Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

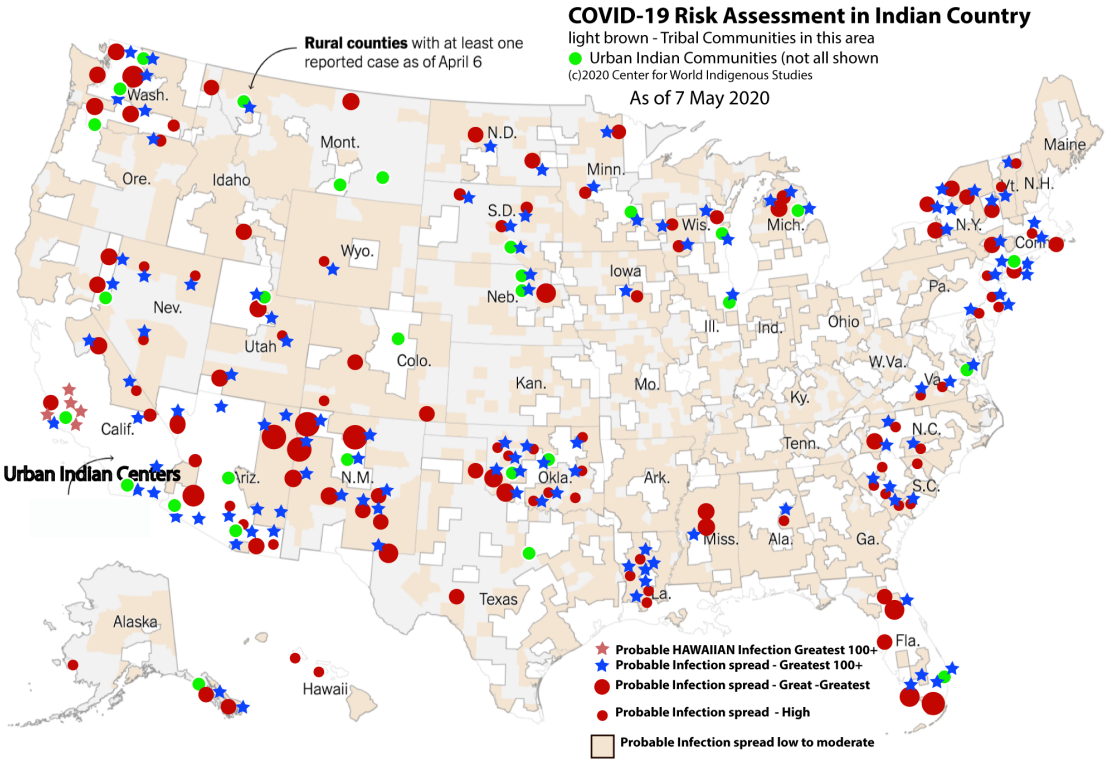
COVID-19 Indian Country Pandemic Risk Assessment Update 7 May 2020

Rudolph C. Ryser, PhD; Leslie E. Korn, PhD, MPH; Leonard Mukosi, LLM; MA, Maria Bone, MLS

The CWIS COVID-19 Indian Country Pandemic Risk Assessment tracks weekly changes in the risk of infection the COVID-19 Pandemic poses to tribal communities, Alaskan Natives, resident Fourth World peoples in the United States in rural and urban locations.

With this update we report that 206 tribal communities are identified as at greatest risk [77] or greatest risk (+) [129]—an increase of 17% over the previous week. We document specific tribal communities at the greatest risk as well. As of 7 May 2020 this risk assessment identifies 206 of 574 communities at greatest risk (SEE Figure 1).

Figure 1 COVID-19 Risk to Indian Country 7 May 2020



Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

COVID-19 has quickly spread and become more intense in areas on and near rural, tribal and urban Indian communities resulting in our study noting high infection 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 was 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—classified now as Greatest Risk (+). This is essentially a "code red" to tribal communities in rural and urban settings.

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 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.

SUMMARY

- **Data documenting pre-infection, asymptomatic and symptomatic COVID infections** in Indian Country have been seriously hampered by the failure of the US government and State governments to disaggregate data for American Indian, Alaskan Native and Hawaiian Native Populations and to provide comprehensive testing and

support the complicated task of contact tracing. At best any data concerning COVID-19 is an approximation in the absence of testing and tracing and in the United States native populations are generally not included in efforts to maximize testing and tracing. The CWIS COVID-19 Indian Country Pandemic Risk Assessment is therefore focused on those geographic localities where the subject populations reside and the proximity to COVID-19 infection vectors from population concentrations. The conditions just described must be taken into consideration when reviewing this Assessment and recognition must be given to this effort's primary emphasis on alerting vulnerable communities to the spread of COVID-19.

- **Two-hundred and six (206) tribal communities or 36% of the 574** tribal communities are in proximity to great, greatest or greatest + risk of contracting COVID-19 infections in their populations. This number is an increase of 34 communities over the previous week assessed as at great or greatest (+) risk. The population estimate for this category is 1.969 million individuals as of 2013. Eighty-one of the 206 tribal communities remain at great and greatest risk while 125 of the 206 are at Greatest Risk (+).
- **Tribal communities** in 31 (29 previous week) US states are at great or the greatest risk of contracting infections from the spread of COVID-19 as of 7 May 2020.
- **Alaskan Natives in two regions** (Juneau and Ketchikan Gateway) have COVID-19 cases slightly exceeding 100 per hundred thousand indicating growing risk in the boroughs. Of the twenty-six boroughs in which native peoples are located twelve have cases of COVID-19. This profile has not changed since the previous week.
- **Hawaiian native communities** are located in the State of Hawaii and in significant numbers in California cities. This assessment now includes proximity measures to help evaluate the level of COVID-19 Risk to Hawaiian Natives. Table 3 of the Assessment

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

documents our findings as of 7 May 2020. Hawaiian natives are at greatest risk of COVID-19 exposure on the islands of Honolulu (396 cases) and Maui (115 cases) are confirmed. In California, Hawaiian Natives are exposed to the greatest risk and greatest risk (+) in the counties of Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara. Hawaiian Native greatest risk of exposure exists in the fifteen counties where significant Hawaiian Native populations are located. These counties carry an even greater risk due to dense populations and elevated confirmed COVID-19 infections per 100,000 in each county. Testing by state authorities has confirmed a starkly higher rate for Contra Costa County as compared to the previous week.

- Honolulu and Maui Counties in the Islands do not as yet show a greater than 100 confirmed cases per 100,000, however the number of cases in these counties exceeds the threshold for Greatest Risk to Hawaiian Natives.
- **There are 51 urban locations our study monitors where American Indian and other native populations** are concentrated outside Reservation, Rancheria and rural areas. The estimated population of "Urban Indians" is 4.63 million as of 2013. The overall total American Indian population is estimated at 6.6 million people. Frequent travel between urban centers and reservation and rural areas where tribal members reside increases the necessity to assess the risk of COVID-19 infections in urban native communities as well as reservation and rural communities.
- The confirmed cases equal to or greater than 100/100,000 as a measure to evaluate the level of COVID-19 Pandemic indicates that virtually every native urban center is at great or greatest (+) risk of contracting COVID-19. Our initial conclusion is that 39 of the 51 Native Urban Centers are at the Greatest (+) risk of contracting COVID-19 infection. Just 12 of the urban native communities can be said to have a lower risk level, but that level

would be set at High Risk for only two native urban centers (Pierre, SD and Butte, MT) and Great Risk for nine native urban centers.

- In Table 4 of this Assessment we document the confirmed cases and 100 cases or greater per 100 thousand for all 51 Urban Indian locations in 22 states. Forty of the locations in the Assessment are equal to or exceed the scale used to measure the degree of risk to native people. Of the 46 locations twenty-nine report 100 or higher confirmed cases per 100 thousand indicating the greatest (+) risk to urban native people. Proximity in dense populations poses a significant threat to all populations, but with tribally related populations health vulnerabilities and the potential for individuals becoming asymptomatic carriers poses a major threat to tribal communities on reservations and rural areas as much as to the urban Indian populations.
- **Tribes and communities have been exposed as of this Assessment to 206,224 documented** COVID-19 cases inside or in proximity to tribal communities (an increase of 36,302 cases since 1 May) and there have been 10,239 documented deaths (an increase of 2,187 deaths since 1 May) since the previous Assessment. The large number of cases and deaths calculated in some instances is due to inclusion of several metropolitan areas near reservations. It does appear that smaller populations are experiencing the virus spread resulting in smaller net increases in documented cases and deaths over the previous week. However, the number of tribal communities have markedly increased that are located in proximity to populations where 100 confirmed cases or greater per 100,000. In the previous week we documented confirmed cases equal to or greater than 100/100k at 99 tribal communities. That number grew to 122 tribal communities that are now at **Greatest (+)** risk of the virus spread to the families where 37 tribal communities moved into the Greatest (+) risk category from their formerly great-greatest risk.

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

- The trend of increased risk level is decidedly upward in the total number of tribal communities that are now faced with maximum risk due to virus transmission vectors from population concentrations that are increasingly infected.
- Several internal community vectors may be responsible for the greatest (+) risk: Increased numbers of funerals where individuals are close physically during ceremonies for some time, and multiple family residences where individuals may depart the premises and return with infections.
- 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) twenty-six boroughs in Alaska and Hawaiian communities in four counties in Hawaii and nine California counties where Hawaiian Natives reside as Diasporas. This assessment also takes into account the locations of 51 Urban native cities where native persons are concentrated.

ASSESSMENT

The Assessment uses seven 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 (+)	Confirmed cases equal to or greater than 100 per 100,000 in proximity to the tribal community indicates population concentrations that elevate the risk to the highest alert. When tribal communities are in proximity to population centers that concentrate individuals the number of infections are significantly increased.
Greatest	Forty-three to more (43 and more) known or

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

	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

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.

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

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.

TRIBAL COMMUNITIES

Tribal communities that register 85 and higher COVID-19 cases within their proximity have been identified as at great-greatest risk of the COVID-19 infection spread and are encouraged to take measures to prevent and limit the spread into their communities. They are shown without a numeric designation in Table 2.

However, many of the tribal communities that are at great-greatest risk have also been identified to have populations located in proximity of densely located populations that have documented COVID-19 infections equal to 100 or greater numbers per 100,000 people—thus demonstrating more intense infections and risk to tribal communities. The higher the number per 100,000 the greater the risk and since this number can change from week to week it is a measure of how many tribal communities change from great-greatest risk to greatest risk (+). They are listed with number in the table.

Table 2 206 Tribes or tribal communities at Great or Greatest Risk of COVID-19 as of 1 May 2020

State	Tribal Community	Great, Greatest, Greatest + Risk
Alabama	MOWA Band of Choctaw Indians	252
Alaska	Anchorage	

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
	Juneau	126
	Ketchikan	116
Alaska	Yu'ik Chevak Native Village	
	Allakaket, Alatna	
	Kethcikan Gateway	116
Arizona	Cocopah Reservation	
	Fort Apache Reservation	531
	Tohono O'odham Indian Reservation.	486
	Salt River Pima–Maricopa Indian Community.	116
	Hualapai	
	Kaibab Indian Reservation	
	Chemehuevi Reservation	
	Colorado River Indian Tribes	
	San Carlos Apache Indian Reservation	
	Ak-Chin Indian Community	
	Havasupai Reservation	431
	Tonto Apache.	
	San Carlos Apache Indian Reservation	
	Havasupai Reservation	313
	Kaibab Indian Reservation	
	Hopi Reservation	851
	Navajo nation	3211
	Colorado River Indian Tribes	
	Twenty-Nine Palms Band of Mission Indians of California	192
	Torres-Martinez Desert Cahuilla Indian	
	Soboba Band of Luiseno Indians	
	Santa Rosa Band of Cahuilla Indians	
	Santa Rosa Rancheria	
	Ramona Band of Cahuilla	
	Pechanga Band of Luiseño Indians.	

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
	Morongo Band of Mission Indians.	
	Augustine Band of Cahuilla Indians	
	Cabazon Reservation.	
	Cahuilla Reservation	
	Chemehuevi Reservation	
	EL ranch	
	Likely Rancheria	
	Lookout Rancheria.	
	Alturas Indian Rancheria	
	United Auburn Indian Community	
	Viejas Group of Capitan Grande Band of Mission Indians.	
	Sycuan Band of the Kumeyaay Nation	132
	Iipay Nation of Santa Ysabel	
	San Pasqual Band of Diegueno Mission Indians.	
	Rincon Band of Luiseño Indians.	
	Inaja Band of Diegueno Mission Indians.	
	Jamul Indian Village	
	La Jolla Band of Luiseno Indians	
	La Posta Band of Diegueno Mission Indians.	
	Los Coyotes Band of Cahuilla and Cupeno Indians	
	Manzanita Band of Diegueno Mission Indians.	
	Mesa Grande Band of Diegueno Mission Indians	
	Pauma Band of Luiseno Mission Indians.	
	Pala Indian Reservation.	
	Barona Group of Capitan Grande Band of Mission Indians.	
	Bridgeport Reservation	

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
	Mooretown Rancheria of Maidu Indians.	193
	Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation	
	Bishop Piute Tribe	111
	Chemehuevi Indian Tribe	
	Colorado River Indian Tribe	
	Chemehuevi Reservation	110
	Fort Mojave	
	Chicken Ranch Rancheria	
	Lytton Band of Pomo Indians	
	Cloverdale Rancheria of Pomo Indians of California	
	Dry Creek Rancheria of Pomo Indians	
	Federated Indians of Graton Rancheria	
	Kashia Band of Pomo Indians of the Stewarts Point Rancheria	
	Lower Lake Rancheria	
	Smith River Reservation	
	Torres-Martinez Desert Cahuilla Indians	222
	Tule River Indian Tribe of the Tule River Reservation	189
	Santa Ynez Band of Chumash Mission Indians	123
	Yocha Dehe Wintun Nation	
Colorado	Southern Ute Indian Reservation	114
Connecticut	Golden Hill Paugussett	1309
	Mashantucket Pequot Tribe	253
	Mohegan Tribe	253
	Schaghticoke Tribal Nation	582
Delaware	Lenape Indian Tribe of Delaware	484
	Nanticoke Indian tribe	1448
Florida	Hollywood Seminole Indian Reservation	288

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
	-Miccosukee Indian Reservation.	487
	-Seminole Tribe of Florida	109
	Tampa Indian Reservation	1324
Iowa	Sac and Fox Tribe of the Mississippi in Iowa	1733
Louisiana	Coushatta Tribe	351
	Coushatta Tribe	210
	Addai Caddo Tribe	231
	Biloxi-Chitimacha Confederation of Muskogee	698
	Grand Caillou/Culac Band	443
	Clifton Choctaw	240
	Calcasieu Tribe	239
	Pointe-Au-Chien Indian Tribe	
	United Houma Nation	
	Pointe-Au-Chien Indian Tribe	
	Four Winds Tribe Lousiana Cherokee Confederacy	117
	Louisiana Choctaw Tribe	
	Natchitaoches Tribe Of Louisiana	231
	Tunica-Biloxi	184
Massachusets	Hassanamisco Nipmuc	875
Maryland	Piscataway Conoy Tribe	420
	Piscataway Indian Nation	583
Port Tobacco	Portogago	445
Michigan	Nottawaseppi Huron Band of Potawatomi.	183
	Isabella Indian Reservation	178
	Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan	104
Minnesota	Fond du Lac Reservation	169
	Mille Lacs Indian Reservation	206
Mississippi	Mississippi Band of Choctaw Indians	896

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
Nevada	Winnemucca Indian Colony of Nevada	314
	Summit Lake Paiute Tribe of Nevada.	314
	Hupa Reservation	314
	Fort McDermitt Indian Reservation	314
	Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony	
	Moapa River Indian Reservation	
	Winnebago Reservation	
	Reno-Sparks Indian Colony	225
New Jersey	Nanticoke Lenni-Lenape Tribal Nation	642
	Ramapough Lenape Nation	1781
	The Powhatan Lenape Nation	2816
New Mexico	Acoma Indian Reservation.	307
	Santa Clara Indian Reservation.	303
	Santa Ana Pueblo, New Mexico	303
	Sandia Pueblo	303
	Kewa Pueblo, New Mexico.	303
	San Felipe Pueblo, New Mexico.	303
	Jemez Pueblo, New Mexico	303
	Jicarilla Apache	303
	Cochiti, New Mexico	303
	Sandia Pueblo	142
	Pueblo of Isleta	142
	Canoncito Indian Reservation	142
	Zuni Reservation	1964
	Ute Mountain Ute Tribe	632
New York	Tuscarora Reservation	240
	Tonawanda Reservation	289
	Tonawanda Band of Seneca	278
	Cattraugus Reservation (Erieehronon)	450

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
	Stockbridge–Munsee Community	1308
	St. Regis Mohawk Reservation	
	Shinnecock Reservation	2371
	Unkechaug Nation	2371
	Schaghticoke people	213
	Onondaga Reservation	216
North Carolina	Cohaire Intra-Tribal Council	170
	Lumbee Tribe	
	Haliwa-Saponi Indian Tribe	141
	Occaneechi Band of the Saponi Nation	
	Meherrin Nation (Kauwets'a:ka)	190
North Dakota	Fort Berthold Reservation	355
	Lake Traverse Indian reservation	182
Oklahoma	Caddo Indian tribe	262
	Comanche Indian Tribe	
	Chickasaw Nation	308
	Citizen Potawatomi	
	Absentee Shawnee	
	Ft. Sill Apache Tribe	856
	Miami Nation	132
	Modoc Tribe	132
	Ottawa Tribe	132
	Seneca-Cayuga Tribe of Oklahoma	132
	Shawnee Tribe	132
	Peoria Tribe of Indians of Oklahoma	132
	Pawnee Nation of Oklahoma	177
	Wyandotte Nation	109
	Osage Nation	163
Oregon	Umatilla Indian Reservation	100
Rhode Island	Narragansett people	257

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
South Carolina	Pee Dee Indian Nation of Upper South Carolina	199
	Beaver Creek Indians	
	Catawba Reservation	
	Edisto Natchez Kusso Tribe of South Carolina	103
	Santee Indian Organization	107
	The Waccamaw Indian People	
	Wassamasaw Tribe of Vernertown Indians	151
South Dakota	Lower Brule Indian Reservation	200
	Flandreau Indian Reservation	108
	Lake Traverse Indian Reservation	107
Utah	Uintah and Ouray Indian Reservation	465
	Confederated Tribes of the Goshute Reservation	107
	Skull Valley Indian Reservation	107
Vermont	Elnu Abenaki Tribe	169
	Mississquoi Abenaki Tribe	202
Virginia	Chicahominy Tribe	243
	Pattawomeck	153
Washington	Yakama Indian Reservation	578
	Stillaguamish Reservation	301
	Snoqualmie Indian Tribe	308
	Sauk-Suiattle Indian Tribe of Washington	320
	Puyallup people	181
	Upper Skagit Indian Tribe	294
	Swinomish Indians of the Swinomish Reservation	294
	Stillaguamish Reservation	357
	Lummi Nation	295
	Makah Reservation	
	Port Madison Indian Reservation	
	Port Gamble Band of S'Klallam Indians	

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

State	Tribal Community	Great, Greatest, Greatest + Risk
Wisconsin	Ho-Chunk Nation of Wisconsin	110
	Menominee Indian Reservation	153
	Oneida Nation of Wisconsin	636
Wyoming	Wind River Indian Reservation	409

Hawaiian Natives

The total population of Hawaiian Natives is estimated at about 400,000 people. Most Hawaiian Natives live in the four counties of the State of Hawaii while others live in California primarily in nine counties. In both cases Hawaiian Natives are vulnerable to COVID-19 exposure as a result of other populations carrying the disease. After checking the Hawaiian State government Office of Hawaiian Affairs we learned that no data exists concerning Hawaiian Native COVID-19 infections. Therefore we have conducted the same proximity measures to the Hawaiian Native Risk Assessment as with the tribal and tribal community assessment.

As Table 3 indicates, Hawaiian natives are at greatest risk of COVID-19 exposure on the islands of Honolulu (396 cases) and Maui (115 cases) are confirmed. In California, Hawaiian Natives are exposed to the greatest risk and greatest risk (+) in the counties of Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara. Hawaiian Native greatest risk of exposure exists in the fifteen counties where significant Hawaiian Native populations are located. These counties carry an even greater risk due to dense populations and elevated confirmed COVID-19 infections per 100,000 in each county. Testing by state authorities has confirmed a starkly higher rate for Contra Costa County as compared to the previous week.

Honolulu and Maui Counties in the Islands do not as yet show a greater than 100 confirmed cases per 100,000, however the number of cases in these counties exceeds the threshold for Greatest Risk to Hawaiian Natives.

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

Table 3 Native Hawaiian COVID-19 Exposure Island and Mainland

County – HN/Overall population	State	100 </100 K	Previous Week
Alameda: 12,802 (394,560)	**California**	115	97
Contra Costa: 4,845 (151,469)	**California**	985	76
San Francisco: 3,359 (267,915)	**California**	204	171
San Mateo: 10,317 (178,118)	**California**	175	148
Santa Clara: 7,060 (570,524)	**California**	118	111
Honolulu County *	**Hawaii**		
Maui County *	**Hawaii**		

The failure of epidemiological researchers to disaggregate Hawaiian Native data, forces us to document the proximity of COVID-19 infection cases, but is fairly clear, with asymptomatic transmission of the disease not only possible but actually taking place, Hawaiian Natives in the urban settings in all the counties where the reside are at significant risk.

URBAN NATIVE CENTERS

Since the 1950s when the United States government began implementing its "Indian Relocation Program" the number of American Indian and other native peoples living in US urban centers has grown enormously. The original purpose of the relocations was to reduce the number of American Indians living on Reservations and thereby open on-reservation land to use, purchase and occupation by non-Indian populations. It was also intended to reduce the costs of living up to treaties and the Trust Responsibility established with its guarantees to preserve, protect and guarantee tribal lands and peoples' rights.

More than 2 million Indians born in Urban Centers became the result of the US Relocation Program but the vast majority of the relocated population and the children continued to maintain connections with their tribal heritage and family connections. One consequence of the "restorative" movement among "relocated Indians" was a systematic lobbying effort at the US government and in state governments to force government support of cultural centers and health centers. Very much like the failure of the United States government to fulfill its treaty and Trust responsibilities by funding health, education and economic programs, the US governments has held back from fulfilling its

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

legislative commitments to the Urban Native centers. The consequence for urban native populations, given the current COVID-19 Pandemic, has been the substantial vulnerability of more than four million people to the spread of viral infection without sufficient organizational, community or other institutional measures made available to stem the spread.

Indeed, the problem is compounded when the population's general poverty, chronic diseases, and other social factors such as food insecurity sedentism, addictions to alcohol and drugs are considered the urban native population is not only vulnerable to infections and significant risks to life, they also constitute a potential vector for infections into tribal communities as well as infections from tribal communities.

We have focused on the confirmed cases equal to or greater than 100/100,000 as a measure to evaluate the level of COVID-19 Pandemic risk can be measured. Our initial conclusion is that 39 of the 51 Native Urban Centers are at the Greatest (+) risk of contracting COVID-19 infection. Just 12 of the urban native communities can be said to have a lower risk level, but that level would be set at high risk for three native urban centers (Pierre, SD and Butte, MT) and Great risk for nine native urban centers (SEE table 4)

Table 4 URBAN NATIVE CENTERS at Greatest (+) Risk

Urban Native Center	Greatest (+)	Prev Week
ALBUQUERQUE	149	113
Kansas City	147	108
Detroit	1003	936
Chicago	925	397
SANTA BARBARA	138	109
Manteca	79	74
Bakersfield	126	103
Fresno	83	56
San Francisco	208	172
Santa Clara	119	112
San Jose	112	112
Oakland	610	572
San Diego	128	104

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

Urban Native Center	Greatest (+)	Prev Week
Sacramento	75	71
Los Angeles	284	223
Douglas	200	107
Lincoln	149	66
Sioux City	155	23
Minnehaha	1312	1091
Pierre	6	6
Helena	24	24
Billings	53	51
Butte	8	32
Great Falls	20	18
Missoula	34	34
Baltimore	428	344
Boston, West Roxbury	1861	1584
West Roxbury	1861	1584
Long Island	2771	2263
Suffolk	2407	INC
Bronx	2809	INC
Queens	2434	INC
Kings	1874	INC
New York	1711	INC
Richmond	92	INC
Flagstaff	441	347
Phoenix	122	93
Reno	229	188
Salt Lake City	260	209
Wichita (Kansas)	94	71
Tulsa	102	88
Oklahoma City	114	99
Dallas	198	130
Portland	101	87

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

Urban Native Center	Greatest (+)	Prev Week
Spokane	77	72
Seattle	379	286
Bellingham	149	136
Milwaukee	374	295
Greenfield	295	295
Minneapolis	240	141
St. Paul	132	69

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**.

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

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

communities—counties and other localities—drawn from various research sources including online sources: Johns Hopkins, Reuters (local, county and hospitals), the New York Times, Indian Health Service, and USAFacts [an online non-profit service). This "proximity assessment" is further affected by the quality and consistency of these sources so we compare data from these sources to derive the most accurate information possible. The County Focus allows for geographic coverage that state and US government data cannot provide. 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. We therefore use the measure of cases equal to or greater than 100/100,00 that measures "concentrations" in proximity to tribal communities. 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

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

community members (at 1% of the population). Indeed, recently published this is clearly an estimate based population proportion represented by tribal members.

FINAL NOTE:

It is increasingly clear that Indian Country (including Alaskan Natives, Urban Native Centers and Indian refugees and migrants) **MUST now organize a country-wide action plan that takes into consideration the unique circumstances of each local community (population, demographics of each community, chronic disease, water availability, level of poverty, family concentrations per housing unit, and ceremonial and funeral practices). The Indian Country COVID-19 Response Action Plan must be comprehensive and organized at the local, regional and country-wide level with tribal leadership coordination locally.** Now that many tribal communities have received or will receive a portion of the CARE appropriation from the US Congress, those funds must be put to infrastructure reform. Testing, contact tracing, in home individual health monitoring several times a week, traditional healers and health practices must be applied, community health representatives must be retrained to monitor households (4-5 households per representative) including tests and contact tracing as well as quarantining those seriously infected. Indian Country cannot wait. As some nations are blocking off roadways to prevent incoming infections and closing down social, commercial and government activities, more must be done. Indian Country's vulnerabilities are greater than just about any people in the United States and only tribal community leaders have the responsibility to act and organize an Indian Country COVID-19 Response Action Plan.

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 as the most useful information for tribal leaders, public health officials and community health workers on the ground. Indeed due to the lack of reliable tested, 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

Center for World Indigenous Studies
PMB 214, 1001 Cooper PT RD SW 140
Olympia, Washington 98502 USA

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.