

"So That The People May Live"



"Hecel Oyate Kin Nipi Kte"

# Please Stand By

You will hear silence until the  
presentation begins



"So That The People May Live"



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The HIV/STD/TB/Hepatitis Program, Division of Disease Control, conducts Lunch and Learn Webinars for health-care professionals in North Dakota.

Each month a new topic will be held from 12:00 p.m. to 1:00 p.m. CST on the fourth Wednesday of the month, with exceptions during holidays.

Next month's L&L topic:

**2014 STD Treatment Guidelines and 2014 STD ND Surveillance Data**

April 22<sup>nd</sup>, 2015

Register: <http://www.ndhealth.gov/HIV/events.htm>

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You must score at least 70% to receive credit.

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[www.ndhealth.gov/HIV/Resources/resources.htm](http://www.ndhealth.gov/HIV/Resources/resources.htm)

For questions or comments contact:

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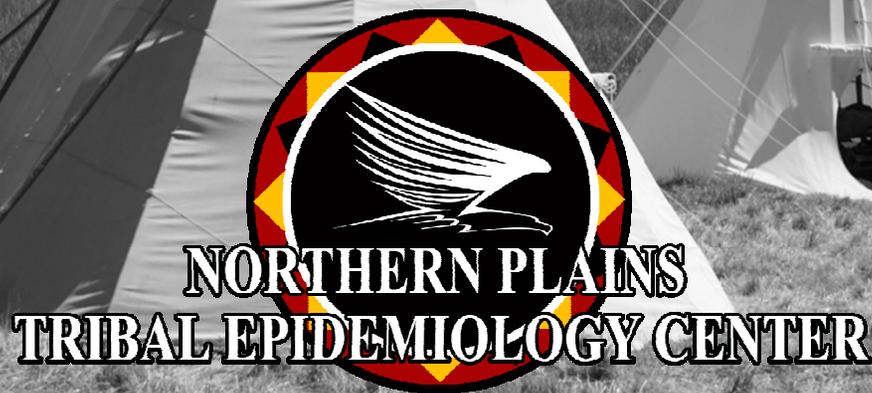
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# Infectious Disease Disparities Among Tribes in the Northern Plains ...

... and How We Can Respond

PJ Beaudry, MPH, CPH – NPTEC Administrative Coordinator



Great Plains Tribal  
Chairmen's Health Board



# Objectives

1. To briefly summarize public health surveillance and to underscore the clinical relevance of infectious disease morbidity
2. To describe the epidemiology of infectious disease among American Indians in the Northern Plains
3. To recognize the limitations of Northern Plains American Indian infectious disease data
4. To illuminate resources and responses available to us that seek to combat these trends

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# Who We Are:

## Northern Plains Tribal Epidemiology Center

### Mission

To provide leadership, technical assistance, support, and advocacy to Northern Plains Tribal nations and communities in order to eliminate the disparities in health that currently exist for Tribal people of the area.

### Role

- To provide technical assistance with and/or coordinate public health surveillance activities and program evaluation.
- To house and manage Tribal data, disseminating timely, accurate, and useful reports on a variety of topics and consulting with Tribal programs and GPTCHB staff regarding data management.
- To conduct or assist with projects related to particular emergent public health priorities or issues of interest to our partner Tribes.



# The 2010 Affordable Care Act...

## ... and its effect on Tribal Epidemiology Centers (including NPTEC).

- Permanently reauthorized the Indian Health Care Improvement Act
- TECs vested with “*public health authority*” status for the purposes of HIPAA

*“[a]n epidemiology center... shall be treated as a public health authority.”*

- [25 U.S.C.A § 1621m\(e\)\(1\)](#)

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## Public health surveillance is...

... the ongoing, systematic collection, analysis, and interpretation of health data, essential to the planning, implementation, and evaluation of public health practice, closely integrated with the dissemination of these data to those who need to know and linked to prevention and control.

(Hall et al., 2012)



# Worldview of Public Health Surveillance



## Actions

- Communicate to partners
- (Re)set priorities
- Establish programs
- Develop policies
- Formulate new hypotheses



Data



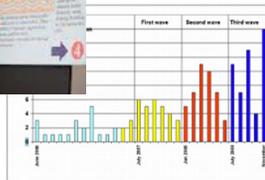
## Analysis

- Assess data quality
- Summarize records
- Investigate trends and relationships
- Disseminate results

Surveillance

Knowledge

Information



## Interpretation

- Draw conclusions
- Make decisions



Case#	Initial	Date of Onset	Date of Illness	Physician Diagnosis	Signs and Symptoms							Lab			
					N	V	A	F	DU	J	HAight	Other	Age	Sex	
1	JD	10/12	10/16	Step A	+	+	+	+	+	+	+	+	SOG1	37	M
2	BC	10/12	10/15	Step A	+	+	+	+	+	+	+	+	AK+	42	F
3	MP	10/13	10/14	Step A	+	+	+	+	+	+	+	+	SOG1	30	F
4	MC	10/15	10/16	Step A	+	+	+	+	+	+	+	+	WSP	37	F
5	NG	10/15	10/15	NA	+	+	+	+	+	+	+	+	NA	32	F
6	RD	10/15	10/18	Step A	+	+	+	+	+	+	+	+	SOG1	38	M
7	KD	10/16	10/13	Step A	+	+	+	+	+	+	+	+	SOG1	43	M

N: Vomiting; A: Anorexia; F: Fever; DU: Dark urine; J: Jaundice; HA: Headache; SOG1: Stool occult blood test





## Clinical Relevance

- Alert practitioners to outbreaks in their patient populations.
- Improve screening and diagnosis of patients at increased risk of chronic disease and co-infection.
- Initiate treatment protocols for existing cases.
- Implement patient education strategies to prevent occurrence of future cases.





# Analysis

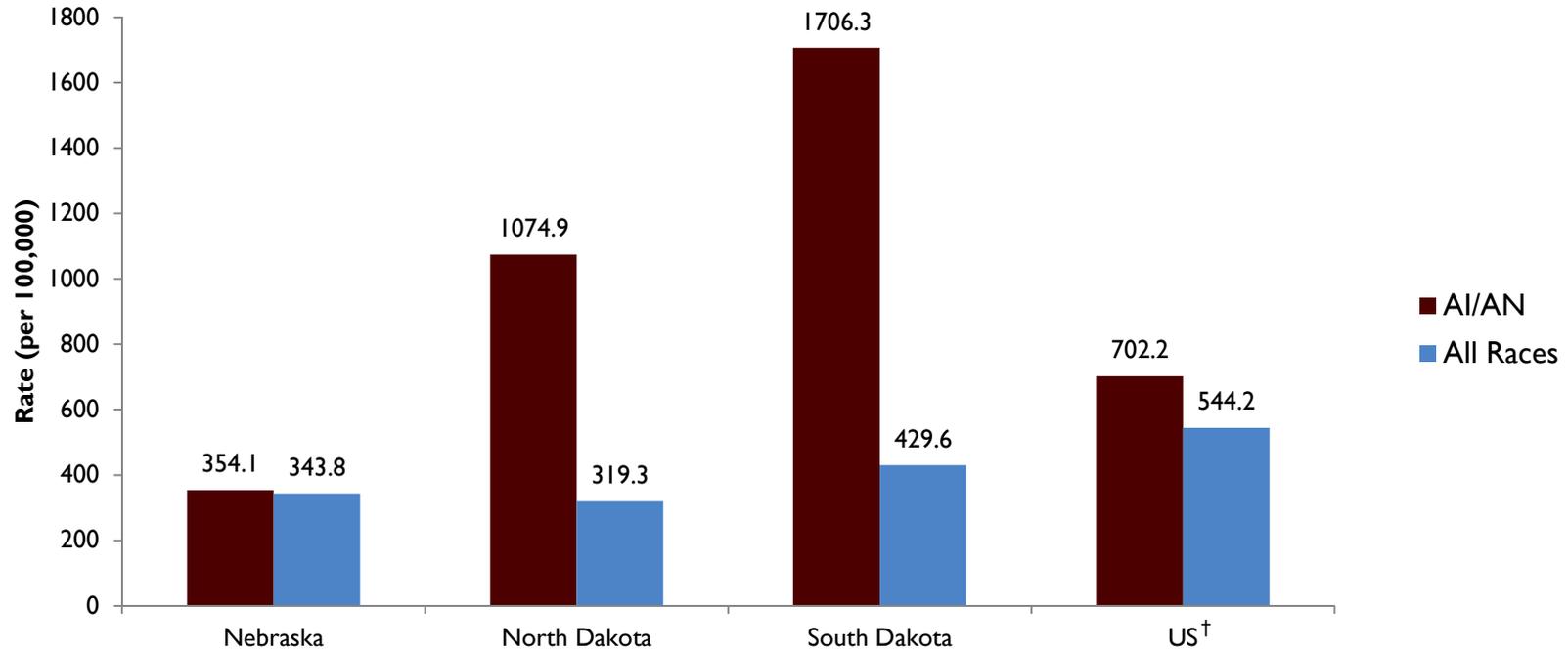
1. Sum the number of confirmed cases of infectious disease reported between 2009 and 2013 for Nebraska, North Dakota, and South Dakota.
  - Chlamydia
  - Gonorrhea
  - Hepatitis C (Nebraska only)
  - HIV/AIDS
  - Syphilis
2. Compute race-specific, 5-year “pooled” Cumulative Incidence Rate (IR) estimates for each race category (AI/AN alone and/or in combination, White, All Races).

$$\text{CUM IR (per 100,000)} = \frac{\text{Number of reported cases (statewide)}}{2010 \text{ US Census population}} * 100,000$$

3. Calculate separate annual IR estimates by race for each year.
4. Graph and compare longitudinal disease patterns by race for each of three states.



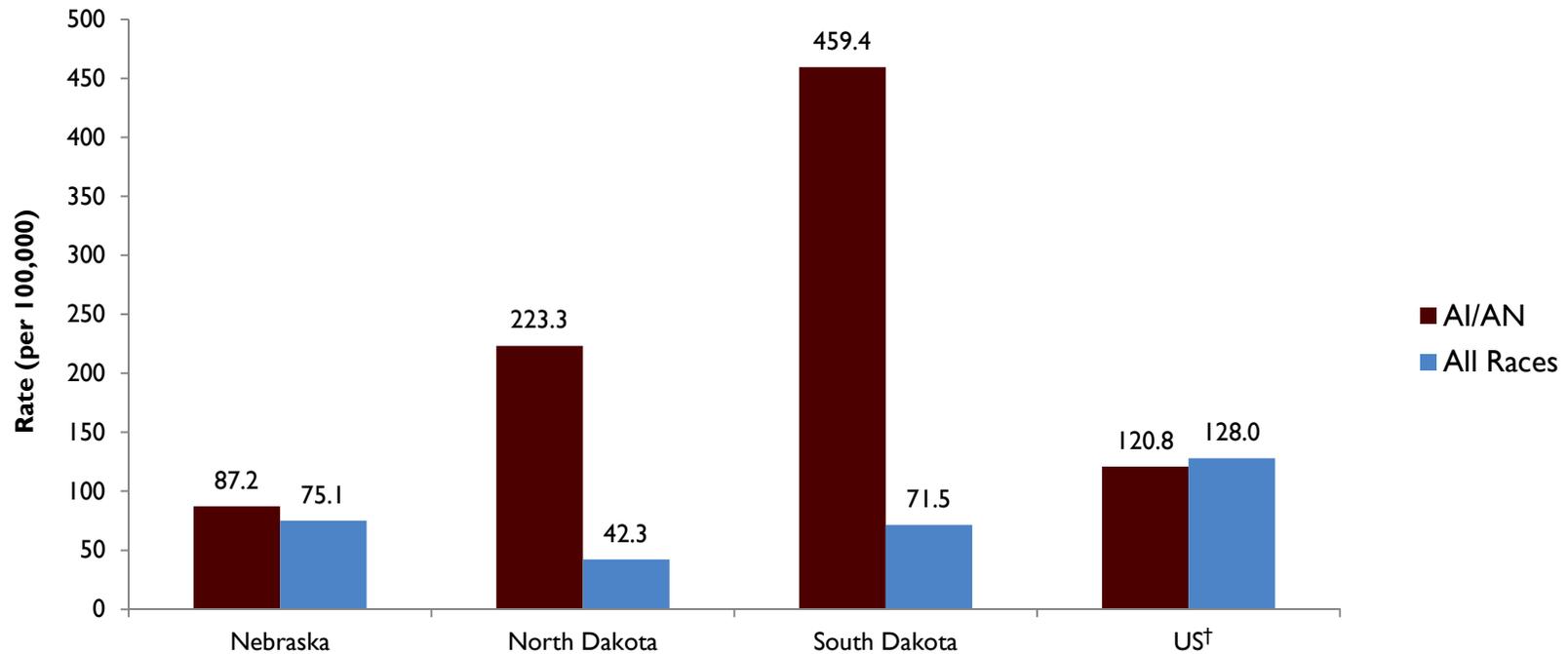
# Chlamydia Rates in the Northern Plains, 2009 - 2013



<sup>†</sup>US summaries limited to data from cases reported to CDC among persons 15 years of age or older. Period of observation restricted to 3 years—2009 to 2011. Race definition of AI/AN excluded persons who reported "AI/AN alone or in combination" with another race.



# Gonorrhea Rates in the Northern Plains, 2009 - 2013



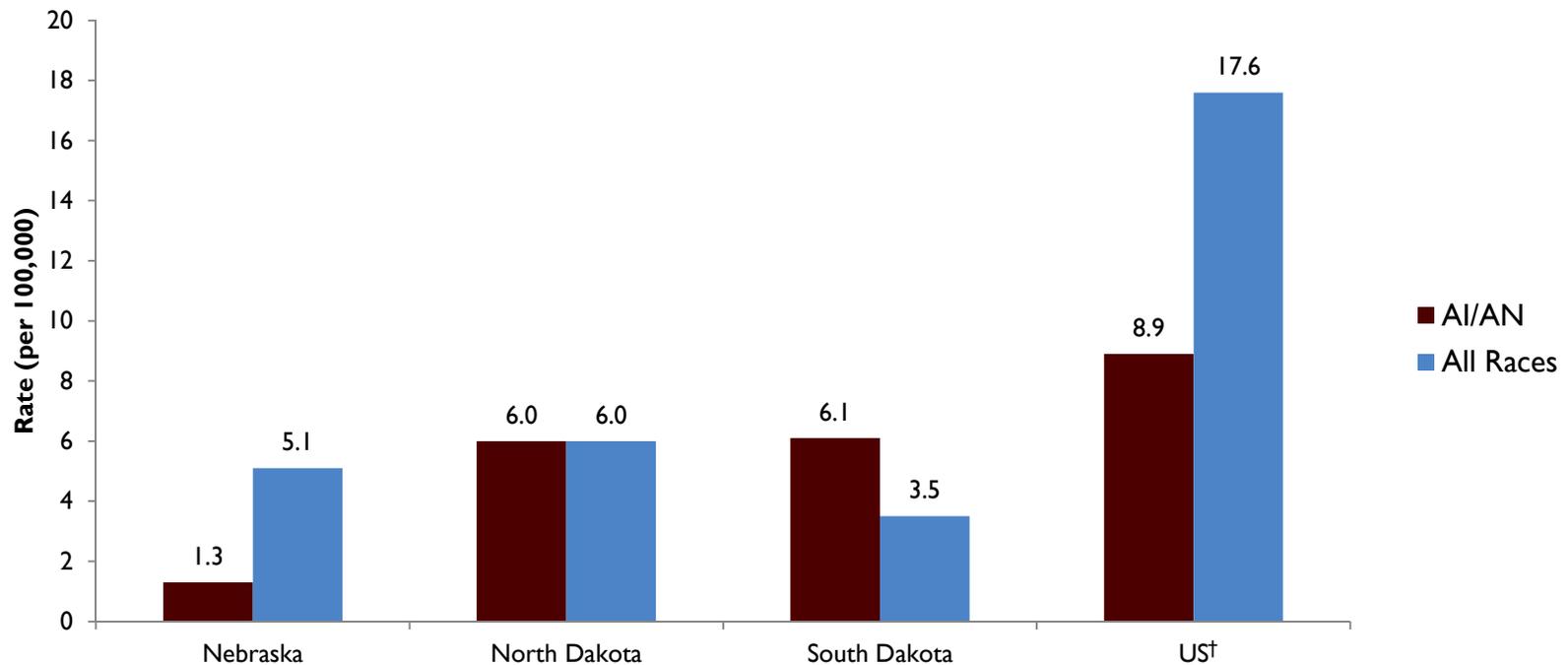
†US summaries limited to data from cases reported to CDC among persons 15 years of age or older. Period of observation restricted to 3 years—2009 to 2011. Race definition of AI/AN excluded persons who reported "AI/AN alone or in combination" with another race.

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## HIV/AIDS Rates in the Northern Plains, 2009 - 2013

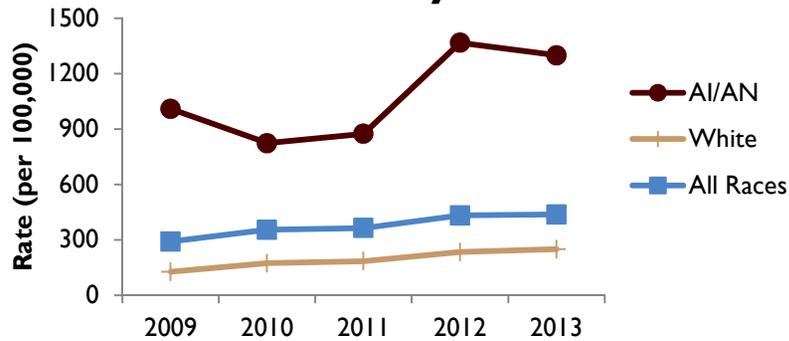


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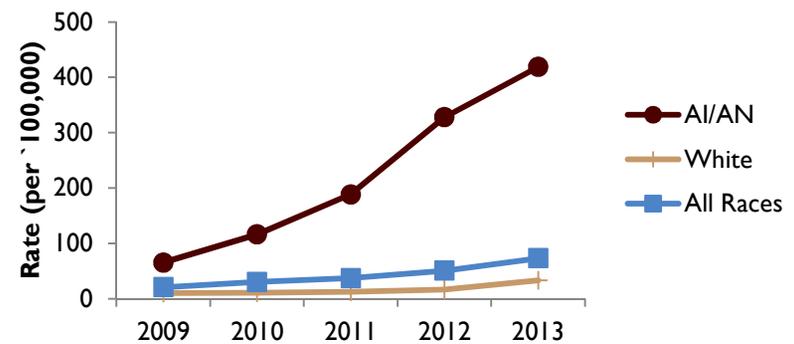


# North Dakota Infectious Disease Trends, by Race, 2009 - 2013

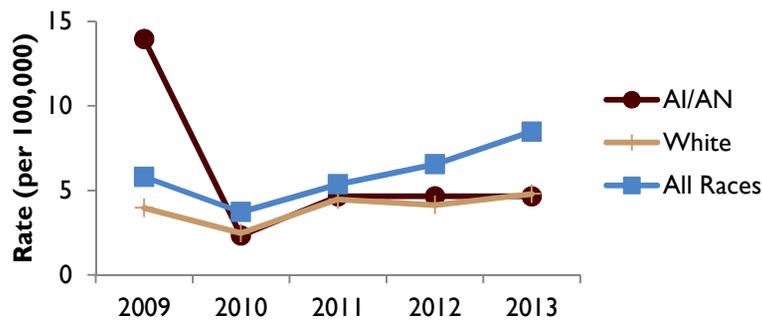
### Chlamydia



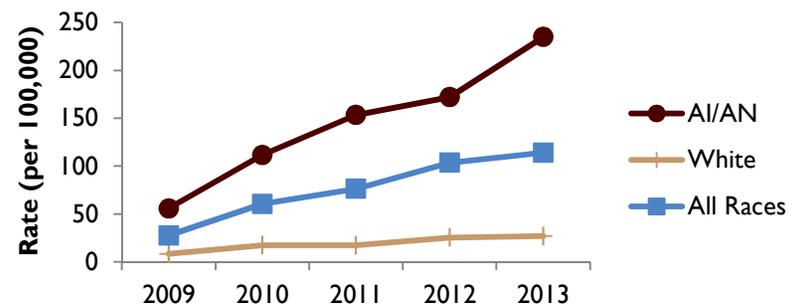
### Gonorrhea



### HIV/AIDS



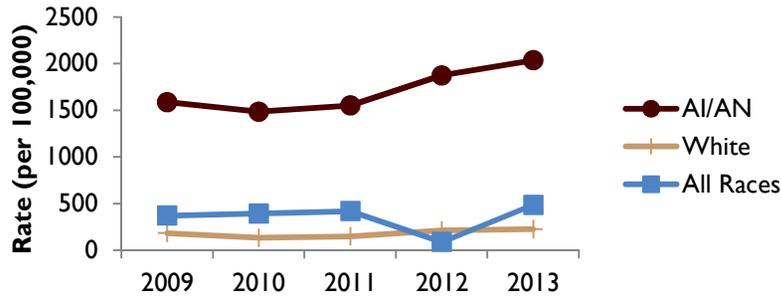
### Hepatitis C



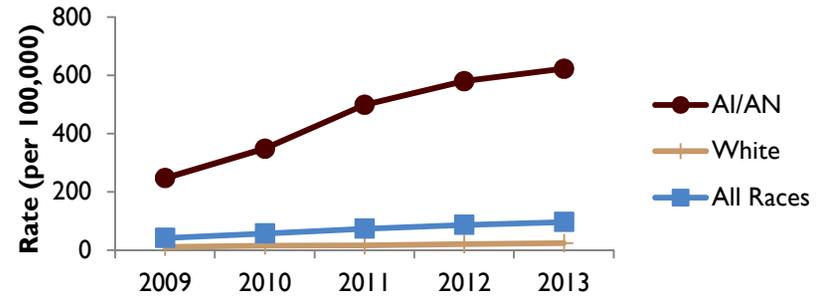


# South Dakota Infectious Disease Trends, by Race, 2009 - 2013

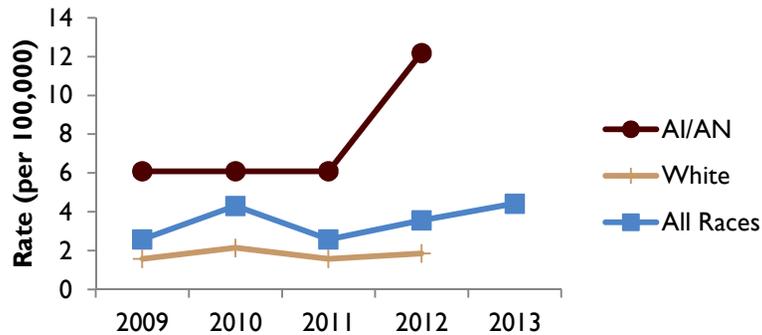
### Chlamydia



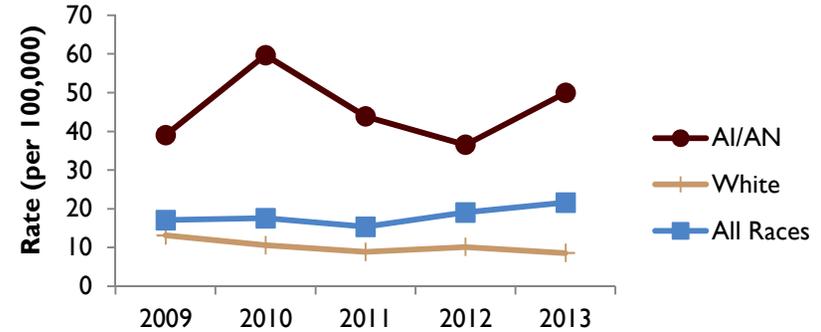
### Gonorrhea



### HIV/AIDS



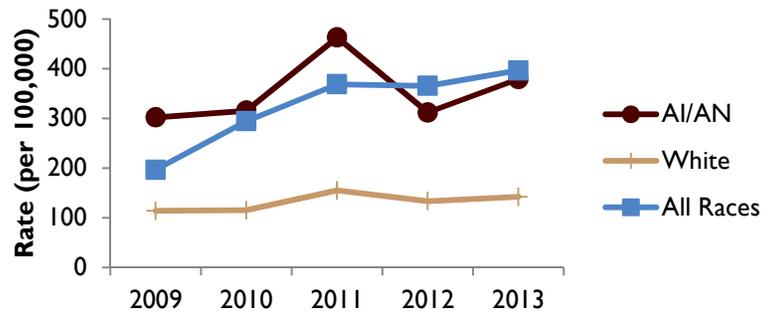
### Hepatitis C



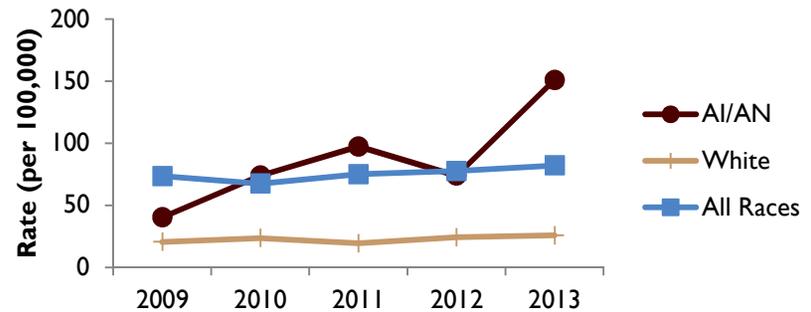


# Nebraska Infectious Disease Trends, by Race, 2009 - 2013

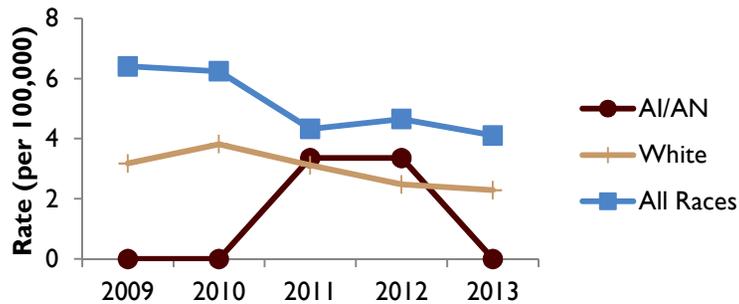
### Chlamydia



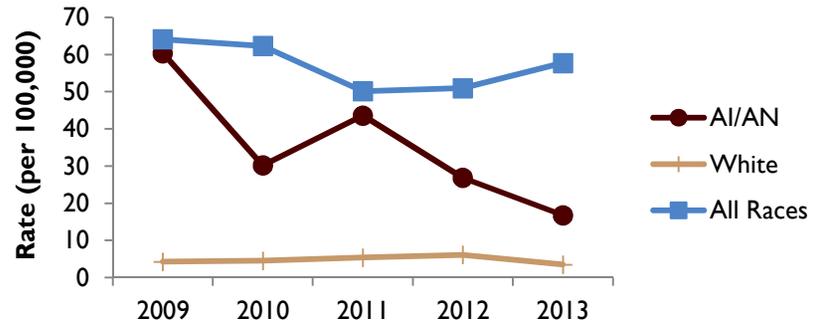
### Gonorrhea



### HIV/AIDS



### Hepatitis C

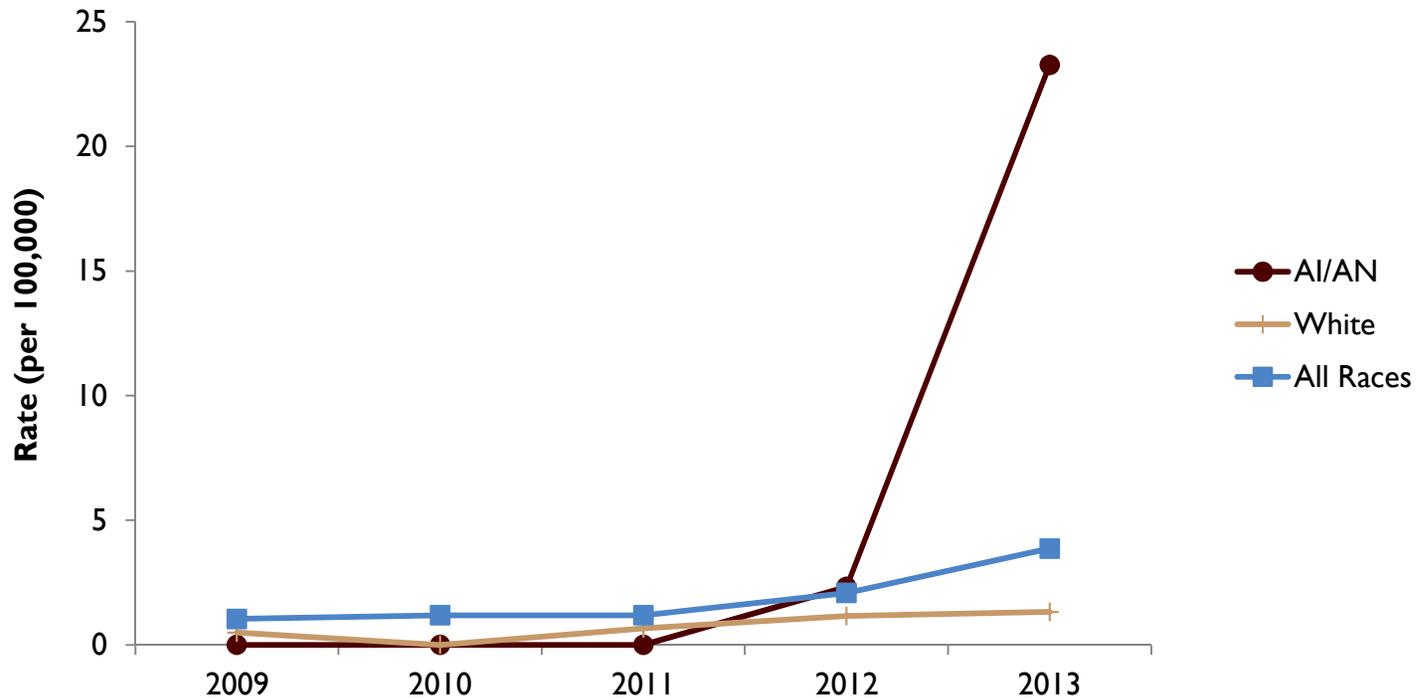


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## North Dakota Syphilis Trends, by Race, 2009-2013

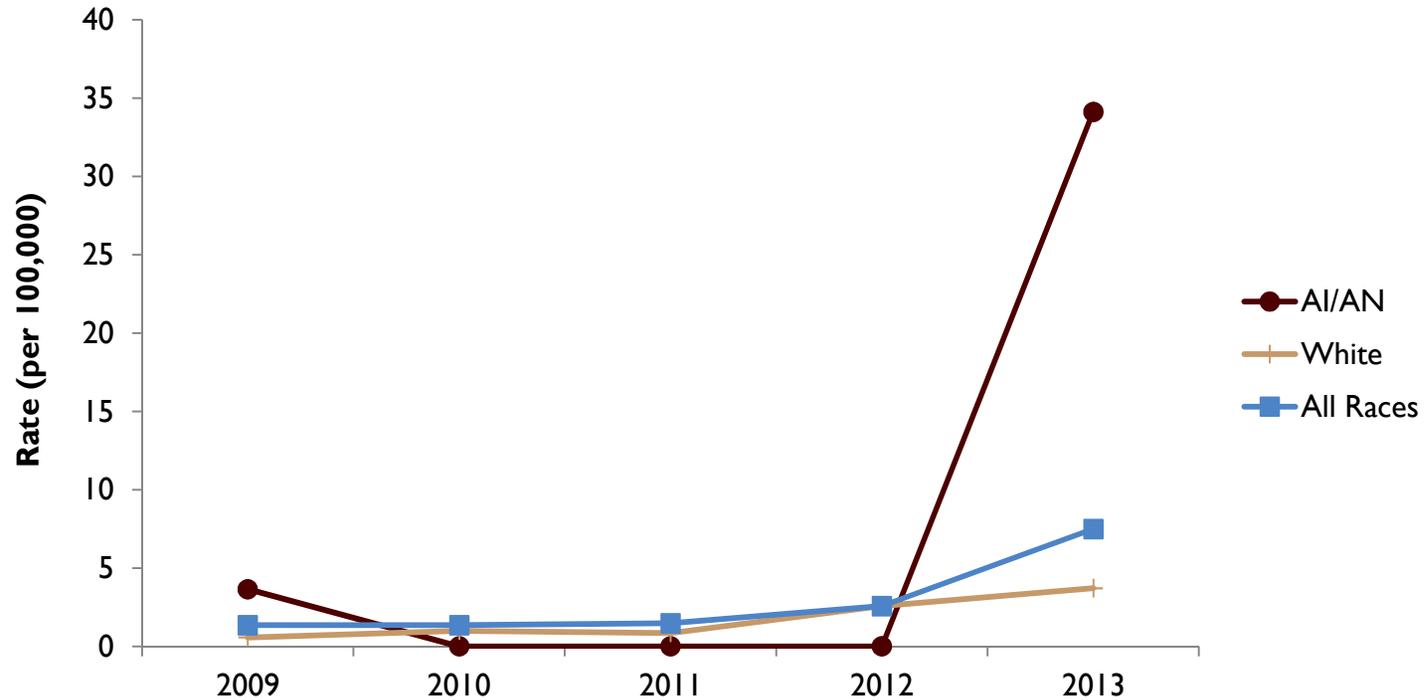


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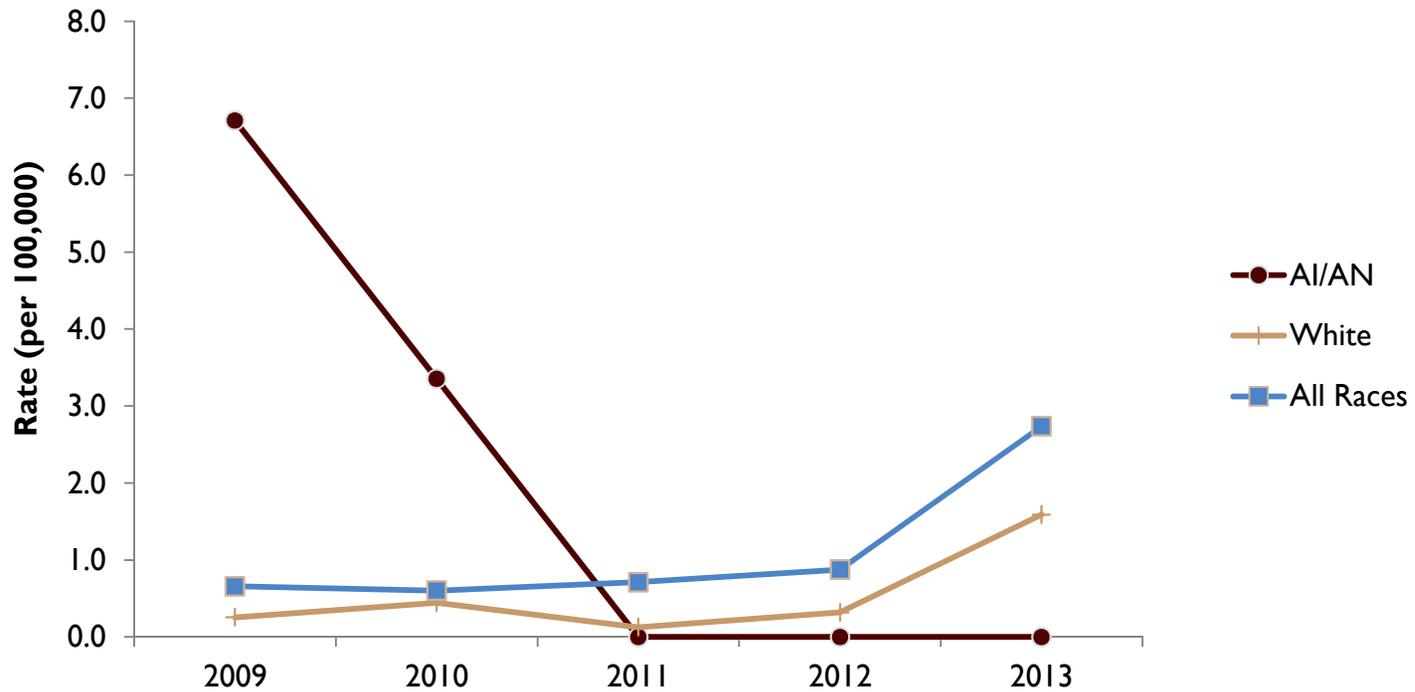
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## South Dakota Syphilis Trends, by Race, 2009-2013





# Nebraska Syphilis Trends, by Race, 2009-2013

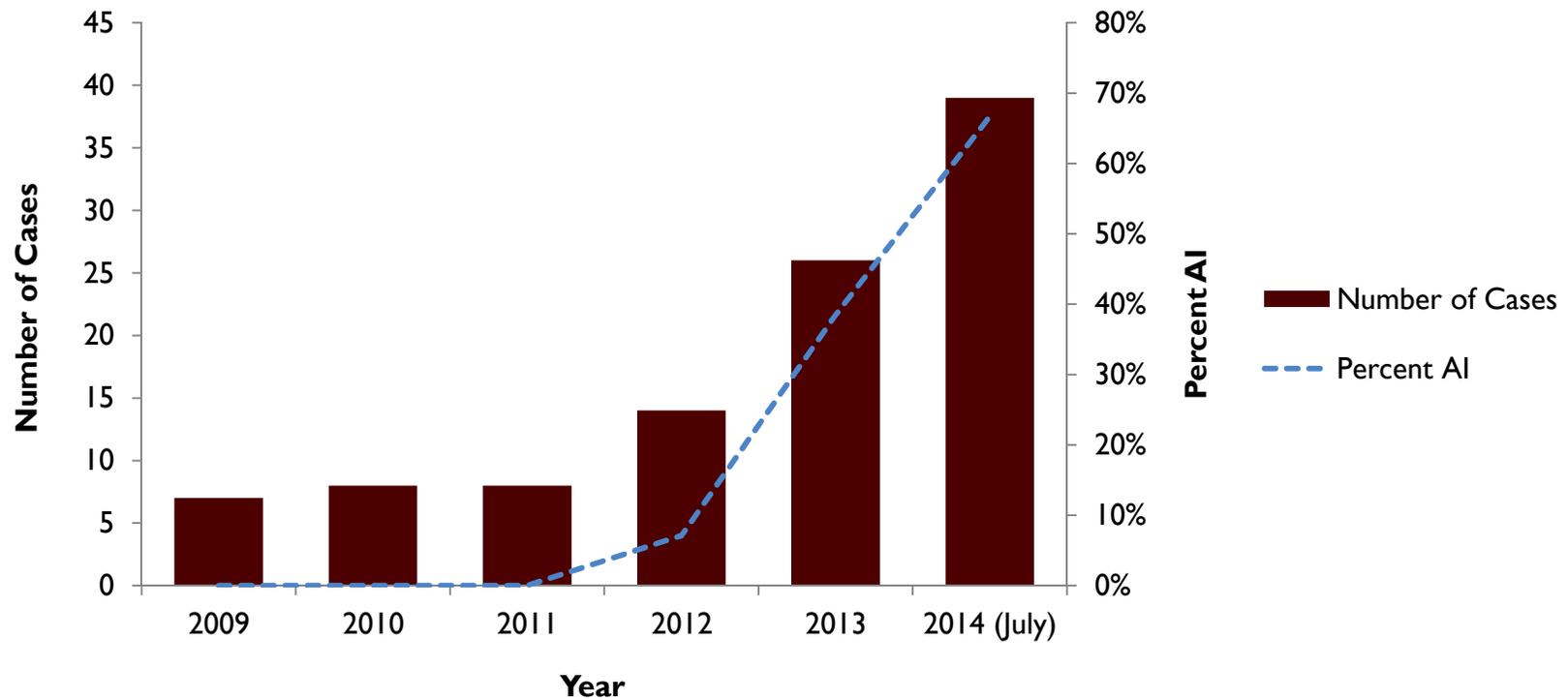


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## Syphilis Cases and Percent Occurring Among American Indians, North Dakota, 2009 - 2014

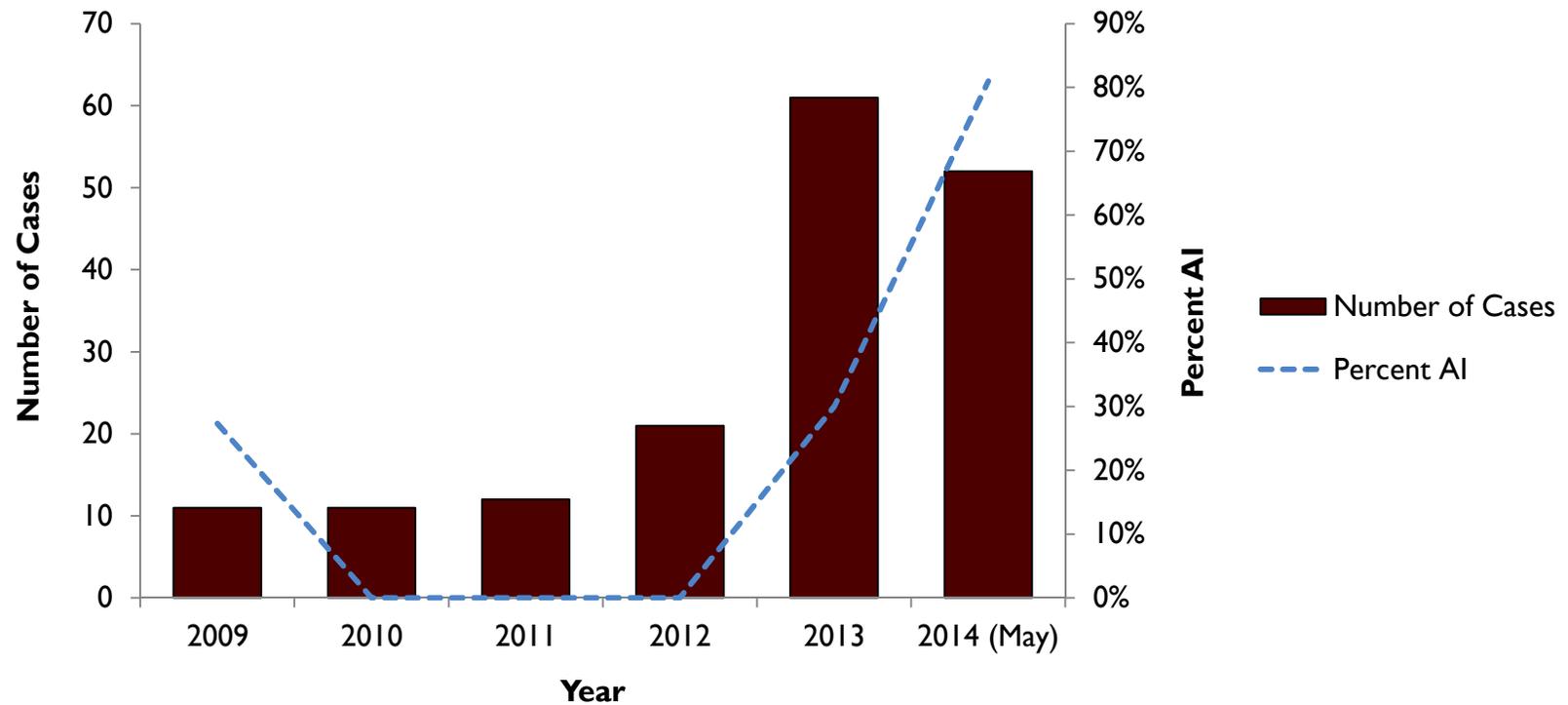


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## Syphilis Cases and Percent Occurring Among American Indians, South Dakota, 2009 - 2014





## Limitations

- Incomplete case ascertainment due to suboptimal screening practices of at-risk populations
- Analysis of rates of co-infection not practically possible
- Accuracy of racial comparisons within and between states compromised by invalid or missing race data



# HIV Resource Guide

## What is Included

- Contact and other information for state partners, Tribal health boards, Tribal health clinics, and others
- Sample prevention language and educational and training resources (both state and regional)
- Information regarding counseling, testing, and/or referral sites
- Information regarding Ryan White case management and physicians that offer HIV services
- Other related resources and service sites

We need your help to keep it up-to-date!!!





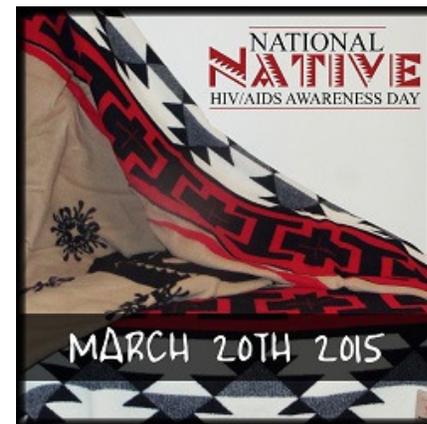
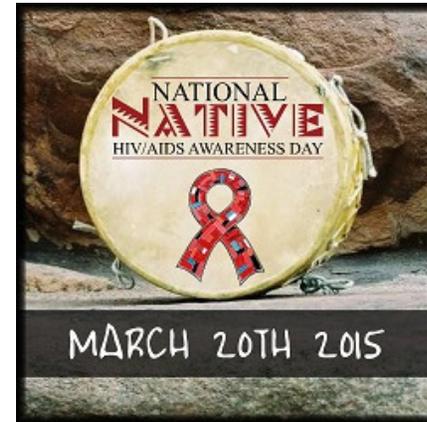
## Resources At Hand

- An extensive body of prevention and educational resources (available to order from the DOH)
  - Also a wide variety of free resources available online from national partners
- Extremely knowledgeable and dedicated DOH staff, including Field Epidemiologists
  - Collaborate with a larger network of public health practitioners in the Great Plains area
  - Work with NPTEC to generate CDC EPI-AIDs and other projects
- An extensive network of CTR (counseling, testing, and referral) sites
- HIV/AIDS treatment and case management funding through Ryan White/ND CARES



## Local Steps

- Contact local prevention partners and do your part to promote education and outreach
- Find out about and support screening events (or hold one yourself!)
- Participate in and contribute to area-wide infectious disease calls organized through the Great Plains IHS and NPTEC
- Work to connect clinically-identified cases with DOH Field Epidemiologists, who can in turn connect them with treatment and case management programs
- Help to fill in the blanks – populate race data!



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# Acknowledgements

## State Departments of Health

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... and the entire reportable disease surveillance system staff.

**All of the IHS, tribal, and urban health care facilities that contribute to the reportable disease surveillance systems.**

## GPTCHB

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**Sean Jackson** – Data Coordinator

**Corey Smith, PhD** – Director of Science and Applied Informatics





# Thank you

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