



Center for World Indigenous Studies

PMB 214, 1001 Cooper PT RD SW 140  
Olympia, Washington 98502 USA

## Center for World Indigenous Studies COVID-19 Indian Country Risk Assessment

24 April 2020

### BEST PRACTICES for Prevention and Treatment Assessment

*In this report and in future Assessments we indicate the risks for tribes and urban Indian communities under study may be mitigated (Limited). We note that in the 1918 Influenza Pandemic the use of hydrotherapy (includes such treatments as the ancient practice of saunas, steam baths, foot baths, contrast therapy, hot and cold showers, and water therapy) or the ancient equivalent practiced by tribal communities, Sweat Lodge, reduced the number of hospitalizations by 25%. Sweat Lodge and Hydrotherapy have the effect of stimulating the immune system and thus reducing the adverse effects of the influenza or COVID-19 infection. Traditional medicines and Traditional Healer interventions may be more appropriate and available to each indigenous community.*

The Center for World Indigenous Studies was asked by tribal leaders to undertake an initiative to develop information and policy recommendations for indigenous communities 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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## Hydrotherapy

Hydrotherapy and the use of hot and cold have a long history of use in traditional medicine throughout the world. Applying hot and cold water to the body (immersion baths, foot baths) as well as regular saunas, sweat lodge and *temazcales* (a traditional low heat sweat lodge used by Indians in Mexico and Central America) are all ways to enhance the innate immune system through hydrotherapy. As a matter of practice sweat lodge or other forms of hydrotherapy have been applied for up to 20 minutes per use followed by cold water for a short time. The therapy may be employed several times a day, and is important to have been applied in the apparent “non-infection” phase as a preventative. If applied in Phase II (infected) the therapy has been applied up to four times a day, though frequency must be determined by a Traditional Healer.

In particular, the research literature confirming the traditional hydrotherapy methods suggests that those who undertook hot baths followed by a final brief cold bath had lower viral infection rates and lower mortality rates during the 1918 pandemic. Evidence now being documented indicates that lower infection rates and lower mortality rates are resulting from the use of traditional methods including Sweat Lodge (steam and no smoke) or saunas used by tribes throughout the hemisphere and peoples in Europe, Asia and Africa.

Figure 1 Sweat Lodge example



This physical response is theorized to be a result of enhanced immune function in response to hot and cold applications. The use of hydrotherapy is to be used for prevention;



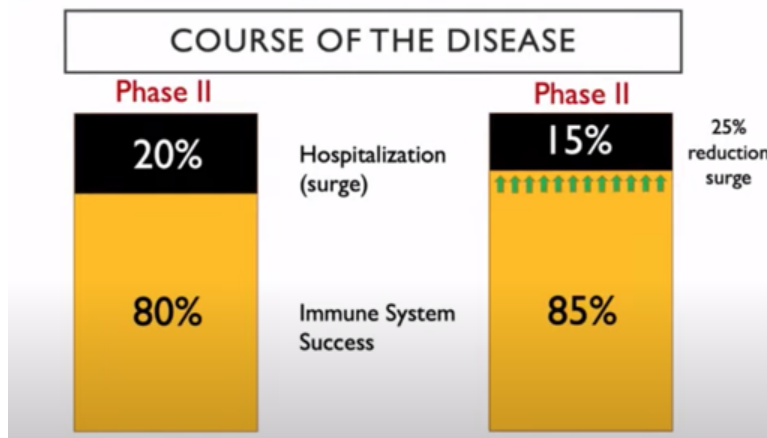
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and then if one falls ill, conduct it daily and intensively during illness. Saunas used in Finland, Sweden, and Estonia confirms that the rate of hospitalization of COVID-19 patients is significantly lower than in countries where the saunas are not a regular part of life. Sweat Lodges (without smoke inside) have for millennia demonstrated to have delivered the same benefits for preventing and treating viral and bacterial infections that especially attack the lungs.

Serious COVID-19 infections in Indian Country may follow the model established where 80% of tribal members may experience successfully overcoming the disease resulting from immune system effects. Twenty percent of those infected (and this may apply to Indian Country as well) will require hospitalization. In estimated numbers that could mean that up to 340,000 tribal and urban Indian community members will require hospitalization. As we note, if Hydrotherapy or Sweat Lodge treatments are implemented for prevention, shortly before infection or at the initial stages of infection, Indian Country could reduce the number of hospitalizations by 25% and thus reduce the total potential hospitalizations to 255,000 reservation based tribal members. Overall, tribal and urban Indian community potential infections could be reduced from a possible 1,040,000 to an overall Indian Country hospitalization level to 780,000. In Phase I individuals are not infected, have hidden COVID-19 or are infected but asymptomatic. In Phase II of the disease individuals are infected but the immune system reduces the need for hospitalization.

**Figure 2 COVID-19 Hospitalization without water treatment and with Hydrotherapy treatment**





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The country of Finland is well known to culturally practice saunas throughout the population. It is evident from the chart in Figure 4 that saunas clearly contribute to the prevention and limitation of COVID-19 infections. By promoting the use of saunas, closing schools, closing non-essential businesses and facilities and limiting travel which conducting testing at a rate of 8,005 per million Finland has reduced the number of cases and number of deaths per million people significantly.

**Figure 3 Finland COVID-19 Best Practices compared 14 April 2020 - The Sauna difference**

| COVID-19 in Nordic Countries |   |                |  |        |  |
|------------------------------|---|----------------|--|--------|--|
|                              | USA   | Denmark        | Norway   | Sweden | Finland  |
| Population                   | 327 M   | 5.6 M          | 5.4 M  | 10.2 M | 5.5 M  |
| Cases                        | 532,879   | 5,996          | 6,409  | 10,151 | 2,905  |
| Deaths                       | 20,577  | 260            | 119  | 887    | 49   |
| Cases/M                      | 1,610   | 1,035          | 1,182  | 1,005  | 524  |
| Deaths/M                     | 62  | 45             | 22   | 88     | 9  |
| First Case                   | 19 Jan  | 27 Feb         | 26 Feb   | 4 Feb  | 29 Jan   |
| UW Peak Deaths/d             | 1,983   | 22             | 24   | 134    | 8  |
| Restrictions                 | Schools closed<br>Stay at home<br>Non essential closed<br>Travel Limited? | Schools closed | Schools closed<br>Stay at home<br>Non essential closed |        | Schools closed<br><br>Non essential closed<br>Travel limited |
| Testing/M                    | 8,068   | 11,700         | 22,924   | 5,416  | 8,005  |

### Traditional Medicines and Nutrition

Eighty percent of tribal populations rely on traditional medicines to therapeutically treat a wide range of ailments. Traditional healers continue to be called upon to provide preventative as well as remedial health support through medicinal preparations and healing practices including sweating and other forms of water therapy. Herbs commonly used by Traditional Healers to prevent or treat respiratory conditions include:

**Table 1 Traditional Herbs and Roots used to treat Cold or flu**

|             |            |
|-------------|------------|
| Echinacea   | Garlic     |
| Fever Few   | Lobelia    |
| Tanacetum   | Cayenne    |
| Ginger root | Goldenseal |
| Buckbrush   | Lomatium   |



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|                 |          |
|-----------------|----------|
|                 | root     |
| Mint            | Mullein  |
| Smilax Bona-nox | Cattail  |
| Blackberries    | Rose Hip |
| Curly dock      | Sumac    |
| Thyme           |          |

Experienced and knowledgeable traditional healers must be consulted on the use and preparation of these medicines. Herb and root medicines used by traditional healer were employed at the time of the 1918 Influenza Pandemic helping to limit the number of deaths, though for some tribes where the practices were not still being carried out, the death levels were widely recognized as very high.

### **Here is the protocol to protect against viruses and boost immune function.**

Eat the “Brainbow Diet”: Choose foods from all the colors of the “ BrainBow” to enhance immunity. <https://learn.drlesliekorn.com/p/nutritional-integrative-tips-during-covid-19>

- Plenty of Sleep.
- Aerobic exercise once a day: reach 80% of your maximum heart rate for at least 10 minutes to raise the body temperature.
- Skin brush daily to enhance immune function.
- [Coffee enemas](#) (for the liver).

### **Nutrients and Herbs**

Quality traditional foods consumption, nutrients and herbs are essential to good health and minimizing vulnerability to COVID-19 infection.

- NAC: 1500 mg a day
- Vitamin A, 40,000 units daily (Biotics Research® Vit, AE Mulsion forte)
- Vitamin D, 10- 15,000 units/day (Biotics Research® Vit. D Mulsion Forte)
- Thymus Glandular, 500 mg 3 times a day (Biotics Research® and Allergy Research® have excellent Thymus Glandular)
- Licorice root tea suppresses viruses and enhances the stress response (go easy on licorice if you have high blood pressure).

As always tailor these suggestions to individual needs and work with a Traditional Healer or clinician to adjust doses as needed.



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### **Household monitoring**

Tribal and urban native communities can benefit from a systematic and carefully organized and planned household monitoring system carried out by community health workers or trained volunteers especially when people are staying in their houses to prevent and avoid the spread of COVID-19. In Singapore, the program of household monitoring included repeated visits to households to document health conditions, genders, ages, body temperatures, and information about contacts made by members. This information helps to identify early signs of infection, provide guidance to family members to ensure they are regularly cleaning surfaces, door knobs, facets, disinfecting packages (groceries, ordered objects) before permitting entry into the house, regular hand washing and showers if possible and the use of gloves, masks and protective equipment when in the presence of more than two persons.

### **Contact tracing**

When household visits are conducted documenting family contacts allows for tracing other persons who may be able to transmit COVID-19, are asymptomatic or otherwise infected to organize isolation if necessary or quarantine if required.

### **Quarantine**

Persons who evidence symptoms or who have been in contact with persons who are suspected to be a source for COVID-19 transmission should be quarantined for up to two weeks and monitored for changes in health condition.

### **Protective Masks, gloves and Personal Protective Garments**

COVID-19 is a very contagious virus, requiring vigilance and care to prevent its spread from person to person. The use of protective facemasks (these can be made from bandanas, small scarfs or cutouts from T-shirts), rubber or latex gloves and frequent washing of hands and taking of showers or baths are important to preventing the spread of the disease. Where these practices are implemented the spread of COVID-19 has been significantly reduced. Where people live in crowded households, it is all the more important to ensure that such protections are frequently put in place.