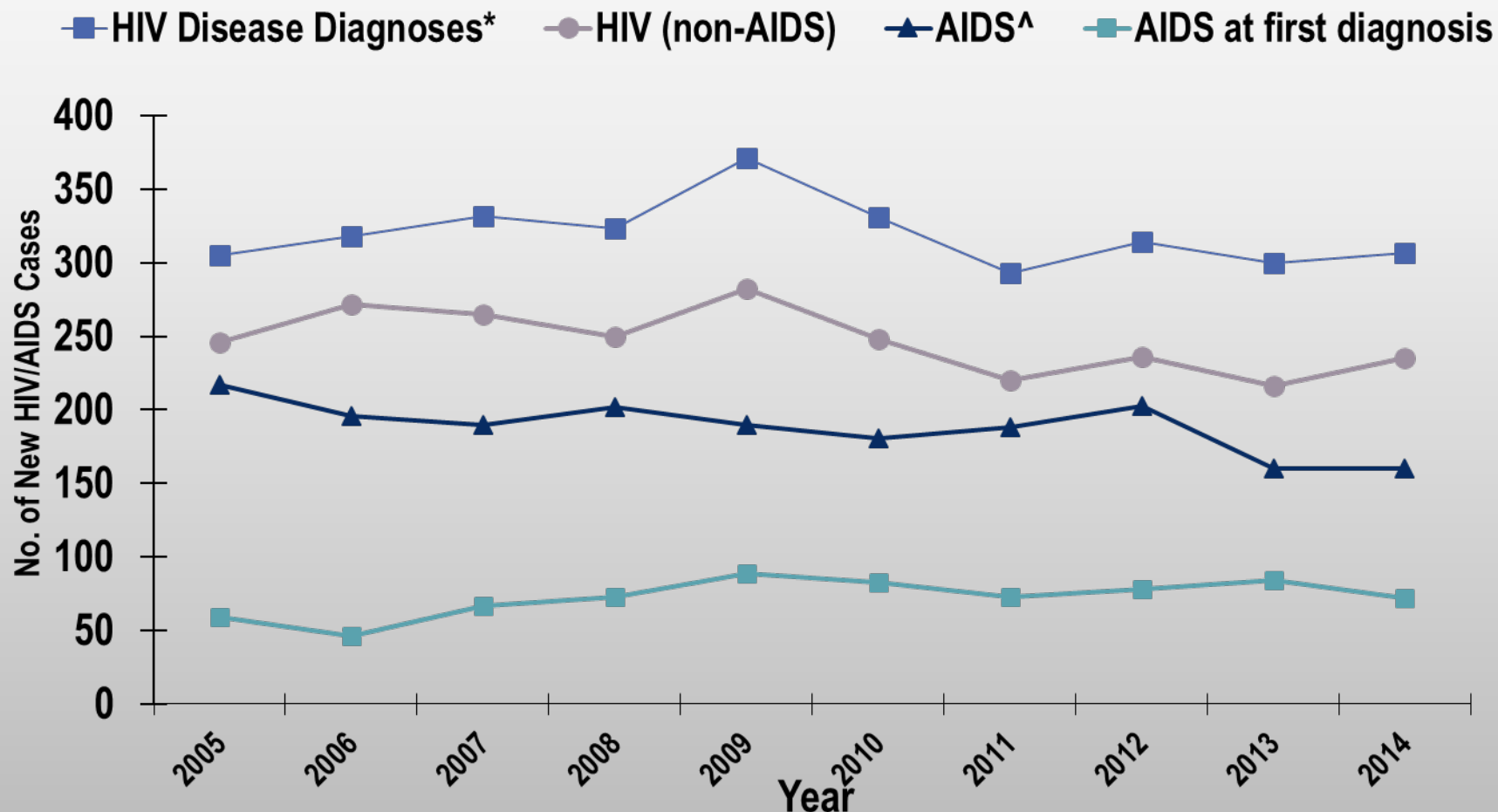


HIGHLIGHTS FROM THE MN HIV SURVEILLANCE REPORT 2014

Minnesota Department of Health HIV/AIDS
Surveillance System

HIV/AIDS in Minnesota

New HIV Disease Diagnoses, HIV (non-AIDS) and AIDS Cases by Year, 2005-2014

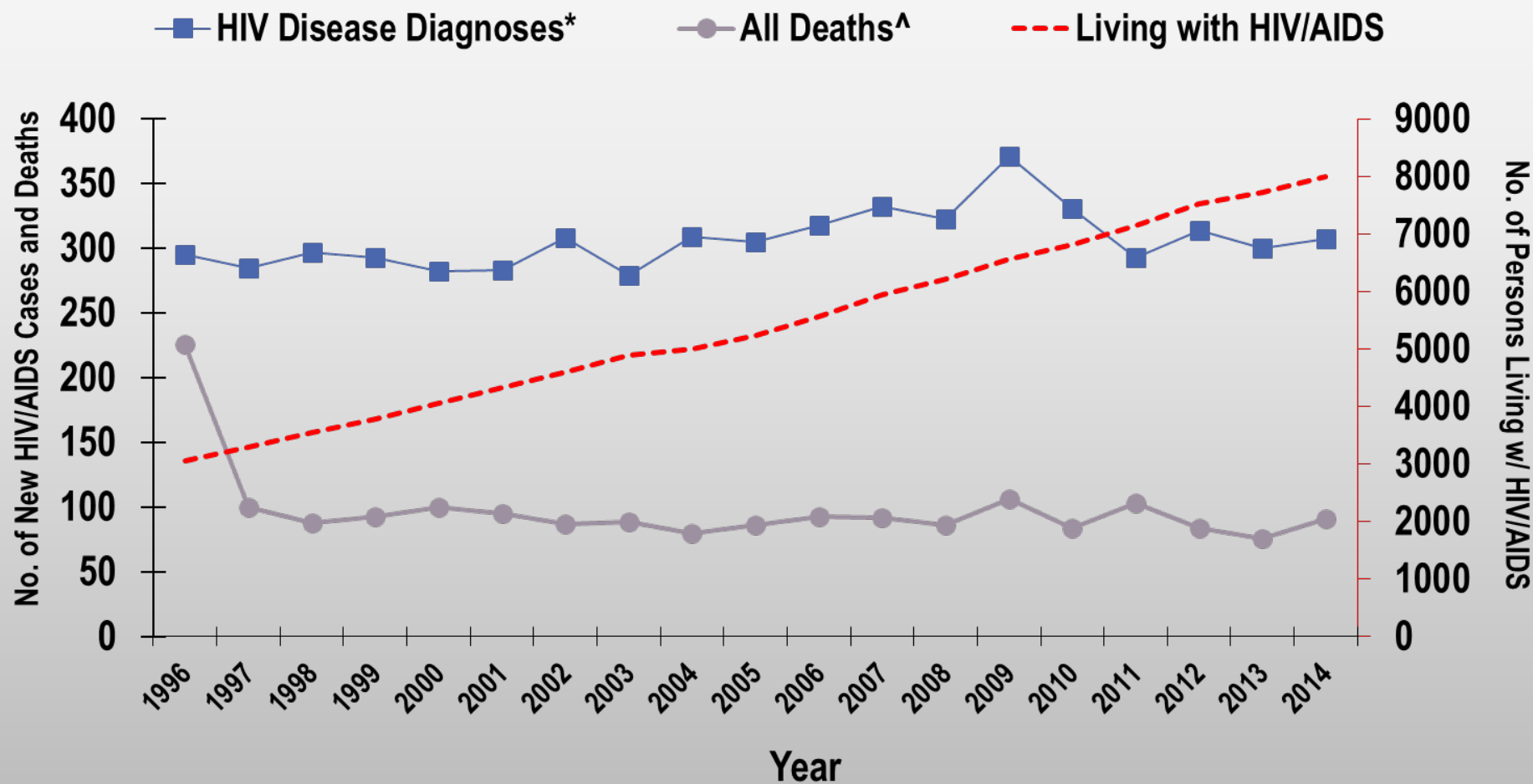


*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

^Includes all new cases of AIDS diagnosed within a given calendar year, including AIDS at first diagnosis. This includes refugees in the HIV+ Resettlement Program, as well as, other refugee/immigrants diagnosed with AIDS subsequent to their arrival in the United States.

HIV/AIDS in Minnesota

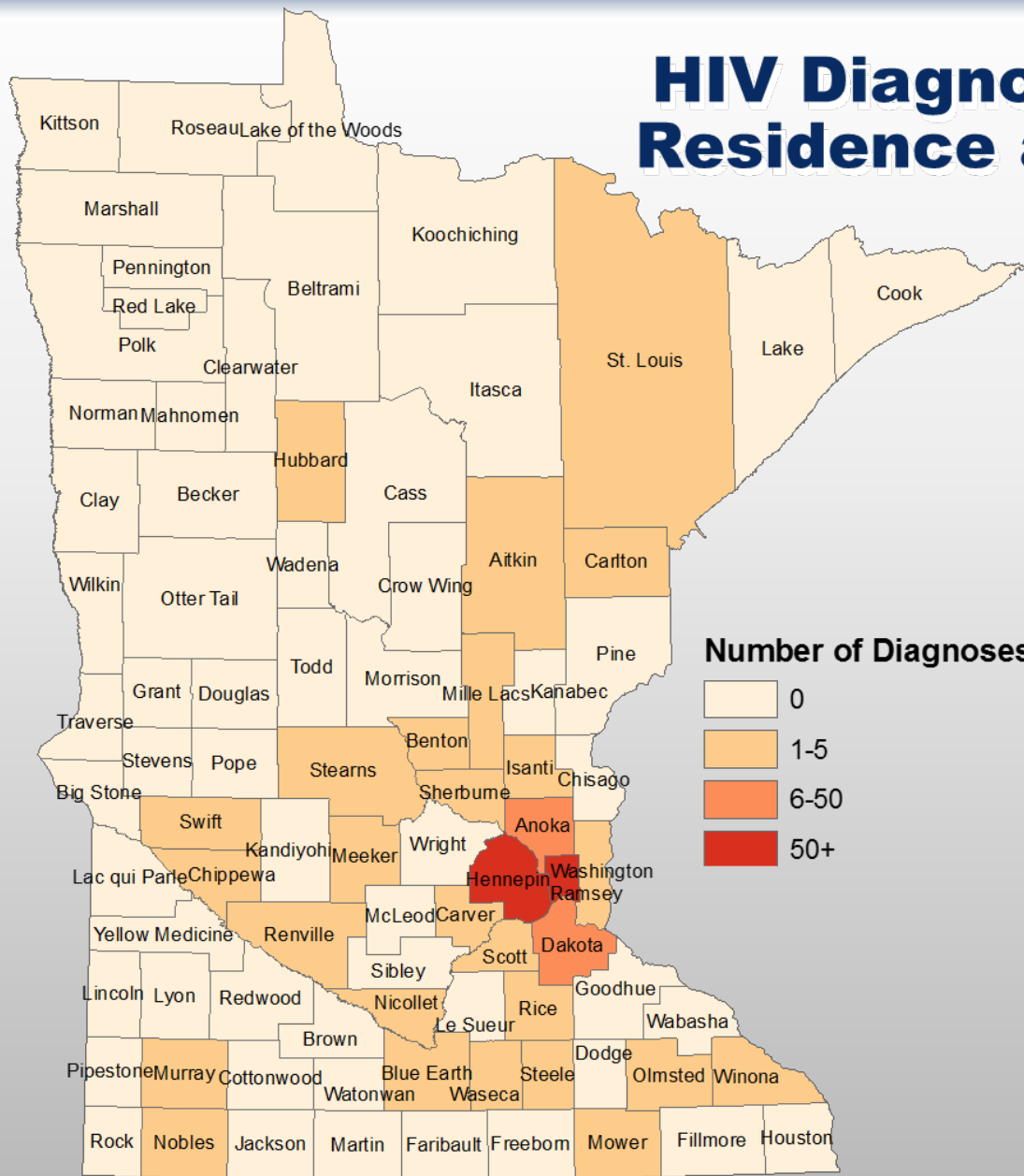
New HIV Disease Diagnoses, Deaths and Prevalent Cases by Year, 1996-2014



*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

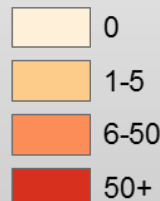
^Deaths in Minnesota among people with HIV/AIDS, regardless of location of diagnosis and cause.

HIV Diagnoses* by County of Residence at Diagnosis, 2014



City of Minneapolis – 97
 City of St. Paul – 44
 Suburban# – 123
 Greater Minnesota – 43
 Total number = 307

Number of Diagnoses

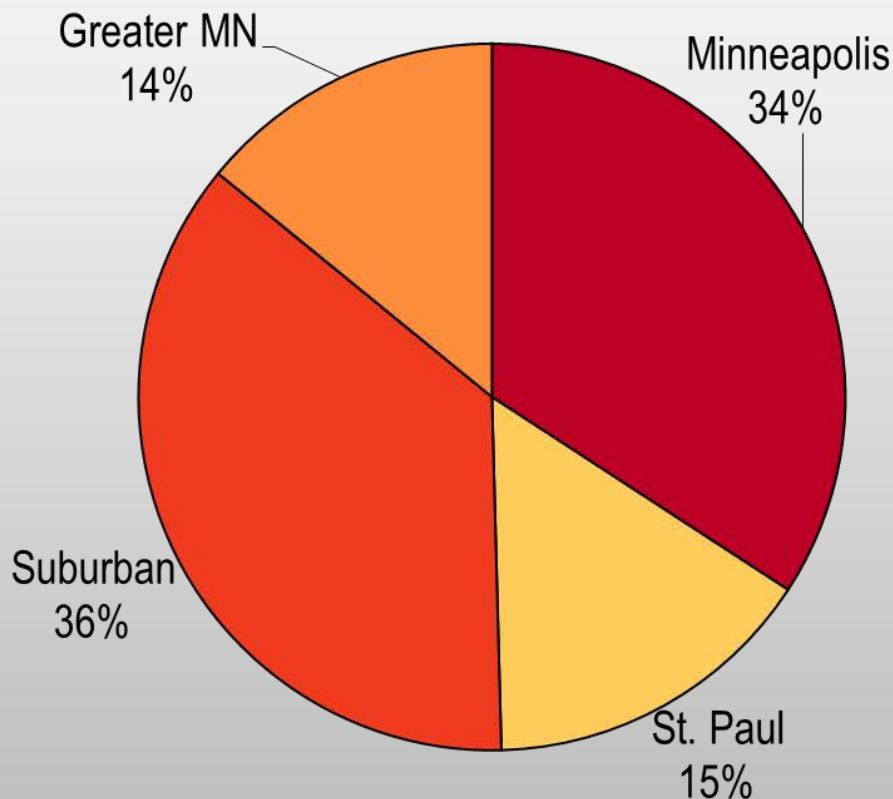


*HIV or AIDS at first diagnosis

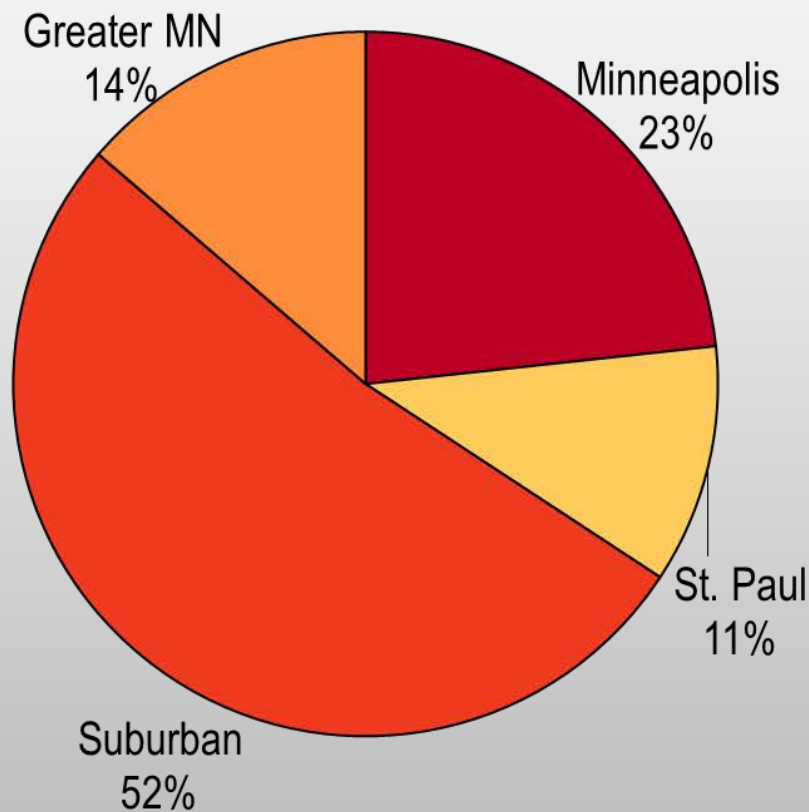
7-county metro area, excluding the cities of Minneapolis and St. Paul

HIV Diagnoses* in Minnesota by Gender and Residence at Diagnosis, 2014

Males n = 234



Females n = 73

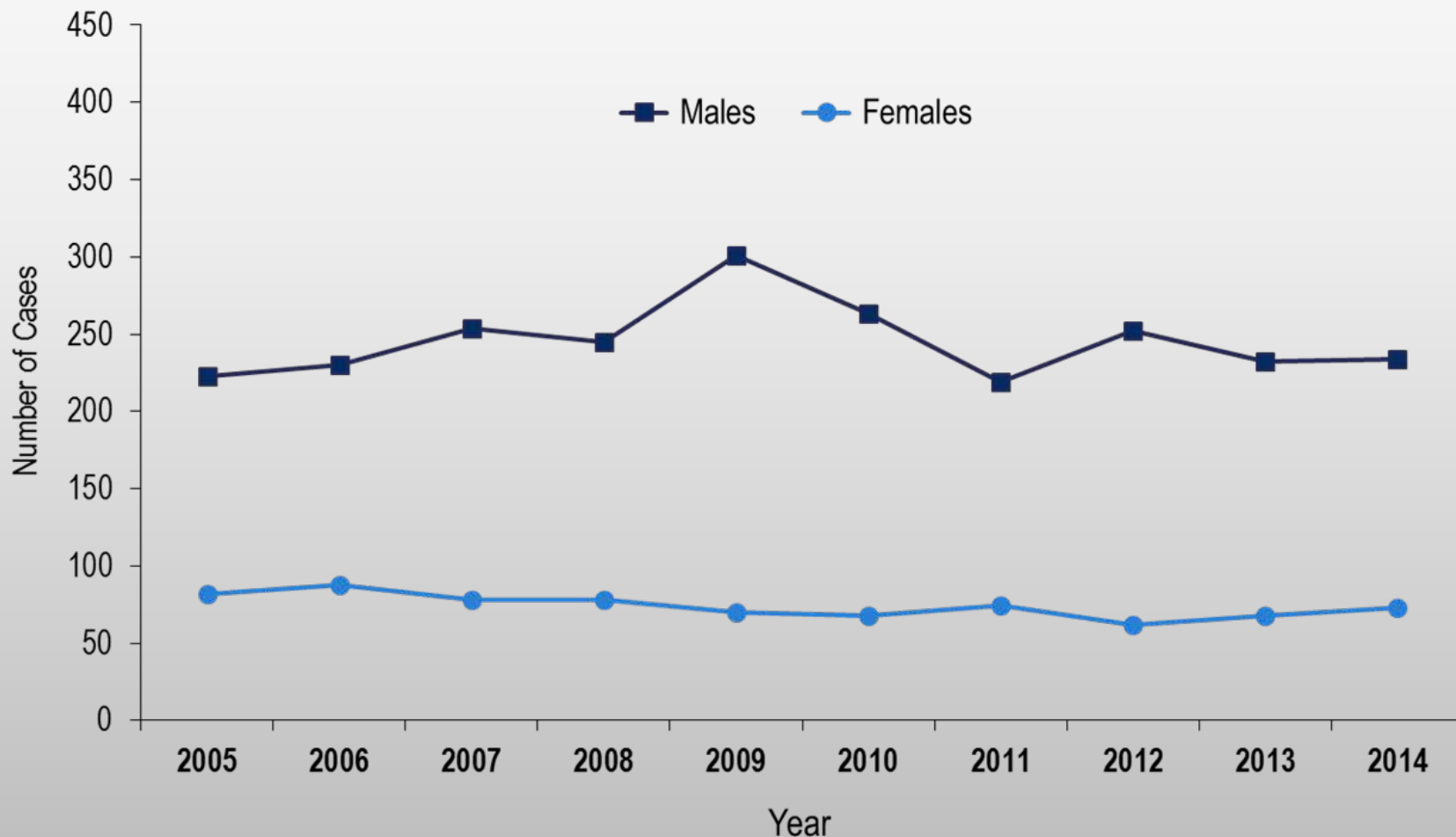


Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties, outside the seven-county metro area.

* HIV or AIDS at first diagnosis

Gender and Race/Ethnicity

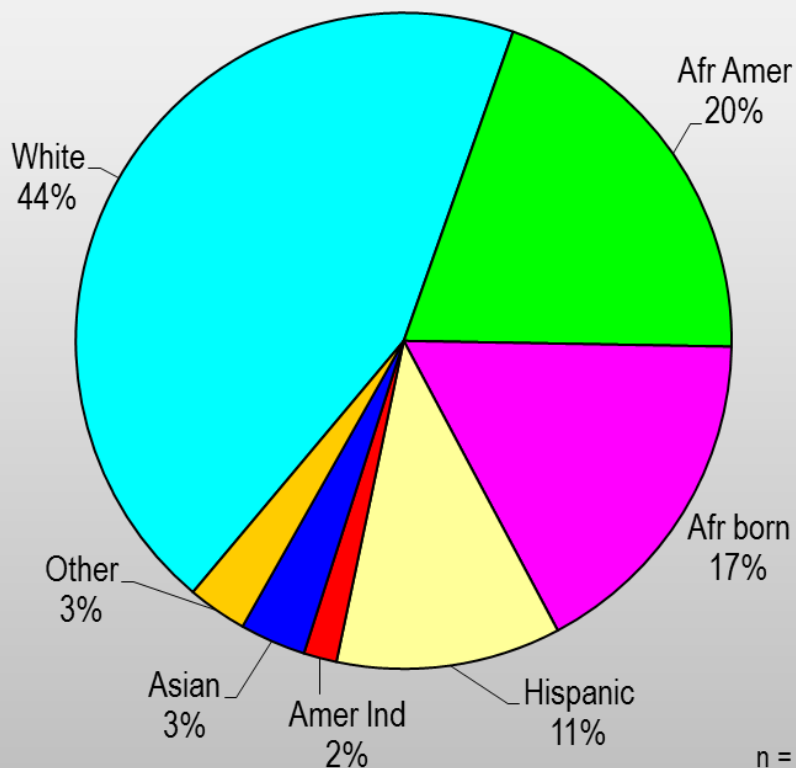
HIV Diagnoses* by Gender and Year of Diagnosis, 2005 - 2014



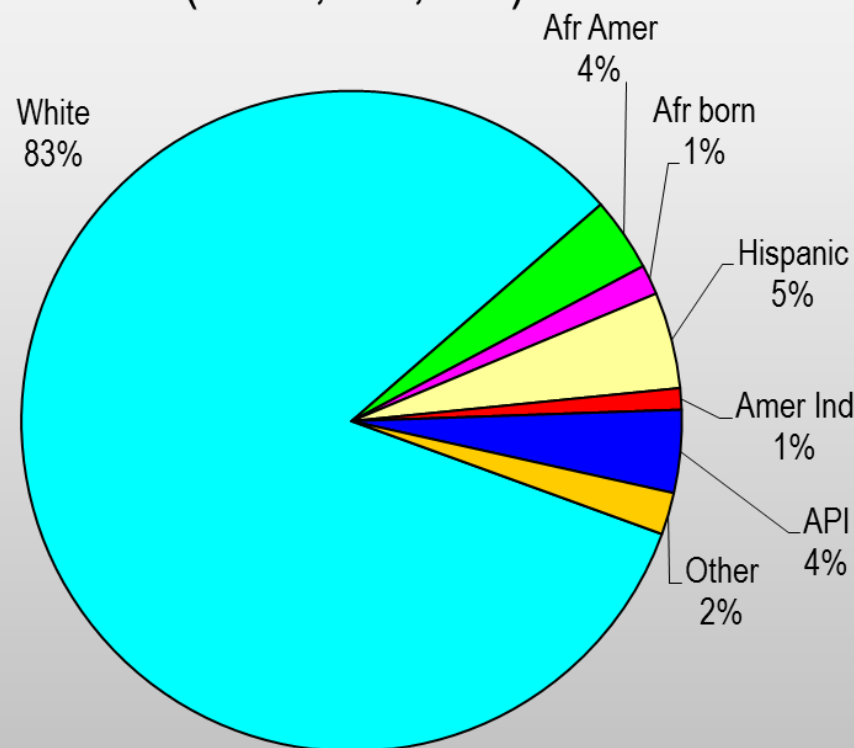
* HIV or AIDS at first diagnosis

HIV Diagnoses* in Year 2014 and General Population in Minnesota by Race/Ethnicity

HIV Diagnoses
(n = 307)



Population†
(n = 5,303,925)



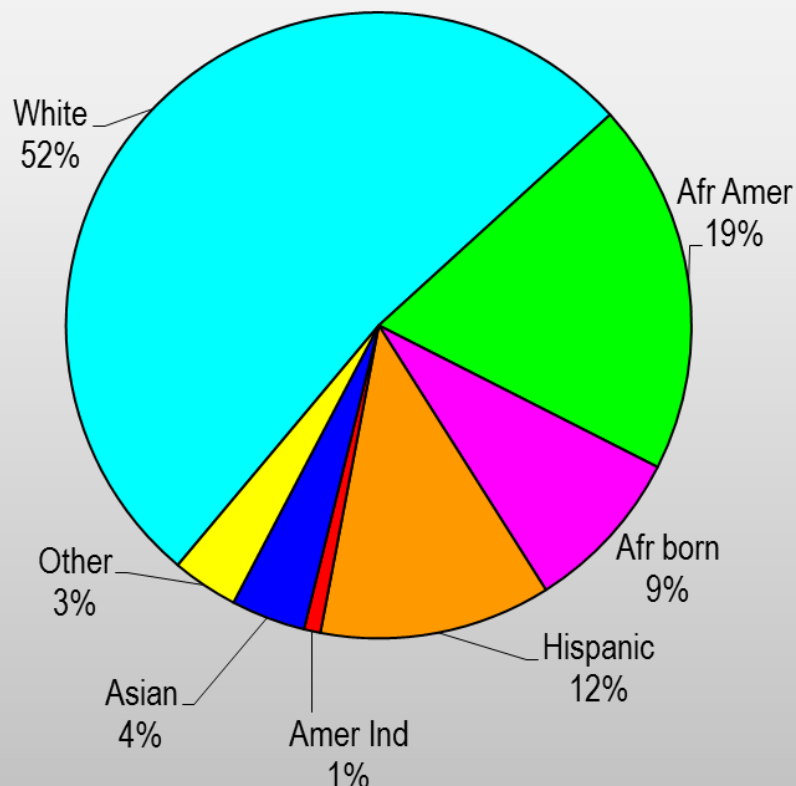
* HIV or AIDS at first diagnosis

† Population estimates based on 2010 U.S. Census data.

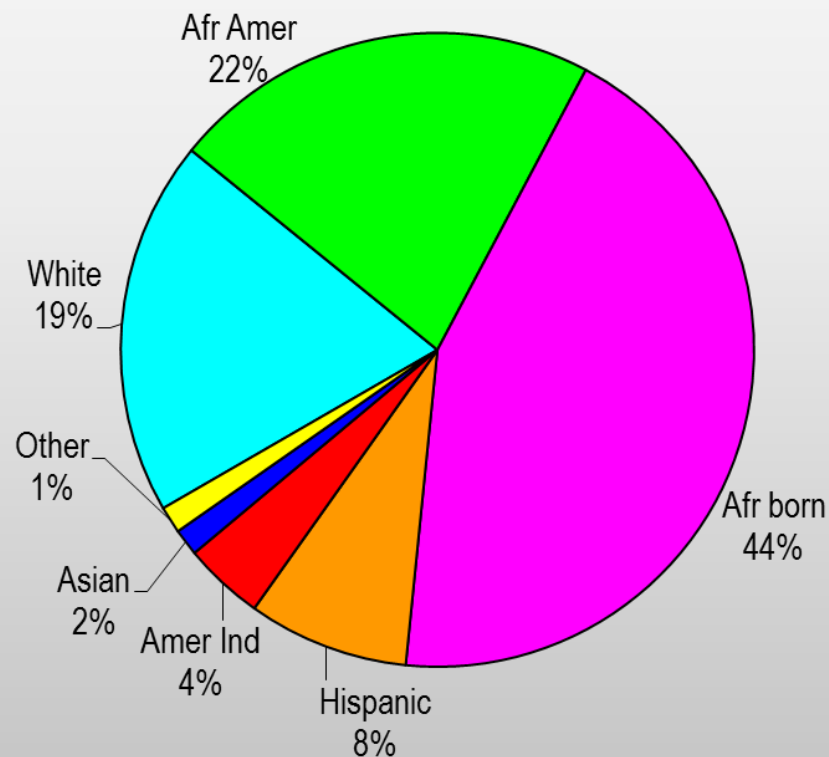
n = Number of persons Amer Ind = American Indian
Afr Amer = African American (Black, not African-born persons)
Afr born = African-born (Black, African-born persons)

HIV Diagnoses* Diagnosed in Year 2014 by Gender and Race/Ethnicity

Males (n = 234)



Females (n = 73)



* HIV or AIDS at first diagnosis

n = Number of persons Afr Amer = African American (Black, not African-born persons)

Afr born = African-born (Black, African-born persons) Amer Ind = American Indian

Other = Multi-racial persons or persons with unknown race

Number of Cases and Rates (per 100,000 persons) of HIV Diagnoses* by Race/Ethnicity†– Minnesota, 2014

<i>Race/Ethnicity</i>	<i>Cases</i>	<i>%</i>	<i>Rate</i>
White, non-Hispanic	136	44%	3.1
Black, African-American	61	20%	31.8
Black, African-born	52	17%	67.0 ^{††}
Hispanic	34	11%	13.6
American Indian	5	2%	9.0
Asian/Pacific Islander	10	3%	4.7
Other [^]	9	3%	#
<i>Total</i>	<i>307</i>	<i>100%</i>	<i>5.8</i>

* HIV or AIDS at first diagnosis; 2010 U.S. Census Data used for rate calculations.

† “African-born” refers to Blacks who reported an African country of birth; “African American” refers to all other Blacks.

†† Estimate of 77,557 Source: 2010-2012 American Community Survey. Additional calculations by the State Demographic Center.

[^] Other = Multi-racial persons or persons with unknown or missing race

#-Number of cases too small to calculate reliable rate

Number of Cases and Rates (per 100,000 persons) of Adult and Adolescent HIV Diagnoses** by Gender/Risk†, Minnesota, 2014

<i>Gender/Risk</i>	<i>Cases</i>	<i>%</i>	<i>Rate</i>
Men (Total)	(234)	76%	10.8
<i>MSM†</i>	155	66%	167.0††
<i>Non-MSM</i>	79	34%	3.8
Women	72	24%	3.2
<i>Total</i>	306	100%	7.0

**HIV or AIDS at first diagnosis over the age of 13;

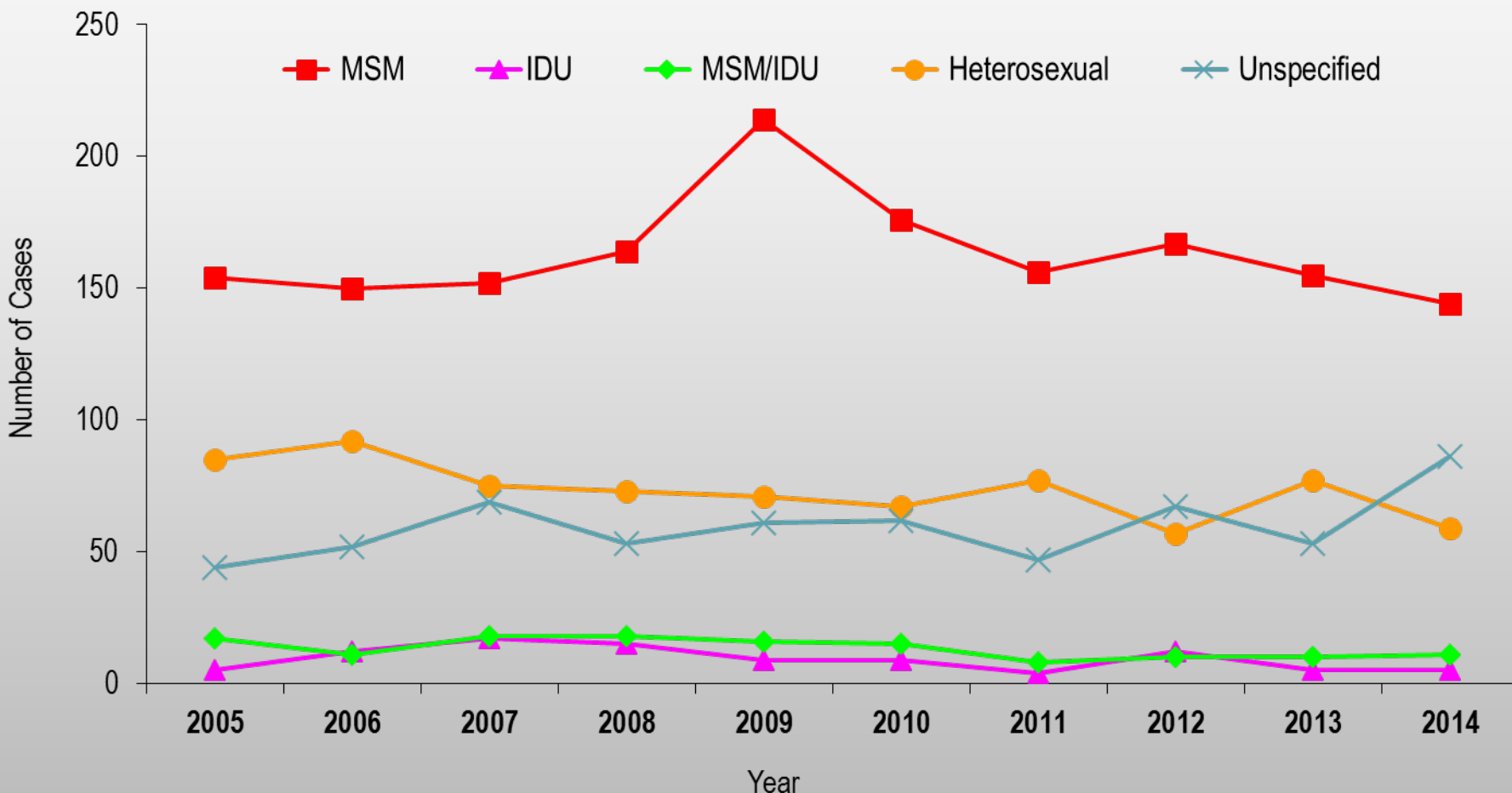
- 2010 U.S. Census Data for persons age 13 and over used for rate calculations.

† “MSM” refers to both MSM and MSM/IDU.

†† Estimate of 92,788

Mode of Exposure

HIV Diagnoses* by Mode of Exposure and Year, 2005 - 2014



MSM = Men who have sex with men

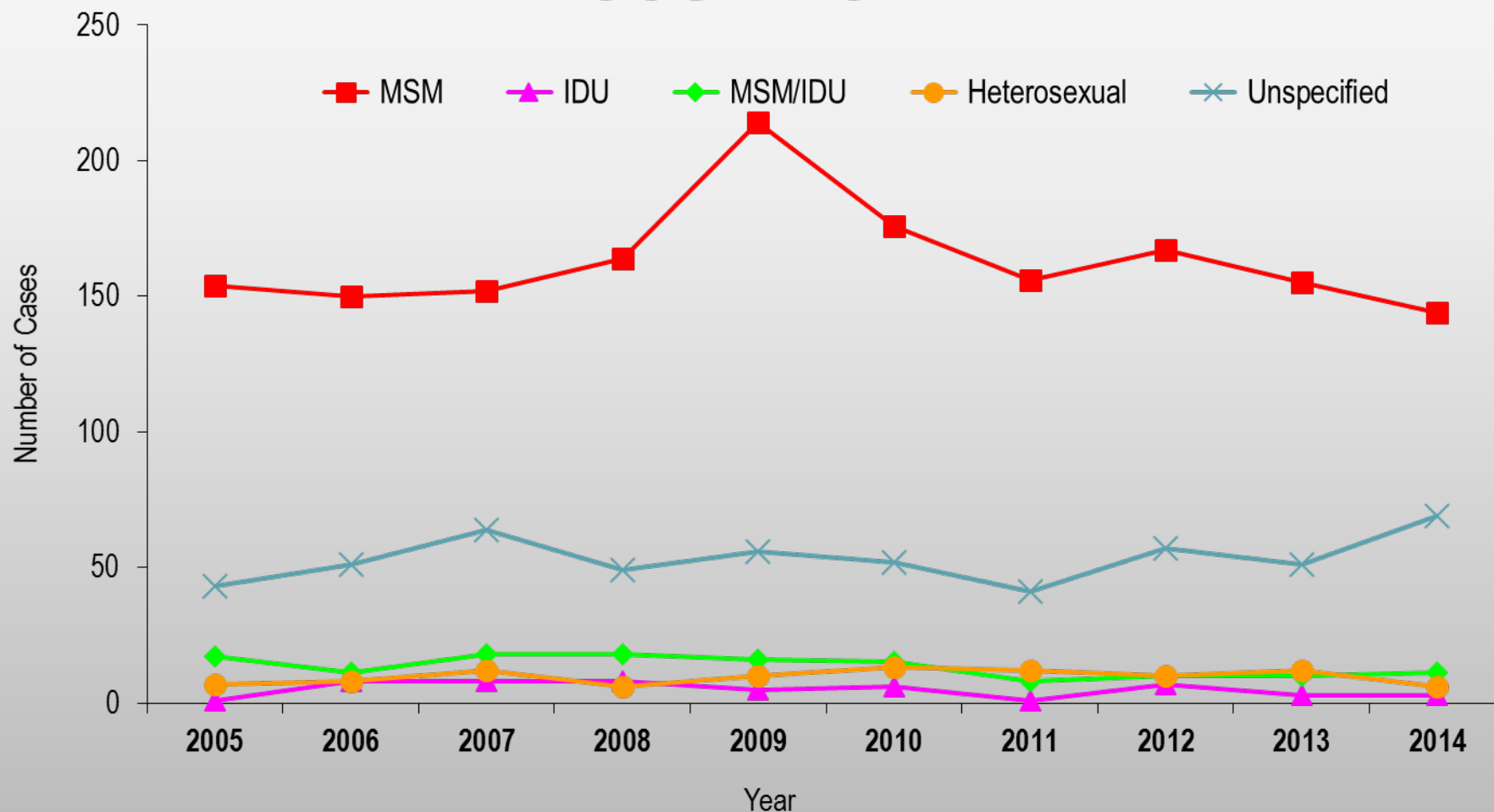
IDU = Injecting drug use

Heterosexual = Heterosexual contact

* HIV or AIDS at first diagnosis

Unspecified = No mode of exposure ascertained

HIV Diagnoses* Among Males by Mode of Exposure and Year, 2005 - 2014



MSM = Men who have sex with men

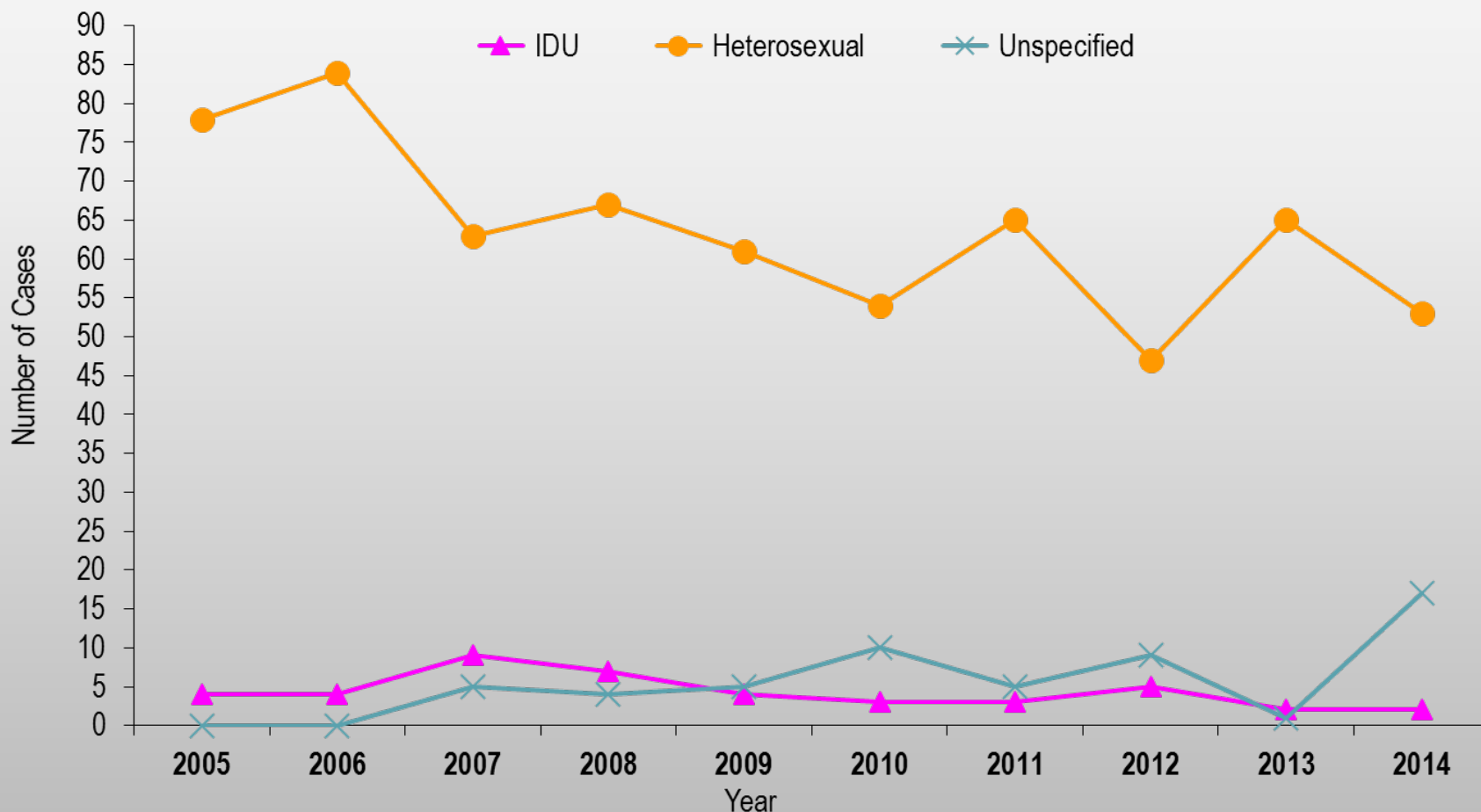
IDU = Injecting drug use

Heterosexual = Heterosexual contact

* HIV or AIDS at first diagnosis

Unspecified = No mode of exposure ascertained

HIV Diagnoses* Among Females by Mode of Exposure and Year of Diagnosis, 2005 - 2014



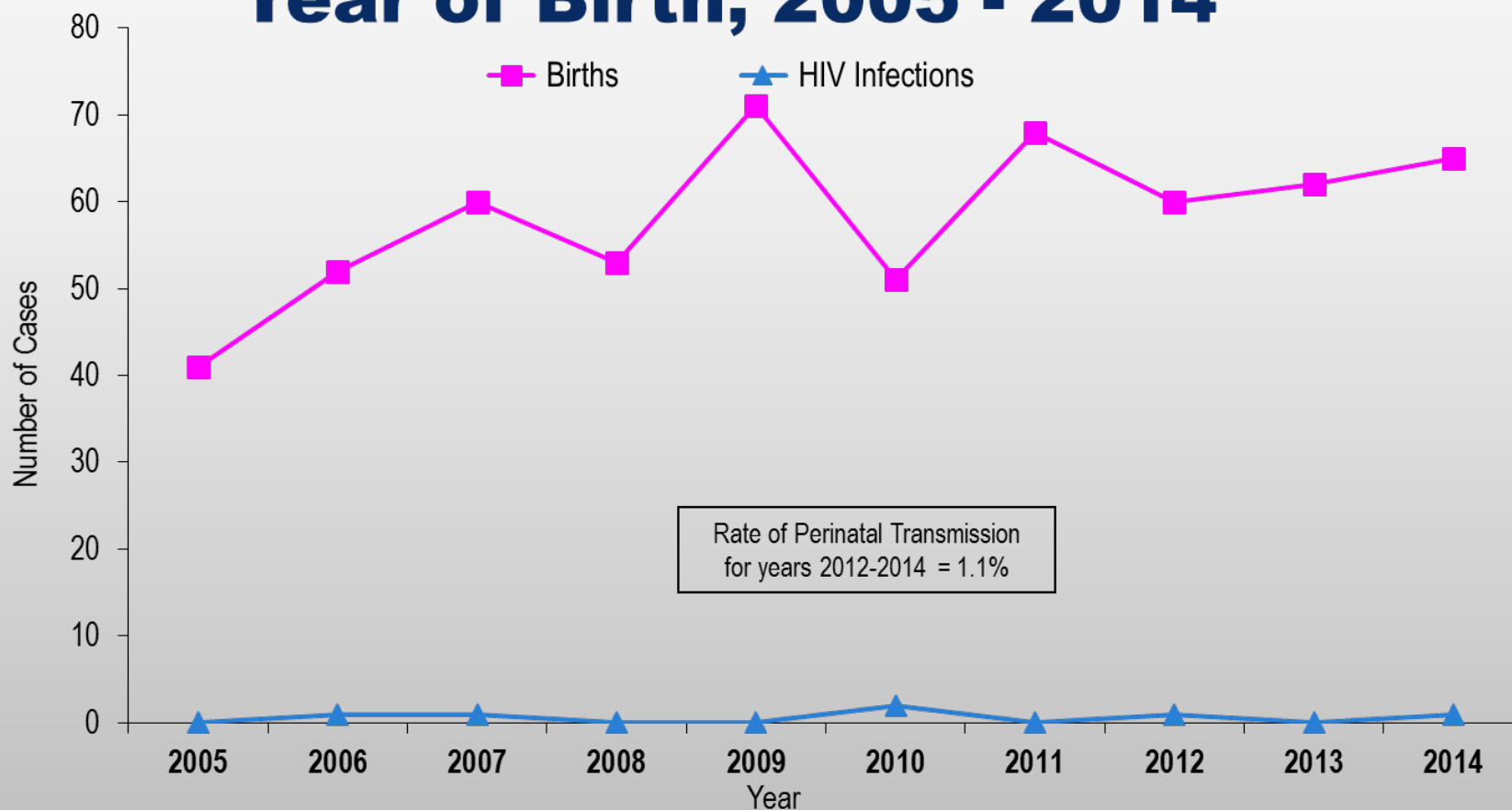
IDU = Injecting drug use Heterosexual = Heterosexual contact with HIV+ , bisexual, IDU, hemophiliac/blood project or organ transplant recipient, or with partner with unknown risk

Unspecified = No mode of exposure ascertained

* HIV or AIDS at first diagnosis

HIV/AIDS in Minnesota: Annual Review

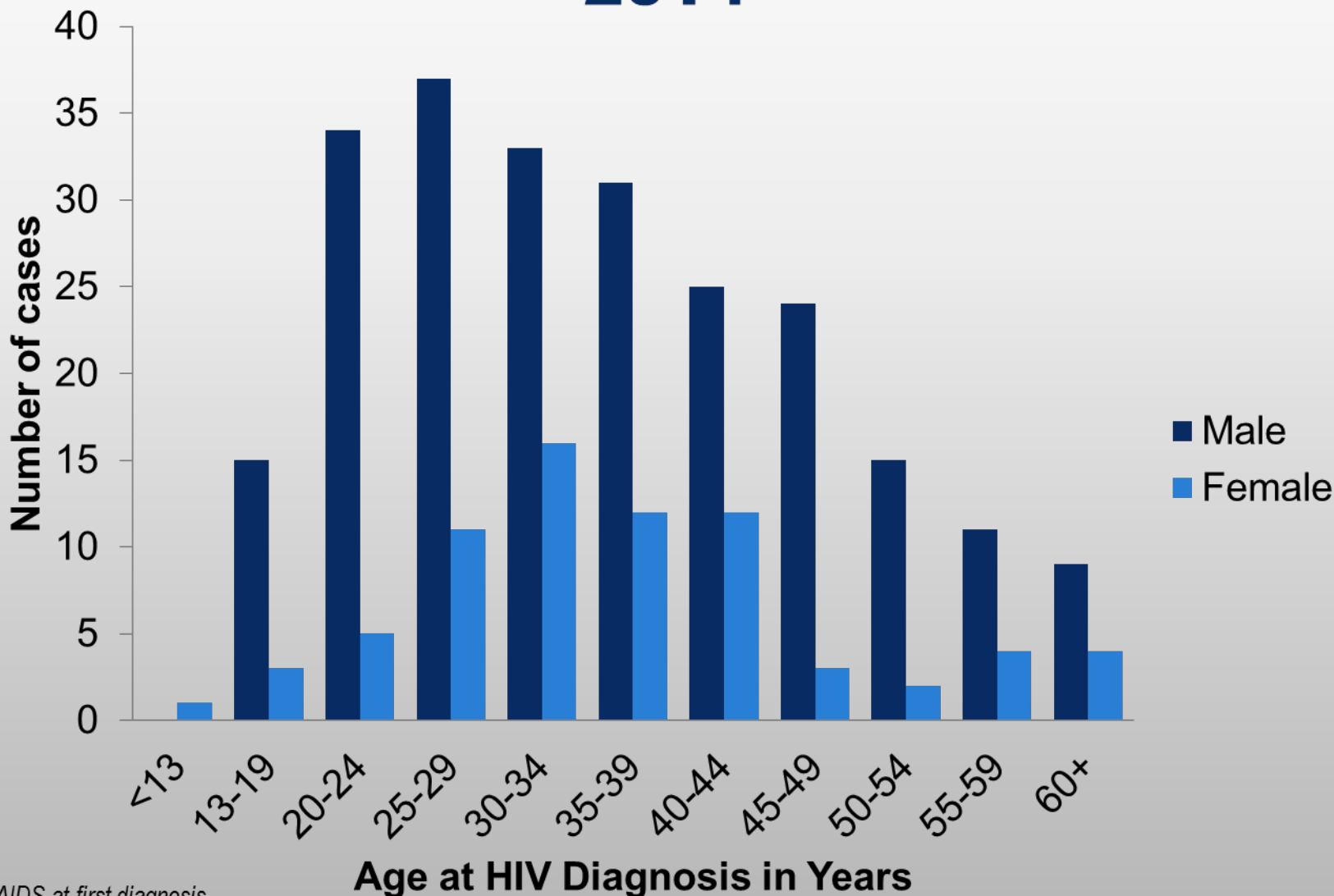
Births to HIV-Infected Women and Number of Perinatally Acquired HIV Infections* by Year of Birth, 2005 - 2014



* HIV or AIDS at first diagnosis for a child exposed to HIV during mother's pregnancy, at birth, and/or during breastfeeding.

Age

Age at HIV Diagnosis* by Sex at Birth, 2014



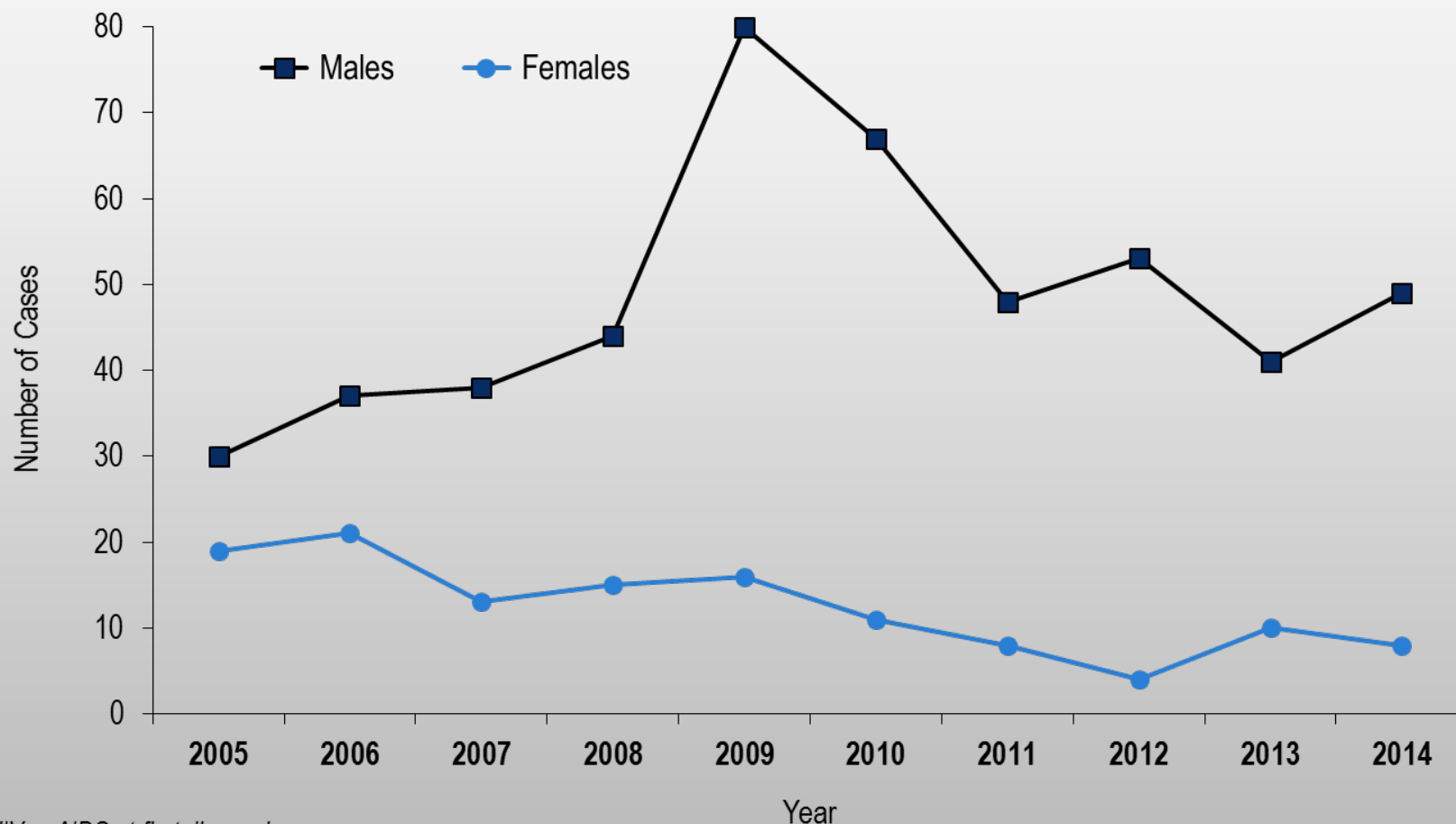
* HIV or AIDS at first diagnosis

Populations of Interest

Adolescents & Young Adults (Ages 13-24)*

** Case numbers are too small to present meaningful data separately for adolescents and young adults.*

HIV Diagnoses* Among Adolescents and Young Adults† by Gender and Year, 2005 - 2014

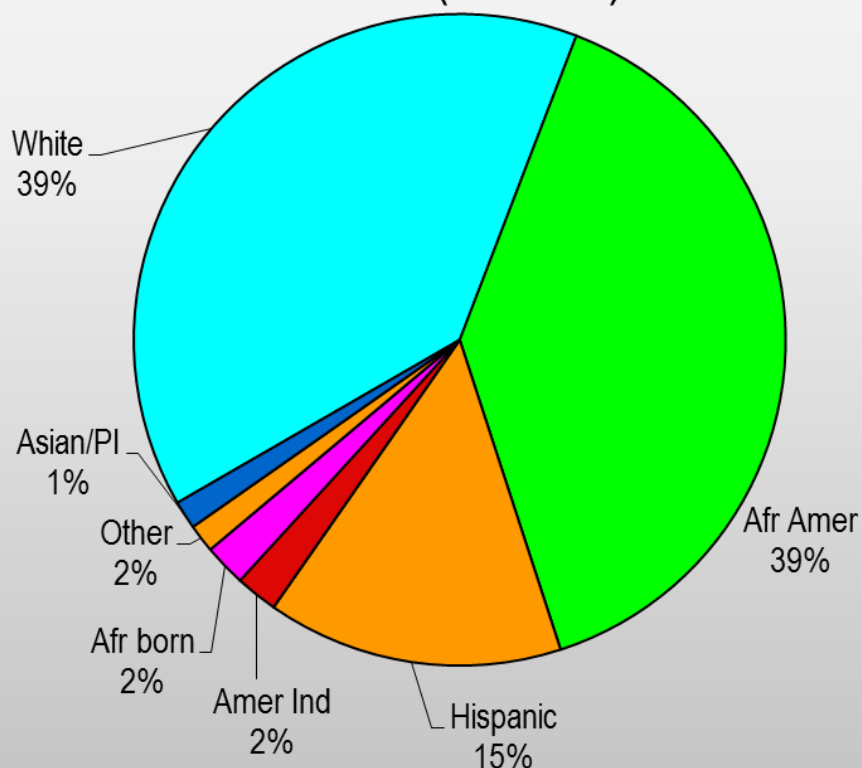


* HIV or AIDS at first diagnosis

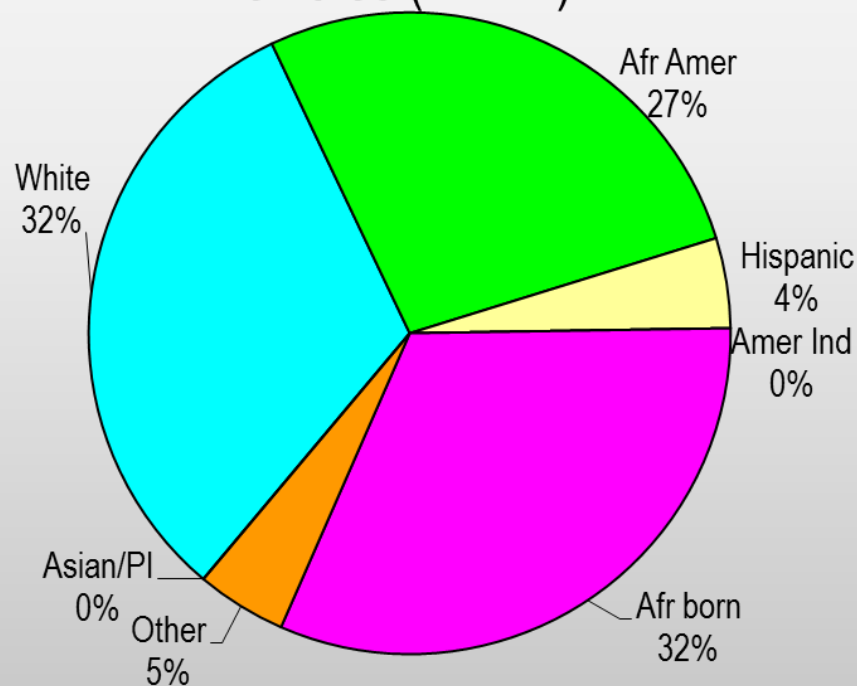
† Adolescents defined as 13-19 year-olds; Young Adults defined as 20-24 year-olds.

HIV Diagnoses* Among Adolescents and Young Adults† by Gender and Race/Ethnicity, 2012 - 2014 Combined

Males (n = 143)



Females (n = 22)



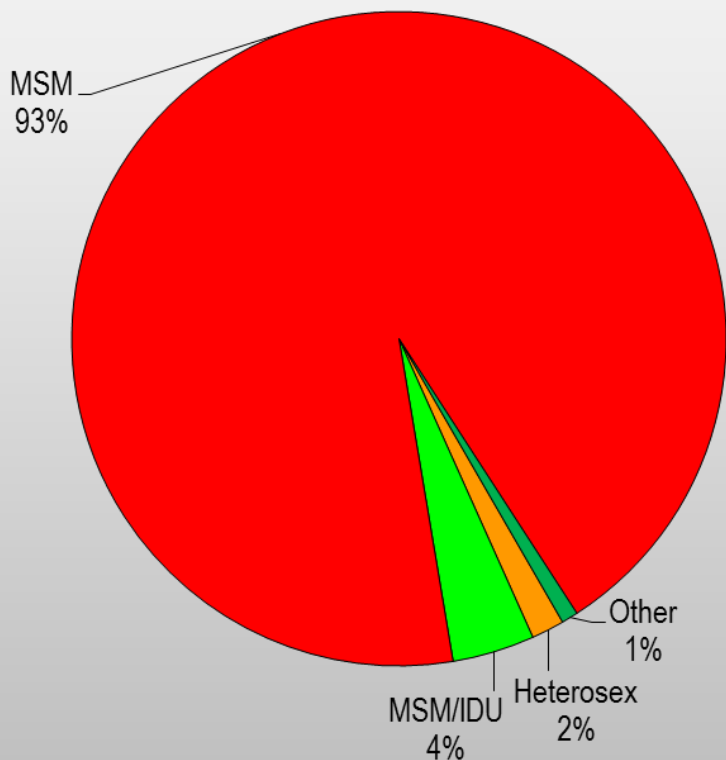
* HIV or AIDS at first diagnosis

† Adolescents defined as 13-19 year-olds;
Young Adults defined as 20-24 year-olds.

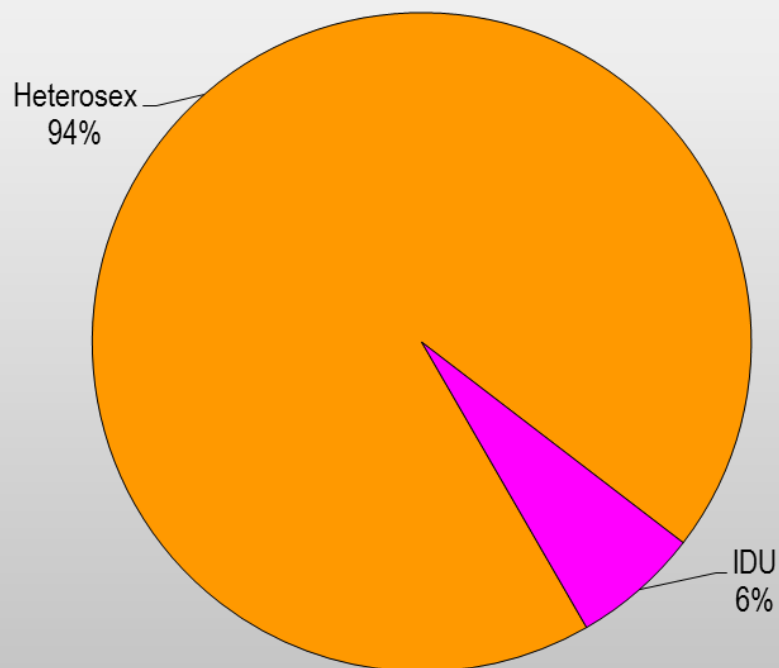
n = Number of persons Amer Ind = American Indian
Afr Amer = African American (Black, not African-born persons)
Afr born = African-born (Black, African-born persons)
Other = Multi-racial persons or persons with unknown race

HIV Diagnoses* Among Adolescents and Young Adults† by Gender and Estimated Exposure Group#, 2012- 2014 Combined

Males (n = 142)



Females (n = 22)



* HIV or AIDS at first diagnosis

† Adolescents defined as 13-19 year-olds; Young Adults defined as 20-24 year-olds.

Mode of Exposure proportions have been estimated using cases for 2012-2014 with known risk. For more detail see the HIV Surveillance Technical notes.

n = Number of persons
IDU = Injecting drug use

MSM = Men who have sex with men
Heterosex = Heterosexual contact

HIV and Hepatitis B, C co-infection

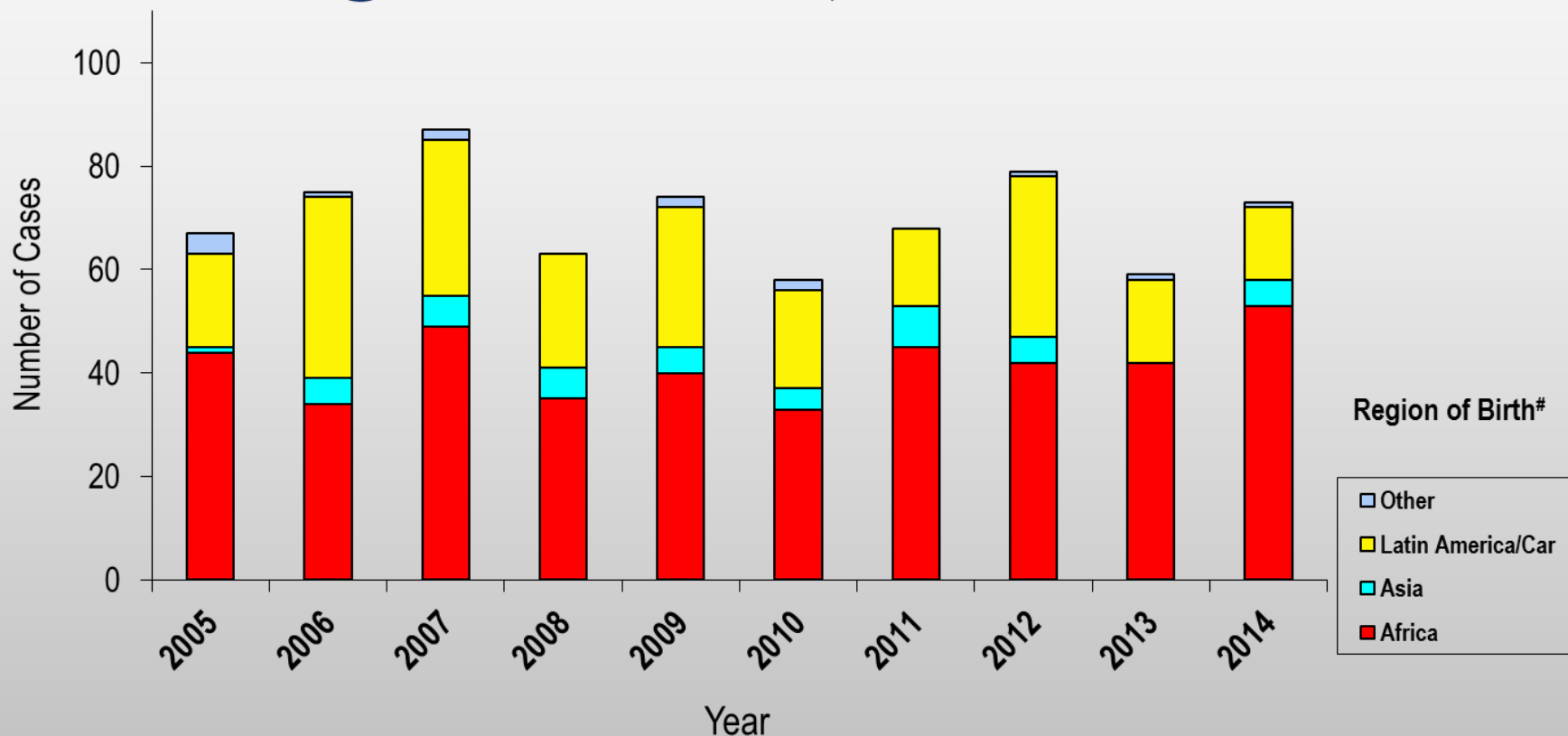
HIV and Hepatitis B and C

- As of December 31, 2014* , 7,988 persons are assumed alive and living in Minnesota with HIV/AIDS
 - Of these 7,988 persons, 884 (11%) are co-infected with either Hepatitis B or C
 - Of the 884, 294 (33%) are living with HIV and Hep B
 - Of the 884, 550 (62%) are living with HIV and Hep C
 - Of the 884, 40 (5%) are living with HIV, Hep B and Hep C

** This number includes persons who reported Minnesota as their current state of residence, regardless of residence at time of diagnosis. Includes state prisoners and refugees arriving through the HIV+ Refugee Resettlement Program, as well as, HIV+ refugee/immigrants arriving through other programs.*

Foreign-born Cases

HIV Diagnoses* among Foreign-Born Persons† in Minnesota by Year and Region of Birth, 2005 - 2014

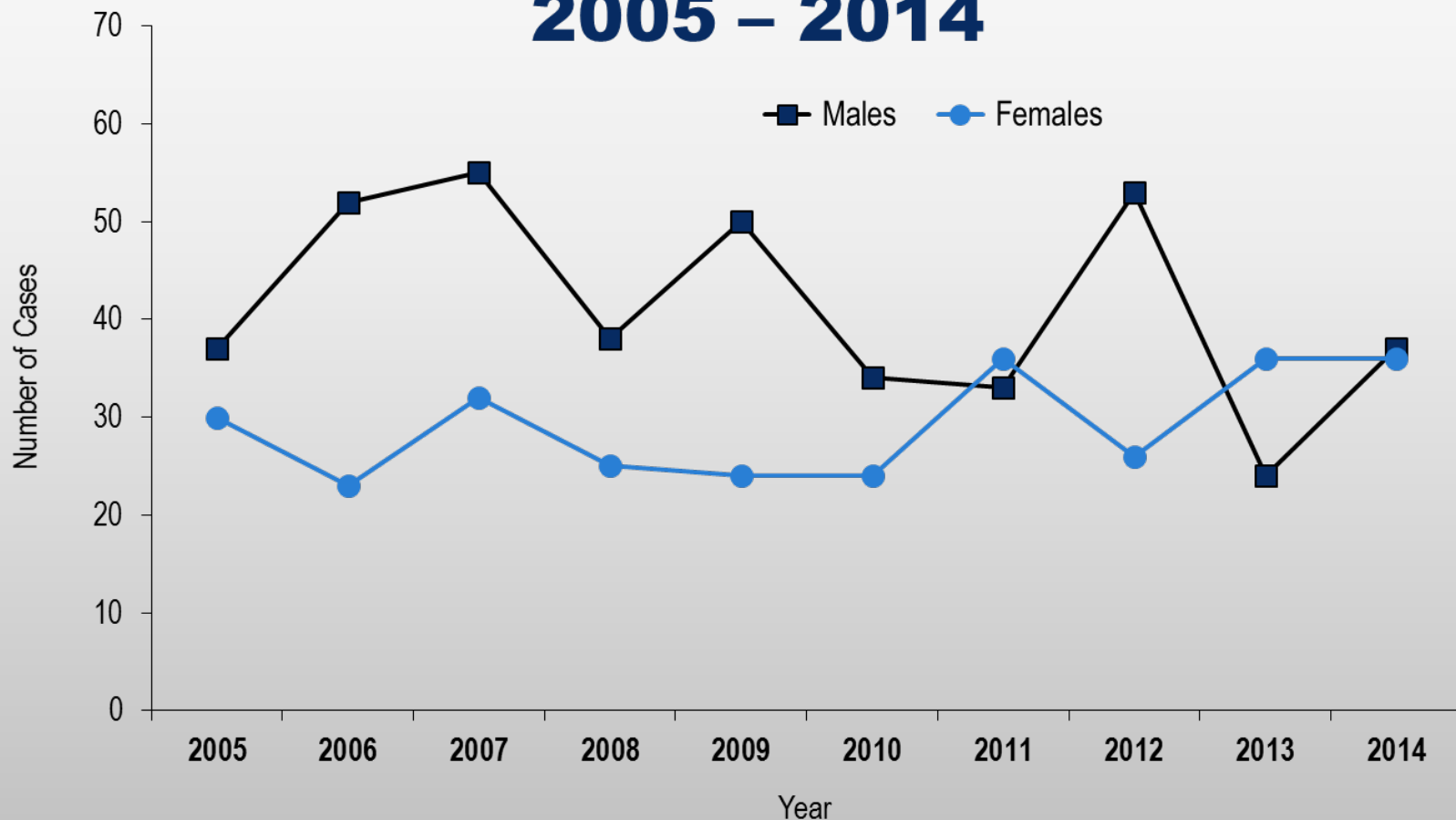


* HIV or AIDS at first diagnosis

† Excludes persons arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

Latin America/Car includes Mexico and all Central, South American, and Caribbean countries.

HIV Diagnoses* Among Foreign-Born Persons† by Gender and Year, 2005 – 2014



*HIV or AIDS at first diagnosis

†Excludes persons arriving in Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

Countries of Birth Among Foreign-Born Persons[†] Diagnosed with HIV*, Minnesota, 2014

- Liberia (n=21)
- Somalia (n=8)
- Ethiopia (n=7)
- Mexico (n=6)
- Kenya (n=3)
- Nigeria (n=3)
- Cameroon (n=2)
- Sudan (n=2)
- Cuba (n=2)
- Republic of S. Korea (n=2)
- Other[^] (n=17)

* HIV or AIDS at first diagnosis

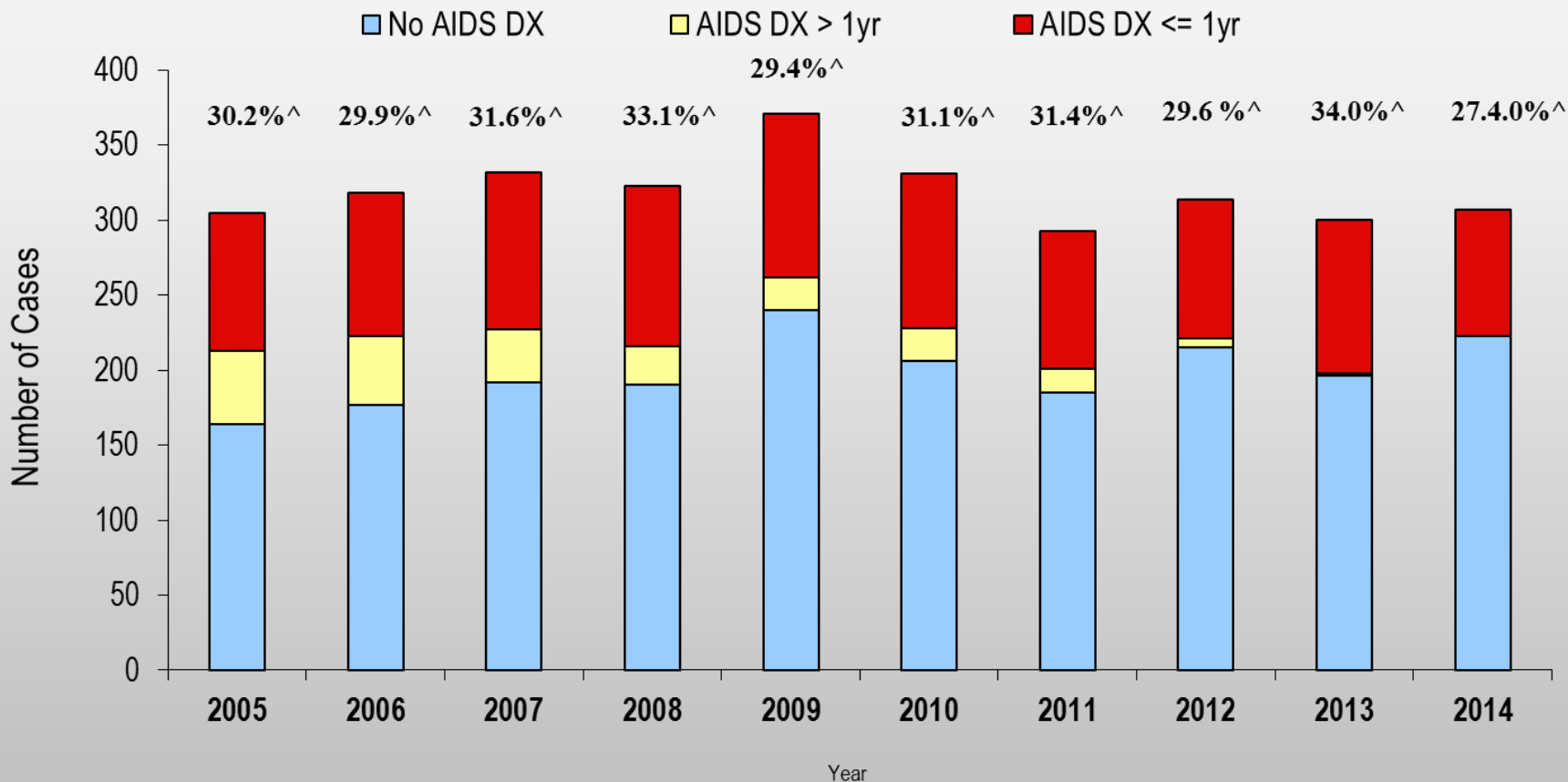
[†] Excludes persons arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[^] Includes 8 additional countries.

Late Testers

(AIDS Diagnosis within one year of initial HIV Diagnosis)

Time of Progression to AIDS for HIV Diagnoses in Minnesota*, 2005 - 2014†

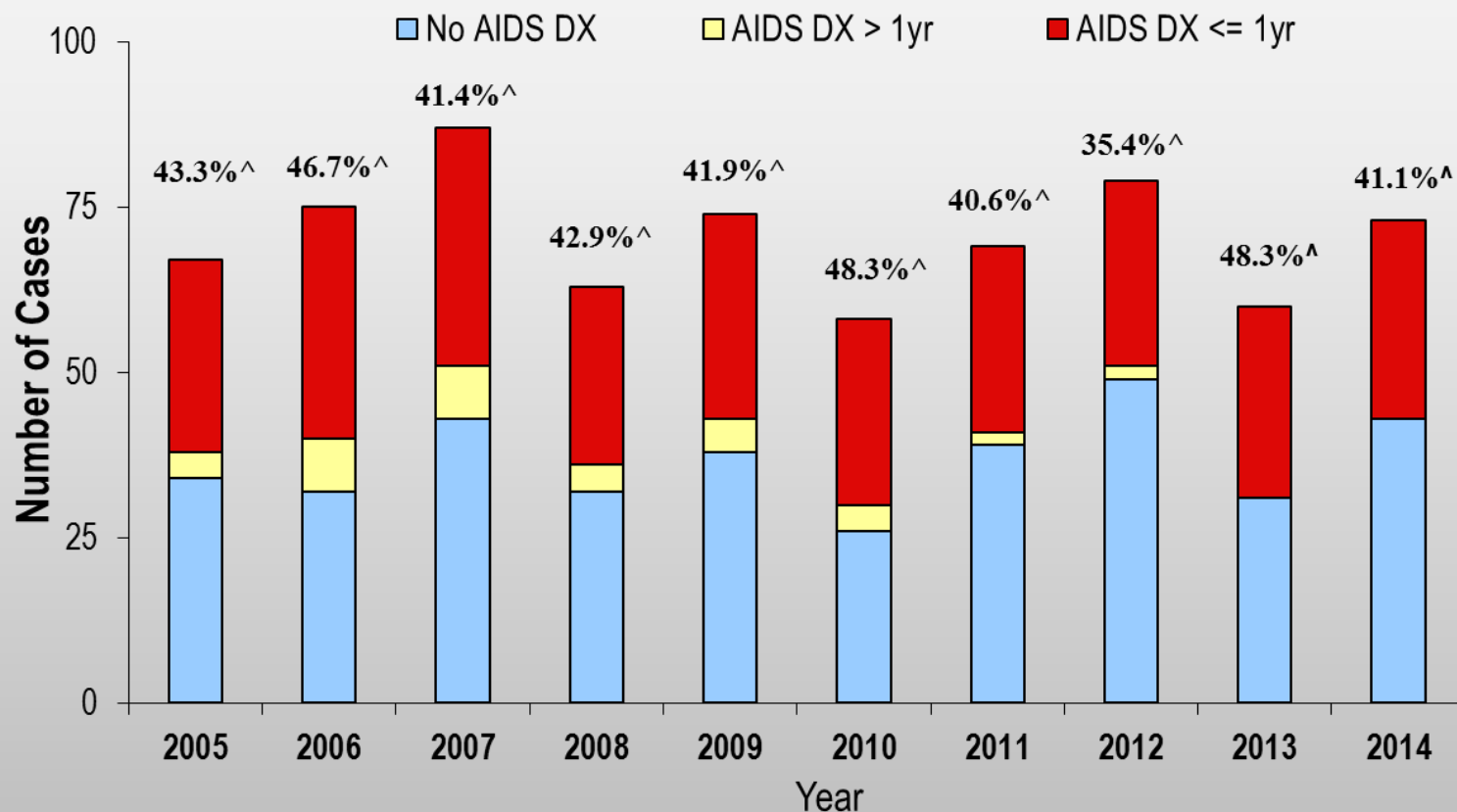


*Numbers include AIDS at 1st report but exclude persons arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[^] Percent of cases progressing to AIDS within one year of initial diagnosis with HIV

† Numbers/Percent for cases diagnosed in 2014 only represents cases progressing to AIDS through April 8, 2015.

Time of Progression to AIDS for HIV Diagnoses* Among Foreign-Born Persons, Minnesota 2005 - 2014†



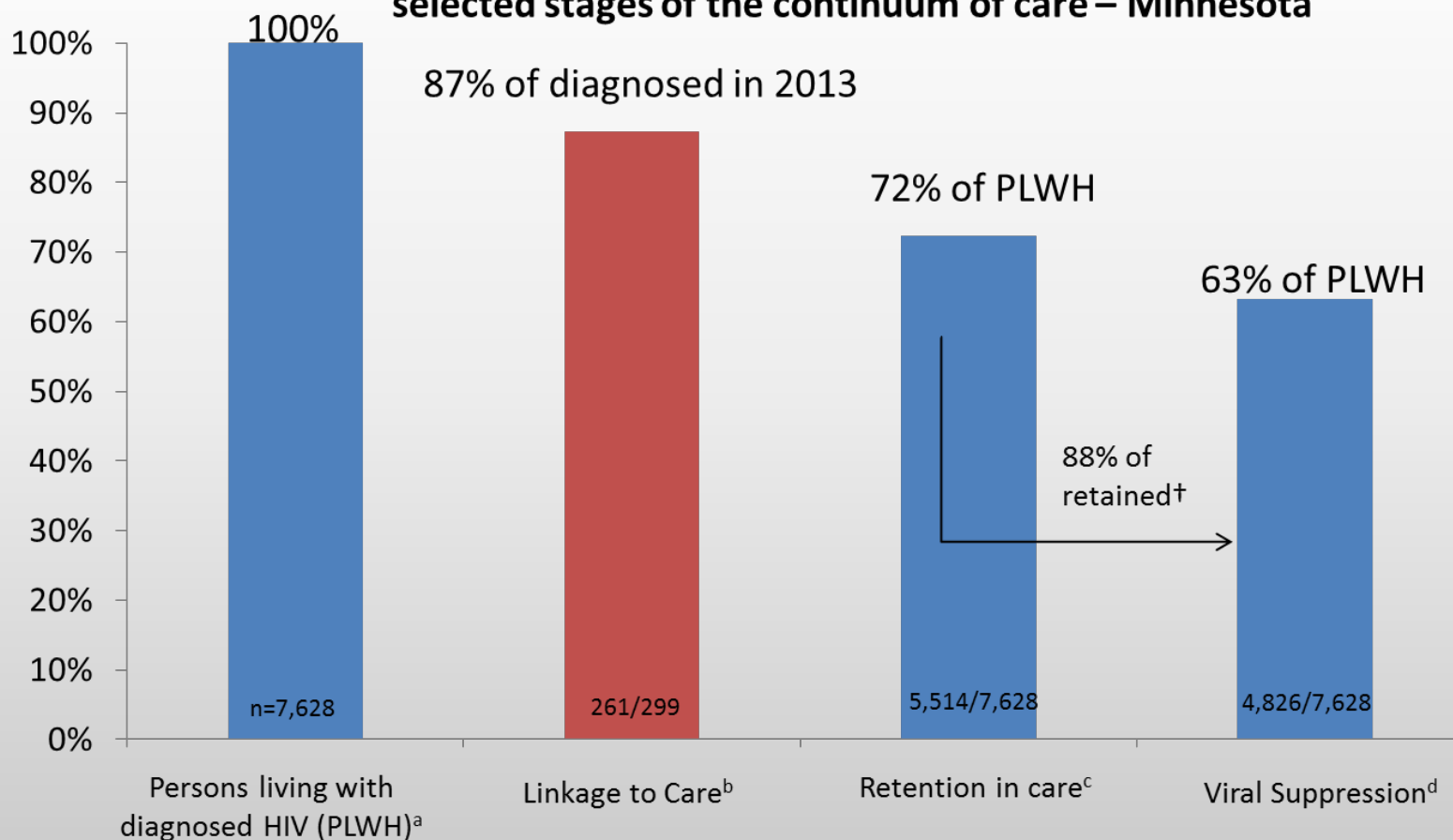
*Numbers include AIDS at 1st report but exclude persons arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[^] Percent of cases progressing to AIDS within one year of initial diagnosis with HIV

† Numbers/Percent for cases diagnosed in 2014 only represents cases progressing to AIDS through April 8, 2015.

Minnesota HIV Treatment Cascade

Percentage of persons diagnosed with HIV engaged in selected stages of the continuum of care – Minnesota



^aDefined as persons diagnosed with HIV infection (regardless of stage at diagnosis) through year-end 2013, who were alive at year-end 2014.

^bCalculated as the percentage of persons linked to care within 90 days after initial HIV diagnosis during 2013. Linkage to care is based on the number of persons diagnosed during 2013 and is therefore shown in a different color than the other bars with a different denominator

^cCalculated as the percentage of persons who had ≥ 1 CD4 or viral load test results during 2014 among those diagnosed with HIV through year-end 2013 and alive at year end 2014.

^dCalculated as the percentage of persons who had suppressed viral load (≤ 200 copies/mL) at most recent test during 2014, among those diagnosed with HIV through year-end 2013 and alive at year end 2014.

[†]Calculated as number of persons who had suppressed VL (≤ 200 copies/mL) at most recent test during 2014, among those who were retained in care during 2014.

Conclusions

- There were 307 new HIV diagnoses reported in Minnesota in 2014, an increase of 2% from 2013
- Great disparities in HIV diagnoses persist among populations of color and American Indians living in Minnesota
- Male-to-male sex remains the leading risk factor for acquiring HIV/AIDS in Minnesota
- New HIV diagnoses remain concentrated in the Twin Cities seven-county metro area (86% of new diagnoses in 2014)
- Foreign-born persons made up more than 1 in 5 of new HIV diagnoses in 2014, and progress from HIV to AIDS more quickly than U.S. born persons living with HIV in Minnesota

Thank You!

For more information, please contact:

Jessica Brehmer, HIV/AIDS Epidemiologist

jessica.brehmer@state.mn.us

(651) 201-5624



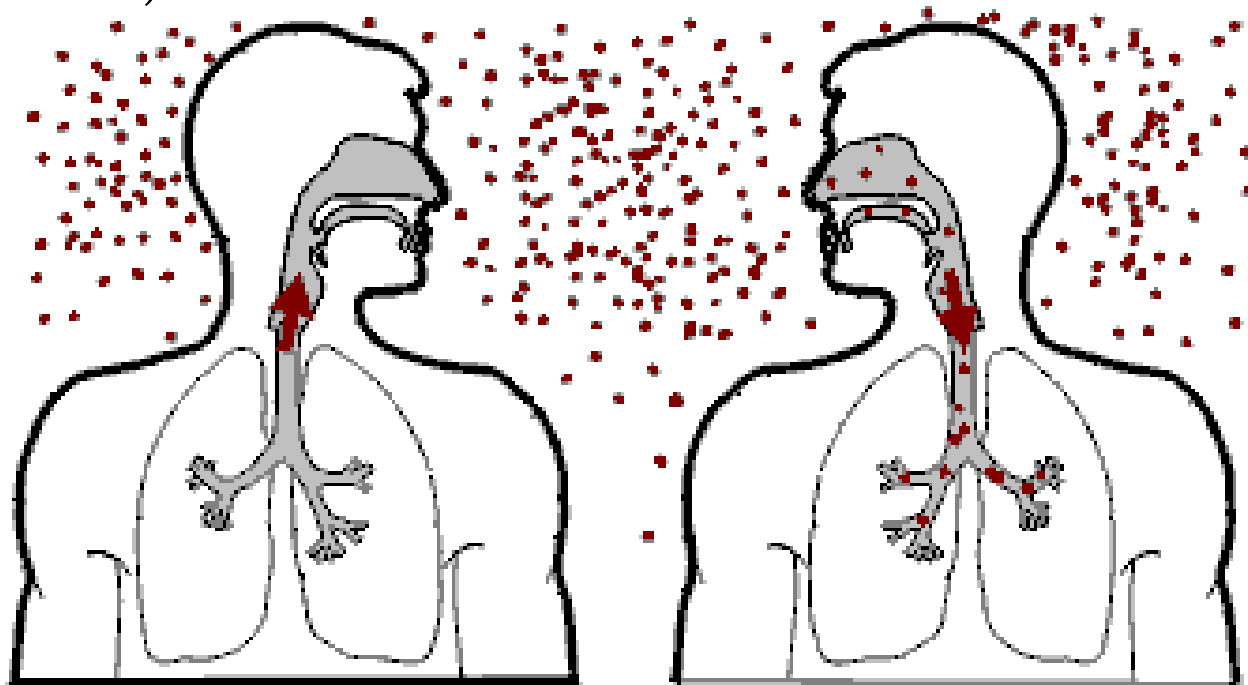
Tuberculosis

Sarah Gordon, MPH, NREMT-B
State TB Controller / Manager
TB Prevention and Control Program
Minnesota Department of Health

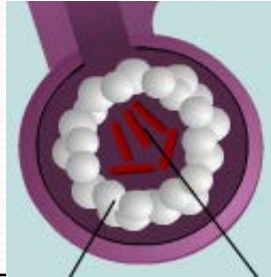
April 30, 2015

What is TB?

- TB is caused by a bacteria called *Mycobacterium tuberculosis* (MTB)
- TB spreads from person-to-person by tiny “droplet nuclei” suspended in the air after someone with infectious TB coughs, sings, talks, sneezes, etc.



Latent TB Infection & Active TB Disease



Phase 1: Latent TB Infection

A small number of TB germs are “asleep” in their body. This phase can last for a very long time.

No symptoms. TST or IGRA is positive. Chest x-ray is negative (normal or abnormal but not active TB disease).

Not infectious – non-reportable to MDH

Treated by taking 1-2 drugs for 3 - 9 months. **Rule out of active disease prior to treatment.



Phase 2: Active TB Disease

A large number of TB germs are “awake” and spreading.

Symptoms present. 75-90% have positive TST. May have an abnormal chest x-ray.

May be infectious – mandatory reportable disease to MDH

Treated by taking 3 - 4 drugs for 6 – 12 months. **Up to 2 years if MDR.

TB Disease: Tip of the Iceberg

Tuberculosis (TB) Disease: Only the Tip of the Iceberg

There are **two** types of TB conditions:
TB disease and latent TB infection.

People with **TB disease** are sick from active TB germs. They usually have symptoms and may spread TB germs to others.

People with **latent TB infection** do not feel sick, do not have symptoms, and cannot spread TB germs to others.

But, if their TB germs become active, they can develop **TB disease**.

Millions of people in the U.S. have **latent TB infection**. Without treatment, they are at risk for developing **TB disease**.

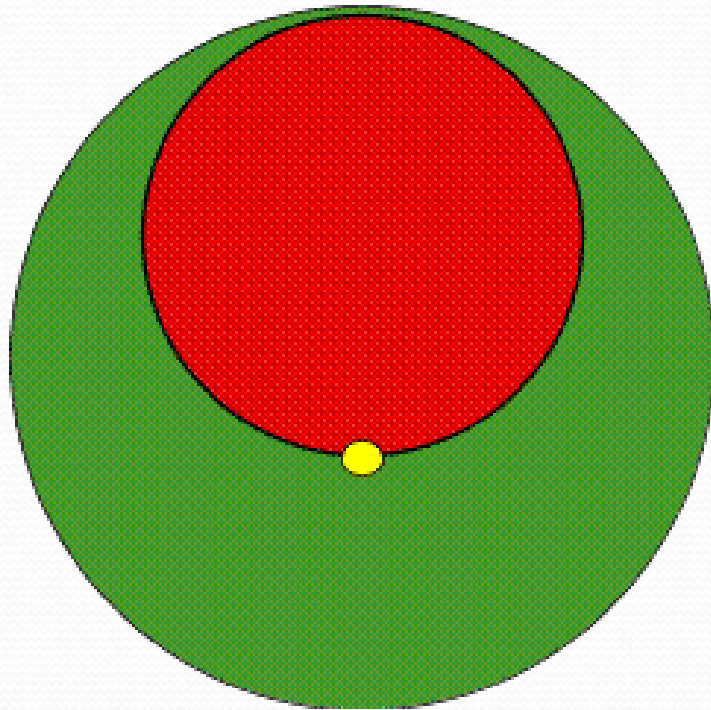


U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention



To learn more about TB, visit
www.cdc.gov/tb

TB in Perspective



● World Population	6,000,000,000
● TB Infected	2,000,000,000
● HIV Infected	30,000,000

TB in Perspective

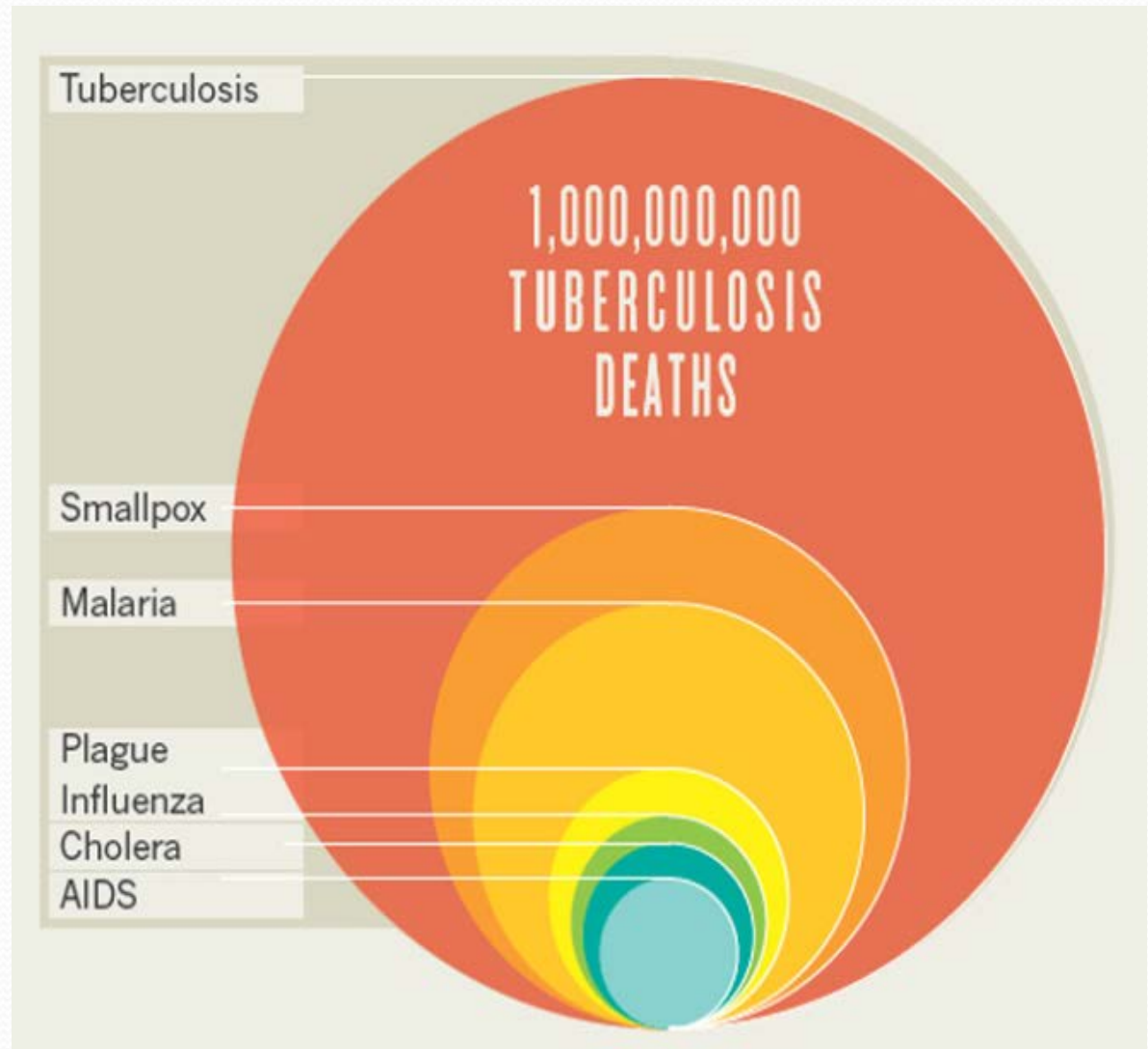
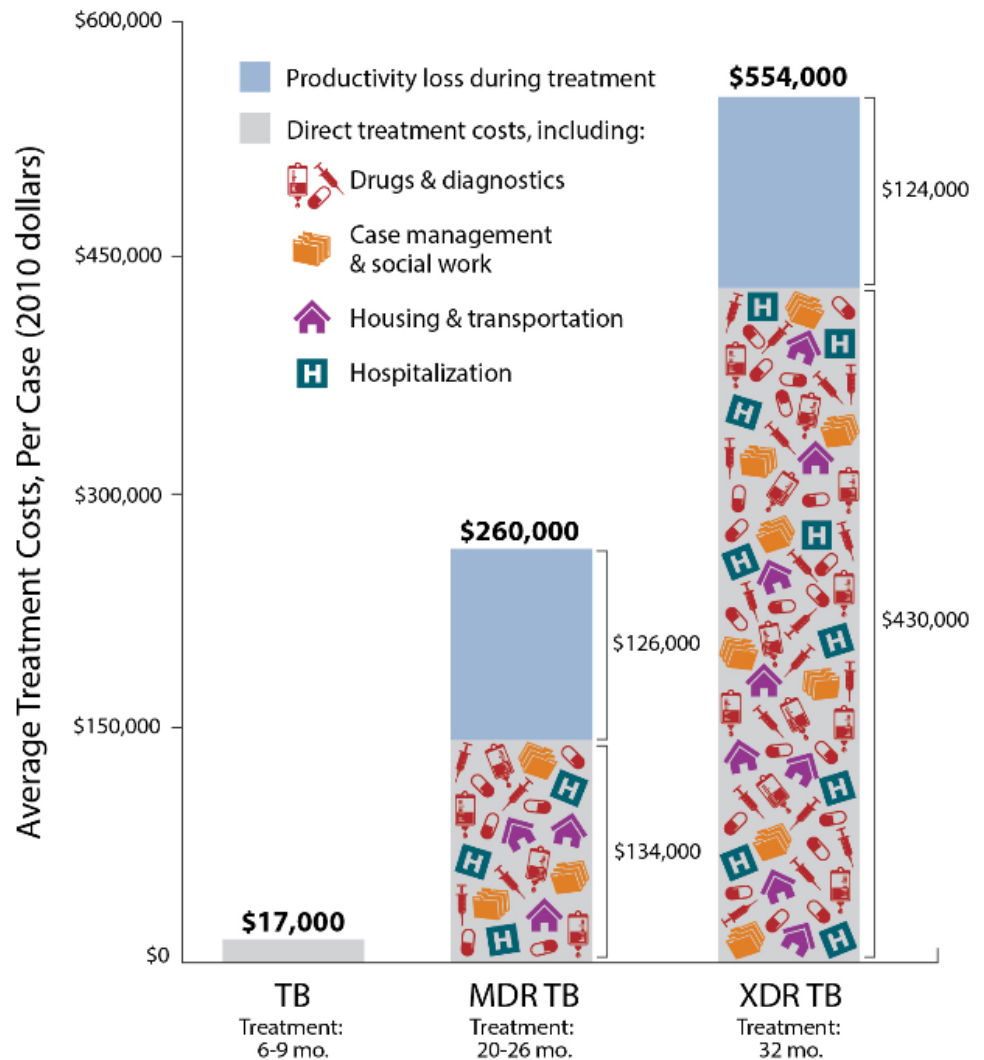


Figure from Nature special on tuberculosis

Multidrug Resistant TB

The Outsized Financial Toll of MDR and XDR TB

Cost increases with greater resistance:





Persons at Risk for TB Infection

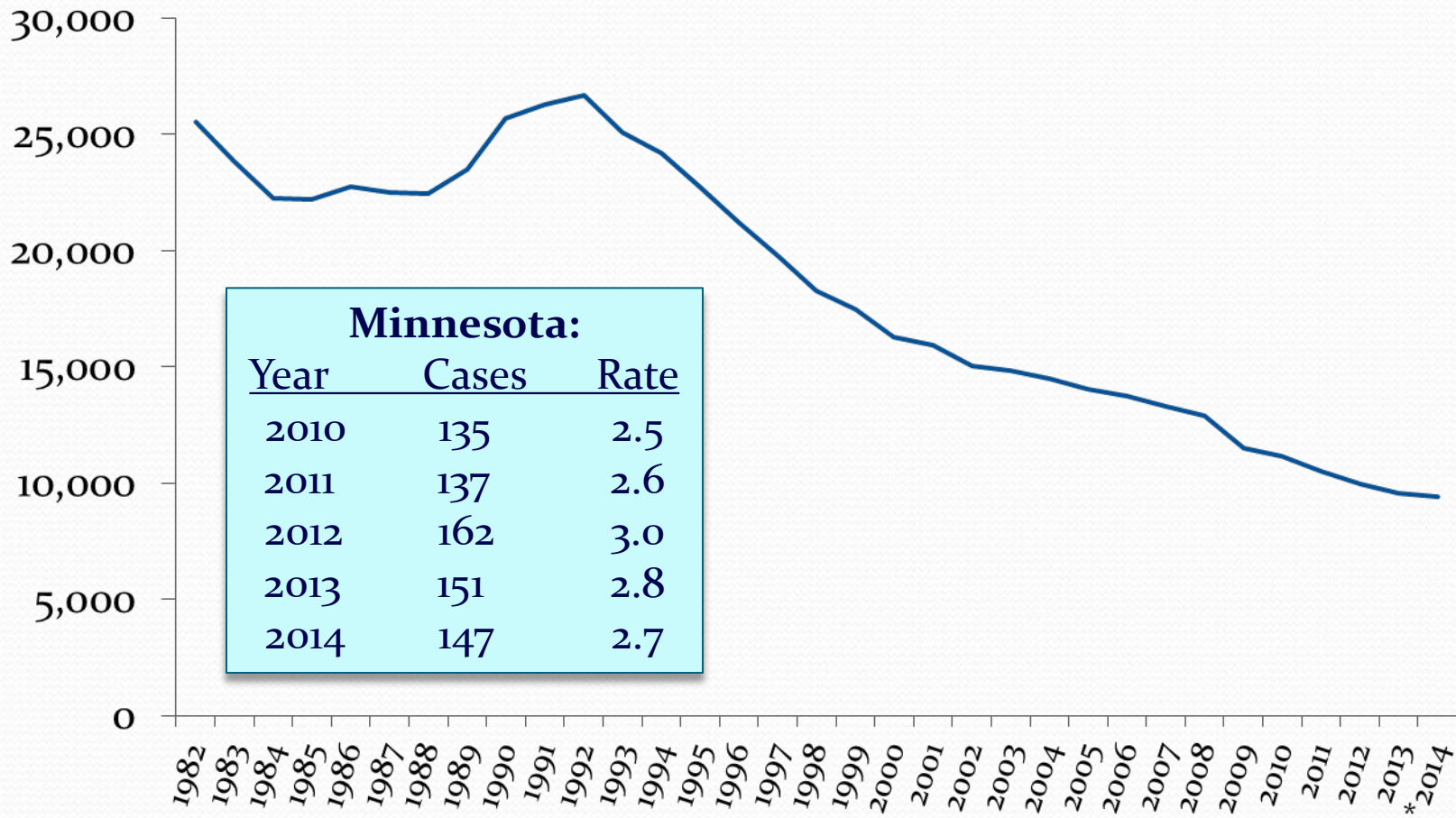
- Close contacts of infectious TB cases
- Foreign-born persons from TB endemic areas
- Visitors to TB endemic areas
- Residents/employees of congregate settings
- Healthcare workers
- Certain subpopulations with high TB transmission rates



Persons at Higher Risk for Progression from LTBI to Active TB

- HIV-infected
- Recently infected with TB
- Immunosuppressed
- Substance abusers
- Cigarette smokers
- Children under age 5
- Persons with certain medical conditions

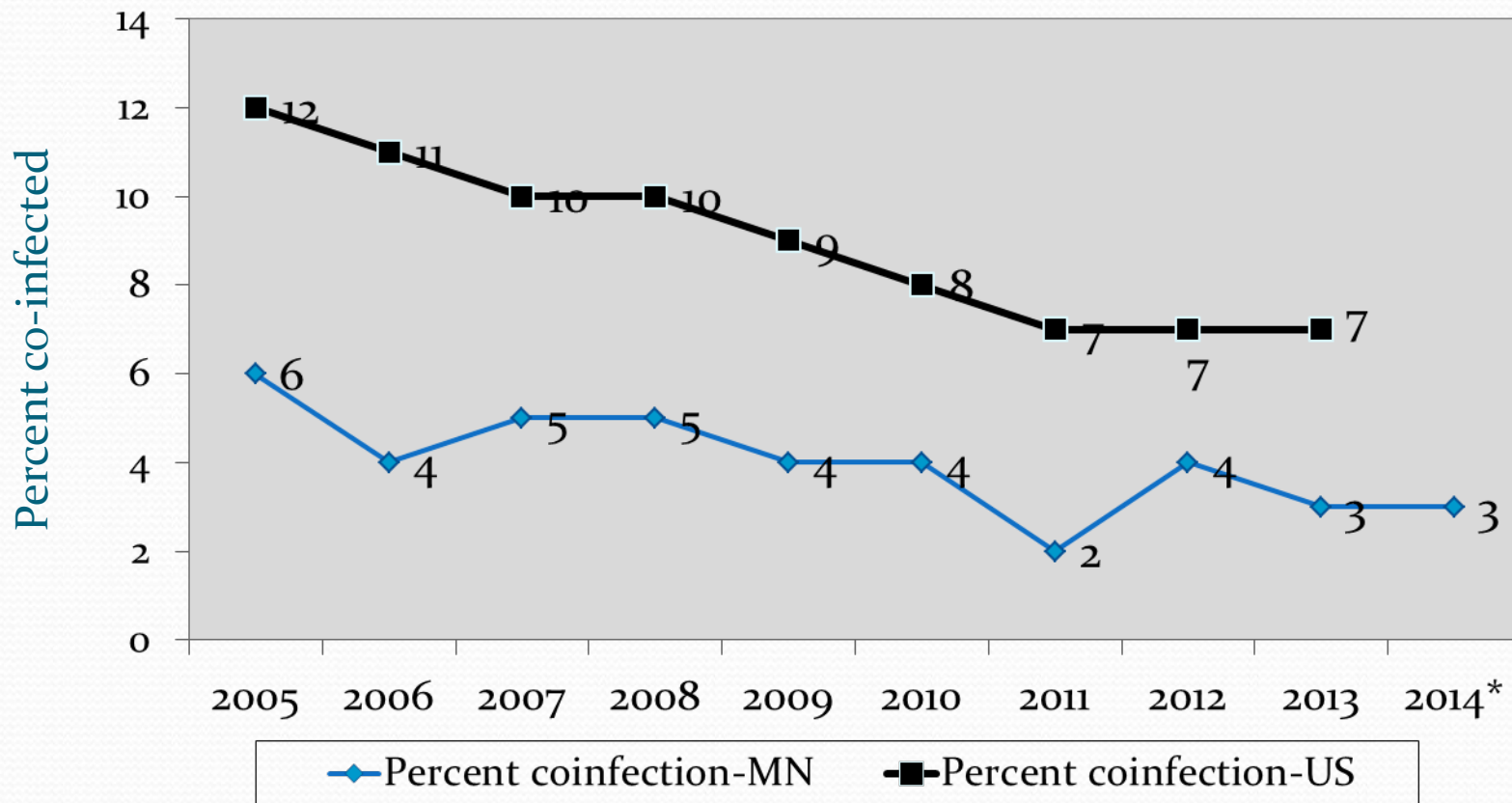
Reported TB Cases United States, 1982-2014*



* Provisional data



TB-HIV Co-infected Cases: Minnesota vs. U.S., 2005-2014

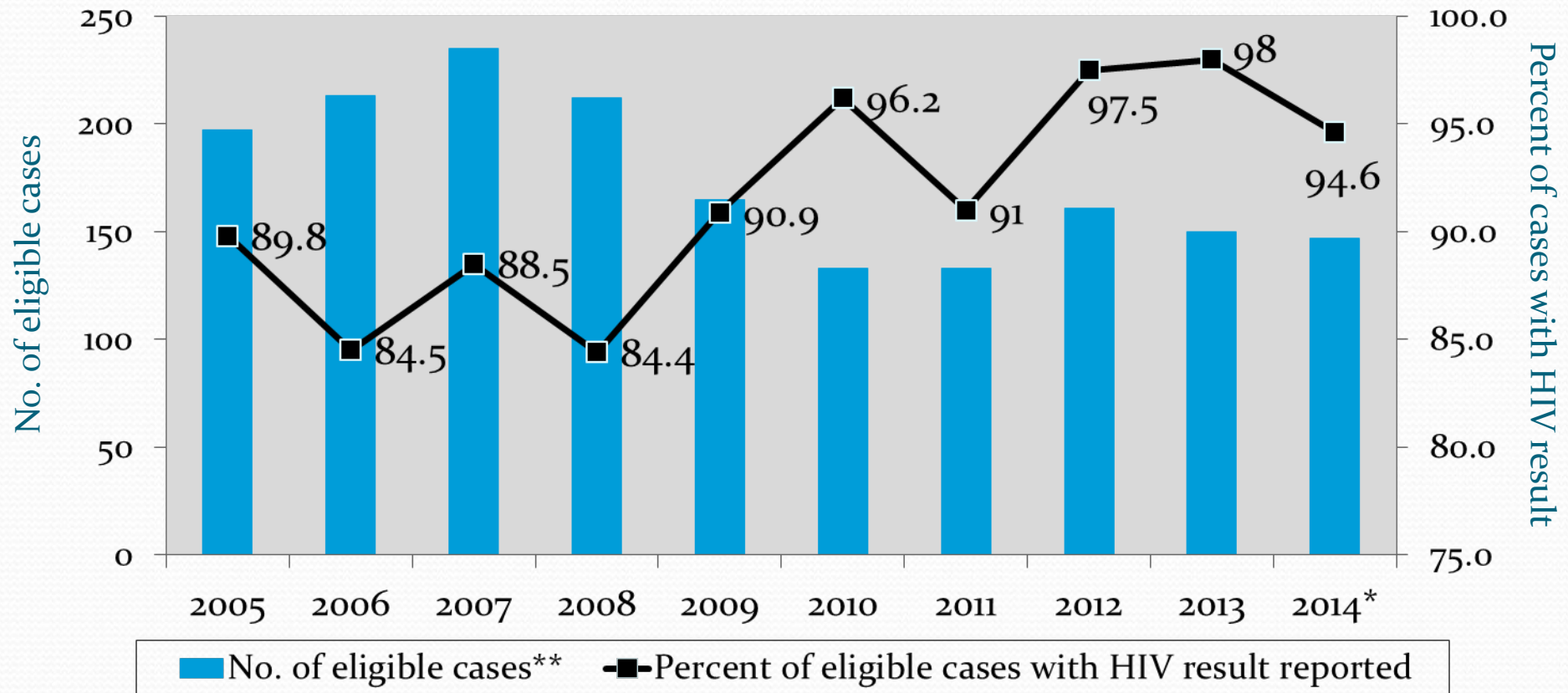


No. of TB-HIV cases in MN:

- 2005 - 12
- 2006 - 8
- 2007 - 12
- 2008 - 11
- 2009 - 7
- 2010 - 6
- 2011 - 3
- 2012 - 6
- 2013 - 4
- 2014 - 4

* Provisional data

HIV Testing in Persons with TB: Minnesota, 2005-2014*



* Provisional 2014 data

** Alive at diagnosis

MDH TB Program at a Glance

- Disease surveillance/epidemiology
- Case management
- Consultation on diagnostic, clinical and contact investigation guidelines
- TB educational materials
- Ensuring TB evaluation for new refugees and immigrants with TB Class conditions
- TB Medications Program



Phone:

651-201-5414 / 1-877-676-5414

Fax:

651-201-5500

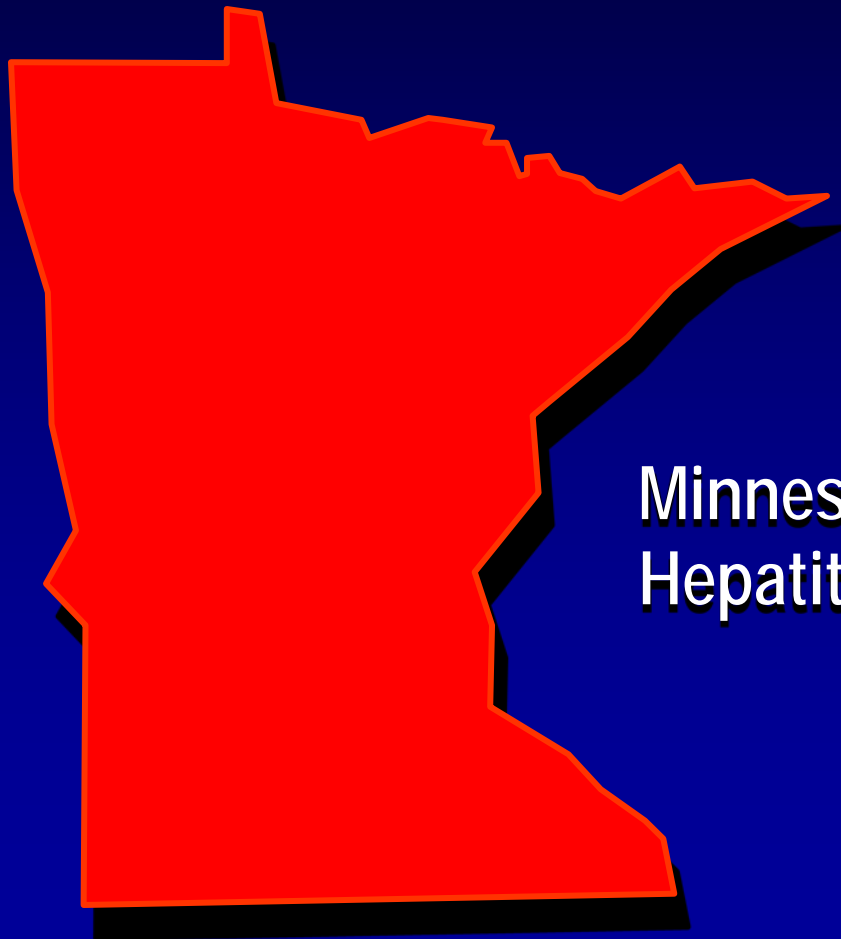
Website:

www.health.state.mn.us/tb

E-mail for Sarah:

sarah.gordon@state.mn.us

Hepatitis A, B & C in Minnesota, 2014



Minnesota Department of Health
Hepatitis Surveillance System

Minnesota Hepatitis Surveillance System

- Hepatitis B reportable since 1987
- Hepatitis C reportable since 1998
- Passive data collection

Introduction

- Data in this presentation are current through 2014
- Definitions:
 - ◆ Acute case:
 - ◆ Infected within the last six months
 - ◆ Symptomatic OR negative test in six months before diagnosis
 - ◆ Chronic case:
 - ◆ Infected for over six months
 - ◆ Asymptomatic or symptomatic
 - ◆ Resolved cases:
 - ◆ No evidence of current infection
 - ◆ Evidence of past infection

Data limitations

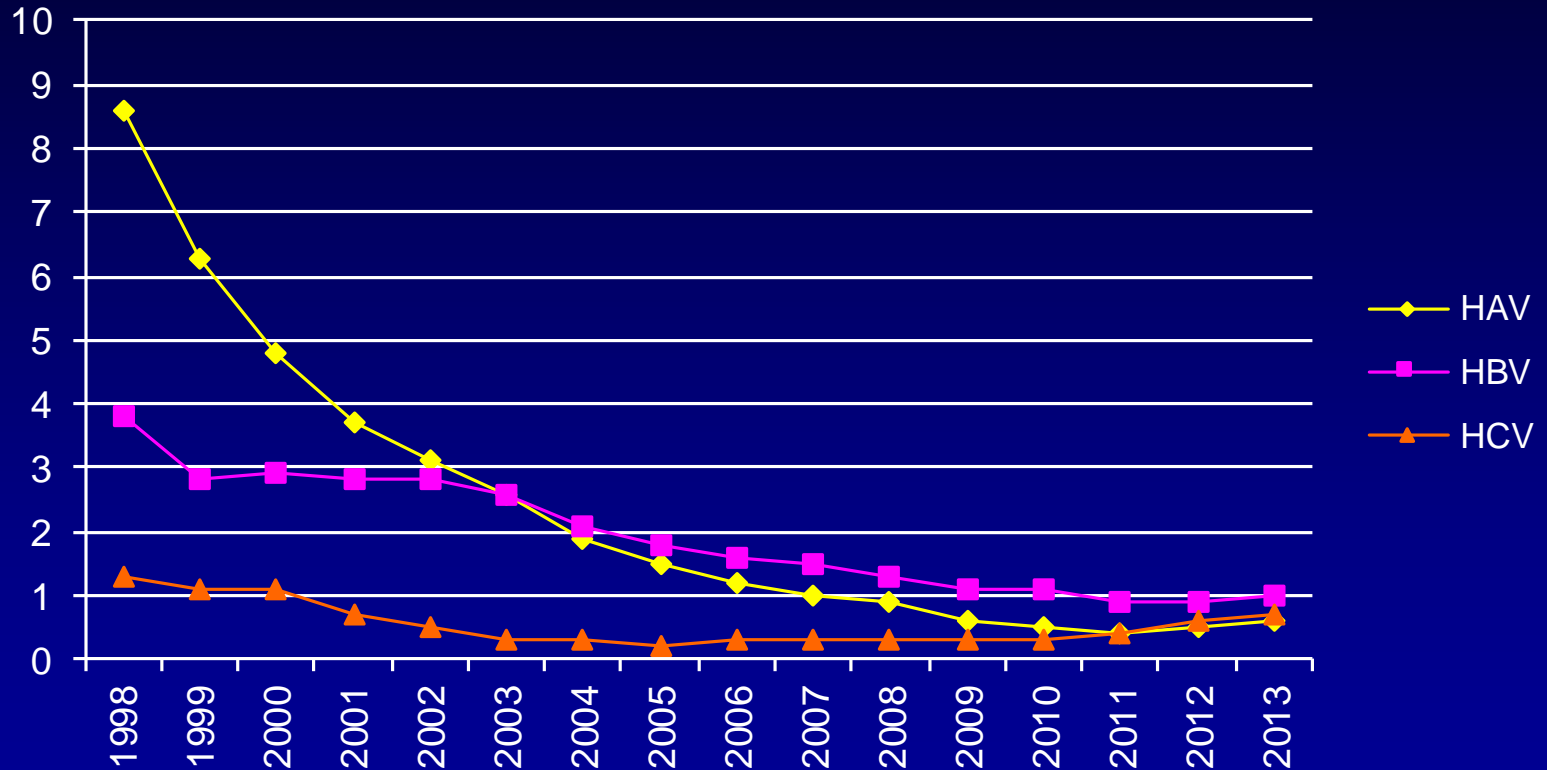
- The slides rely on data from HCV and HBV cases diagnosed through 2014 and reported to the Minnesota Department of Health (MDH) Hepatitis Surveillance System.
- Some limitations of surveillance data:
 - ★ Data do not include hepatitis-infected persons who have not been tested
 - ★ Data do not include persons whose positive test results have not been reported to the MDH
- Persons are assumed to be alive unless the MDH has knowledge of their death.
- Persons whose most recently reported state of residence was Minnesota are assumed to be currently residing in Minnesota unless the MDH has knowledge of their relocation.



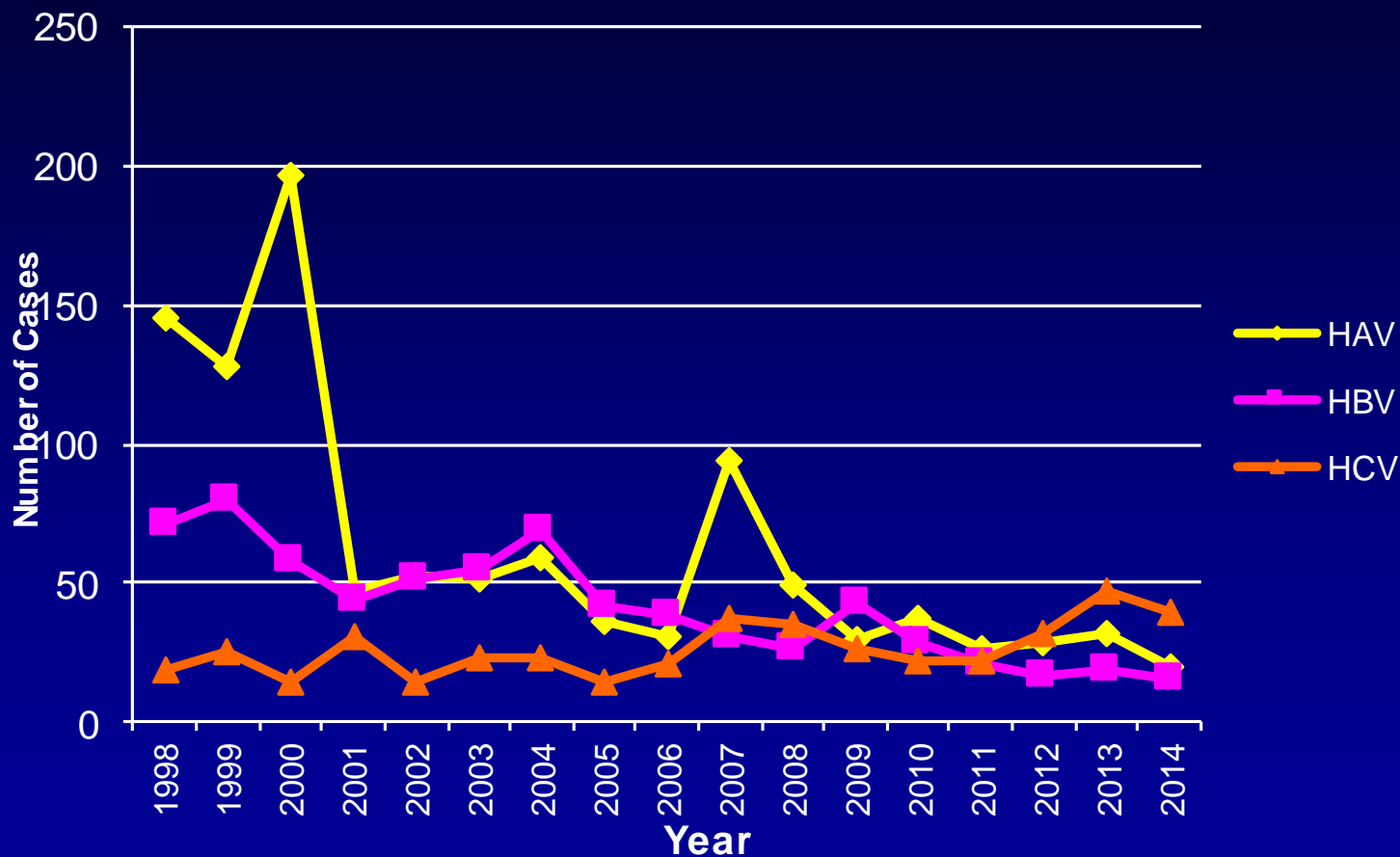
Acute Viral Hepatitis

- ◆ Acute case:
 - ◆ Infected within the last six months
 - ◆ Symptomatic OR negative test within 6 months before diagnosis

Reported rate per 100,000 population of acute viral hepatitis United States, 1998-2013



Number of Acute* Cases per year Minnesota, 1998-2014






Chronic Viral Hepatitis



Overview of HCV in Minnesota

A hepatitis C case is defined as current or past infection with hepatitis C and includes:

- ◆ Acute cases:
 - ◆ Infected within the last six months
 - ◆ Symptomatic
- ◆ Chronic cases:
 - ◆ Infected for over six months
- ◆ Resolved cases:
 - ◆ No evidence of current infection
 - ◆ Evidence of past infection



Reported Number of Persons Living with HCV in MN

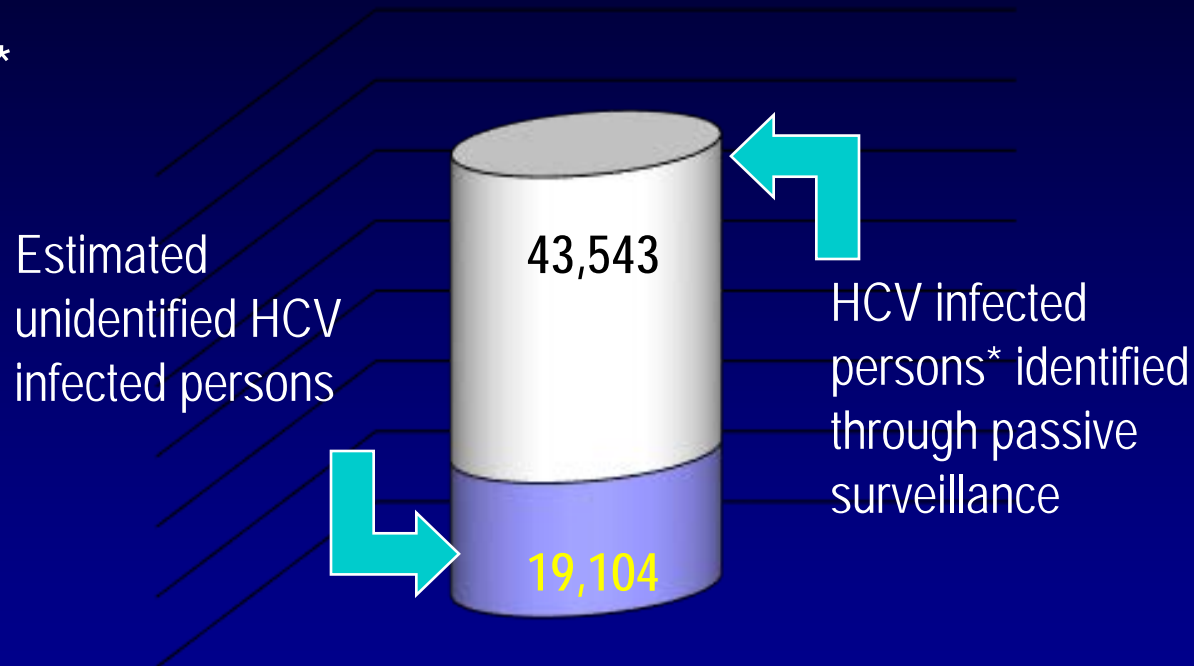
- As of December 31, 2014, 43,543* persons are assumed alive and living in MN with HCV

*Includes persons with unknown city of residence

Note: Includes all acute, chronic, probable chronic, and resolved cases.

HCV Infected Persons Identified through Passive Surveillance in MN through 2014

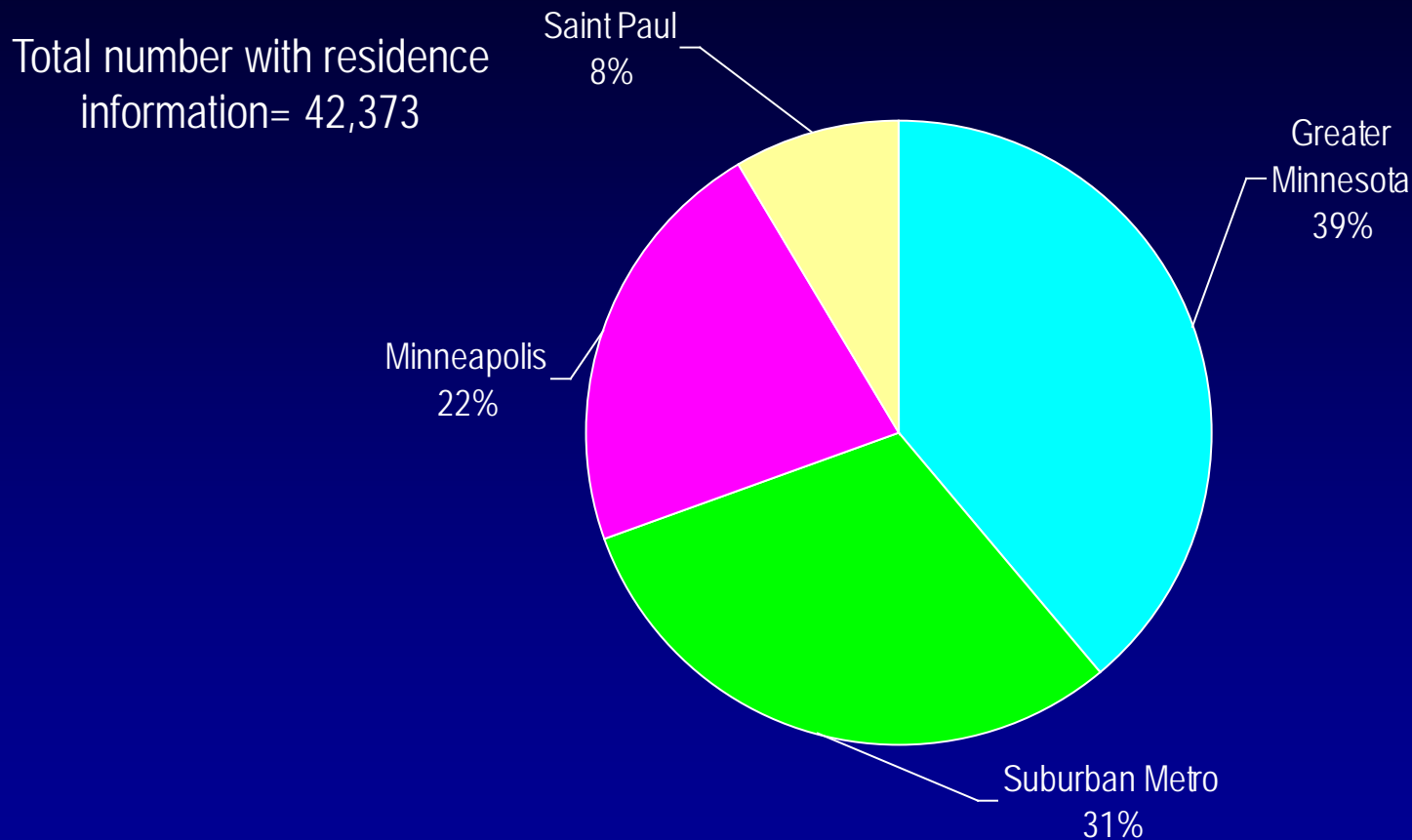
N=62,647**



*Includes all acute, chronic, probable chronic, and resolved cases.

**<http://www.cdc.gov/ncidod/diseases/hepatitis/c/fact.htm>

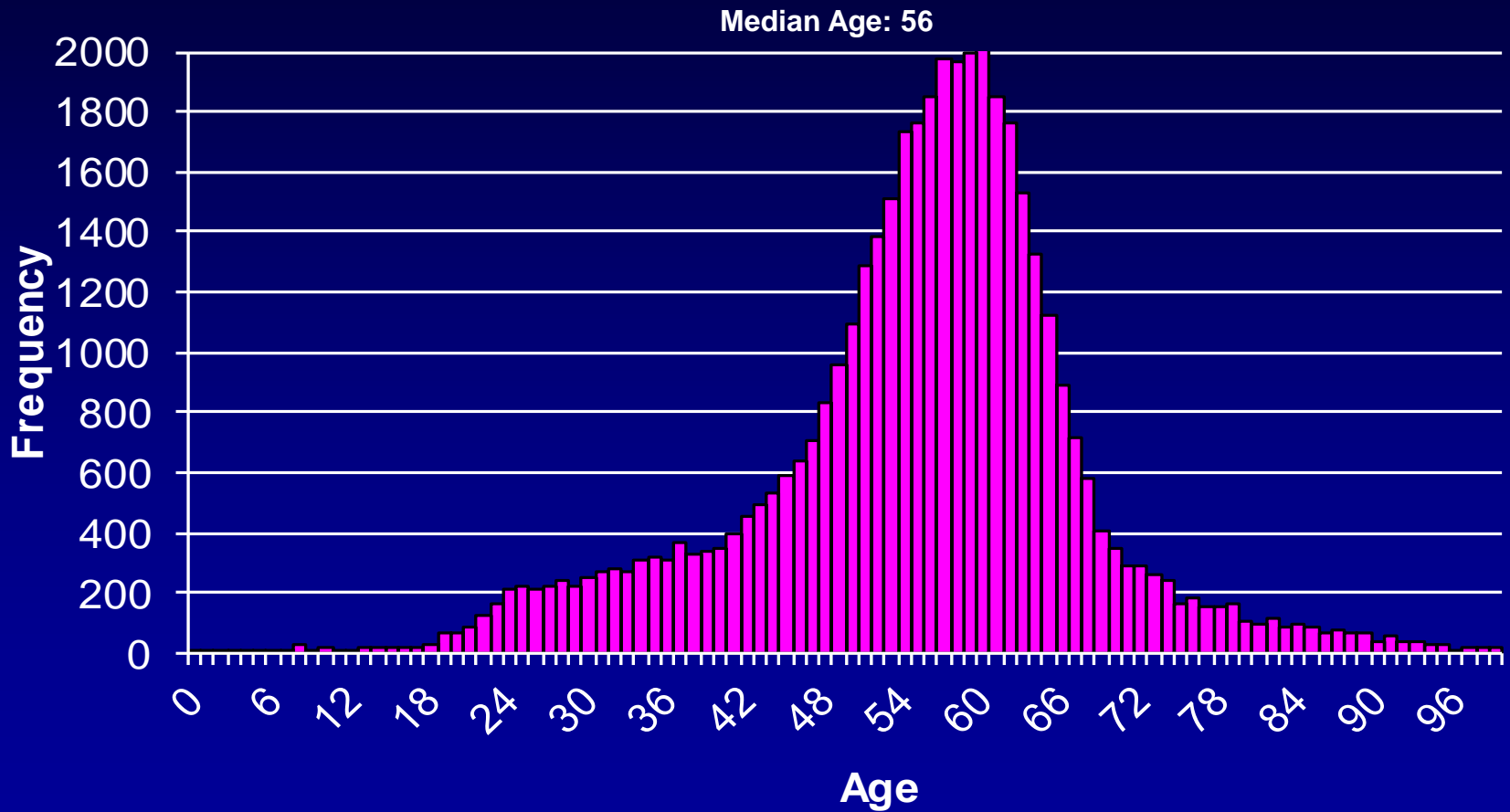
Persons Living with HCV in MN by Current Residence, 2014



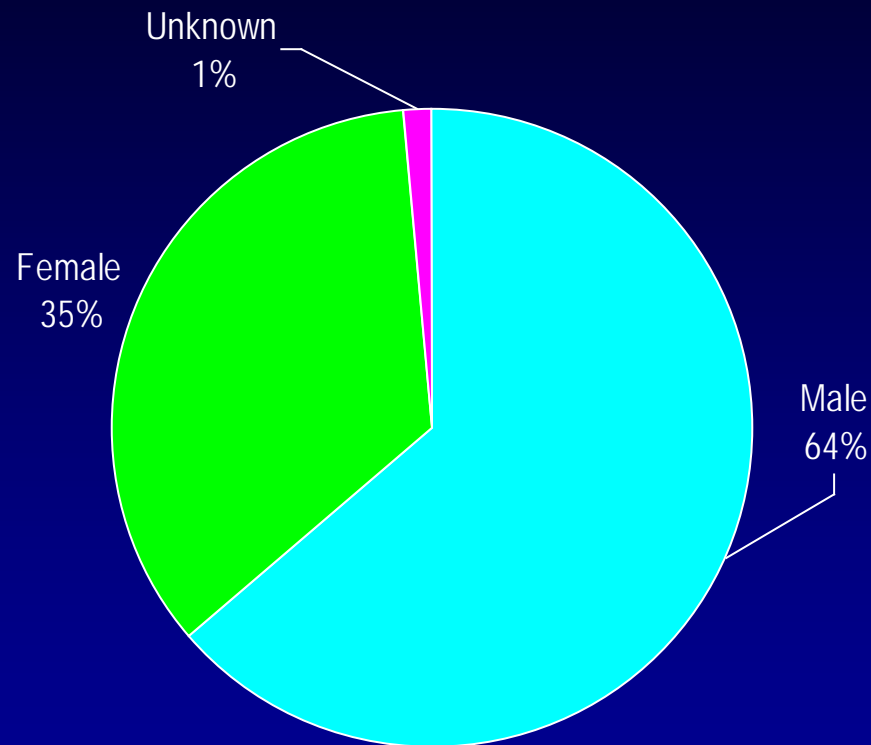
(1,170 missing residence information)

Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties including those in Hennepin County or Ramsey County with unknown city. Greater MN = All other Minnesota counties, outside the seven-county metro area.

Persons Living with HCV in MN by Age, 2014

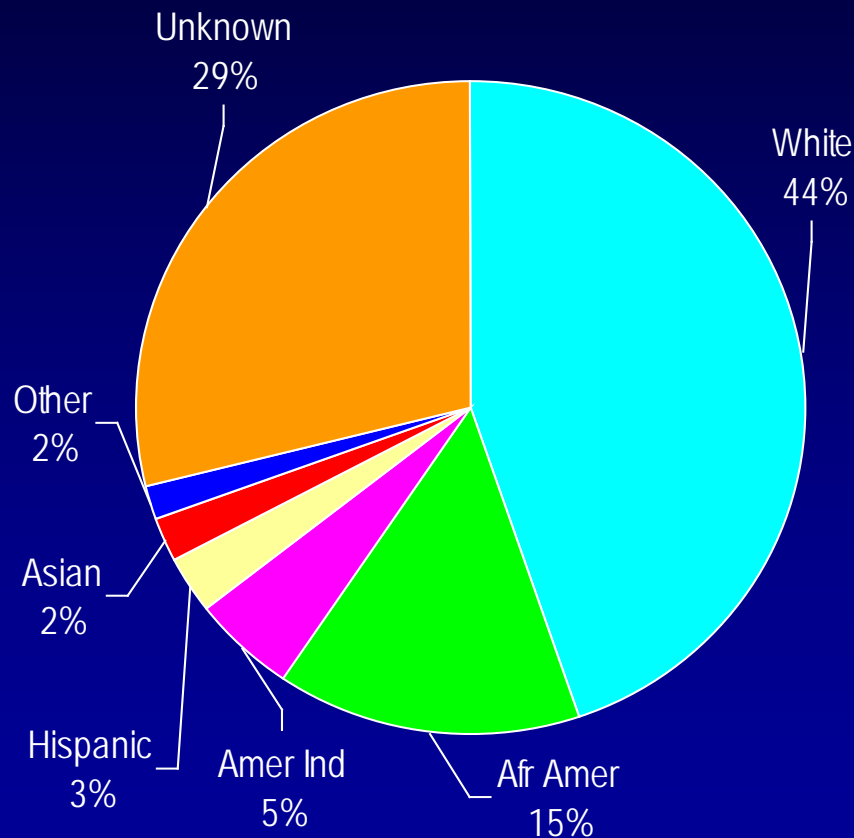


Persons Living with HCV in MN by Gender*, 2014



*Includes anonymous methadone patients

Persons Living with Chronic HCV in Minnesota by Race, 2014

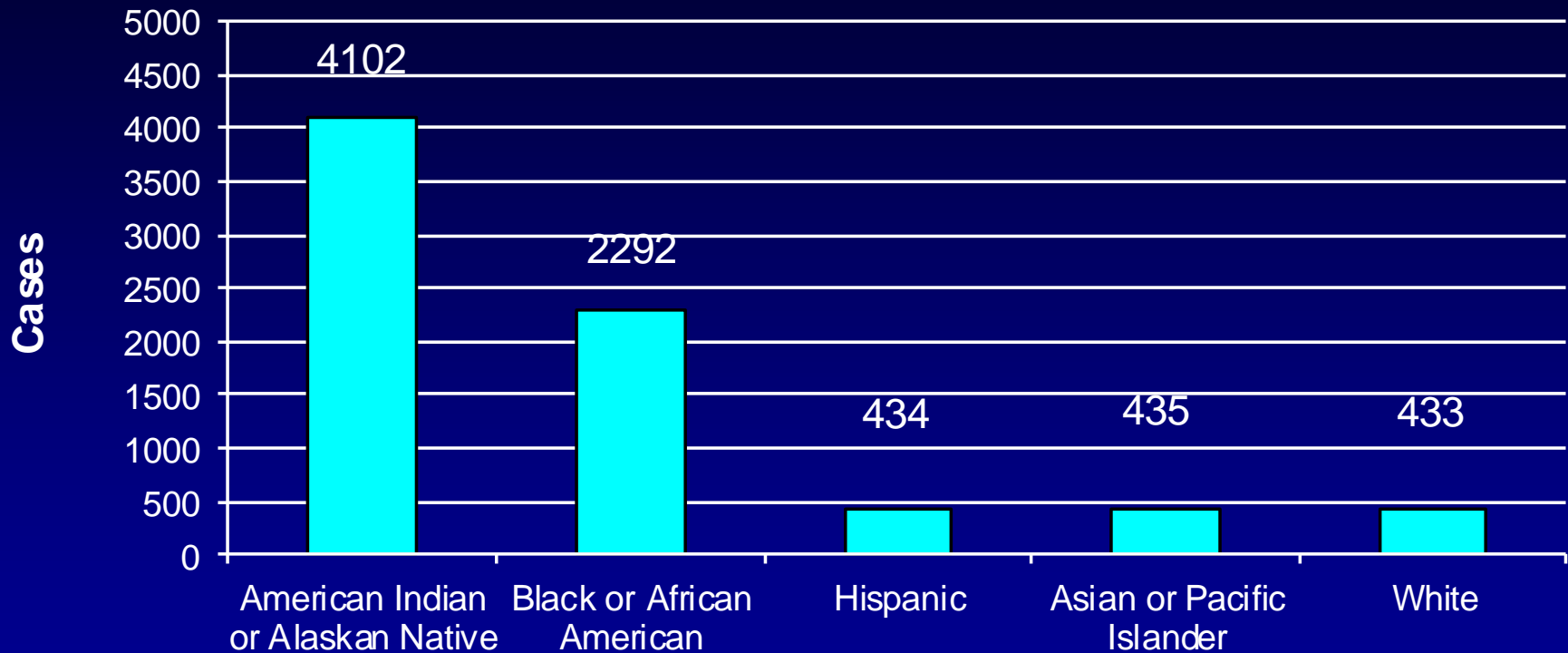


Afr Amer = African American /Black Asian=Asian or Pacific Islander

Amer Ind = American Indian

Other = Multi-racial persons or persons with other race

Persons Living with HCV in Minnesota rates (per 100,000 persons*), 2014



*Rates calculated using 2013 U.S. Census ACS data

Excludes persons with multiple races or unknown race



Overview of Chronic HBV in MN

- ◆ Chronic case:
 - ◆ Infected for over six months
 - ◆ Includes cases with no evidence of recent infection
 - ◆ Asymptomatic or symptomatic



Reported Number of Persons with Chronic HBV in MN

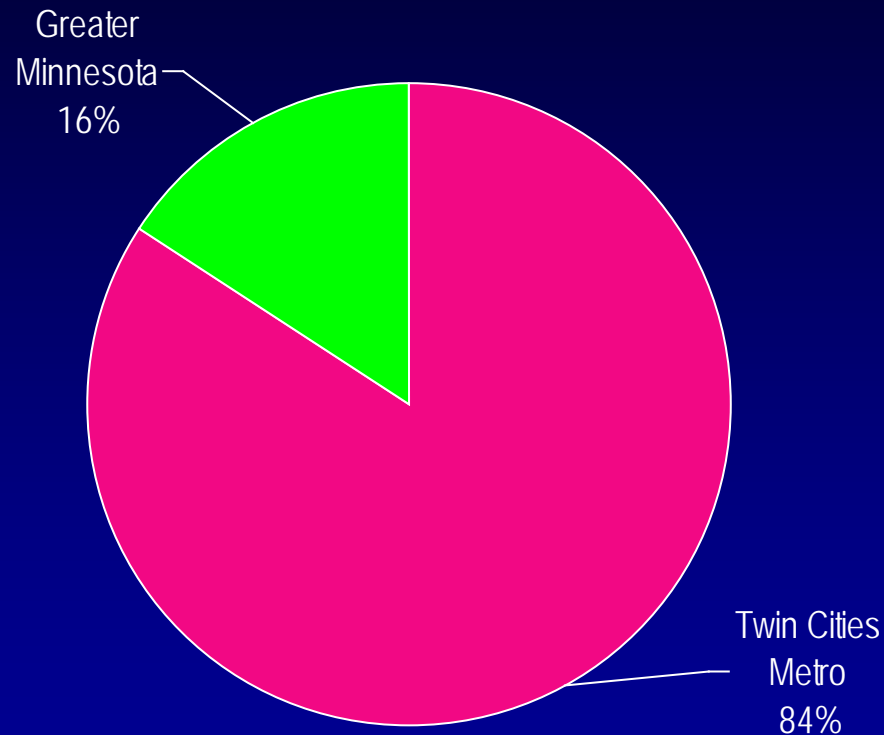
- As of December 31, 2014, 22,967* persons are assumed alive and living in MN with chronic HBV

*Includes persons with unknown city of residence

Note: Includes all chronic, and probable chronic cases.

Persons Living with HBV in MN by Current Residence, 2014

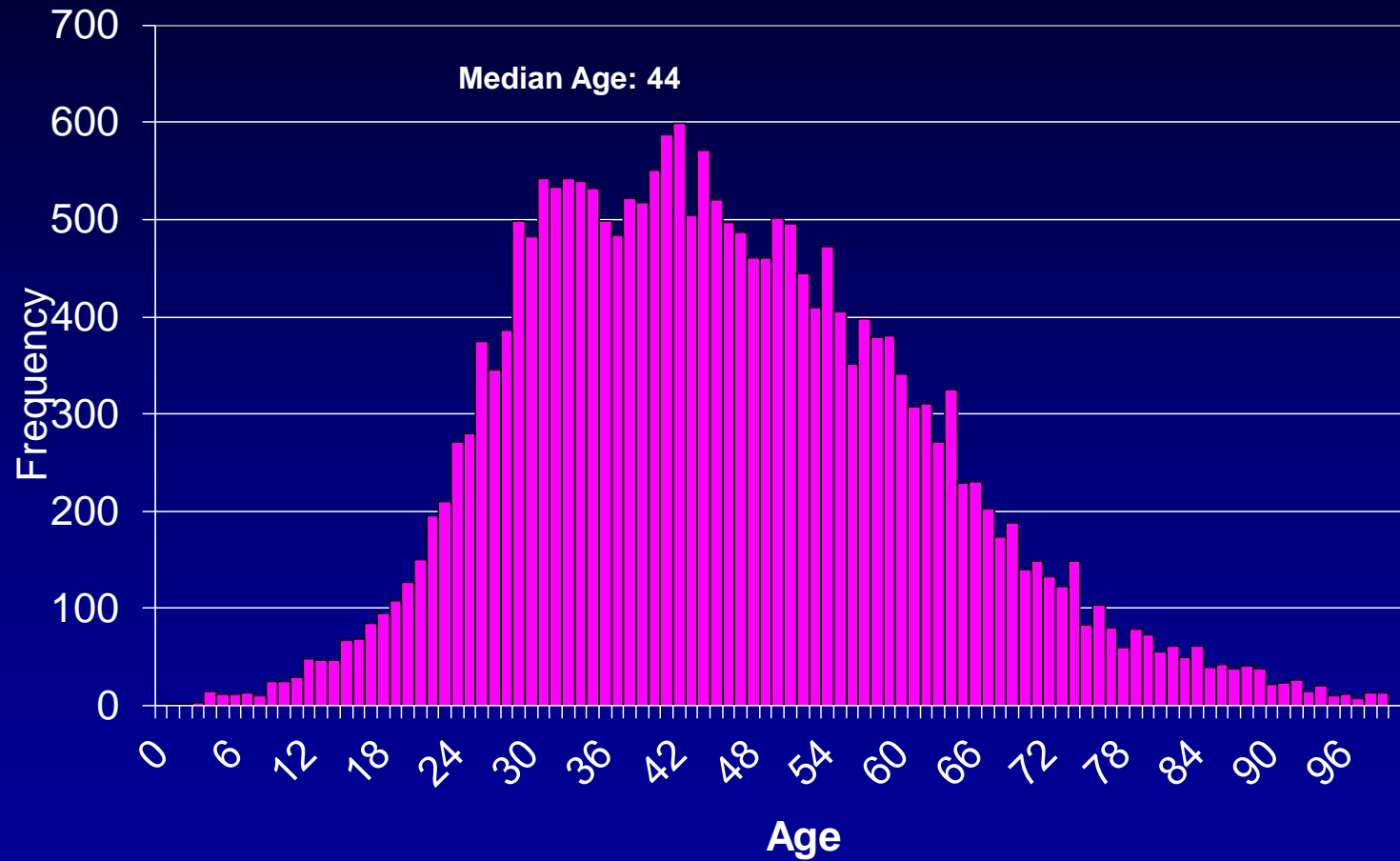
Total number with residence information = 22,747



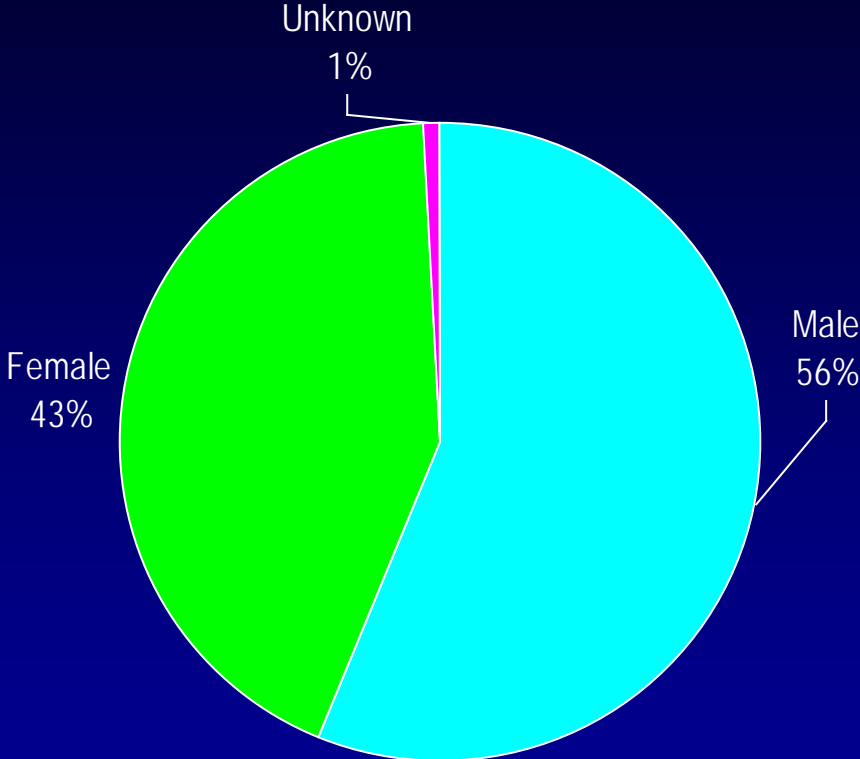
(220 missing residence information)

Metro = Seven-county metro area including Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties.
Greater MN = All other Minnesota counties, outside the seven-county metro area.

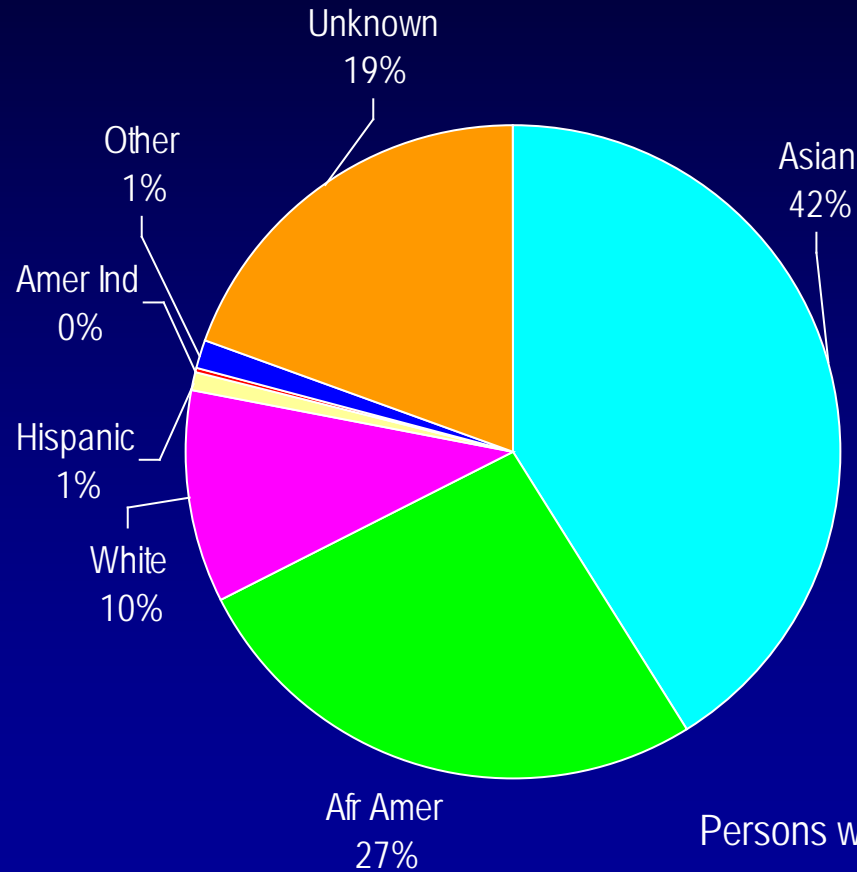
Persons with Chronic HBV in MN by Age, 2014



Chronic HBV in MN by Gender, 2014

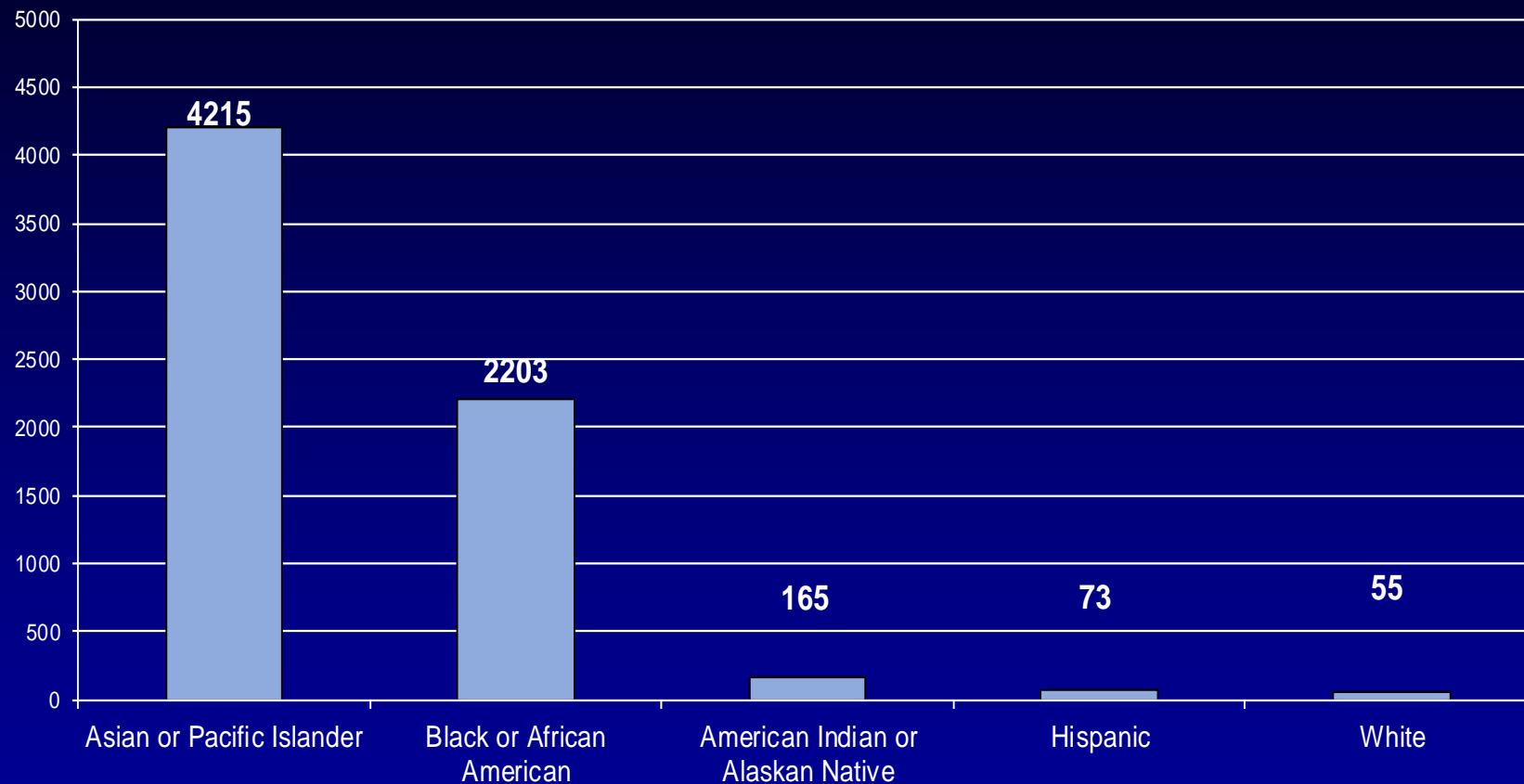


Persons Living with Chronic HBV in Minnesota by Race, 2014



Afr Amer = African American /Black Asian=Asian or Pacific Islander
Amer Ind = American Indian
Other = Multi-racial persons or persons with other race

Persons Living with Chronic HBV in Minnesota by Race rates (per 100,000 persons*), 2014



*Rates calculated using 2013 U.S. Census ACS data

Excludes 3,396 cases with multiple races and unknown race

Thank you!

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Thank You!

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