“Coronavirus!”

Tribal Emergency Management Tool Kit

Purpose: Protect yourself from COVID-19 and stop the spread of germs. This tool kit is intended to properly inform Tribal Leaders, Health Directors, Emergency Preparedness Coordinators and other critical staff key information to protect your community against the spread of the Coronavirus.

What “YOU” Should Know!
- People at high risk
- Special Populations
- How it spreads
- Symptoms
- Prevention
- Treatment

SITUATIONAL AWARENESS!
- Current State of Affairs
- Cases in the USA and Globally
- Risk Assessment
- Actions taken to date

What “YOU” should do!
- Community, Schools and Businesses
- Healthcare Professionals
- Health Departments
- Travel
- Labs

Call Today! 716.222.1974

SENECA SCIENTIFIC SOLUTIONS+
https://www.senecascientificsolutions.com/
“What is Public Health?!“

Dean S. Seneca, MPH, MCURP
Founder and Chief Executive Officer
Seneca Scientific Solutions+
Recent Health Threats/Events in the United States

- Coronavirus 2020, Covid 19
- Hurricanes Irma, Jose, Maria in 2017 (Florida and Caribbean)
- Zika virus in 2015
- Ebola in 2014
- Hurricane Sandy in 2012 (NJ, NY)
- Salmonella in peanut butter in 2011
- H1N1 epidemic in 2009
- Hurricane Katrina in 2005 (New Orleans, Louisiana & Mississippi)
- 9/11 attacks on the United States in 2001 – Anthrax
US Public Health
Achievements (1900–1999)

• Vaccinations
• Safer workplace
• Safer and healthier food
• Motor vehicle safety
• Control of infectious diseases
• Decline in deaths from coronary heart disease and stroke
• Family planning
• Recognition of tobacco use as a health hazard
• Healthier mothers and babies
• Fluoridation of drinking water

Source: www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm
What is Public Health?

“The science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals.” — CEA Winslow

• **Public health is the science of protecting and improving the health of people and their communities where they live, learn, work and play.**
  - Promoting healthy lifestyles, researching disease and injury, prevention, detecting and responding to infectious diseases

• It’s the Health of the population as the “WHOLE!”
  - Monitored
  - Regulated
  - Promoted

• A large part of public health is promoting health equity, focusing on disparities and addressing social determinants of health, quality and accessibility.
What do Public Health Professionals do?

- Prevent epidemics and the spread of disease
- Protects against environmental hazards
- Prevents injuries
- **Promotes and encourages healthy behaviors**
- Responds to disasters and assists communities in recovery
- Assures the quality and accessibility of health services
What is an Epidemiology?

Epidemiology is the method used to find the causes of health outcomes and diseases in populations.

Where trained professionals study **patterns, causes, and the effects** of diseases in human populations

Epidemiology provides the scientific footings for evidence-based medicine and allows placement of strategies for improvement in public health.

Epidemiology is often referred to as the cornerstone of modern public health and it relies on a variety of relevant areas, including biology, biostatistics, social sciences, and assessing risk of exposure to a threat.
What does an Epidemiologist do?

When disease outbreaks or other threats emerge, epidemiologists are on the scene to investigate.

Often called “Disease Detectives” – epidemiologists:
• Search for the cause of a disease(s)
• Identify people who are at risk
• Determine how to control or stop the spread or prevent it from ever happening again.

Physicians, veterinarians, scientists, and other health professionals often train to be “Disease Detectives”.

What does an Epidemiologist do?

Like investigators at the scene of a crime, Disease Detectives begin by looking for clues. They systematically gather information, asking questions such as:

• Who is sick?
• What are their symptoms?
• When did they get sick?
• Where could they have been exposed?

Using statistical analysis, epidemiologists study answers to these questions to find out how a particular health problem was introduced.

Disease detectives identify new diseases that have never been seen before, such as COVID-19!

Disease detectives use what they learn during the investigation and make recommendations to control the spread or prevent a future occurrence.
The Essential Public Health Services

- Evaluation and continuous quality improvement
- Identifying and sharing best practices; participation in research
- Community health assessment; registries
- Investigate infectious water-, food-, and vector-borne disease outbreaks
- Health education and health promotion
- Partnerships with private sector, civic groups, NGOs, faith community, etc.
- Public health workforce and leadership
- Access to care, link with primary care
- Enforcement, review of laws
- Strategic planning; community health improvement planning
- Investigate infectious water-, food-, and vector-borne disease outbreaks
- Partnerships with private sector, civic groups, NGOs, faith community, etc.
American Indian/Alaska Native Health Disparities

- The American Indian and Alaska Native people have long experienced lower health status when compared with other Americans.

- Disproportionate disease burden exist because of inadequate education, severe poverty, discrimination in the delivery of health services, and cultural differences.

- These are broad quality of life issues rooted in economic adversity and poor social conditions.
2.5 times as many AI/ANs as whites live below poverty level

Adults ≥18 years who live below federal poverty level

- White: 8% (2005), 8% (2009)
- Black: 21% (2005), 21% (2009)
- Asian/Pacific Islander: 10% (2005), 11% (2009)
- AI/AN: 23% (2005), 20% (2009)
- Hispanic: 18% (2005), 19% (2009)

Source: CDC Health Disparities and inequalities Report 2011, MMWR, Vo. 60
American Indian/Alaska Native Health Disparities

- American Indians and Alaska Natives born today have lower life expectancies¹:

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH AI/AN</td>
<td>68.0</td>
<td>74.3</td>
</tr>
<tr>
<td>NH Black</td>
<td>70.5</td>
<td>77.0</td>
</tr>
<tr>
<td>NHW</td>
<td>76.0</td>
<td>80.7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>78.0</td>
<td>83.3</td>
</tr>
</tbody>
</table>

- American Indian and Alaska Native infants die at a rate of nearly 9.1 per every 1,000 live births, as compared to 5.7 per 1,000 for the White population.²

American Indian/Alaska Native Health Disparities

➢ American Indians and Alaska Natives die at higher rates than other Americans

- Chronic liver disease and cirrhosis (368% higher),
- Diabetes mellitus (177% higher)
- Unintentional injuries (138% higher),
- Assault/homicide (82% higher)
- Intentional self-harm/suicide (65% higher), and
- Chronic lower respiratory diseases (59% higher).

(Age-adjusted rates adjusted for misreporting of American Indian and Alaska Native race on state death certificates; 2006-2008 rates.)
• 4th most accessed issue in 2014
• accessed 12,673 times since February
• Coauthor:
• Racial Misclassification of American Indians and Alaska Natives by Indian Health Service Contract Health Service Delivery Area
• One of the most cited articles for the journal

http://ajph.aphapublications.org/toc/ajph/104/S3
Ten Leading Causes of Death in the U.S. for AI/AN as Compared to NHW, 1999-2009

AI/AN
1. Diseases of the Heart
2. Cancer
3. Unintentional Injuries
4. Diabetes
5. Chronic liver disease & Cirrhosis
6. Chronic lower respiratory diseases
7. Stroke
8. Suicide
9. Influenza and Pneumonia
10. Kidney Disease

U.S.
1. Disease of the Heart
2. Cancer
3. Stroke
4. Chronic lower respiratory diseases
5. Unintentional Injuries
6. Alzheimer's
7. Diabetes Mellitus
8. Influenza and Pneumonia
9. Kidney Disease
10. Suicide

Deaths by Age and Race

Percent Distribution

Source: IHS Trends in Indian Health, 2000-2001, Table 4.14, p.75.
Age-Adjusted Death Rates Per 100,000 Persons By Race & Hispanic Origin For Unintentional Injuries: U.S. 2010

<table>
<thead>
<tr>
<th>Race/Origin</th>
<th>Death Rate per 100,000 Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Races</td>
<td>38.0</td>
</tr>
<tr>
<td>White</td>
<td>40.3</td>
</tr>
<tr>
<td>African American</td>
<td>31.3</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>46.9</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>15.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>25.8</td>
</tr>
</tbody>
</table>
AI/AN Age-Adjusted Death Rates for Unintentional Injuries: CHSDA counties, 1999-2009

AI/AN teens and young adults have the highest suicide rates

Suicide rates, by race/ethnicity and age group, 1999–2007

Source: CDC Health Disparities and Inequalities Report 2011, MMWR, Vo. 60
Suicide Death Rates for Males Ages 15-24 Per 100,000 Persons by Racial Group 2007

- All Races: 0.6
- White: 16.9
- African American: 10.3
- American Indian/Alaska Native: 32.3
- Asian/Pacific Islander: 13.4
- Hispanic: 11.5
Age-Adjusted Percent of people age 20 yrs or older with Diagnosed Diabetes by race U.S. 2010 2012

<table>
<thead>
<tr>
<th>Race</th>
<th>Percent of people age 20 yrs or older with Diagnosed Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>7.6</td>
</tr>
<tr>
<td>African American</td>
<td>13.2</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>15.9</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>9.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Source: 2010 – 2012 Health Interview Index Survey
Twice as many AI/ANs die in motor vehicle crashes as whites


Source: National Vital Statistics System
Age-Adjusted Death Rate Per 100,000 Persons By Race & Hispanic Origin For *Chronic Liver Disease* and Cirrhosis: U.S., 2007.

![Bar chart showing age-adjusted death rates per 100,000 persons for different races and Hispanic origin groups.](chart.png)

- **All Races**: 9.1
- **White**: 9.4
- **African American**: 7.4
- **American Indian/Alaska Native**: 24.8
- **Asian/Pacific Islander**: 3.3
- **Hispanic**: 13.8
AI/ANs have the highest rate of commercial tobacco use

- AI/AN adults and youth aged have the highest smoking prevalence of any group
- 42% of adults smoke
- 17% of youth smoke

Source: CDC Health Disparities and Inequalities Report 2011, MMWR, Vo. 60
Age Adjusted Death Rate Per 100,000 Persons By Race & Hispanic Origin for Human Immunodeficiency Virus (HIV) Disease: U.S., 2010.

Source: Health, United States, 2007, Table 29. [http://www.cdc.gov/NCHS/data/hus/hus07.pdf#summary]
2009 IHS Expenditures Per Capita and Other Federal Health Care Expenditures Per Capita

Per Capita spending in the year for which data are published most recently – see base of each bar.

- Medicare per beneficiary: $11,018 (2008)
- Veterans Administration: $6,130 (2007)
- Medicaid per enrollee: $5,163 (2007)
- FEHB Medical Benchmark: $4,817 (2009)

- IHS Medical: $2,686 (2009)
- IHS Other: $640

See page 2 notes on reverse for data sources and extrapolation assumptions.

11/5/2010
**Diminished Purchasing Power** - A Twenty-five Year Look at the IHS Health Services Accounts: Actual expenditures adjusted for inflation and compared to lost purchasing power when adjusted for inflation and population growth. (Fiscal Years 1984 to 2012)

**IHS Health Service Accounts**
- $3.9 billion in FY 2011
- FY 1984 - 2012

**Real Resources Lost**
- $4.5 billion

**IHS Budget Adjusted for Inflation - Base Year 1983**

**Actual IHS Budget**

**Leveling off due to substantial in FY 2010 and 2011 & 2012 requests**

- All Races: 100.0%
- White Non-Hispanic: 59.3%
- African American Non-Hispanic: 11.7%
- American Indian: 0.7%
- Asian: 12.5%
- Hispanic / Latino: 8.8%
2014 Ebola Outbreak in West Africa

- Largest-ever
- First widespread transmission in multiple countries
- First outbreak in urban settings
- Cases first appeared in Guinea in December 2013
- Total cases (as of 7 Jan 2015): 25,863 (14,856 lab-confirmed)
- Total deaths: (as of 7 Jan 2015): 10,715
- Sierra Leone:
  - First cases reported in May 2014
  - Total cases – 12,256 (8,572 lab-confirmed)
  - Total deaths – 3,872
Sierra Leone

- Population – 5.9 million
- Civil war – 1991–2002
- Human development index – #183/187
- Literacy rate – 41%
- Living on <$2/day – 82.5%
- Under 5 child mortality – 161/1,000 (2nd highest)
- Annual population growth rate (2013) – 20.1%

World Bank Data
Total suspected, probable, and confirmed cases of Ebola virus disease in Guinea, Liberia, and Sierra Leone, March 25, 2014 – April 15, 2015, by date of WHO Situation Report, n=25791

Cumulative reported deaths in Guinea, Liberia, and Sierra Leone, Mar 25–Jan 7, 2015, by date of WHO Situation Report, n=8220

Total suspected, probable, and confirmed cases and deaths of Ebola virus disease in Sierra Leone, March 25, 2014 – April 15, 2015, by date of WHO Situation Report, n=12201

Cumulative Confirmed Ebola Cases, Laboratory Data, 23rd May 2014 - 19th April 2015

Confirmed cases since 23rd May 2014 - 19th April 2015 = 8573; 14 cases could not be mapped because district information was missing.
Confirmed Ebola Deaths, 19th February to 4th March 2015

Confirmed Ebola Deaths
- 51 - 100
- 16 - 50
- 6 - 15
- 1 - 5
- 0

Confirmed Deaths during 19th February - 19th February 2015 = 144; No cases were missing district information.

MINISTRY OF HEALTH AND SANITATION
THE REPUBLIC OF SIERRA LEONE
Disease Prevention and Control
“Bo Training”

- Created a partnership with the United Kingdom, USA, CDC, WHO, UNFPA, eHealth, MoH.
- Wrote a proposal to the UK DEERF fund, an emergency assistance fund, to address Ebola.
- Awarded $83,000 dollars to train all the Contact Tracers, Case Investigators, and Supervisors in the Bo district of Sierra Leone which consisted of roles and responsibilities in the Ebola response.
- Applied training program to all districts in the country.
“Bo Training”

- Trained 425 workers:
  - 365 Contact Tracers
  - 40 Supervisors
  - 20 Case Investigators

- Through this training we obtained a better understanding of the field workforce in the district.

- Constructed a diagram of all field staff in the District Emergency Response Center, which was helpful for the surveillance team.
“Bo Training”

- All participants received:
  - Collared shirts in blue and white
  - Identification badges with photo
    - So we could *identify* who is in the field
    - Increased community credibility
  - Certificates (diplomas) of completed training
  - All contact tracers received a bicycle for good performance
    - Or be replaced
EARLY MEDICAL CARE CAN SAVE LIVES

Without care, most people sick with Ebola will die within days.

With supportive care, roughly 50% of those sick with Ebola will survive.

It is important for patients to receive early care.
Ebola Student Inquired about my Warrior Tail
Bikes Purchased
BEWARE, EBOLA IS REAL

We share the grief of the bereaved families and friends of EBOLA victims and we remain firm in our support for the speedy containment of this virus.

POSTER FROM NATIONAL HEROES MUSEUM

The ABC of EBOLA

A - AVOID personal contact

B - BEWARE of EBOLA symptoms

C - CONTACT the appropriate health facility for any suspected EBOLA case

SENO FUNDING, ACTIVISM & GLOBAL SUPPORT

Sponsored & Financed by Our Group of Companies

Seneca House, Bala Sanders Street, Freetown.
Beware, EBOLA is here.

We are on the alert of the deadly infection. 

1. Avoid all forms of contact. 
2. Wash hands constantly. 
3. Contact us for an assessment.

In the event of any suspected case, please call the following numbers:

Red Cross: 88888
Health Ministry: 88888

Take care of your health.

EBOLA is deadly. Let's keep it under control.

[Sign with additional information about symptoms and precautions]
Covid 19 Potential Impacts in Tribal Communities

- A prolonged lack of appropriate **Funding** for health
- A sparse health “Work Force”
- A population with detrimental “Health Disparities.”
- A population with serve “Pre-Existing Health Conditions” i.e. **Lung disease, diabetes, obesity, asthma, and chronic liver disease.**
- Immune deficiencies – trans plants, cancer
- People 65 years and older
- It has been said to be the “**Perfect Storm**” to hit Indian Country!
Social Determinants of Health

**HP2020/CDC** - Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as “place.” *In addition to the more material attributes of “place,” the patterns of social engagement and sense of security and well-being are also affected by where people live.*

**WHO** - The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. *The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries.*
"Racism is a system of structuring opportunity and assigning value based on the social interpretation of how one looks (which is what we call "race"), that unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources."

--APHA Past President Camara Jones, MD, PhD, MPH
American Indian Historical Trauma

• Have been exposed to generations of violence, though colonization, broken treaties, removal, reservations, land loss, assimilation, displacement, racism and anti-Indian policies.

• Example of Stressor: *The Americanization of Indian Boarding Schools and the forced assimilation among Indian students.*

• Current Manifestations:
  “High rates” of:
  • Suicide,
  • Homicide,
  • Domestic Violence,
  • Child Abuse,
  • Alcoholism and other social problems
Indigenous Concept of Health

- Health is Holistic
- *Balance between the physical, mental, spiritual, and emotional*
The Haudenosaunee have been teaching the Good Mind ever since the Peacemaker helped us bury our arrows under the Tree of Peace. The concept of the Good Mind teaches us to be aware of our thoughts and their intent, resulting in more kind and loving thoughts.

The Haudenosaunee believe peace is a state of mind obtained through a strong connection to spirit. Our Elders teach us that practicing the Good Mind will cause our spirit to grow. Good Minds have strong Orenda which leads to Peace.

While we actively become aware of our thoughts, especially those that have a kind and loving intent; we naturally allow ourselves to become spiritually in tune with the Creators wishes. This allows us to use our talents to fulfill our purpose on Earth.

-Freida J. Jacques, Onondaga
“Winnable Conditions”

- To develop a cadre of Native professionals with exposure to public health practice
- Creates Health Ambassadors at the Tribes
- Address the lack of Education
- Builds Workforce Capacity
- Puts Native people in Positive Health Careers
- Promotes confidence that they can contribute to their community
Treat all men alike. Give them all the same law. Give them all an even chance to live and grow. All men were made by the same Great Spirit Chief. They are all brothers. The earth is the mother of all people, and all people have equal rights upon it.

Chief Joseph, Nez Perce
Questions!