



SCHOOL OF PUBLIC HEALTH



The GRADUATE SCHOOL *of* ARTS AND SCIENCES
HARVARD UNIVERSITY

PH.D. IN POPULATION HEALTH SCIENCES

ENVIRONMENTAL HEALTH | EPIDEMIOLOGY | GLOBAL HEALTH & POPULATION | NUTRITION | SOCIAL & BEHAVIORAL SCIENCES

Public Health Nutrition 2017-2018 Program Guide

Doctor of Philosophy (PhD) Degree Program

Public Health Nutrition Program Guide

Academic Year 2016-2017

Please Note: These guidelines are provided to supplement those published in the PhD in Population Health Sciences and Graduate School of Arts and Sciences Handbooks.

GENERAL INFORMATION

Harvard School of Public Health
Department of Nutrition
665 Huntington Ave
Boston, MA 02115

PHN Program Director
Kirsten Davison, M.S., Ph.D.
kdavison@hsph.harvard.edu
617.432.1898

Academic Coordinator
Stefanie Dean, MPH, RD, LDN
sdean@hsph.harvard.edu
617.432.1528

ADMISSIONS

Students admitted to this program are required to have a general background in the nutrition, behavioral sciences and/or public health. A graduate degree is desirable, but not required. Successful completion of program requirements leads to a PhD degree.

PROGRAM DESCRIPTION

Students will combine principles and practices from nutrition and social and behavioral science to develop, implement and evaluate programs and policies that promote optimal nutrition and population health and well-being. Students will be skilled in quantitative and qualitative methods, program development and evaluation, health disparities, health behavior change and health policy. The program includes the following components:

- Formal course work
- Research practicum
- Seminars
- Oral Exams
- Dissertation Defense

Core Skills & Learning Objectives

Students are expected to gain comprehensive academic and applied knowledge in five core skill areas:

- Nutrition science and principles
- Translation of science into practice
- Analytic skills and research methods
- Policy and leadership
- Cultural competency

The learning objectives for each skill area are outlined below. Students will be evaluated on their completion of each learning objective through their Field of Study Qualifying Exam and Thesis Defense.

1. Nutrition Science and Principles

Learning Objectives:

- a. Describe the biological basis of nutrition and the mechanisms by which diet can influence health;
- b. Identify, implement and accurately interpret a range of nutrition and physical activity assessment techniques;
- c. Explain current and emerging nutrition trends and their implications for public health;
- d. Apply an interdisciplinary perspective on nutrition in domestic and international settings to research practicum and thesis work.

2. Translation of Science into Practice

Learning Objectives:

- a. Identify and explain behavior change principles and strategies;
- b. Translate research into programs and policies to support optimal nutrition and health;
- c. Outline approaches for developing feasible and sustainable nutrition interventions;
- d. Apply theoretical models to the design, implementation, and evaluation of nutrition interventions;
- e. Implement formative, process and impact evaluations to assess nutrition interventions.

3. Analytic Skills and Research Methods

Learning Objectives:

- a. Critically evaluate research and develop new hypotheses leading to innovations in nutrition and health;
- b. Show use of biostatistical principles in research design and data collection, management, analysis, and interpretation;
- c. Assess novel research questions using a broad range of quantitative and qualitative methodological skills;
- d. Describe nutrition data sources and explain their utility in testing causal relationships between nutrition and health;
- e. Apply principles of cost/benefit and cost effectiveness analyses.

4. Policy and Leadership

Learning Objectives:

- a. Demonstrate knowledge of federal, state and local government structures and processes that shape nutrition policies, services and the food industry;
- b. Engage stakeholders in collaborative efforts to promote nutrition in diverse populations;
- c. Communicate results and implications of nutrition research to diverse audiences.

5. Cultural Competency

Learning Objectives:

- a. Critically assess the origins of health disparities defined by gender, race/ethnicity, socioeconomic position, etc., their roots in social and economic inequities, and their impact on social justice and population health;
- b. Illustrate health literacy and describe its relevance to interventions and policies;
- c. Outline strategies to develop culturally competent nutrition interventions at the individual, family, community and societal levels.

Selection of Advisors

At program entry, students will be assigned a faculty advisor from the nutrition department. PHN-affiliated faculty with secondary appointments in the nutrition department will also be eligible as advisors. Advisors will meet with students on a regular basis during the first two years of study to advise them on the selection of coursework and practicum experiences. When a thesis topic is identified, a new advisor with specific knowledge in the research area may be assigned.

FORMAL COURSE WORK

Students will enroll in at least 16.0 credits per semester for the duration of the program. Area of Specialization specific courses will focus largely on social and behavioral health, and include courses in social and behavioral research methods, health behavior theory, health disparities, program planning and evaluation and health policy. Students will complete the majority of their required coursework within the first two years. Once a student has passed both qualifying examinations, he/she will enroll in independent research credits to fulfill the credit requirement.

Students with advanced standing (such as those already holding an advanced degree) may have certain course requirements waived if equivalent courses have been completed. Waiver petitions must be submitted to the Department of Nutrition Academic Coordinator.

Population Health Sciences Required Courses

Course #	Course Title	Credits	
		GSAS	HSPH
_Epi201	Epidemiologic Methods I	2.0	2.5
_Epi202	Epidemiologic Methods II	2.0	2.5
_PHS2000A	Quantitative Research Methods in Pop Hlth Sci	4.0	N/A
_PHS2000B	Quantitative Research Methods in Pop Hlth Sci	4.0	N/A
_MEDSCI300 qc, HPM548, or RCR FAS	Responsible Conduct of Research		
_SBS506	History, Policy, & Public Health	2.0	2.5

Field of Study Courses

Course #	Course Title	Credits	
		GSAS	HSPH
__ NUT201	Introduction to Nutrition and Public Health	2.0	2.5
__ NUT202	Biological Basis of Human Nutrition	4.0	5.0
__ NUT203	Nutrition Seminar Part I	1.0	1.25
__ EPI205	Principles of Epidemiology	2.0	2.5
__ NUT206	Nutrition Seminar Part II	1.0	1.25
__ NUT209	Seminars in Food Science, Technology, and Sustainability	2.0	2.5
__ ID214	Nutritional Epidemiology†	2.0	2.5

Area of Specialization (PHN) Courses

__ Various	Social and Behavioral Science requirements* Theory Policy	4.0	5.0
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* Students will select a minimum of one course per content area, for a total of 4.0 GSAS credits

Social and Behavioral Methods

__ BST212	Survey Methods	2.0	2.5
__ SBS231	Community Intervention Research Methods	2.0	2.5
__ SBS265	Program Planning, Design and Evaluation	2.0	2.5
__ SBS288	Qualitative Research Methods in Public Health	2.0	2.5
__ SBS501	Community-based participatory research	2.0	2.5

Interdisciplinary Concentrations available

The following are examples of interdisciplinary concentrations which students can pursue, if of interest:

Maternal and Child Health	Women, Gender and Health
Health Communication	Public Health Leadership
Nutrition and Global Health	Obesity Epidemiology and Prevention

SEMINARS

Attendance to the Nutrition Seminar is **mandatory**. These are held on Mondays and focus on applied areas of Nutrition, work-in-progress presentations, or presentations by invited speakers. For upcoming seminar information, visit the Nutrition Department website: <http://www.hsph.harvard.edu/nutrition/monday-nutrition-seminars/>

FORMAL EVALUATION (OUTSIDE OF COURSEWORK)

Nutrition Field of Study (FoS) Qualifying Examination Guidelines:

1. **Overview:** The Nutrition Field of Study Qualifying Examination tests the student's breadth of general knowledge in nutrition and also their in-depth knowledge of his/her topic of research interest. Although a formal research proposal is not required for this examination, students will present on two key topics of interest. One topic can be related to the student's research interest and the other will be a general nutrition topic. The examiners will assess the student's preparation for doctoral-level research by asking him/her to formulate research approaches to the research areas selected. The overall objective of this examination is to ascertain if the student is qualified to continue in the doctoral program and to determine whether he/she is ready for the Preliminary Qualifying Examination. The latter is normally taken shortly after the Field of Study Examination.
2. **Timing:** Students entering the doctoral program without prior graduate study will normally take the FoS Qualifying Examination by June 15th after the end of their fourth semester. Students who have previously completed a Master's Degree in Nutrition, or completed a Master's Degree within HSPH, are usually expected to take the FoS Qualifying Examination at the end of the first year of their doctoral program. In all cases, this examination must be taken no later than two months before the doctoral program deadline for the Preliminary Qualifying Examination (PQE).
3. **Examining Committee:** The Examining Committee shall be composed of three nutrition faculty members. The student's advisor can be present for the examination, not as an examiner or judge, but as an observer. The advisor will leave the ultimate decision of pass/fail to the members of the examination committee. The examining committee will include at least one faculty member affiliated with public health nutrition.

Additional information: Faculty members will be invited to express an opinion about the student's abilities to the Committee before the examination. Prior to the examination, the Committee shall meet to discuss the areas of questioning for the examination. The examination shall be open to all faculty of the Department of Nutrition. The student shall initiate the meeting by summarizing current research activities for a maximum of 10 minutes. Following the exam, the Examining Committee will prepare a written evaluation of the student's performance.

Preliminary Qualifying Examination

This examination is described in the PhD in Population Health Sciences and Graduate School of Arts and Sciences Handbooks. The examination must be taken no later than the end of the fifth term of study and will focus on the student's proposed thesis research. In the Nutrition Department, the student's advisor cannot be a member of the doctoral qualifying exam committee.

Doctoral Advisory Committee

The thesis advisor, in consultation with the student and with the approval of the Department Chairperson, will nominate a research committee to oversee the student's progress. The committee will consist of the thesis advisor (chairperson) and at least two other faculty members. These faculty members normally will have served as members of the student's Preliminary Qualifying Examination committee.

Doctoral Thesis Defense

After completing and passing both the FoS and Preliminary Qualifying Examinations, Nutrition doctoral students become **doctoral candidates** and engage in an original research study conducted by the candidate after approval by the dissertation committee.

Note on implementation: Because dissertation papers are often longer and involve more analyses than the final submitted versions of the same research, students may wish to receive committee approval for the version to be included in the dissertation, and then revise/simplify the paper for journal submission. Some analyses included in the dissertation version of the paper may be included as appendices in the submitted paper. The submitted paper may include additional authors not on the committee and may require revisions that are not incorporated into the thesis version.

We encourage students to consider the process required for submitting the paper as they are organizing their timeline for dissertation research. In extenuating circumstances, for example long delays introduced by co-author review, the student's research advisor can waive this requirement and approve the defense prior to paper submission.

PROGRAM ADMINISTRATION

Financial Aid

The Department of Nutrition provides tuition and stipend support for a maximum of four years. All students are expected to be a Teaching Fellow (TF) during their program as a stipulation of their funding package. For more details on this policy, please refer to the PhD in Population Health Sciences Handbook. The department will not assume responsibility for payment of tuition for courses taken during the summer. Additionally, the department has an expectation that all students will apply for outside funding through submitting a grant proposal whether individually or in coordination with a faculty member.

Fellowship awards

Fellowship awards are subject to the following restrictions:

1. The awarding of tuition and stipend will follow the contingencies specified in the official letter of acceptance from the Director of Admissions of the Graduate School of Arts and Sciences.
2. Fellowship support will be forfeited if funds are received from another source.
3. Students must be full-time in the department and maintain good academic standing.
4. Students must demonstrate satisfactory performance in research.

Contact **Stefanie Dean**, sdean@hsph.harvard.edu, for more information.

Questions on the Public Health Nutrition Program may be directed to Dr. Kirsten Davison (Director) or Stefanie Dean (Academic Coordinator).

PUBLIC HEALTH NUTRITION FACULTY

Program Director

Kirsten Davison, M.S., Ph.D., Donald and Sue Pritzker Associate Professor of Nutrition and Associate Professor of Social and Behavioral Sciences

HSPH Bldg. 2, Rm. 331; 617-432-1898; kdavison@hsph.harvard.edu

- Families and child health
- Family-centered interventions for obesity prevention
- Parenting effects on youth physical activity and screen-based activities
- Development and application of conceptual models for obesity prevention
- Program evaluation; longitudinal research designs

Faculty with Appointments in Nutrition Department

Josiemer Mattei, Ph.D., Assistant Professor of Nutrition

HSPH Bldg. 2, Rm. 311; 617-432-4012; jmattei@hsph.harvard.edu

- Genetic, dietary, and psychosocial risk factors of cardiometabolic diseases
- Allostatic load in racial and ethnic groups as a framework to explain health disparities
- Culturally-tailored community-based diet interventions and population-based health promotion programs

Eric Rimm, ScD., Associate Professor of Epidemiology, Associate Professor of Nutrition

HSPH Bldg. 2, Rm. 373a; 617-432-1843; eric.rimm@hsph.harvard.edu

- Cardiovascular epidemiology
- Diet and prevention of ischemic heart disease
- Men's Lifestyle Validation Study

David Ludwig, Professor of Nutrition

Children's Hospital, 300 Longwood Ave; david.ludwig@childrens.harvard.edu

- Treatment of childhood obesity in clinical and community settings
- Glycemic index
- Sugar-sweetened beverage consumption in children

Elsie Taveras, MPH, MD, Associate Professor of Nutrition

etaveras@partners.org

- Diet, physical activity, and weight determinants in childhood
- Obesity prevention interventions
- Relationship between sleep restriction/deprivation and weight gain in children

Emily Oken, Associate Professor of Population Medicine, Associate Professor of Nutrition

HMS, Department of Ambulatory Care and Prevention; 617-509-9835; Emily_oken@hphc.org

- Influence of nutrition during pregnancy and childhood on maternal and child health

Lilian Cheung, D.Sc., Director, Health Promotion and Communication

HSPH Bldg. 2, Room 325; 617-432-1086; lcheung@hsph.harvard.edu

- Promotion of healthy eating and active living for chronic disease prevention
- School-based programming to promote nutrition and physical activity
- Workplace health
- Mass media use in health messaging and campaigns

Faculty with Appointments in Other Departments and Harvard Schools

S. Bryn Austin, S. M., Sc.D., Associate Professor in the Department of Social and Behavioral Sciences. Division of Adolescent and Young Adult Medicine, Children's Hospital; 617-355-8194; bryn.austin@childrens.harvard.edu

- Population-based approaches to the prevention of eating disorders
- Designing and evaluating school-based nutrition and physical activity interventions
- Lesbian, gay, bisexual and transgender health

**Laura Bogart, Associate Professor of Pediatrics
General Pediatrics, Wolbach 2; Laura.bogart@childrens.harvard.edu**

- Obesity prevention in school-based settings
- Community-based participatory research
- Health disparities
- Social psychology

**Cara Ebbeling Assistant Professor of Pediatrics
Division of Endocrinology, 6th Floor; 617-355-2379; cara.ebbeling@childrens.harvard.edu**

- Behavioral counseling for promoting dietary change for children, adolescents and adults
- Using self-report methodology to assess diet and physical activity.

**Alison Field, Associate Professor of Pediatrics; Associate Professor in Epidemiology
Children's Hospital, 6th Floor; 617-355-3735; Alison.Field@childrens.harvard.edu**

- Overweight, weight gain, and eating disorders in children, adolescents and adult women

**Steven Gortmaker, M.S., Ph.D., Professor of Social and Behavioral Sciences
Kresge Room 720; 617-432-1029; sgortmak@hsph.harvard.edu**

- Statistical evaluation methods
- Socioeconomic position and child health
- Social, behavioral, environmental, and policy influences on obesity and other chronic conditions
- School, community and primary-care based interventions to improve nutrition and physical activity and prevent obesity in children and youth

Program Affiliates

**Emily Broad Leib, Clinical Instructor and Director, Food Law & Policy Program; Lecturer on Law
Harvard Law School, Legal Services Center; ebroad@law.harvard.edu**

- Food law and policy and implications for access to healthy foods and the prevention of diet-related diseases

**Angie Cradock, Senior Research Scientist, Deputy Director of Prevention Center
Landmark Ctr, Room 441; 617-384-8730; acradock@hsph.harvard.edu**

- Built environment
- Children's physical activity
- School-based interventions for obesity prevention

Appendix A. Example courses to fulfill concentration-specific requirements

Social & Behavioral Science: Theory	Credits	Semester Offered
__SBS507: Disease Distribution Theory B	2.5	Fall 2
__SBS509: Health Communication in the 21 st Century	2.5	Spring 1
__SBS520: Using PH Theories to Solve Community Hlth Problems	2.5	Spring 1
Social & Behavioral Science: Policy	Credits	Semester Offered
__HPM210: U.S. Health Policy	2.5	Fall 2
__HPM213: Public Health Law	2.5	Spring 2
__HPM247: Political Analysis for Health Policy	5.0	Spring
__SBS246: Issues in MCH Programs and Policies	2.5	Spring 1
__SBS296: Leadership in Minority Health Policy	2.5	Fall
__SBS298: Issues in Minority Health Policy	2.5	Spring 1

Appendix B. Fall 2017-Spring 2018 Academic Year Course Offerings

Harvard Chan Courses		
Introductory Epidemiology		
EPI201: Epidemiologic Methods I	2.5	Fall 1
EPI202: Epidemiologic Methods II†	2.5	Fall 2
Population Health Sciences Courses		
PHS2000A: Quantitative Research Methods I	4.0	Fall
PHS2000B: Quantitative Research Methods II	4.0	Spring
HPM548: Responsible Conduct in Research	1.25	Fall 1, Spring 1
SBS506: History, Politics, & Public Health	2.5	Fall 1
Nutrition Courses		
NUT201: Intro to Nutrition & Public Health	2.5	Fall
NUT202: Biological Basis of Human Nutrition	5.0	Spring
NUT203: Nutrition Seminar Part I (P/F)	1.25	Fall
EPI205: Practice of Epidemiology	2.5	Fall
NUT206: Nutrition Seminar Part II (P/F)	1.25	Spring
NUT209: Seminars in Food Science, Technology, & Sustainability	2.5	Fall
ID214: Nutritional Epidemiology†	2.5	Spring
Public Health Nutrition Courses		
ID238: Programs and Principles of Public Health	2.5	Spring 2
NUT232: Designing & Evaluating Behavioral Interventions Targeting Diet & Phys Activity	2.5	Fall 2
Theory		
SBS507: Disease Distribution Theory B†	2.5	Fall 2
SBS509: Health Communication in the 21 st Century	2.5	Spring 1
SBS520: Using PH Theories to Solve Community Hlth Problems	2.5	Spring 1
Policy		
SBS298: Issues in Minority Hlth Policy	N/A	N/A
HPM210: US Hlth Policy	2.5	Fall 1
HPM213: Public Health Law	2.5	Spring 2
SBS246: Issues in MCH Progs & Policies	2.5	Fall 2
SBS296: Leadership in Minority Hlth Pol	2.5	Fall
Social and Behavioral Methods		
BST212: Survey Research Methods in Community Health	2.5	Spring
SBS231: Community Intervention Research Methods	2.5	Spring 1
SBS265: Program Planning: Design and Evaluation	2.5	Spring 2
SBS288: Qualitative Research Methods in Public Health	2.5	Fall 1
SBS501: Community-based Participatory Action Research	2.5	Fall 2
SBS245: Social and Behavioral Research Methods	5	Fall
HPM543: Quantitative Methods in Program Evaluation	2.5	Spring 2