

DEPARTMENT OF EPIDEMIOLOGY

VISIT DAY 2019



STEPHEN E. HAWES, Ph.D., M.S.

PROFESSOR & CHAIR



- > Health Sciences Building
F-262D
- > 206-685-0146
- > hawes@uw.edu



WHAT I DO



- > **Came to Seattle for graduate school (1991)**
- > **Joined Epi Faculty in 2001**
- > **Chair since February 2018**
- > **Research – 25 Years in Senegal and Seattle**
 - HPV and related ano-genital cancers (cervical and anal)
 - HIV, high risk groups, and relationship with other infections
 - Vaginal and cervical infections in women
 - Cancer Biomarkers
 - Maternal and Child Health
- > **Director of UW START Center**
 - Bill & Melinda Gates Foundation
- > **Global Mentoring**
 - Namibia, Peru, Vietnam, Cambodia
- > **Teaching**
 - **Epi 514 Data Analysis course** (with Dr. Alyson Littman)
 - > Utilization of Behavioral Risk Factor Surveillance System (BRFSS)



WHY AM I HERE?



W SCHOOL OF PUBLIC HEALTH

1st among public health majors in the nation (*College Choice*)

3rd among publicly funded schools of public health in the U.S. (*U.S. News & World Report*)

96% Job Placement

Percentage of job-seeking SPH graduates employed within 1 year of graduation, based on a survey of 2015-16 alumni.

-
- > Key player in the UW's Population Health Initiative
 - > Working in 130 countries to improve health and well-being
 - > Partnering with the Bill & Melinda Gates Foundation, PATH, Seattle Children's, Fred Hutch, and other leading public health organizations

WHY AM I HERE?



Best Cities for Outdoor Activities in America
#2 of 228



Best Cities for Young Professionals in America
#3 of 228



Healthiest Cities in America
#7 of 228



Healthiest Places to Live in America
#7 of 228



Best Cities to Live in America
#14 of 228



Best Cities to Raise a Family in America
#19 of 228



SPH LEADERSHIP

THE DEANS



**HILARY
GODWIN
DEAN**



**JANET
BASEMAN
ASSOC.
DEAN PH
PRACTICE**



**SHIRLEY
BERESFORD
SENIOR
ASSOC.
DEAN**



**JOEL
KAUFMAN
ACTING
DEAN OF
RESEARCH**

THE CHAIRS



**JEFFREY HARRIS,
HEALTH SERVICES**



**STEPHEN HAWES,
EPIDEMIOLOGY**



**PATRICK HEAGERTY,
BIostatISTICS**



**JUDITH WASSERHEIT,
GLOBAL HEALTH**



**MICHAEL YOST,
EOHS**

SPH LEADERSHIP

OFFICE OF THE DEAN



**VICTORIA
GARDNER, CHIEF
DIVERSITY OFFICER**



**MEGAN INGRAM,
ASSISTANT DEAN
FOR ADVANCEMENT**



**ULI HALLER,
ASSISTANT DEAN
FOR FINANCE &
ADMINISTRATION**



**JEFF HODSON,
DIRECTOR OF
COMMUNICATIONS**

EPIDEMIOLOGY LEADERSHIP



**STEPHEN HAWES,
CHAIR**



**JENNIFER BALKUS,
EDI CHAIR**



**ANGIE MARIE BUCK,
EXEC. ASST. TO THE
CHAIR**



**LISA MANHART,
RESEARCH
DEVELOPMENT CHAIR**



**DJ MILLER,
ADMINISTRATOR**



**STEVE SCHWARTZ,
GRAD PROGRAM
DIRECTOR**



**ALI ROWHANI,
CURRICULUM
COMMITTEE CHAIR**

OUR FACULTY

WE HAVE 56 CORE FACULTY IN EPIDEMIOLOGY

- > **32 full professors**
- > **10 associate professors**
- > **11 assistant professors (3 acting)**
- > **3 lecturers**

OUR FACULTY

UW JOINT APPOINTMENTS

UW SPH

- > **Global Health**
- > **Biostatistics**
- > **Environmental & Occupational Health Sciences**
- > **Health Services**

UW SCHOOL OF MEDICINE

- > **Allergy & Infectious Diseases**
- > **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**

OUR FACULTY

116 ADJUNCT, CLINICAL AND AFFILIATE FACULTY

UW-based

- Medicine, Pharmacy, Dentistry, Nursing, Social Work, Public Health

Other institutions (examples)

- Seattle Children's Research Institute
- Harborview Injury Prevention & Research Center
- Public Health Seattle-King County
- WA State Dept. of Health
- PATH
- Bill & Melinda Gates Foundation

CROSS-DEPARTMENTAL OPPORTUNITIES

INTERDISCIPLINARY PROGRAMS

- > **Maternal and Child Health**
- > **Nutritional Sciences**
- > **Public Health Genetics**
- > **Pathobiology**

CROSS-DEPARTMENTAL OPPORTUNITIES

RESEARCH AND PRACTICE CENTERS

- > **Northwest Center for Public Health Practice**
- > **Exposures, Diseases, Genomics and Environment (EDGE) Center**
- > **International Training and Education Center on HIV (I-TECH)**
- > **Center for Studies in Demography and Ecology (CSDE)**
- > **Health Promotion Research Center**
- > **Center for Obesity Research**

50+ Centers & Institutes

Including AIDS Research, Clean Air Research, Health Promotion Research, Northwest Center for Public Health Practice, Pacific Northwest Agricultural Safety and Health, International Training and Education Center for Health.

DEPARTMENT OF EPIDEMIOLOGY STAFF

>Student Academic Services (SAS)

- John Paulson
- Kevin Schuda
- Julie Nevins

>Grants and Contracts, Financial Services

- Barb McLaughlin
- Shannon Reed
- Matt Anderson
- Donna Timbrook

>Departmental Administration & Communications

- DJ Miller
- Angie Marie Buck
- Laura East
- Sixtine Gurrey

DEPARTMENT OF EPIDEMIOLOGY IMPACT

UW EPI IN THE NEWS

Study finds firearm homicide rate higher in US counties with greater income inequality — *Science Daily*

[UW study concludes diet soda is linked to increased risk of stroke](#) — *KUOW*

Firearm homicide rate higher in U.S. counties with greater income inequality — *UW Epi News*

[More Headlines >](#)

RESEARCH

Carotid artery echolucency, texture features, and incident cardiovascular disease events: the MESA study

Efficient cross-trait penalized regression increases prediction accuracy in large cohorts using secondary phenotypes

Patterns of traumatic brain injury and six-month neuropsychological outcomes in Uganda

UW EPI AROUND THE WORLD

Dhulikhel, Nepal



Hypertension a hidden chronic condition among adults in suburban Nepal

Nairobi, Kenya



Cervical cancer screening in low resource settings

RECENT AND UPCOMING DEVELOPMENTS

NEW FACULTY

- Genetic Epidemiology (Alison Fohner, joint with IPHG)
- Epidemiologic Methods (Steve Mooney)
- Implementation Science and ID (Kristjana Asbjornsdottir)

NEW BUILDING (2020)



Dept. of Epidemiology Students



KUDOS FOR OUR STUDENTS

Local

UW Warren Magnuson Scholar (Velloza)

UW ITHS TL1 Award (Avoundjian, Kubiak, Lyons, Peebles)

National

NIH F31 Fellowships (Brander, Kubiak)

SER Dissertation Workshop (Velloza)

EPIDEMIOLOGY PROGRAM HIGHLIGHTS



Mount Rainier behind Drumheller Fountain

STEVE SCHWARTZ, PHD, MPH

PROFESSOR & GRADUATE PROGRAM DIRECTOR

> **UW OFFICE:** F-261F Health Sciences Center
(But most often at the FHCRC)

> **CONTACT:**

- 206-667-4660
- sschwartz@fredhutch.org
- stevesch@uw.edu

WHAT I DO

> RESEARCH

- HPV-related cancers (anogenital, oropharyngeal)
- Testicular germ cell tumors
- Cancer registration
- Host genetics

> TEACHING & SERVICE

- EPI 573 (Methods & Issues in Using Biological Measurements)
- Graduate Program Director
- Epidemiology Leadership Team

THE GRADUATE PROGRAM DIRECTOR

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

These responsibilities are performed with the expert assistance of:

- the Epi SAS staff*
- our Core faculty*

DESCRIPTIVE EPIDEMIOLOGY OF UW EPIDEMIOLOGY STUDENTS

- > 171 registered graduate students in Fall 2018
- > 51 MPH (30%), 35 MS (20%), 85 PhD (50%)
- > 26% have prior doctorate (e.g., MD, DVM, PhD, DDS)
- > 70% women, 30% men
- > 53 new students in Summer/Fall 2018
- > 44 graduates in 2017-18 (12 PhD, 32 Masters)
- > Median time-to-degree: PhD 4.5 yrs, MPH/MS 2 yrs

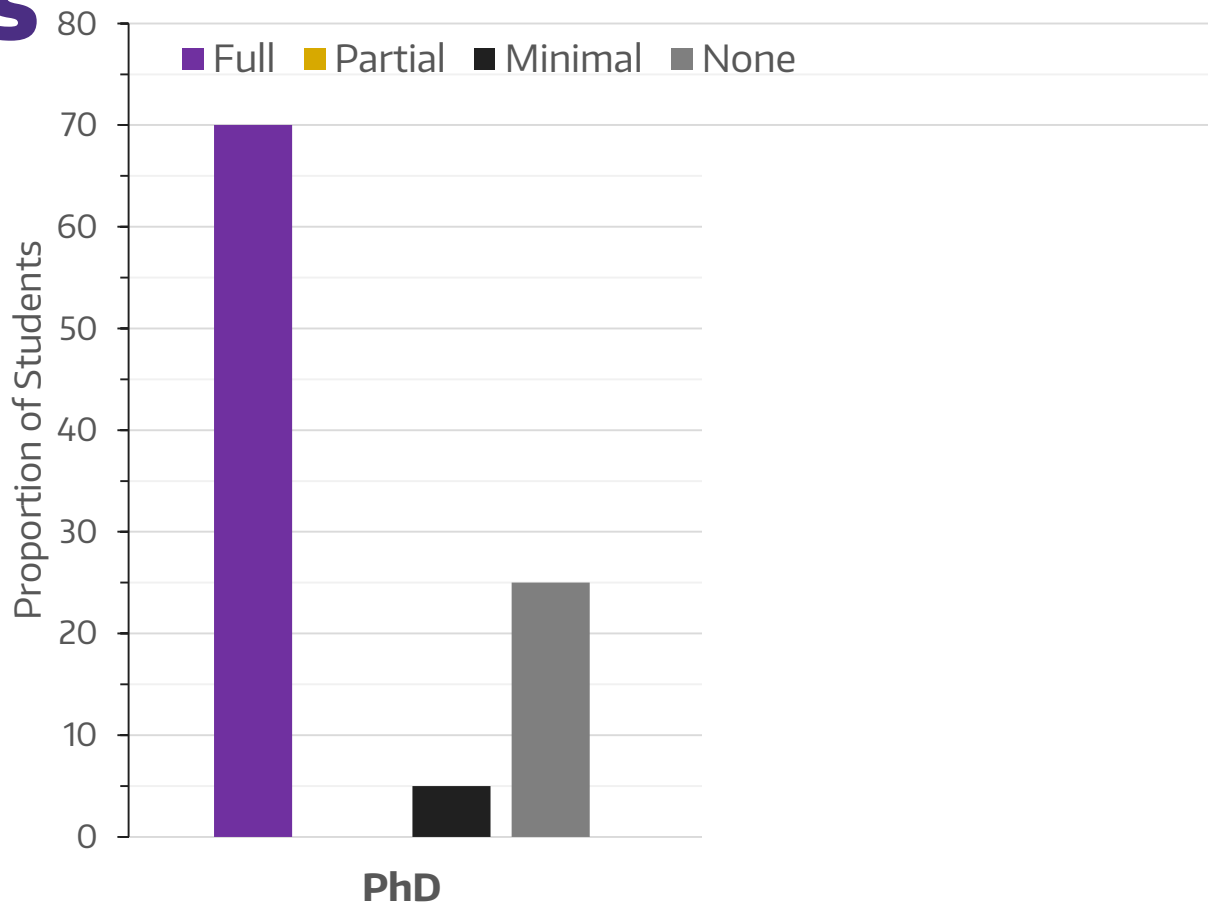
RECENT FUNDING PATTERNS

Full: 50% RA/TA, TG

Partial: 25% RA/TA,
>\$5500 stipend

Minimal: anything else
>\$0

None: \$0



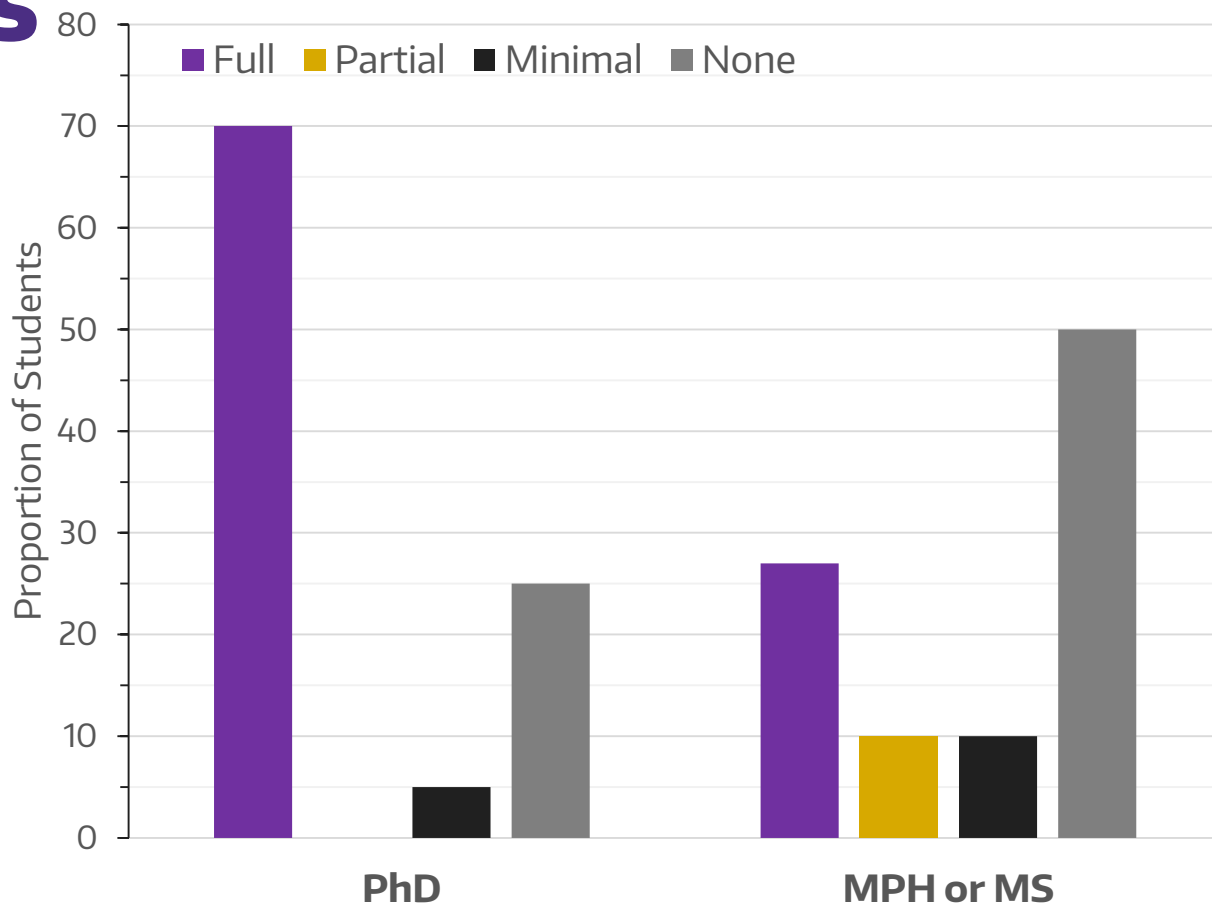
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DEPARTMENT OF EPIDEMIOLOGY

DEGREE PROGRAMS

- MS (2 years) - research methods coursework
- research-based thesis
- 2 tracks (General, CR)
- MPH (2 years) MS requirements *plus*
- core public health coursework
- practicum
- 3 tracks (General, MCH, GH)
- PhD (4-6 years) MS requirements *plus*
- additional required courses
- independent research-based dissertation

PUBLIC HEALTH-RELATED GRADUATE CERTIFICATE PROGRAMS

- Public Health Genetics
- Global Health
- HIV and STIs
- Maternal and Child Health
- Public Health Practice
- Statistical Genetics
- Global Injury and Violence Prevention
- Global Health of Women, Adolescents, and Children
- Emergency Preparedness and Response
- International Bioethics, Social Justice and Health
- Health Economics and Outcomes Research

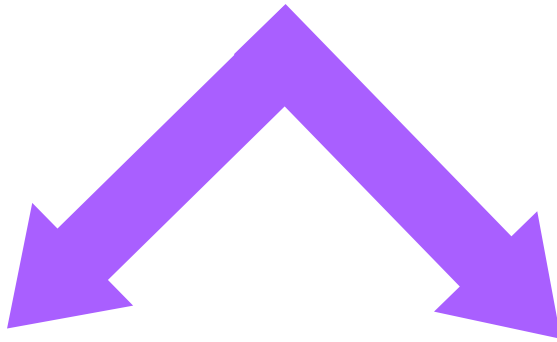
REQUIRED COURSES: ALL DEGREES

<u>Course Number</u>	<u>Title</u>
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 583	Epidemiology Seminar (3 quarters)
Electives & Other Courses	As specified by each degree program or track

EPIDEMIOLOGY ELECTIVE COURSES

Disease or Exposure Focus

Methods Focus



Infectious
Focus

Non-Infectious
Focus

ELECTIVES: DISEASE FOCUS

<u>Course Number</u>	<u>Title</u>
EPI 519	Epidemiology of Cardiovascular Disease
EPI 520	Epidemiology of Infectious Diseases
EPI 521	Epidemiology of Maternal & Child Health Problems
EPI 524	Cancer: Epidemiology and Biology
EPI 527	Vaccines
EPI 530	AIDS: A Multidisciplinary Approach
EPI 546	Psychiatric Epidemiology

ELECTIVES: EXPOSURE FOCUS

<u>Course Number</u>	<u>Title</u>
EPI 517	Genetic Epidemiology
EPI 533	Pharmacoepidemiology
EPI 538	Nutritional Epidemiology

ELECTIVES: METHODS/PRACTICE FOCUS

<u>Course Number</u>	<u>Title</u>
EPI 506	Surveillance Systems & Decision Making in Public Health
EPI 515	Advanced Epidemiologic Methods I
EPI 516	Advanced Epidemiologic Methods II
EPI 531	Statistical Methods for Analysis with Missing Data
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
EPI 548	Research Methods for Social and Contextual Determinants of Health

ELECTIVES: METHODS/PRACTICE FOCUS

<u>Course Number</u>	<u>Title</u>
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EPI 554	Introduction to Epidemic Modeling for Infectious Diseases
EPI 555	Statistical Methods for Spatial Epidemiology
EPI 573	Biological Measurements in Epidemiologic Research
EPI 582	Design and Analytic Strategies to Enhance Validity
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:**
 - E.g.: Surveillance systems, outbreak investigation, emergency preparedness and response, contact tracing, cluster investigation, public health communications
- > **Work on field assignments with WA state and local health departments providing surge capacity on:**
 - Develop questionnaires, interview for outbreak investigations, support surveillance activities, conduct data analyses, & more!
- > **Apply in Fall 2019** – SEALs start in winter and stay on the team through fall of the following year.

ADVISING

> Initial Academic Advisor

- Assigned in late spring
- Meet at least once per quarter
- A guide to other faculty and resources as you search for a dissertation/thesis topic

> Thesis/Dissertation Chair

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

> UW Graduate School Mentoring Resources

- <http://www.grad.washington.edu/mentoring/>

WAIVING & SUBSTITUTING DEGREE REQUIREMENTS

- > **Epi Methods I & II (EPI 512, EPI 513) may not be waived**
 - Foundational, fresh perspective of the UW Epi graduate program
 - Provides specific preparation for subsequent coursework and Doctoral Preliminary Examination
- > **Intro Biostatistics Sequence: 2 options**
 - Petition Epi to waive the entire sequence based on prior coursework
 - Pass Biostats administered placement exam to skip first courses
- > **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 courses very rarely approved

ADDITIONAL REQUIREMENTS FOR MASTER'S STUDENTS



ADDITIONAL REQUIRED COURSES FOR MPH

<u>Course Number</u>	<u>Title</u>
HSERV 511	Introduction to Health Services and Public Health
HSERV 510 or GH 511	Society and Health Problems in Global Health
ENVH 511 or ENVH 510	Environmental & Occupational Health Global Environmental & Occupational Health

MPH PRACTICUM

- > 120 hours practical public health experience
- > Variety of possible settings

"...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

- > **Deliverable:** Practicum report and poster

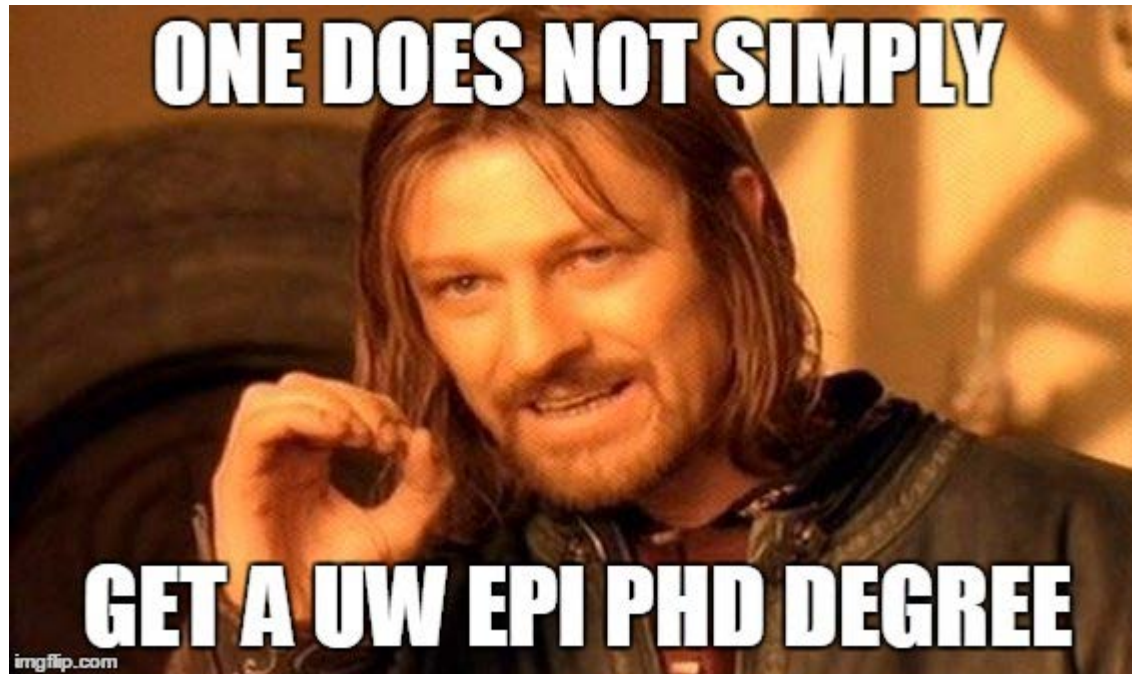
MPH AND MS THESES

- > Quantitative, research-based
- > Usually secondary data analysis from a completed study, but could involve new data collection
- > Proposal approved by thesis committee
- > Human subjects approval or exemption
- > 3-9 months of work
- > **Length:** ~manuscript for a peer-reviewed journal

MASTERS → PHD TRANSITION

- > Apply in August or December of 2nd year
- > Add a letter of support from current faculty
- > Ideally have made good progress on thesis, and have some ideas for area of dissertation work
- > Doctoral Preliminary Examination: Not necessary to have taken it but if you do, your score will be included in your application review
- > Acceptance proportion is very high (>95%)

ADDITIONAL REQUIREMENTS FOR PHD STUDENTS



ADDITIONAL REQUIRED COURSES FOR PHD

<u>Course Number</u>	<u>Title</u>
EPI 515	Advanced Epidemiologic Methods I
EPI 516	Advanced Epidemiologic Methods 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 (3 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 a grant application (to obtain funding)
 - Human subjects review and approval
 - Data collection & analysis
 - 2-3 years of work
 - Written report (typically equivalent to 2-3 manuscripts)
 - Public oral defense



DEPARTMENT OF EPIDEMIOLOGY

UNIVERSITY *of* WASHINGTON

School of Public Health



ANY ADDITIONAL QUESTIONS?