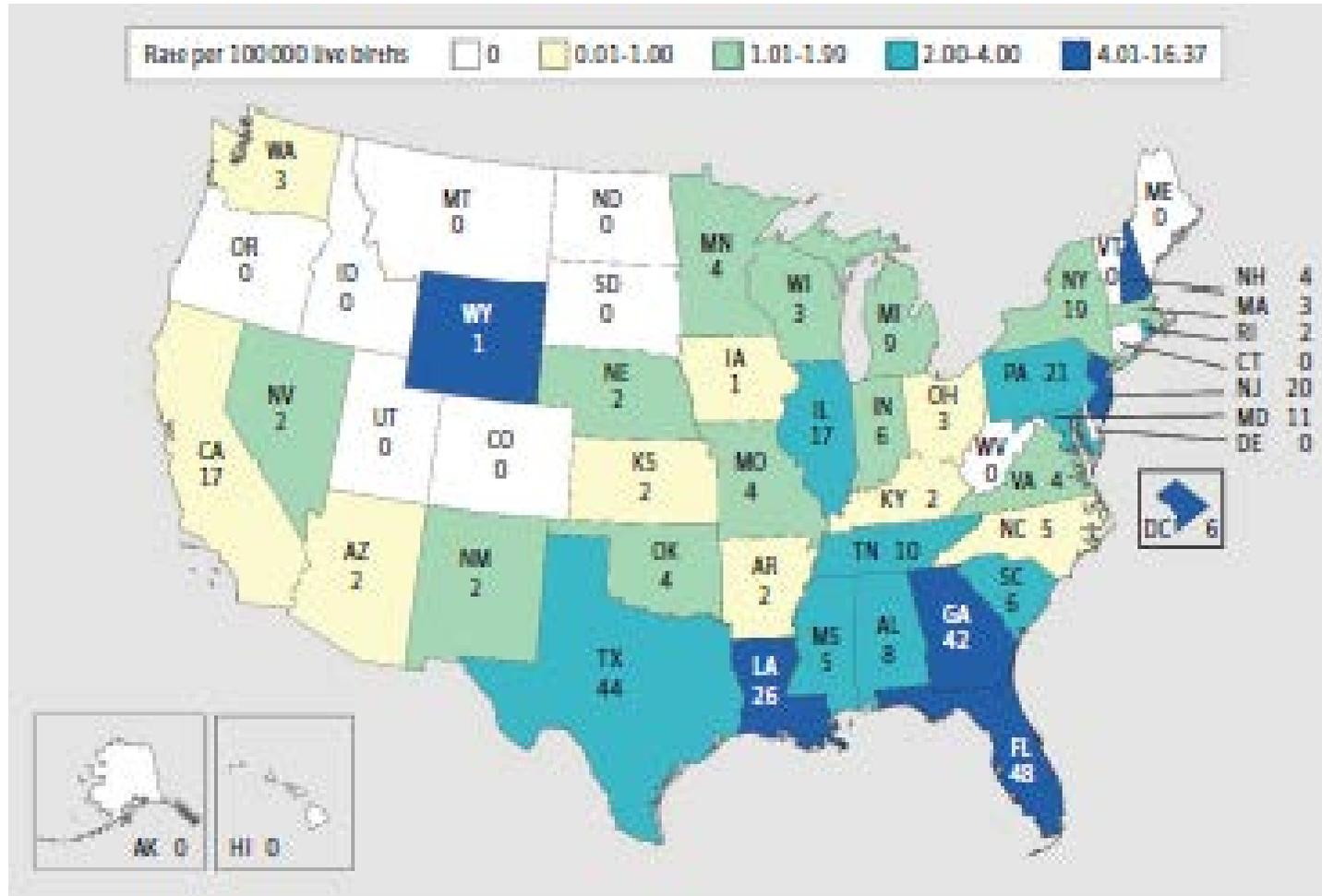
# Current data for perinatal HIV transmission in the United States

Steven Nesheim, MD

Centers for Disease Control and Prevention



# Estimated numbers and rates of perinatally acquired human immunodeficiency virus infections among children born in the United States and District of Columbia, 2010-2013

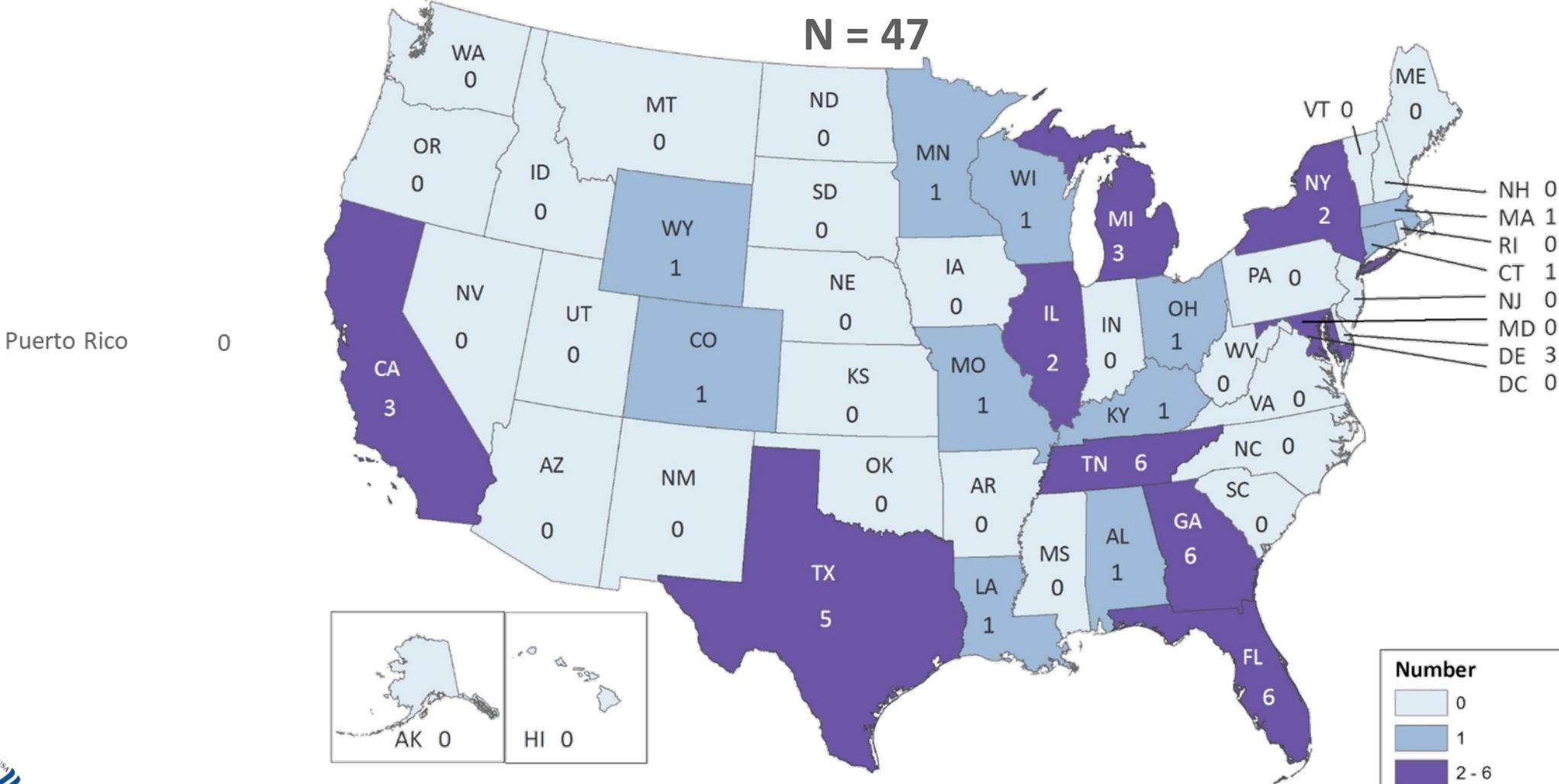


Taylor et al. JAMA Pediatrics May 2017

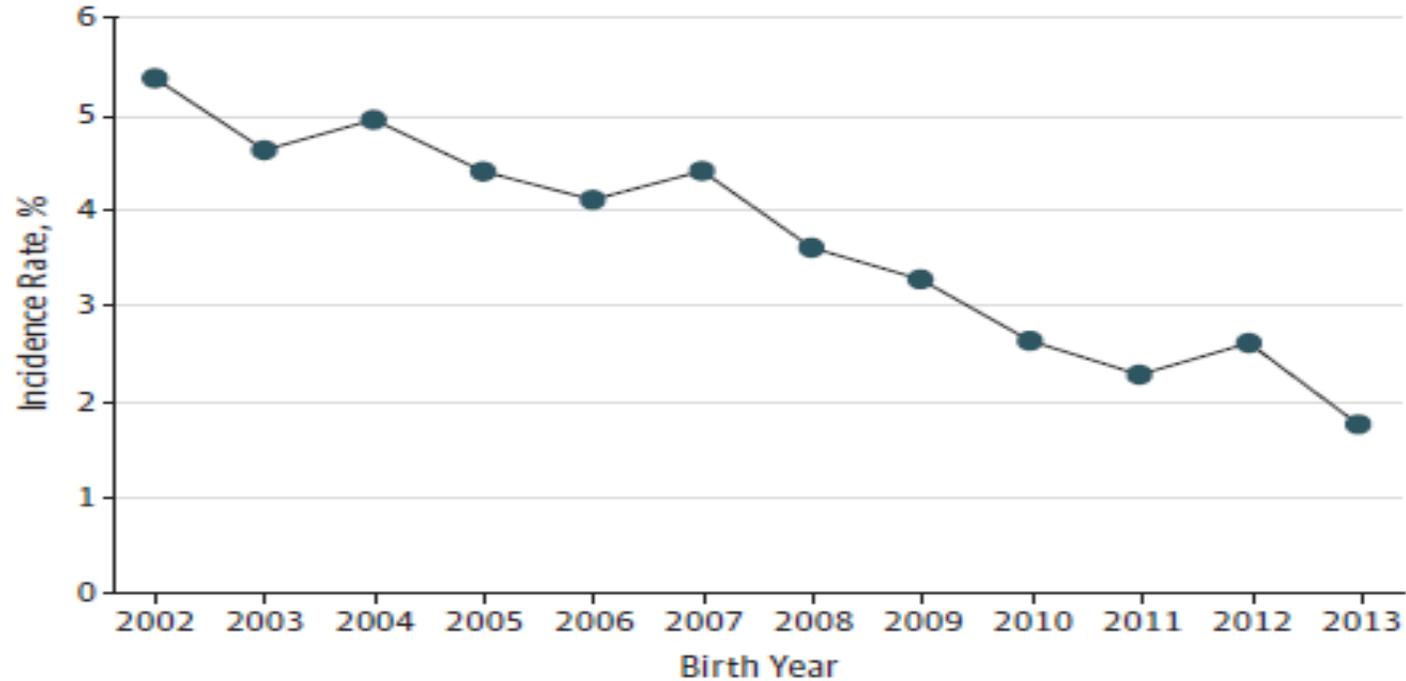


# Diagnoses of Perinatally Acquired HIV Infection among Children Born During 2014, by Area of Residence—United States and Puerto Rico

N = 47



# Estimated incidence rates of perinatally acquired human immunodeficiency virus infection in 50 US states and the District of Columbia, 2002-2013

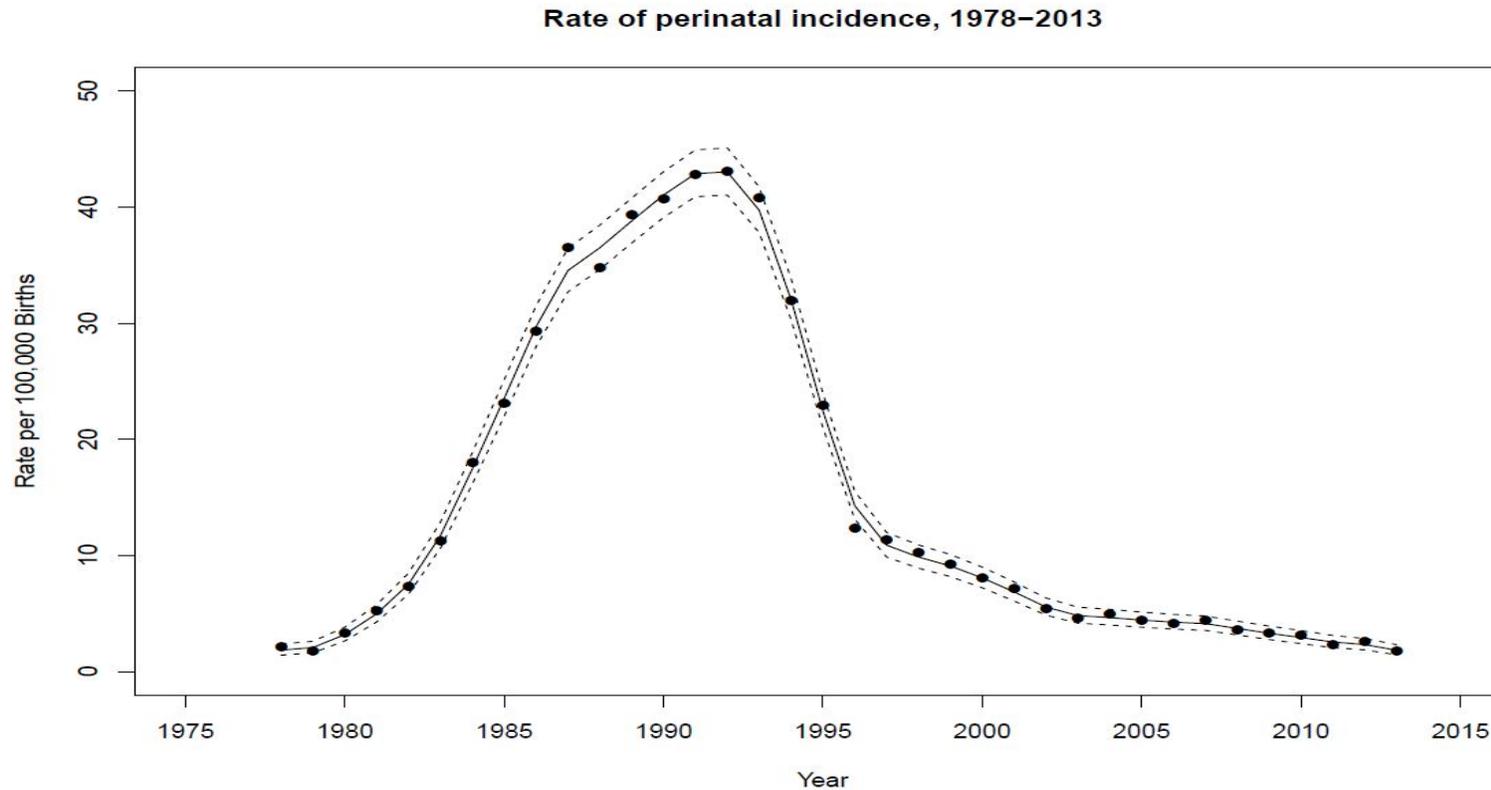


Taylor AW et al, JAMA Pediatrics, May 2017

Rates are estimated diagnoses per 100,000 live births and were adjusted for delay in reporting from birth to diagnosis and from diagnosis to report



# Estimated Incidence of Perinatally Acquired HIV Infection in the United States, 1978-2013



Nesheim SN, et al. J Acquir Immune Defic Syndr Volume 76, Number 5, December 15, 2017



# MCT Rates in Industrialized Countries in the ART Era

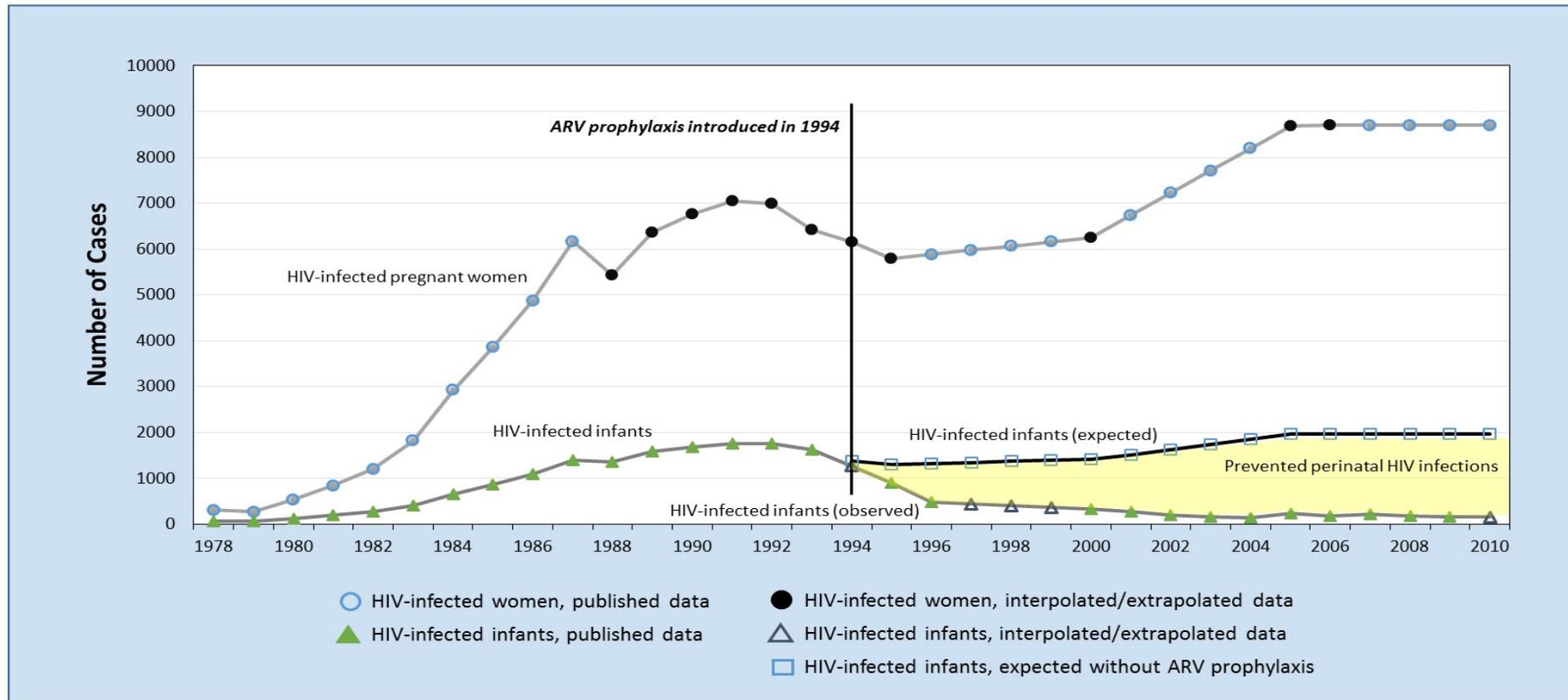
Country	Author	Years	Women <sup>1</sup>	Overall Rate	Rate w/mat. ARVs	Rate w/ VL<50
UK	Townsend	2000-2001	816	2.1%		
Europe	ECS	2001-2003		0.99%		
Sweden	<u>Navér</u>	2000-2003	184	0.0%		
USA-CDC	CDC-EPS	2000-2003	7728	4%		
Spain	<u>Fernández- Ibieta</u>	2000-2005	632	1.4%		
UK	Townsend	2000-2006	2100	1.2%	0.8% (>2wks ARV)	0.1%
USA, NYS	Birkhead	2002-2006	3102	2.0%		
Spain	<u>Prieto</u>	2000-2007	803	1.6%	0-19% (VL<1000)	
Europe	ECS	2005-2007	394	1.0%		0.4%
Denmark	<u>Linstow</u>	2000-2008	206 <sup>1</sup>	0.5%		
USA-CDC	CDC-EPS	2005-2008	8054	2.0%		
Canada	Forbes	1990-2010	2692	2.9%	1.0% (HAART)	
France	Briand	2000-2010	8977		0.7%	0.0-0.3%
UK	Townsend	2010-2011	1975	0.46%		

<sup>1</sup> Number of women unless otherwise stated.

**Townsend.** Earlier initiation of ART and further decline in MCT rates 2000-2010 *AIDS* 2014, 28:1049-1057. **European Collaborative Study.** Mother-to-child transmission of HIV infection in the era of highly active antiretroviral therapy. *CID*. 2005 Feb;40:458-465.; **Navér L,** et al. *JAIDS*. 2006 Aug 1;42(4):484-9. **CDC HIV Surveillance Supplemental Report, Enhanced Perinatal Surveillance, Vol 13, No 4.** **Fernández-Ibieta M,** et al. *An Pediatr (Barc)*. 2007 Aug; 67(2):109-15. **Townsend CL,** et al. *AIDS*. 2008, 22:973-981.; **Birkhead G,** et al. *Obstet Gynecol*. 2010 Jun;115(6):1247-55. **Prieto L,** et al *PIDJ* 2012 Oct;31(10):1053-8. **Linstow M,** et al. *HIV Med* 2010 Aug;11(7):448-56. **CDC HIV Surveillance Supplemental Report, EPS, 2011, Vol 16, No 2.** **Forbes** *AIDS*. 2012 Mar 27;26(6):757-63. **Briand.** Cesarean section for HIV-infected women in the combination antiretroviral therapies era, 2000-2010 *AJOG* 2013; 209:335.e1-12.



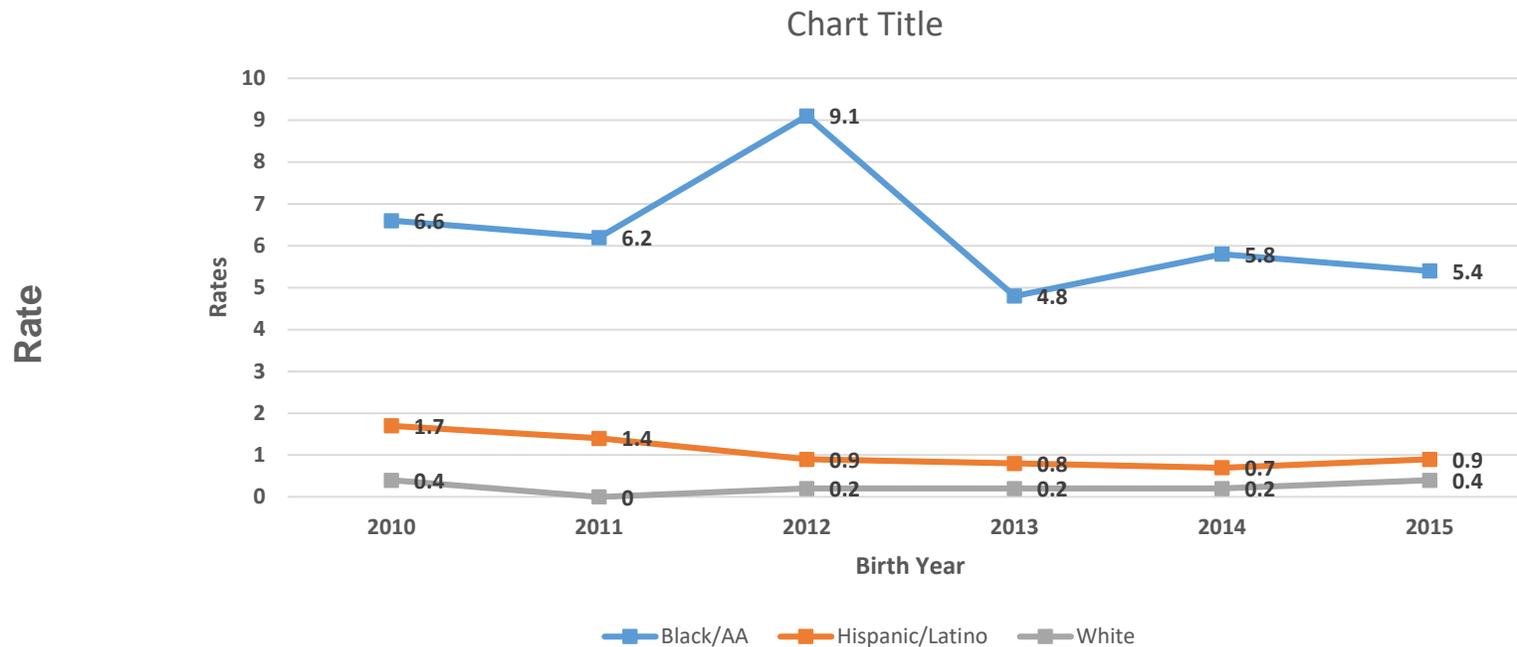
# Estimated Numbers HIV-Infected Pregnant Women, HIV-Infected Infants, and Prevented Perinatal Infections in the United States, 1978-2010



Little KM, Taylor AW, Borkowf CB, Mendoza MCB, Lampe MA, Weidle PJ, Nesheim SR. Perinatal Antiretroviral Exposure and Prevented Mother-to-Child HIV Infections in the Era of Antiretroviral Prophylaxis in the United States, 1994-2010. *PIDJ* 2017;36(1):66-71.



# Rates (per 100,000 live births) of perinatally acquired HIV infection by year of birth and mother's race/ethnicity, 2010-2015



Birth Year

Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2016. HIV Surveillance Report, 2018.

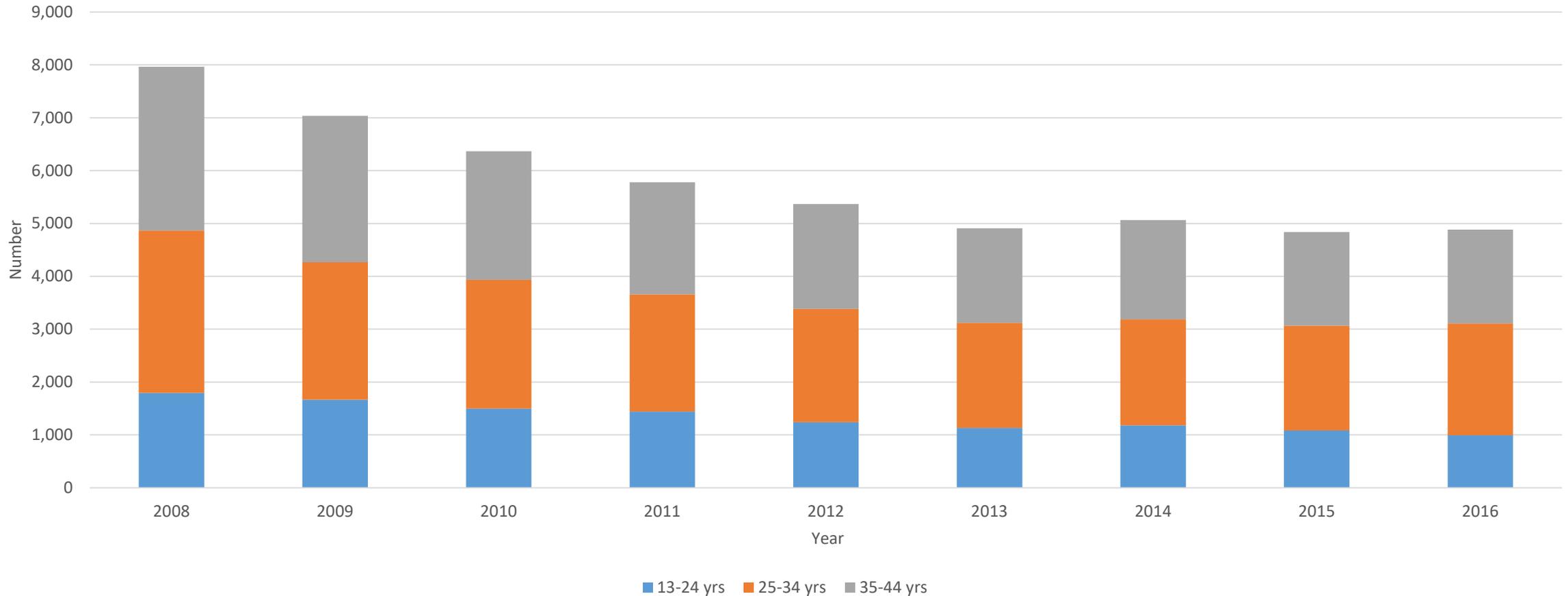


# Acute HIV Infection during Pregnancy in the United States

Study Site	Study Period	# of Women	# of Infected Infants	% infected infants with mothers w/ acute infections	MTCT rate during acute infections
New York	2002-2006	3396	65	9/65 (13.8%)	22%
North Carolina	2002-2005	443	6	3/6 (50%)	3/5 (60%)
Florida	2007-2014	4337	70	12 (18%)	
EPS, Singh	2005-2010	10,308	118	9 (7.6%)	12.9%



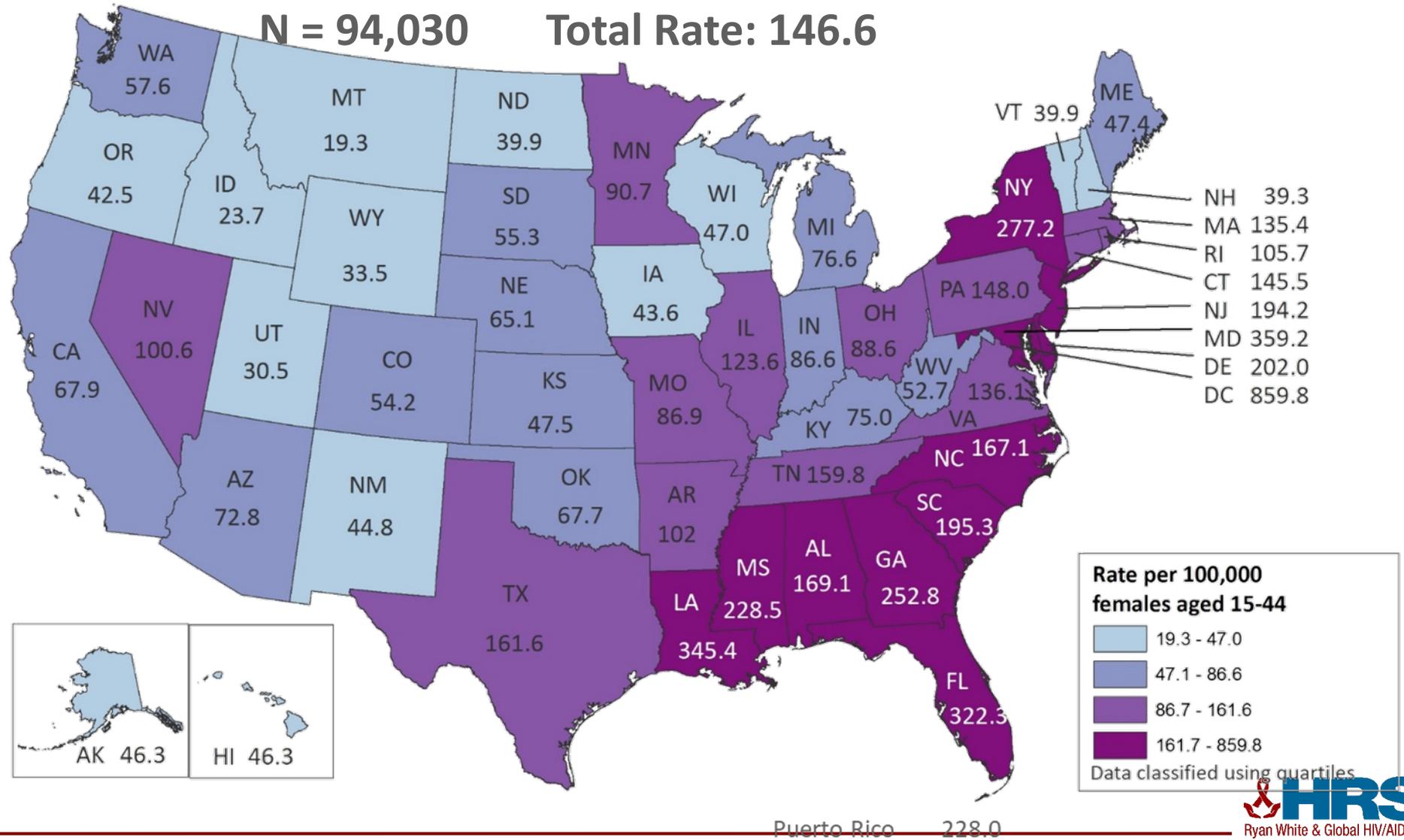
# Number of childbearing age women diagnosed with HIV infection by year, United States and US territories



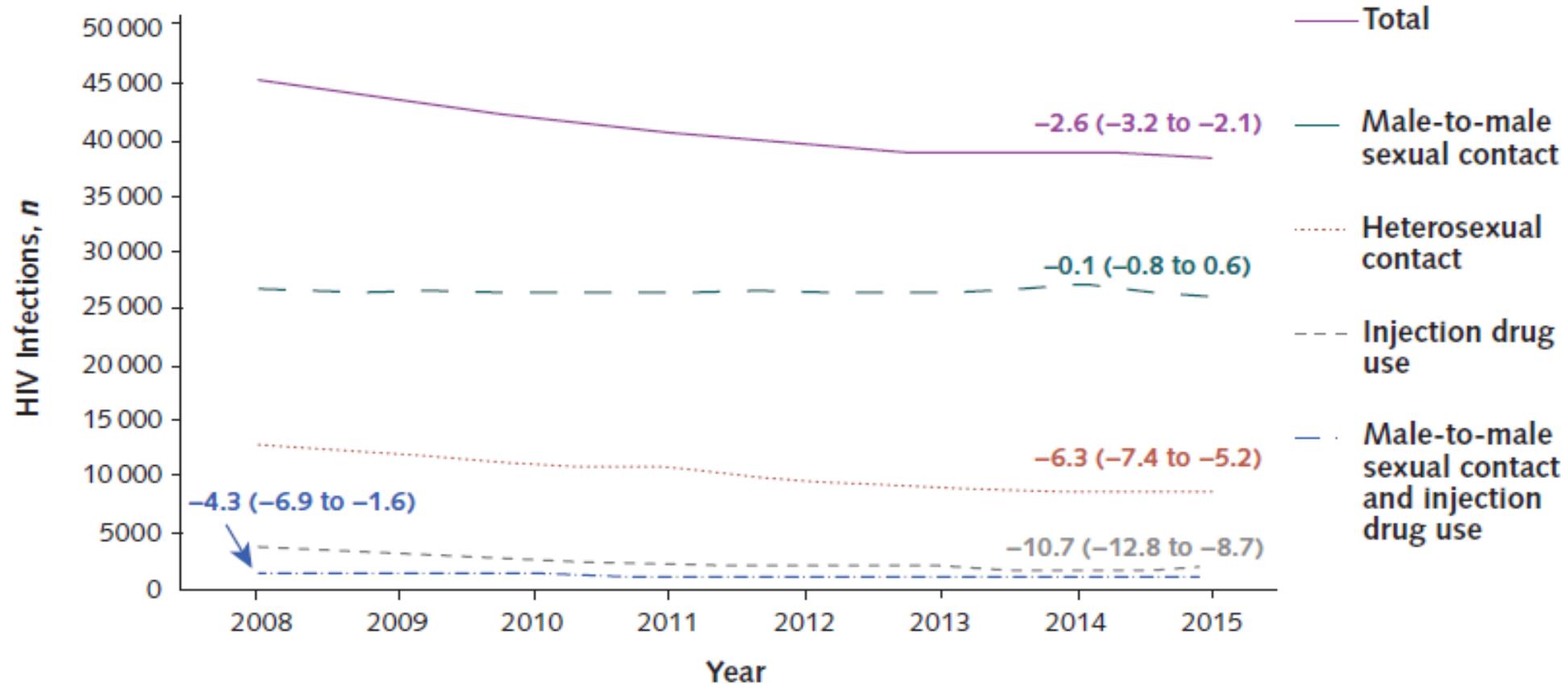
From NCHHSTP Atlas, October 2018



# Rates of Females Aged 15–44 Years Living with Diagnosed HIV Infection, by Area of Residence, 2015—United States and Puerto Rico



# Estimated HIV incidence among persons aged 13 years and older, by transmission category (adjusted for missing transmission category), United States, 2008 to 2015



Shown are the estimated annual percentage changes and associated 95% CIs.

Singh S. et al, HIV Incidence, HIV Prevalence, and Undiagnosed HIV Infections in Men Who Have Sex With Men, United States. *Ann Intern Med.* 2018;168(10):685-694



# Time from infection with HIV to diagnosis

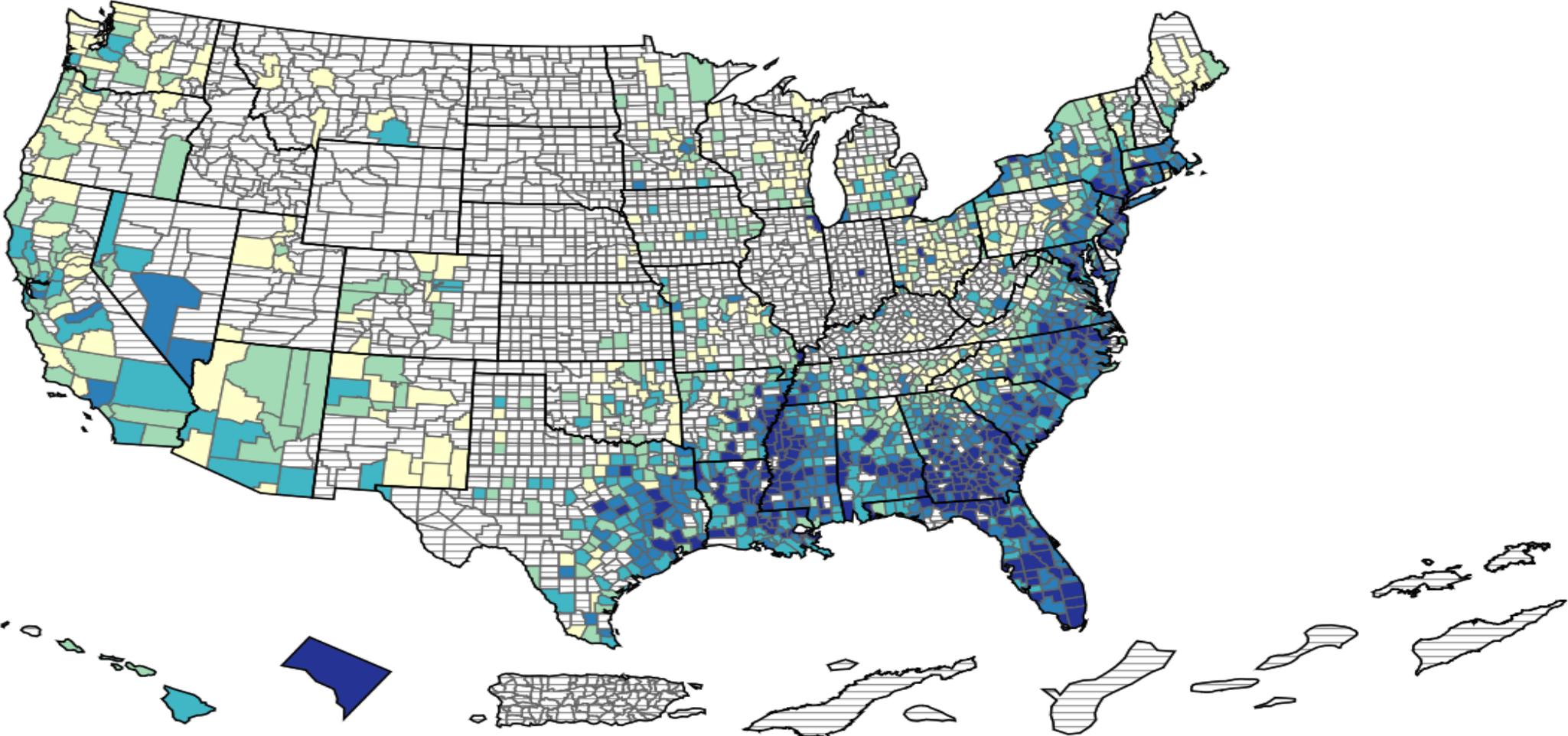


**TABLE 1.** Number of Years Infected at the Time of HIV diagnosis in 2003 and 2011, United States

	2003				2011				Percentage Change	
	CD4 at Diagnosis	No. Years Infected at the Time of Diagnosis			CD4 at Diagnosis	No. Years Infected at the Time of Diagnosis			Mean	95% CI
	Mean	Median	Mean	95% CI	Mean	Median	Mean	95% CI		
Total	325	5.4	7.0	6.9 to 7.1	395	3.6	5.6	5.5 to 5.6	-20.7	-22.2 to -19.3
Transmission category										
Male	320	5.2	6.8	6.7 to 6.9	391	3.5	5.4	5.3 to 5.5	-20.8	-22.4 to -19.1
Male-to-male sexual contact	336	4.5	6.2	6.1 to 6.3	404	3.2	5.0	4.9 to 5.0	-19.6	-21.5 to -17.6
Injection drug use	277	7.1	7.6	7.3 to 7.8	334	5.3	6.5	6.0 to 7.0	-14.2	-21.0 to -7.4
Male-to-male sexual contact and injection drug use	371	3.4	5.4	5.1 to 5.7	423	2.7	4.8	4.4 to 5.3	-10.5	-20.0 to -1.0
Heterosexual contact	257	9.0	9.8	9.4 to 10.1	314	5.9	8.1	7.7 to 8.5	-17.0	-22.1 to -11.9
Female	339	5.8	7.6	7.4 to 7.7	410	3.9	6.2	6.0 to 6.4	-18.4	-21.7 to -15.1
Injection drug use	334	5.6	6.7	6.4 to 7.0	398	4.8	6.0	5.4 to 6.6	-10.6	-19.8 to -1.4
Heterosexual contact	340	5.9	7.8	7.6 to 8.0	412	3.7	6.2	6.0 to 6.4	-20.7	-24.4 to -16.9
Race/ethnicity										
Black/African American	297	6.7	7.9	7.8 to 8.0	388	3.9	5.8	5.7 to 5.9	-26.6	-28.6 to -24.6
Hispanic/Latino	302	6.3	7.4	7.2 to 7.5	379	3.8	5.8	5.6 to 6.0	-21.7	-24.7 to -18.8
White	381	3.2	5.5	5.4 to 5.6	417	2.8	5.0	4.9 to 5.2	-8.5	-11.8 to -5.2
Other	329	4.9	6.6	6.3 to 6.9	385	3.8	5.7	5.3 to 6.0	-14.5	-21.0 to -7.9
Age at diagnosis (yrs)										
13-24	383	3.5	5.4	5.2 to 5.6	460	2.7	3.9	3.8 to 4.1	-27.2	-30.8 to -23.7
25-34	346	4.9	6.8	6.7 to 7.0	418	3.2	5.3	5.2 to 5.5	-22.6	-25.4 to -19.7
35-44	314	5.8	7.4	7.3 to 7.6	370	3.9	6.3	6.1 to 6.5	-15.0	-18.0 to -12.0
45-54	301	6.1	7.2	7.0 to 7.4	355	4.2	6.2	6.0 to 6.4	-13.7	-17.1 to -10.3
55+	265	7.5	7.7	7.4 to 8.0	316	5.6	6.8	6.5 to 7.1	-11.7	-16.3 to -7.0

Hall I, et al. Time from infection with the human immunodeficiency virus to diagnosis, United States. JAIDS 2015; 69(2):248-251

# HIV prevalence among women ages $\geq 13$ years, US by County, 2014



# Perinatal HIV Exposure Reporting (PHER)



- Recommended by
  - Centers for Disease Control and Prevention<sup>1</sup>
  - American Academy of Pediatrics<sup>2</sup>
  - Council of State and Territorial Epidemiologists<sup>3</sup>
- 34 states and 1 territory ‘allow’ PHER<sup>4</sup>
- 33/56 (59%) of jurisdictions (59 surveyed) say they conduct PHER<sup>5</sup>

<sup>1</sup> Centers for Disease Control and Prevention. *CDC guidelines for national human immunodeficiency virus case surveillance, including monitoring for human immunodeficiency virus infection and acquired immunodeficiency syndrome*. MMWR 1999; 48(No. RR-13):1--32. <sup>2</sup> American Academy of Pediatrics (AAP). *Surveillance of pediatric HIV infection*. Pediatrics 1998;101(2):315-319. <sup>3</sup>Council of State and Territorial Epidemiologists (CSTE). *Increased emphasis on perinatal HIV surveillance and prevention. 10-ID-02*. <http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/10-ID-02updated.pdf> . <sup>4</sup> Andrews et al. *Public Health Reports*, 2017. <sup>5</sup>Survey by EMCT SG



# Perinatal HIV Prevention Cascade

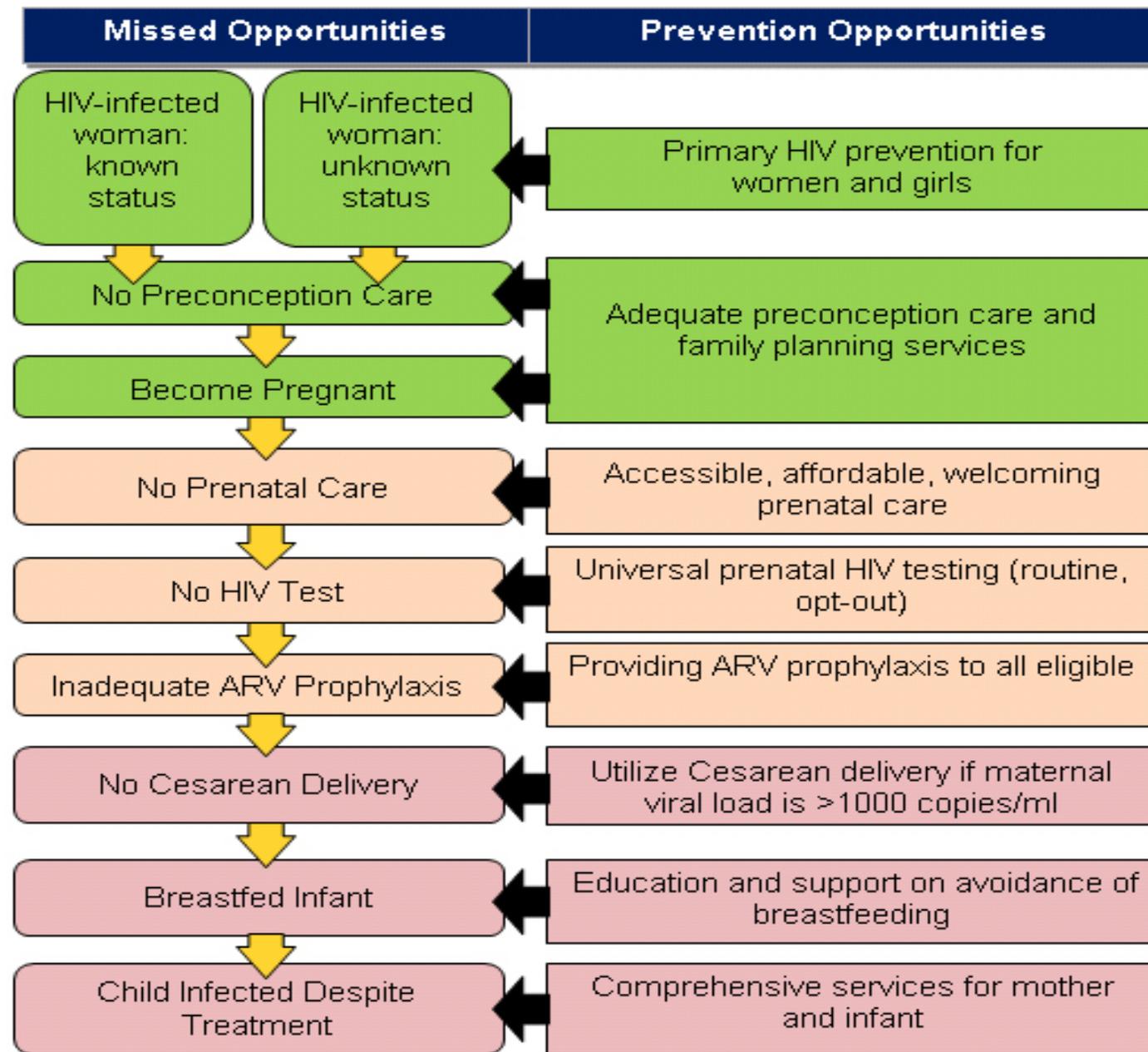
- **Lauren FitzHarris, MPH**
- *Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention*

# Learning Objectives

At the conclusion of this activity, the participant will be able to:

1. Describe prevention opportunities of the perinatal HIV prevention cascade
2. Describe missed opportunities of the perinatal HIV prevention cascade
3. Describe key clinical interventions needed to prevent perinatal HIV transmission.

# Perinatal HIV Prevention Cascade



Source: CDC.

<https://www.cdc.gov/hiv/gro-up/gender/pregnantwomen/emct.html>



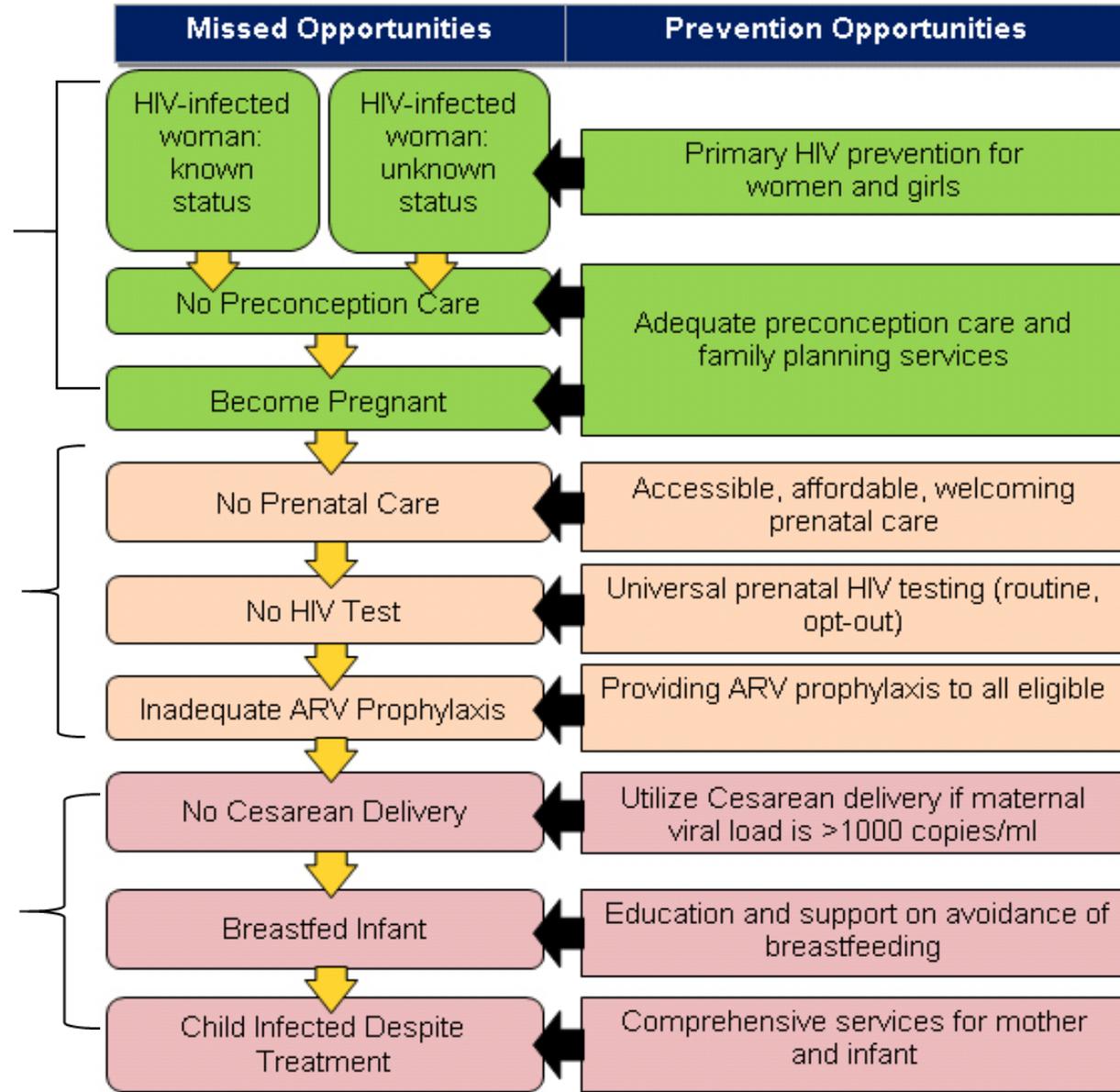
# Perinatal HIV Prevention Cascade



**Prior to Pregnancy**

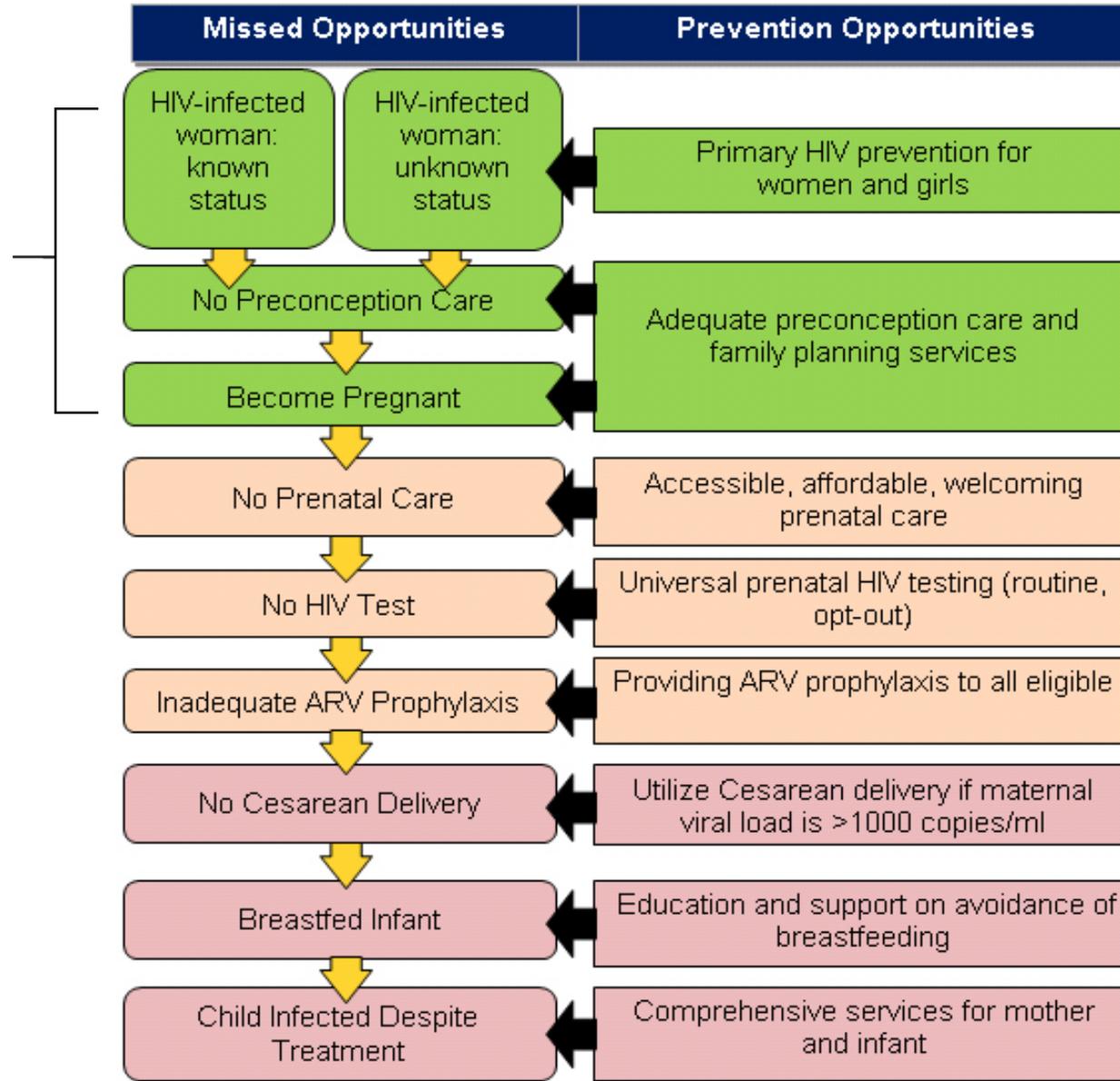
**Pregnancy**

**Post Pregnancy**

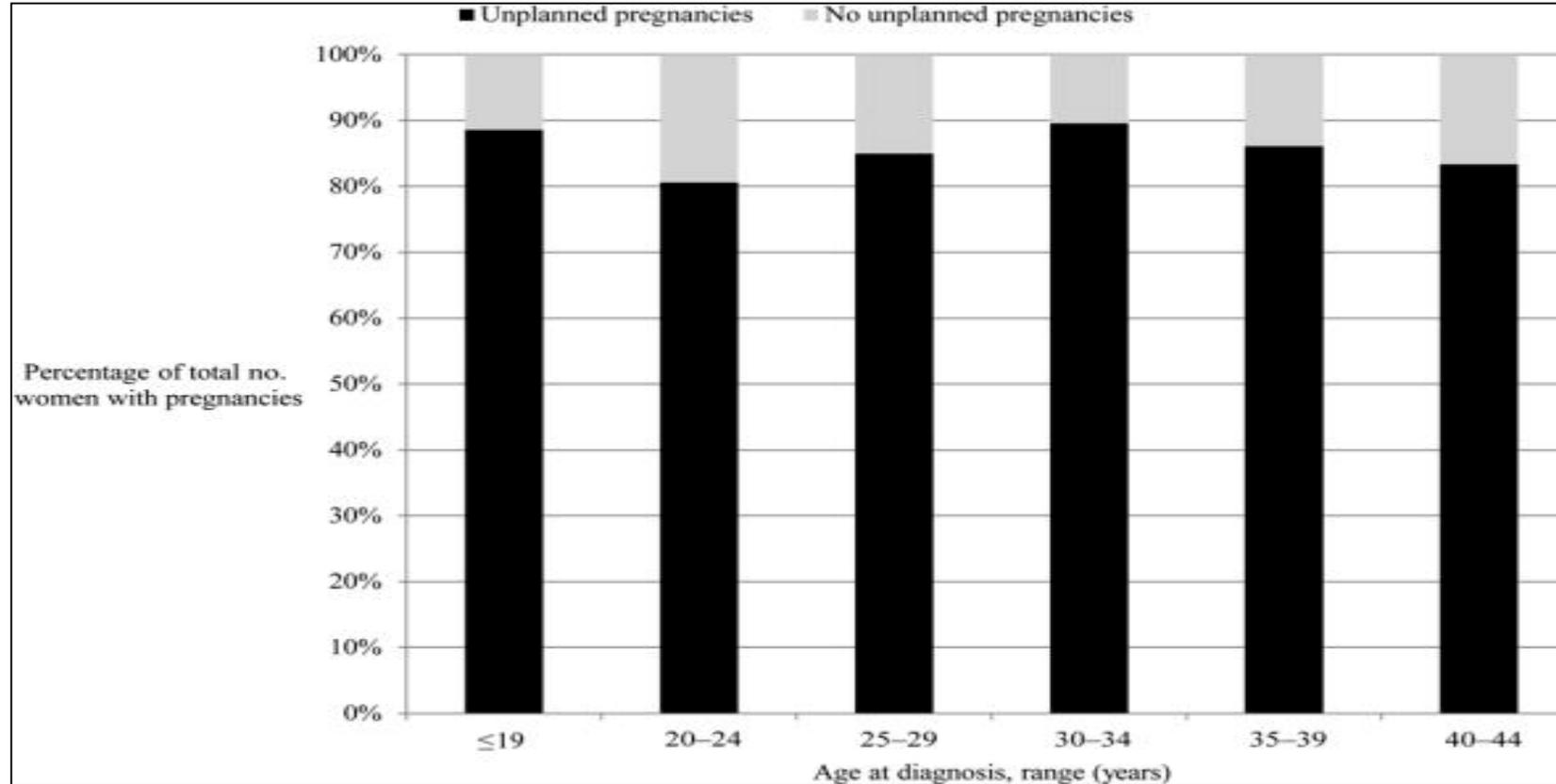


# Perinatal HIV Prevention Cascade

Prior to Pregnancy



# HIV-infected women in care with $\geq 1$ unplanned and no unplanned pregnancies, by age at HIV diagnosis Medical Monitoring Project, 2007 & 2008 (n = 382)



Source: Sutton MY, Patel R, Frazier EL. JAIDS 2014 Mar 1;65(3):350-8



# HIV-positive women in care who had a pregnancy since HIV diagnosis, by only planned pregnancies vs. $\geq 1$ unplanned pregnancies-Medical Monitoring Project, 2013 -2014 (N = 671)

## Had only planned pregnancies:

- n= 147 21.9% (95% CI 18.3-25.5)

## Had 1 or more unplanned pregnancies:

- n=524 78.1% (95% CI 74.5-81.7)

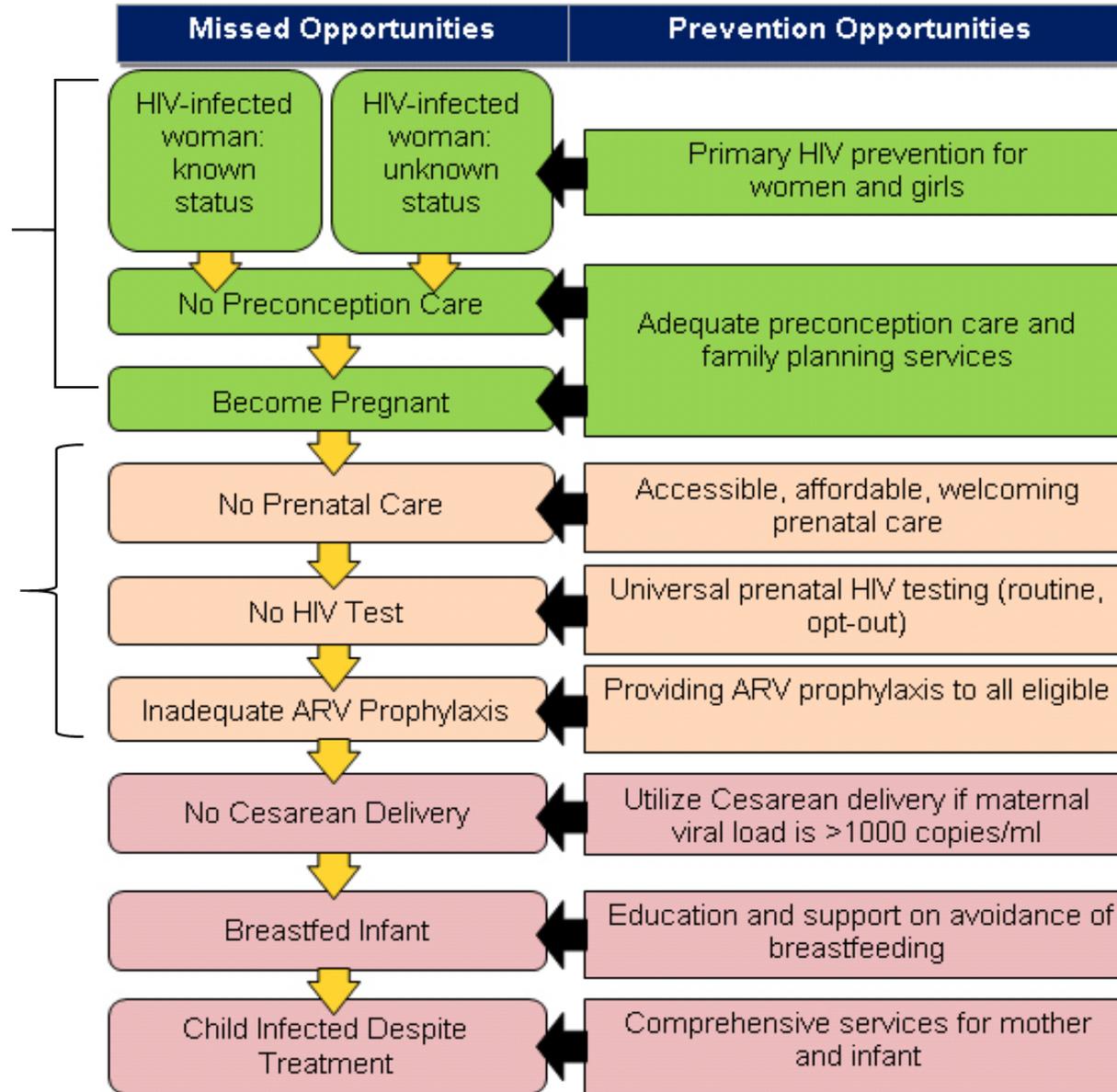
Source: Sutton MY, Zhou W, Frazier EL (2018) Unplanned pregnancies and contraceptive use among HIV- positive women in care. PLoS ONE 13 (5): e0197216. <https://doi.org/10.1371/journal.pone.0197216>



# Perinatal HIV Prevention Cascade

Prior to Pregnancy

Pregnancy



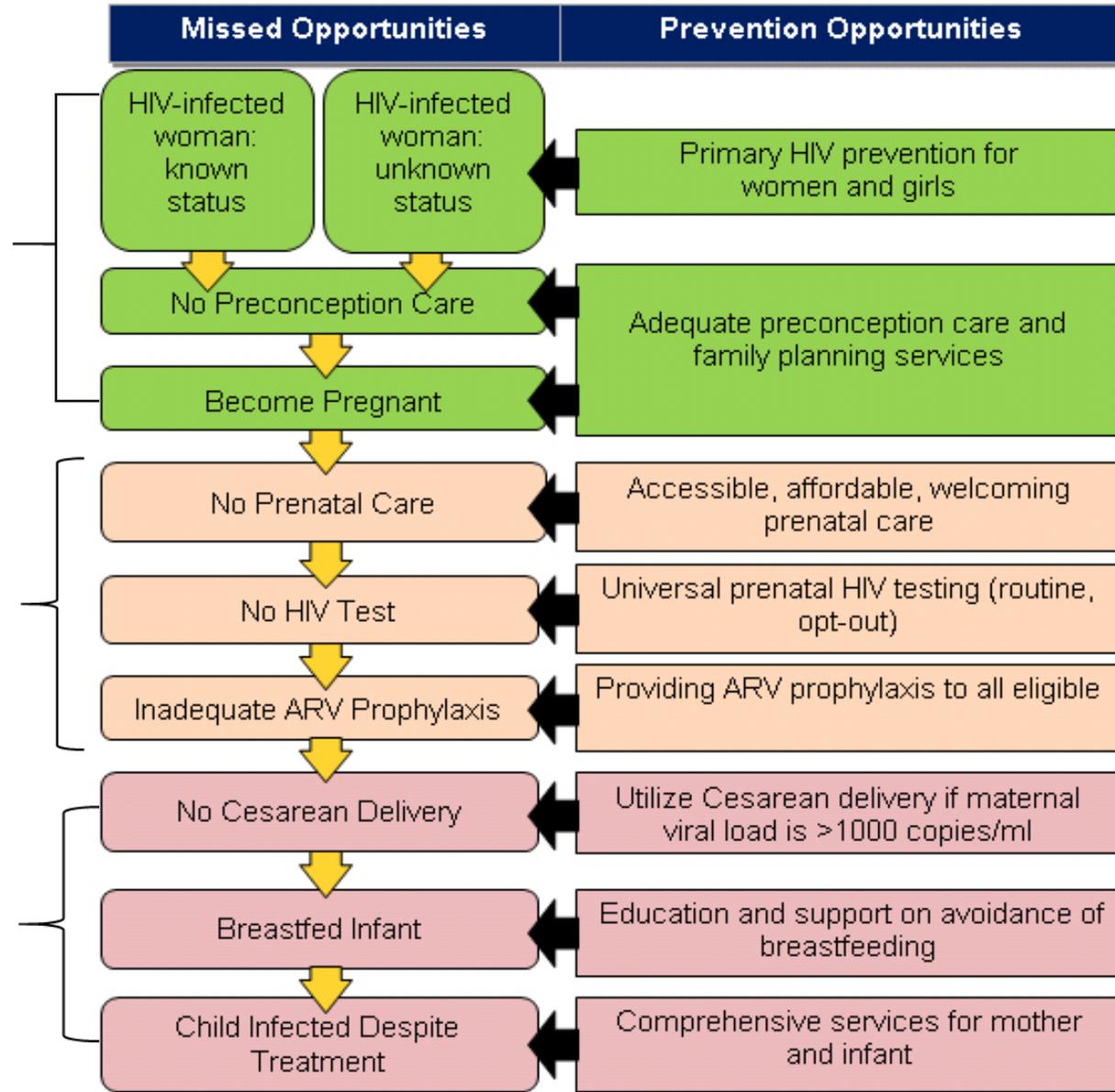
# Perinatal HIV Prevention Cascade



**Prior to Pregnancy**

**Pregnancy**

**Post Pregnancy**



# Perinatal HIV Prevention Cascade

Prior to Pregnancy

Pregnancy

Post Pregnancy

After Post Pregnancy



# Community Perspective



# Community Perspective



**Jessica Fridge, MSPH**

STD/HIV Surveillance Manager  
LDH/ Office of Public Health,  
STD/HIV Program

[Jessica.Fridge@la.gov](mailto:Jessica.Fridge@la.gov)

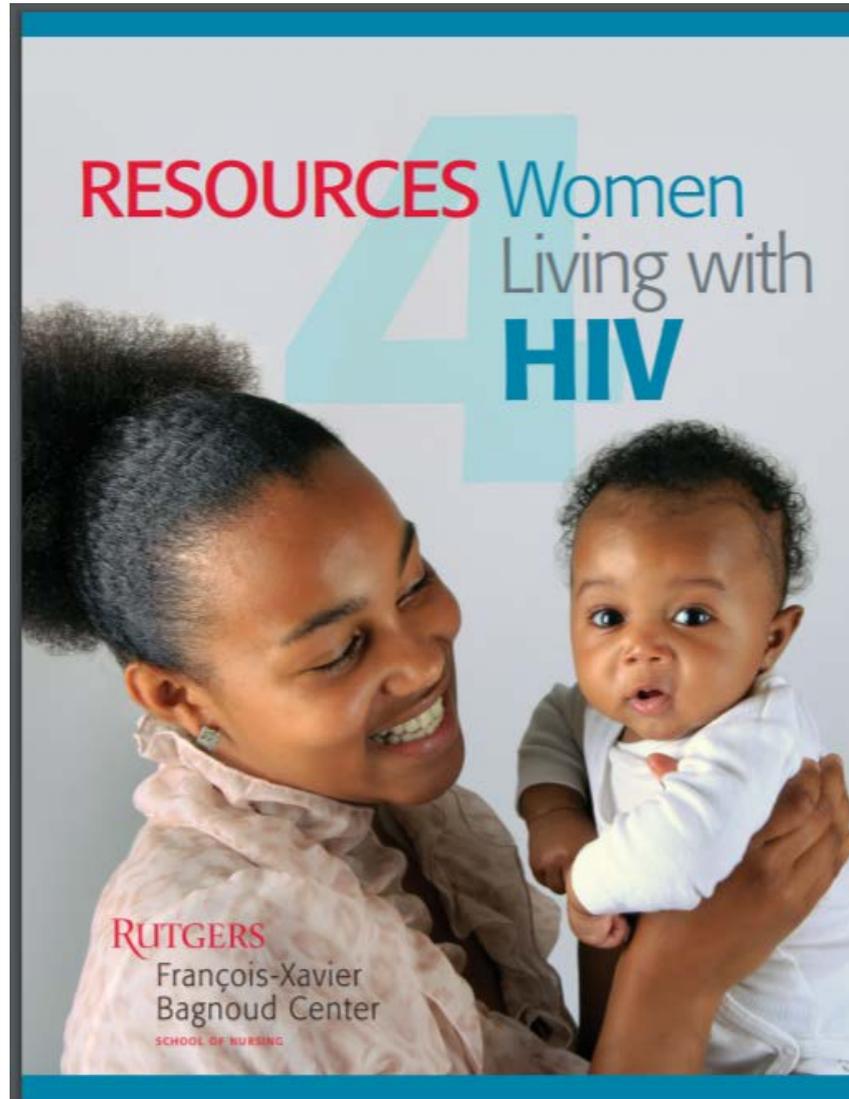
# Community Perspective

## Mary Jo Hoyt, MSN

Director, Education and  
Capacity Development  
François-Xavier Bagnoud  
Center

973-972-9230

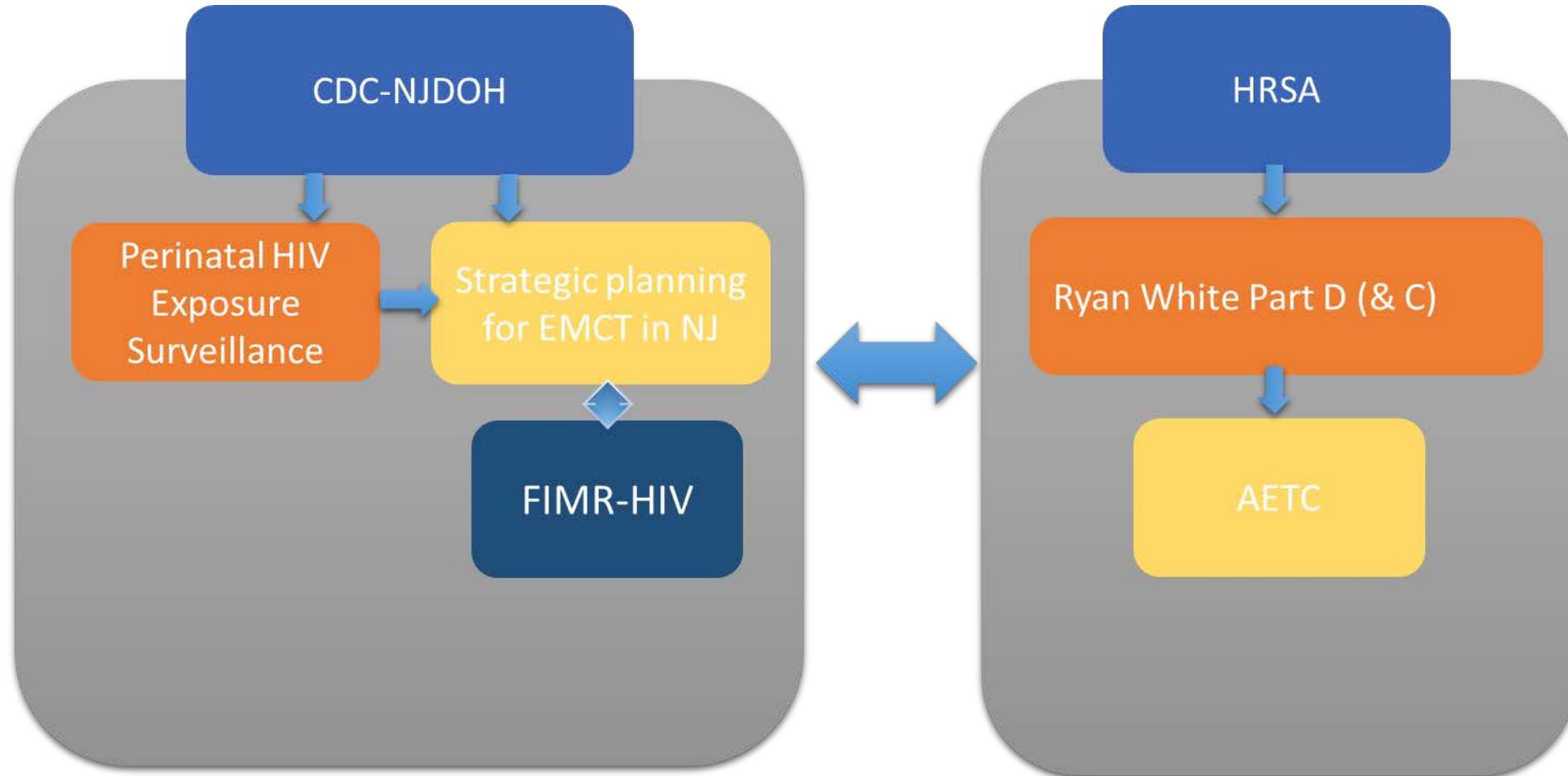
[hoyt@sn.rutgers.edu](mailto:hoyt@sn.rutgers.edu)



François-Xavier  
Bagnoud Center  
New Jersey



# Perinatal HIV Service Coordination in NJ



François-Xavier Bagnoud Center

# Agenda

How is care for women, infants, children and youth organized in NJ?

- RW Part D network

How are we doing?

- Status of elimination of perinatal HIV transmission in NJ

How do we identify and correct weak points in the HIV care continuum for pregnant women and their infants?

- Strategic planning for EMCT
- FIMR-HIV
- Sample interventions to improve care

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# NJ Statewide RW Part D Network

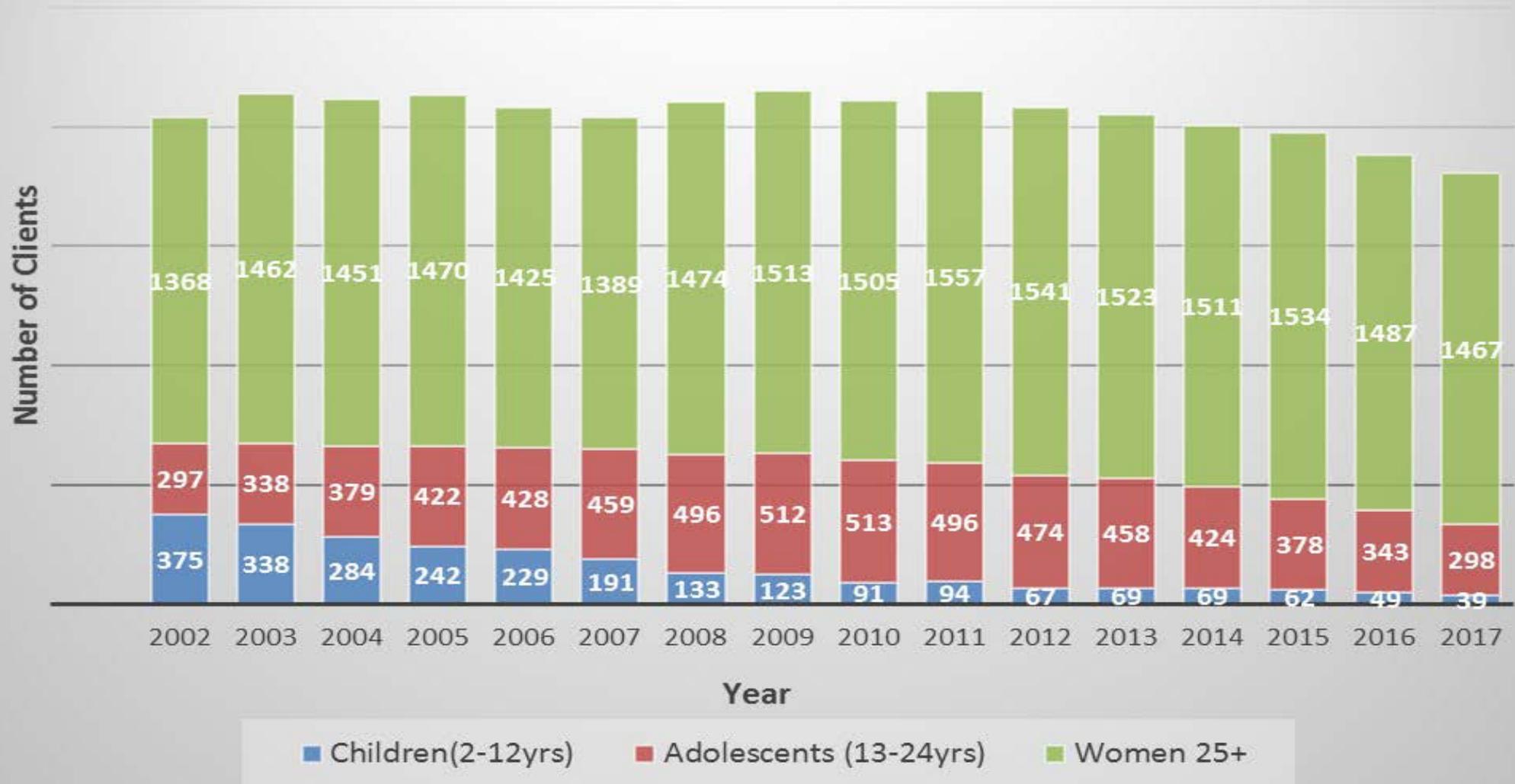


The DOH is the HRSA Part D grantee for the state of NJ

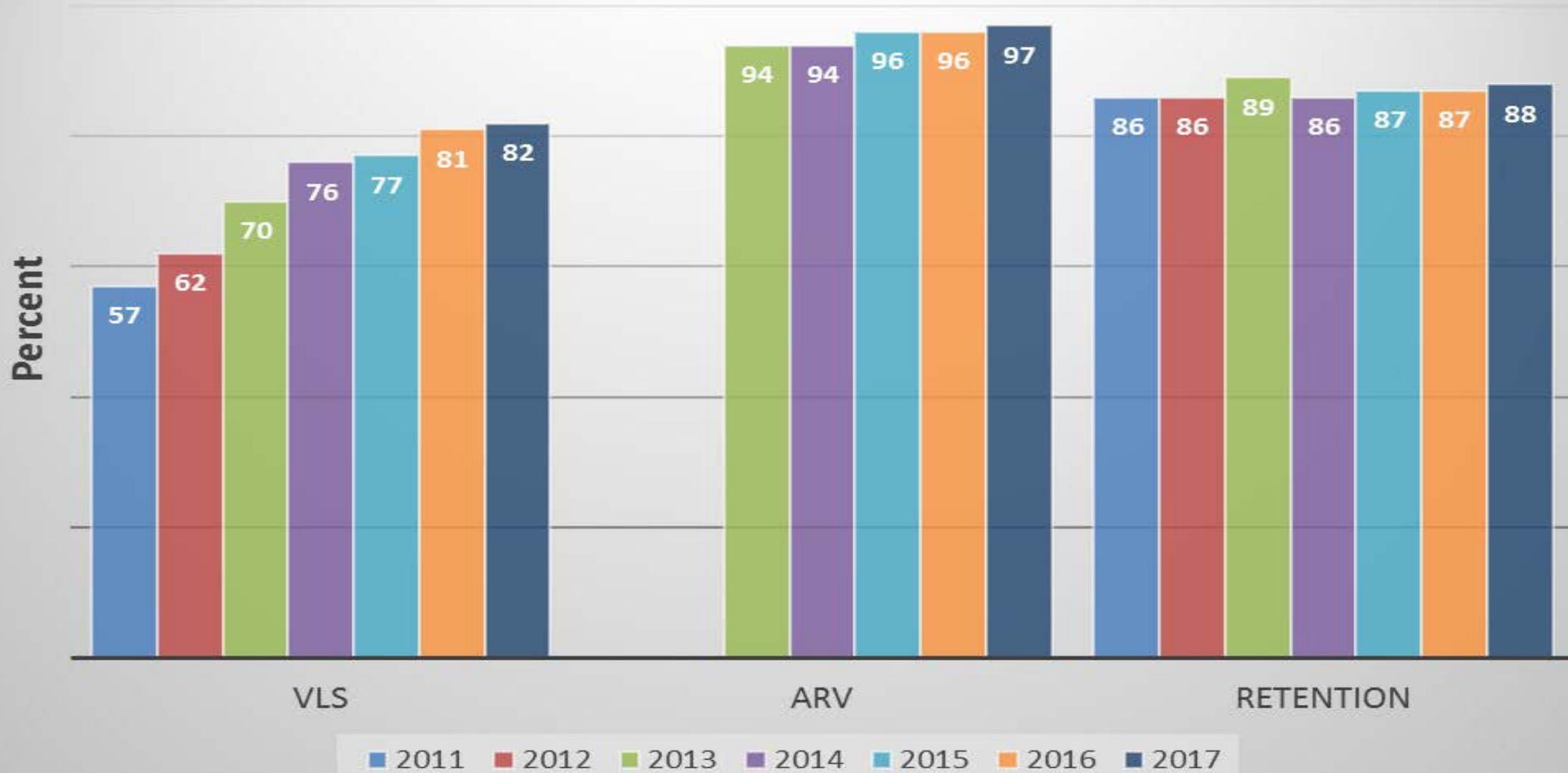
- The DOH established a network of 7 agencies to provide a family-centered model of care

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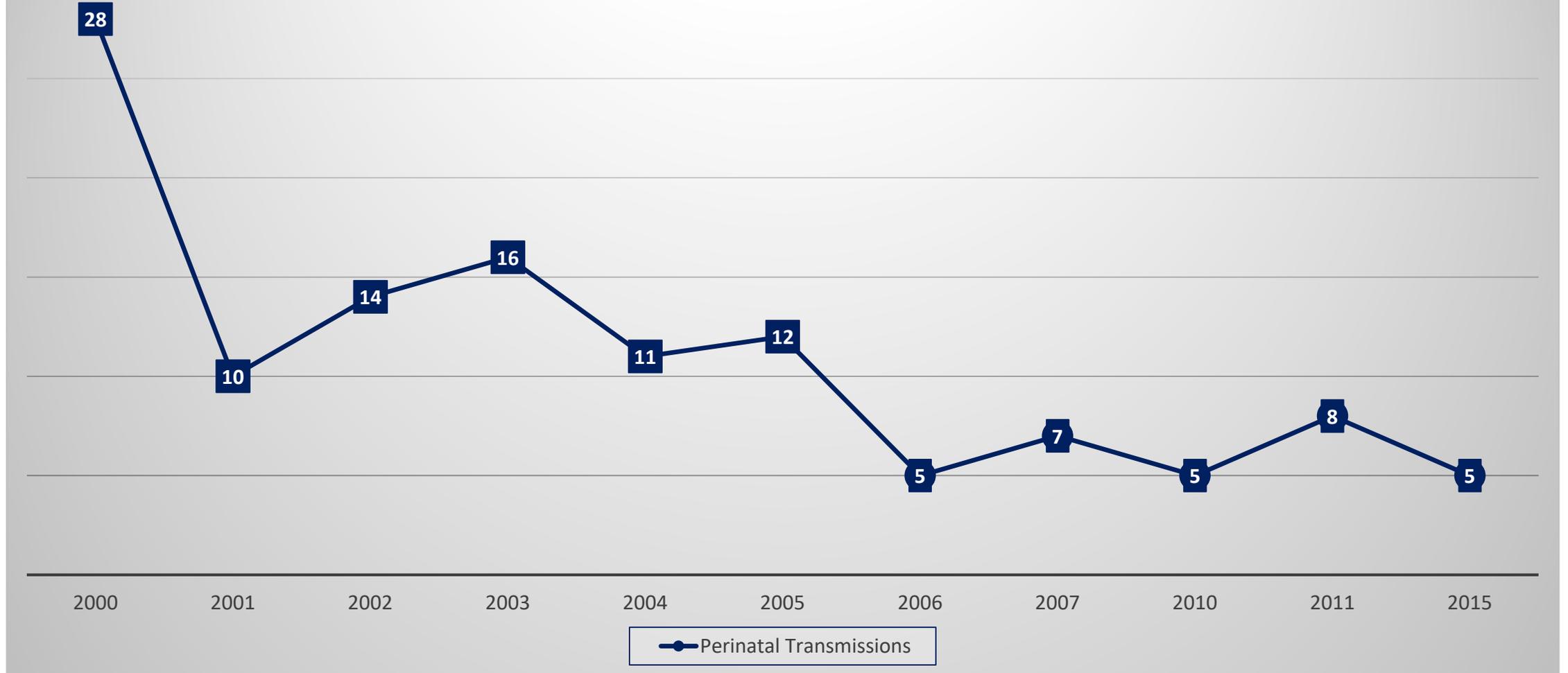
# NJ Ryan White Part D WICY Trends



## NJ Ryan White Part D Trended HAB Measures



## Perinatal HIV Transmissions in NJ



François-Xavier Bagnoud Center

How do we identify and correct weak points in the HIV care continuum for women and their infants in order to achieve **and sustain** EMCT?

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# Why have a strategic plan for EMCT

## Purpose:

- Prioritize perinatal HIV reduction targets
- Identify gaps in services
- Coordinate a regional response

## Goals:

- Eliminate perinatal HIV transmission
- Optimize care
- Close gaps in the HIV care continuum for women living with HIV

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# Requirements for strategic planning

Strategic planning requires:

- Information! What are the weak points in the HIV care continuum for pregnant women in NJ?
- Key stakeholders and champions
- Mechanisms for stakeholders to convene and plan
- Collaborations with other groups with shared interests
- Action planning with defined timelines, accountability, metrics
- Data/performance monitoring

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Perinatal HIV  
Exposure  
Surveillance

FIMR-HIV

RW Data

Strategic  
planning for  
EMCT in NJ

# What is FIMR/HIV?

## Fetal and infant mortality review/HIV Prevention Methodology Process

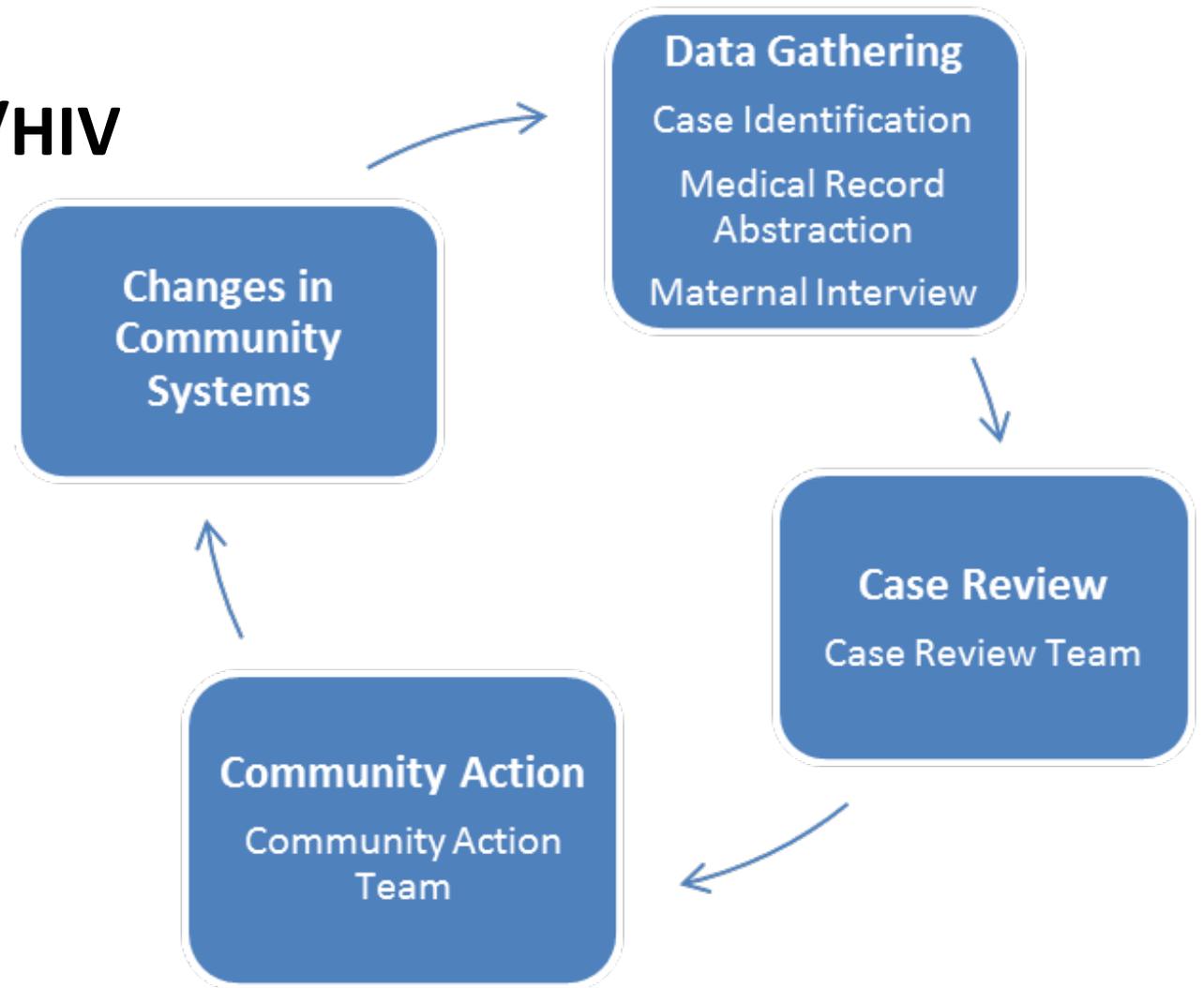
### Data Gathering

- Case Identification
- Medical Record Abstraction
- Maternal Interview

### Case Review

### Community Action

### Changes in Community Systems



# Issues identified and actions taken as a result of FIMR/HIV reviews

## Issues Identified

- Unplanned pregnancies
  - Incomplete or missing education and linkage to care regarding family planning and preconception care



## Sample Actions Taken

- Implement new RW quality indicator related to family planning
- Inclusion of reproductive health questions and prompts on Ryan White data system (CAREWARE)
- Educate HIV providers, case managers, MCH community & others on HIV family planning and preconception care
- Developed and disseminated clinician support tools related to safer conception, preconception care, contraception.

# Issues identified and actions taken as a result of FIMR/HIV reviews

## Issues Identified

- **Mental health and substance use**
  - **A barrier to maternal and prenatal care**
  - **Need for proper mental health assessment and linkage to care**



## Sample Actions Taken

- Invited MH/SA professionals to the strategic planning process.
- Widely disseminated information (posters, cards, brochures) on NJs central intake #s for referrals for MH/SA services
- Developed catalogue listing HIV, mental health, substance use, and maternal-child health services by county (print and online).
- Conducted trainings on mental health screening during pregnancy

**Elimination of Perinatal HIV Transmission:  
 A Strategic Plan for New Jersey  
 February, 2018**

**Background:**

An annual meeting to update the State of New Jersey Strategic Plan for the Elimination of Perinatal HIV transmission has been held since December, 2012. During these meetings a team of experts in HIV and maternal child health identify, review and update the priority action steps utilizing their expert knowledge and data provided from the FIMR-HIV Methodology. This strategic plan has been revised and updated following the last Strategic Planning Meeting held on [September, 2017](#).

**Purpose:**

The purpose of this meeting is to develop a strategy for perinatal HIV elimination in New Jersey consisting of a plan of action to address the barriers and gaps in care identified through the systematic FIMR-HIV Methodology and professional experiences.

**Objectives:**

- To review the state of knowledge about contraceptive care for women living with HIV and PrEP for women at risk for HIV.
- To examine methods to improve contraceptive care for women living with HIV and PrEP for women at risk for HIV in New Jersey and develop actions to improve care both in the clinical setting and systemically.
- To update the strategic plan for elimination of perinatal HIV transmission in New Jersey.

Activities	Time Frame	Responsible Person
<ul style="list-style-type: none"> <li>• <b>Provider education on HIV preconception care</b> <ul style="list-style-type: none"> <li>○ Continue to provide skill-based training on</li> </ul> </li> </ul>	Ongoing	Mary Jo Hoyt

François-Xavier Bagnoud Center



# QUESTIONS & ANSWERS

# Contact Information

<p>HIV/AIDS Bureau (HAB) Health Resources and Services Administration (HRSA) <a href="http://www.hab.hrsa.gov">www.hab.hrsa.gov</a></p>	<p>Division of HIV/AIDS Programs (DHAPB) Center for Disease Control (CDC)  <a href="http://www.cdc.gov/hiv/dhap">www.cdc.gov/hiv/dhap</a></p>
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<p><b>Madia Ricks, OTCD</b></p>	



# Perinatal HIV Institute

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- **Session 1 (12910): Where Are We Now?**  
Wednesday December 12, 2018 @ 1:30pm – 3:00pm
- **Session 2 (12871): Addressing the Missed Opportunities**  
Thursday, December 13, 2018 @ 1:30pm – 3:00pm
- **Session 3 (12908): Getting to Zero**  
Friday, December 14, 2018 @ 10:15am – 11:45am





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