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# Center for World Indigenous Studies COVID-19 Indian Country Risk Assessment Update 24 April 2020

*{Our assessments now include Alaskan Natives, Hawaiian Natives, resident Fourth World peoples who have immigrated or sought refuge in the United States in rural and urban localities. Relations between these populations may indicate cross infection transmission due to established and evolving social, economic and political connections.}*

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One hundred twenty-three (123) tribes and communities or 21% of the 574 tribal communities in 20 US States are at great or the greatest risk of contracting infections from the spread of COVID-19 as of 15 April 2020. The Center for World Indigenous Studies COVID-19 Indian Country Pandemic Risk Assessment conducted weekly documents recorded cases and deaths in 250 counties (many of which are solely tribal territories or communities in the county). Of the 359,675 (an increase of 96,271 from 17 April) documented cases and 17,126 (23 April) deaths (an increase by 3,614) in the Assessment, the tribes and communities exposed to the greatest number of infections are located in 20 states from coast to coast. The large number of cases and deaths calculated in some instances is due to inclusion of several metropolitan areas near reservations.

The Assessment uses six terms to describe Risk, recognizing that the term Risk means: Exposure to the chance of injury or loss; a hazard or dangerous chance. Orders of magnitude of risk in this Assessment are assigned terms to describe the level of risk as follows:

**Table 1 Orders of Magnitude of Risk from COVID-19**

| | |
|---|---|
| **Greatest** | Forty-three to more (43 and more) known or unknown cases of infection in proximity to tribe or tribal community |
| **Great** | Ten to Forty-two (10-42) known or unknown cases of infection in proximity to tribe or tribal community |
| **High** | Four to Nine (4-9) known or unknown cases of infection in proximity to tribe or tribal community |
| **Elevated** | Two to Three (2-3) known or unknown cases of infection in proximity to tribe or tribal community |
| **Moderate** | One (1) known or unknown case of infection in proximity to tribe or tribal community |
| **Low** | Zero (0) known or unknown cases of infections in proximity to tribe or tribal community |

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In all instances of magnitude, one or more of these factors influences the possibility of COVID-19 spreading rapidly into a tribal or urban native community. The following guidance and criteria have been provided by our Public Health adviser, Dr. Leslie Korn:

1. Movement of tribal and family members on and off the reservation into surrounding communities and coming into contact with infected persons and returning to the reservation without protective cover.
2. Tribal communities may be located near and interact with larger concentrated populations such as towns and cities, and in the case of Urban Indian communities they are comingled in concentrated urban populations where cross infection transmissions may occur by "asymptomatic" persons already infected and "hidden" persons who are "pre-infected" but can transmit the virus anyway.
3. Movement of non-tribal members onto the reservation from outside communities who have been exposed to infected persons off the reservation
4. The Spread of COVID-19 on the reservation is reduced by minimizing contact between tribal members through "stay-at home" and distancing practices and wearing facial masks when in the presence of more than two persons.
5. The Spread of COVID-19 on the reservation or in the community is minimized by persons wearing latex gloves when handling objects that may carry COVID-19 droplets and when used on surfaces (clean surfaces with soap or 70% alcohol - countertops, doorknobs, cabinet handles, etc.).
6. Tribal and Urban Indian community households are crowded with many family and extended family members.
7. Tribal and Urban Indian community households that lack adequate water of good quality or any water at all, and the availability of and access to sufficient food, herbal medicines and nutrition.
8. Tribal communities lack organized community health workers who carry out regular surveillance of tribal households or urban Indian households … especially in localities where there is no contact tracing, documentation of pre-infected and infected persons, COVID-19 testing, or health facilities are non-existent or insufficient to community needs.
9. Hidden COVID-19 outbreaks reduce the accuracy of "documented" cases since a "chain of silent transmission" can be underway in communities from individuals who show no symptoms but are actually able to transmit the disease. Actual risk may be from 5 to 80 greater than documented case levels would indicate.

In 20 states we have identified 123 tribal communities that are in great or the greatest risk of the spread of COVID-19 into among their people. This number of tribal communities is an increase from the previous Update (17 April 2020) by 17%. In addition we have now identified thirty-six of these 123 tribal communities or 29% of the greatest risk tribal communities that are located in areas that have a population densities of 100 or greater to 100,000 people. Population density increases the measure of risk due to the concentration of population and therefore the greater potential of COVID-19 infection spread resulting from in even limited contact between persons.

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Population concentrations of 100 persons per 100,000 or greater significantly increase a community's vulnerability to COVID-19 infections. Examples of tribal of communities that are at the Greatest "Heightened" Risk due to population concentration include these seven: **Hopi Reservation** at 591 persons per 100,000 in Arizona; **Sac and Fox Tribe** 1319 in Iowa; **Zuni Tribe** 721 in New Mexico; **Stockbridge-Munsee Community** with 771 in New York; **Narragansett People** with 591 in Rhode Island; **Uintah and Ouray Indians** with 403 in Utah; and **Snoqualmie Indian Tribe** with 252 in Washington State. The population concentration in and around the tribal community compounds the Risk of COVID-19 infection spread.

**Table 2 123 Tribes or tribal communities at Great or Greatest Risk of COVID-19 as of 23 April 2020**

| State | Confirmed Cases per 100K | Tribal Community |
|---|---|---|
| Alabama | 115 | Mowa Band of Choctaw |
| Arizona | | Ak-Chin Indian Community |
| | | Chemehuevi Reservation |
| | | Cocopah Reservation |
| | | Colorado River Indian Tribes |
| | | Fort Mojave Indian Reservation |
| | 375 | Fort Apache Reservation |
| | 265 | Havasupai Reservation |
| | 591 | Hopi Reservation. |
| | | Hualapai |
| | | Kaibab Indian Reservation |
| | | Navajo nation |
| | | Pascua Yaqui Tribe |
| | | San Carlos Apache Indian Reservation |
| | 101 | Tohono O'odham Indian Reservation. |
| | | Yavapai-Prescott Reservation |
| California | | Augustine Band of Cahuilla Indians |
| | | Barona Group of Capitan Grande Band of Mission Indians. |
| | 105 | Bishop Paiute Tribe |
| | | Cabazon Reservation. |

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Cahuilla Reservation
Cher-Ae Heights Indian Community of the Trinidad Rancheria
Chicken Ranch Rancheria of Me-Wuk Indians of California
Cloverdale Rancheria of Pomo Indians of California
Cold Springs Rancheria
Colorado River Indian Tribe
Dry Creek Rancheria of Pomo Indians
EL ranch
Federated Indians of Graton Rancheria
Fort Mojave Indian Reservation,
Habematolel Pomo of Upper Lake.
Iipay Nation of Santa Ysabel
Inaja Band of Diegueno Mission Indians.
Jamul Indian Village
Karuk Tribe
Kashia Band of Pomo Indians of the Stewarts Point Rancheria
La Jolla Band of Luiseno Indians
La Posta Band of Diegueno Mission Indians.
Los Coyotes Band of Cahuilla and Cupeno Indians
Lower Lake Rancheria
Lytton Band of Pomo Indians
Manzanita Band of Diegueno Mission Indians.
Mesa Grande Band of Diegueno Mission Indians
Morongo Band of Mission Indians.
169 Mooretown Rancheria of Maidu Indians
Pala Indian Reservation.
Pauma Band of Luiseno Mission Indians.
Pechanga Band of Luiseño Indians.
Ramona Band of Cahuilla
Resighini Rancheria
Rincon Band of Luiseño Indians.
San Manuel Band of Mission Indians
San Pasqual Band of Diegueno Mission Indians.
Santa Rosa Band of Cahuilla Indians
Santa Rosa Rancheria

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| | | |
|---|---|---|
| | | Santa Ynez Band of Chumash Mission Indians |
| | | Smith River Reservation |
| | | Soboba Band of Luiseno Indians |
| | | Sycuan Band of the Kumeyaay Nation |
| | 119 | Torres-Martinez Desert Cahuilla Indians |
| | | Tule River Indian Tribe of the Tule River Reservation |
| | 129 | Twenty-Nine Palms Band of Mission Indians of California |
| | | United Auburn Indian Community |
| | | Viejas Group of Capitan Grande Band of Mission Indians. |
| | | Yocha Dehe Wintun Nation |
| | | Wiyot Tribe |
| Connecticut | 148 | Mashantucket Pequot Tribe |
| | | Mohegan Tribe |
| | | Big Cypress Reservation |
| Florida | 226 | Hollywood Seminole Indian Reservation |
| | 135 | Miccosukee Indian Reservation. |
| | | Seminole Tribe of Florida |
| | | Tampa Indian Reservation |
| Iowa | 1319 | Sac and Fox Tribe of the Mississippi in Iowa |
| Louisiana | 316 | Coushatta Tribe |
| Massachusetts | 420 | Hassanamisco Nipmuc |
| Michigan | 125 | Nottawaseppi Huron Band of Potawatomi. |
| | | Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan |
| Minnesota | 107 | Fond du Lac Reservation |
| Mississippi | 347 | Mississippi Band of Choctaw Indians |
| Nebraska | | Omaha Reservation |
| Nevada | 155 | Fort Mojave Indian Reservation, |
| | | Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony |
| | | Moapa River Indian Reservation |
| | 158 | Reno-Sparks Indian Colony |
| | | Pyramid Lake Indian Reservation |
| | | Canoncito Indian Reservation |
| | | Cochiti, New Mexico |
| New Mexico | | Jemez Pueblo, New Mexico |

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| | | |
|---|---|---|
| | 130 | Acoma Pueblo |
| | | Jicarilla Apache |
| | | Kewa Pueblo, New Mexico. |
| | | Nambé Pueblo, New Mexico |
| | | Pojoaque, New Mexico |
| | | Pueblo of Isleta |
| | | San Felipe Pueblo, New Mexico. |
| | | San Ildefonso Pueblo, New Mexico. |
| | | Sandia Pueblo |
| | | Santa Ana Pueblo, New Mexico |
| | | Santa Clara Indian Reservation. |
| | | Tesuque, New Mexico. |
| | 266 | Ute Mountain Ute Tribe |
| | 721 | Zuni Reservation |
| New York | 139 | Tuscarora Reservation |
| | 217 | Tonawanda Reservation |
| | 771 | Stockbridge–Munsee Community |
| | 153 | Shinnecock Reservation |
| | 120 | Schaghticoke people |
| | 129 | Onondaga Reservation |
| Rhode Island | 591 | Narragansett people |
| South Carolina | | Catawba Reservation |
| Utah | 403 | Uintah and Ouray Indian Reservation |
| | | Paiute Indian Tribe of Utah |
| Washington | | Chehalis Reservation |
| | 129 | Lummi Nation |
| | | Muckleshoot |
| | | Port Gamble Band of S'Klallam Indians |
| | | Port Madison Indian Reservation |
| | 145 | Puyallup people |
| | 281 | Sauk-Suiattle Indian Tribe of Washington |
| | 252 | Snoqualmie Indian Tribe |
| | 281 | Stillaguamish Reservation |
| | | Yakama Indian Reservation |
| Wisconsin | 155 | Oneida Nation of Wisconsin |

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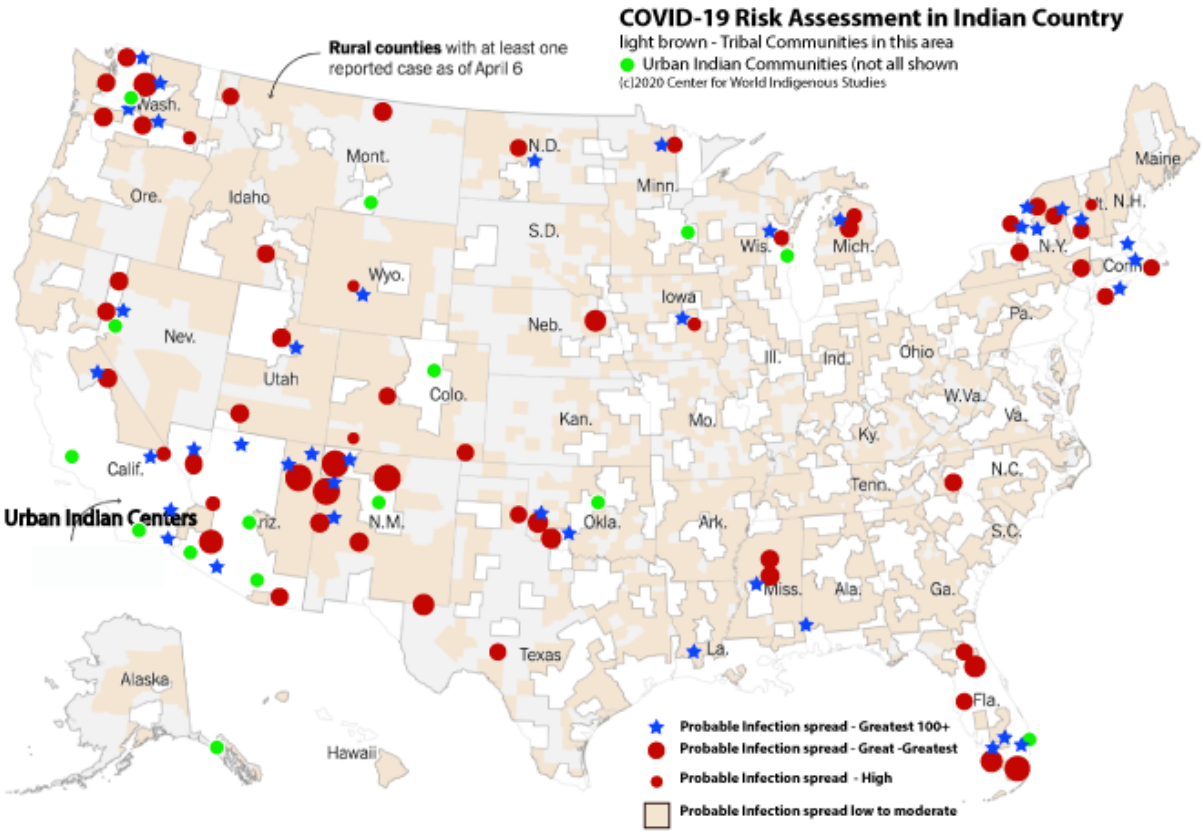
COVID-19 has quickly spread to areas on and near rural, tribal and urban Indian communities resulting in high concentrations in Arizona, Iowa, New Mexico, Rhode Island, Utah, New York and Washington states. We have indicated the particular locations in the United States where tribal and urban Indian community COVID-19 Infections are likely to have Great or Greatest rates. **Blue Stars** have been added to the 23 April mapping of tribal communities at greatest risk to indicate locations where confirmed COVID-19 infections per 100,000 is equal to or greater than 100 cases.

**Figure 1 COVID-19 Risk to Indian Country 23 April 2020**




While the Assessment identifies specific tribes and tribal communities, the actual level of COVID-19 cases and deaths specific to each tribe or tribal community is not here

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entered. This lack of specific tribal information is because there is no current epidemiological system for fully documenting testing, cases of infection, and deaths due to COVID -19. The Center for World Indigenous Studies **COVID-19 Indian Country Risk Assessment** is conducted to measure risk from documented evidence of cases and deaths in proximity to tribes and tribal communities. Absent extensive testing and contact tracing as well as monitoring of each tribal home regularly, it is not now possible to determine with absolute accuracy the number of asymptomatic and symptomatic cases. There is no extensive or even significant testing being conducted in tribes and tribal communities. Until testing and tracing are actually conducted, it is not possible to know with certainty the extent of COVID -19 spread in Indian Country.

***By documenting Risk, the Center for World Indigenous Studies Assessment is intended to alert tribes and communities to the disease proximity and probable spread.***

**The Center for World Indigenous Studies was asked by tribal leaders to undertake an initiative to develop information and policy recommendations for Indian Country USA responding to the COVID-19 Pandemic.** We have undertaken to:

1. Investigate, Document and Report on Best Practices tracking COVID-19 infections and deaths, and the application of traditional medicine and health for prevention and treatment of the virus in tribal communities and urban Native communities.
2. Develop Public Health and Traditional Medicine guidance, reports and recommendations to sustain individual, family and community emotional and biological resilience, mental health and strong immune function supported by nutritional factors.
3. Reach out directly to tribal individual and communities through communications, content narratives, scripts and distribution produced in part by the CWIS vide/audio team and with partners including FNX Indian Television Network, and the Native Public Media reaching the majority of rural and tribal communities and the urban native communities.

The CWIS Team has updated its earlier data on COVID-19 Risk to Indian Country in the United States. **By documenting Risk, the Center for World Indigenous Studies Assessment is intended to alert tribes and communities to the disease proximity and probable spread**.

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## Methodology

Since there is no consistent or comprehensive data collection for the 574 tribal communities, the CWIS Assessment sought to gather data from the closest sources to tribal communities—counties. Since many tribes actually occupy whole counties or several tribes occupy a single county the data needed to be confirmed by comparing with the Johns Hopkins University and Center for Disease Control, and the website USAfacts.org. All case and death data for the counties included was updated on 16 April 2020.

The absence of testing, contact tracing and weekly monitoring in tribal households reduces the accuracy of totals for cases and deaths. The Tribal Epidemiological Centers funded by the United States government do not have consistent or accurate data though they attempt to obtain information from individual tribes in many cases. The absence of health facilities and hospitals for most tribal communities results in undercounting as well.

Recent studies have concluded that the number of cases and deaths are logically short of the actual levels. Three studies (one in Italy) concluded that the public numbers are undercounted by a factor of 5 to 10. Li Ruiyun of MRC Centre for Global Infectious Disease Analysis in London led an international study team that concluded that the transmission rate was 55% of documented infections ("Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus" 16 March 2020). Projecting wider COVID-19 spread the number of undocumented infections in Indian Country is like to be high and therefore a ten-fold increase over current numbers could be expected. "A ratio of one certified case out of every 10 is credible," according to Angelo Borrelli, the head of the Italy's Civil Protection Agency (Reuters, Europe News. 24 March 2020). However, recent studies now suggest that one certified case can be evidence of 5 to 80 hidden cases.

This means that the numbers we site may in fact reflect an undercount of undetected, asymptomatic and symptomatic persons who have contracted COVID-19 with the result that our number may be as high as 1,322 million to 2,634 million cases with tribal communities experiencing infections as high as 26,340 tribal and urban Indian community members (at 1% of the population). Indeed, recently published this is clearly an estimate based population proportion represented by tribal members.

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**FINAL NOTE:**

This Assessment is intended as an alert for tribes and urban Indian communities and to report on Best Practices we have found to have good results. We do this by indicating the level of risk we calculate and assign Greatest, Great, High, Elevated, Moderate, or Low according to levels of infection in proximity to specific tribal and urban Indian communities. This designation is not an absolute calculation of infections on Indian reservations or other tribal and urban Indian communities since no such data (even when there are a few tests) exists. We have chosen the "proximity" as a measure due to the lack of onsite tribal community data for infections and case tracking and the occasional location of tribal communities near urban settings where higher concentrations of COVID-19 exposures and confirmed infections have been documented. Again, in all instances we recognize that the levels of infections in Indian Country could be 5 to 80 times higher than documented levels.