



# Summer Research Training Institute

### for American Indian & Alaska Native health professionals

June 13 - June 30

2022







### WHO SHOULD ATTEND

The Summer Research Training Institute curriculum is designed to meet the needs of professionals who work in diverse areas of American Indian and Alaska Native (AI/AN) health. Almost anyone who works in Indian health can take advantage of this skill-building opportunity—from administrators to community health workers, physicians, nurses, researchers, and program managers. Because our courses emphasize research skills, program design, and implementation, those professionals who seek training opportunities related to research will find relevant courses in this program. American Indian and Alaska Native health professionals and health science students are strongly encouraged to attend. We also seek American Indian and Alaska Native students and participants from other professional areas who are interested in Native health issues.

# LOCATION

All courses will be virtual. All times are listed in Pacific Standard Time.

# COURSE OFFERINGS

#### Certificate Tracks - NEW!

We will offer three certificate tracks that begin during the Summer Research Training Institute and extend for one or two years (track-dependent). Participants will be required to attend summer sessions, participate in seminars, and complete a capstone project. Applications are strongly encouraged from AI/AN health professionals, AI/AN graduate students in the biomedical sciences, and advanced AI/AN undergraduates in the biological and social sciences or related majors.

#### **Skill-Building Courses**

We will continue to offer skill-building courses varying in length from one day to a week. Check course descriptions for specifics on days/times of courses.

## SYSTEM REQUIREMENTS

You will need Internet access and a computer with a camera and microphone. Please make sure you have the latest web browser and Zoom downloaded on your computer. You will also need to set up Canvas once invited to enroll in courses; this will be facilitated by SRTI organizers. If you are planning on taking biostatistics or data science courses, instructors will contact you to make sure you have the software you need.

# CERTIFICATE TRACKS

NW NATIVE AMERICAN

RESEARCH CENTER FOR HEALTH



### June 13-17

#### AMERICAN INDIAN/ALASKA NATIVE BEHAVIORAL HEALTH

This year-long course examines the need for culturally appropriate interventions to prevent and treat mental health, substance use, and suicide concerns in American Indian and Alaskan Native communities. The track begins with a one-week virtual class that provides a foundation of epidemiological and health services research to assess needs for and impacts of prevention and treatment services for behavioral health care within tribal communities. Course content includes discussions of special populations (e.g., Native veterans and two spirit people), historical trauma, and decolonization. Instructors will discuss tribal driven participatory research approaches. Confirmed speakers include: Kevin Simmons (Grand Ronde), Tina Woods (Unungan), Alec Thundercloud (Ho Chunk), Sean Bear (Meskwaki), Ray Daw (Navajo), Matthew Town (Choctaw Nation of OK) and NPAIHB staff. We will incorporate traditional spiritual, medicine knowledge and practices throughout the class. Students will identify a capstone project, receive mentorship from Native investigators, and participate in monthly video sessions through May 2023. Individuals who complete the week-long course, participate in the monthly meetings, and successfully complete the capstone project receive a certificate of completion. The course is limited to American Indian/Alaska Native individuals who have graduate-level training or equivalent work experience.

2022 SRTI

**Track Leads:** Kathy Tomlin, PhD (Cheyenne River Sioux) and Dennis McCarty, PhD **Max Enrollment**: 8 **Day/Time**: June 13 - 17; 9:00 AM - 4:30 PM

#### INFECTIOUS DISEASES AMONG AMERICAN INDIAN/ALASKA NATIVES

In this one-year intensive track, you will learn about complex infectious diseases that disproportionately affect native populations such as Influenza, COVID-19, Hantavirus, and others. Explore the unanswered questions about these diseases and work with expert field clinicians and academic researchers to develop the necessary skills to answer these unknowns, as well as strategies to mitigate the burden of these diseases. Led by content experts, sessions will include lectures, article presentations, case studies and seminars. To receive a certificate, participants must attend every session during the virtual Summer Research Training Institute, attend monthly (2-3 hour) educational webinars, and complete a capstone project. Each participant will be matched with a mentor who will help in the development of a research project from a broad range of topics. Successful applicants will have advanced training in the health sciences or public health as well as a desire to learn about infectious diseases.

Track Lead: Jorge Mera, MD Max Enrollment: 8 Day/Time: June 13 - 17; 9:00 AM - 4:30 PM

### CERTIFICATE TRACKS

NW NATIVE AMERICAN RESEARCH CENTER FOR HEALTH

# June 20-30

NPAIHB

### APPLIED BIOSTATISTICS & DATA SCIENCE

This two-year track offers AI/AN health professionals an opportunity to enhance their quantitative research skills while continuing in their current position or training program. Trainees will advance their skills in study design and data analysis techniques in an intensive two-week program each summer, and interactive virtual seminars the rest of the year. First-year courses in the two-week summer program include:

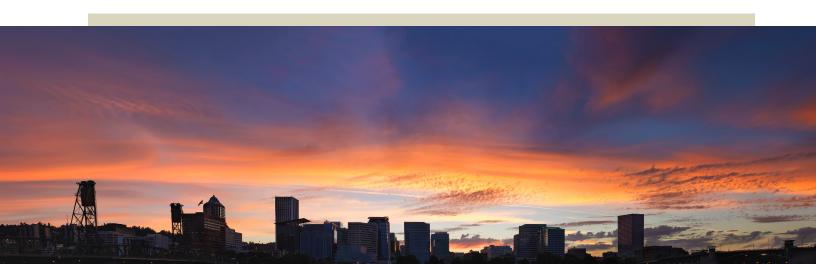
2022 SRTI

- Planning a study: the big picture
- Designing survey instruments
- Data wrangling and summarizing in R
- Introduction to ArcGIS
- Data visualization
- Data collection strategies
- Statistical methods

Trainees will get to know instructors and will teach and learn from others in their small group. Each trainee in this track will be matched with a mentor with whom they will work closely to apply their new skills in a capstone project.

(Note that some of these courses will be open to general SI trainees. Applicants to the Applied Biostatistics & Data Science should not register for individual biostatistics or data science courses. All courses are included and required in this track).

**Track Leads:** Jodi Lapidus, PhD and Amy Laird, PhD **Approximate Enrollment:** 8-10 **Day/Time:** June 20 - 24 and June 27 - 30; 1:30 PM - 4:30 PM



### SKILL-BUILDING COURSES

### June 20-24

NPAIHB

#### **EPIDEMIOLOGY 101**

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This course will involve content & exercises on basic principles of epidemiology: (1) epidemiology uses & thinking, (2) measures of disease frequency and association, (3) basic statistics, bias, and confounding relevant to these measures, and (4) commonly used study designs.

**Instructor:** John Stull, MD, MPH & Marc Emerson, PhD (Navajo)

Day/Time: June 20 - 24; 9:00 AM - 12:00 PM

#### **GRANT WRITING**

Writing successful proposals is important for public health professionals, whether they are trying to secure funding for a research project or fund an important program. This workshop will cover the basics of grant writing, including how to write effectively and persuasively, the various components of proposals, and strategies to increase success. We will cover several types of grants (depending on participant needs) as well as the secrets of grant review. We will spend time on your own writing process, discussing and practicing strategies for improving writing productivity and developing your writing style. You will be able to benefit from individual coaching, if desired.

Instructor: Rachel Dresbeck, PhD Day/Time: June 20 - 24; 9:00 AM - 12:00 PM

#### PROGRAM EVALUATION

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Students will be introduced to the fundamental principles of program evaluation and their application. The course will include discussion of a variety of theory-based evaluation designs and methods. Evaluation focusing on assessment of processes, impact, and outcomes associated with cancer-related health promotion and health education programs will be emphasized. By the end of the course, students will have developed a plan for evaluating a program and present to faculty and students.

Instructor: Mark Dignan, PhD, MPH

Day/Time: June 20 - 24; 1:30 PM - 4:30 PM

# SKILL-BUILDING COURSES

### June 20-24

#### DESIGNING SURVEY INSTRUMENTS

Surveys can be a very useful tool for gathering data, and this course provides guidance on how to get started. You will learn some tools for thinking through whether to make use of existing surveys or write your own from scratch, and in the latter case, how to construct questions that will shed light on your research question. Using several case studies as examples, we will think through cultural considerations, discuss pitfalls such as built-in assumptions, and talk through strategies for measuring things that are difficult to capture directly.

Instructor: Barbara Brumbach, PhD

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Day/Time: June 21; 1:30 PM - 4:30 PM

\*Note: If you are applying to the Applied Biostatistics & Data Science track, do not register for this course. This course is included & required in the track.

### **INTRODUCTION TO ArcGIS**

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This course will provide a gentle introduction to the software program ArcGIS, a tool for visualizing spatial data and creating maps. You will learn how to create a map that conveys information clearly, and will have the opportunity to create a map of your own with a dataset provided. No previous experience with creating maps or with ArcGIS is necessary to take this course.

Instructor: Joshua Tootoo, MS, GISP

Day/Time: June 24; 1:30 PM - 4:30 PM

\*Note: If you are applying to the Applied Biostatistics & Data Science track, do not register for this course. This course is included & required in the track.

#### DATA WRANGLING AND SUMMARIZING IN R

In this two-day course, we will introduce the freely available statistical software programs R and RStudio to trainees with no prior experience. We will cover how to use RStudio to write and run code, introduce data structure types, and demonstrate commands for working with data: loading, viewing, summarizing, plotting, cleaning, and saving. You will learn basic R data wrangling and plotting principles, and how to use them to create high-quality reproducible documents to present your work.

**Instructors:** Jessica Minnier, PhD & Meike Niederhausen, PhD

Day/Time: June 22 & 23; 1:30 PM - 4:30 PM

\*Note: If you are applying to the Applied Biostatistics & Data Science track, do not register for this course. This course is included & required in the track.







# SKILL-BUILDING COURSES

### June 27-30

NPAIHB

#### INDIAN HEALTH POLICY

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Federal and state policies with various tribes have evolved substantially since treaties were first negotiated in colonial times. Key pieces of legislation, court decisions, and administrative action have occurred at critical junctures in Indian-federal relationship. This session will provide an overview on the responsibility of the United States to provide health care to American Indians and Alaska Natives under the federal trust relationship. It will include an overview on the Indian health system by reviewing its history through the development of important legislation and policies that have shaped the structure of the health system and challenges it faces today. All of the instructors work in tribal policy and bring many years of experience to the class.

**Instructors:** Jim Roberts (Hopi), Brett Lee Shelton, JD (Oglala Sioux); Don Warne, MD, PhD (Oglala Lakota); Liz Coronado, JD (Picayune Rancheria of the Chukchansi Indians Tribe)

Day/Time: June 27 - 30; 9:00 AM - 12:00 PM

#### DATA VISUALIZATION

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This course will get you started in creating visualizations of your data using Excel and Tableau. In this interactive course, you will learn how to create graphical summaries of various types, and will have the chance to create visualizations of your own from a dataset provided. We will discuss approaches for identifying good sources of data on American Indian populations. The focus will be on using data visualization as a tool for getting insight into your data and telling a story from it.

**Instructor:** Jenine Dankovchik

Day/Time: June 27; 1:30 PM - 4:30 PM

\*Note: If you are applying to the Applied Biostatistics & Data Science track, do not register for this course. This course is included & required in the track.

#### STATISTICAL METHODS

In this two-day course, we will start with approaches for descriptively summarizing and visualizing data of various types. We will discuss the hypothesis testing framework and introduce some hypothesis tests. More advanced topics, such as linear and logistic regression, will be introduced. You will have a chance to put new concepts into practice with statistical software. Emphasis will be placed on formulating a good research question, linking this question to planning a study and analyzing the data, and communicating results to diverse audiences.

**Instructor:** Miguel Marino, PhD & Steele Valenzuela, MS (Omaha Tribe of Nebraska)

Day/Time: June 29 & 30; 1:30 PM - 4:30 PM

\*Note: If you are applying to the Applied Biostatistics & Data Science track, do not register for this course. This course is included & required in the track.



### SCHEDULE OF CLASSES

#### Week 1: June 13 - 17

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 AM - 4:30 PM	Infectious Diseases				
(with lunch break)	in Al/AN People				
9:00 AM - 4:30 PM	Al/AN Behavioral				
(with lunch break)	Health	Health	Health	Health	Health

#### Week 2: June 20 - 24

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 AM - noon	Epidemiology 101				
9:00 AM - noon	Grant Writing				
1:30 PM - 4:30 PM	Program Evaluation	Program Evaluation	Program Evaluation	Program Evaluation	Program Evaluation
1:30 PM - 4:30 PM	Applied Biostatistics & Data Science				
1:30 PM - 4:30 PM		Designing Survey Instruments*	Data Wrangling & Summarizing in R*	Data Wrangling & Summarizing in R*	Introduction to ArcGIS*



### SCHEDULE OF CLASSES

#### Week 3: June 27 - 30

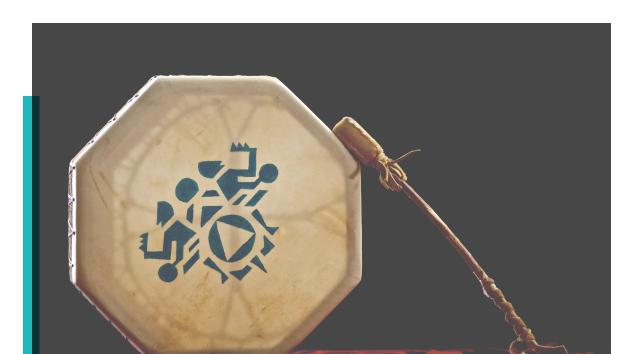
Time	Monday	Tuesday	Wednesday	Thursday
9:00 AM - noon	Indian Health Policy	Indian Health Policy	Indian Health Policy	Indian Health Policy
1:30 PM - 4:30 PM	Applied Biostatistics & Data Science			
1:30 PM - 4:30 PM	Data Visualization*		Statistical Methods*	Statistical Methods*

= certificate track

\* Note: These courses are open to general SRTI participants. If you are applying to the Applied Biostatistics & Data Science track, do not register for these individual courses. These courses are included & required in the track.

### REGISTRATION

Please visit the **NW NARCH website** for registration information.









#### Contact:

Grazia Cunningham, MPH Project Manager, **NW NARCH** summerinstitute@npaihb.org

https://www.npaihb.org/northwest-native-american-research-center-for-health-nw-narch/

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