



HARVARD
T.H. CHAN
SCHOOL OF PUBLIC HEALTH

Department of Global Health
and Population

GUIDE TO THE
DEGREE PROGRAMS

FOR STUDENTS ENTERING
SEPTEMBER 2015

Enquiries should be addressed to:
Education Office
Department of Global Health and Population
Harvard T.H. Chan School of Public Health
665 Huntington Avenue
Boston, Massachusetts 02115
Phone: 617-432-2253
Email: agallant@hsph.harvard.edu

THE DEPARTMENT RESERVES THE RIGHT TO MAKE CHANGES TO THESE REQUIREMENTS

TABLE OF CONTENTS

I.	ACADEMIC BACKGROUND	1
II.	MASTERS PROGRAM.....	6
III.	DOCTORAL PROGRAM	18
IV.	DOCTORAL MAJORS	
	Health Systems.....	30
	Population and Family Health.....	36
V.	APPENDICES	40
	1. SM2 Advisor/Advisee Document	
	2. Sample Justification for Oral/Research Committee Members	
	3. Outside Reader Procedures	
	4. Departmental Committees	
	5. Department Course Offerings	
	6. Other Resources	

MISSION STATEMENT

The [Department of Global Health and Population](#) seeks to improve global health through education, research, and service from a population-based perspective.

I. ACADEMIC BACKGROUND

The Department of Global Health and Population was established in 1962 and is one of nine academic departments at the Harvard T.H. Chan School of Public Health. We offer two degree programs, a two-year Master of Science (SM) and a Doctor of Science degree (SD). Department Faculty have extensive experience and special competence in: policy and economic analysis, the monitoring and evaluation of health interventions, interdisciplinary studies in demography-epidemiology-anthropology, longitudinal and community-based survey methodology, and decision sciences. Substantive areas of focus include women's reproductive health; applied cross-cultural mental health research; child health and human rights; environmental change and health; global nutrition; malaria transmission and control; HIV/AIDS; health systems strengthening; ecological approaches to human health; health and human rights; and humanitarian crises and disaster response. More detailed information is available on the web pages of the Department and of individual faculty: <http://www.hsph.harvard.edu/ghp/>.

The Department has an international student body and its faculty includes specialists from diverse disciplines. Most faculty members have had policy and practical field experience in several regions of the world, and many members of the Department speak two or more languages. All faculty members combine technical competence in a particular discipline with overseas work experience and active participation in international research and training activities.

In addition to the customary research and educational activities, this Department contributes to several special programs in Global Health and Population, which are detailed below.

Concentrations

[Humanitarian Studies, Ethics and Human Rights \(HuSEHR\)](#)

The HuSEHR Interdisciplinary Concentration offers Harvard T.H. Chan graduate students an organized program of study that focuses on the normative underpinnings and practice of humanitarian response. The curriculum covers a broad range of areas including civilian protection, international humanitarian law, human rights, disaster response, coordinated aid, crisis dynamics, sector-based assistance, health and human security of internally displaced people, geopolitical context, monitoring and evaluation, strategic planning, situation analysis, ethics and standards. Upon successful completion of the concentration, students will be prepared to assume research, leadership and managerial roles within the humanitarian and human rights global community. HuSEHR is offered through the Humanitarian Academy at Harvard (<http://hah.harvard.edu>), a University-wide project based at the Harvard T.H. Chan School of Public Health and the Harvard Humanitarian Initiative. Interested students can apply through <http://www.hsph.harvard.edu/husehr>. Questions can be directed to hah@harvard.edu.

Maternal and Child Health/Children, Youth and Families

The MCH/CYF concentration works in conjunction with five academic departments, including the departments of Social and Behavioral Sciences, Nutrition, Epidemiology, Global Health and Population, and Health Policy and Management as well as students in the Health and Social Behavior (HSB) and Global Health (GH) fields of study in the MPH program. Coursework is developed within the concentration to afford students exposure both to expertise in MCH/CYF and to more specialized knowledge relating to the areas of interest within their chosen department. U.S. citizens and green card holders are eligible for federally funded tuition support. Those interested in obtaining this funding will be asked to submit a separate application to the faculty in MCH/CYF. More information is available: <http://hsph.harvard.edu/mch-cyf-concentration/>. For more specific information, contact Trish Lavoie (tlavoie@hsph.harvard.edu) or Caroline Huntington (chunting@hsph.harvard.edu).

Nutrition and Global Health Concentration

The Nutrition and Global Health concentration builds upon a strong base of ongoing research, teaching, collaborative work, and training in nutrition and global health at the Harvard T.H. Chan School of Public Health. The concentration has four participating departments—Nutrition, Global Health and Population, Epidemiology, and Social and Behavioral Sciences—together with the involvement of the François-Xavier Bagnoud Center for Health and Human Rights and the Harvard Humanitarian Initiative. An interdisciplinary approach to teaching and research is taken to explore the effects of nutrition on human and economic development; nutrition in humanitarian crisis situations; and the dynamic interplay between epidemiologic, nutritional, and demographic transitions around the globe. The concentration is dedicated to research that stresses integrative problem solving and evaluation approaches to global health challenges, with a focus on low- and middle-income countries. For more information about the concentration please visit <http://www.hsph.harvard.edu/nutrition-and-global-health/concentration/>.

Women, Gender, and Health (WGH)

This interdisciplinary concentration is geared toward students who desire careers in research, teaching, and programs related to women, gender, and health. Addressing issues of women, gender, and health (WGH) requires the study of the health of women and girls – and men and boys – throughout the life course; gender, gender equality, and biology must be understood as important and interacting determinants of well-being and disease. Areas of study also include gender and gender inequality in relation to individuals' treatment by and participation in health and medical care systems; the physical, economic, and social conditions in which individuals live; and their ability to promote the health of their families, their communities, and themselves. Inherent in these studies is the protection of human rights as fundamental to health and the recognition of diversity and inequality among women – and men – in relation to race/ethnicity, nationality, class, sexuality, and age. As the concentration does not offer a degree, prospective students must apply to a degree program in one of the participating departments. Students must fulfill the requirements of the home department, which issues the degree, and the requirements of the concentration, which include core courses in women, gender, and health; gender analysis; and women's health. More information is available at <http://www.hsph.harvard.edu/women-gender-and-health/>.

Research Programs and Initiatives housed within GHP:

[Harvard China Initiative](#)

Building upon the Harvard T.H. Chan School of Public Health's long-standing global health mission, the Harvard China Initiative was established in 2005, in collaboration with the Chinese Ministry of Health and Tsinghua University. Exciting developments and great challenges continue to face China now well into the 21st century. The past several decades have been indicative of China's great potential and progress with regards to its rapid economic development. With increasing income, people enjoy better nutrition, safer drinking water, better housing conditions, and better health care. Yet China still confronts new challenges, from the rise of non-communicable diseases, to workplace safety, urbanization and environmental degradation. Moreover, without a health safety-net or health insurance, millions of individuals risk impoverishment if they develop serious illness. As a global leader in knowledge creation and transfer, the Harvard T.H. Chan School of Public Health has the capacity to help China effectively address these major issues in health sector development through research and education. More information is available at <http://www.hsph.harvard.edu/china-initiative/>.

[Harvard Humanitarian Initiative \(HHI\)](#)

Founded in 2005, the Harvard Humanitarian Initiative (HHI) is a university-wide center dedicated to an interdisciplinary approach to promoting evidence-based approaches to humanitarian assistance. The mission of the Initiative is to relieve human suffering in war and disaster by advancing the science and practice of humanitarian response worldwide. HHI has a broad network of faculty collaborators, affiliated experts, fellows and students with an interest in research, policy analysis, education and training in the humanitarian arena. In 2012, HHI launched the [Humanitarian Academy at Harvard](#), as one of the first systematic educational centers for students and humanitarian professionals offered by a major university. More information on HHI and the Academy can be found at <http://hhi.harvard.edu>.

[Harvard T.H. Chan School of Public Health India Health Partnership](#)

The India Health Partnership (IHP) is a groundbreaking initiative building on 60 years of collaboration with institutional partners in India, and leverages our shared legacy of research, policy, and advocacy to improve the health of the people of India. The Partnership brings together all Harvard Chan School initiatives focused on India within an innovative and enduring enterprise that facilitates collaborations between Harvard and Indian institutions, faculty, and students, and engages others across Harvard and India in efforts to advance public health. The Partnership is at the vanguard of models for global partnerships to improve the public health of communities around the world. More information is available at <http://www.hsph.harvard.edu/ihp/>.

[International Health Systems Program \(IHSP\)](#)

IHSP is a multidisciplinary team of teaching faculty, research scholars, and technical experts working to improve health care systems in middle and low income countries through research, training, and technical assistance. IHSP's activities involve field projects as well as a series of two-week executive training courses. The program provides opportunities for faculty and students to work on projects in low and middle income countries sponsored by the World Bank, USAID, DFID, WHO, and the Global Fund for HIV/AIDS, TB and Malaria. Field project work involves both research and technical assistance to evaluate and promote innovative interventions in middle and low income countries.

Recent work has focused on research and analysis of decentralization, human resources reforms, and public private partnerships in low and middle income countries. The program also focuses on analysis and advice on political processes of reform, strategies to enhance social capital, research on the organization and management of health care delivery systems, especially for implementation and scale up of proven interventions and strategic planning for human resources in health. IHSP currently leads a large project to strengthen health policy development, leadership and management capacity for the Department of Health in South Africa, working in partnership with the University of Pretoria, the University of Fort Hare and South Africa Partners Inc. IHSP's training and education program currently offers three two-week executive training courses each year on decentralization and management, human resources strategic planning, and quality improvement, as well as special programs for Latin American participants on the innovations of the US health system. IHSP faculty members also participate in the Harvard/World Bank Flagship Course on Health System Strengthening. More information is available at <http://www.hsph.harvard.edu/ihsq/ihsq.html>.

[The Program on the Global Demography of Aging at Harvard University \(PGDA\)](#)

PGDA is funded by the National Institute on Aging at the National Institutes of Health to carry out research on themes related to global aging and health, with an emphasis on issues in the developing world. The program has six themes: the measurement of health, the socioeconomic determinants of healthy aging, health care for the elderly, migration, HIV/AIDS and the economic consequences of population aging. The PGDA supports seminars and workshops and has a working paper series. It also provides resources to assist research in aging by funding pilot projects and post-doctoral fellowships. For more information, visit <http://hsph.harvard.edu/pgda>.

[The Program on Human Rights in Development \(PHRD\)](#)

PHRD is concerned with the realization of human rights in the context of poverty reduction and development strategies, with projects spanning various countries around the world. Through teaching, research and publications, PHRD seeks to deepen understanding of the economic, legal, political, and ethical issues involved in integrating human rights into policies and programs of development. More information is available at <http://www.hsph.harvard.edu/phrd/index.html>.

[The Takemi Program in International Health](#)

The Takemi Program offers midcareer fellowships for professionals and scholars from around the world for research and advanced interdisciplinary training on critical issues of global health, especially those related to developing countries. Takemi Fellows are typically mid- to senior-level health professionals who have significant postdoctoral work experience and who spend the year working on their own research topic. The program addresses problems of mobilizing, allocating, and managing scarce resources to improve health, and of designing strategies for disease control and health policy development. The program has limited internal funding to provide partial support for a few Takemi Fellows and so applicants should identify their own source of support when applying for the fellowship. More information is available at <http://www.hsph.harvard.edu/research/takemi>.

[Women and Health Initiative](#)

The Women and Health Initiative (W&HI) recognizes that, due to persistent social and gender inequality around the world, girls and women experience increased risk of ill-health and injustice within the health sector, both as consumers and providers of health care. The W&HI, founded in

2010, seeks to advance a unique agenda, examining women's health throughout the life course and as drivers of change in the health system. By drawing on resources and expertise from across the Harvard T.H. Chan School of Public Health and the broader Harvard community, the Women and Health Initiative fosters interdisciplinary perspectives and innovative solutions to the challenges women face in the public health arena. A central tenet of the Women and Health approach is that female-driven solutions rooted in gender equality and women's empowerment will strengthen health systems to better address women's needs. Through this effort, the W&HI aims to support women's efforts to fulfill their potential as providers, decision-makers and leaders in health systems and, consequently, committing and preparing them to advance the women's health agenda. Visit the Women and Health Initiative website for more information: <http://www.hsph.harvard.edu/women-and-health-initiative/>.

Affiliated Centers

[François-Xavier Bagnoud Center for Health and Human Rights at Harvard University \(FXB Center\)](#)

is a University-wide interdisciplinary center that works to protect and promote the rights and wellbeing of children in extreme circumstances worldwide. Founded in 1992 through a gift from the Association François-Xavier Bagnoud, the Harvard FXB Center aims to build a conceptual and empirical basis for realizing rights inherent in protection of children and empowerment of adolescents and youth trapped throughout the world in grave poverty and deprivation, harsh oppression, major disaster, and war. Through the lens of health and human rights, the Center's faculty conduct research; teach and supervise students and engage faculty throughout the University; periodically convene leading academics, policy makers, and practitioners to address pressing research or policy issues; and work generally to develop and promote evidence-based policy that has positive impact on the rights and wellbeing of children, adolescents, and their families globally. More information is available at www.fxb.harvard.edu.

[The Harvard Center for Population and Development Studies \(HCPDS\)](#)

Founded in 1964 by HSPH Dean Jack Snyder and founding director Roger Revelle, the HCPDS has continued to spearhead interdisciplinary research focused primarily on population change, socioeconomic development, and public health. The Center supports an analytic and research platform that enables practitioners to work and report on large scale population based studies with rich depth and demographic data. It connects numerous research centers across campus and around the world, thus creating a "community" that fosters collaboration and integration of intellectual capital. It trains students at all levels to become leaders in population health by close collaboration and by way of the latest technologies in the selection, design, development, management, and dissemination of data. Finally, the Center organizes and supports numerous conferences, symposia, and seminars as a means to disseminating research and partnering with other educational institutions and community organizations. More information is available at <http://www.hsph.harvard.edu/centers-institutes/population-development/>.

MASTER OF SCIENCE PROGRAM

Mission Statement

The mission of this degree program is to prepare the next generation of researchers for global health and population around the world in order to advance global health research and reduce the burden of disease, especially in the world's most vulnerable populations.

Goals and Objectives

The program's graduates contribute to the improvement of global health and the resolution of population problems. Graduates have the analytical and technical skills to address health and population problems from a range of disciplinary perspectives. They build a set of advanced competencies covering conceptual approaches, theory and applications, problem solving and analysis, as well as a wide range of quantitative and qualitative methods. Graduates pursue careers in policy analysis, monitoring and evaluation of public health programs, and academic and programmatic research. They will engage with global health research at national and international government agencies, NGOs, the private sector and academic institutions.

The overall objectives of the two-year Master of Science degree program are:

- (i) to provide training in public health sciences to individuals whose prior training and experience prepares them to play a leadership role in generating new knowledge through public health research;
- (ii) to award the SM degree to individuals who have acquired a particular depth of knowledge in public health sciences and who have demonstrated the competencies set out below;
- (iii) to lead students to achieve these capacities in a setting that demands that they query, learn, interpret, and communicate in active interchange with their peers, with faculty, and with other researchers outside the school.

Competencies

Graduates acquire a solid and up-to-date understanding of the major issues in population and global health; the research tools to examine evidence related to program effectiveness, priority setting, and decision making; and insights into the practical aspects of undertaking research and evaluating population health interventions around the world, including a perspective on the economic, social, political, cultural, and ethical considerations that bear on these issues. Upon satisfactory completion of the SM degree, graduates will be able to:

- Identify and apply appropriate quantitative and qualitative methods to the analysis of international, national, regional, or local contemporary problems of public health;
- Synthesize and integrate specialized knowledge and research skills in one or more areas of global health and population (e.g. demography, economics, epidemiology, gender analysis, human rights, law, politics, policy, and statistics), based on advanced course work and independent research study;
- Demonstrate competence in research ethics.

Educational Approach

The distinctiveness of the SM degree in global health and population is the strong focus on research engagement with contemporary public health issues achieved through coursework and connections with the faculty, all of whom actively engage in global health and population research. This training combines an academic education in key disciplinary areas with problem solving, research experience and a final thesis. Throughout the program, students are encouraged to engage with faculty on their research projects, to organize and participate in seminars that promote discussion with members of the Harvard Chan School community, and to engage in research opportunities during Winter Session, which may include either independent studies or courses. Students are also required to conduct a summer research internship which could be used to complete the thesis.

The two-year, 80-credit degree program comprises a core curriculum of courses required by the School and the Department together with electives. The coursework emphasizes the acquisition of research skills and concepts necessary to address a range of global population health issues. Of the necessary 80 credits, the required core courses make up roughly half, allowing considerable flexibility for students to tailor their own degree programs; 60 credits must be letter-grade credits, including a 5-credit required thesis. The remainder of the credits may be taken pass/fail.

The Department provides a detailed course schedule for the two years (see page 9). In the first year of study, students focus on the core courses required by the School and the Department. Foundations of Global Health and Population, GHP 272, offered in the first semester, provides a common platform for the more advanced work that follows. There are approximately 30 required credits in the first year of study, including school-wide requirements; courses in demography, population health measurement, program evaluation, research ethics; and applied courses in politics and economics. In the summer after the first two semesters of instruction, students develop their ability to apply their skills and knowledge to contemporary problems in global health by undertaking a required internship. Students are encouraged to use this research project and the opportunities it provides to inform their thesis. In the Winter Session (January each year), many students join one of the faculty-directed field-based courses, which in recent years have included research work in Bangladesh, Brazil, Chile, China, Ethiopia, India, Jordan, Mexico, Tanzania, and Thailand.

The second year involves a combination of coursework and independent research study. Individual contracts for independent study with faculty members in the school or the university are encouraged in this second year of study, in order to develop additional research skills needed for thesis completion. Some students also choose to take courses at other Harvard University Schools such as the Harvard Kennedy School or the Graduate School of Arts and Sciences.

Admission Criteria

On entry, applicants must hold a bachelor's degree or equivalent in a relevant discipline. Many entering students already hold advanced degrees in medicine or a social science discipline. The admissions committee looks for candidates with:

- GRE or MCAT scores **at least** in the 70th percentile.
- TOEFL test with a minimum IBT score of 100 with a minimum of 25 in the Writing Section, and no less than 23 in the remaining 3 sections.

- College Transcript must show **both a Statistics AND a Calculus** course with a **minimum grade of B+**. This does not include courses on Statistical software (e.g. SAS, SPSS, or Stata).
- Relevant global health or public health research experience is required. The review committee looks for applicants with international work experience for a minimum of 6 months or more full-time equivalent (FTE) over recent years; health work with a migrant population at the domestic level for a minimum of 6 months or more FTE over recent years; substantive policy or advocacy work on a global health issue (e.g. HIV) at the domestic or international level for a minimum of 6 months or more (FTE).

Student Status

- The GHP SM2 Program is offered for **full-time** student status only. Part-time student status is not permitted.
- The GHP SM2 program **does not** grant admission deferrals. Any individual who is admitted to the program and is unable to matriculate will need to reapply.
- Students **may not** request a leave of absence for the purpose of pursuing another degree at Harvard or at another university.

Additional Information

Procedures, deadlines, and test requirements for admission to this program, as well as information on financial assistance, are fully explained in the Harvard T. H. Chan School of Public Health Catalog (<http://www.hsph.harvard.edu/catalog/>). This information may also be obtained from the **Admissions Office**, 158 Longwood Avenue, Boston, Massachusetts (Phone: 617-432-1031) or by visiting the website at <http://www.hsph.harvard.edu/admissions/>.

Master of Science Program (80 credits) in Global Health and Population Degree Requirements for Students Entering Fall 2015

DEPARTMENT REQUIREMENTS	CREDITS	YEAR COURSE SHOULD BE TAKEN
GHP 272 Fall: Foundations of Global Health and Population	5.0	1
GHP 220 Fall 2: Introduction to Demographic Methods	2.5	1
GHP 506 Spring 1: Measuring Population Health	2.5	1
GHP 265 Spring 2: Ethics in Global Health Research	2.5	1
HPM 548 Fall 1 or Spring 1: Responsible Conduct of Research*	1.25	1
GHP 269 Spring 2: Applied Politics and Economics I	2.5	1 OR 2
Economics (<i>see below for choices</i>)	2.5	1 OR 2
Intermediate-level biostatistics (<i>see below for choices</i>)	10.0	1 AND/OR 2
ID 212 Spring 2: Large Scale Effectiveness Evaluations	2.5	2
GHP 299 Fall/Spring: Masters Thesis (Culminating Experience)	5.0	2
GHP xxx: Title TBD (Danaei)	5.0	2

ECONOMICS CHOICES (SELECT A MINIMUM OF 2.5 CREDITS)

YEAR 1 OR 2

HPM 206 Fall: Economic Analysis	5.0
GHP 230 Fall 1: Introduction to Economics with Applications to Health and Development	2.5

INTERMEDIATE-LEVEL BIOSTATISTICS CHOICES (SELECT 10.0 CREDITS)

**YEAR 1, 2 OR
COMBO**

BIO 210 Fall: Analysis of Rates and Proportions	5.0
BIO 211 Fall: Regression and Analysis of Variance in Exp. Research	5.0
BIO 223 Spring: Applied Survival Analysis	5.0
BIO 226 Spring: Applied Longitudinal Analysis	5.0
GHP 525 Fall: Econometrics of Health Policy	5.0
SBS 263 Spring: Multilevel Statistical Methods	5.0
GSE S-052 Spring: Applied Data Analysis	5.0
GSE S-030 Spring: Intermediate Statistics: Applied Regression & Data Analysis	5.0

CORE REQUIREMENTS	CREDITS	YEAR COURSE SHOULD BE TAKEN
BIO 201 Fall: Introduction to Statistical Methods	5.0	1
EPI 201 Fall 1: Introduction to Epidemiology	2.5	1
EPI 202 Fall 2: Elements of Epidemiologic Research	2.5	1

Total required Departmental and Core Credits for Year 1 and Year 2: 50 or 53.75.

Total credits needed for degree is 80 credits of which 60 must be letter grade.

***NOTE: All Departmental and Core Credits must be taken for a letter grade with the exception of HPM 548 which, if taken for credit, is offered only Pass/Fail. Audited courses do not count towards total credits.**

Summer Research Internship

The summer research internship is an opportunity for students to engage in a variety of public health research programs as a team member under the supervision of both their faculty advisor and a field preceptor. The research internship provides a public health setting in which students may integrate and apply the skills and knowledge acquired through their coursework.

Guidelines for Summer Research Internship

During the summer between the first and second years, students are required to undertake a research internship for hands-on experience and to integrate the research skills that they have learned from their coursework. Many students use the summer research experience to develop their thesis.

Objectives

The summer research internship is designed to enable students to:

- integrate and apply the research skills and knowledge acquired through coursework to a public health issue in the field;
- develop the interpersonal skills necessary to be an effective team member within a research group;
- generate data that can be used to develop the Master's thesis;
- further develop oral and written communication skills; and
- work on a public health issue within a research environment.

Placements

Once students have identified a potential research internship opportunity, they must provide the following information to the GHP Education Office by **April 4, 2016**:

- Proof of an acceptable research internship:
 - Description of the research activity and how it may generate new knowledge for the field of global health
 - Location
 - Length (at least 6 weeks @ 30 hours per week required)
 - Letter/Email from the individual who will supervise/work with you during this period
 - Letter/Email from your faculty advisor indicating their approval of this activity (he/she may simply co-sign the letter/email from the field supervisor)
 - Budget – this should include all funding sources

Reporting

Students are required to write a 3-5 page report of their summer activity. This report must be submitted electronically via email attachment to the Education Office (Allison Gallant or Barbara Heil). This report is due **September 21, 2016**.

The following components should be included:

- Description of your summer research internship – activities, responsibilities, and outcomes.

- The name, title and contact information of your supervisor as well as a complete address of the organization/group with whom you are working.
- Indicate whether or not you plan to incorporate your field experience in your Master's Thesis. Explain how you plan to incorporate it, or why you are not doing so.
- Indicate if you would recommend this internship to future students.

At the conclusion of the summer research internship, preceptors will be contacted by the Education Office and asked to provide a written assessment on the student. At a minimum, the assessment should address the following points and provide a brief commentary on each:

- Was the student prepared to fulfill the tasks required? If not, what research skills were missing?
- Was the student reliable and committed?
- Did the student contribute as a team member and work well in a group setting?
- Were the expected tasks completed?
- Would you consider hiring this student in the future?
- In your opinion, does this student show overall promise as a public health researcher?

Preceptors will be asked to email their assessments to the Education Office, (Allison Gallant or Barbara Heil). These will be reviewed by both the student's academic advisor and the SM Committee. The advisor will also discuss the assessment with the student.

All students are required to:

- Consult with their faculty advisor and check the Office of Human Research Administration (OHRA) Guidelines <http://www.hsph.harvard.edu/ohra/> to assess if OHRA approval for the field experience activity is required.
- Register their travel with the Harvard Travel Registry: <http://www.traveltools.harvard.edu>.

Sample of recent internships/summer work:

- Evaluation of community-based Surveillance Program for Avian influenza in Vietnam
- Examine the effect of neonatal vitamin A supplementation on child mortality in multi-site clinical trials in Tanzania
- Evaluation of how perceptions of mental illness impact one's treatment in Ethiopia
- Assessment of the determinants of breastfeeding in a western Amazonian community, Brazil
- Assessment of the determinants of child health and immunization status in an Indian Urban Slum in Mumbai, India
- Measuring health-related quality of life (QoL) of Type II Diabetes Mellitus
- Evaluating Tuberculosis DOTS at the BHU Level in the District of Lahore, Pakistan
- Addressing the persistent high neonatal mortality in Nepal

Winter Session

The Department strongly encourages all full-time students to participate in Winter Session activities, whether for-credit or non-credit, on-site or off-site, in accordance with their individual needs and interests. Activities may include field-based courses, independent studies, and providing research support to faculty projects, among others.

Course Waivers

Students seeking to waive a school-wide core course should follow the procedure as outlined in the [Harvard Chan Student Handbook](#). For Departmental requirements, waivers will be considered only if a student can demonstrate that the subject matter has been covered in a previous graduate level course. To waive an individual required course or one of a choice of courses fulfilling a requirement, please proceed as follows:

- 1) Secure a copy of the syllabus of the course you took that you believe closely matches the course you want to waive.
- 2) Secure an unofficial copy of your transcript indicating the course you took and the grade you received.
- 3) Send the documents to Barbara Heil (bheil@hsph.harvard.edu) with an email identifying which course you would like to be evaluated for in order to waive.

Once your documents have been received, they will be forwarded to the faculty who teach the course so they can evaluate your request. Once they make a decision, you will be informed.

No course substitutions are allowed.

Master's Thesis

The second year usually involves a mix of coursework and the Master's Thesis. The thesis is intended to allow the student to pursue a single topic in depth and demonstrate analytical and substantive research expertise in an area of global health and population. A Master's Thesis is required of all students enrolled in our two-year SM program. Ideally, work on the thesis begins during the summer internship, while the final written version is produced during the student's second year in the program. The thesis serves several purposes:

- It provides an opportunity for the student to work on a new problem or issue of particular interest
- It allows the student to apply many of the research skills acquired in the different courses taken for the degree
- The thesis itself is proof of the student's mastery of certain skills that are important whether the student begins a research-based career or continues to a doctorate research degree
- It is a useful document that can be shown to employers and supervisors indicating a student's level of achievement in particular areas of research

The research skills and understanding that we expect to see developed in part through the research thesis include:

- The capacity to conceptualize a problem and to identify the key research question(s) that need to be addressed
- The ability to reduce broad questions and issues to a specific research question that can be answered with the resources available to the student
- The capacity to apply the technical skills acquired in the courses taken during the two-year period of training
- The capacity to concisely summarize new conclusions based on existing evidence and on new findings obtained in the thesis

- The ability to frame the thesis in a broader context and to summarize how the findings contribute to the development of new knowledge and understanding in the domains of Global Health and Population
- The ability to write a scientific report of publishable quality.

Students are required to register for the thesis (GHP 299) in the Fall semester of their second year. A meeting to discuss the detailed guidelines for the thesis will be scheduled during the Spring semester of Year 1.

Sample of Recent Theses Titles:

- The Economics of an HIV Vaccine
- Health Care Worker Motivations and Perception Related to a Three-Year Results-Based Financing Program in Post-Conflict Uganda
- Implications of Improved Water and Sanitation for Child Health in the Republic of Sudan: A Longitudinal Analysis
- Empirical Paucity, Substandard Education and Female Genital Cutting: The Pursuit of Cultural Competency in Health Care Provision
- An Analysis of Changes in Infant Feeding Practices After the Passage of Indonesia's 2009 Health Law
- The Impact of Multiple Risk Factor Exposures on Early Childhood Development among 2-year-old Children in Rwanda
- Informing Interventions to Prevent Violence: an Analysis of Aggression-related Trauma in the Capital of Honduras
- Guidance for Chlorine Use for Water Treatment in Emergencies
- Financial Incentives and Medical Professionalism in China and the United States in an Era of Health System Reform
- Pay for Performance? A Cross-Sectional Analysis of Diabetic Control and Financial Incentives for Accountable Care Organizations in the United States
- Longitudinal and Comparative Efficiency of the public Health System in Qatar
- Non-communicable Disease in Qatar: An Analysis of Risk Factors, Service Utilization, and out-of-pocket Expenditures
- Ethiopia's Dual Health Equity and Financial Sustainability Goals: A Look at Regional Government and External Aid Financing Mix and Equity in Maternal Health Service Utilization in Ethiopia
- Predictors of exclusive breastfeeding: Evidence from a cohort of HIV-positive and HIV-negative mothers in Dar es Salaam, Tanzania
- Comparative Analysis of Post-Partum Contraceptive use among Adolescent and Adult Mothers in New Mexico: Reproductive Health in a US-Mexico Border State
- Ethiopia's Health Extension Program: A Community Health Worker Program amidst a Changing Population
- The Independent Elderly: Creating a Politically Feasible Health Policy to Enable Older Vermonters to Continue Living Independently

Academic Advisor

All students are assigned an Academic Advisor upon enrollment. The Advisor is responsible for providing guidance and supervision throughout the 2-year program, including approval of the

course selection by the student. Assignment of Advisors may be shifted by mutual consent of the student and the assigned Advisor. While solid efforts are made to match students with an appropriate advisor, there are occasions when a change is beneficial. Neither the academic advisor nor the advisee should feel uncomfortable about initiating such a change. To change an academic advisor, the student should speak with the potential new academic advisor to see if he/she is willing to accept another advisee. Once that has been established, they should speak with the current advisor and indicate who their new advisor will be. Finally, the student should prepare an email which indicates the change from one advisor to another. This email should be sent to Allison Gallant agallant@hsph.harvard.edu in the Education Office, and must be copied to both the old and new advisors.

In an effort to strengthen the advising component of the Department's Master of Science degree program, the SM Committee has prepared a document to clarify the roles and responsibilities of both the academic advisor and the advisee (Appendix 1). Through this document, the committee has endeavored to present clearly the expectations of each and allow for a better understanding and a more cohesive and productive relationship between both parties.

Career Guidance and Internship Opportunities

Master's degree students find employment in a wide variety of capacities within the broad areas of population and global health research. GHP faculty have strong links with the bilateral and multi-lateral health and development agencies, academic institutions around the world, and with national and international non-governmental and private voluntary organizations. Positions are largely identified through networking, and public health is not an exception to this rule. The search should start as soon as possible after a student arrives at the School, and it needs to begin with clarity about the type of position to be sought. Informational interviews with individuals in the field, including Harvard Chan graduates, will be helpful at this stage. Those interviews can clarify those work characteristics to be sought and avoided, as well as any academic or other requirements.

Advisors should be helpful during this initial process, as students' career goals and academic paths are mapped out. Their relative utility during the more specific searches for research internships and jobs will depend upon a number of factors including their (faculty members) own educational background, experience and interests. Students are encouraged to complement discussions with advisors by holding additional conversations with other GHP and Harvard Chan School faculty, especially those with matching research interests and connections.

Students should also make use of the [Harvard Chan Career Advancement Office](#), which is supported by the School especially for this purpose. Staff in this office can help with overall planning of the job or interview search process, CV development, and interview preparation.

Students should be aware, from the outset of graduate study that responsibility for a successful search result rests with them. This is an active, rather than a passive endeavor. The Harvard Chan School and the Department of Global Health and Population cannot and will not provide or guarantee a suitable position upon graduation. School faculty and staff can be extremely helpful, as indicated above but their roles are limited. Successful students will take ownership for their job and internship searches and act upon the guidance provided.

Careers and Positions of Recent Graduates

Recent graduates have chosen a variety of career paths. Some students continue into a doctoral program at Harvard or elsewhere on completion of the master's degree; their eventual aim is usually to work as researchers in varied types of institutions. Others have begun research careers with foundations (The Population Council, Catholic Relief Services, amongst others), whilst others have worked directly for international health and development agencies such as USAID, UN bodies including the World Bank, and companies and non-profit and non-governmental organizations in the US and worldwide such as JSI Inc., BRAC, and SEWA (India). Career advice and opportunities are offered in a number of ways through job postings, a School-wide annual career fair and networking through the faculty. Next, is a sample of positions taken by some of our recent graduates.

EMPLOYER	POSITION
Clinton Health Access Initiative (CHAI), Uganda	Malaria Research Analyst
State of Alaska, Division of Public Health	Research Analyst
Brigham and Women's Hospital and Harvard University	Senior Research Analyst
National Institutes of Health, and Boston Medical Center	Research Associate
Johns Hopkins University, Harvard Chan School (among others)	Research Assistant
John Snow, Inc.	Technical Research Advisor
National Institutes of Health, Department of Health and Human Services (Presidential Management Fellowship)	International Public Health Analyst
Nouna Health Research Center, Burkina Faso Ministry of Health/University of Heidelberg	Health Systems Researcher
The World Bank	Impact Evaluation Specialist
Harvard University, University of Pennsylvania, University of California at San Francisco, Princeton University, (among others)	PhD student

Student Guidance

The Master's Committee holds regular meetings with 1st and 2nd year students aimed at clarifying requirements and at providing guidance in varied activities. The meetings are often scheduled during lunch time, in order to avoid conflict with scheduled classes, and guarantee maximum attendance.

Topics discussed with 1st year students include:

- Summer research internship – suggestions on how to search for opportunities (e.g., consultation of past summer internship reports, available through the GHP Education Office), guidance on available funding, clarification on how to take advantage of the research internship for thesis development, and discussion on human subjects (one meeting in the Fall, and one in the Spring).
- Human subjects – depending on demand, a thorough discussion on human subjects with guidelines on how to secure ethical approval prior to embarking on a summer project.

Topics discussed with 2nd year students include:

- Summer research internship – feedback on the research conducted during the summer and discussion regarding the possibility of using this experience as a basis for their thesis; students are required to submit their summer research internship reports to the department's Education Office (one meeting early Fall).

- Thesis – discussion regarding the selection of topic, data, advisor, and second reader; advice on how to establish clear agreements with advisors regarding the frequency of meetings to discuss thesis progress; and advice on how to establish clear agreements with second reader on how much effort he/she is willing to invest in meetings and draft reviews. A detailed schedule for thesis discussions is provided.

Email communications are sent regularly to both cohorts of students through the department's Education Office. These include reminders of deadlines, internship and job opportunities, thesis award information, and responses to any questions concerning procedures or process.

References

Departmental Master of Science Committee, 2015-16:

Marcia Castro (*Chair*), mcastro@hsph.harvard.edu
David Bloom, dbloom@hsph.harvard.edu
Goodarz Danaei, gdanaei@hsph.harvard.edu
Margaret McConnell, mmcconne@hsph.harvard.edu
Peter Berman (*ex officio*), pberman@hsph.harvard.edu
Wafaie Fawzi (*ex officio*), mina@hsph.harvard.edu

Current Student Contacts:

Rachel Brigell, rhb871@mail.harvard.edu
Emma Din, ehd141@mail.harvard.edu
Janice Hu, jah126@mail.harvard.edu
Ariel Low, asl133@mail.harvard.edu
Greta Martin, grm638@mail.harvard.edu
Helen Pitchik, hop253@mail.harvard.edu
Meera Suresh, mcs813@mail.harvard.edu
Jimena Villar de Onis, jiv166@mail.harvard.edu

Alumni Contacts:

Chi Bahk, cyb819@mail.harvard.edu
Chandrani Banerjee, chandrani136@gmail.com
Vanessa Boulanger, vanessa.boulanger@gmail.com
Sasha Buscho, sashabeth@gmail.com
Courtney Cox, cmc068@mail.harvard.edu
Stacie Constantian, smc424@mail.harvard.edu
Eric Dunipace, ead503@mail.harvard.edu
Joshua Glasser, glasser.josh@gmail.com
Lauren Graybill, lag111@mail.harvard.edu
Natalie Gyenes, nag614@mail.harvard.edu
Taylor Hurst, teh650@mail.harvard.edu
Jami King, jmk577@mail.harvard.edu
Christina Lagos, christina.lagos@gmail.com
Felix Lam, flam@clintonHealthAccess.org
Stephanie Loo, ssl180@mail.harvard.edu
Aileen Palmer, acp180@mail.harvard.edu
Benjamin Picillo, bep819@mail.harvard.edu
Elina Pradhan, elp632@mail.harvard.edu
Sarah Raifman, ser138@mail.harvard.edu
Hannah Ratcliffe, hlr582@mail.harvard.edu
Emma Sheldon, ess104@mail.harvard.edu
Allison Steiner, aks927@mail.harvard.edu
Elena Suzuki, ems915@mail.harvard.edu
Laura Vaughan, ljev743@mail.harvard.edu

III. DOCTORAL PROGRAM

This section presents the Doctor of Science (SD) degree program in the Department of Global Health and Population of the Harvard T.H. Chan School of Public Health.

The doctoral program is open to those with an outstanding academic record, usually in the Master of Science program or equivalent from another university or similar institution. The Doctor of Science degree is intended for persons holding a bachelor's or master's degree in physical, natural, or social sciences.

A number of students from the two-year SM degree in Global Health and Population are usually admitted to the doctoral program each year. Courses taken in the two-year SM degree may count towards the requirements for the doctoral program and by taking appropriate courses students can substantially reduce the time required to complete the doctoral program once they enter.

Doctoral students are encouraged to seek appropriate faculty guidance in participating in the various activities of the Department as part of their degree programs. The Departmental guidelines provide general recommendations. Specific requirements for each major are outlined in this document. Adaptations and alterations of Departmental requirements are not encouraged and are possible only with the written recommendation of the Academic Advisor in consultation with the head of the major, and the approval of the Chair of the Doctoral Committee, Professor Joshua Salomon.

School-Wide Degree Requirements

To earn a doctoral degree, the student must demonstrate, through course work and examination, detailed knowledge and understanding of one major field within the Department and two minor fields, one of which may also be within the Department. A second minor field is required in a complementary disciplinary area either within the Department or in another department of the School or University. Some examples of the other minors include those offered by the Departments of Biostatistics, Epidemiology, Immunology and Infectious Disease, Nutrition, or Social and Behavioral Sciences. A major field consists of 20 or more credits and each minor field consists of at least 10 credits. Only letter grades of B- or better may be counted towards these credits. The student also must demonstrate general knowledge and understanding regarding the fields of population sciences and international health, with a particular focus on problems of developing countries. The student must also prepare and defend a doctoral dissertation representing original research.

Some students arrive with considerable research experience and may move rapidly to completion of the degree, while others must design, collect, analyze, and write-up entirely new dissertation work. The pace of progress depends largely on the student's individual plan, which is designed in collaboration with the Academic Advisor and dissertation committee, and follows the school's timetable.

Throughout the student's study program, the School-wide Committee on Admissions and Degrees (CAD) will monitor performance in course work and in meeting degree requirements for completion within a maximum period of five years. Upon request by the student, leave of absences during the program may be granted. Under such approved circumstances, the leave period would not be counted against the five-year time limit. In cases of unacceptable performance, the student may be

required to withdraw. **Students may not request a leave of absence for the purpose of pursuing another degree.**

A most useful document for doctoral students is the Harvard T.H Chan School of Public Health Student Handbook available on-line: <http://www.hsph.harvard.edu/student-handbook/>. This handbook outlines the various stages of the doctoral program, and provides detailed information on forms, committees and procedures for each stage of a student's doctoral studies. It should be consulted by both students and advisors on a regular basis.

Please note that all forms requiring the Department Chair's signature should be submitted through the Education Office.

Outlined below is the doctoral student timetable over the standard five-year period.

DATE:	PROGRESS DUE:
End of 2 nd Semester	Submission of Prospective Program Sit Paper One of the Departmental Written Qualifying Exam
End of 4 th Semester	Submit Paper Two of the Departmental Written Qualifying Exam
End of 5 th Semester	Submission of Final Program (Includes nominations of faculty for Oral Qualifying Exam)
End of 5 th Semester	Submission of Oral Qualifying Examination Scheduling Form
End of 6 th Semester	Satisfactory completion of Oral Qualifying Examination Submission of Nominations for Research Committee (One month after successful completion of Oral Examination)
Dissertation Research	Progress Report - at least every six months until thesis is completed (target is a maximum of 2 years)
Thesis Submission to Outside Reader	Six weeks prior to intended date of defense
Degree Completion	Thesis presentation and public defense End of 5 th year for full-time students End of 7 th year for part-time students

Full details on the School's procedures for the constitution of the Oral Examination Committee and the Research Committee can be found in the [Harvard Chan Student Handbook](#).

Departmental Requirements

To provide more focus and depth in key areas of Global Health and Population, the Department has identified two areas from which students may form majors for doctoral training. All doctoral students must select from one of the following majors currently offered by the Department:

- Health Systems
- Population and Family Health

Advanced competence in each field requires more than the minimum of 20 credits. Students should consult with their advisor about additional advanced courses in their field of study that are appropriate.

Selection of minor fields are decided in consultation with the Academic Advisor or, in the case of the Health Systems major, the two minors are required. Courses taken in prior graduate programs

may be accorded credit equivalency on the Prospective/Final program as recommended by the Academic Advisor and approved by the Department and CAD.

In addition to its core course, the Department runs a weekly ***Doctoral Research Seminar***, the goals of which are: (1) to help students meet important milestones for advancing their dissertation research; (2) to give students an opportunity to gain practical experience in presenting their research, and to receive constructive feedback on works in progress; (3) to encourage interactions between students and faculty in different tracks and cross-fertilization of ideas, concepts and methods; (4) to provide a forum for students to learn more about the work of their peers; and (5) to contribute to the community of scholarship in the Department by promoting lively discussions among students and faculty around a broad range of topics in global health and population.

The GHP Doctoral Research Seminar is a requirement, and must be taken for credit, by all GHP doctoral students who have completed both Papers I and II of the Written Qualifying Exam (WQE). In most cases, this applies to students in the 3rd year and beyond. Exceptions to this may be those coming into the doctoral program from the SM2 program. Those required to take the seminar for credit must register for two separate independent studies, one in the Fall and one in the Spring. Each independent study is for 1.25 credits and the grading is P/F only. Both of these independent studies are under Prof. Joshua Salomon.

In addition to the school requirements, and the Department's core requirement, a separate set of specific course requirements for each major has been developed and is listed in the corresponding section. These requirements may involve courses offered through other Departments and through other Harvard Schools. They are designed to prepare candidates with doctoral level knowledge in theory, analysis and research methods in a particular area as well as providing candidates with a broad-based education in global health.

Since the doctoral program requires first-year courses that have a strong math component, previous cohorts of students have found it helpful to have a short math refresher before the beginning of the semester to help ease the transition to these classes. For these reasons, students without a strong mathematical background are encouraged to enroll in Part I of a Math Camp offered through the Harvard Kennedy School of Government and the Faculty of Arts and Sciences. The math review is designed to help strengthen a student's math skills and is completely optional. The course is roughly divided in two parts. The first part of the course provides a refresher on calculus, basic probability, and linear algebra. The second part of the refresher covers more advanced topics in constrained optimization and statistics. Schedule information is provided to individuals upon receiving confirmation of their plans to matriculate.

Winter Session

The Department strongly encourages all full-time students to participate in Winter Session activities, whether for-credit or non-credit, on-site or off-site, in accordance with their individual needs and interests.

Course Waivers

Students seeking to waive a school-wide core course should follow the procedure as outlined in the *Harvard Chan Student Handbook*. For Departmental and major specific requirements, waivers will be considered only if a student can demonstrate that the subject matter has been covered to a

similar level in a previous course. All Department waivers must be accompanied by a letter of support signed by both the course instructor and the student's advisor and will be reviewed by the Chair of the Doctoral Committee. No course substitutions are allowed.

WRITTEN QUALIFYING EXAM, ORAL EXAM, AND RESEARCH COMMITTEE

Written Qualifying Examination for Doctoral Students

Upon completion of the requisite course work, the Department requires that all doctoral students sit a Written Qualifying Examination (WQE) consisting of two papers before advancing to the Oral Qualifying Examination. The first paper consists of a written examination while the second involves the submission of a research paper. The intention is that students complete both parts of the Written Qualifying Examination by their fourth semester of study. Students will normally take the first paper at the end of two semesters of study and submit the second paper at the end of four semesters of study. Students with a Master of Science degree from the Department may take both parts of the examination by their second semester of study for the doctoral degree. Paper I of the Written Qualifying Examination will ordinarily be offered **once per year** in May. Any re-sits for Paper I will be taken the following May. Paper II will have a deadline in June with a deadline of resubmission in the case of failure of November 1st of the same year.

Aims of Written Qualifying Examination

The principal aim of the Written Qualifying Examination is to ensure that the student is adequately prepared for a period of independent research. The examination is intended to test the candidate's general knowledge in Global Health and Population and the capacity to deal with the kinds of questions that are likely to occur in the course of writing the doctoral dissertation. Passing the examination indicates that the Department judges that the student is ready to embark on a course of independent research culminating in the submission of a doctoral thesis. Introduction of the Written Qualifying Examination should allow the Oral Examination Committee to focus more sharply on the student's research program. The WQE seeks to:

- a. test a student's overall capacity to put together separate things learned in the core course;
- b. provide questions designed to solicit responses requiring the combination of different bodies of knowledge;
- c. design questions that are of the type one is faced with when they begin research (larger questions);
- d. to solicit answers to these questions that indicate that the student is at a level of comprehension where they are ready to both manage independent research and demonstrate training and mind-set of independence;
- e. provides the student with the opportunity to show ability to process information rather than simply repeating what was learned in a particular lecture and apply it to a larger question in which they may articulate their opinion or view; and
- f. give the student the opportunity to show they are capable of carrying out a piece of independent research.

Structure of the Examination

The examination consists of two papers. Each is described below. The Written Qualifying Examination is **pass-fail only**. If the student fails a paper there will be an opportunity for a re-sit but each paper can be attempted at most twice.

Paper I shall be a 4-hour closed book examination to be taken in the Department and shall consist of two sections. **Section A** shall consist of 2 compulsory questions which will be general in nature, both of which the student must answer. **Section B** shall consist of 4 questions from which the **student must select 2**. All of the questions on Paper I shall reflect general knowledge acquired through the departmental core doctoral course required of *all* GHP doctoral students regardless of their departmental major.

Organization and Grading of Paper I

The subject matter in Paper I will reflect the syllabus and extended reading list of the department's core doctoral course required for all GHP doctoral students. The course instructors shall write the questions in consultation with the Doctoral Committee.

Each student will be issued an anonymous code. Each exam script will bear this anonymous code. The code key will be kept solely in the Education Office.

Each question in the examination will be graded by two Faculty. For Paper I, the doctoral committee will identify graders and at least one of the graders must be a member of the doctoral committee. The Education Office will be responsible for sending a series of reminders to the graders prior to the date of the examination. One of the two Faculty graders may be a member of another department.

Once the examination has been taken, answers will be circulated to all the graders through the Education Office. Graders will have **one month** from the day of the examination to grade the exam and return the students' answers, grade sheets, and comments to the Education Office. The Education Office will record the grades.

When a grade difference of three grades or more exists on a question between two graders, e.g. A- to B-, the graders will be asked to consult with each other and reconsider their marks and comments. Each grader may revise their grade in the light of this consultation or keep it as is.

Examination answers, grades and comments are then considered by the doctoral committee. No conflict of interest will arise from normal academic links between committee members and the students under consideration (e.g. advising and instructing). The committee reviews the overall standard of the answers to all the questions and the marks and comments given by examiner. The committee ensures that graders comments are sufficiently detailed to provide assistance to students. The committee computes an agreed mark for each question by averaging the graders' marks.

The agreed marks for each question are averaged for each paper. The pass mark for the examination is B+ (3.3). Average marks of 3.25 and above are rounded up to 3.3 (B+). The committee confirms the pass or fail of each of the two papers of the WQE separately by a vote of a majority of the committee. The students receive only the pass or fail decision, and not the actual average grade.

If any pass or fail is not confirmed by the doctoral committee, the committee may either:

- a) Return the examination to the graders for reconsideration. Revised grades and comments are then considered again by the doctoral committee.
- b) Appoint one or more additional graders for each question. These graders will mark the questions and provide comments independently of the original graders. The doctoral committee will then reconsider all of the grades and comments, weighting them equally to recalculate agreed marks for each question.

After the result has been confirmed by the doctoral committee, the anonymous code will be un-blinded. Students will be informed by the doctoral committee of the result of the examination. Students and their advisors will also be given the written comments on each question, but not the grade or the identity of the grader.

The Advisor will then meet with the student to discuss the results of the examination. At this point, if a student has failed either or both papers of the examination, the Advisor and the student must outline a plan through tutorials and any additional course work to prepare the student to re-sit the Paper failed. This plan must be in writing and a copy provided to both the Doctoral Committee and the Education Office for the student's file. **All re-sits are taken in May of the following year.**

Paper II is a research paper. It is intended to help students better prepare for the development of their oral proposal and may, in some instances, be further developed as part of their actual proposal.

At the start of the academic year, a detailed timeline, along with collaboration guidelines for Paper II, will be provided to those students scheduled to take the exam. Any faculty who will be directly advising the student on the paper should be named along with the proposed title.

Work on paper II

It may be that work on the paper takes place as part of a larger project involving other people. In this case the student should attach an explanation of authorship making clear their contribution to the work. The contribution of the student in this case should be consistent with being the first author. The student should write the first draft of the paper. A detailed timeline, including conduct of research information and deadlines will be distributed separately.

Content of paper II

The paper should be in a format that makes it ready for submission for a journal. The paper is limited to a maximum of 6000 words. Papers may be shorter if a journal with a more strict word limit is being targeted. An appendix (no word limit) may be attached setting out details not included in the actual paper.

There are no rules on the structure of the paper but most will have the following sections

- Introduction: Pose an interesting question
- Literature Review: Survey the literature on your topic and describe how your research adds to it

- Methods/Data: Formulate your hypothesis and describe your data
- Results: Present your results with the help of tables and graphs
- Discussion: Critique your method and discuss policy implications
- Conclusion: Summarize what you have done and pose questions for further research

NOTE: *With papers that involve statistical analysis, the student must submit electronically a file containing the computer code that was used to perform the analysis.*

Grading

Based on the proposed title the doctoral committee will assign two graders neither of whom will have been involved in advising the student on the paper. The graders will independently grade the paper. Graders will have 2 months to grade the exams. An average mark of B+ is required to pass. A passing grade will indicate that in the opinion of the examiners the papers shows that the student has acquired the skills necessary to successfully undertake research in the field. When a grade difference of three grades or more exists on a question between two graders, the graders will be asked to consult with each other and reconsider their marks and comments. Each grader may revise their grade in the light of this consultation or keep it as is.

The doctoral committee confirms the pass or fail of Paper II. If any pass or fail is not confirmed by the doctoral committee, the committee may either:

- a) Return the paper to the graders for reconsideration. Revised grades and comments are then considered again by the doctoral committee.
- b) Appoint one or more additional graders to review the paper. These graders will mark the paper independently of the original graders. The doctoral committee will then consider all of the grades and comments, weighting them equally to recalculate the marks for each question.

After the results have been confirmed by the doctoral committee, students and their advisors will be informed. The graders' comments will be provided to both the student and their advisor, but not the identity of the graders. They will schedule a meeting to discuss these.

Resubmission of Paper II

Students who have deemed to fail Paper II of the WQE may resubmit. The resubmission date is November 1st for each year. The resubmission should be submitted electronically to Barbara Heil by 5:00 PM (Boston time) on November 1st. No paper will be submitted after that time and the student will be deemed to have failed the examination for a second and final time.

Distinction

The committee will vote on whether a student should be awarded a distinction for overall performance on the WQE. A distinction normally requires an average mark in excess of 3.85 on both papers.

Outcome

A maximum of two attempts are allowed for each part of the examination. After failing either part of the exam twice, the Advisor and the Department Doctoral Committee may recommend that

the student petition for a change in degree status to a Master of Science degree, if appropriate, otherwise the student must withdraw from the doctoral program.

Upon successfully passing the Written Qualifying Exam, the student should immediately meet with their academic advisor to establish their final program, nominate their orals committee and begin preparing their orals proposal in anticipation of the Oral Qualifying Exam.

No student may have non-resident status to begin thesis research until they have passed BOTH the WRITTEN QUALIFYING EXAM and the ORAL QUALIFYING EXAM, have an approved research committee in place, have a meeting with their research committee and submit a signed progress report to the Registrar's Office.

Approval of Orals and Research Committees

The signature of the Department Chair is required for both the Oral Examining Committee and the Research Committee forms. The Department Chair will sign such forms only upon the recommendation of the Department's Doctoral Committee. This procedure has been established as a safeguard to ensure that the proposed committee membership will satisfactorily support the research planned by the student.

Along with the forms, students should submit a 2-3 page proposal/abstract of their planned work, a bibliography, and briefly indicate how the expertise of the individuals nominated for membership will contribute and support the proposed research. These materials should be emailed to Barbara Heil in the Education Office for circulation to the Doctoral Committee. Any changes in membership to these committees should follow the same process. See sample proposal in **Appendix 2**.

Oral Qualifying Exam:

The Oral Examination should be taken NO LATER THAN the end of the 6th semester. Upon successful completion of the WQE, a student should submit their final program, which includes the nomination of their Oral Qualifying Examination Committee. The student should immediately begin writing an orals proposal which should continually be reviewed and revised in consultation with the Orals Committee members. The final proposal is then given to the Orals Committee prior to scheduling the exam. Please consult the [Harvard Chan Student Handbook](#) for the specific steps and forms required.

The orals proposal is basically a work plan, or calendar of activities for the next two year period. In this proposal, a student should:

- a. present a question;
- b. defend why this question is worthy of scholarly research and of public health relevance;
- c. demonstrate an understanding of existing related research;
- d. establish that the proposed research is methodologically sound and explain the methods and data you will be using (survey, secondary data, etc.); and
- e. present some preliminary analysis to demonstrate these methods.

The above points are presented in a proposal to the Orals Committee.

The Committee's role in the oral examination is to basically give their approval for a two-year program of independent research and writing. Their responsibility is to check the feasibility of the proposal by asking the following questions:

- a. is it the right question – is this something worth looking into;
- b. is there a clear and feasible plan of activities that will answer this question;
- c. is the proposal route correct and appropriate;
- d. as a whole, is the work plan manageable in terms of time, money and other resources.

Finally, this exam demonstrates the capacity to produce something. Specifically, it seeks to answer the question, will this plan produce a thesis. ***Within one month of successfully passing the Oral Qualifying Exam, the student must nominate and confirm a Research Committee.*** Rules governing this process may be found in the [Harvard Chan Student Handbook](#).

Research Committee:

Within one month after the successful completion of the Oral Qualifying Examination, a student must submit the nominations for membership of their Research Committee. Students should first obtain departmental approval of the Research Committee following the same process as outlined in **Appendix 2**. If there are no changes in membership from the Orals Committee to the Research Committee, simply email this information to Barbara Heil in the Education Office. While the Research Advisor must be a member of GHP, the others may be from other departments and/or outside of Harvard Chan School (see student handbook for the rules governing committee selection). The role of the Research Committee is to oversee the student's progress towards completion of their thesis. Students are required to meet with their committee every six months and then submit a progress report. Nominations for the Research Committee must be submitted and approved by CAD and the student must convene a meeting with the committee before they may begin any overseas research on a non-residency status.

Outside Readers

Beginning in September 1997, the Department implemented a system of Outside Readers for all doctoral theses in the Department. The principal reasons for this decision were to improve the quality of our doctoral dissertations and to ensure that our theses were on a par with theses presented in other major universities.

All students in the doctoral program are ***required*** to have an Outside Reader for their thesis. **Appendix 3** outlines the necessary steps to be followed when a doctoral student is nearing their thesis defense and is ready to identify an Outside Reader. The Department agreed that the Outside Reader would not be an external *examiner* able to referee the thesis as in some universities but an external *advisor* to the Research Committee and the student.

Non-Resident Status

A minimum of two years full-time residency is required for the degree. Residence accumulated in a related master degree program at the School may be used toward satisfying this requirement.

When dissertation research is to be performed away from the Boston area, students must apply for non-resident status. Before the Committee on Admissions and Degrees (CAD) grants non-resident doctoral status, students must first pass both the Departmental Written Qualifying Exam and the Oral Qualifying Examination. They must also establish their Research Committee, and this Committee must meet with the student to appraise the dissertation plan. Agreement must be reached, and the CAD must approve a written petition ***before the departure of the student***. No student may be Non-resident until all these conditions have been met.

After the completion of the above steps, the Research Committee will use the following criteria for approving non-resident status:

- (1) acceptability and feasibility of the proposed research plan;
- (2) timing and scope of the periodic written reports required (including at least one Progress Report every six months);
- (3) adequate arrangements for direct supervision of the student; and
- (4) the minimum time the student will spend back at the School prior to the thesis defense.

Non-resident status is customarily granted one year at a time. Extensions beyond one year require the submission of acceptable and timely Progress Reports.

Joint Degrees

Students may obtain a joint SD in Global Health and Population and in another Chan School department by satisfying the requirements of both departments. In such cases, the student elects two Major fields (one in each Department) and one Minor field. The Oral Qualifying Examination is taken after all requirements (including the WQE) in both departments have been satisfied. Students interested in such a program should consult with the Chairs of the Departmental Doctoral Committees in both departments.

The Department *expects* candidates to be in residence during the semester preceding their defense; many Advisors and Research Committees will insist on their presence during the semester before submission.

Departmental Doctoral Committee, 2015-16:

Joshua Salomon, jsalomon@hsph.harvard.edu
Committee Chair and Joint Head, Population and Family Health Major

Rifat Atun, ratun@hsph.harvard.edu
Head of Health Systems Major

Till Bärnighausen, tbaernig@hsph.harvard.edu
Joint Head, Population and Family Health Major

Günther Fink, gfink@hsph.harvard.edu

Margaret Kruk, mkruk@hsph.harvard.edu

Peter Berman, pberman@hsph.harvard.edu
Ex officio

Wafaie Fawzi, mina@hsph.harvard.edu
Ex officio

DOCTORAL MAJOR HEALTH SYSTEMS

Head, Prof. Rifat Atun, ratun@hsph.harvard.edu

Well-designed and functioning health systems are central to improving population health equitably. At the same time, health systems must provide financial protection to avert impoverishment due to medical costs and gain patient and citizen satisfaction. Now more than ever, globally policymakers want to know how to reform health systems to achieve these goals. Many international organizations (including the World Health Organization, World Bank, and the Global Fund to Fight AIDS, Tuberculosis and Malaria) have identified health systems strengthening as a key priority in their strategies to improve population health. The Health Systems doctoral program at the Harvard School of Public Health aims to train future leaders in health ministries, academic and research institutions, international agencies and civil society organizations for the tasks required to understand and strengthen health systems.

The study of health systems begins with understanding of an analytical framework. A health system is a means to a set of ends represented by ultimate performance outcomes. The results involve trade-offs between equity, efficiency effectiveness and choice, which are shaped by a society's ethical values and by political processes and actors. The Health Systems major aims to train scholars who can answer questions raised by top policymakers such as how to address equity considerations in health care, how policy components influence performance outcomes, and how political strategies can be designed to improve the political feasibility of policy reforms. This requires a clear understanding of what constitutes a health system, how the broader context and political economy influences health systems reforms, and how the complex interactions of different components—namely financing, payments, organizational structures and processes, regulations, and persuasion to change behavior—determine system performance and outcomes.

Description

The Health Systems doctoral major provides a comprehensive understanding of the approaches and methods of political economy appropriate for health systems research in the international context. The major recognizes that professionals in health systems must be capable of doing advanced research and evaluating the quality and approach of research performed by others. To achieve this, students are exposed to the frontier of knowledge about health systems, potential areas of new research, and methods appropriate for advancing knowledge and conducting significant research.

Students are trained to apply knowledge that addresses major health system questions such as:

- How do changes in health system functions influence health system performance and achievement of goals?
- What financing approaches are appropriate for achieving goals shaped by different ethical values and under varied economic and social conditions?
- Which payment mechanisms are effective in controlling healthcare costs and improving quality of healthcare services?
- How can regulation make the private sector more responsive to societal needs?
- How do political structures and processes affect opportunities for adoption and implementation of health system reforms?

A multidisciplinary approach, is used to address such questions, is the foundation of the Health Systems major. While economics can provide insights into financing and payment issues, political science can help explain policy choices and consequences as well as assess the feasibility of proposed reforms. In organizational design, political science and economics interact to understand how institutions can be organized and how such organizations respond to incentives. Ethical choices are embedded in all these choices and shape what is appropriate for different contexts. To become experts in policy analysis and evidence-based policymaking, Health Systems doctoral students learn an advanced level of quantitative skills and methods in evaluation science, epidemiology and biostatistics, and their application to real-world health system problems.

Building knowledge about interdisciplinary approaches to health systems research is a demanding pursuit, requiring both a deep understanding of disciplinary expertise as well as contextual knowledge of health systems in different national settings. The Health Systems major provides a solid disciplinary base for students, while developing skills in crossing disciplinary boundaries in order to analyze health system problems. The major offers an advanced level of interdisciplinary training in political economy, economics and finance, political science, ethics, and evaluative science, along with a strong foundation of public health skills. Through coursework and applied research, students learn to integrate theories and methods from various disciplines and apply them to analyze critical health system issues.

The Health Systems major is based in the Department of Global Health and Population, and draws on faculty and courses throughout Harvard University. Program faculty, who work globally with many countries and international agencies, are recognized leaders in the field of health systems analysis and have published widely on the subject.^{1,2,3,4,5,6,7} Past collaborative work culminated in the book *Getting Health Reform Right*⁸ which is used for teaching at Harvard Chan School as well as at a joint World Bank course entitled the “Flagship Course on Health Sector Reform and Sustainable Financing.” Faculty members have contributed to major research projects evaluating health systems, including financing and payment systems, burden of disease and cost benefit analysis, National Health Accounts, decentralization of health systems, human resources, benchmarks of fairness for health system reform, and political analysis. Faculty members are involved in many international projects supporting health system reform in low- and middle-income countries as well as more advanced economies.

Opportunities for doctoral research include topics such as: how changes in health systems influence national health spending and outcomes, the impact of decentralization on quality of health care services delivery, the organization and management of human resources to improve health system outcomes, the design and performance of health systems, regulation of health care and pharmaceutical products, equity determinants in health and in health systems, the political economy of health reforms, innovative financing methods to improve equity and efficiency of the health system, adoption of diffusion of complex health innovations in health systems, and consumer responses to characteristics of public and private health care providers.

Doctoral Requirements

¹ Reich MR, et al. Future of Japan's system of good health at low cost with equity: beyond universal coverage. *Lancet* 2011; 378:1265–73.

² Atun R, et al. Improving responsiveness of health systems to non-communicable diseases. *Lancet* 2013; 381:690-97.

³ Hsiao W, et al. Early appraisal of China's huge and complex health-care reforms. *Lancet* 2012; 379; 833-842.

⁴ Atun R. Universal health coverage in Turkey: enhancement of equity. *Lancet* 2013; 382: 65-99.

⁵ Berman P. Organization of Ambulatory Health Care Services: A Critical Determinant of Health System Performance. *Bull. World Health Org.* 2000; 78(6): 791-802.

⁶ Bossert T. Decentralization, Governance and Health System Performance: “Where you stand depends on where you sit”. *Dev. Policy Review* 2010; 28 (6); 669-691.

⁷ Atun R, Androde LOM, Almeida G., et al. Health Systems and Universal Health Coverage in Latin America. *Lancet* 2015; 385; 1230-47.

⁸ Roberts M, Hsiao W, Berman P, Reich M. *Getting Health Reform Right: A Guide to Improving Performance and Equity*, Oxford (2003).

The study of health systems includes theories and methods from economics, political science and ethics to understand and investigate systemic issues. Moreover, it is grounded in evidence that requires mastery of quantitative and qualitative evaluation methods. Therefore, in addition to Harvard Chan required courses in Epidemiology and Biostatistics, the interdisciplinary nature of health systems studies has a series of required courses for doctoral students. They are:

Political Science	GHP 269, Applied Politics and Economics I (Bump)
Economics	Econ 1010a Fall: Microeconomic Theory (FAS) <i>or</i> API 102 D Spring: Economic Analysis of Public Policy (HKS)
Ethics	ID 292, Justice and Resource Allocation (Daniels)
Health Systems	GHP 244, Health Reform (Bossert)
Evaluation Science	GHP 525, Econometrics for Health Policy (Fink) GHP 228, Econometric Methods for Impact Evaluation (Cohen)
Political Economy	GHP 527, Political Economy & Ethics of Health Reform (Bossert)

At the end of this section are the course requirements for a Health Systems major, with a suggested sequence of the required courses for the School, department (GHP) and major (HS). The first year courses cover several disciplines and prepare students for advanced doctoral level courses in the second year including the Doctoral Core Seminar (GHP 527). Students choose two minors from the following three disciplinary fields: economics, political science, or evaluation sciences.

Required courses that are not offered by GHP may be modified yearly by the Health Systems Core Faculty depending on changes in offerings by other schools and departments. Students with prior courses that cover topics in required courses may petition for a waiver with the approval of the faculty offering the required course and the student's advisor. Students are expected to waive out of BIO 201, Introduction to Statistical Methods, and HPM 206, Economic Analysis.

Students in GHP are required to take a two part Written Qualifying Examination at the end of their first and second years. They must pass both parts independently to proceed in the doctoral program. After passing the Written Qualifying Exam, students will be expected to prepare a dissertation proposal and defend the proposal in an Oral Exam.

Principal Faculty Members in the Doctoral Program in Health Systems:

Rifat Atun, ratun@hsph.harvard.edu
Till Bärnighausen, tbaernig@hsph.harvard.edu
Peter Berman, pberman@hsph.harvard.edu
Thomas Bossert, tbossert@hsph.harvard.edu
Jessica Cohen, cohenj@hsph.harvard.edu
Norman Daniels, ndaniels@hsph.harvard.edu
William Hsiao, hsiao@hsph.harvard.edu
Margaret Kruk, mkruk@hsph.harvard.edu
Michael Reich, reich@hsph.harvard.edu
Stephane Verguet, verguet@hsph.harvard.edu

Current Student Contacts:

Angela (Yu-Wen) Chang, yac073@mail.harvard.edu

Jan-Walter De Neve, jjd205@mail.harvard.edu

Ellen Moscoe, eem571@mail.harvard.edu

Iryna Postolovska, irp230@mail.harvard.edu

Alumni Contacts:

Nathan Blanchet, nblanchet@resultsfordevelopment.org

Julia Goldberg-Raifman, juliargoldberg@gmail.com

Ramesh Govindaraj, rgovindaraj@worldbank.org

Kristy Lin, hlin@hsph.harvard.edu

Gayle Martin, gmartin@worldbank.org

Corrina Moucheraud, cmoucher@hsph.harvard.edu

Joseph Naimoli, jnaimoli@usaid.gov

Amy Nunn, amy_nunn@brown.edu

Ravindra P. Rannan-Eliya, ravi@hpra.lk

David Washburn, david.washburn@va.gov

Past Theses:

- Julia Goldberg Raifman, “Essays on HIV & Malaria Treatment in sub-Saharan Africa”
- Dian Kusuma, “Essays on Health Financing for the Poor”
- Corrina Moucheraud, “Evaluation of Strategies and Outcomes in Maternal and Child Health”
- Susan Powers Sparkes, “The Political Economy of Health Reform: Turkey’s Health Transformation Program, 2003-2012”
- Shahira Ahmed, “Assessing the Implementation of Provider-Initiated Testing and Counseling (PITC) in Botswana” (2014)
- Huan-Ying Lin, “The Impact of Public-Sector Governance on Health Development: An Empirical Investigation” (2014)
- Peter Rockers, “Essays on Health Care Use in Zambia” (2014)
- Ye Xu, “Performance of Public Hospitals in China: Clinical Quality, Resource Use and Socioeconomic Equality” (2014)
- Nathan Blanchet, “Implementing National Health Insurance in Sub-Saharan Africa: Economic and Political Analyses of Ghana’s National Health Insurance Scheme” (2013)
- Seemoon Choi, “Pharmaceutical Policy and Behavior Change of Healthcare Facilities in Korea” (2013)
- Zubin Shroff, “The Politics of Publicly Funded Health Insurance in India” (2013)
- Banafsheh Siadat, “The Effect of Health Insurance on Patient and Provider Behavior in Ghana’s Health System” (2013)
- Elif Yavuz, “Effective Malaria Control in Uganda: Examining Aspects of Treatment and Prevention in a New Policy Context” (2013)
- Yarlini Balarajan, “Improving Maternal and Child Health in India: Anemia, Antenatal Care, and Health System Performance” (2012)
- Sarah MacCarthy, “Late Testing and Late Enrollment Access to HIV/AIDS Services in Salvador, Brazil” (2012)
- Tomoko Ono, “International Migration of Nurses: Patterns and Consequences-Case Studies of the US and the Philippines” (2012)

- Yen-Ting (Bradley) Chen, “Strategic Provider Behavior under Global Budget Payment” (2011)
- Victoria Fan, “Essays on Health Systems and Policy in India” (2011)
- Farshad Farzadfar, “Can Health Care Delivery Help Manage Major Cardiovascular Risk Factors in the Population? Evidence from Iran” (2011)
- Anna Heard, “Contracting Out Urban Primary Health Care Services: The Bangladesh Urban Primary Health Care Project” (2011)
- David Washburn, “Applying Diffusion Theory to Implementation: An Analysis of Mexico’s Seguro Popular de Salud” (2011)
- Lingling Zhang, “Geographic Distribution of Human Resources for Health and Choice of Community Practice by Future Physicians in China” (2011)
- Firas Raad, “The Political Economy of Medical Tourism in Jordan” (2008)
- Amy Nunn, “The Politics of Life and Death: A Historical Institutional Analysis of Antiretroviral Drug Policy in Brazil” (2007)
- W. Scott Gordon, “Schistosomiasis Treatment and Control in Africa: Who Gets Treated and Who Gets Missed?” (2006)

Recent Graduates Job Placements:

Assistant Professor, University of California Los Angeles (UCLA)
 Assistant Professor, Global Health, Boston University
 Manager, Market Strategy for Special Programs, Kaiser Permanente
 Research Officer, Alliance for Health Policy and Systems Research, Geneva
 Senior Research Associate, Applied Analytics Team, Clinton Health Access Initiative
 Senior Program Officer, Results for Development Institute
 Post-Doctoral Fellow, Brown University and University of Southern California
 Junior Economist, Health Division, OECD
 Nutrition Specialist, UNICEF (Knowledge Management Focal Point)
 Chair of Non-Communicable Diseases Research Center, Tehran University Medical Sciences
 Research Fellow, Center for Global Health, Washington, D.C.
 Lecturer, London School of Hygiene and Tropical Medicine
 Assistant Professor of Medicine (Research), Brown University
 Pharmaceutical Specialist, World Bank, Washington, D.C.
 Director, Center for Health Policy Research, Sri Lanka
 Health Systems Strengthening Program Officer, PATH
 Postdoctoral Research Fellow & China Initiative Program Coordinator, HSPH
 Health Systems Specialist – Planning, San Francisco VA Medical Center

Course Requirements
Health Systems Major in Global Health and Population

SCHOOL REQUIREMENTS	Credits	Year when course should be taken
---------------------	---------	----------------------------------

- | | | |
|--|-----|---|
| • EPI 201 Fall 1: Introduction to Epidemiology | 2.5 | 1 |
|--|-----|---|

Select ONE of the following (5.0 credits)⁷

- | | | |
|--|-----|---|
| • BIO 210 Fall/Spring: Analysis of Rates and Proportions | 5.0 | 1 |
| OR | | |
| • BIO 211 Fall: Regression and Analysis of Variance in Experimental Research | 5.0 | 1 |
| OR | | |
| • BIO 222 Fall: Basics of Statistical Inference | 5.0 | 1 |
| OR | | |
| • BIO 230 Fall: Probability Theory and Applications | 5.0 | 1 |

DEPARTMENTAL REQUIREMENTS	Credits	Year when course should be taken
---------------------------	---------	----------------------------------

- | | | |
|--|------|----------|
| • GHP 210 Fall: Concepts and Methods of Global Health and Population Studies | 5.0 | 1 |
| • Doctoral Research Seminar – Independent Study (Fall) | 1.25 | Post WQE |
| • Doctoral Research Seminar – Independent Study (Spring) | 1.25 | Post WQE |

HEALTH SYSTEMS MAJOR REQUIREMENTS	Credits	Year when course should be taken
-----------------------------------	---------	----------------------------------

- | | | |
|---|-----|--------|
| • GHP 506 Spring 1: Measuring Population Health | 2.5 | 2 |
| • GHP 269 Spring 2: Applied Politics and Economics I | 2.5 | 1 |
| • ID 292 Spring 2: Justice and Resource Allocation | 2.5 | 1 |
| • GHP 525 Fall: Econometrics of Health Policy ⁸ | 5.0 | 1 |
| • GHP 244 Fall 2: Health Sector Reform: A World Perspective | 2.5 | 1 |
| • GHP 527 Spring: Political Econ & Ethics of Health Reform | 5.0 | 2 |
| • GHP 228 Spring: Econometric Methods in Impact Evaluation | 5.0 | 2 |
| • GHP 237 Spring 2: Behavioral Economics and Global Health | 2.5 | 2 |
| • GHP 245 Spring 2: Financing and Delivery of Health Care in Developing Countries | 2.5 | 1 or 2 |

Select ONE of the following⁹

- | | | |
|--|-----|---|
| • Econ 1010a Fall: Microeconomic Theory (FAS) | 5.0 | 1 |
| • API 102 D Spring: Economic Analysis of Public Policy (HKS) | 5.0 | 1 |

Minor field in economics, political science, or evaluation sciences

Each student chooses two minors and must take 10 credits of advanced courses in each.

⁷ Students are expected to waive out of BIO 201 Introduction to Statistical Methods

⁸ GHP 525 meets the school's requirement for the second of two intermediate biostatistics courses required of doctoral students.

⁹ Students may waive this requirement if they can demonstrate having taken an equivalent course.

DOCTORAL MAJOR
POPULATION AND FAMILY HEALTH
Joint Head, Prof. Joshua Salomon, jsalomon@hsph.harvard.edu
Joint Head, Prof. Till Bärnighausen, tbaernig@hsph.harvard.edu

Assessments of levels, patterns and trends in population health are essential for identifying priorities, monitoring progress, and planning, executing and evaluating health policies. One key component in these assessments is an understanding of the growth, structure and change of human populations (demography), including measurement of mortality and causes of death, along with broader assessments of health and functioning, informed by analyses rooted in the disciplines of epidemiology and biostatistics. Global, regional, national and subnational analyses, attempting to partition the factors determining population health, require competence in several cognate areas including the capacity to translate census, survey and routine health statistics into summary assessments for both priority-setting and action. Another key component of the major is the use of population-based demographic and health data to investigate the causal impacts on population health and demography of health interventions, such as interventions to fight HIV, tuberculosis, or malaria, or primary healthcare and universal coverage reforms. Such analyses require skills in the use of individual-, household-, and community-level data and an understanding of causal inference and evaluation methods. For women and health, an important part of the analyses is to measure the contribution of sex and reproduction to health outcomes in those of reproductive age and beyond.

The major in Population and Family Health is designed to provide the foundation for work on population health around the world. The required coursework illustrates the way in which quantitative methods from demography, epidemiology, statistics and other disciplines can be applied to new challenges in burden of disease assessments. Since much of the work requires analysis of large-scale survey, surveillance systems, census and routinely collected health data, some recommended courses explain the major methods in data collection and analysis. Examination of causes of death and morbidity are based on combinations of demographic and epidemiological principles. Although the training is primarily quantitative, an understanding of the value of qualitative, ethnographic and mixed-methods approaches is encouraged. These methods are valuable in understanding culturally specific norms and values relating to health, and health behaviors including those related to sex and reproduction.

On completion of this major, students are expected to have the skills and conceptual understanding to develop their own research plans in a number of areas, mainly focusing on population and reproductive health issues in low-income countries. Doctoral students with this major have recently written dissertations on HIV/AIDS and infertility in Tanzania; religion and its role in determining the sexual behavior of Ghanaian adolescents, infertility in China and Chad, male and female fertility in The Gambia; longitudinal studies of child growth and development in rural Africa; the causes and consequences of induced abortion in Mexico and Ghana; family planning promotion and its effect on rural fertility in The Gambia; domestic violence as a public health issue in Jordan; abortion in Accra, Ghana; and the contribution of primary health care to child survival in Africa.

Participating Faculty in the Population and Family Health Major

Joshua Salomon (Joint Head), jsalomon@hsph.harvard.edu

Till Bärnighausen (Joint Head), tbaernig@hsph.harvard.edu

Theresa Betancourt, tstichic@hsph.harvard.edu

David Bloom, dbloom@hsph.harvard.edu

David Canning, dcanning@hsph.harvard.edu

Marcia Castro, mcastro@hsph.harvard.edu

Goodarz Danaei, gdanaei@hsph.harvard.edu

Wafaie Fawzi, mina@hsph.harvard.edu

Günther Fink, gfink@hsph.harvard.edu

Ana Langer, alanger@hsph.harvard.edu

Margaret McConnell, mmconne@hsph.harvard.edu

Nicolas Menzies, nmenzies@hsph.harvard.edu

Christopher Sudfeld, csudfeld@hsph.harvard.edu

Current Student Contacts:

Kathryn Andrews, kga418@mail.harvard.edu

Yvette Efevbera, yoe323@mail.harvard.edu

Alexander Kintu, alk121@mail.harvard.edu

Elysia Larson, ell539@mail.harvard.edu

Elina Pradhan, elp632@mail.harvard.edu

Leigh Senderowicz, lgs372@mail.harvard.edu

Emily Smith, ersmith@hsph.harvard.edu

Alumni Contacts:

Andrea Feigl, afeigl@hsph.harvard.edu

Mathieu Maheu-Giroux, mmaheugi@hsph.harvard.edu

Livia Montana, livia_montana@unc.edu

Ryan McBain, rmcbain@hsph.harvard.edu

Kathie Dionisio, kathie.dionisio@gmail.com

Jihong Liu, jliu@gwm.sc.edu

Elizabeth Oliveras, eloveras@fhi360.org

Past Theses Titles:

- Ashkan Afshin, “Diet, Cardiometabolic Health, and Policy”
- Andrea Feigl, “Managing Non-communicable Disease Risk Factors in Developing Countries: Tobacco Control, Cardiovascular Disease Risk Surveillance, and Diabetes Prevention”
- Mathieu Maheu-Giroux, “Malaria Vector Control in sub-Saharan Africa”
- Yuan Lu, “The Impact of Multiple Risk Factors and Preventive Interventions on Cardiovascular Diseases and Disparities”
- Ryan McBain, “Evidence-Based Policy Perspectives on the Treatment of Mental Disorders in Low- and Middle-Income Countries”
- John Quattrochi, “Measurement and Determinants of Under-5 Mortality in Sub-Saharan Africa”
- Leena Merdad, “Investigating New Methods for Estimating Maternal and Child Mortality in the Developing World”

- Carmel Salhi, “Mental Health and Family Context of Arab Youth Affected by Political Conflict”
- Pamela Scorza, “Measurement Non-variance in Cross-Country Depression Estimates in the World Mental Health Surveys”
- Kathie Dionisio, “Biomass Fuels and Air pollution in sub-Saharan Africa: Measurement Studies in Rural and Urban Populations”
- Rifat Hasan, “Determinants of Reproductive Health Behaviors: Evidence on Fertility, Family Planning and Maternal Health”
- Livia Montana, “Estimating Child Mortality in Resource Poor Settings with Insufficient Data”
- Trong Thanh-Hoan (Tony) Ao, “The Biological, Behavioral and Economic Dimensions of Female Bar/Hotel Workers in Northern Tanzania: Implications for HIV and STI Prevention for an At-Risk Population
- Anne Mackay Austin, “Maternal and Child Nutrition Trends in Egypt 1995-2005”
- Gaston Sorgho, “Social Capital and Health in Nouna District, Burkina Faso”
- Goodarz Danaei, “Population and Individual Level Analysis of Cardiovascular Disease Risk Factors: Total Effects Contribution to Disparities and Intervention Analysis”
- Mary Bachman, “Early Child Health and Subsequent Morbidity and Mortality in The Gambia”
- Katherine Beal, “Religiosity and HIV Risk Among Adolescents in Ghana”
- Cari Jo Clark, “Domestic Violence in Jordan: Definition, Prevalence, Reproductive Health Correlates, and Sources of Assistance for Victims”
- Becca Feldman, “Conditional Cash Transfers and Reproductive Behaviors: Evidence from the Oportunidades Program in Rural Mexico”

Positions of Recent Graduates:

Research Fellow, Development Economics Group, Wageningen University, Bukavu, DRC
 Assistant Professor, Harvard School of Public Health
 Senior Technical Officer, Measurement, Learning and Evaluation, Urban Reproductive Health Initiative, Carolina Population Center, UNC-CH
 Research Scientist, Environmental Protection Agency
 Assistant Professor, Boston University, Department of International Health
 Associate Professor, Johns Hopkins University School of Public Health
 Senior Monitoring and Evaluation Advisor, Pathfinder International
 Assistant Professor, Arnold School of Public Health, University of South Carolina

Course Requirements
Population and Family Health Major

(Total 42.5 credits, including Harvard Chan School and GHP Core Requirements)

SCHOOL REQUIREMENTS	Credits (17.5)	Year when course should be taken
---------------------	-------------------	-------------------------------------

EPI 201 Epidemiologic methods	2.5	1
BIO 201 Introduction to Statistical Methods	5.0	1
[If BIO 201 is waived, students <i>must substitute an additional 5.0 credit course</i> from the list below for a total of 15.0 required credits in biostats]		

Select 10 or 15 credits in intermediate biostatistics, chosen from following:

BIO 210 Analysis of Rates and Proportions	5.0	1 or 2
BIO 211 Regression and Analysis Variance	5.0	1 or 2
BIO 222 Basics of Statistical Inference	5.0	1 or 2
BIO 223 Applied Survival Analysis	5.0	1 or 2
BIO 226 Applied Longitudinal Analysis	5.0	1 or 2
GHP 525 Econometrics for Health Policy	5.0	1 or 2

DEPARTMENT REQUIREMENTS	Credits (5.0)	Year when course should be taken
-------------------------	------------------	-------------------------------------

GHP 210 Concepts and methods in global health and population	5.0	1
Doctoral Research Seminar – Independent Study (Fall)	1.25	Post WQE
Doctoral Research Seminar – Independent Study (Spring)	1.25	Post WQE

POPULATION AND FAMILY HEALTH REQUIREMENTS	Credits (20.0)	Year when course should be taken
---	-------------------	-------------------------------------

GHP 220 Introduction to Demographic Methods	2.5	1
GHP 506 Measuring Population Health	2.5	1
EPI 202 Elements in Epidemiological Research	2.5	1

Select 12.5 credits, chosen from the following options:

GHP 231 Sexual and Reproductive Health	2.5	1 or 2
GHP 255 HIV Interventions: Rationale, Design, and Evaluation	2.5	1 or 2
GHP 534 Introduction to Spatial Methods	2.5	1 or 2
GHP 504 Applied Qualitative Methods for Global Health Research	2.5	1 or 2
GHP 269 Applied Politics and Economics	2.5	1 or 2
ID 217 Nutrition and Global Health	2.5	1 or 2
BIO 212 Survey Research Methods in Community Health	2.5	1 or 2
GHP 228 Econometric Methods in Impact Evaluation	5.0	1 or 2
GHP XXX TBD, Goodarz Danaei	2.5	2

APPENDICES

1. SM2 Advisor / Advisee Document
2. Sample of Justification for Orals / Research Committee Members
3. Outside Reader Procedures
4. Departmental Committees
5. 2015-2016 Department Course Offerings
6. Other Resources

SM2 Advisor/Advisee Document

For Academic Advisors to SM2 Degree Students in GHP

What is expected of you as an academic advisor?

- Comply with times when faculty attendance is required, these are noted in the [Harvard Chan Faculty Handbook](#).
- Provide clear communication with advisees in advance of when you will be away and indicate who to contact in your absence.
- Be clear about how advisees should reach you and how to go about setting up appointments with you (e.g., email, sign-up sheet, office hours, assistant).
- Use the appropriate resources available to you to provide advice. These include the Harvard Chan Student Handbook, the Department Degree Program Guide, the Master of Science Program Checklist, and the GHP Webpages.
- Take the time to familiarize yourself with the requirements of the GHP SM2 degree program. In conjunction with your advisees, you are responsible for making sure they take all the requirements in accordance with both the school's and department's time table.
- Be aware of key deadlines (these are often reminded by the Registrar's office and by the GHP Education Office).
- Read and respond to emails from your advisees in a timely fashion.
- You are expected to meet with your advisees *at least* once each quarter.
- Be aware of specific benchmarks in each year of this 2 year program and be prepared to hold additional meetings to discuss these with your advisee as appropriate – internships (year 1), and thesis and jobs/further schooling (year 2).
- Reinforce any expectations of attendance at certain events/seminars/etc. that have been made by the SM2 Committee or the Department Chair.
- If you have any type of concerns about your advisee, please contact Barbara Heil (617) 432-1179, who can help facilitate your concerns.

Specific Recommendations for Academic advisors of First Year Students

Pre-Orientation:

- Upon receiving the names and email addresses of your advisees from the Education Office in late July, you should be emailing a short note welcoming them to the department, encouraging them to read over the course information sent to them from the GHP Education Office, and let them know that you expect to set up a time to meet with them individually during orientation week to help finalize their schedules and answer other questions they may have.

Orientation:

- Each academic advisor is provided with a sign-up sheet. Please block off any times during which you have prior commitments and then attach it to your office door for students to sign up to see you for ½ hour blocks. This meeting provides an opportunity for you to both answer the student's questions and to lay out your expectations.
- Be clear about the process to follow for obtaining your approval for courses they plan to take.
- Be specific about the how many times you expect (at a minimum) to meet with your new advisee each term.

Post-Orientation (during 1st year):

- Begin discussing plans for summer internships in late September.
- Based on internship selection, encourage them to think about using internship for the basis of their thesis; additionally encourage them to think about possible thesis advisors.
- Depending upon internship, students may need to consult *Human Subjects Committee Guidelines* and obtain the proper approval; should be done well in advance.

Specific Recommendations for Academic advisors of Second Year Students

- At beginning of academic year, discuss what they propose to do for a thesis and who they plan to ask to serve as thesis advisor and second reader.
- Each summer, the Education Office conducts an audit of the course work of our returning SM2 students and an email which lists any missing requirements is sent to each student and their academic advisor. This list should be carefully reviewed with your advisee at the beginning of the year to ensure that they complete all of the program requirements.
- Encourage students to take advantage of resume workshops, 'how to interview' workshops, and career fairs that are sponsored through the School's Career Advancement Office.
- Early in the year have conversations with them about their post-graduation plans – job or additional schooling? While you are not expected to secure jobs for your advisees, it is important that you get them thinking and planning for post-graduation. For those planning to join the work force, give them some direction such as recommending personal contacts and/or agencies, NGO's, etc., that they should follow-up with; share with them any opportunities that come across your desk or any that may become available in any of your current research.

For SM2 Degree Advisees in GHP

What is expected of you as an advisee?

- You will receive clear communication from your academic advisor in advance of when they will be away and information indicating who to contact in their absence should you have any questions. Upon receiving this notice, you should plan any necessary meetings accordingly.
- Be sure you are clear about how you should reach your academic advisor and how to go about setting up appointments (e.g., email, sign-up sheet, office hours, assistant).
- Use the appropriate resources available to you for guidance. These include the Harvard Chan Student Handbook, the Department Degree Guide, and the GHP Webpages.
- Take the time to familiarize yourself with the requirements of the GHP SM2 degree program. In conjunction with your academic advisor, you are responsible for making sure that you take all the requirements in accordance with both the school's and department's time table.
- Be aware of key deadlines (reminders are often sent by the Registrar's office and by the GHP Education Office).
- Read and respond to emails from your academic advisor and/or the Education Office in a timely fashion.
- You are expected to meet with your academic advisor *at least* once each quarter, but it is highly recommended that you do more than that.
- Be aware of specific benchmarks in each year of this 2-year program and be prepared to hold additional meetings to discuss these with your academic advisor as appropriate – internships (year 1), and thesis and jobs/further schooling (year 2).
- Have a clear understanding of the expectations of attendance at certain events/seminars/etc, which have been recommended by the SM2 Committee or the Department Chair.
- If you find yourself in a situation where you need any type of help and need to reach out to someone other than your advisor, we encourage you to contact Barbara Heil (617) 432-1179, who can help facilitate on your behalf.

Specific Recommendations for First Year Students

Pre-Orientation:

- In late July you should expect to receive a short welcoming note from the department's Education Office. This note will arrive before the beginning of orientation and will include information on course requirements to help guide you when registration starts in early August. When you arrive in late August for orientation, you will have the opportunity to meet with your academic advisor, fine tune your course schedule, and answer any other questions you may have.

Orientation:

- Each academic advisor is provided with a sign-up sheet. Please be sure to schedule a ½ hour time block to meet with your academic advisor. Use this opportunity to clarify any questions you have about the program, as well as understanding expectations. Gain a clear understanding about the process to follow for obtaining your academic advisor's approval for courses you plan to take, particularly with the electronic approval system.
- Be clear on how many times you should expect (at a minimum) to meet with your academic advisor each term.

Post-Orientation (during 1st year):

- Begin discussing plans for summer internships in late September. Be sure to take advantage of information provided by the 2nd year students based on their summer internship experiences. Sessions to hear directly from the 2nd year students are scheduled early in the fall and have been very useful to 1st year students in planning their internships.
- Based on internship selection, think about using the internship as the basis for your thesis; additionally think about possible thesis advisors.
- Depending upon the type of internship, you may need to consult *Office of Human Research Administration Committee Guidelines* and obtain the proper approval; this should be done well in advance.

Specific Recommendations for Second Year Students

- At beginning of academic year, discuss with your academic advisor what you propose to do for a thesis and who you plan to ask to serve as thesis advisor and second reader.
- Each summer, the Education Office conducts an audit of the course work of our returning SM2 students and an email which lists any missing requirements is sent to each student and their academic advisor. This list should be carefully reviewed with your academic advisor at the beginning of the year to ensure that you complete all of the program requirements.
- Take advantage of resume workshops, 'how to interview' workshops, and career fairs that are sponsored through the School's Career Advancement Office.
- Early in the year have conversations with your academic advisor about your post-graduation plans – job or additional schooling? It is important to understand that it is not the responsibility of your academic advisor to secure a job for you, but he/she will be able to give you some direction such as recommending personal contacts and/or agencies, NGO's, etc. It is your responsibility to follow-up on any leads or contacts provided to you. If you are thinking about pursuing the doctoral program in this department, you are encouraged to begin having conversations with the faculty working and supervising doctoral students in one of the department's majors as identified in the Department Guide. Conversations with current students may also be useful.

Sample Justification for Orals Committee Members

(the same format should be used for the Research Committee)

Toward Universal Health Coverage in Low-Income Countries: Political and economic lessons from the implementation of Ghana’s National Health Insurance Scheme

Major: Health Systems
Minors: Politics
 Mixed (Quantitative and Qualitative) Research Methods

Orals Committee Members:

Dr. Thomas Bossert, Department of Global Health and Population
 Dr. Michael Reich, Department of Global Health and Population
 Dr. Günther Fink, Department of Global Health and Population

Research Proposal Abstract (Goals and Objectives):

As the concepts of “universal health coverage” (UHC) and “health systems strengthening” (HSS) rise in importance on the global health agenda, my dissertation research will broadly focus on how major UHC/HSS-type reforms are implemented in low-income countries. More specifically, I propose to examine whether and how certain political and economic factors determine variation in implementation of national-level health insurance reforms using evidence from Ghana’s National Health Insurance Scheme (NHIS). My research will employ mixed methods. Quantitative analyses will assess individual and district-level variation in NHIS implementation (especially determinants of enrollment, and possibly some effects of enrollment); and qualitative analyses will complement the quantitative findings by exploring particular political-economic mechanisms that help explain variation.

My specific objectives roughly correspond with three proposed papers. These papers will:

- *Assess, quantitatively, determinants of enrollment into NHIS among a sub-population.* For the past year, I have worked with panel data from the Women’s Health Study of Accra to explore why some women enroll in NHIS and others do not; and whether NHIS enrollees are more likely to seek health care. I have focused on the potential salience of theories of adverse selection and moral hazard to guide this inquiry, and have found preliminary evidence that women do select adversely into the scheme, and do display “moral hazard”¹⁰ by seeking more care once enrolled. Next steps include improving the metrics I have used so far, especially for health status and proximity to health facilities; improving my econometric empirical strategy, possibly through the use of instrumental variables; and

¹⁰ The usage of this term is debatable and I may or may not maintain it.

exploring the salience of other theories that explain insurance uptake, such as diffusion theory.

- *Assess, quantitatively and qualitatively, the determinants of district-level variation in NHIS enrollment in (at least) its first year.* I plan to use recently-acquired data from the Ghana Living Standards Survey, plus data such as Parliamentary voting records at the district-level, to determine why some regions and districts in Ghana achieved higher rates of enrollment in its first year than others. These inquiries will be guided by one or more political-economic theories of variation in policy implementation that I am currently studying, including historical institutionalism, state capacity, and social capital. Depending on the theoretical base and more specific hypotheses I develop, I will likely supplement the quantitative data with key informant interviews and original document review.
- *Study, using qualitative methods, the consolidation/revision phase of NHIS implementation triggered by a change in Government in 2009.* In December 2008, Ghana achieved a historical political milestone with its second peaceful, democratic turnover of power from the NPP to the NDC. The NPP started the NHIS in 2003, and once in power the NDC began plans to substantially revise it. Proposed revisions include recentralizing power from district-level schemes to the central, NHIA authority; and implementing a first-of-its-kind “one lifetime premium payment.” Through political analysis using mostly qualitative methods, I plan to examine this change-over and suggest what political and/or economic factors and mechanisms drove it.

In addition, I plan one introductory and one concluding paper/chapter. The first will provide contextual background on the history and politically-charged development of the NHIS, based on secondary literature. The concluding chapter will suggest policy implications of the three core papers’ findings for the future promotion of universal health coverage in low-income countries.

Justification for Oral Committee Members:

Dr. Thomas Bossert (Health Systems). Dr. Bossert will oversee my Major field of health systems. Dr. Bossert is a political scientist who specializes in health systems research, including decentralization of health systems, the political process of policy change, organizational reforms, human resource strategies, and social capital. Most recently, he has begun research on the role of state capacity in moderating the implementation of health reforms, a relationship I plan to explore in my dissertation.

Dr. Michael Reich (Politics). Dr. Reich will oversee my Minor field of Politics. Dr. Reich is a political scientist who focuses on the political dimensions of public health policy, including agenda-setting, access to health technologies, and the political economy of health reforms in several developing and developed countries. Dr. Reich’s expertise is also relevant for my second minor, mixed qualitative and quantitative research methods, as he has developed and applied qualitative methods such as stakeholder analysis for political inquiry of health policies.

Dr. Günther Fink (Mixed Methods). Dr. Fink will oversee my Minor field of mixed (quantitative and qualitative) methods. Dr. Fink is a health economist who specializes in

econometric studies of a variety of public health phenomena, including fertility, ageing, urbanization, and malaria. He has extensive experience in Ghana, where he is currently running a time-use study in Accra and has contributed to the Women's Health Study of Accra, one of my primary data sources. Dr. Fink has supervised my work on my first paper and has been instrumental in helping me access data for my second from the Ghana Living Standards Survey.

Outside Reader Procedures

1. The student and their Research Committee should meet as soon as the first complete draft of the thesis is in view to discuss possible nominees for the outside reader. All members of the Research Committee must agree that the thesis is ready for the Outside Reader review before the process may begin. When considering these individuals, please refer to the following criteria:

The Outside Reader should:

- (a) Be a full professor in a major academic institution with years of experience with the direction and assessment of doctoral dissertations. In general, based on this criterion, those in firms and development agencies are unacceptable.
 - (b) Be a leading figure with professional standing in the field. This is important since we often find our Outside Readers are very valuable as referees for jobs and promotion after graduation.
 - (c) Have worked in the student's area of research (usually evidenced by appearing in the student's bibliography).
 - (d) Should be individuals NOT previously involved directly with the research or the production of the thesis since we are seeking an assessment independent of the work of the student and the previous guidance provided by the Research Committee.
2. With the Research Committee's approval, the student submits the following materials to Barbara Heil in the Education Office for distribution to the doctoral committee for review:
 - (a) an abstract of the thesis;
 - (b) a copy of the bibliography, even if incomplete;
 - (c) 2-3 names of possible Outside Readers meeting the criteria above with a description of how the work of each is tied to the student's thesis work and the suitability of the person to serve as an Outside Reviewer.
 3. The Doctoral Committee will review the materials and inform the student of their preferred nominee with a reserve in case of refusal.
 4. Once the nominee has agreed to serve as the Outside Reader, the student's Research Committee will meet with the student and agree on the final timetable up to and including the thesis defense.
 5. The student will then be responsible for emailing their thesis to Barbara Heil **six to eight weeks** prior to the defense date. All of the student's Research Committee members must be copied on this email. The Education Office will then send the thesis directly to the reader for review. At this time, the role of the reader is explained with the attached instruction sheet and details of responsibilities, the time frame and remuneration. Note that the thesis must be complete (all sections written, tables, graphs and references

included) even though the Reader and the Committee recognize this as the penultimate version of the thesis prior to the defense.

6. During this review process, the only communication with the Outside Reader will be through the Doctoral Committee Chair and/or the Education Office. Neither the student, nor members of the student's Research Committee may contact the outside reader directly at any time during this process.
7. The Outside Reader's report is sent directly to Barbara Heil in the Education Office and is circulated immediately without commentary to all members of the Doctoral Committee, to the student's Research Committee and to the student before the public defense of the thesis.
8. If the Outside Reader fails to provide a report within the agreed timetable, the Doctoral Committee will take action to ensure that the defense is not unduly delayed.

Recommendations from the Outside Reader

Once the report has been received from the Outside Reader, the student meets with the Research Committee to review the commentary and to agree on a strategy for responding to any criticisms before the thesis defense and the production of the final version of the thesis. In the past, these comments have included a mix of general commentary, strategic and theoretical and some more detailed points, both statistical and grammatical. After meeting with their Research Committee to discuss the remarks and recommendations of the Outside Reader, the student will send a brief memo to Barbara Heil outlining the agreed upon next steps. This memo will be circulated to the Doctoral Committee.

In the event that the Outside Reader indicates that the student's thesis is not ready to be defended, the Department Chair will make a determination on the scheduling of the defense after consultation with both the Research and Doctoral Committees.

Department Committees 2015-2016

Doctoral Committee

Joshua Salomon, jsalomon@hsph.harvard.edu
Chair and Joint Head, Population and Family Health Major

Rifat Atun, ratun@hsph.harvard.edu
Head, Health Systems Major

Till Bärnighausen, tbaernig@hsph.harvard.edu
Joint Head, Population and Family Health Major

Günther Fink, gfink@hsph.harvard.edu

Margaret Kruk, mkruk@hsph.harvard.edu

Peter Berman (*ex officio*), pberman@hsph.harvard.edu

Wafaie Fawzi (*ex officio*), mina@hsph.harvard.edu

Master of Science Committee

Marcia Castro (*Chair*), mcastro@hsph.harvard.edu
David Bloom, dbloom@hsph.harvard.edu
Goodarz Danaei, gdanaei@hsph.harvard.edu
Margaret McConnell, mmcconne@hsph.harvard.edu
Peter Berman (*ex officio*), pberman@hsph.harvard.edu
Wafaie Fawzi (*ex officio*), mina@hsph.harvard.edu

Master of Public Health

Paul Campbell, pcampbel@hsph.harvard.edu
Global Health Field of Study Leader

**Department of Global Health and Population
Course Offerings 2015-2016**

Fall 2015

GHP 210 Fall	Concepts and Methods of Global Health and Population Studies; Bärnighausen, B. Bloom, Vollmer; (5.0)
GHP 272 Fall	Foundations of Global Health and Population; Bloom, Lamstein; (5.0)
GHP 525 Fall	Econometrics for Health Policy; Fink; (5.0)
GHP 530 Fall / Spring	Global Health and Practice; Campbell; (2.5)
GHP 557 Fall	Fundamentals of Global Health (MPH Practice Course); Atun; (5.0)
GHP 558 Fall	Health, Inequality and Development; Sen; Anand; (5.0)
GHP 568 Fall	Contemporary Developing Countries: Entrepreneurial Solutions to Intractable Problems; Khanna; (5.0) *Cross-listed HBS 1266; HKS PED-338; HLS 2543; HGSE A-819
GHP 230 Fall 1	Introduction to Economics with Applications to Health and Development; McConnell; (2.5)
GHP 539 Fall 1	Control of Infectious Disease in Low and Middle-Income Countries: Social, Political and Economic Dimensions; Cash, Weisfeld; (2.5)
ID 250 Fall 1	Ethical Basis of the Practice of Public Health; Eyal/Norheim; (2.5)
GHP 220 Fall 2	Introduction to Demographic Methods; Castro; (2.5)
GHP 244 Fall 2	Health Sector Reform: A Worldwide Perspective; Bossert; (2.5)
GHP 255 Fall 2	HIV Interventions: Rationale, Design, and Evaluation; Bärnighausen, Mayer; (2.5)
GHP 288 Fall 2	Issues in Health and Human Rights; Marks; (2.5)
GHP 293 Fall 2	Individual and Social Responsibility for Health; Wikler; (2.5)
GHP 552-2 Fall 2	Leadership Development in Global Health; Gabriel Jaramillo; (1.25)
GHP 553 Fall 2	Human Rights Dilemmas in Child Protection; Bhabha; (2.5)

Winter Session 2016

GHP 263	Grant Writing for Funding of Research and Health Care Projects; Dumbaugh, Fawzi; (2.5)
GHP 511	International Perspectives on Justice for Children; Aptel, Bhabha; (2.5)
GHP 268	Field Experience in Health and Human Rights; Marks, Yamin; (1.25)
GHP 297	Field Trip: Health Reform and Community Medicine in Chile; Bossert; (1.25)
GHP 298	Field Trip to India; Cash; (1.25)
GHP 540	Field Trip to Urban and Rural Bangladesh; Rahman, Cash; (1.25)
GHP 541	Health System Reforms in China: Seminar and Field Study; Liu; (2.5)
GHP 542	Field Trip to Brazil; Castro; (1.25)
GHP 543	Humanitarian Field Study: Assessing the Humanitarian Impact of Migration in North Africa (MENA Region); Brüderlein; (2.5)
GHP 544	The Mexican Health System: Reform, Implementation, and Monitoring/Evaluation; Reich / Lajous; (1.25)
GHP 547	Field Experience in Maternal Health; Langer; (1.25)
GHP 559	Health of Urban Displaced Populations in Post-Conflict Colombia: The Medellin Social Development Model; Greenough / Arbalaez; (1.25)

Spring 2016

ID 217 Spring	Nutrition and Global Health; Fawzi; (2.5)
GHP 228 Spring	Econometric Methods in Impact Evaluation; Cohen; (5.0)
GHP 261 Spring	Models of Complex Systems in Biology and Public Health; Awerbuch, Levins; (2.5)
GHP 299 Spring	Master's Thesis; Castro; (5.0)
GHP 515 Spring	International Humanitarian Response I; Kayden; Maxwell; (2.5) *Cross-listed at Tufts as DHP 213 and NUTR 324
GHP 527 Spring	Political Economy and Ethics of Health Sector Reform; Bossert; (5.0)
GHP 530 Fall / Spring	Global Health and Practice; Campbell; (2.5)
GHP 217 Spring 1	The Human Consequences of Structural Violence in Latin America; Aguayo; Leaning; (1.25)
GHP 504 Spring 1	Applied Qualitative Methods in International Health; Betancourt; (2.5)
GHP 506 Spring 1	Measuring Population Health; Salomon; (2.5)
GHP 532 Spring 1	Introduction to Global Health Delivery; Rhatigan, Mukherjee; (2.5)
GHP 537 Spring 1	Field Methods in Humanitarian Crises I; Greenough, Pham; (1.25)
GHP 548 Spring 1	Global Health Systems: Governance Challenges and Institutional Innovation *HKS IGA-490M; Moon; (2.5)
GHP 552-3 Spring 1	Leadership Development in Global Health; Nils Daulaire; (1.25)
ID 205 Spring 1	Societal Response to Disaster; Leaning, Cranmer; (2.5)
ID 250 Spring 1	Ethical Basis of the Practice of Public Health; Wikler; (2.5)
ID 513 Spring 1	Ethics and Health Disparities; Daniels; (2.5)
ID 212 Spring 2	Large Scale Effectiveness Evaluations; Kruk, Victora; (2.5)
ID 292 Spring 2	Justice and Resource Allocation; Daniels; (2.5)
GHP 214 Spring 2	Health, Human Rights and the International System; Marks; (2.5)
GHP 231 Spring 2	Sexual and Reproductive Health: Global Perspectives; Langer; (2.5)
GHP 237 Spring 2	Behavioral Economics and Global Health; McConnell (2.5)
GHP 245 Spring 2	Financing and Delivery of Health care in Developing Countries; Berman; (2.5)
GHP 265 Spring 2	Ethics of Global Health Research; Cash, Wikler (2.5)
GHP 269 Spring 2	Applied Politics and Economics I: Political Economy of International Health; Bump; (2.5)
GHP 508 Spring 2	Child Protection in Theory and Practice; Bhabha; (2.5)
GHP 518 Spring 2	International Humanitarian Response II; Kayden, Maxwell; (1.25)
GHP 534 Spring 2	Introduction to Spatial Methods for Public Health; Castro; (2.5)
GHP 538 Spring 2	Field Methods in Humanitarian Crises II; Pham, Greenough;(1.25)
GHP 562 Spring 2	Program Monitoring and Evaluation Methods; Valadez; (2.5)
GHP 560 Spring	DrPH Integrating Seminar I; Moon; Berman; Leaning; (5.0)

Summer 2015

GHP 532 Summer 1	Introduction to Global Health Care Delivery; Rhatigan, Farmer, Mukherjee; (2.5)
GHP 555 Summer 1	Management Practices in Health Care Delivery; Weintraub; (1.25)
GHP 556 Summer 1	Conceptual Foundations of Public Health; Frenk, Moon; (2.5)

Others

GHP 300 Independent Study
 GHP 301 Tutorial

Research (for Doctoral Students only)

GHP 350 Research
 GHP 400 Non-resident Research

----- Not Offered 2015-2016 -----

GHP 215 Fall	Foundations in Humanitarian Studies and Human Rights; VanRooyen; (2.5)
GHP 225 Fall	Population, Health and Development; Canning; (5.0)
GHP 552-1 Fall 1	Leadership Development in Global Health; (1.25)
ID 535 WS	Managing Community Health Centers; Campbell; (1.25)
GHP 540 WS	Field Trip to Urban and Rural Bangladesh; Rahman, Cash; (1.25)
GHP 546 WS	Field Research Methods in Humanitarian Crisis: Refugee Health at the Thai-Burma Border I; Parmar, Greenough; (1.25)
GHP 235 Spring 1	Global Health and Global Justice; Daniels; (2.5)
GHP 514 Spring 1	Field Research Methods in Humanitarian Crisis: Refugee Health at the Thai-Burma Border II; Parmar, Greenough; (1.25)
GHP 552-4 Spring 2	Leadership Development in Global Health; (1.25)

----- Permanently Cancelled -----

ID 262 Fall 1	Intro to the Practice of Global Health; Cash; (2.5)
GHP 211 Fall 2	Management Control in Health Organizations; Mitchell; (2.5)
GHP 229 Fall	Theories & Methods of Health Politics; Reich; (5.0)
GHP 507 Spring 1	Population Health Risk Factors; Danaei; (2.5)
GHP 508 Spring 2	Child Protection in Theory and Practice; Bhabha; (2.5)
GHP 509 Spring 2	Seminars in Advanced Population Health Risk Factor Analysis; Danaei; (2.5)
GHP 550 WS	mHealth: How Will it Change Health Care?; Mitchell (2.5)
GHP 554 Spring 2	Innovation, Access to Medicines and Global Governance; Hoffman; Rottingen (2.5)

Other Resources

In addition to the information in this Department Guide, students at Harvard T.H. Chan School of Public Health are expected to review and become familiar with the following resources:

Harvard Chan Academic Calendar

<http://www.hsph.harvard.edu/registrar/academic-calendar/>

Harvard Chan Student Handbook

<http://www.hsph.harvard.edu/student-handbook/>

Harvard University Course Catalog

<https://coursecatalog.harvard.edu/icb/icb.do>

Procedure for Cross-registration at other Schools

<http://www.hsph.harvard.edu/registrar/cross-registration-2/>

Office of Human Research Administration (OHRA)

<http://www.hsph.harvard.edu/ohra/>

Career Advancement

<http://www.hsph.harvard.edu/career-services/>

Other important resources are:

Student Services

[Stacey Herman](#), Associate Dean for Student Services

[Joann Wilson-Singleton](#), Registrar

[Kathryn Austin](#), Director, Student Financial Services

[Leah Kane](#), Director for Student Affairs

[Vincent W. James](#), Director of Admissions

Career Advancement

[Randi Friedman](#), Director of Career Advancement

Alumni Affairs

[James Smith](#), Assistant Dean for Alumni Affairs and Career Advancement