

SCHOOL OF PUBLIC HEALTH

EPIDEMIOLOGY

UNIVERSITY *of* WASHINGTON

DEPARTMENT OF EPIDEMIOLOGY VISIT DAYS 2025

JANET BASEMAN | 3.7.25



We acknowledge the Coast Salish people of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Suquamish, Tulalip, and Muckleshoot nations.

Without them we would not have access to this working, teaching and learning environment. We humbly take the opportunity to thank the original caretakers of this land who are still here.

JANET BASEMAN, PhD, MPH

FORMER INTERIM CHAIR & PROFESSOR

- > Came to Seattle from TX for PhD in Epi at UW
- > Interim Chair, UW Epi (July 2023-February 2025)
- > Associate Dean for Public Health Practice, UW SPH (2018-2023)
- > Research interests: ID, applied epi in practice
- > Director of Epi SEAL Team
- > Teaching: *EPI 594: Field Epidemiology*; *EPI 201: Outbreak Investigation and Response*
- > Married, 3 children; Hobbies: hiking, music, travel



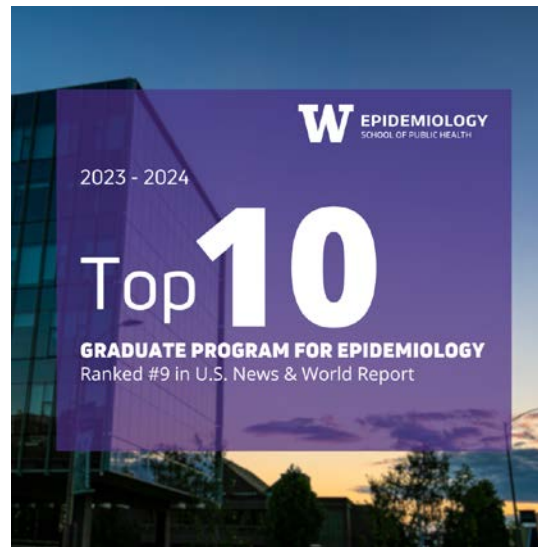
WELCOME DR. KAREN EDWARDS!



CHAIR, DEPARTMENT OF
EPIDEMIOLOGY

WHY AM I HERE?

The University of Washington Department of Epidemiology's mission is to train future leaders in the field of epidemiology, to contribute to the understanding of the etiology and prevention of disease, and to improve public health through excellence in research and public health practice.

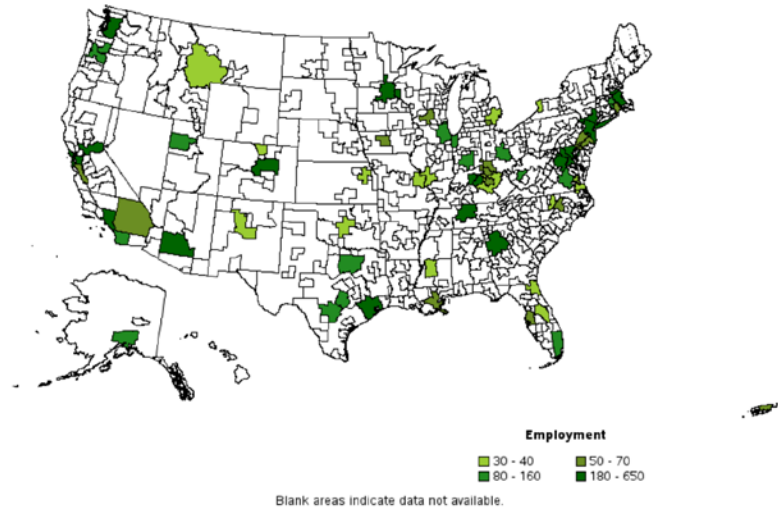


The **UW** was named the **#1 MOST INNOVATIVE** public university in the world by Reuters in 2018.

LOCAL COMMUNITY



Employment of epidemiologists, by area, May 2022



Metropolitan areas with the highest employment level in Epidemiologists:

| Metropolitan area | Employment (1) | Employment per thousand jobs | Location quotient (9) | Hourly mean wage | Annual mean wage (2) |
|--|----------------|------------------------------|-----------------------|------------------|----------------------|
| Seattle-Tacoma-Bellevue, WA | 650 | 0.32 | 5.02 | \$ 58.33 | \$ 121,330 |
| Denver-Aurora-Lakewood, CO | 420 | 0.27 | 4.29 | \$ 34.48 | \$ 71,710 |
| Minneapolis-St. Paul-Rosemount, MN, WI | 300 | 0.16 | 2.51 | \$ 41.22 | \$ 85,740 |



Seattle Rankings

Niche rankings are based on rigorous analysis of key statistics from the U.S. Department of Education and millions of reviews.

Best Cities for Outdoor Activities in America
#1 of 228

Best Cities for Young Professionals in America
#3 of 228

Healthiest Cities in America
#4 of 228

DEPARTMENT OF EPIDEMIOLOGY

98+% Job Placement
Percentage of job-seeking 2019-2021 graduates employed in related field.

GLOBAL IMPACT

SPH Partnerships Around the U.S. and the World



SPH LEADERSHIP

DEAN



**HILARY GODWIN,
SPH DEAN**

VICE &
ASSOCIATE DEANS



**JUANITA RICKS
ASSISTANT
DEAN (Students)**

VICE & ASSOCIATE
DEANS



**LIZ KIRK,
ASSOC DEAN
(Education)**



**STEPHANIE
FARQUHAR,
INTERIM ASSOC.
DEAN (Faculty)**



**JERRY
CANGELOSI,
ASSOC. DEAN
(Research)**



**DEREK
JENNINGS,
ASSOC.
DEAN
(Indigenous
Affairs)**



**VICTORIA
GARNER,
ASSISTANT
DEAN
(Equity,
Diversity, and
Inclusion)**

THE CHAIRS

**KAREN EDWARDS,
EPIDEMIOLOGY**



**MEGHA RAMASWAMY,
HSPOP**



**LURDES INOUE,
BIOSTATISTICS**



**HEIDI VAN ROOYEN,
GLOBAL HEALTH**



**LIANNE SHEPPARD,
DEOHS**



EPI LEADERSHIP TEAM



Karen Edwards
Chair



Amanda Phipps
Assoc Chair



DJ Miller
Administrator



Jessie Seiler
EDI Co-Chair



Sara Lindstroem
Research



Steve Schwartz
Grad Programs



Brandon Guthrie
Curriculum

OUR FACULTY - EPIDEMIOLOGY

WE HAVE 55 CORE FACULTY IN
EPIDEMIOLOGY

- **31 full professors**
- **12 associate professors**
- **7 assistant professors**
- **5 teaching professors**

OUR FACULTY

UW JOINT APPOINTMENTS

UW SPH

- **Global Health**
- **Biostatistics**
- **Environmental & Occupational Health Sciences**
- **Health Systems & Population Health**

UW SCHOOL OF MEDICINE/DENTISTRY

- **Allergy & Infectious Diseases**
- **Dentistry**
- **Internal Medicine**
- **Family Medicine**
- **Psychiatry & Behavioral Sciences**
- **Surgery**

OUR FACULTY

OTHER JOINT APPOINTMENTS

- Fred Hutchinson Cancer Research Center
- Kaiser Permanente Washington Health Research Institute
- Veterans' Administration Puget Sound Health Care



FRED HUTCH
CURES START HERE®



KAISER PERMANENTE®



U.S. Department
of Veterans Affairs

CROSS-DEPARTMENTAL OPPORTUNITIES

INTERDISCIPLINARY PROGRAMS

- **Health Administration**
- **Maternal and Child Health**
- **Food Systems, Nutrition, and Health**
- **Public Health Genetics**

CROSS-DEPARTMENTAL OPPORTUNITIES

RESEARCH AND PRACTICE CENTERS

- > **ARCH: Center for Anti-Racism and Community Health**
- > **Cardiovascular Health Research Unit (CHRU)**
- > **Center for AIDS Research (CFAR)**
- > **Center for Studies in Demography and Ecology (CSDE)**
- > **Firearm Injury & Policy Research Program (FIPRP)**
- > **National Alzheimer's Coordinating Center (NACC)**
- > **Northwest Center for Public Health Practice (NWCPHP)**
- > **Strategic Analysis, Research and Training (START)**
- > **Student Epidemic Action Leaders (SEAL) Team**

NEW HOMES FOR HEALTH EDUCATION



HANS ROSLING
CENTER FOR
POPULATION
HEALTH



*View from outdoor patio space on eighth floor where
Epi administrative offices and student workspaces
are located.*



HEALTH SCIENCES
EDUCATION
BUILDING

COMMUNICATING IMPACT

Epidemiologists are the new rock stars.

The New York Times

- > **UW Epi Comms Team elevates student and faculty research and activities**
- > **Work with students when they have:**
 - Research accepted for publication
 - Received notable funding or awards
 - Questions/ideas about all things communications

UW Epi In the News

Washington State Food Security Survey shows high food insecurity, with grocery prices a top concern

WSDA/UW | FEBRUARY 13, 2025

UW study aims to spot the next pandemic before it spreads | KNKX

JANUARY 23, 2025

Increasing Access to Cervical Cancer Screening in Low-Resource Healthcare Settings

LAURA EAST | JULY 1, 2024

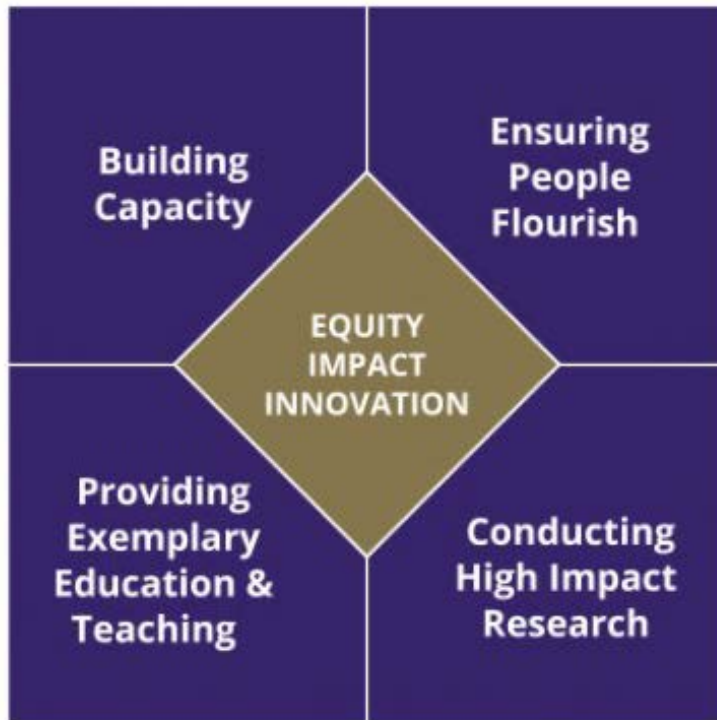
How Operational Research Improved Tuberculosis Care in Zambia

ARI ASERCION | JUNE 18, 2024

MPH student Olivia McCollum receives NIH Diversity Supplement with Global WACH to detect gut pathogens in young children in Kenya

SARAH HEMMINGER | FEBRUARY 21, 2024

COMMITMENT TO EQUITY, IMPACT, AND INNOVATION



- **Education:** curriculum prepares students for future, faculty are equipped to facilitate rich, equitable and anti-racist learning experience
- **Impactful Research:** Process for community input, apply research methods to further equity and anti-racism
- **Building Capacity:** Increasing resources, ensuring BIPOC community can access resources, leadership shifts to anti-racism culture
- **Ensuring People Flourish:** Recruitment processes align with best practices on equity/anti-racism, increase quality of mentoring, partnerships benefit community



**YOU ARE THE FUTURE
OF PUBLIC HEALTH.**

WE HOPE YOU'LL JOIN US!



Epi Incoming Class Orientation



**Epi Students win Salmon Party
"John Snow Water Pump" Trophy**



DEPARTMENT OF EPIDEMIOLOGY

THANK YOU!



EPIDEMIOLOGY PROGRAM HIGHLIGHTS



Mount Rainier behind Drumheller Fountain

STEPHEN M. SCHWARTZ (“Steve”), PhD, MPH

PROFESSOR & GRADUATE PROGRAM DIRECTOR

> **UW OFFICE:** 861B HRC (T & Th)
M4-B863 FHCC (M, W, F)



> **CONTACT:**

- sschwartz@fredhutch.org
- stevesch@uw.edu
- 206-499-6260 (texting)

WHAT I DO

> RESEARCH

- Testicular germ cell tumors
- HPV-related cancers (anogenital, oropharyngeal)
- Cancer registration (PI: Cancer Surveillance System)
- Canine cancer epidemiology (dogagingproject.org)

> TEACHING & SERVICE

- EPI 573 (Methods & Issues in Using Biological Measurements)
- PI, *Developing Data Driven Cancer Researchers* Training Grant
- Epidemiology Leadership Team
- Graduate Program Director



THE GRADUATE PROGRAM DIRECTOR

1. Advises, counsels, and assists graduate students;
2. Ensures that special attention is given to newly admitted students;

I perform these responsibilities with the assistance of:

- the Epi SAS staff*
- our Core faculty*

DESCRIPTIVE EPIDEMIOLOGY OF UW EPIDEMIOLOGY STUDENTS, 2024- 2025

- > 70 new students in Summer/Fall 2024
- > 202 registered graduate students in Fall 2024
- > 83 MPH (41%), 44 MS (22%), 75 PhD (37%)
- > 26% have prior doctorate (e.g., MD, DVM, PhD, DDS)
- > 75% women, 24% men, 0.5% non-binary, 1% undeclared
- > 89 graduates in 2023-24 (22 PhD, 67 Masters)
- > Median time-to-degree: PhD 4.5 yrs, MPH/MS 2 yrs

FUNDING YOUR UW EPI EDUCATION

| | |
|--------------------------|--|
| Optimal Situation: | 50% FTE ASE Position (RA or TA) Salary/Health Insurance/Tuition |
| Near Optimal Situation: | NIH Training Grant Position Stipend/Health Insurance/Tuition |
| Less Optimal Situation: | 25% FTE ASE position (RA or TA) Salary/Health Insurance |
| Least Optimal Situation: | \$500/qtr Stipend Qualifies for in state tuition status |

FUNDING YOUR UW EPI EDUCATION

Financial Situation is Uncertain

- Federal Sources at high risk due to political interventions
- Few non-Federal Sources available

DEPARTMENT OF EPIDEMIOLOGY DEGREE PROGRAMS – OUTLINES

- MPH (2 years)
 - core public health and epidemiology coursework
 - elective courses
 - practicum
 - capstone *or* research-based thesis
- MS (2 years)
 - research methods coursework
 - elective courses
 - research-based thesis
- PhD (4-6 years)
 - research methods coursework
 - additional required courses
 - “independent” research-based dissertation

The MPH Core Curriculum (Epi Students)

Features

- All UW MPH students
- 2+ instructors from different disciplines
- 16 credits total

Course Number

Title

PHI 511

Foundations of Public Health

PHI 513

Analytic Skills for Public Health II

PHI 514

Determinants of Health

PHI 515

Implementing Public Health Interventions

PHI 516

Public Health Practice

OTHER REQUIRED COURSES: Epi MPH

| Course Number | Title |
|---------------------------------------|--|
| EPI 512 & 513 | Epidemiologic Methods I & II |
| EPI 510 | Epidemiologic Data Analysis |
| EPI 514 | Application of Epidemiologic Methods |
| BIOST 511/512/513 or BIOST 517/518 | Medical Biometry I, II, III Applied Biostatistics I, II |
| EPI 583 | Epidemiology Seminar (3 quarters) |
| Electives | As specified by each degree track (MCH or General) |

REQUIRED COURSES: MS & PhD

Course Number

Title

EPI 512 & 513

Epidemiologic Methods I & II

EPI 510

Epidemiologic Data Analysis

EPI 514

Application of Epidemiologic Methods

BIOST 511,512,513
*or*517,518

Medical Biometry I, II, III
Applied Biostatistics I, II

EPI 575

Anti-Racism and Equity: An Epidemiologic Approach

EPI 583

Epidemiology Seminar (3 quarters)

PHI 500

Public Health Practice, Science, and Knowledge

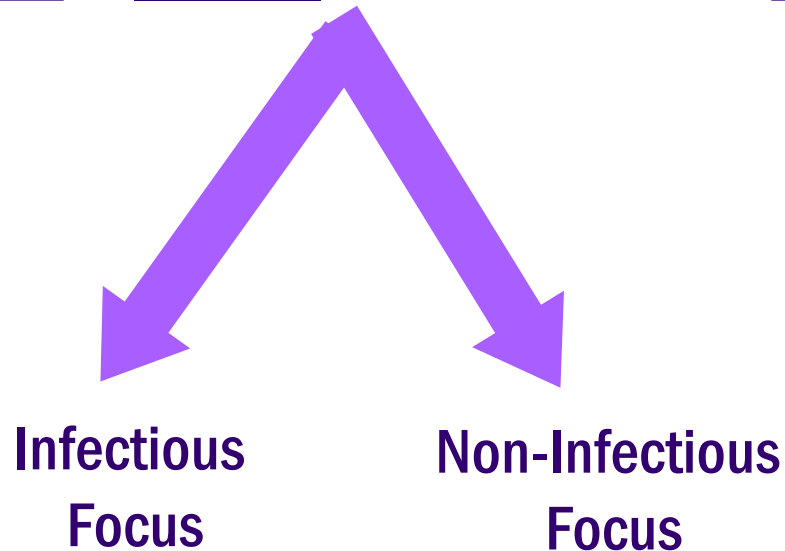
Electives

As specified by each degree program or track

EPIDEMIOLOGY ELECTIVE COURSES

Exposure or Disease Focus

Methods or Practice Focus



ELECTIVES: DISEASE FOCUS

| <u>Course #</u> | <u>Title</u> |
|-----------------|--|
| EPI 519 | Research Methods & Current Topics in Cardiovascular Epidemiology |
| EPI 520 | Epidemiology of Infectious Diseases (<i>ID</i>) |
| EPI 521 | Epidemiology of Maternal & Child Health Problems |
| EPI 524 | Cancer: Epidemiology and Biology |
| EPI 527 | Vaccines (<i>ID</i>) |
| EPI 530 | AIDS: A Multidisciplinary Approach (<i>ID</i>) |
| EPI 546 | Psychiatric Epidemiology |
| EPI 550 | Understanding Pandemics |
| EPI 571 | Neuroepidemiology & Environmental Risk Factors |

ELECTIVES: EXPOSURE FOCUS

| <u>Course #</u> | <u>Title</u> |
|-----------------|---|
| EPI 517 | Genetic Epidemiology |
| EPI 533 | Pharmacoepidemiology |
| EPI 538 | Topics in Nutritional Epidemiology |
| EPI 570 | Occupational and Environmental Epidemiology |

ELECTIVES: METHODS/PRACTICE FOCUS

| <u>Course Number</u> | <u>Title</u> |
|----------------------|---|
| EPI 506 | Surveillance Systems & Decision Making in Public Health |
| EPI 515 & 516 | Advanced Epidemiologic Methods I & II |
| EPI 531 | Statistical Methods for Analysis with Missing Data |
| EPI 535 | Statistical Methods in Genetic Epidemiology |
| EPI 536 | Categorical Data Analysis in Epidemiology |
| EPI 537 | Survival Data Analysis in Epidemiology |
| EPI 539 | Research & Evaluation Methods in Global Health |
| EPI 542 | Clinical Epidemiology |

w/Biost

ELECTIVES: METHODS/PRACTICE FOCUS (cont.)

| <u>Course Number</u> | <u>Title</u> |
|----------------------|---|
| EPI 548 | Research Methods for Social and Contextual Determinants of Health |
| EPI 554 | Intro to Epi Modeling of Infectious Diseases |
| EPI 555 | Statistical Methods for Spatial Epidemiology |
| EPI 573 | Biological Measurements in Epidemiologic Research |
| EPI 586 | Responsible Conduct of Research: Global & Local |
| EPI 588 | Preparing, Writing, and Critiquing Research Proposals |
| EPI 594 | Field Epidemiology: Student Epidemic Action Leaders (SEAL) Team |

Student Epidemic Action Leaders (SEAL) Team (EPI 594)



- > **Learn about public health practice and applied epidemiology:**
 - Surveillance systems, outbreak investigation and response, contact tracing, cluster investigation, public health communications

- > **Work on field assignments with state and local health departments providing surge capacity:**
 - Interview cases and controls for outbreak investigations, support surveillance activities, develop questionnaires and other tools that support outbreak investigations, conduct surveys, synthesize health data & more!

- > **Apply in Autumn 2025 – SEALs start in winter qtr and stay on the team through Autumn qtr 2026.**

UW GRADUATE CERTIFICATE PROGRAMS

“... a linked series of graduate courses that constitute a coherent body of study. It is designed to enhance the education of matriculated graduate and professional students beyond the requirements for a graduate degree.”

PUBLIC HEALTH–RELATED GRADUATE CERTIFICATE PROGRAMS

- Public Health Genetics
- One Health
- HIV and STI
- Maternal and Child Health
- Public Health Practice
- Climate and Health
- Global Injury and Violence Prevention
- Global Health of Women, Adolescents, and Children
- Demographic Methods (Center for Studies in
Demography and Ecology—CSDE)

ADVISING & MENTORING

> Initial Academic Advisor

- Assigned in late spring, advises on course options
- “Meet” with at least once per quarter
- A guide to other faculty and resources as you search for a thesis/capstone/dissertation topic

> Thesis/Capstone/Dissertation Supervisory Committee Chair

- Must be Core Epi faculty (unless exception granted)
- Becomes your formal academic advisor

> Mentoring Resources

- <http://www.grad.washington.edu/mentoring/>
- Epidemiology student Canvas pages

ADDITIONAL REQUIREMENTS FOR MASTER'S STUDENTS

MPH APPLIED PRACTICE EXPERIENCE ("Practicum")

- > 160 hours practical public health experience
- > Variety of possible settings i.e., any organization ...

"...that provides, plans for, coordinates, organizes, pays for, or regulates public health services..."

- public or private
- for-profit or non-profit
- clinical or not clinical

- > Practicum Site Deliverables: vary with site's needs
- > UW Deliverables: practicum report and poster

Research?



MPH Culminating Activity Options

- > Thesis
- > Capstone

MASTERS THESIS (*MS required, MPH option*)

- > Quantitative, research-based
- > Usually a secondary data analysis from a completed study, but could involve new data collection
- > Proposal approved by your MS/MPH supervisory committee
- > Human subjects approval or exemption
- > 6-9 months of work
- > **Length:** ~ manuscript for a peer-reviewed journal

MPH CAPSTONE (*MPH option*)

- > Community partner (CP) options:
 1. Yes: CP guides planning, conduct, and reporting
 2. No: student chooses topic of general applied PH relevance
- > Uses multiple skills acquired in courses and/or practicum
- > Proposal approved by faculty capstone advisor
- > Requires longer lead time than a thesis (if CP involved)
- > Rarely need IRB review (i.e., public health surveillance, exempt research, or not human subjects research)
- > 9-12 months of work
- > **Format and Length:** Form and scope of deliverables are tailored to the target audience

WAIVING & SUBSTITUTING DEGREE REQUIREMENTS

- > **Epi Methods I & II (EPI 512 & EPI 513) may not be waived or substituted**
 - Foundational, fresh perspective of the UW Epi graduate program
 - Provides specific preparation for subsequent coursework and Doctoral Preliminary Examination
- > **Intro Biostatistics Sequence: 2 options for MS & PhD**
 - Petition Epi to waive all of either sequence based on prior coursework or experience
 - Pass Biostatistics placement exam to skip just BLOST 511 or BLOST 517
- > **Other Epidemiology requirements**
 - Can petition to waive specific courses based on previous coursework or experience
- > **SPH requirements for MPH students**
 - Practicum cannot be waived
 - Waivers for Core MPH courses very rarely approved

ADDITIONAL REQUIREMENTS FOR PhD STUDENTS

ADDITIONAL REQUIRED COURSES FOR PhD

| <u>Course Number</u> | <u>Title</u> |
|----------------------|---|
| EPI 515 & 516 | Advanced Epidemiologic Methods I & II |
| EPI 536 | Categorical Data Analysis |
| EPI 537 | Survival Data Analysis |
| EPI 584 | Doctoral Dissertation Seminar (2 quarters) |
| EPI 588 | Preparing, Writing, & Critiquing Research Proposals |
| EPI 591 | Current Literature in Epidemiology (2 quarters) |

PhD EXAMINATIONS

- > **Preliminary Examination** (annually in June)
- > **General Examination** (written and oral)
- > **Final Examination** (public dissertation defense)

PhD DISSERTATION

- > **Independent research activity of considerable depth:**
 - Formulation of hypotheses and research methods
 - Short & long proposals approved by committee
 - Often requires funding (to support data collection)
 - Human subjects review and approval
 - Data collection & analysis
 - 2-3 years of work
 - Written report (typically one or more manuscripts)
 - Public oral defense



DEPARTMENT OF EPIDEMIOLOGY

UNIVERSITY *of* WASHINGTON

School of Public Health



ANY (ADDITIONAL) QUESTIONS?

SCHOOL OF PUBLIC HEALTH
EPIDEMIOLOGY
UNIVERSITY *of* WASHINGTON

MY EPI PHD JOURNEY

SIDNEY DONZELLA



ABOUT ME

- > **BS Exercise Science from Northern Arizona University**
- > **MPH Epidemiology from University of Arizona**
- > **From Phoenix, Arizona**
- > **4th year PhD Epi candidate**
- > **Research area: Sleep and cancer**



THE DECISION PROCESS

- > **Research support**
- > **Funding support**
- > **Location**



FUNDING

Year 1

- T32 Cancer Prevention + 0.25 FTE RA

Year 2-4

- Full funding from American Cancer Society

DISSERTATION

Identify a topic of interest

- How do different dimensions of sleep impact cancer risk

Identify a dataset that you could use

- ACS Cancer Prevention Study-3

Identify faculty that you would like to work with

- Amanda Phipps, Fred Hutch, ACS, and external collaborators

TIPS FOR FINDINGS THE RIGHT FIT

- > **Make sure the place/people/vibe is what you are looking for**
- > **Prioritize yourself as a whole person – not just as a student**
- > **Consider the resources adjacent to the university**
- > **Talk to current students**
- > **Listen to your intuition**

SCHOOL OF PUBLIC HEALTH

EPIDEMIOLOGY

UNIVERSITY *of* WASHINGTON

QUESTIONS?

SIDNEY DONZELLA

SDONZ@UW.EDU

