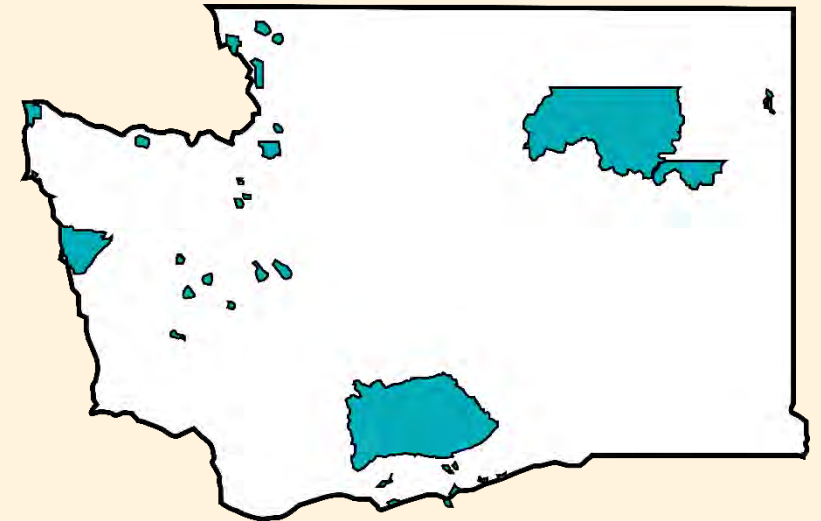


Overview of Communicable Disease Data Briefs

HIV, Sexually Transmitted Infections, Viral Hepatitis (B&C), Tuberculosis

Ashley Hoover, Communicable Disease Epidemiologist

February 3rd, 2021



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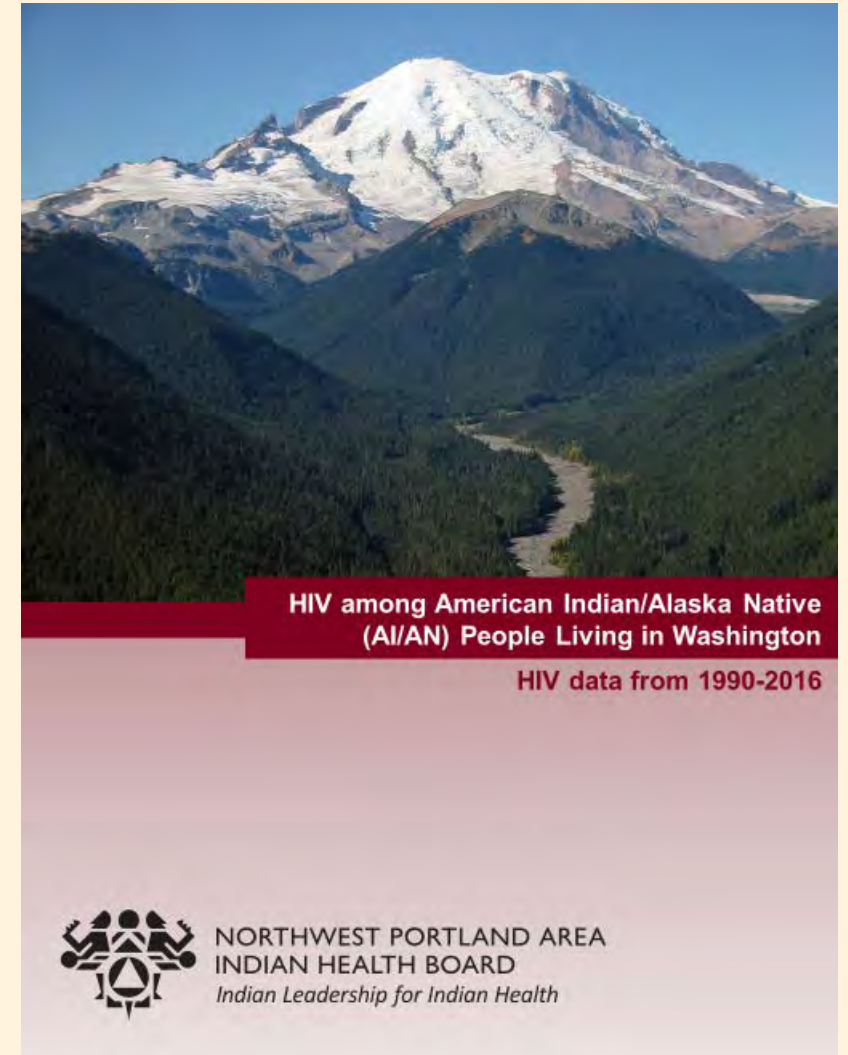
Topics to Discuss

- **Brief overview of each data brief and disease**
 - HIV
 - STIs
 - HBV and HCV
 - TB
- **Note:**
 - These data briefs summarize various communicable diseases and their impact among AI/AN people living in WA. Comparisons are made to Non-AI/AN in Washington, the US, and all AI/AN in the US to understand the extent of disease burden experienced by AI/AN communities in Washington.
 - The data presented in this brief may not be comparable to information published by state or federal agencies due to differences in how we identify AI/AN individuals.



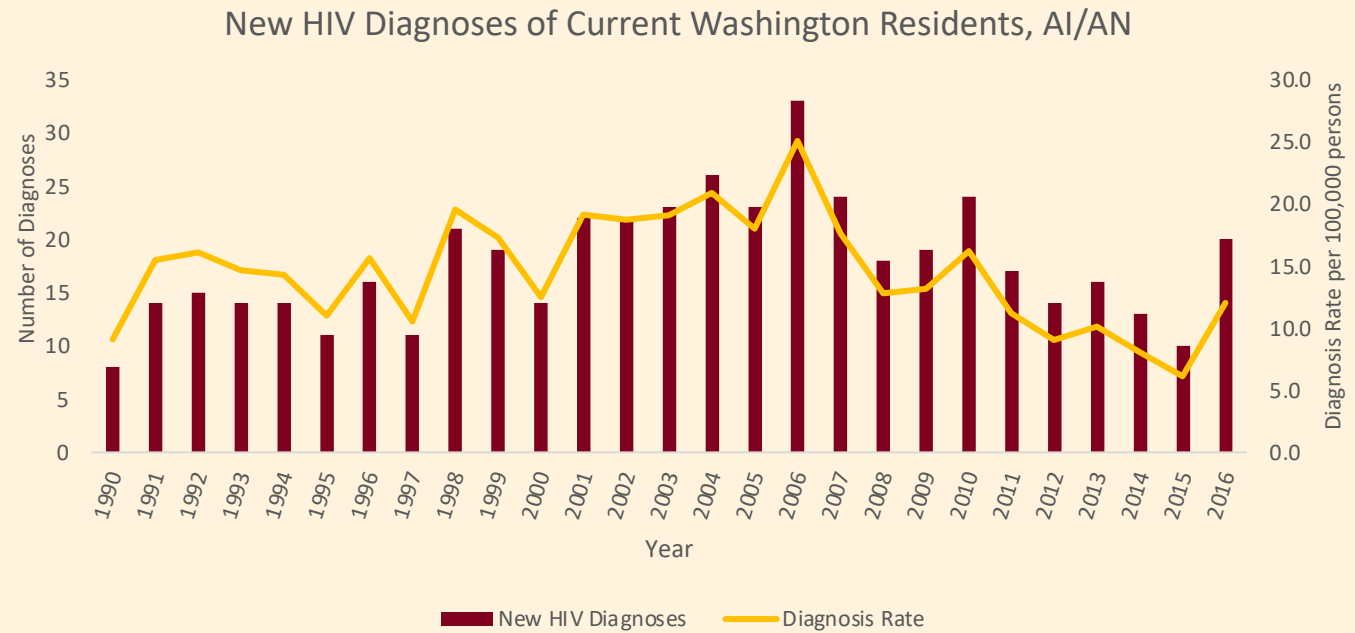
Human Immunodeficiency Virus (HIV)

- HIV is a virus that impacts the immune system and can be passed from person to person through sexual contact, injection drug use, or from mother to child through pregnancy or breastfeeding.
- **Consistent use of antiretroviral (ARV) medications can**
 - Suppress HIV viral load within the body, rendering the virus untransmissible to others;
 - Reduce risk of severe outcomes caused by the virus (e.g. opportunistic infections, death);
 - Stop the virus from progressing to stage 3 (AIDS).



HIV

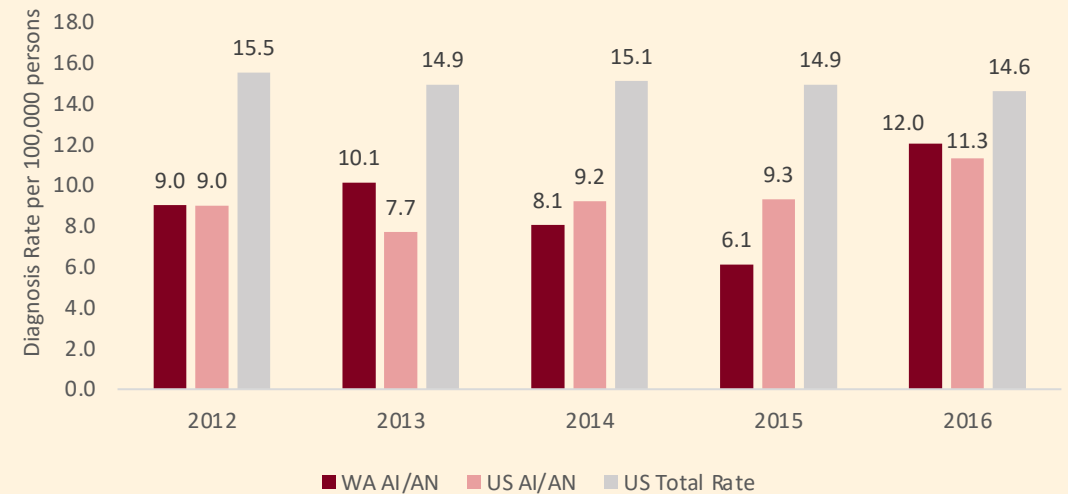
- As of 2016, there were 13,312 people living with HIV in Washington, 504 (nearly four percent) of whom were American Indian/Alaska Native.
- Diagnosis rates among AI/AN vary between 1990 and 2016, with an overall decline in diagnoses over the last ten years.
 - In 2016, there was an increase in both the number and rate of new HIV diagnoses.



HIV

- Overall, AI/AN HIV diagnosis rates in Washington have been lower than the US diagnosis rate.
- With the exception of 2013 and 2016, Washington AI/AN HIV diagnosis rates have been either the same or slightly lower than the US AI/AN diagnosis rate.

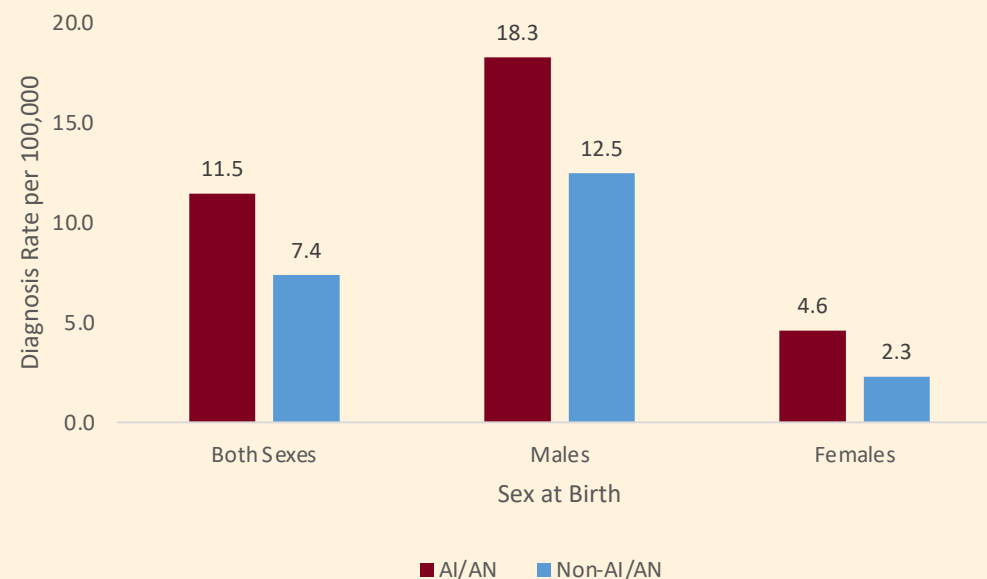
AI/AN HIV Diagnosis Rates Washington and the US



HIV

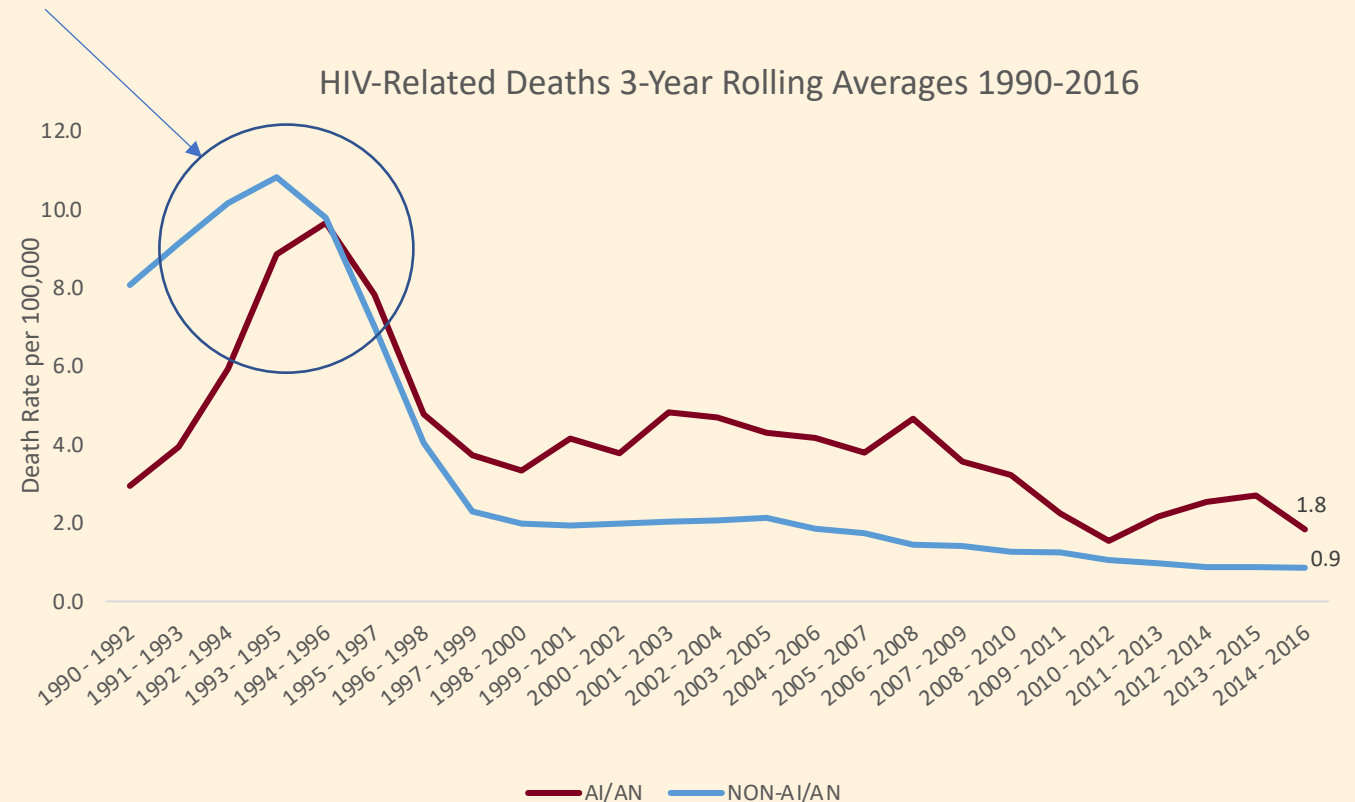
- The AI/AN HIV diagnosis rate for both males and females between 2007 and 2016 in Washington was 1.6 times higher than their Non-AI/AN counterparts.
- The male AI/AN diagnosis rate was 1.4 times higher than the male Non-AI/AN diagnosis rate and the female AI/AN diagnosis rate was two times higher than the female Non-AI/AN diagnosis rate.
 - These rates follow national trends, highlighting the disproportionate burden of HIV diagnoses among men.

HIV Diagnosis Rates by Sex at Birth 2007-2016



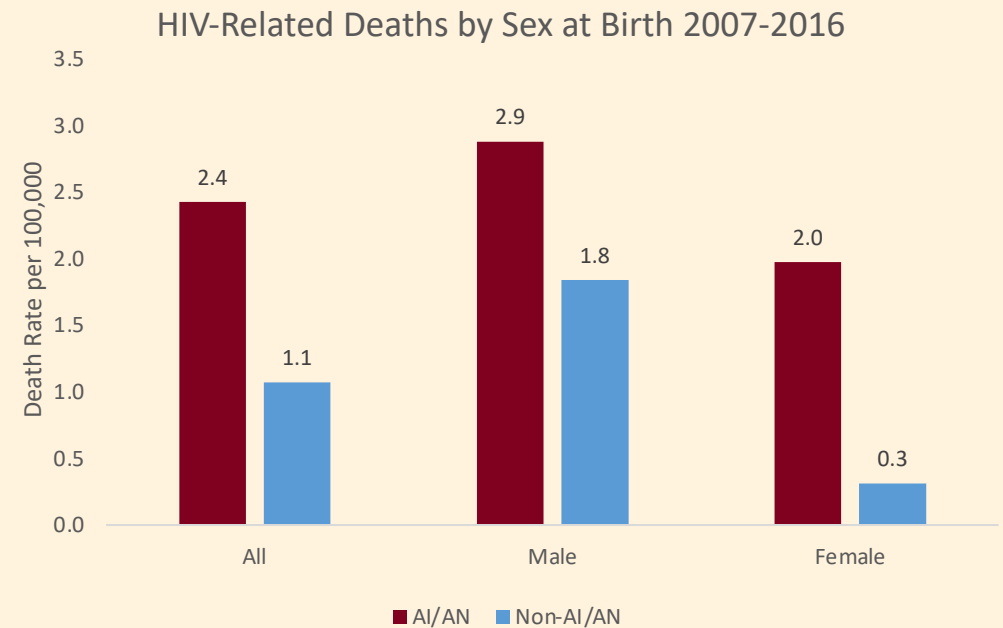
HIV-Related Deaths

- While HIV-related deaths have fallen since the early to mid-nineties for all persons living with HIV, AI/AN HIV death rates are still disproportionately higher than their Non-AI/AN counterparts, with an average rate double the death rate of Non-AI/AN in 2014-2016.
- Various factors can play a role in such disparities.



HIV-Related Deaths

- Between 2007 and 2016, overall death rates for AI/AN in Washington were double those of their counterparts.
- When examining rates specific to sex at birth, the death rate for AI/AN males is 1.6 times higher than Non-AI/AN and females have a death rate **nearly seven times** that of Non-AI/AN females.



Sexually Transmitted Infections (STIs)

- Data Brief includes
 - Gonorrhea
 - Chlamydia
 - Syphilis
- Sexually transmitted infections are typically transmitted from person to person through sexual contact, though some can be transmitted from mother to child during pregnancy/birth.
- These infections may have few to no symptoms (asymptomatic) and thus routine screening for sexually active persons is a vital part of sexual health to treat and stop the spread of the infection.
- Due to the increase in diagnosed STIs over the past several years, several national initiatives are underway to support prevention efforts at the state and local levels.



Sexually Transmitted Infections (STI) among
American Indian/Alaska Native
(AI/AN) People Living in Washington

STI data from 2007-2016



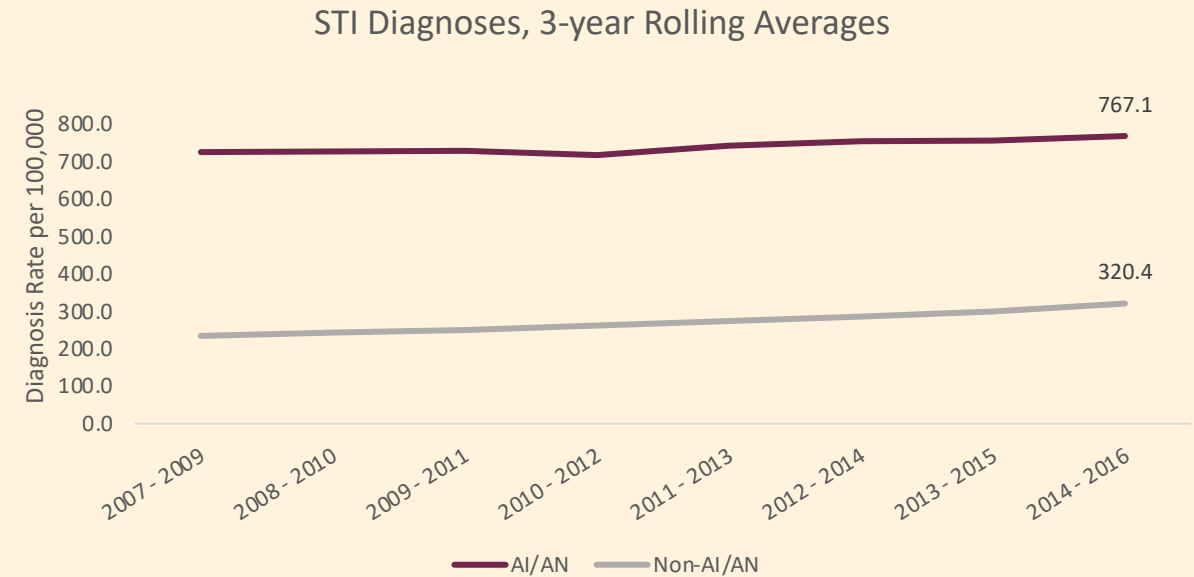
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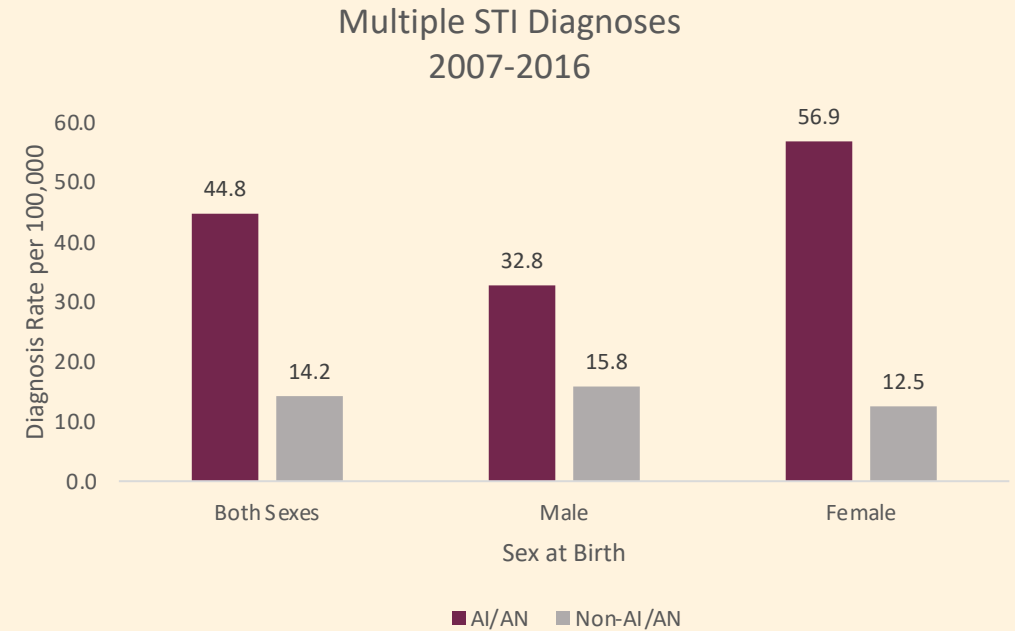
STIs at a Glance

- American Indian/Alaska Natives in Washington had STI diagnosis rates generally two times higher than Non-AI/ANs over the past 10 years.
- This gap can, in part, be contributed to higher diagnosis rates of chlamydia, though overall rates of all three infections have consistently increased since 2007.



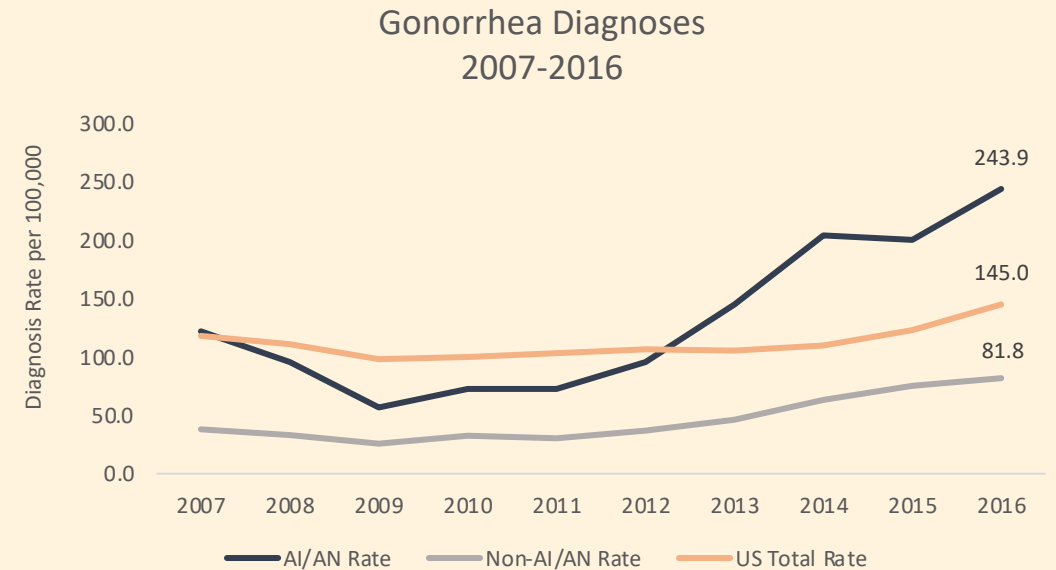
STIs at a Glance

- When exploring the diagnosis of multiple STI diagnoses per year, AI/ANs in Washington had three times the rate of Non-AI/ANs in Washington.
- The male AI/AN diagnosis rate for more than one STI within a calendar year was two times higher than Non-AI/AN males and 4.5 times higher for AI/AN females than their Non-AI/AN peers.



Gonorrhea

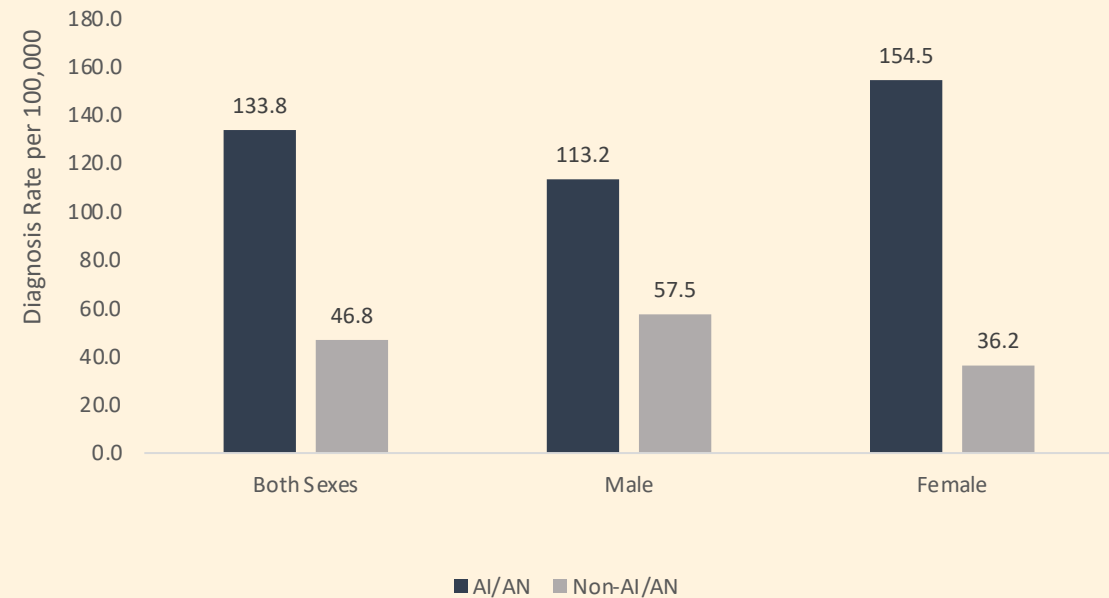
- From 2007-2016, gonorrhea diagnosis rates for AI/AN in Washington were consistently higher than their Non-AI/AN counterparts.
- The rate of gonorrhea diagnoses for AI/ANs in Washington was lower than the US total case rate until 2012. In 2016, the AI/AN diagnosis rate for gonorrhea was 1.7 times higher than the US rate and nearly three times higher than Non-AI/ANs in Washington.



Gonorrhea

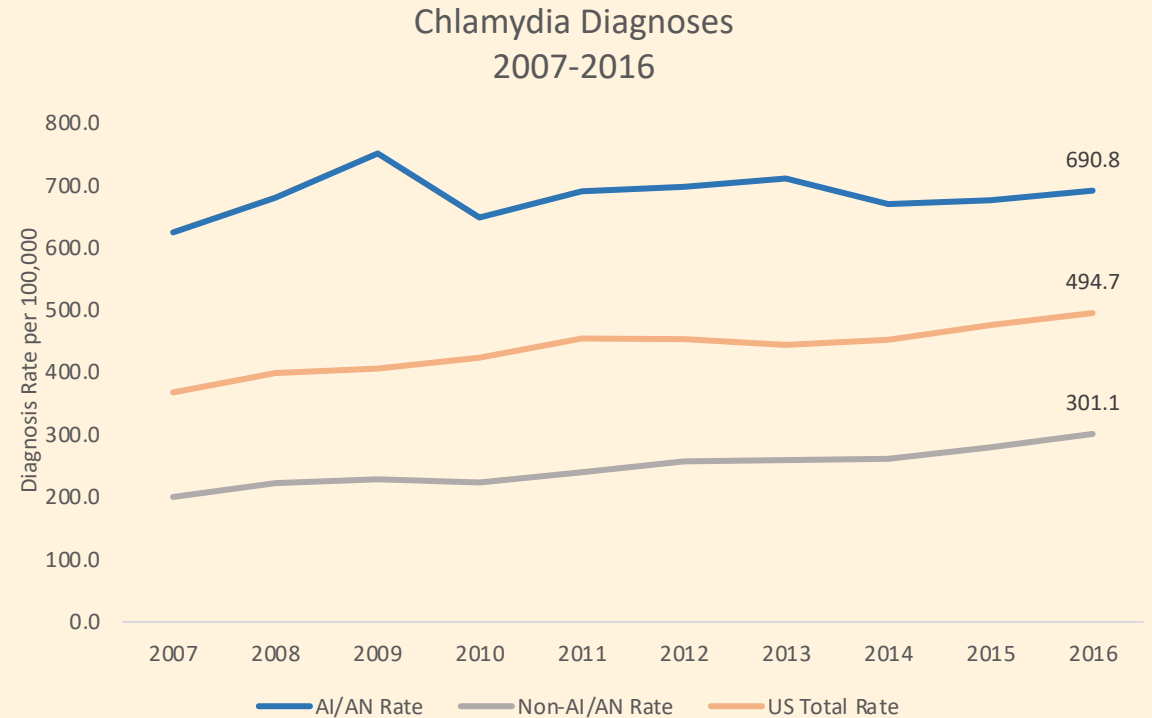
- Overall, AI/AN diagnoses were 2.9 times higher than their Non-AI/AN counterparts in Washington. The male diagnosis rate for gonorrhea was 1.9 times higher than Non-AI/AN males and 4.3 times higher for AI/AN females than their Non-AI/AN counterparts.

Gonorrhea Diagnoses by Sex at Birth
2007-2016



Chlamydia

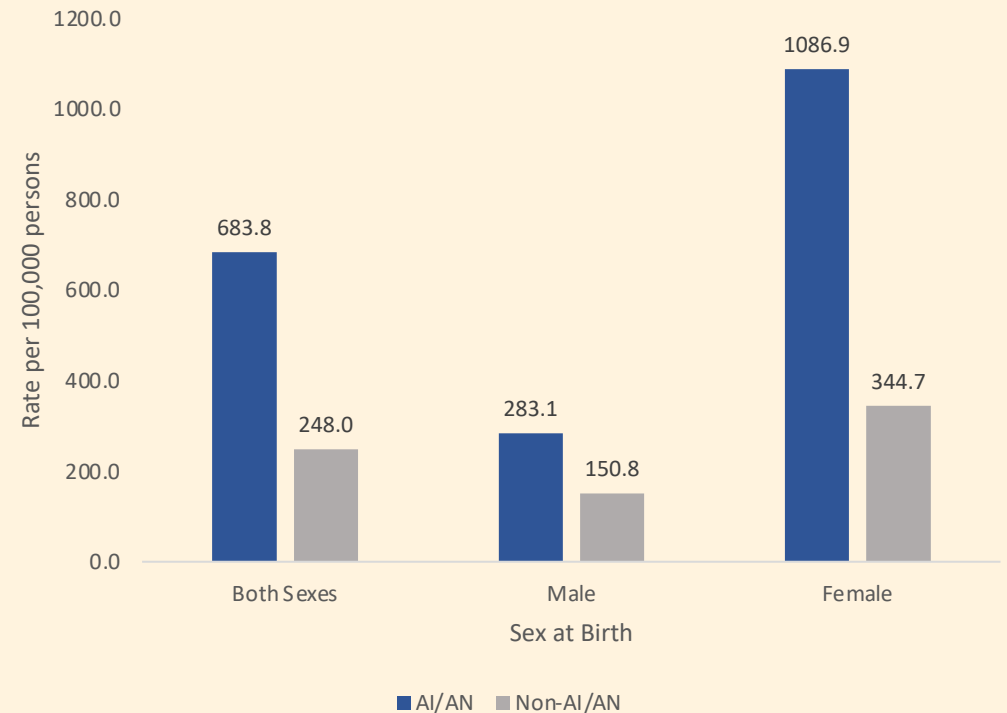
- Between 2007 and 2016, AI/ANs in Washington had consistently higher chlamydia diagnoses compared to their Non-AI/AN counterparts and the US. In 2016, the chlamydia diagnosis rate for AI/AN was **2.3 times higher** than Non-AI/ANs and 1.4 times higher than the national rate.



Chlamydia

- Overall, AI/AN chlamydia diagnoses for both males and females were 2.8 times higher than Non-AI/ANs in Washington. When examining rates specific to sex at birth, AI/AN males have a diagnosis rate 1.9 times higher than their Non-AI/AN counterparts and females have a rate 3.2 times higher than Non-AI/AN females.

Chlamydia Diagnoses by Sex at Birth
2007-2016

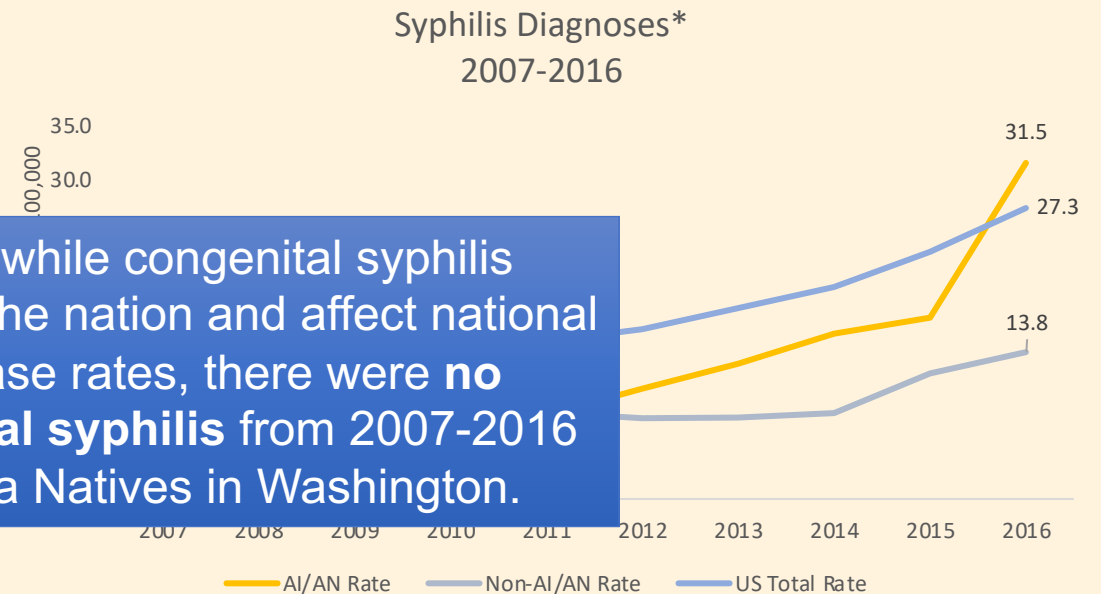


Syphilis

- Syphilis diagnoses among AI/ANs in Washington mirrored those of their Non-AI/AN counterparts until 2012, when both the number of cases and the diagnosis rate began to increase.

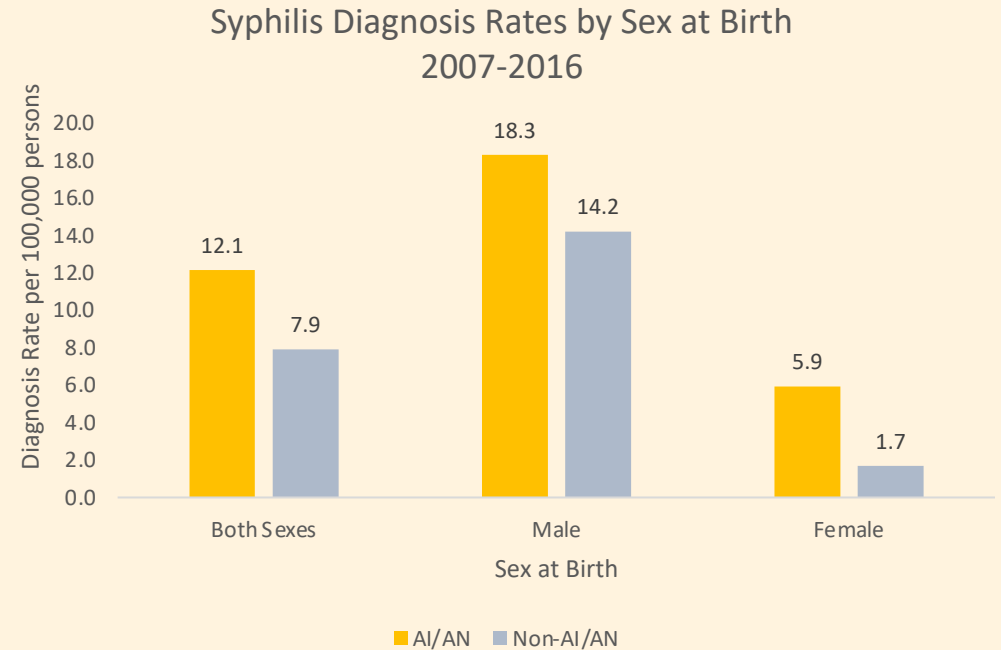
- Though the rate of syph Washington remained below the national rate, there was a sharp increase in diagnoses, surpassing even the national rate by 2016.

It is important to note that while congenital syphilis continues to increase across the nation and affect national rates of overall syphilis case rates, there were **no reported cases of congenital syphilis** from 2007-2016 for American Indians/Alaska Natives in Washington.



Syphilis

- Overall, the AI/AN syphilis diagnosis rate was 1.5 times higher than Non-AI/ANs in Washington.
- When examining rates specific to sex at birth, AI/AN males had a rate 1.3 times higher than Non-AI/AN males and AI/AN females had a rate 3.5 times the rate of their Non-AI/AN counterparts.



Washington Syphilis Public Health Alert

On January 25th, Washington Department of Health released a health advisory regarding an increase in syphilis cases among heterosexual individuals and congenital syphilis

- **Actions Requested:**

- Treat all patients with signs or symptoms consistent with primary and secondary syphilis when they present for care
- Test **ALL** pregnant women for syphilis at their first prenatal visit and AGAIN with routine 3rd trimester testing labs (24-28 weeks gestation)
- Test sexually active persons experiencing homelessness, persons who exchange money for sex, and persons who inject drugs
- Treat any persons who reports sexual exposure to someone with syphilis, even in absence of signs or symptoms.
- Know the treatment - <https://www.cdc.gov/std/syphilis/treatment.htm>



Washington Syphilis Public Health Alert

- For questions regarding these treatment recommendations please contact Dr. Lindley Barbee (lindley.barbee@kingcounty.gov), or Dr. Matthew Golden (matthew.golden@kingcounty.gov).
- For other clinical questions about STI, contact either Drs. Barbee or Golden or use the National Network of Prevention Training Centers Clinical Consult Line (<https://www.stdccn.org/>).
- Other resources:
 - Full Washington Department of Health Public Health Advisory Notice: https://content.govdelivery.com/attachments/WADOH/2021/01/23/file_attachments/1666843/Syphilis_Health%20Advisory_PHSKC_WA_DOH_1.21.2021.pdf
 - CDC Clinician's pocket guide for Syphilis- <https://www.cdc.gov/std/syphilis/Syphilis-Pocket-Guide-FINAL-508.pdf>



Hepatitis B and C

- Viral hepatitis is a communicable disease that affects the health of the liver.
- Both hepatitis B (HBV) and hepatitis C (HCV) are transmitted through blood, perinatal transmission, and sexual contact (less common for HCV).
- Both HBV and HCV can cause severe clinical outcomes, including liver cirrhosis (scarring of the liver), failure, cancer, and even death.
- Symptoms of HBV and HCV often go unnoticed and therefore screening for these viruses is essential for early intervention, especially for those that have greater risk of acquiring the viruses.
- **Prevention and Treatment:**
 - Hepatitis B is vaccine-preventable but does not have curative treatment, though it can be controlled through various antiviral medications that suppress viral load and stop viral progression.
 - Hepatitis C, is not vaccine preventable, but is curable through various antiviral drug regimens that promote a sustained virologic response (SVR).



**Hepatitis B & C Virus (HBV & HCV)
Diagnoses among American Indian/Alaska
Native (AI/AN) People Living in Washington**

HBV & HCV data from 2007-2016



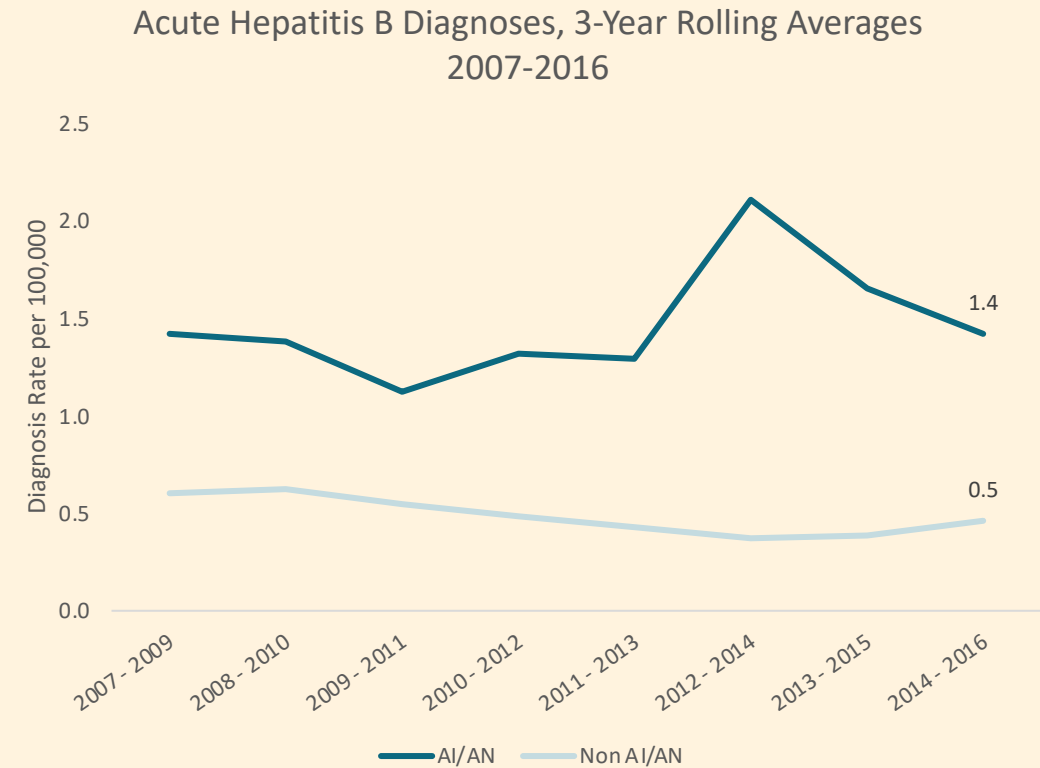
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Hepatitis B (HBV)

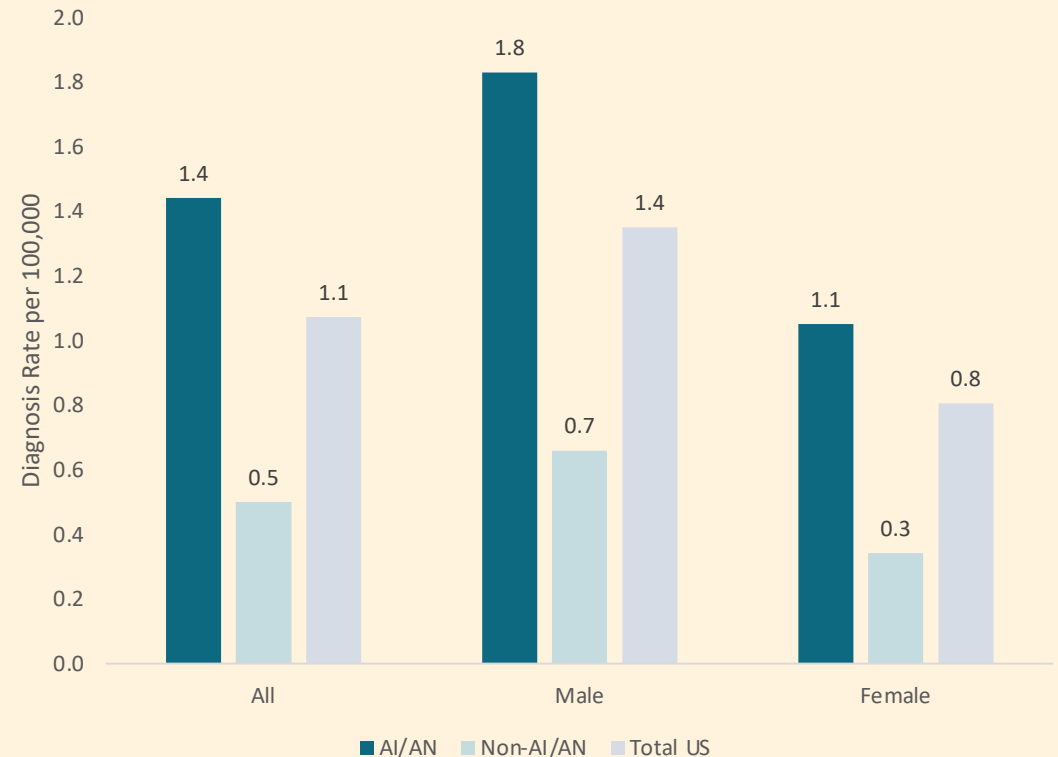
- A total of 22 cases of acute HBV were reported among AI/ANs in Washington between 2007-2016, which was approximately four percent of all acute HBV diagnoses during the ten-year period.
- On average, the AI/AN diagnoses rate for new infections was nearly three times higher than their Non-AI/AN counterparts.
 - These increased rates, particularly between 2012 and 2014, mirror the increase in injection drug use across the nation, a key risk factor associated with acute HBV infections.



Hepatitis B (HBV)

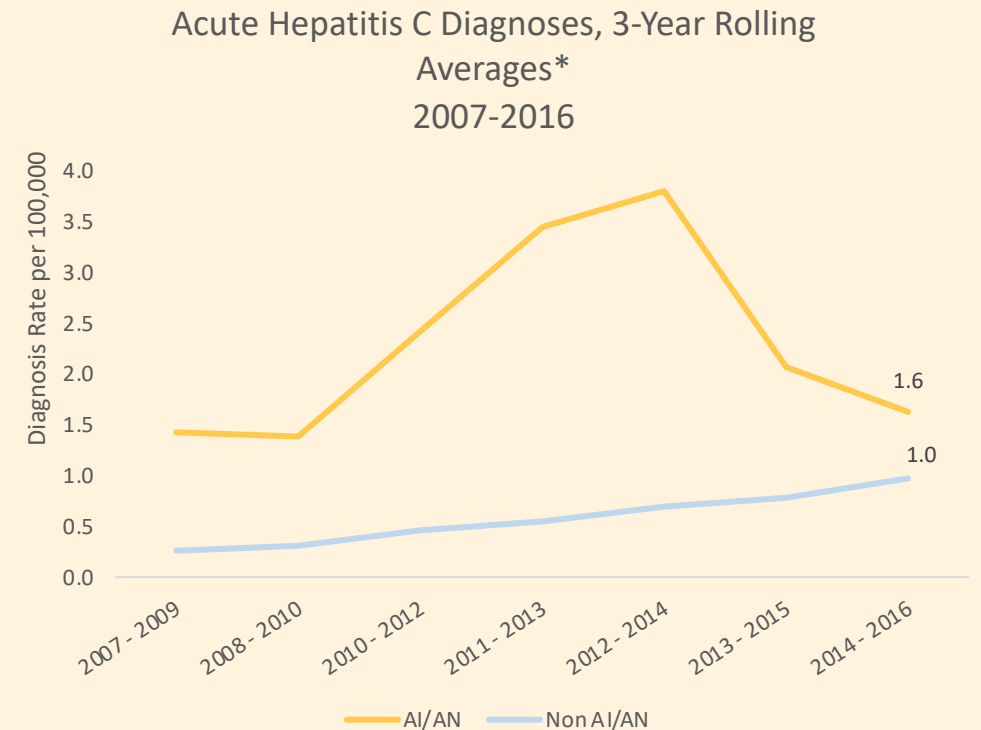
- While the overall diagnosis rate of acute HBV among AI/AN in Washington are only slightly higher than the national rate, AI/ANs had nearly three times the rate of acute HBV diagnoses than those of their Non-AI/AN peers in Washington.
- When explored by sex at birth, AI/AN males experience a diagnosis rate 2.6 times that of Non-AI/AN males and AI/AN females had 3.7 times higher diagnosis rate than their Non-AI/AN female counterparts.

Acute Hepatitis B Diagnoses by Sex at Birth
2007-2016



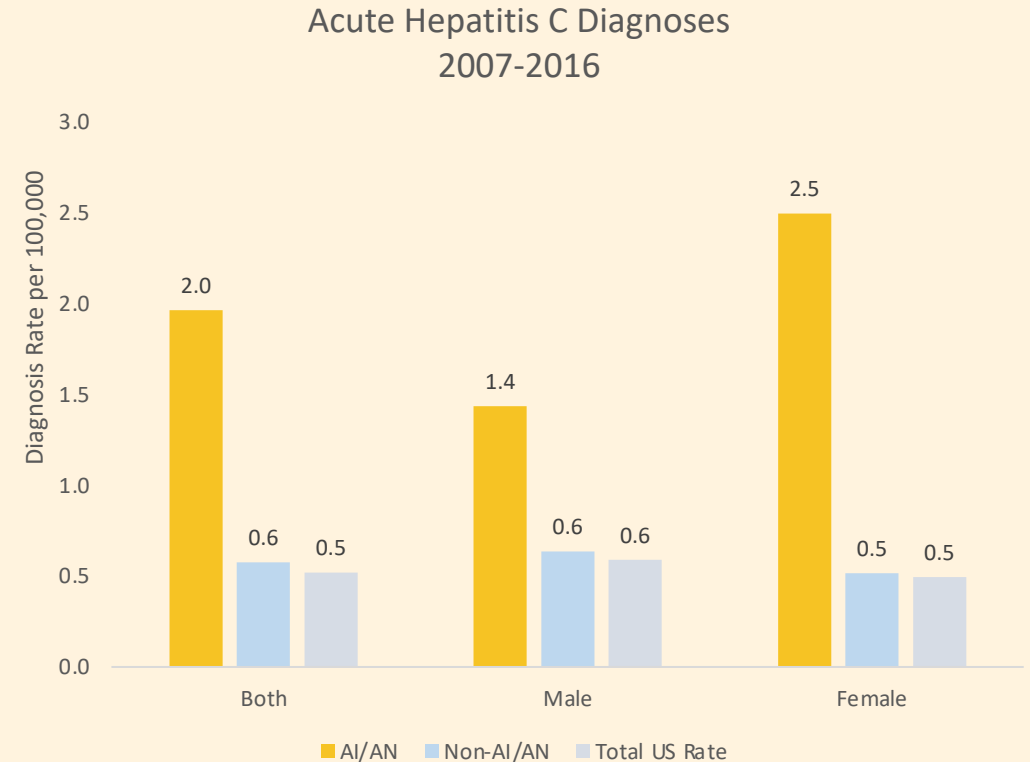
Hepatitis C (HCV)

- A total of 30 cases of acute HCV were reported among AI/ANs in Washington between 2007-2016, which was nearly six percent of all acute HCV diagnoses during the ten-year period.
- New HCV infection diagnoses fluctuated during this time, with a low between 2009-2011 and a peak in 2012-2014, mirroring the peak in new acute HBV diagnoses among AI/AN in Washington during the same period.



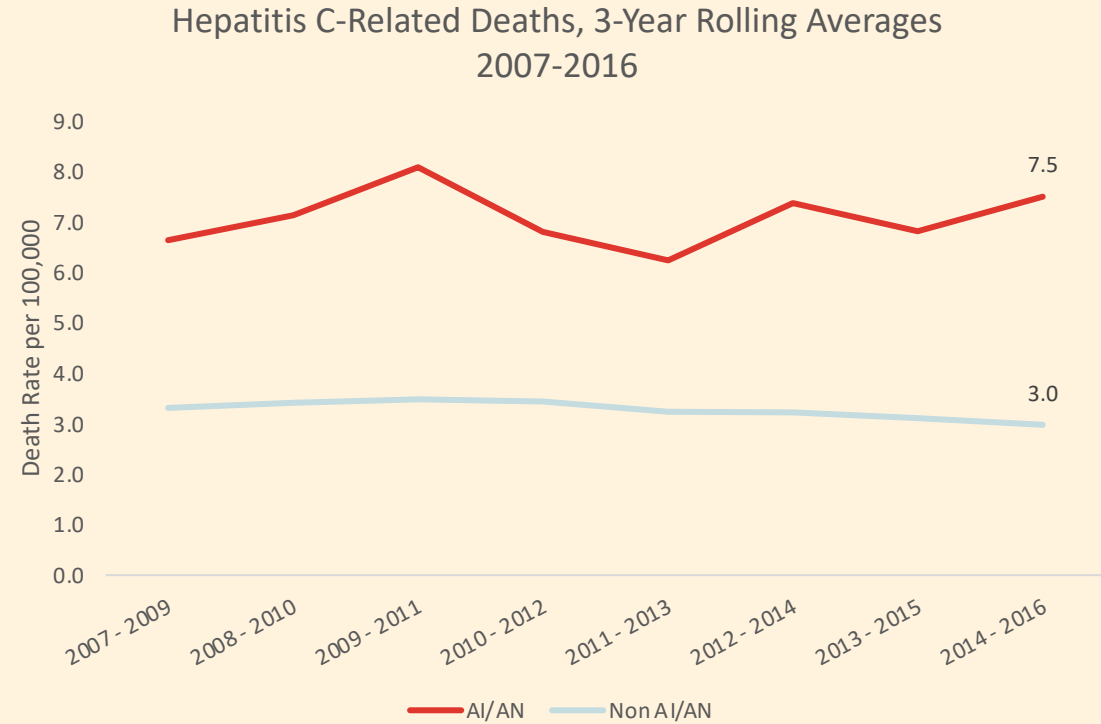
Hepatitis C (HCV)

- Between 2007 and 2016, the diagnosis rate of acute HCV for AI/ANs in Washington was four times higher than the national rate of acute HCV diagnoses and over three times that of Non-AI/ANs in Washington.
- AI/AN males had a diagnosis rate 2.3 times higher than their Non-AI/AN peers and AI/AN females had a diagnosis rate five times that of Non-AI/AN females.



Hepatitis C-Related Deaths

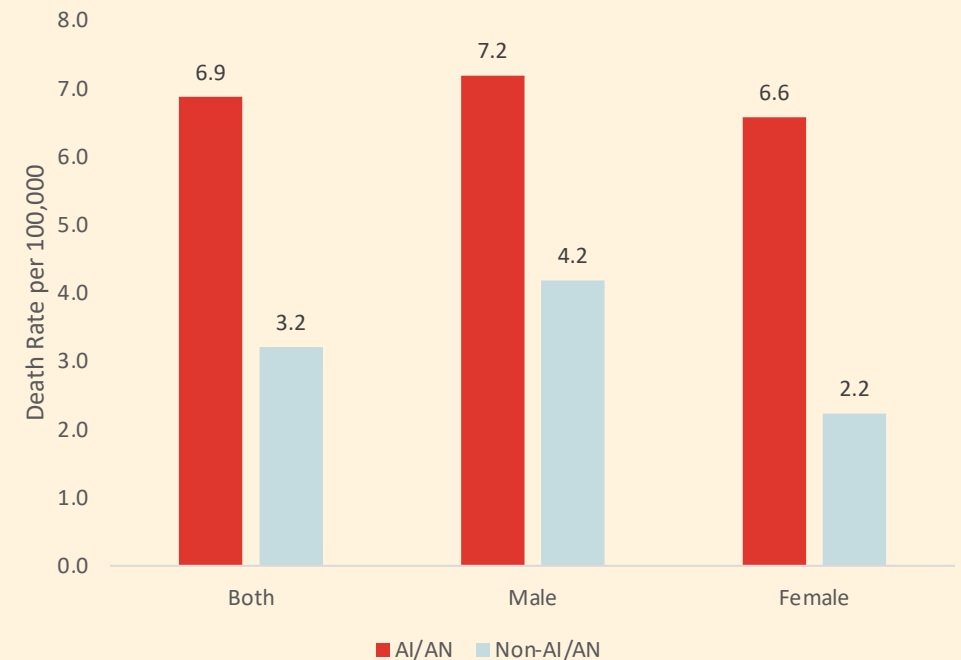
- Over the last ten years, the rate of HCV-related deaths in Washington among AI/ANs was at least three times higher than Non-AI/ANs.
- While the death rate for AI/ANs in Washington between 2014 and 2016 was below the national AI/AN death rate for HCV-related deaths in 2016 (9.8 deaths per 100,000), the trend shows a slight increase from the previous three years.



Hepatitis C-Related Deaths

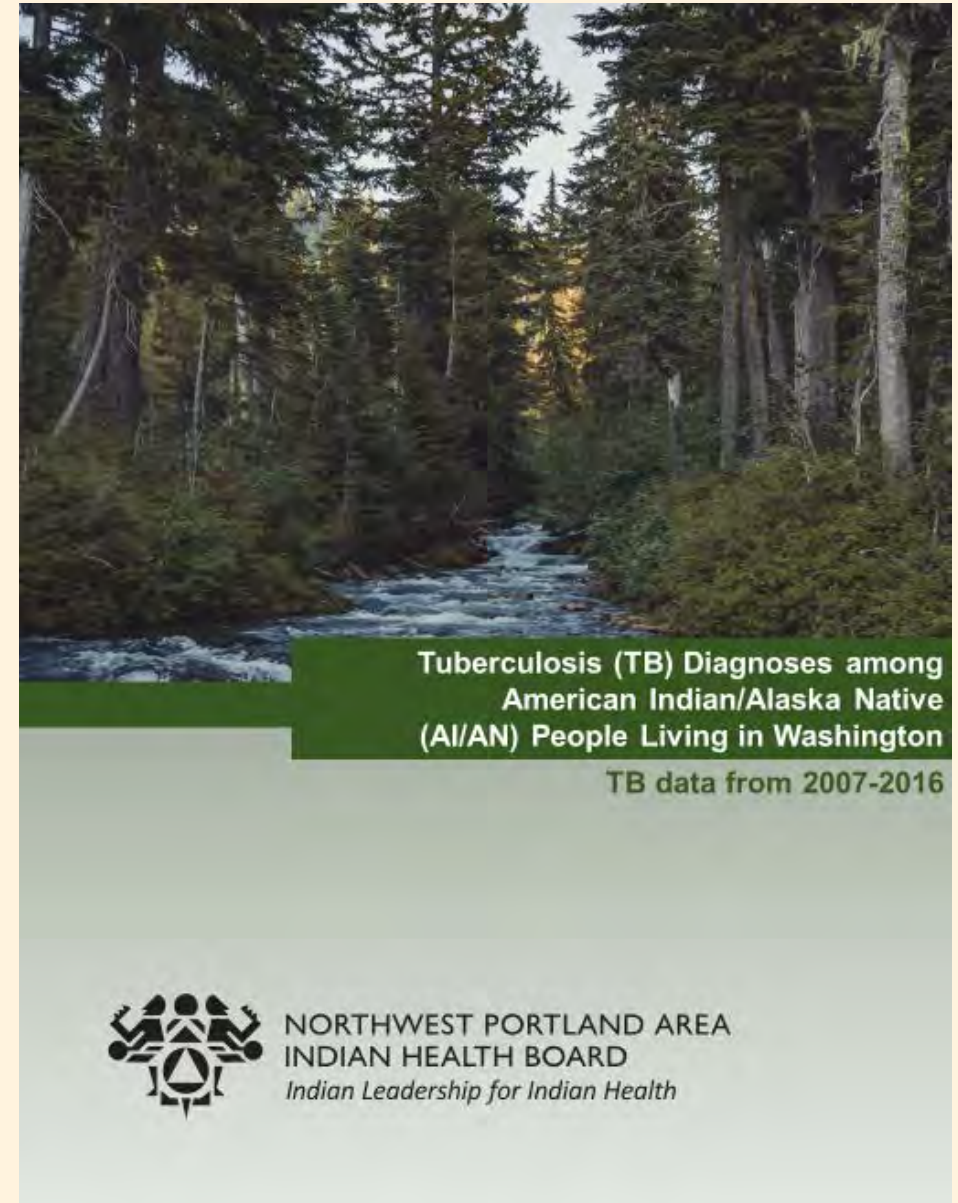
- The overall death rate for AI/ANs in Washington between 2007 and 2016 was about two times higher than the death rate of their Non-AI/AN counterparts.
- When examining death rates by sex at birth, AI/AN males had a death rate 1.7 times higher than that of Non-AI/AN males and women had the greatest disparity, with a death rate three times higher than Non-AI/AN females.

Hepatitis C-Related Deaths by Sex at Birth
2007-2016



Tuberculosis (TB)

- Tuberculosis (TB) is a disease caused by the bacteria *Mycobacterium tuberculosis* and is transmitted through the air.
- It generally affects the lungs, but symptoms from other areas of the body can occur as well.
- While TB can be a serious infection, many people have latent TB infection. In these cases, the immune system can suppress disease progression on its own.
- Those with latent TB have no symptoms and cannot pass the disease to other people, though latent TB can develop into TB disease, which can cause serious health problems if not treated, including death.
- Unlike latent TB, TB disease can be transmitted to others. While there is no morbidity associated with latent TB, treatment for it is important to prevent disease progression to TB disease.



Tuberculosis (TB) Diagnoses among
American Indian/Alaska Native
(AI/AN) People Living in Washington

TB data from 2007-2016



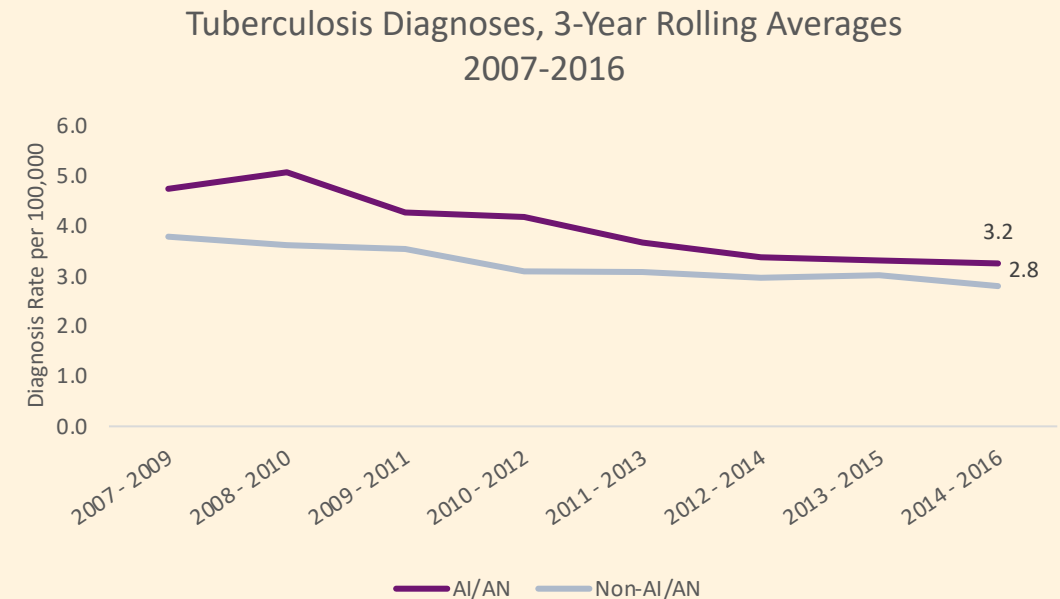
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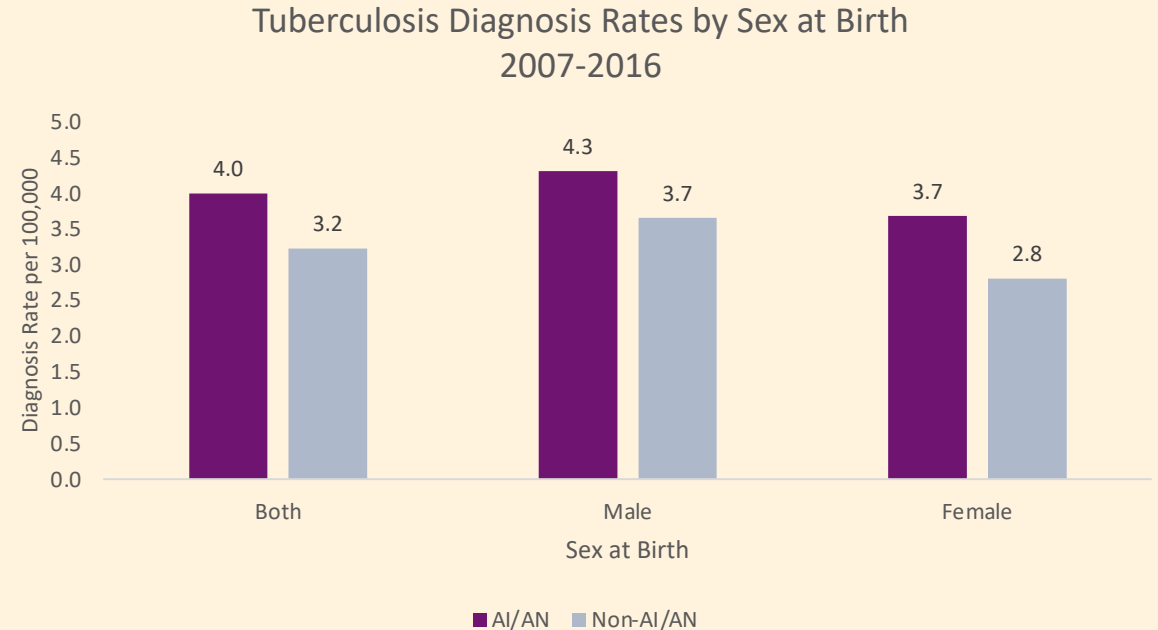
Tuberculosis

- While tuberculosis diagnoses among AI/ANs in Washington have consistently been higher than Non-AI/ANs, overall TB diagnoses have declined since 2007, which follows national trends.
- Though rates remained low, there was a slight increase in diagnoses for AI/ANs during the 2014-2016 time frame.



Tuberculosis

- AI/ANs in Washington have an overall rate of TB infection that is 1.3 times higher than that of their Non-AI/AN counterparts.
- When examining rates by sex at birth, AI/AN males had diagnosis rate 1.2 time higher than Non-AI/AN males and the diagnosis rate for AI/AN females was 1.3 times higher than Non-AI/AN females.



Washington State and Tribal Resources

- HIV

- Project Red Talon - <http://www.npaihb.org/project-red-talon/>
- Indian Country ECHO HIV and PrEP Clinics, Technical Assistance and Capacity Building
 - HIV Clinic: <https://www.indiancountryecho.org/program/hiv/>
 - PrEP Clinic: <https://www.indiancountryecho.org/program/prep/>

- STIs

- Project Red Talon - <http://www.npaihb.org/project-red-talon/>
- We R Native and Healthy Native Youth
 - www.weRnative.org
 - <https://www.healthynativeyouth.org/curriculum/>

- HBV and HCV

- Indian Country ECHO HCV, Technical Assistance and Capacity Building - <https://www.indiancountryecho.org/program/hepatitis-c/>

- TB

- Washington State Department of Health Tuberculosis Program - <https://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/Tuberculosis>



About the Data

- Counts less than five have been suppressed.
- Crude rates are used for both diagnoses rates and death rates for all data briefs.
- HIV Deaths includes records with the following ICD codes for HIV as the underlying cause of death: ICD-9 (042, 043, 044), ICD-10 (B20, B21, B22, B23, B24).
- HCV Deaths includes records with the following ICD codes for HCV as the underlying cause of death: ICD-10 (B17.1, B18.2).

Data Sources:

• **Washington Data Sources:**

- Department of Health Office of Infectious Disease HIV Surveillance
- Washington Department of Health STD Program
- Washington Department of Health Viral Hepatitis Program
- Washington state death certificates
- Washington Department of Health Tuberculosis Program

• **National Data Sources:**

- Centers for Disease Control and Prevention (CDC) WONDER,
- National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) AtlasPlus



Questions?

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For more information on our
project, please visit:

<http://www.npaihb.org/idea-nw/>



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