

Social Determinants & Pre-existing Conditions Affecting Risk of Increased COVID Severity Amongst Tribal Populations in Arizona



ABOUT THE DATA

The AACIHC worked with the State Medicaid agency (AHCCCS) to receive a claims data set for American Indian/Alaskan Native (AI/AN) members enrolled in AIHP. The claims in the data set were submitted between 2020 and 2022 with a COVID-19 diagnosis as the primary diagnosis on the claim. The release included 45,910 AI/AN individuals, and no PHI was included in the data set. The below data represents significant findings pertaining to Native populations in Arizona, found in this data set. Using this information, the following was reviewed:

- Social determinant correlations relating to severity of COVID were reviewed.
- Specific medical conditions commonly related to COVID severity were analyzed for associations to potentially fatal outcomes.

Social Determinants & Specific Risk Factors in Arizona that Affect COVID-19 in American Indian Populations

Social determinants of health (SDOH) are conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of-life risks and outcomes.

Some significant SDOHs identified in the analysis included:

- Smoking / Nicotine Use
- Secondhand Smoke Exposure
- Lack of Exercise
- Homelessness

Smoking/Nicotine Use

- 4.58X more likely to develop pneumonia
- 3.5X more likely to experience respiratory failure

Secondhand Smoke

- 2.65X more likely to develop pneumonia
- 3X more likely to experience respiratory failure

Lack of Exercise

3X more likely to develop pneumonia

Homelessness

Found in a significant number of COVID cases in AI/AN Populations.



Predictors of COVID pneumonia in American Indian Populations in Arizona

- Diabetes
- Hypertension
- Smoking / Nicotine Use
- Secondhand Smoke
- Lack of Exercise

Hypertension

- 4X more likely to experience a Severe COVID Case (bronchitis, acute respiratory infection, pneumonia, and respiratory failure)
- 20.47X more likely to develop pneumonia

Diabetes

14X more likely to develop pneumonia due to COVID

Pneumonia

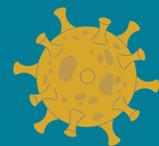
125X more likely to experience respiratory failure

Once pneumonia develops, the odds of suffering Respiratory Failure GREATLY increase!

Decreased Life Expectancy

In Arizona alone, while the general population suffered an overall decline in life expectancy of 2.8 years versus 2.1 years nationally, the decrease in life expectancy was not uniform across all demographics.

Within AI/AN populations in Arizona, there was a decrease in life expectancy of 8 years, as compared to 2.8 years for the rest of Arizona populations.



Orphanhood

American Indian/Alaska Native children were more likely to experience orphanhood or caregiver loss, even when compared to children of other racial, minority backgrounds.

Per the CDC, when looking at both primary and secondary caregivers, 1 of every 168 American Indian/Alaska Native children, 1 of every 310 Black children, 1 of every 412 Hispanic children, 1 of every 612 Asian children, and 1 of every 753 White children experienced orphanhood or death of caregivers.

Compared to white children, AI/AN children were 4.5 times more likely to lose a parent or grandparent caregiver.

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