DEPARTMENT OF GLOBAL HEALTH
UNIVERSITY of WASHINGTON

ACADEMIC PROGRAM REVIEW
Self-Study Report

Department of Global Health
School of Public Health | School of Medicine
University of Washington | Seattle, WA




Degrees Offered

- **Master of Public Health (MPH) in Global Health**
- **Doctor of Philosophy (PhD) in Global Health: Metrics & Implementation Science**
- **Doctor of Philosophy (PhD) in Pathobiology**
- **Graduate Certificates in Global Health, Global Health of Women, Adolescents & Children (Global WACh), Global Injury & Violence Prevention and HIV & STIs**

Year of Last Review: Not Applicable (First Review)
Chair: Judith Wasserheit, MD, MPH
Associate Chair for Education & Curriculum: Stephen Gloyd, MD, MPH
Name of Self-study Coordinator: Julie Beschta, MPH
Date submitted: February 6, 2015

DEPARTMENT OF GLOBAL HEALTH
ACADEMIC PROGRAM REVIEW SELF-STUDY REPORT

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SECTION I: OVERVIEW OF ORGANIZATION

A. Mission & Organizational Structure

DGH mission and values

The UW Department of Global Health (DGH) was established in 2007 through a generous gift and endowment from the Bill & Melinda Gates Foundation and matching Washington State/UW resources. The Department is housed within the Schools of Medicine and Public Health and has as its mandate harnessing the expertise and interdisciplinary power of all 16 UW schools and colleges. Today, we are the second largest Department at the University in terms of research funding, with 28 Centers, Programs, and Initiatives (CPIs), and over 350 faculty representing 41 departments and 15 UW schools and colleges. The DGH is widely recognized for its internationally renowned faculty, dedicated staff, and accomplished students.

Shortly after its creation, the department incorporated several longstanding UW training programs. These programs include the Pathobiology PhD Program (since 1959), the Master of Public Health International Health Program (since 1987), and two Graduate Certificate programs (Global Health and HIV & STIs). With several newer programs, we now have nearly 500 students, residents, and fellows in DGH degree and certificate programs - and nearly 1500 students who take courses offered by our Department.

Our mission is to improve health through two, synergistic strategies:

1. Addressing the causes of, and providing solutions for, disparities in health around the globe; and,
2. Enabling international partners to achieve sustainable and independent control of their health programs.

Our values include the following:

1. *Social Justice and Equity:* The Department promotes social justice, health equity and respect for disadvantaged individuals and populations.
2. *Culture of Innovation and Excellence:* We value and support insatiable curiosity, undaunted creativity, informed risk-taking and commitment to delivering one's personal "best."
3. *Interdisciplinarity:* We believe that highly interdisciplinary, team-driven efforts are essential to finding innovative solutions to complex global health problems. Therefore, we seek interdisciplinary approaches in all educational and research initiatives.
4. *Synergies across Education, Research and Service:* Universities play a growing role in global health education and research. They also have tremendous potential to bring together the passion, commitment, and expertise of faculty, students, staff, and

alumni, as well as the community at-large, to improve health through direct service and by shaping the development of policies that reduce global health disparities. The Department recognizes and values the synergies across education, research and service, and strives to link these components in its programs.

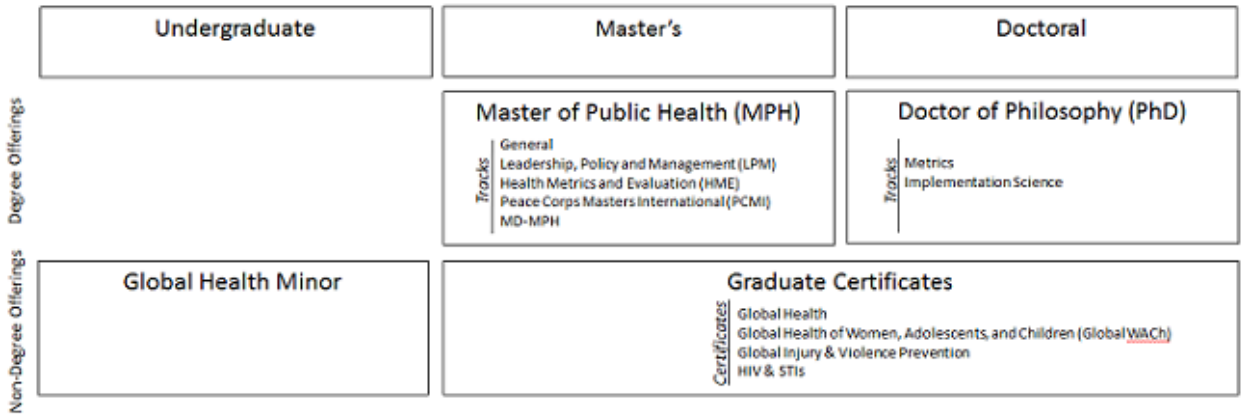
5. *The Power of Partnerships:* Collaborations across the many UW departments, schools, and colleges involved in global health, and partnerships in the region, nation, and internationally, build synergies in global health education, research and practice. Therefore, we are committed to developing and nurturing these critical relationships across UW and with external colleagues and institutions.
6. *Global Access to Education:* We prioritize helping both domestic and international students realize their full potential in improving global health, through education, training, and mentoring, provided both at the UW and abroad.
7. *Diversity:* We encourage and support the multiple identities of staff, faculty and students including, but not limited to, socioeconomic status, race, ethnicity, language, nationality, sex, sexual orientation, gender identity and expression, culture, spiritual practice, geography, mental and physical disability and age.

Degree and certificate programs

As decided at the November 3, 2014 charge meeting, this review will evaluate the following four programs:

1. Undergraduate Minor in Global Health;
2. MPH in Global Health;
3. PhD in Global Health: Metrics and Implementation Science; and
4. Graduate Certificate in Global Health (with parallel review of three additional Graduate Certificates).

Figure 1 Programs Under Review



In addition to the programs listed above and in Figure 1, the department offers several other key education and training programs that will not be evaluated in this review, including the following:

1. PhD program in Pathobiology (currently housed in the Graduate School, and administered by DGH);
2. Post-bachelor and post-graduate fellowships of the Institute for Health Metrics & Evaluation (IHME);
3. Global Health Pathway Certificate for medical students; and
4. Global Health Certificate for Residents & Fellows.

See Appendix D for a brief overview of all of the department's in-residence educational programs, and Appendix E for our full education and training continuum. The DGH also provides extensive non-degree distance educational programs through the International Training & Education Center for Health (I-TECH), Institute for Health Metrics & Evaluation (IHME), and Health Alliance International (HAI).

Enrollment and graduation patterns for the four programs under review are shown in tables 1 and 2 below. See Appendix F for additional information on enrollment and graduation patterns across the department.

Table 1. Annual fall quarter enrollments, by program

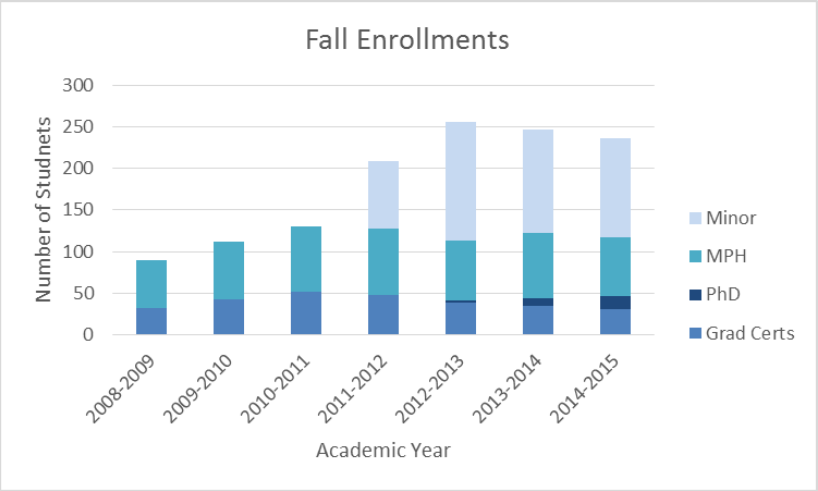


Table 2. Annual graduates, by program*

Program	07–08	08–09	09–10	10–11	11–12	12–13	13–14
Undergrad Minor	-	-	-	4	34	64	103
MPH**	10	11	19	26	31	33	30
Graduate Certificates **	14	24	24	14	30	23	18
Total Graduates	**24**	**35**	**43**	**44**	**95**	**120**	**151**

*The PhD program is expecting its first graduates in the 2014-15 academic year

**See Appendix F for additional breakdown by MPH track and certificate program

Distribution of academic and non-academic staffing

DGH staff are distributed among the Department's research, training, and educational programs as described in the two organizational charts shown in Appendix A and A.1. For the purposes of this self-study the focus will be on departmental leadership, academic faculty and staff, and core administrative staff.

The DGH is unique in that it is housed in two Schools, the School of Public Health (SPH) and the School of Medicine (SOM). The **Chair** (Wasserheit) is the head of the Department and reports to the Deans of both Schools. The **Associate Chair for Education and Curriculum** (Gloyd) has decision making authority over educational policy development and implementation, course assignments, and resource allocation. The **Director of Research and Faculty Development** (Holmes) oversees the Department's extensive research enterprise and faculty mentoring in research and training, and in academic career development. The **Director for Finance and Administration** (Weatherford) oversees Departmental finance, human resources, grant and contract management, and facilities, and works closely with senior leadership and DGH staff to carry out our mission, vision, and goals.

For the programs under review, 70 faculty members actively participate in course teaching, mentoring, and program administration. A list of these faculty, including a link to faculty CVs, can be found in Appendix C. In addition, there are nine faculty (1.0 total FTE) and ten staff members (5.63 total FTE) who directly support the four programs under review. Seven additional staff (1.3 FTE) provide general administrative support (e.g., website support, payroll, human resources, communications) for the Department's educational programs. (See Appendix A1 for staffing distribution by program). The DGH also has over 900 staff working in DGH central administration, and in the Centers, Programs, and Initiatives (CPIs) that are not directly involved in the programs under review. Of those staff, over 700 are working at international sites and are hired through one of several foreign country-level NGOs established and managed by these CPIs. See Appendix G for a list of our CPIs.

Shared governance

The DGH has a **bi-weekly senior leadership meeting** with the Chair, the Associate Chair for Education and Curriculum, the Director of Research and Faculty Development, and the Director for Finance and Administration. The DGH holds **faculty meetings** every other month and on alternate months convenes a **leadership group meeting** in which the heads of CPIs, including educational programs, meet to identify and address strategic issues in the DGH as well as in Global Health. Faculty meetings keep faculty apprised of the education, research, and service activities of the DGH and both Schools, as well as administrative requirements. Faculty meetings include an executive session in which new searches and appointments are approved by voting faculty. Senior faculty from each CPI also participate in the annual merit review, which includes teaching and mentoring. The DGH also has an

Appointments and Promotions Committee that manages the promotions process and advises the Chair.

Department oversight of academic programs is carried out by the Associate Chair for Education and Curriculum, together with the **Education Executive Committee (EEC)**, the Department's curriculum committee. The EEC is responsible for reviewing and approving new curricular initiatives and monitoring existing curriculum. Representation on this committee includes the program directors of the Department's main academic programs as well as students in our core degree and program offerings. This committee meets four to six times per year.

Soliciting advice of external constituents

Every other year, the DGH has an **all-faculty retreat**. On alternate years, the DGH convenes a meeting with its **External Advisory Board (EAB)**. The EAB comprises Global Health experts from the public and private sectors, working around the world. The board reviews the overall progress of the Department's educational, research and service programs, evaluates our strengths and weaknesses, and advises on strategies for future plans. Many of the CPIs, e.g., CFAR and IHME, also have their own external advisory boards, which provide guidance and advice on progress toward achieving their mission, goals and values.

2013-14 EXTERNAL ADVISORY BOARD MEMBERS*

Quarraisha Abdool Karim, MS, PhD, Assoc. Professor, University of KwaZulu Natal, RSA
Ward Cates, MD, MPH, President, Research, FHI 360
Christopher Elias, MD, MPH, President, Global Development, Bill & Melinda Gates Foundation
David Fleming, MD, Vice President, Public Health Impact, PATH, Former Director, Public Health - Seattle King County
William Foege, MD, MPH, Retired Senior Fellow, Bill & Melinda Gates Foundation, Former Director, Centers for Disease Control & Prevention
Patricia Garcia, MD, MPH, Dean, School of Public Health, University of Peruana Cayetano Heredia, Peru
Lawrence Gostin, JD, Director, O'Neill Institute for National & Global Health Law, Georgetown University
Denis Hayes, JD, President & CEO, The Bullitt Foundation
Lee Huntsman, PhD, President Emeritus, University of Washington
Ramanan Laxminarayan, MPH, PhD, Vice-President for Research & Policy, Public Health Foundation of India
Julie Nordstrom, JD, Board Member, University of Washington Medicine
Guy Palmer, DVM, PhD, Director, School of Global Animal Health, Washington State University
Peter Piot, MD, PhD, Director, London School of Hygiene & Tropical Medicine
Frank Plummer, MD, PhD, Scientific Director General, National Microbiology Laboratory, Canada
Brooks Simpson, President, Pacific Rim Medical Systems
Mark Smolinski, MD, MPH, Director, Global Health Threats, Skoll Global Threats Fund
Agnes Soucat, MD, PhD, Director, Human Development Department, African Development Bank
Bruder Stapleton, MD, Senior VP & Chief Academic Officer, Seattle Children's
Juliano Tubino, PhD, Head of Marketing, Amazon, AWS Latin America

*Some members in transition in 2015

DGH faculty elect two representatives to the University **Faculty Senate**, one from each School (currently Lingappa and Lim) and one representative to the **SPH Faculty Council** (currently Gloyd). Given our interdisciplinary charge, in 2008 the DGH formed a cross-campus education committee, the **Curriculum Advisory Committee (CAC)**, with representatives from every UW school and college, which provided regular, on-going advice on educational priorities. In fall 2012, this committee was merged with the existing campus-wide advisory board of the DGH's Global Health Resource Center (GHRC). The advisory board now hosts a curriculum-focused meeting two to three times per year.

As of last year, the DGH began conducting an **annual alumni survey** in which we solicit feedback on the quality of our programs and input on how we can improve our educational programs and enhance the employment opportunities for our graduates.

B. Budget & Resources

Outline of departmental budget

The Department's four primary sources of funding and percent contribution to overall revenue in FY14, are as follows:

1. Grants & Contracts (G&C) — 96.6%
2. General Operating Funds (GOF) — 1.33%
3. Research Cost Recovery (RCR) —1.48%
4. Gifts & Endowments — 0.5%

Appendix B shows a summary of all funding sources since the DGH inception in 2007.

Grants and Contracts (G&C)

The DGH has enjoyed tremendous success in competing for grants and contracts since the Department's inception, and we are currently second only to the Department of Medicine in total grant and contract funding. In FY14 we received $183M in awards. This amount includes awards received by DGH faculty housed in the Institute for Health Metrics and Evaluation (IHME); though all IHME faculty are in the DGH, their G&C revenue flows through a non-DGH organizational code. There are several large and/or prestigious grants including awards from multiple funding sources to the I-TECH Center (approximately 75 million in FY14, the largest being the I-TECH HRSA award for approximately $62M), the Center for AIDS Research (CFAR) award, which was $5.8M, with a $0.4M match from the Provost and School of Medicine, and several NIH Fogarty Center research training grants that provide support to pre and postdoctoral fellows, most from Low/Middle Income Countries (LMICs), who work overseas. G&C direction and expenditures are under the control of the Principal Investigator and/or CPI Director.

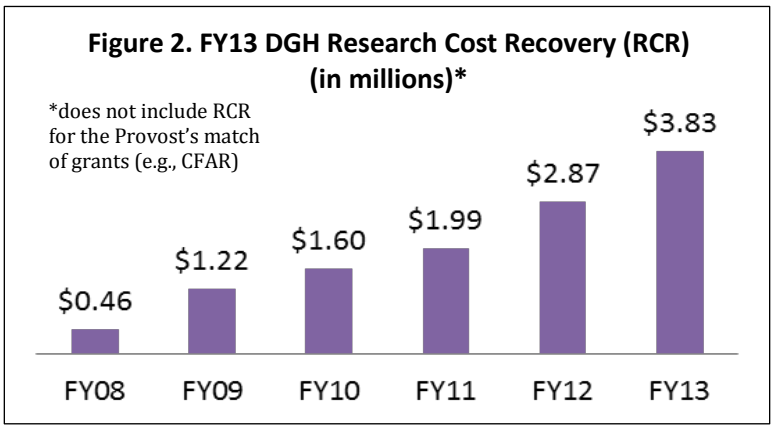
General Operating Funds (GOF)

When the DGH was first established in 2007, each School (SPH and SOM) was to be responsible for providing approximately $1M per year in GOF, phased in by 2009. In the context of a greater than 40% decline in state support between FY09 and FY15 for UW's educational programs, and with the advent of Activity Based Budgeting (ABB), the Schools have taken differing approaches to GOF. The SOM has continued to provide an amount equal to their commitment less the budget cuts that were imposed during the economic downturn – FY14 value equaled $961,502. The SPH was one of the first schools to fully implement ABB in FY13. As such, the SPH taxes all tuition coming to the school to cover the Dean's office expenditures, including the Public Health Undergraduate Major. After tax, the remaining tuition dollars are allocated to departments based on their student credit hours (SCH) relative to the School's total (Note: graduate and undergraduate credits are

calculated separately.) With this approach, DGH received approximately $1.5M in FY 14 from SPH, and uses these funds almost exclusively for education and curriculum activities and to honor tenure commitments.

Research Cost Recovery (RCR)

DGH receives RCR primarily from indirect cost return from the UW Provost to the two Schools, where each School then uses its own methodology to calculate distribution to the DGH. On average, the DGH receives 22.7% of total indirect costs that DGH faculty generate through research for UW. (Note: RCR in Appendix B includes matching funds from the Provost for the CFAR grant mentioned above.) RCR increased steadily through 2013 (Figure 2), and is current at FY12 levels. In 2013, the DGH returned about 50% of the RCR generated by our centers to them. They are expected to provide all administrative support for their organizations from these funds. The overall share of RCR directed to the Centers is determined by the Chair. The remainder is retained in the central core of the department and used to support core staff and operations, including facilities.



Gifts & Endowments

In 2006, the UW received a gift of $10M from the Bill & Melinda Gates Foundation (BMGF) and, in 2007, received an additional $20M endowment from the BMGF. The intent of both was to support establishment of a new Department of Global Health. Initially, endowment income and gift funds were used for basic operations, including faculty and staff salaries. Currently we use both primarily for investment in new initiatives and, per the endowment agreement, to pay a portion of the Chair's salary.

Evaluating current funding and human resources

The majority of DGH revenue and expenditures come from grants and contracts. PIs and CPIs are responsible for monitoring their own fiscal health and expected to act accordingly. It is expected that any projected significant change (increase or decrease) will be brought to the attention of the Chair and Administrator with a plan to rectify the situation in the case of a projected decrease in funding.

DGH core revenue and expenditures (GOF, RCR, gift and endowment income) pay for education and curriculum expenses, tenured faculty, core operations, and new initiatives. They are monitored monthly, quarterly and annually. In FY13, education and curricular costs were the single largest core expenditure (37%), and the MPH program and graduate certificates represented 36% of these costs (Figure 3). As a relatively new department with strong reserves, we have projected expenditures consistent with our strategic plan and

vision, as well as expected changes in revenue streams through FY22. Each year, our long-term projection is updated based on the prior year's revenue and expenses, projected changes in revenue streams, ongoing obligations and projected expenditures.

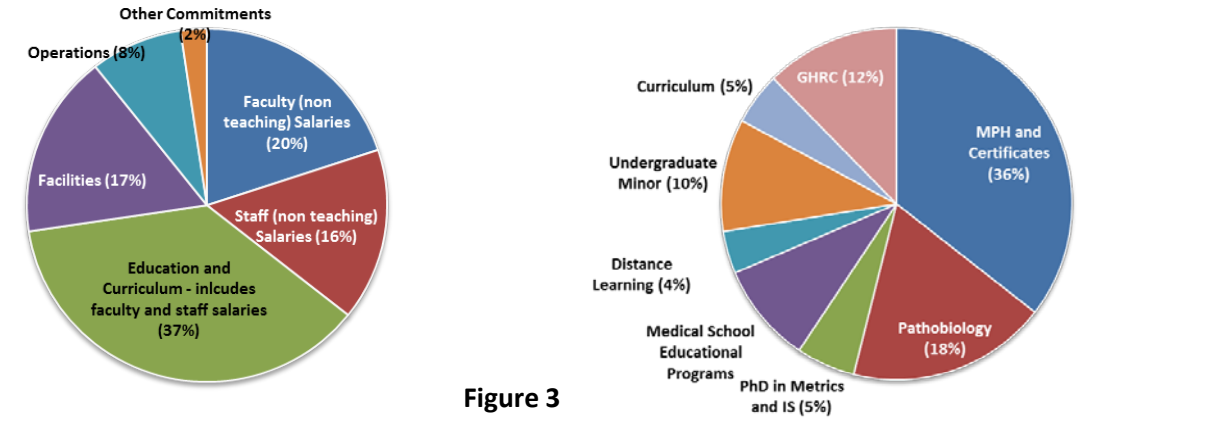


Figure 3

With the advent of ABB, the Associate Chair for Curriculum and Education reviews student credit hours generated from the prior year's enrollment and determines which courses will be taught and what resources (e.g., TAs) provided.

The DGH intentionally has very few tenured faculty. Currently, just seven of 43 DGH primary faculty have tenure; two of these faculty are primary in IHME, which has its own GOF funding. A decision to bring on a new tenured faculty member is made carefully and with close budgetary and strategic scrutiny from the senior leadership group. In cases of tenured and other new faculty hires, the DGH tries to partner strategically with other UW departments and schools/colleges for programmatic, scientific and budgetary reasons.

Strategies for expanding department funding sources

DGH faculty have an excellent track record of obtaining **grant and contract funding**. It is part of our culture that faculty obtain and maintain independent funding; the majority of our junior faculty have funding (usually K awards) when hired. In addition, independent funding is critical for promotion in DGH. To assist in obtaining and sustaining funding levels, faculty are provided robust pre and post award administrative support from staff who are highly skilled and knowledgeable in working with a diverse portfolio of sponsors. Our funding success is also associated with the interdisciplinary nature of our work and our effectiveness in engaging departments, schools and colleges across campus, as well as the many partners locally and across the globe, with particular emphasis on partner institutions in Africa.

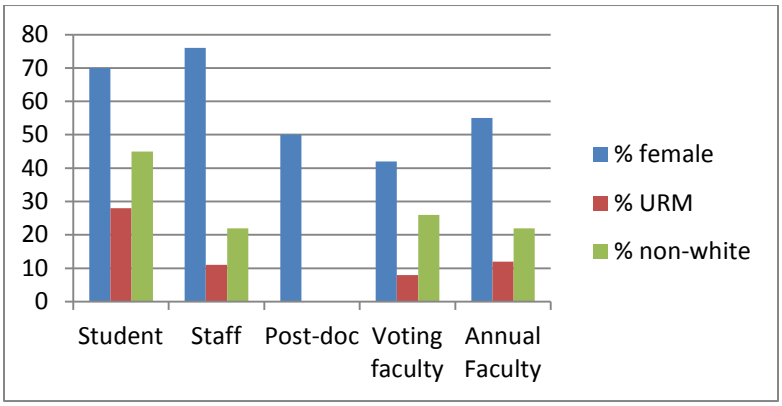
Since our early Gates Foundation gifts, we have met with only moderate success in **philanthropic fund raising**. Our goal is to continue to work closely with both Schools' advancement teams in fund raising, particularly targeting scholarships for students.

We also encourage our students and fellows to seek outside **federal and non-federal sources of funding**, as well as **UW funding opportunities** such as GO-MAP, Top Scholar, and training grants. For both DGH PhD programs (Pathobiology and Global Health Metrics and Implementation Science), the required curriculum covers grant writing. Although it is too soon to have a strong track record in the Metrics and Implementation Science PhD, 40% of the Pathobiology students are on training grants or individually obtained grants.

C. Diversity in the Department of Global Health

Diversity is a key Departmental value. Established in Spring 2014, the Department's Diversity and Inclusion Committee comprises three faculty, four staff, and two students. The Committee's mission, structure, and activities are detailed in Appendix H. Our definition of diversity includes a strong presence of traditionally under-represented minority (URM) students, staff, and faculty, and also a large proportion of students and faculty from other countries. The diversity of our faculty, administrative support services and technical staff is represented in Figure 4.

Figure 4. DGH Diversity Snapshot



Recruitment and retention of underrepresented minority students.
The Department has used University and School resources to attract students from diverse backgrounds, including SPH fellowships and Graduate School Graduate Opportunities and Minority Achievement Program (GO-MAP) funding sources. Outreach strategies include regular attendance, by staff and faculty, at the Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS) conference and the Annual Biomedical Research Conference for Minority Students (ABRCMS) specifically to recruit underrepresented applicants. The MPH program has recently added a **Personal History Statement,** which requires all applicants to describe how experiences in their personal history (family, educational, cultural, and economic background) have influenced their

intellectual development, interests, career plans, and goals. Our MPH enrollment reflects these efforts, with an increase from 13% enrollment of URM students in 2012 to 24% in 2014. We focus faculty and staff attention on ensuring that students from diverse backgrounds receive the support they need to succeed. For coursework that is known to be especially difficult, staff work with course faculty to identify students who could benefit from tutoring and expedite this support. While tutoring funds are available to all students, priority is given to under-represented minorities. Additionally, staff have an open door policy and are responsive to students who need extra help or advising support. We are exploring more systematic ways to attract students of color at the same pace as competing institutions. Staff from our Undergraduate Minor also monitor the enrollment of under-represented minority students. As of the end of Spring 2014, 16% (26) of the 160 students enrolled in the minor were from under-represented populations. In addition, 7% (11) were resident immigrants, and 2% (3) were studying at the University on non-resident student visas.

Recruitment and retention of underrepresented minority faculty.

The Department uses a process outlined by the SPH Diversity Committee for faculty recruitment. This process requires that a member of the SPH diversity committee attends the first search committee meeting for a new faculty member and provides guidelines for conducting searches that are diversity 'friendly' (e.g. posting positions in journals that reach diverse audiences), as well as use of a checklist and reporting form that includes the demographics of all shortlisted candidates. We are working with the new SOM Chief Diversity Officer to review the process of applying for Diversity Supplements, which we believe will eventually help us recruit more faculty from diverse backgrounds. Finally, the SPH diversity committee faculty subcommittee recently interviewed outgoing faculty from the School to inquire about reasons for their departure and to gather suggestions for improving the climate around diversity. Several outgoing faculty suggested that we institute a mentoring program for junior faculty, matching faculty from diverse backgrounds. A formalized mentorship program, and other processes to recruit and retain diverse faculty, is a stated goal of our diversity committee and the DGH as a whole.

SECTION II: TEACHING & LEARNING

A. Student Learning Goals & Outcomes

The Department's educational programs seek to address the causes of, and to help provide solutions for, health disparities around the globe - through preparing the next generation of problem solvers and through collaborating with a wide array of local, national, and international partners and institutions. Student learning goals for each program are established by Department and affiliated faculty, and, in the case of the MPH, by the national accrediting body through the School of Public Health (SPH). In support of program goals, the Department offers a large number of elective courses, in addition to required curriculum (see Appendix I for a list of all DGH course offerings, and Appendix J for course descriptions).

Mechanisms for assessing student learning and satisfaction across all four programs under review include **student grades, student course evaluations, faculty peer review**, and a new DGH annual **alumni survey,** all further discussed in the "instructional effectiveness" section below. Descriptions of each of the four programs, including their distinct student learning goals, outcome and satisfaction evaluations, and use of assessments are described below.

Undergraduate Minor in Global Health

The Global Health Minor was established in 2011 in response to strong undergraduate demand. The number of students graduating with the Undergraduate Minor has grown steadily since the program's inception. The current (2014-15) students in the minor represent 36 unique majors, with about half of these coming from outside the traditional health sciences or pre-health fields.

Student Learning Goals & Curriculum

The purpose of the minor is to give undergraduates from across campus an opportunity to become familiar with the major problems and policy issues in global health, including the determinants of global health and global responses to health problems, including health systems. By becoming knowledgeable in these core areas of global health, students should also be able to engage actively in efforts to improve health as global citizens. The **minor curriculum** is 30 credits, including 11 credits of required coursework, plus 19 elective credits, taken from four major content areas. See Appendix K for details on the specific learning goals and course requirements for the minor.

Assessing Student Learning & Satisfaction

In addition to the methods discussed above, ongoing feedback is solicited from the **GHULC (Global Health Undergraduate Leadership Committee)**, a group of eight undergraduates who serve a minimum term of one year representing the students in the minor. GHULC members meet bimonthly to provide feedback to the minor leadership team, and help develop the undergraduate global health community through sponsored outreach

and events. Seniors graduating with the minor complete an **exit survey** that asks students to assess the overall educational value of the minor to them, including courses, advising and mentoring, special events, and other program activities.

Use of Assessment Findings

Outcome has been measured by feedback from students on course evaluations and by exit surveys. Course evaluations consistently rank high, with most of the required core courses averaging above 4.0 (out of 5) on satisfaction. According to the 2014 exit survey, 12 of 13 total respondents agreed or strongly agreed that the core courses met the goals of the GH Minor, and all agreed or strongly agreed that the elective courses met the goals of the GH Minor. Graduates appear to be equally divided between those going on to graduate school and those going into the work force (in a variety of fields, including public health, nursing, biologic research, among others).

Assessment findings are used for programmatic adjustments. For example, input from course evaluations, GHULC, and the exit survey indicated that the required course in biology was very challenging for many of the non-science major students in the minor. As a result, the existing course was refined, and a new, introductory-level global disease biology course was created as an alternative. In addition, the minor has an extensive list of electives in several domains. This list is dynamic and new courses are frequently added based on student feedback. Finally, the program has recently increased its advising staff due to feedback from GHULC and the exit survey noting the usefulness of advising support given the minor's multi-disciplinary curriculum and enrollment from multiple, diverse departments. Increased enrollment enabled us to financially support an increase in staffing from 0.5FTE to 1.0FTE.

Response to Assessments: Undergraduate Minor

- *New introductory biology course for non-science majors*
- *Expanded list of elective courses*
- *Additional advising staff*

Master of Public Health (MPH) in Global Health

In 2008, the department incorporated the longstanding International Health Program MPH in Health Services into the DGH with a modest expansion and diversification of its curriculum. Our MPH program emphasizes a social justice approach to global health issues, with a focus on the social, economic, and political determinants of health, and the history and context of global responses to health problems. It is designed to provide the knowledge, skills, and experiences needed to enable graduates to assume technical, management, leadership, and research roles around the world. Most students have at least two years of health-related work experience in a low/middle-income country; thus, our cohorts enter with cumulative experiences from around the world and with various populations. We are also fortunate to have diversity in age, gender, and background.

Students enroll into our MPH program through one of the following tracks:

- **General Track** — for students with substantial global health or other health-related experience in disadvantaged communities who seek further training and careers in research and program implementation. Research-oriented students usually pursue this track.
- **Leadership, Policy, and Management (LPM) Track** — primarily mid-career professionals with global health experience seeking training to be leaders, managers, and policy advocates. Includes some students with previous research and training experience.
- **Health Metrics and Evaluation (HME) Track** — for recent college graduates with advanced quantitative skills.
- **Peace Corps Masters International (PCMI) Track** — for students who do not necessarily have developing country health work experience. Students complete a two-year Peace Corps assignment following the first year of the program and complete their thesis upon return to the UW.
- **MD-MPH Track** — a concurrent degree program designed for medical students who add one year to their medical school curriculum to complete the MPH degree.

Each year, several of our students combine an MPH with concurrent graduate degrees in other fields, the most frequent being Social Work, Public Affairs, Nursing, Anthropology, International Studies, and Law. DGH faculty also provide substantial support to the Global Health Track of the MPH in the Department of Epidemiology, serving as advisors, thesis committee members, and participants on the admissions committee. Students in the Epidemiology MPH Global Health Track program take classes and work closely with the DGH MPH students.

Students are encouraged to gain hands-on experience through the department's many CPIs, fellowships, research and service opportunities, and faculty mentorship. Case studies and applied learning are common in required courses; contributions by students with broad experience provide an additional component to enrich the learning environment. The practicum and thesis requirement encourage these experiences, and provide key opportunities for practical training:

- **MPH practicums** provide students the opportunity to use knowledge and skills acquired in the program in a practice agency or environment, under the direction of a supervisor in the agency. The practicum facilitates development of leadership and group process skills, political awareness and communication skills, fundraising skills, and understanding organizational behavior. Students carry out their practica either locally (Seattle, US) or abroad, with agencies and NGOs such as PATH, I-TECH, and HAI, health departments, or community organizations.
- **MPH theses** are written products of original research that use rigorous methods appropriate to the research questions. The thesis may be research or practice-based, and must generate new knowledge and apply concepts and methods from disciplines relevant to public health. The thesis is written in a scholarly format and

all students defend their theses in an open forum consisting of faculty (including thesis committee members), students, and staff. Based on Graduate School exit survey data for DGH MPH graduates between 2008-2013, nearly 20% of respondents published in a journal while in the program (up to one-third in 2011-2013), and over 80% indicated an intent to publish. 2011-2013 responses on both measures are significantly higher than those indicated for either the SPH, or the university as a whole.

Student Learning Goals & Curriculum

All UW MPH programs, regardless of department or track, share a common set of core MPH competencies and required coursework in biostatistics, environmental and occupational health sciences, epidemiology, health administration and policy, and social and behavioral sciences This coursework, plus a practicum and culminating experience (thesis), form the core of the UW MPH program and are mandated by the Council on Education for Public Health (CEPH), the US accrediting body for MPH degrees. The degree requires a minimum of 63 credits. Students typically complete the program in 4 to 6 quarters (12-21 months), including coursework and thesis. See Appendix L for MPH student learning goals and requirements.

Assessing Student Learning & Satisfaction

Collective student learning and satisfaction is assessed in multiple ways. Each year, **student representatives** are selected to provide student feedback at **MPH faculty** and **DGH curriculum committee** meetings. MPH staff and faculty maintain an open door policy, so individual **verbal feedback** is ongoing and shared across the program, as appropriate. We also review the annual **UW Graduate School Exit Questionnaires.** Results for the 2012-13 survey (the latest year available) show the DGH received higher ratings than both the SPH and UW on key measures of academic quality (Figure 5).

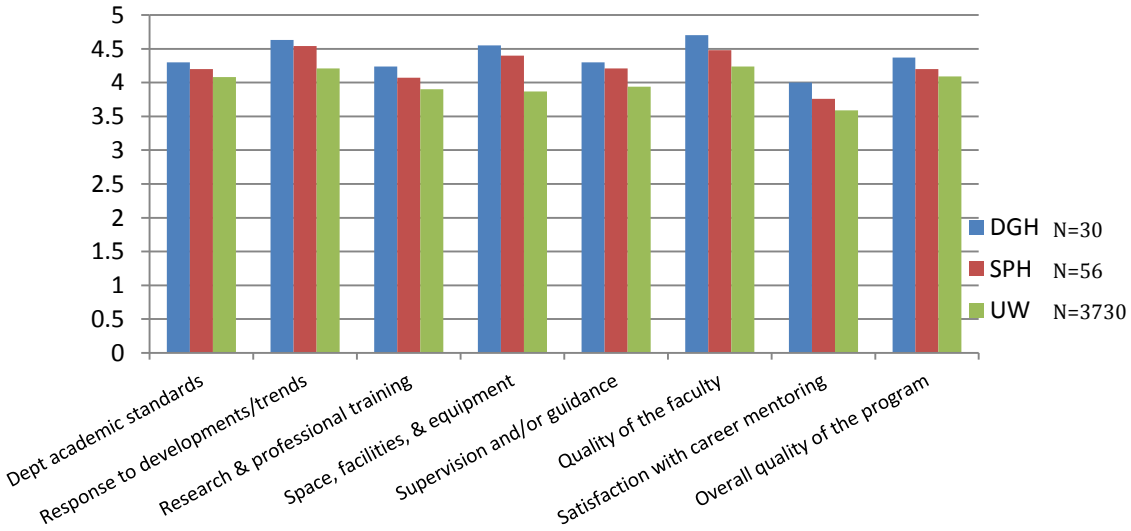


Figure 5. 2012–13 UW Graduate School Exit Questionnaire results—key measures of academic quality

In addition, **quarterly program evaluation sessions** are conducted during the MPH Workshop course (a three quarter course for first year students). The first two evaluations are conducted by faculty and staff during the last session of Autumn and Winter Quarters. A third, confidential evaluation session, has been conducted by Karen Freisem of the Center for Teaching and Learning (CTL) since 2009. The results of this session are shared anonymously with program faculty and staff, and the following trends have been identified: *Strengths typically include:* strong support from staff, high caliber and accessibility of faculty, including mentoring support, diversity of student experience and background that contributes to classroom and informal learning, international student perspective, partnerships and links to other organizations key for thesis and practicum work, flexibility within MPH program to meet the diverse need of students, and a strong feeling of community among students. *Areas for Improvement have included:* difficulty connecting with non-core MPH faculty, need for more skill-building opportunities, case studies, cultural competency, more focus on LGBTQ issues, need for more diversity in faculty.

Use of Assessment Findings

We take assessment findings seriously, and respond when possible. Student interest in meeting the broader faculty has resulted in the creation of additional opportunities to do so, including a quarterly faculty panel in the MPH Workshop, a networking social following monthly MPH faculty meetings, and dedicated time at Orientation events. Student requests for more skill-based content in the MPH Workshop led to the addition of sessions on networking, working in groups, public speaking, appropriate photography, and budgeting. Over the past two years, students have also been trained in digital storytelling for public health advocacy. Finally, in response to strong student demand for cultural competency training, we have incorporated this content into Workshop.

Response to Assessments: MPH Program

- *Increased opportunities to meet faculty outside the MPH core (e.g., orientation, panels, events)*
- *Additional skill-based learning sessions in Workshop (e.g., networking, public speaking)*
- *Added cultural competency training to required curriculum*

Doctor of Philosophy (PhD) in Global Health: Metrics and Implementation Science

Established in 2012, our PhD in Global Health: Metrics and Implementation Science is the first of its kind in the world, providing students with the latest and most innovative tools to advance global health solutions critical for decision-making and priority setting. The specific focus of the two curricular tracks is as follows:

> **Metrics students** translate evidence into useful knowledge by learning and applying coursework that introduces conceptual, methodological, and empirical foundations for measuring health, intervention coverage, and impact evaluations. They receive advanced training in rigorous scientific measurement techniques to accelerate progress on global health by identifying the world's major health

problems, assessing how well society addresses these problems, and guiding resource allocation to maximize health improvements. Metrics coursework introduces conceptual, methodological, and empirical foundations for measuring health, intervention coverage, and impact evaluations.

Implementation science students identify and address barriers to translation of research findings into large-scale health programs and policies by learning and applying rigorous methodologies for effective implementation and scale up of proven evidence-based interventions. All students learn about the current architecture of global health systems and the social, political, economic, and ethical settings in which global health research is conducted. They focus on the systematic application of scientific approaches to ask and answer questions about how to accelerate the translation of evidence on intervention efficacy to implementation and broad scale-up with greater speed, efficiency, quality, and coverage. Implementation science coursework introduces a framework and methods to promote the translation of clinical and public health research findings, as well as new findings from laboratory and sociobehavioral research, engineering, management science, health systems and policy research, into effective health programs.

Student Learning Goals & Curriculum

In this unique interdisciplinary program, students develop skills through a combination of didactic courses, seminars, and research activities including primary data collection and analysis. The curriculum requires completion of 94 credits, including core coursework in advanced quantitative methods, epidemiology, population health measurement, impact evaluations, and implementation science methods. The remaining credit requirements are split between the student's primary area of emphasis (either metrics or implementation science) electives, and dissertation work. Students complete coursework during the first two years (six quarters) of the program, and must pass their two-day preliminary examination prior to forming their Dissertation Committee, taking their General Examination, and completing and defending their dissertation. The specific learning goals and degree requirements are listed in Appendix M.

Assessing Student Learning & Satisfaction

Student learning and satisfaction are assessed through a variety of methods.

- **One-on-one meetings with academic advisors and program staff** (twice-quarterly in the first year, and quarterly thereafter) to review grades and ensure learning outcomes are achieved.
- **Annual student and research supervisor performance-based evaluation**
- Annual completion of a **required student progress and planning form**, which tracks each student's coursework, professional accomplishments and specific milestones towards meeting core program competencies.

- **Annual program feedback meetings** involving students, faculty and staff to discuss program strengths and challenges, proposing solutions to problem areas within the program.
- Upon graduation, students will complete an **exit survey** regarding their satisfaction with the program and where the program may improve. We anticipate that our first cohort will graduate in 2015.

Use of Assessment Findings

> *Response to Assessments: PhD Program*
>
> - *Revisions to core curriculum, including doctoral seminar*
> - *Course feedback shared with incoming students*
> - *Increased interaction with broader/diverse array of faculty*

As a new program, the PhD is consistently reviewing feedback, and responding accordingly. Overall, students have been extremely satisfied with the PhD program's effort to listen and incorporate improvements. Since its inception, the program has revised its core curriculum, including the doctoral seminar which previously had a combined course with Pathobiology. We did this in order to better align the subject matter and core competencies that students desired within the seminar format. G H 511 (Problems in Global Health), required for MPH students, is now also a core requirement for all PhD students. In addition, because of the diverse curriculum, students indicated early on that they would appreciate more direction on course content and selection. In response, an online forum (available only to students) was established to facilitate the sharing of feedback. Finally, the program began with a small core faculty, and students felt they didn't have adequate opportunities to network broadly with faculty or learn about current DGH research projects. In response, student-led round-table forums now invite faculty to discuss current research projects and the field of global health. Formal mentorship guidelines have also changed, encouraging students to rotate their academic advisors between their first and second year of the program in order to increase their understanding of different research approaches and acquainting students with faculty within different research institutions.

Graduate Certificate Programs

DGH Graduate Certificates provide an opportunity for graduate students from other UW departments to take a global health curriculum as part of their home degree. Two previously existing global health-related Graduate Certificates were transitioned to the DGH; the Graduate Certificates in Global Health (2007) and in HIV & STIs (2009), from Health Services and Epidemiology, respectively. The remaining two Graduate Certificates, Global Injury and Violence Prevention, and Global Health of Women, Adolescents and Children (Global WACh), were established by DGH during the 2011-2012 academic year. Among all four programs, 75% of our Graduate Certificate graduates have been enrolled in health sciences programs – including Epidemiology and Health Services (43%), Nursing (14%), Social Work (12%), and Medicine, Pharmacy, Immunology (6%). We have also had students from Public Affairs/ International Studies (10%), and other departments (15%). A brief description of each of our Graduate Certificate curricula is as follows:

- **Global Health -** Created in response to growing interest among graduate and professional students from across campus. The curriculum emphasizes the sociopolitical, public health, biomedical, economic, and geographic factors that have an impact on health in low and middle-income countries. Students complete nine credits of required coursework, six elective credits and the capstone project.
- **Global Health of Women, Adolescents & Children (Global WACh) -** Curriculum represents a set of knowledge and skills necessary to solve health issues that transcend the lifecycle of women, children, and adolescents. Students complete seven core credits, five elective credits, and three credits from a capstone project.
- **Global Injury & Violence Prevention –** Coursework emphasizes reducing injury and violence through surveillance and research, application of proven injury prevention strategies, innovative approaches and improved injury care. Students complete three core credits, nine elective credits and three credits for a capstone project.
- **HIV & STIs -** Provides training and context for the global AIDS epidemic, including addressing the complex interplay of biomedical, social, economic, gender, political, and geographic factors that impact the spread of HIV and other sexually transmitted infections (STIs). Students complete eight credits of core coursework, four elective credits, and three capstone credits.

Student Learning Goals & Curriculum

Appendix N provides a list of the specific learning goals and requirements for each Graduate Certificate. All UW Graduate Certificates require a minimum of 15 credits, including coursework constituting a coherent body of study and culminating in a capstone project.

Assessing Student Learning & Satisfaction

Although each of the four Graduate Certificate Programs is led by different DGH faculty, all four certificates are managed with centralized staff coordination. Thus, the evaluation methods for assessing student learning and satisfaction, and the results and use of assessment findings are similar across the four certificate programs. Student learning is generally evaluated by a review of course grades, by the capstone rigor, and by the oral or poster presentation of the capstone project. Student satisfaction is assessed via course evaluations, verbal feedback, and by the Department's annual alumni survey. For Global WACh, student satisfaction is also assessed via verbal feedback from students at monthly certificate meetings with the certificate Director. Indirect assessment of student satisfaction is also inferred from the numbers of certificate students registered, and the diversity of degree programs in which students are enrolled.

Use of Assessment Findings

Because many students are trying to complete their degree program in a timely manner, they have less time to pursue additional programs such as certificates, and less flexibility with course conflicts. In response, we have added additional elective courses to create more options for students to complete certificate requirements. Additionally, capstone requirements have provided an obstacle as well. For example, in the global health certificate, the international capstone was prohibitive for many students due to time and financial constraints. While still strongly encouraged, an international capstone is no longer required. Finally, historically, most certificate students are in the health sciences. In order to expand and diversify enrollments, certificate staff have increased outreach efforts across campus, including to the Business School and the Evans School of Public Affairs.

Response to Assessments: Certificate Programs

- *Increased required & elective coursework options*
- *Revised capstone requirement*
- *Promoted to wider audience*

B. Instructional Effectiveness

Evaluating Quality of Instruction

Student course evaluations

Student course evaluations are administered through the UW Office of Educational Assessment, and are completed at the end of each quarter by students enrolled in all UW courses. These evaluations provide an opportunity for students to formally evaluate courses and instructors via a Likert-type scale, as well as through written responses to a set of open-ended questions about the course. For each course, a quantitative summary and written comments are sent to instructors; the Chair receives the quantitative summary only. The Associate Chair reviews the summaries quarterly, and feedback is provided to instructors of high and low rated courses. Evaluations and responses to them are discussed by the DGH EEC annually.

Faculty peer review

Faculty peer review is carried out per promotion guidelines (e.g., annual reviews for junior faculty). Faculty reviewers are assigned by the Associate Chair prior to the start of each quarter. The instructor and reviewer are encouraged to meet before the classroom observation (minimum of one class session), to discuss how the class is going, as well as goals for the observation. The reviewer is also responsible for reviewing course materials, including syllabus, assignments, exams, etc., as well as previous student course evaluations, if available. Following the observation, the reviewer and instructor meet to discuss course strengths, weaknesses, and possible areas for change. The reviewer then completes the DGH peer review form – which assesses both course materials (content, organization, objectives, evaluative techniques) as well as the classroom experience. If the Associate Chair and faculty member decide that teaching improvement is a goal for the subsequent year, the instructor will meet with the Associate Chair to discuss a specific plan. Examples

of instructional changes in response to teaching evaluations are described above for the undergraduate minor, MPH, and PhD programs.

Teaching opportunities & support

Teaching opportunities vary for undergraduate and graduate programs. *For Undergraduates,* students may serve as course assistants for the "Perspectives in Global Health" seminar series (G H 401, G H 402 and G H 403). They are provided orientation sessions prior to and during the course by the course instructors. For *graduate students*, the Department currently offers approximately 15 Teaching Assistant (TA) positions each year, the majority of which are 20-hour positions prioritized for MPH and PhD students in the Department. Each instructor is required to fill out a TA form that identifies appropriate teaching and mentoring activities that are expected by the instructor (see Appendix O). We require new TAs to participate in a brief workshop facilitated by the UW Center for Teaching & Learning (CTL) at the beginning of each quarter. The CTL sponsors a September TA/RA conference, along with other trainings and workshops, which the Department also encourages students to attend if they are able. In the Doctoral Seminar, student-led teaching is common, as students are frequently asked to communicate their research amongst peers.

C. Teaching & Mentoring Outside the Classroom

Faculty Involvement in Learning Outside the Classroom

Undergraduates

The minor's student leadership group organizes monthly events that support student and faculty interactions and learning outside the classroom, and that creates a sense of community among undergraduates enrolled in the minor or interested in global health. The GHRC hosts one to two events per month focused specifically on undergraduate students. Common activities include seminars, roundtables, film screenings, workshops, journal clubs, walking tours of local global health organizations and social gatherings. Typically, 10-25 students from the undergraduate minor attend each event. At a recent event with the Pulitzer Center, there were at least 45-50 undergraduates in attendance.

Graduate students

For MPH students, the required **practicum** (minimum three credits, 120 hours, up to six credits, 240 hours) and **thesis** (minimum nine credits) provide ample opportunities for faculty mentoring and learning outside the classroom. The **Capstone** requirement (three credits, or equivalent) provides similar opportunities for Graduate Certificate students. For PhD students, **dissertation** development and research provide similar mentoring and learning at a more intense level - typically for one to three years. For all graduate students, topical seminars and faculty/student-led discussions encourage the development of student-faculty dialogue outside the classroom that fosters networking and introductions to content not taught in the classroom. TA and RA opportunities with Department faculty also provide these kinds of learning opportunities. In 2014-15, the DGH is supporting 13

TA positions so far (all but one of which are 20-hour positions), and nearly equally split between MPH and PhD students. In 2013-14, 9 of 10 PhD students and 18 of 37 MPH students received TA or RAships, or were Fellows or Trainees who had the opportunity to work closely with DGH faculty. PhD, MPH and Graduate Certificate students also work closely with faculty in the planning and progress of dissertation, thesis, and capstone projects; faculty attend and comment on their presentations as well. Monthly social hours for students, staff, and faculty provide non-class learning opportunities; they follow faculty meetings to attendance.

Other non-classroom opportunities include: independent study or research projects with DGH faculty*;* the Western Regional International Health Conference in which students from across the UW are invited to participate; a travel fellowship program for student projects overseas, and support for travel to present thesis or dissertation research. In addition, we host an array of events such as faculty seminars and film screenings (typically one to two per week) to facilitate student-faculty engagement.

eDGH

In 2012, the Department of Global Health funded 1.0 FTE to establish the Global Health E-Learning Initiative, whose mandate includes the following: 1) Develop a self-sustaining program to make UW educational resources available globally; 2) Develop and evaluate innovative e-learning products and approaches for a global healthcare workforce; and 3) Provide learning technology and web support to DGH and to expand its e-learning capacity for UW faculty and registered students.

The first component of eDGH's mandate currently encompasses online courses targeting healthcare and public health professionals predominantly in low- and middle-income countries, as well as online courses offered to students at the UW. Current DGH courses offered to UW students with either a distance option or fully online, include the following:

- *Core Topics in Global Health* (G H 501) – offered to medical students in the WWAMI region only;
- *Essentials of Clinical Care and Capacity Building in Low Income Countries* (G H 571);
- *Clinical Management of HIV* (G H 573); and,
- *Introduction to Global Health* (G H 101) – a fully online course, was made available to nearly 40 undergraduate students in fall 2014 and will be offered to a larger audience in Spring 2015.

These examples show how important blended learning and e-learning methods are becoming in our teaching programs (e.g., use of course websites allows us to flip lectures as well as allowing students to access materials when they miss a class; online versions of traditional classroom courses expands access for students). eDGH Academic Programs also provides learning technology support for faculty and staff.

Ensuring Student Academic Progress

Undergraduates

Students may declare the minor through the third week of the quarter in which they intend to graduate, so we do not systematically track the progress of our students. Our advising staff make themselves available to all students as needed, and are experienced in supporting students to complete the requirements for the minor.

MPH students

MPH students receive faculty advising support (monthly meetings recommended, see Appendix P for MPH faculty advising guide), and a high level of staff advising support to help them navigate program requirements based on individual interests and timelines. Staff members have an open door policy and make sure to meet with students at least once per quarter. Core coursework the first quarter of the program is particularly demanding; thus, program staff communicate with course faculty after midterms to identify students in need of tutoring support (funded by the SPH). Staff also monitor student grades quarterly to ensure students are performing adequately and meeting degree requirements. Students receiving less than a 3.0 in a course meet with program leadership to make sure the student is getting the support s/he needs. Students needing writing support are identified early and connected to writing resources on campus.

PhD students

PhD students meet quarterly with the PhD staff, or more frequently as needed. A required student progress and planning form systematically tracks each student's academic success, mentorship, additional training needs, and doctoral milestones. Access to multiple travel grants and support from faculty projects for research funding further supports academic progress. Students also participate in special seminars and events that provide excellent networking opportunities. Academic excellence is also recognized with annual DGH and SPH awards.

Graduate Certificate students

The progress of Graduate Certificate students is monitored by program staff, who are responsible for ensuring each certificate student is meeting both the requirements set out by the graduate school as well as those of the department. In addition to reviewing applicant planning forms, staff meet with enrolled students on an as-needed basis to provide individual advising and also communicate regularly regarding outstanding requirements to be met prior to the student completing their degree program.

Preparation for Future Academic & Professional Success

Undergraduates

The Global Health Minor team aids students in preparing for their future professional and academic careers by connecting them with the following resources: the Global Health Career Fair, other career events, the UW Undergraduate Research Symposium (hosted annually in the spring), the School of Public Health Undergraduate Symposium (includes

student presentations on non-research projects, such as practicum, volunteer/community experiences), and the UW Career Center (resume/cover letter consultations, etc.).

Graduate students

The MPH, PhD and Graduate Certificate programs encourage and support graduate students to prepare for the next phases of their academic or professional lives by taking advantage of the following opportunities: faculty mentorship and networking (including connections to jobs in the field), submitting research for publication, attending and/or presenting at global health conferences and attending the many presentations and workshops available to learn about post-graduation career paths. MPH and Graduate Certificate students also participate in the Global Health Career Fair, and receive support provided by the UW Career Center. The Department is actively developing its alumni network, which will provide broader access to global health professionals generally.

SECTION III: SCHOLARLY IMPACT

Impact of faculty research

External grants and contracts to DGH faculty have grown from $4.9M in FY07 to approximately $182M for FY14 making DGH the second largest UW department (after Medicine) in external faculty funding. Examples of specific research highlights and scholarly impact from our Centers include:

- **Center for AIDS Research (CFAR)** was renewed for five years in 2013. The CFAR links UW, Fred Hutchinson Cancer Research Center (FHCRC), Seattle Children's, and Seattle Biomed, with over 560 members and total AIDS funding of $362M. A comparative effectiveness analysis of data from North American clinics led by Dr. Mari Kitahata, director of the CFAR Clinical Epidemiology Core, found that initiating antiretroviral therapy at CD4 counts > 500 (much earlier than then recommended guidelines), was associated with a 96% reduction in mortality, compared with those who delayed starting therapy [Kitahata MM et al, NEJM, 2009]. These findings helped prompt changes in guidelines around the world for when to start ART. The findings will result in millions of lives saved globally.
- **Institute for Health Metrics and Evaluation (IHME)** led the monumental Global Burden of Disease study, published in the first-ever triple issue of The Lancet, Volume 38, Dec. 15, 2012–Jan. 4, 2013; and accompanied by Lancet Editor Richard Horton's commentary, describing the GBD study as "a landmark event for this journal, and, we hope, for global health." The IHME provides rigorous and comparable measurement of the world's most important health problems and evaluates the strategies used to address them. IHME makes this information widely available so that policymakers have the evidence they need to make informed decisions about how to allocate resources to best improve population health.

> "The launching of these [IHME] tools is important, because they will allow us to understand who we are in matters of public health and to compare ourselves with ourselves, what is important across time, and also to compare ourselves with what happens in the region and in other regions. It's not a simple new tool; it's a revolution. It's like the first landing on the moon."
>
> Dr. Agnes Binagwaho,
> Minister of Health, Rwanda

- **International Clinical Research Center (ICRC)** conducted a randomized controlled trial (RCT) of pre-exposure prophylaxis (PrEP) in HIV serodiscordant couples that demonstrated 92% reduction in HIV acquisition among seronegative partners who were adherent to consistent use of Truvada (tenofovir + emtricitabine) as evidenced by detection of tenofovir in blood samples [Baeten JM et al, NEJM, 2012;367:399-410]. PrEP with Truvada was subsequently approved by the FDA. The study was cited by Time Magazine as one of the top ten medical breakthroughs of 2012. In secondary global analyses of a previous ICRC trial

involving HIV serodiscordant couples [Heffron R, Lancet Inf Dis,2012] found that use of injectable hormonal contraceptives (IHC) by HIV-negative women was associated with increased risk of HIV acquisition; and use by HIV-positive women was associated with increased HIV transmission to sero-negative partners. These data have stimulated the design of a long awaited RCT examining the impact of IHC on HIV risk.

- **Health Alliance International (HAI)** has been a leader in implementation science, including the assessment, introduction, and scale up of AIDS treatment, PMTCT Option B+ and malaria prevention and control in Mozambique and Cote d'Ivoire. HAI's Mobile Mothers project to reduce maternal mortality in Timor Leste has become a model for similar mHealth initiatives worldwide. Overall, HAI has developed new approaches to the use of operations research and Implementation science in health system management strengthening, and has contributed to enormous improvements in health status.
- **Disease Control Priorities 3 Program (DCP3)** leader Dean T. Jamison co-authored (with Lawrence Summers) a Lancet Commission Report, prompted by the 20th anniversary of the 1993 World Development Report. The seminal report, entitled *Global Health 2035: A World Converging within a Generation*, published as a commission report in *The Lancet* (382: 1-68, 2013), developed a new investment framework to achieve dramatic health gains by 2035. The report was accompanied by commentaries from the editor of *The Lancet*, and separately from directors of the World Bank, WHO, UN Development Program, and The Global Fund.
- **Kenya Research and Training Center (KRTC)** has grown from a 30 year

ILLUSTRATIVE FACULTY AWARDS

- **King Holmes (**1987), **Judith Wasserheit** (2006), **Chris Murray** (2007), **and Andy Stergachis** (2012) elected to the Institute of Medicine, National Academy of Sciences
- **Judith Wasserheit**, NIH Office of AIDS Research Advisory Council (2010-2013) and liaison to NIH AIDS Research Advisory Committee(2011-2013); Chair of the Board, Consortium of Universities for Global Health (2012-2014); CDC Board of Scientific Counselors, Office of Infectious Diseases.
- **King Holmes**, Canada Gairdner Award for Global Health; 2013 Infectious Diseases Society of America's Alexander Fleming Lifetime Achievement Award; NIH Council of Councils; Washington Global Health Alliance Impact Award;
- **Stephen Gloyd**, 38th UW University Faculty Lecturer award (2013), given annually to one UW faculty member "whose research or scholarship is widely recognized by their peers and whose achievements have had a substantial impact on society."
- **Benjamin Anderson**, Inspiration Award, National Consortium of Breast Cancer Centers;
- **Andy Stergachis**, Pharmacist of the Year, Washington State Pharmacy Association;
- **Julie McElrath,** Women of Influence Award, Puget Sound Business Journal;
- **Paul Yager**, Gold Award for Achievement in Medical Devices, Seattle Business' Leaders in Health Care;
- **Julie Gralow**, Silver Award for Achievement in Community Outreach (Individuals), Seattle Business' Leaders in Health Care;
- **Kenneth Stuart**, Alice and C.C. Wang Award in Molecular Parasitology, American Society of Biochemistry and Molecular Biology; 2014 Impact Award, Washington Global Health Alliance Pioneers in Global Health;
- **Alan Lopez**, Peter Wills Medal, Research Australia Awards; and
- **DGH,** Global Health Award (2013), Puget Sound Business Journal

collaboration with the University of Nairobi and other institutions in Kenya and includes 12 faculty and more than 40 trainees conducting HIV and STI prevention research in Kenya. Sentinel work published in NEJM and The Lancet on breastmilk transmission of HIV in the 1990s has paved the way for innovative, multidisciplinary research using mHealth and other technologies and for six training programs for US and Kenyan investigators and future global health leaders.

Student accomplishments

- **Nadia Arang** was featured on King 5 (local) news about her research activities in malaria immunology at Seattle BioMed and was offered a position there on graduation (2014).
- **Jared Houghtaling** worked on point-of-care diagnostics throughout his undergraduate career at the UW, and traveled to Ireland through a NSF internship 2013 to perform research. He also presented several years at the UW Undergraduate Research Symposium.
- **Cynthia Simekha**, originally from Kenya, was a McNair Scholar, and was the only undergraduate to be awarded a "Global Healthie" by the Department in 2014 for her project entitled 'Barriers in Medicaid Enrollment among Somali Immigrants.'

Students present at a number of conferences, including the American Public Health Association (APHA), Consortium of Universities of Global Health Conference (CUGH), and the Western Regional International Health Conference (WRIHC). Examples of presentations include:

- The effectiveness of Chinese medical aid in Mozambique
- Using Kenyan Health Information System data
- Meaningful modeling of epidemiological data
- Prevalence and factors associated with partner notification for HIV in Kenya
- The effectiveness of partner services for HIV prevention

Since its inception eight years ago, DGH students have twice been awarded the SPH Gilbert S. Omenn Award for Academic Excellence, a prestigious School of Public Health-wide honor for outstanding achievement and demonstrated commitment to the field of public health: Anna Talman (Masters) in 2010, and Corrie Ortega (PhD) in 2014.

Postdoctoral fellow participation in research & teaching activities

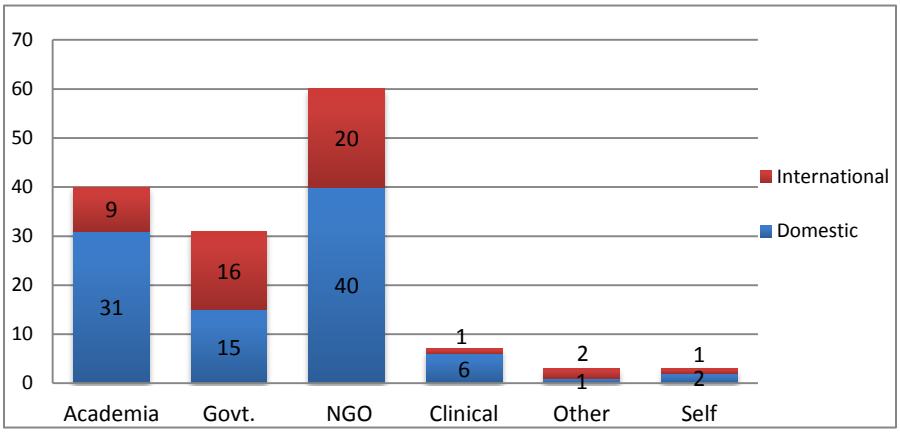
The IHME Post-Graduate Fellowship (PGF) program enrolls 3-5 fellows per year. Fellows work within research teams consisting of faculty, researchers, data specialists, and Post-Bachelor Fellows. PGFs are expected to help drive research forward from inception to publication and dissemination. They participate in the Department's academic events and in various programs that foster development of their research and quantitative skillsets.

Alumni impact

Figure 6. Work locations of DGH Alumni

The DGH has over 1,000 alumni working in at least 25 countries (Figure 6). Of those programs under review, the MPH program constitutes the largest group of department alumni, with nearly 400 graduates since the start of the International Health Program MPH in 1987. A survey sent in 2014 and early 2015 to those for whom we have contact information (247 alumni) showed that the top employment sectors include NGOs, academic institutions, and government institutions located both within the United States and in other countries (Figure 7).

Figure 7. Employment Sector of MPH Graduates (N=144)



The vast majority of foreign alumni of graduate programs return to their home countries, in part because the program encourage return, and because most of their work, including the thesis, is focused on home issues. UW faculty, staff, and students continue to work with many of our foreign and domestic alumni through our CPIs, building on a long history of projects in Kenya, Mozambique, and Peru. Alumni often approach health problems from multiple levels, reflecting the interdisciplinary curriculum and approach of the academic programs. Examples of MPH alumni impact (including alumni of the pre-2008 program that gave rise to the DGH MPH) include the following:

- **Karin Huster, MPH (2013)** — former Harborview Nurse, has been on KUOW, published in the New York Times and the Seattle Times speaking about her experiences in Liberia and Sierra Leone where she assisted with the Ebola crisis response.

- **Michaela Leslie-Rule, MPH (2010)** — her organization Fact. Memory. Testimony. uses social media and storytelling to describe the impact of health problems, social innovations, and policy solutions from the perspective of those most affected. Among recent projects, she produced the 2014 Global Fund for Women exhibit on women, technology and human rights.
- **Zied Mhrisi, MPH (2010)** — awarded a Desmond Tutu African Leaders fellowship (2012)
- **Mohamed Ali, MPH (2008)** — recognized by the Federal Emergency Management Agency with a National Community Preparedness Hero award (2012) for his role in encouraging Somali religious leaders to implement a rapid communication strategy that reached thousands of East Africans in King County, Washington warning about the dangers of carbon monoxide poisoning during a winter storm in January 2012. He was also honored with the White House's Champion of Change award.
- **Robert Newman, MPH (1998) —** 2014 Distinguished Alumnus Award, UW School of Public Health; former Director, Global Malaria Program, WHO and current managing director of GAVI.
- **Chris Elias, MPH (1990)** — 2010 UW SPH Distinguished Alumnus Award, President of PATH; subsequently President of Global Health Strategies for the Bill & Melinda Gates Foundation.

The results of the MPH alumni survey indicated a very high employment in global health, remarkable achievements, and career trajectories that typically includes work on behalf of improving health equity in the USA. The average full-time employment rate for respondents was 81% (161 of 397 alumni responding). The survey identified high impact activities of graduates that include the following (usually more than one graduate):

- Advocacy and scale-up of national AIDS treatment programs in Mozambique and Kenya
- Discovery of new treatment and prevention modalities for HIV, TB, and other diseases
- Leadership of major health organizations, ministries of health, WHO, foundations, and implementation of high-impact health programs globally for ITECH, HAI, other agencies
- Authorship of more than 500 published articles

The trajectory of graduates of the global health minor is being assessed now.

Key influences on unit research, scholarship or creative activity

Global health is a rapidly changing field, and the constant changes have greatly influenced the direction of the department and will continue to do so in the future (see Future Directions section). In the short time since the department was formed, new technologies, changing approaches to addressing health problems, evolving paradigms of defining health and social change, and shifts in disease burden have necessitated an agile approach to our research, scholarship, and creative activity. Moreover, the intrinsic interdisciplinarity adds

to the complexity and variability of how global health is approached. As we learn from each other, our creative activity evolves. Finally, global health funding priorities are constantly evolving. The previous increase in funding for global health since 1990 has been largely in the areas of infectious diseases, especially HIV/AIDS, malaria, tuberculosis, and maternal and child health. Much of the department's growth has been fostered by activities in these areas. However, funding for global health overall seems to be plateauing, but not yet decreasing. At the same time, the global burden of disease is evolving from infectious diseases to chronic non-communicable diseases, mental health, and injuries. Thus, our focus has begun to expand to include more chronic diseases and conditions, health systems tailored to address these problems, and the science of implementing proven interventions. We have already responded with new programs in these areas, and our future plans prioritize these areas. Funding for many of these new challenges has not yet materialized; thus, the department needs to be creative to ensure not only that we remain ahead of the curve, but to continue funding our programs with existing mechanisms. The "Future Directions" section also provides detail on how the department will address these changing realities.

Collaborative & interdisciplinary efforts

Global health is inherently an interdisciplinary field, especially at the UW, with its focus on social justice and the social determinants of health. Each of these four academic programs under review is led by faculty with a broad interdisciplinary focus and the curricula are designed to be interdisciplinary, consistent with the values of the department and the UW. The undergraduate minor requires courses from many departments in four interdisciplinary categories. 20 of 50 DGH graduate courses are cross-listed, including *Global Health Law* (LAW H 515); *Global Health Pharmacy: Medicines, Practice and Policy* (G H 543/PHARM 581); *Advanced Qualitative Methods in Anthropology and Public Health (*G H 538/ANTH 519/HSERV 521) and *AIDS: A Multidisciplinary Approach* (G H 562/EPI/MED 530) (see course list, Appendix I). Concurrent degree programs, including those with public affairs, social work, nursing, medicine, and a PhD program in Anthropology are encouraged. Faculty from all of the academic programs come from schools and departments across campus and collaborate in teaching and research. Our faculty represent 39 departments and 15 of the 16 UW schools and colleges. Students are encouraged to work on their thesis projects with faculty from these multiple disciplines, which strengthens cross campus relationships. Likewise, students are highly interdisciplinary: the undergraduates in the minor represent 36 unique majors. Each year, between five to ten Global Health MPH students do concurrent degrees in other departments. All certificate students are, by definition, doing interdisciplinary coursework and projects. Staff in all programs, with the support of the GHRC, provide opportunities for collaborative and interdisciplinary activities at home and abroad.

Finally, the department's CPIs are highly interdisciplinary. All of them were created under an interdisciplinary mandate, and have faculty and staff who provide a broad array of

disciplinary perspectives. As noted earlier, the Global Health Resource Center convenes a monthly Advisory Board, composed of members from across campus. Typically, one of the quarterly meetings is dedicated to a discussion of global health education and curriculum.

Support of junior faculty

DGH places a high priority on junior faculty support by ensuring adequate funding, good teaching opportunities, and frequent mentoring from senior faculty. As a young department, DGH has a growing proportion of junior faculty who have just completed post-doctoral fellowship training, and often begin as acting instructors or acting assistant professors. For clinicians with a primary appointment in the DGH, salary income from clinical work is limited. In fact, the School of Medicine does not reimburse DGH faculty who are infectious diseases specialists for their patient care activities on the infectious diseases service. This is currently a major deterrent to recruiting these physicians into the Department of Global Health. Thus, it is important for junior faculty to generate salary support via external funding, through developmental grants (e.g., the CFAR New Investigator awards), via participation as PI in projects within larger Centers (e.g., IHME, I-TECH), as co-investigators on a mentor's grant or contract, and/or through NIH awards, such as K-awards, which currently provide up to 75% of the PI's salary. DGH reimbursement for teaching is currently 0.04 FTE per credit-hour; this can be helpful for junior faculty support. Nearly all junior faculty are assigned to one of the DGH Centers, Programs, or Initiatives which have been critical in mentoring and guiding junior faculty development for opportunities and salary support.

The following are three examples of how CPIs support junior faculty.

Global WACh

Global WACh, the Global Center for Integrated Health of Women, Adolescents, and Children, led by Grace John Stewart (NIH K24 Mentoring Grantee) supports junior faculty by:

- **Key leadership roles** for junior faculty that include two Co-Directors (Maneesh Batra, Jennifer Unger); three Assistant Directors (Jennifer Slyker, Pamela Kohler, Alison Drake); two Curriculum Leads (Brandon Guthrie, Donna Denno), and a Certificate Program Director (Drake).
- **Teaching opportunities** are important for new faculty development, including: Adolescent Health (Batra, Katzellenbogen), Reproductive Health (Unger, Drake), Bioengineering and Women/Adolescents/Children (Slyker/Guthrie, Woodrow), Legal Policy issues affecting Women/Adolescents/Children (Slyker, Lenga-Long)
- **Scientific Think Tanks and Working Groups**: Think Tanks or Working Groups are led by junior faculty and support other junior faculty – *Nutrition Think Tank* (leads Mendoza/Benki-Nugent), *Family Planning Working Group* (Heffron/Roxby), and *Data Toolkit Working Group* (Guthrie/Drake). Future Think Tanks proposed include *Adolescent Health* and *Digital Health*.
- **Seed grants** to new faculty to develop new research directions.

CFAR

CFAR's mandate includes developing a new generation of young, innovative, interdisciplinary HIV/AIDS researchers. To meet this objective, CFAR provides:

- **Grant support,** including pilot funding for HIV research (New Investigator Awards,- up to $110K per award; Emerging Opportunity Grants, supplemental awards, international pilot grants; and trainee support grants for travel to present research results. Since 2000, the CFAR has awarded 101 research project grants — nearly all to junior faculty — and has received NIH supplemental funding for 29 additional studies, many by junior faculty. Of 25 awards completed since 2007, all awardees published results and secured positions in academia, government, or non-profit areas; 80% remained in HIV research. External awards to CFAR's New Investigator Awardees and Emerging Opportunity Grant recipients since 2000 total over $104 million, an almost 18-fold return on investment.
- **Mentoring support** comprised of training from more senior CFAR faculty, an annual research symposium and research seminars featuring junior investigators, and a mock study section for pilot award applicants. CFAR negotiated matching support for these activities from the UW Provost, School of Medicine, Department of Global Health, and donors. The FHCRC, Seattle BioMed, and Seattle Children's waive indirect costs on CFAR awards made to junior investigators.

The Kenya Research and Training Center (KRTC)

The Kenya Research and Training Center (KRTC) supports junior faculty in the following ways:

- **Mentoring** for each junior faculty KRTC member with a primary KRTC mentor and one or two secondary mentors, providing guidance on proposal development, grant writing, funding opportunities, project implementation, dissemination of results and manuscript writing. Primary mentors share their administrative support staff with junior faculty.
- **Weekly seminars**, where junior faculty present work and obtain feedback as they prepare proposals. KRTC's lead biostatistician attends these seminars and supports KRTC junior faculty during proposal development, and statistical analyses.
- **Strategic forums** - one meeting per month, restricted to faculty only (no students or trainees) that provides a space for discussions about support for junior faculty, including their personal development and professional growth.

In addition, **DGH-wide Faculty Development** is overseen through a new position, Director for Research and Faculty Development (Dr. Holmes), assisted by Prof. Jared Baeten. This DGH-wide program supports junior faculty development through research training courses and programs. Such programming includes **Research Ethics Training** by Professor Carey Farquhar intended for junior faculty across the UW who participate in global health, and a multitude of **Research Training Programs,** including the eight NIH Fogarty Center Research Training Programs, the Afya Bora Leadership and Research Training Program

(East Africa), the China Medical Board (7 Chinese universities), a summer course on the Principles of AIDS and STD Research, and a new summer Implementation Science Course. The Principles of STD and HIV Research course, held annually since 1993, targets post-doctoral fellows and junior faculty, and has had over 1,900 trainees from the UW, other US universities, NIH, CDC, and from other countries.

Recruitment & support of faculty from under-represented groups

As previously mentioned, DGH uses the SPH Diversity Committee process for faculty searches. In addition, we are working with the new SOM Chief Diversity Officer to review the process of applying for Diversity Supplements, which we believe will eventually help bring more faculty from diverse backgrounds to our Department. Our primary recruitment goal is to target potential future faculty while they are still trainees, and help to mentor them into the faculty ranks.

In terms of retention, we are currently putting into place a mentoring program that will have a specific focus on matching diverse faculty, to promote a supportive climate and strong community of faculty. Finally, within the SPH, there is a new effort to track information from faculty searches, and within the Department, we are beginning to collect detailed data on diversity of faculty, staff, and students.

SECTION IV: FUTURE DIRECTIONS

During the last eight years, our faculty, staff, students, and partners have laid a strong foundation for the Department, which has become one of the premier academic global health programs in the world. As we move beyond this initial "launch" phase into the next phase of developing of our global health programs, to continue to lead in academic global health, our priorities and strategies must be continuously refined, guided by the major changes unfolding in global health, in our own country and state, and within the University of Washington.

The global health field has made tremendous progress, and with that progress, new challenges have emerged. As articulated so powerfully by our very own Institute for Health Metrics and Evaluation (IHME), the burden of diseases and the associated risk factors, are changing. People are living longer and fewer children are dying in most parts of the world. Non-communicable diseases (NCDs) and injuries – especially road traffic injuries -- have emerged as leading causes of morbidity and mortality, and are now responsible for half of the top ten causes of disability adjusted life-years (DALYs) globally. Nutritional factors and hypertension top the rankings of risk factors globally and in many regions of the world. With aging populations, diseases that result in disabilities, rather than death, are increasingly important – among them mental health problems which are significant not only in their own right, but also in terms of risk for other health conditions. We have also learned that we already have effective interventions for many health problems, but often do not implement these interventions at sufficient scale to achieve improvements in population health and reduce health disparities. Implementation science has emerged as a promising framework to help close this "know—do gap."

There is growing recognition of truly "global" mega-forces that will shape health in this century. With all of the work that has culminated in the Intergovernmental Panel on Climate Change's latest report, we have finally begun to acknowledge that extremely complex challenges such as climate change – and global environmental change more broadly – will be major drivers of global health. The most profound of these effects are likely to be mediated by impacts on food and water security, resulting in indirect effects via migration and conflict, as well as direct effects on nutrition and infectious disease. Growing income inequality is an enormous challenge and a major determinant of poor health. The renewed interest in family planning and reproductive health, spearheaded in part by the Gates Foundation, is very encouraging. The migration of the millennium development goals (MDGs) to sustainable development goals (SDGs) in 2015 provides a critical opportunity to begin to address these challenges synergistically with increased emphasis on environmental sustainability, health and development.

So what does this broader context mean for how we envision building on the existing strengths at UW to enhance our programs and their impact in improving health and reducing health disparities both locally and around the world? We have considered as

future priorities the following five, inter-related domains that we believe are critical to the future of DGH and UW's global health programs:

Education, training & mentoring

DGH's academic programs and courses are designed to offer a highly interdisciplinary education and training continuum from undergraduates through professionals in practice, from the U.S. and around the world. These programs are the backbone for capacity building, the cornerstone mandate of any university. UW is the first and only university to offer doctoral training in global health metrics and implementation science, and the Pathobiology program is one of the few laboratory-based global health doctoral programs in the world. Building on this extremely robust foundation, combined with our growing strength in e-learning, the department should increase its focus on teaching of *skills* by innovative application and *evaluation* of combinations of e-learning, flipped classrooms and field experiences both domestically and internationally. Mentoring will be increasingly important in this context, and the mentoring programs discussed above will be expanded.

New & expanded priority areas

We plan to add to our recognized expertise in infectious diseases and in women's and children's health by establishing several additional highly interdisciplinary programs. We have recently added the Center on Integrated Health of Women, Adolescents and Children, and initiatives on injury and violence prevention, global medicines policy and research, and climate change. All are gaining traction. While continuing to nurture these programs, it is clear from the changes summarized above, that the department must tackle the growing burden of NCDs, and a focus on mental health would address a critical and complementary area that would be energized by the synergistic interest and expertise of DGH and School of Medicine faculty. DGH should also build on its existing programs to expand work in injury prevention, global environment/climate change, and family planning/reproductive health. In light of UW's location, the global burden of disease, and the distribution of populations and emerging markets, expanded collaborations in Asia, particularly in China and the Indian subcontinent, will be a priority.

Cross-cutting platforms for research and training

Among DGH's greatest strengths are IHME, the Disease Control Priorities Network (DCPN) secretariat, the International Clinical Research Center (ICRC) and rapidly growing implementation science activities and expertise. These offer outstanding platforms that can be applied across diseases and risk factors to help define priorities in global health by assessing burden of disease; measuring intervention impact, including economic analyses; and providing a framework of systematic methods to close the "know-do gap." The department will leverage these remarkable platforms by supporting their continued development and increasing their linkages with other DGH centers, programs and initiatives. Specifically, implementation science and health economics are two areas of exceptional opportunity for UW's global health programs.

Partnerships

Robust partnerships that span disciplines, sectors and geography are essential for the success of the department and UW's global health programs. DGH has been extremely fortunate to have unusually strong international, local and university partners. DGH faculty work with colleagues in more than 130 countries, and have particularly strong and longstanding collaborations in countries such as Kenya, Peru, Mozambique and Ethiopia. Local partners include the Gates Foundation, without which the department would not exist in its current form; the Washington Global Health Alliance (WGHA), which has facilitated collaborations across the region and made global health a priority for policy makers; Public Health Seattle-King County, which has championed the need and opportunity for global-to-local programs; Washington State University (WSU), which has been an unparalleled collaborator in initiatives requiring veterinary medicine or agriculture expertise, as well as FHCRC, Seattle Children's, PATH and Seattle BioMed, which have made important contributions to both research and teaching programs. Across UW, leadership and faculty have actively engaged with the department, and 15 of the 16 UW schools and colleges are represented among DGH faculty. Priorities in this arena include assuring that international partnerships remain strong by refining DGH approaches to reciprocity in our education/training programs, particularly as we increase the number of students seeking international experiences; expanding the focus on marginalized domestic populations, in part through global-to-local programs; and continuing proactive efforts to engage the entire university in interdisciplinary initiatives.

Diversity

Global health, by its very nature, demands diversity across multiple dimensions, including gender, race/ethnicity, geography, cultural tradition, socioeconomic/political perspective and technical expertise. The department has made substantial progress in several of these dimensions among students and trainees. Additional diversity among DGH faculty and staff would strengthen educational, research and service delivery programs and is a priority, although achieving increased diversity is difficult and takes time. Targeted recruitment efforts, aided by groups like the School of Public Health's Diversity Committee, will be key.

New & expanded academic programs

As a result of this analysis, we envision the following future directions and priorities for our academic programs:

Doctoral degree programs

Doctoral program for global health leaders & practitioners

Just as UW trains both outstanding primary care clinicians and researchers, DGH should prepare individuals to be evidence-based global health leaders and practitioners, as well as researchers and academicians. A Doctor of Global Health (DrGH) Program, that includes a 12-18 month didactic component, followed by extended, mentored, project-focused rotations with a range of domestic and international agencies and organizations (e.g., US

federal agencies such as USAID, CDC and OGAC; multilateral organizations such as WHO, PAHO, and UNAIDS; local and international NGOs such as World Vision, PATH and Care; local health departments; and ministries of health), would break new ground in global health education, and simultaneously strengthen partnerships with the global health community.

PhD in Global Health Metrics and Implementation Science

The PhD program has exceeded expectations during the first three years of its existence, with a very high number of applications each year and an exceptionally strong group of students. As the program matures, we will increase the number and broadening the expertise of faculty involved in teaching and student mentorship. As one of the SPH's strategic hires, a search is currently in progress for a distinguished researcher and educator in implementation and dissemination science to lead our broader efforts in this arena. It will also be important to diversify funding for PhD students during the didactic and research phases of the doctoral program to include support from the multiple Centers, Programs, and Initiatives in the Department.

Masters degree programs

Global Health MPH Programs

Much of the curriculum and competencies of the MPH were adjusted after we analyzed the results of the GH competency survey carried out in 2008-09 (Pfeiffer, et al.) We are currently reviewing the five tracks of the MPH for alignment with global health job opportunities and the potential needs and student market. The Peace Corps Masters International (PCMI) is widely recognized as a superb program and gets good reviews from graduates. However, the program has a limited number of applicants and requires a large amount of staff time to manage. Many students in the general track have been oriented towards research, and have expressed a desire to have a program and curriculum at a masters level oriented toward GH research. We are exploring the possibility of replacing the general track with a 'research' track to better serve this group of students.

Master of Science in Global Health

A large number of potential students have expressed interest in a non PhD graduate program designed for scholars who want special expertise in evaluation and research. The DGH is currently exploring the potential market for such a degree, which might be an alternative to establishing a research track within the MPH, and an additional entry point for PhD students.

Undergraduate degree programs

Undergraduate co-major in Global Health

To build capacity to address global health needs, DGH envisions a continuum of innovative education and training programs that stretches from high school through professionals in practice. Building on our current degree (MPH & PhD) and certificate programs and our undergraduate minor, in addition to the DrGH mentioned above, priorities include the development of an undergraduate co-major in Global-Health or adding a "track" to the

existing Public Health Major. We envision that a subset of these global health co-majors would be eligible for an accelerated MPH degree after completing thesis work in a low and middle income country and one additional year of classes in Seattle. DGH also plans to continue to increase our undergraduate course offerings, for example adding two new undergraduate courses this year (basic human biology; and global violence and health).

Certificate program expansion

Global Mental Health

In collaboration with the Department of Psychiatry, DGH will jointly recruit a leading expert in global mental health to expand both educational and research capacity in this area. In addition, the University of Washington recently signed a Memorandum of Understanding with the London School of Hygiene and Tropical Medicine to foster collaborative work between the two institutions in Global Mental Health. This collaborative agreement includes training initiatives, particularly around evidence-based mental health intervention research, where UW has a specialization. Both domestic and international prospective students have expressed enthusiasm for such a training program.

Health & Global Environmental Change

DGH is launching a Center for Health and the Global Environment (CHANGE) that collaboratively develops and promotes innovative and multi-disciplinary approaches to understanding and managing the risks of global environmental change. The integration of health, environmental, and social sciences to conduct research and policy analysis, education and training, and technical assistance and capacity building, is unique in the US and will focus on health outcomes associated with the consequences of global environmental changes, such as extreme weather and climate events, water and food security, and infectious diseases. Additional faculty are being recruited to develop a more comprehensive set of courses and training options, including a certificate program. The first of these plans to join us this summer.

Implementation Science

This signature and cutting- edge program has not only attracted exceptionally accomplished students, but also created demand for a broader array of training options. For example, DGH has developed a 2-week course for professionals in practice on *Implementation Science for Family Planning & Reproductive Health*, with funding from USAID. To maintain leadership in this arena, as indicated above, DGH is recruiting additional faculty, and developing a more comprehensive array of courses and training options, including a certificate program. These expanding course options provide us with an opportunity to offer an implementation science option for students in other disciplines to understand the science of addressing the 'know—do' gap.

E-learning programs

As noted earlier, one of the key foci of the eDGH mandate is to make UW educational resources available globally. New online courses targeted for a global delivery include the following:

- *Economic Evaluation in Global Health* taught by Joseph Babigumira. This course is currently in development and slated for initial offering in spring 2015.
- *Health Informatics* taught by Sherrilynne Fuller and David Masuda. Fuller and Masuda have expressed interest in developing an online course in early 2015
- *Child Health in Low and Middle Income Countries t*aught by Donna Denno. Denno is interested in developing a course to be offered after fall 2015.
- Fundam*entals of Implementation Science* taught by Kenny Sherr and Judy Wasserheit. A course in implementation science would have broad international appeal.

PART B – DGH-DEFINED QUESTIONS

I. Interdisciplinary mandate

Our mandate is to reach across campus to create one of the most comprehensive and multi-disciplinary academic global health programs in the world. How can we maximize campus-wide participation generally, and particularly in the context of Activity Based Budgeting (ABB) and other disincentives to multidisciplinary approaches?

As discussed in the section on 'Collaborative & interdisciplinary efforts' on page 29, we are already utilizing several approaches to maximize the inherent interdisciplinarity of the DGH. DGH will continue to develop and share cross-cutting curricula and continue to cross-list courses, e.g., with Anthropology, Geography, Law, Nursing, Engineering. Many DGH courses cross disciplines and draw wide audiences from the UW, especially our undergraduate course offerings, including GH 101 (360 students), and our "Perspectives in Global Health Series " (G H 401/402/403), which draws nearly 200 students each quarter.

We continue to convene the GHRC Advisory Board monthly, with broad faculty, staff, and student representation from across campuses (Seattle, Bothell and Tacoma). DGH also holds interdisciplinary workshops, seminars and talks to bring people together across campus. A cross-campus RFP process (2008-2010) and the SPH strategic hiring process both emphasized the promotion of interdisciplinary research and service projects with DGH. The current strategic hire in implementation and dissemination science, and joint recruitments in global cardiovascular disease prevention and care, and in global mental health, are strategies to continue to promote highly interdisciplinary, collaborative programs. These efforts can catalyze the hiring of faculty who are able to work across disciplinary boundaries. Finally, our common spaces across campus (in Arts and Sciences, South Campus, and across Seattle) and our partners around the world can help expand and deepen interactions and relations between people from different disciplines.

In the context of ABB, we will continue to expand course offerings across campus and explore novel ways to equitably share costs of and resources from courses (for example, establishing cost and revenue-sharing MOUs with participating departments (as we have done with Health Services regarding a qualitative research methods course). The Global Health Minor facilitates and promotes DGH courses that appeal to a wide spectrum of undergraduates from different departments. Sharing costs and resources is likely to work better in larger classes - with proportionately more resources vs. costs to share. Smaller graduate level courses will continue to be a challenge with ABB. Another challenge is the tendency of other SPH departments to try to block approval of new global health courses that are considered to overlap with disciplinary areas they consider to be their own. Finally, the DGH will build on our cross-campus faculty and students and the interdisciplinary activities within our 28 CPIs to provide research, service activities, and courses that cross academic boundaries and help all UW units provide outstanding global health education and training.

II. Training quality

Our education and training programs are large and robust with many diverse offerings. How can the department ensure its programs are preparing students with the experiences and skills necessary to successfully contribute and make an impact in a diverse and rapidly changing field?

The department has extensive links and frequent communication with leaders and employers in global health to continually assess the changing landscape of opportunities and competencies useful for our graduates. Our 2008-2009 study on global health competencies (Pfeiffer et al) explicitly addressed the question of how we are preparing our students, as does our current global health alumni survey. Our annual student evaluations provide additional information regarding whether students are acquiring appropriate skills and experiences. DGH academic programs use these competencies and survey results to inform decisions regarding the direction and content of our education and training programs.

a) Are courses and mentoring sufficiently rigorous, skill-based, and experiential?

Given our review by the DGH curriculum committee (the EEC) for rigor and content (including skills, knowledge, and experiences), and our systematic evaluation of student course evaluations and peer faculty evaluations, we believe that most of our courses meet this standard. The 2012-13 UW Graduate School Exit Questionnaire mentioned on page 14 suggests that key measures of academic quality are already quite strong in the department. In the student course evaluations during the 2013-14 academic year, the mean "Challenge and Engagement Index" (CEI) score of required global health courses for the MPH was 4.7(1=lowest, 7=highest). Within both existing programs and the new, proposed programs, we are prioritizing skills-focused and experiential learning courses. Our annual student feedback in the MPH program, also gives high marks to courses, although students continue to request more skill-oriented courses. The required (and mentored) MPH practicum (3-6 credits, 120-240 hours) ensures that all students receive solid experience in local or international health agencies. We are exploring changing our financial compensation to faculty to balance incentives for both teaching and mentoring, which we hope will improve mentoring of MPH students. We believe that the experiential part of the curriculum (e.g., practicum/thesis) is considered strong by students.

b) Do we include the right mix (e.g., knowledge of determinants of health and systems thinking, as well as skills in epidemiology/analytical methodologies, IT, engineering, medicine, leadership and management, policy development) to prepare students for the current job market?

We believe that the Department provides a good mix of knowledge and skills, but we constantly assess how well our mix aligns with the job market. Our surveys mentioned above have consistently indicated that skills in leadership, policy development, management and IT are critical for the current and likely future global health job market. Courses available to students (within and outside of the department) include a large spectrum of epidemiology, biostatistics, and other analytical courses. The DGH alone

provides nearly 50 unique courses, some offered multiple quarters, and totaling more than 100 credits during the academic year. Approximately half of these courses are knowledge-based, and the other half are practical evaluation, management or other skills-based courses. DGH leadership encourages instructors to emphasize practical experience, applied research (including evaluation), more skills-based courses, and better mentoring to prepare students for the job market. The SPH's new MPH revitalization/revision is also likely increase the proportion of academic activities directed toward practical, job-oriented skills development.

III. Financial sustainability

Given dramatic declines in state funding for higher education and a constantly shifting financial landscape, what fiscal strategies would allow us to continue to improve our existing educational programs, and offer new ones?

In the context of a greater than 40% decline in state support between FY09 and FY15 for UW's educational programs, and with the advent of ABB, the Department's principal fiscal strategies include the following approaches:

1) **Increasing ABB revenue** - ABB revenues to DGH come principally as a function of tuition payment of enrolled students and student credit hours taught in DGH courses. Thus, classes with more students and credits bring significantly more revenue to DGH.

   Several key mechanisms for increasing ABB include the following:

   a) *modestly increasing class size in our graduate courses* - given the smaller number of graduate students, and the desire for smaller, active-learning, seminar-type courses, graduate (MPH and PhD) courses tend to generate less revenue than undergraduate courses;
   b) *expanding the number of large- and medium-sized undergraduate courses* - we are in the midst of a large increase in undergraduate classes, many of which will generate substantial income.
   c) *increasing tuition for the MPH program*, and
   d) *increasing the availability of revenue-generating forms of graduate student tuition support* (e.g., training grants for PhD and MPH programs, faculty-generated research assistantships), while more carefully managing *resource intense mechanisms such as the number of tuition waivers and exemptions* provided, that incur costs without generating revenues.

      Increases in tuition and reductions in waivers/exemptions will help; mechanisms are not yet clear how these revenue increases – which occur at the school (SPH) level, will be translated into DGH revenues.

2) **Reducing teaching costs** by exploring:
   a) Alternative approaches to *faculty teaching compensation*,
   b) *reducing numbers of courses with low enrollment*, and
   c) aligning desired competencies with courses across campus and disciplines *to improve course integration and reduce redundancy* - including cross-listing courses to ensure more efficient and appropriate selection of courses. This should also help promote interdisciplinarity in course content.

   Reductions in teaching costs may occur if the DGH adopts policies of compensation that are aligned with revenues, i.e., payment according to student credit hours rather than credits alone. This will encourage larger class size which runs the risk of reducing teaching quality. It will be important to monitor this process closely to ensure the best teaching methods are used to avoid loss of quality with increasing class sizes. However, since all faculty are required to teach minimum credits for promotion, DGH (or the SPH) will need to adopt policies to address a faculty need for teaching that exceeds DGH resources.

3) **Expanding programs that provide net direct revenue to the department**, including distance learning and our summer institute. This might also include providing support to teachers and mentors for adopting state of the art, cost-effective teaching methods**,** mixing active learning and cost-effective distance learning and IT approaches.

IV. Metrics of success

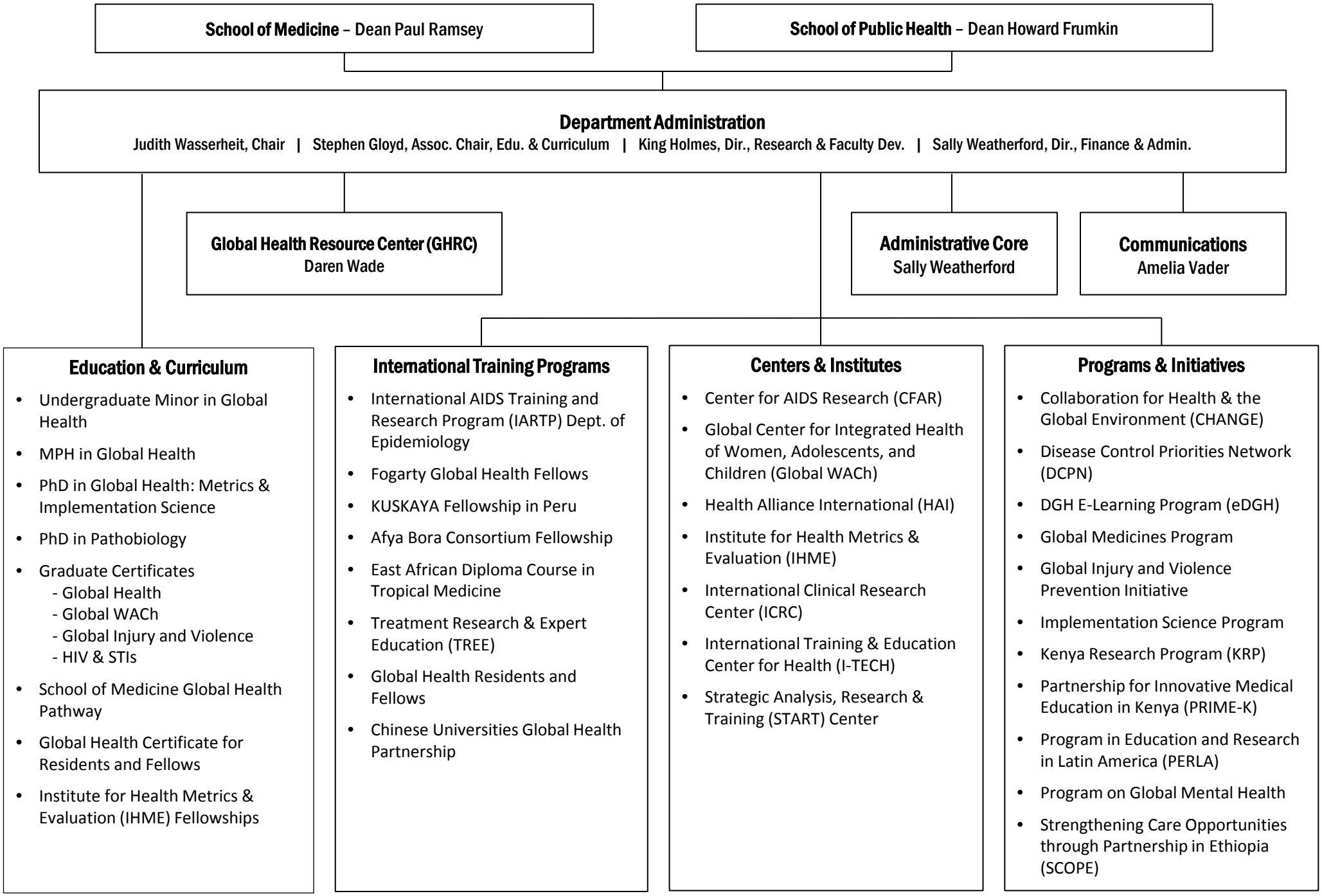
What combination of parameters should we focus our metrics (e.g., rigor, innovation, career/jobs, diversity, funding)?

DGH has had an evolving set of metrics for its academic programs since its inception in 2007, measuring inputs (applications, admissions, faculty involvement and staff support), processes and outputs (numbers and variety of courses, course evaluations, alignment of courses with competencies, achievement of competencies, time to graduation, engagement of DGH and cross-campus faculty and students in DGH programs), and outcomes (graduates, jobs, career trajectories, impact). An assessment of our metrics, and the degree to which DGH met those metrics, was presented in each of the EAB meetings in 2009, 2011, and 2013. See Appendix Q for our 2013 EAB metrics discussion guide.

While we believe we are on the right track, identifying appropriate metrics has been a challenge, and quantifying our progress in each even more difficult. In addition to the above, we have attempted to develop metrics that reflect each of the DGH values, including social justice and equity, diversity, enabling students to make a difference in global health discovery and service, and catalyzing the power of partnerships – and we would like to continue to explore this approach to ensure we stay true to DGH values. The annual alumni survey mentioned previously will provide further opportunities to refine our approach and to obtain input for the degree to which we achieve them. Finally, we would also like to increase our focus on qualitative measures of the academic experience within DGH and our alumni impact.

PART C – APPENDICES

Appendix A | Organizational Chart



LAST REVISED: 2/1/15

Appendix A1 | Organizational Chart - Education & Curriculum

Education & Curriculum

Stephen Gloyd, MD, MPH | Associate Chair, Education & Curriculum (.1)
Julie Beschta | Program Development Coordinator (1.0)
Blair Kaufer | Program Coordinator (.5)

Global Health Minor

Charles Mock, Director (.1)
Daren Wade, Assoc. Director (.1)
Jessica Harkhani, Advisor (.45)
Amman Girma, Advisor (.5)

MPH

Stephen Gloyd, Director (.1)
Deepa Rao, Assoc. Director (.1)
Bernardo Hernandez-Prado, Assoc. Director, HME Track (.3)

Julie Brunett, Manager (.75)
Katie Wakefield, Advisor (.5)
Jennifer Tee, Advisor (.75)
Sean Lassiter, Advisor (.5)

PhD Global Health

Stephen Gloyd, Director (.05)
Emmanuela Gakidou, Co-Director (.15)
Kenneth Sherr, Co-Director (.15)
Dane Boog, Manager (.5)

PhD Pathobiology

Lee Ann Campbell, Director (.25)
Manager (1.0)

Graduate Certificates

Global Health
Joseph Babigumira, Director (.05)
Katie Wakefield, Manager (.17)

Global WACh
Alison Drake, Director (.05)
Andrew Lewis, Manager (.17)

Injury & Violence Prevention
Charley Mock, Director (.05)
Katie Wakefield, Manager (.17)

HIV & STIs
Nina Kim, Director (.10)
Katie Wakefield, Manager (.17)

FTE - Dedicated Administration

Administrator (.15)
HR/AHR (.15)
Payroll (.15)
Purchasing & travel (.15)
Grant (.05)
Website (.5)
Communications (.15)

SOM Global Health Pathway Certificate

Susan Graham, Director (.05)
Rachel Lazzar, Manager (.5)

Global Health Residents & Fellows Certificate

Carey Farquhar, Director (.05)
Rachel Lazzar, Manager (.5)

Health Metrics & Evaluation Fellowships (Post-Bac/Post-Grad)

Emmanuela Gakidou, Director (.1)
Sean Lassiter, Manager (PBF) (.5)
Dane Boog, Manager (PGF) (.5)

( ) FTEs assigned

Appendix B

Department of Global Health Revenue and Expenditures -all fund sources- FY2006-FY2015

Revenue/Fund Source	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
General Operating Fund (GOF)		250,000	1,166,519	1,761,069	1,872,298	2,159,698	1,939,300	1,964,132	2,525,382	2,575,344
Designated Operating Fund (DOF)/Local Fund Allocation (LFA)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$164,000.00	
Research Cost Recovery (RCR)	N/A	N/A	682,000	1,442,000	1,822,000	2,210,000	3,090,000	4,050,000	2,815,800	3,058,962
Grant and Contracts Awarded*	N/A	4,900,000	50,600,000	87,600,000	106,975,724	131,011,827	105,950,670	114,136,979	183,365,114	
Other			4,279,815	6,031,050	7,496,979	7,631,890	2,941,783	3,367,087	2,657,849	
Gifts Received/Endowment Disbursements***	10,008,218	1,022,097	1,136,657	863,613	659,005	794,749	853,878	866,176	1,100,301	
Total	10,008,218	6,172,097	57,864,991	97,697,732	118,826,006	143,808,164	114,775,631	124,384,374	192,628,446	5,634,306

189,806,597 Grant

Expenditures/Fund Source	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
General Operating Fund (GOF)		233,635	1,166,519	1,761,069	1,872,298	2,159,697	1,875,807	2,019,875	2,497,513	
Designated Operating Fund (DOF)/Local Fund Allocation (LFA)	N/A	N/A	N/A	N/A	N/A	11,000	N/A	N/A	164,000	
Research Cost Recovery (RCR)	N/A	N/A	192,809	306,450	322,576	1,399,319	2,297,400	3,118,775	3,788,310	
Grant and Contract Expenditures**	N/A	16,824	52,379,060	67,561,279	86,291,816	106,002,210	98,407,176	100,880,928	97,651,951	
Other	N/A	N/A	5,891,701	5,975,572	7,119,203	6,710,924	3,591,497	3,456,683	2,375,607	
Gifts Received/Endowment Disbursements	N/A	734,680	1,757,836	634,767	1,327,771	1,228,000	1,471,895	399,543	780,327	
Total	N/A	985,139	61,387,925	76,239,137	96,933,664	117,511,150	107,643,775	109,875,804	107,257,708	

*Grants Awarded **includes** awards to all DGH faculty including DGH IHME faculty

** Grant and Contract Expenditures **excludes** IHME grant expenditurs

*** A gift of $10,008,218 was received in 2006 from the Bill and Melinda Gates Foundation for the purpose of establishing the Department of Global Health. FY07-14 figures reflect disbursements from a $20M endowment from the Foundation.

Appendix C | DGH Core Teaching and Mentoring Faculty

Individual faculty CVs are available at: https://catalyst.uw.edu/sharespaces/space/blairk2/23900

Name	Title	DGH CPI*	Primary DGH**	Primary SPH	Primary SOM	Primary Other	Other depts	Primary Institution (if not UW)
Andrasik, Michele	CLINICAL ASST PROF	CFAR	X	X				FHCRC
Babigumira, Joseph	ASST PROF WOT	GLOBAL MEDS	X	X			PHARM, HS, GH	
Baeten, Jared	PROF	ICRC	X		X		ALLERGY&ID, EPI, PEDS	
Baeza, Cristian	PROF WOT	IHME	X		X			
Barnabas, Ruanne	ASST PROF WOT	ICRC	X		X		EPI	
Barnhart, Scott	PROF WOT	I-TECH			X	MED	GH, DEOHS	
Beschta, Julie	CLINICAL INSTRUCTOR		X	X				
Bezruchka, Stephen	SR LECTURER PT			X		HS		
Campbell, Nancy	CLINICAL ASST PROF		X	X				CAMPBELL CONSULTING
Celum, Connie	PROF	ICRC	X		X		EPI	
Child, Mara	CLINICAL INSTRUCTOR	HAI	X	X				
Coler, Rhea	AFFILIATE ASSOC PROF	PABIO	X	X				IDRI
Denno, Donna	ASSOC PROF WOT	WACh		X		PEDS	GH, HS	
Downer, Ann	ASSOC PROF WOT	I-TECH	X	X			HS	
Duerr, Ann	AFFILIATE PROF			X		EPI	GH	FHCRC
Ebi, Kristie	PROF WOT		X	X			DEOHS	
El Bcheraoui, Charbel	ACTING ASST PROF TEMP	IHME	X	X				
Farquhar, Carey	PROF WOT	KRTC			X	MED	EPI, GH	
Flaxman, Abraham	ASST PROF WOT	IHME	X		X		CS&E	
Freeman, Paul	CLINICAL ASST PROF	HAI	X	X				
Gakidou, Emmanuela	PROF WOT	IHME	X		X		HS	
Gimbel, Sarah	ADJUNCT ASST PROF	HAI		X		NURSING	GH	HAI
Gloyd, Stephen	PROF	HAI	X	X			HS, EPI, FAMMED, INDUST ENG	
Gonzales, Virginia	SR LECTURER	I-TECH	X	X			HS	
Gorstein, Jonathan	CLINICAL ASSOC PROF	WACh	X	X				
Graham, Susan	ASST PROF WOT	KRTC			X	MED	GH, EPI	
Hagopian, Amy	ASSOC PROF WOT	HAI, I-TECH		X		HS		
Hernandez Prado, Bernardo	ASSOC PROF WOT	IHME	X	X				
Holmes, King	PROF	CFAR, I-TECH	X		X		EPI, MICROBIO	
John-Stewart, Grace	PROF WOT	KRTC, GWACh	X		X		ALLERGY&ID, EPI, PEDS	
Kohler, Pamela	ASST PROF WOT	I-TECH	X	X				
Kone, Ahoua	CLINICAL ASST PROF	HAI	X	X				HAI
Kublin, James	CLINICAL ASSOC PROF	HAI		X		HS		FHCRC
Kyes, Randall	ADJ RESEARCH PROF			X		PSYCH	ANTH, GH	
Lane, Jeffrey	CLINICAL INSTRUCTOR		X	X				FOSTER PEPPER, PLLC
Levin, Carol	CLINICAL ASSOC PROF	DCPN	X	X				
Lim, Stephen	ASSOC PROF WOT	IHME	X	X			HS	
Lingappa, Jairam	ASSOC PROF WOT	ICRC	X		X		PEDS	
Lingappa, Jaisri	PROF	PABIO	X	X			MED, MICROBIO	

*** See Appendix G for list of CPIs**

**** Primary regular faculty in DGH (e.g., not annual faculty) are assigned a primary appointment in either School (SPH or SOM)**

Appendix C | DGH Core Teaching and Mentoring Faculty

Name	Title	DGH CPI*	Primary DGH**	Primary SPH	Primary SOM	Primary Other	Other depts	Primary Institution (if not UW)
Lober, William	ASSOC PROF	I-TECH			X	NURSING	GH, MED ED, HS	
LoGerfo Sr., James	PROF EMERITUS				X	MED	GH EMERITUS	
Lozano, Rafael	PROF WOT	IHME	X	X			HS	
Martin, Robert	PROF WOT	I-TECH	X	X				
McClelland, Scott	PROF WOT	CFAR, KRTC			X	MED	EPI, GH	
Mercer, Mary Anne	SR LECTURER PT	HAI	X	X			HS	
Mock, Charles	PROF WOT	INJURY/VIOLENCE			X	SURGERY	EPI, GH	
Mokdad, Ali	PROF	IHME	X	X			EPI, HS	
Murray, Christopher	PROF	IHME	X		X		HS, EPI, FAMMED, INDUST ENG	
Naghavi, Mohsen	ASSOC PROF WOT	IHME	X		X			
Ng, Tan Hung	ASST PROF WOT	IHME	X	X				
Nugent, Rachel	CLINICAL ASSOC PROF	DCPN	X	X				
O'Malley, Gabrielle	ASST PROF WOT	I-TECH	X	X				
Pfeiffer, James	PROF WOT	HAI	X	X			ANTH, HS	
Rabinowitz, Peter	ASSOC PROF WOT			X		DEOHS	GH, MED	
Rao, Deepa	ASSOC PROF WOT	CFAR	X		X		PSYCHIATRY	
Rivin, Beth	ADJUNCT RESEARCH ASSOC PROF			X		LAW	BIOETH&HUMAN, GH	
Robinson, Julia	CLINICAL INSTRUCTOR	HAI	X	X				HAI
Sherr, Kenneth	ASSOC PROF WOT	HAI	X	X			EPI, INDUST ENG	
Slyker, Jennifer	ASST PROF WOT	KRTC, GWACh	X		X			
Sparke, Matthew	ADJUNCT PROF			X		GEOG	INTL STUDIES, GH	
Spigner, Clarence	ADJUNCT PROF			X		HS	AMER ETH STU, GH	
Stergachis, Andy	PROF WOT	GLOBAL MEDS		X		EPI	PHARM, HS, GH	
Thompson, Susan	CLINICAL INSTRUCTOR	HAI	X	X				HAI
Van Voorhis, Wesley	ADJUNCT PROF	PABIO			X	MED	MICROBIO, GH	
Vos. Eric Theo	PROF WOT	IHME	X		X			
Wade, Daren	CLINICAL INSTRUCTOR	GHRC	X	X				
Walson, Judd	ASSOC PROF WOT	CFAR	X		X		PEDS, EPI	
Wang, Haidong	ASST PROF WOT	IHME	X	X				
Wasserheit, Judith	PROF		X		X		MED, EPI	
Zunt, Joseph	PROF WOT	CFAR, PERLA			X	NEUR	GH, EPI	

*** See Appendix G for list of CPIs**

**** Primary regular faculty in DGH (e.g., not annual faculty) are assigned a primary appointment in either School (SPH or SOM)**

Appendix D | Overview of Educational Programs

The Department of Global Health curriculum has been built on a history of many years of programs and courses from the Schools of Public Health and Medicine. In addition, the curriculum brings together new programs and courses from across campus and from our centers and programs. Our growing array of interdisciplinary academic programs includes the following.

Undergraduate Global Health Minor (currently 119 students)
Began Winter quarter 2011. Six DGH undergraduate courses are offered as part of the core requirements.

Master of Public Health (MPH) in Global Health (currently 71 students)

- **General Track** - for students with substantial global health or other health-related experience in disadvantaged communities who seek careers in research and program implementation.
- **Health Metrics and Evaluation Track** - for recent college graduates with advanced quantitative skills.
- **Leadership, Policy, and Management Track** - for mid-career professionals with global health experience seeking training to be leaders, managers, and policy advocates.
- **MD-MPH Track –** for UW medical students enrolled at any WWAMI site. (WWAMI is a partnership between the UW SOM and the states of Washington, Wyoming, Alaska, Montana, and Idaho.)
- **Peace Corps Masters International (PCMI) Track** - for students who do not necessarily have developing country health work experience.
- **Concurrent Degrees** - for students interested in combining an MPH with graduate studies in medicine, nursing, anthropology, law, public affairs, and other fields.
- **Epidemiology MPH, Global Health Track** - for students who want to pursue health careers in developing countries, including research into the causes and preventative factors for disease or program evaluation. Managed by the Department of Epidemiology.

Doctor of Philosophy (PhD) Programs

- **Global Health: Metrics & Implementation Science (currently 15 students)** - IHME, in collaboration with Health Alliance International, is offering a doctoral degree in metrics and implementation science.
- **Pathobiology (currently 31 students) -** offers a multidisciplinary approach applying basic science research and the latest research technologies to the study of global health.

Graduate Certificates (currently 31 students) – Four certificate programs available to graduate and professional students across campus. Each provides global health training and context in the following areas:

- Global Health
- Global Health of Women, Adolescents & Children (Global WACh) (Winter 2012 start)
- Global Injury & Violence Prevention (Autumn 2011 start)
- HIV & STIs

Fellowship Programs

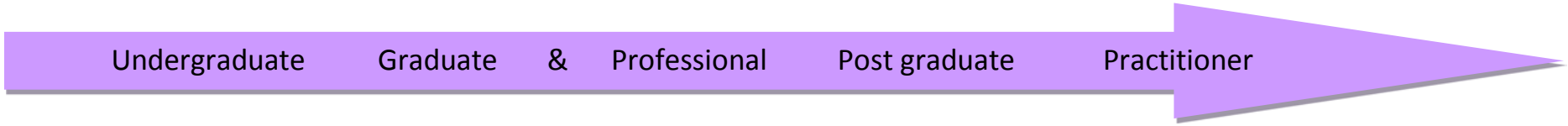
- **Fogarty Global Health Fellowship Program** - offers mentored clinical research training in low and middle income countries to post-doctorate and doctoral students in the health professions.
- **IHME Fellowship Programs**
  - **Post-Bachelor Fellowship (currently 30 Fellows) -** for recent college graduates with strong quantitative skills to train with faculty and senior researchers in health metrics and evaluation on a variety of global heath projects.
  - **Post-Graduate Fellowship (currently 7 Fellows)** - a highly structured program for talented researchers to leverage their expertise to help advance the field of health metrics and evaluation.
- **Pathobiology Post-Doctoral Fellowship Program (3 Fellows) -** develops a cadre of scientists with cross-disciplinary training in molecular processes, pathogenesis, and global public health.

Medical Student Global Health Pathway Certificate (currently 117 students) - designed for the growing number of medical students pursuing careers in research or clinical practice with underserved communities, either domestically or internationally.

Global Health Certificate for Residents & Fellows (Autumn 2014 start), including courses and placements in Pediatrics, Internal Medicine, Family Medicine, others.

Practitioner programs: Professional education including clinical and leadership content, both overseas and domestic.

Appendix E – Education & Training Continuum



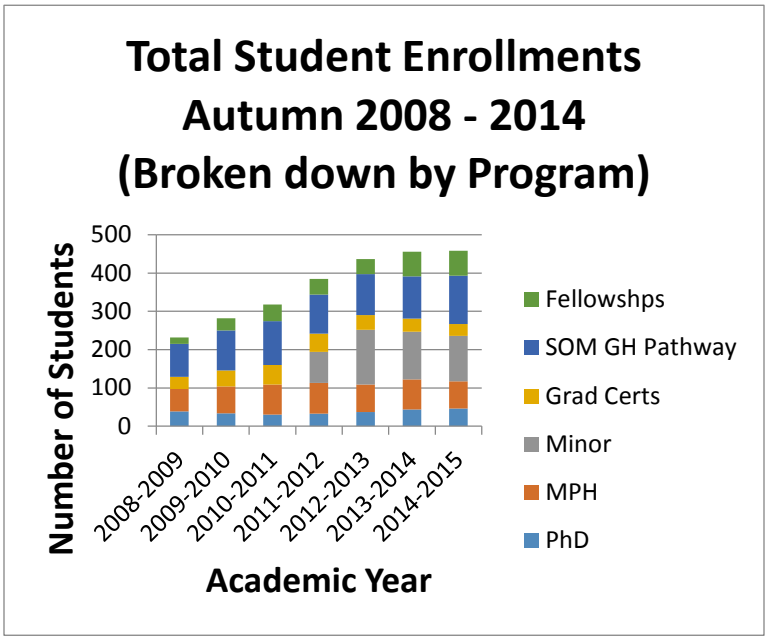
Programs & Degrees	Minor New UG courses	MPH - tracks(5)[2] Graduate Certificates [3] Post-Bac Fellwshp (IHME) PhDs – GH Metrics & Imp Sci; Pathobiology	SOM GH Pathway GH Immersion Prog (GHIP) GH Clinical Elective (GHCE)	GH Certificate for Residents & Fellows Post-Grad Fellwshp (IHME)	Seattle Summer GH Institute (2014 start) DL/in-service training via I-TECH, HAI, CFAR AFYA BORA Leadership Fellowship Overseas collaboration programs: U Namibia, U Nairobi, U Peru Cayetano Heredia, UEM-Maputo
Illustrative CPI Linkages	DCPN, GMHP, Global WACh, HAI, IHME, PERLA, GHRC	CFAR, DCPN, GMHP, GMP, Global WACh, HAI, IARTP, IHME, PERLA, GHRC	Global WACh, KRTC, MEPI[4], GHRC	CEPI[5], IHME, GHRC	CFAR, DCPN, HAI, IHME, I-TECH, GHRC
Priority Metrics-by 2015	300 students (119) **10% URM[6] (13%)** 50 UG cr (28) 5 DGH-sponsored intl experiences (0)	MPH (2014-15 AY) 50 entering (41) 15% URM (14%) 50% intl (27%) **50% non-clinical bkgrd (61%)** 10 MD-MPH (2) GH M/IS PhD (2014-15 AY) **5 entering (5)** **4 funded (5)** 1 URM (0)/ 11 of 15 intl 1 training grant submitted (0)	GH Pathway **25 grads/yr (27)** 20 travel grant awards (19)	GH Residents & Fellows Certificate (4 enrolled) 6 residency programs (12+ residents in GH pathways in various departments) 12 residents/year w overseas rotations **(35+)**	Summer Institute including clinical, PH, CHE courses self sustaining w > 300 enrollees integrated into other programs & income generating 2014 – 115 enrolled E-Learning integrated & income generating

[1] **bold** indicates metric has been achieved; ( ) indicates actual metric achieved
[2] MPH tracks include General, Health Metrics & Evaluation, Leadership, Policy & Management (LPM), Peace Corps Masters International (PCMI) and MD-MPH
[3] Graduate Certificates include Global Health, Global Health of Women, Adolescents & Children (Global WACh), Global Injury & Violence Prevention, HIV & STIs
[4] MEPI/NEPI-Medical /Nursing Education Partnership Initiative / [5] CEPI - Clinical Education Partnership Initiative (Kenya)
[6] URM - Under-Represented Minority (doesn't include Asian Americans)

Appendix F | DGH Program Enrollments & Graduates

Total Autumn Quarter Enrollments by Program							
Program	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
PhD Global Health	-	-	-	-	3	10	15
PhD Pathobiology	39	34	30	33	34	34	31
MPH	58	70	79	80	72	78	71
Total Degree Enrollments	**97**	**104**	**109**	**113**	**109**	**122**	**117**
Total Undergrad Minor Enrollments	**n/a**	**n/a**	**n/a**	**81**	**143**	**125**	**119**
Graduate Certificates *	32	42	51	48	38	34	31
SOM Global Health Pathway	86	104	114	102	107	90	117
Certificate for Residence & Fellows	-	-	-	-	-	-	4
Total Certificate Students Enrolled	**118**	**146**	**165**	**150**	**145**	**144**	**157**
Fogarty Global Health Fellows	-	-	-	-	19	27	25
IHME Fellows - PBF	12	18	28	29	10	28	30
IHME Fellows - PGF	5	11	13	9	7	7	7
Pathobiology Fellows	-	3	3	3	3	3	3
Total Fellows Enrolled	**17**	**32**	**44**	**41**	**39**	**65**	**65**
Total Global Health Autumn Enrollments	**232**	**282**	**318**	**385**	**436**	**456**	**458**

***See below for breakdown by certificate**



Graduate Certificates annual fall quarter enrollments, by program							
Program	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Global Health	17	22	28	33	22	20	19
Global Health of WACh	-	-	-	6	5	8	7
Global Injury & Violence Prevention	-	-	-	-	1	2	2
HIV & STIs	15	20	23	9	10	4	3
Total Certificates	**32**	**42**	**51**	**48**	**38**	**34**	**31**

Appendix F | DGH Program Enrollments & Graduates

Graduates by Program

Program	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
PhD Pathobiology	8	6	9	4	4	5	9
MPH*	10	11	19	26	31	33	30
Total Degree Graduates	**18**	**17**	**18**	**30**	**35**	**38**	**39**
Total Undergrad Minor Graduates	**-**	**-**	**-**	**4**	**34**	**64**	**103**
Graduate Certificates **	14	24	24	14	30	23	18
SOM Global Health Pathway	3	11	17	17	14	19	27
Total Certificate Students Graduates	**17**	**35**	**41**	**31**	**44**	**42**	**45**
Total Global Health Graduates	**35**	**52**	**59**	**65**	**113**	**143**	**187**

***See Table 1 below for graduates, by track**

****See Table 2 below for graduates, by certificate program**

Table 1 | MPH - Annual Graduates, by Track

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
General	8	11	12	12	10	18	14
LPM	-	-	3	3	8	2	2
PCMI	2	-	3	3	3	2	3
HME	-	-	1	7	8	8	10
MD/MPH	-	-	-	1	2	3	1
MPH (Total)	**10**	**11**	**19**	**26**	**31**	**33**	**30**

Table 2 | Graduate Certificates - Annual Graduates, by Program

Program	2008	2009	2010	2011	2012	2013	2014
Global Health	14	14	9	13	17	6	9
Global Health of WACh	-	-	-	-	-	6	5
Global Injury & Violence Prevention	-	-	-	-	-	1	1
HIV & STIs	10	10	5	17	6	5	3
Total Graduates	**24**	**24**	**14**	**30**	**23**	**18**	**18**

Appendix F | DGH Program Enrollments & Graduates

Total Applicants, Offers Made and Matriculated Students 2008-2014 (By Academic Year and Degree Program)

Program		2008	2009	2010	2011	2012	2013	2014
PhD Global Health – Metrics	Applicants	-	-	-	-	N/A	27	41
	Offers Made	-	-	-	-	2	4	4
	Matriculated	-	-	-	-	2	3	1
PhD Global Health – Implementation	Applicants	-	-	-	-	N/A	61	57
	Offers Made	-	-	-	-	1	5	5
	Matriculated	-	-	-	-	1	4	4
Total PhD Global Health Matriculated		**-**	**-**	**-**	**-**	**3**	**7**	**5**
PhD Pathobiology	Applicants	60	52	58	73	75	69	69
	Offers Made	10	11	15	14	16	11	10
Total PhD Pathobiology Matriculated		**7**	**6**	**5**	**5**	**5**	**5**	**7**
MPH – General	Applicants	80	131	147	131	134	92	75
	Offers Made	25	18	17	26	35	29	41
	Matriculated	15	12	10	12	14	17	21
MPH – Leadership, Policy & Management	Applicants	-	5	5	14	12	24	21
	Offers Made	-	5	5	3	9	12	13
	Matriculated	-	5	5	3	2	8	7
MPH – Peace Corps Masters International (PCMI)	Applicants	47	60	34	47	32	18	8
	Offers Made	18	5	3	4	4	5	4
	Matriculated	5	3	2	3	3	2	1
MPH – Health Metrics & Evaluation	Applicants	-	7	23	32	28	32	37
	Offers Made	-	7	11	14	16	18	17
	Matriculated	-	7	8	9	11	8	8
MPH – MD/MPH	Applicants	1	7	5	6	7	8	5
	Offers Made	1	5	5	3	6	8	4
	Matriculated	0	0	4	5	0	2	2
Total MPH	Applicants	128	210	214	230	213	174	146
	Offers Made	44	40	41	50	70	72	79
Total MPH Matriculated		**20**	**27**	**29**	**32**	**30**	**37**	**39**
Total Matriculated		**27**	**33**	**34**	**37**	**38**	**49**	**51**

Appendix G | Centers, Programs & Initiatives (CPIs)

Afya Bora Consortium (ABC) Fellowship To Train Leaders in Global Health

UW/FHCRC Center for AIDS Research (CFAR)

Climate Change and Global Health Initiative

Clinical Education Program Initiative (CEPI) Elective Rotation in Naivasha, Kenya

Disease Control Priorities Network (DCPN)

East African Diploma Course in Tropical Medicine

Global Health Resource Center (GHRC)

Global Injury and Violence Prevention Initiative

Global Medicines Program

Global WACh: The UW Global Center for Integrated Health of Women, Adolescents, and Children

Health Alliance International (HAI)

The Institute for Health Metrics and Evaluation (IHME)

Interdisciplinary Doctoral Program in Pathobiology (IDPP)

International AIDS Research and Training Program (IARTP)

International Clinical Research Center (ICRC)

International Training and Education Center for Health (I-TECH)

Kenya Research & Training Center (KRTC)

Northern Pacific Global Health Fellows Consortium

Partnership for Innovative Medical Education in Kenya (PRIME-K)

Program in Education and Research in Latin America (PERLA)

Program on Global Mental Health

PhD in Global Health: Metrics and Implementation Science

Residency (Specialty) Training Programs

Strengthening Care Opportunities through Partnership in Ethiopia (SCOPE)

Strategic Analysis, Research & Training (START) Program

Training (Core 4) for The Center to Advance Point-of-Care Diagnostics for Global Health Technologies Research Network

TREE (Treatment, Research, and Expert Education)

Appendix H | Diversity & Inclusion Committee Scope of Work

To honor and expand upon the Schools of Medicine (SOM) and Public Health's (SPH) commitment to diversity; it is proposed that the Department of Global Health form a Departmental Diversity and Inclusion Committee. This proposal draws from both Schools' diversity activities, to create a comprehensive statement of the committee's mission, goals, implementation, and assessment.

Mission:
To help ensure accountability to the SOM's mission to promote diversity within healthcare, and the SPH's commitment to developing a more diverse and culturally competent faculty, staff, and student body in order to better serve communities in our region and beyond.

Definition:
The Department of Global Health recognizes that there are multiple definitions of diversity. Our Departmental definition includes traditionally underrepresented groups (e.g. based on race, ethnicity, gender, sexual orientation, gender identity, age, disability, class). Furthermore, given the Department's unique focus on international research and collaboration, the DGH recognizes an additional focus on the diversity and inclusion of people from various countries and cultures.

Structure:
The committee will be composed of faculty, staff and students. Particular attention will be given to representation among locations (currently Harris Hydraulics, Ninth and Jefferson Building, Institute for Health Metrics and Evaluation, and other locations), gender, race, sexual orientation, ability status, etc. It is proposed that the committee will be comprised of 2 faculty members, 2 staff members and 2 students. To establish the committee, the Chair will send an email requesting for nominations of faculty, staff and students to join the committee, and will then meet with the current committee heads to make final recommendations.

- **Term Limits**: Each member will be appointed to a 3 year term (the inaugural members will stay slightly longer or shorter to stagger their departures from the committee to avoid everyone departing the committee at the same time).
- **Leadership**: Jessica McPherson and Deepa Rao will serve as committee leads for the first year. Leadership will change yearly.
- **Quorum**: A meeting can be held if at least 5 members can attend, and out of those 5 attendees, at least 1 faculty, 1 student and 1 staff member must be present.
- **Note Taker:** The role of note taker will rotate with each meeting

Meetings:
The committee will meet quarterly, occasionally more frequently. The location will rotate between NJB and Harris (potentially adding additional locations, such as IHME, as needed).
The committee requests to meet with the Chair of the DGH semi-annually.

Activities:
The Diversity and Inclusion Committee will organize 1-2 activities a year. Examples of these activities are: maintaining a record on numbers of faculty, staff, students with diverse backgrounds, resource gathering (e.g., funding, GOMAP, university services, NIH supplements), meeting with DGH search committees to develop/implement strategies for expanding diversity, providing trainings such as Safe Space training, examining personal bias training, making privilege visible training, etc.

Resources needed: Currently the committee requires access to meeting space for quarterly meetings. If additional funds are requested for trainings, etc., a formal proposal will be presented to the Chair and Department Administrator.

Appendix I | Current Course Offerings - Global Health (G H) & Pathobiology (PABIO)

Note:

- See reverse for Pathobiology (PABIO) courses
- See **Appendix J** for course descriptions

Required courses for each program noted as follows: orange = undergraduate minor | *red = MPH* | blue = PhD | green = Graduate Certificates *(usually one of several courses fulfilling a requirement)* | **bold = programs not under review**

underline = responsible department (if > 1 department listed) | *= new course since DGH inception

Course #	Course Title	Instructor	QTR	CR
100-400 Undergraduate Courses				
*GH 101	Intro to GH: Disparities, Determinants, Policies & Outcomes	Gloyd, Sparke	W	5
*GH 210	Confronting Global Diseases: Introductory Biologic Principles and Context	Parsons	Sp	3
*GH 399	Global Health Study Abroad	Variable	AWSpS	1-5
GH 401/501	Core Topics in Global Health	Gonzales, Wade	AS	1
*GH 402/502	Contemporary Issues in Global Health	Wade, Beschta	W	1
GH 403/503	Multidisciplinary Perspectives in Global Health	Gonzales, Wade	Sp	1
*GH 410	Advanced Biologic Principles of Global Diseases	Coler	A	3
*GH 456/556	Global Mental Health	Rao	Sp	3
*GH 490/590	Bioengineering Solutions to Improve Health of Women, Adolescents & Children	Guthrie	W	1
*GH 490/590	Global Violence and Health	Rao, Mock	W	3
GH 490/HSERV 482	The Health of Populations	Bezruchka	Sp	4
GH 490/HONORS 391	HIV and AIDS: Issues & Challenges	Kasprzyk, Montano	Sp	5
*GH 490/590	Supply & Demand of Health & Health Services in Developing Countries	Dieleman, Hanlon	Sp	4
*GH 490/590	Global Perspectives on Reproductive Health	Drake, Unger	Sp	3
GH 499	Undergraduate Research	Variable	AWSpS	1-5
500-509 Seminars				
GH 500/EPI 592	Global Health Seminar	MPH Faculty	AWSp	1
GH 501/401	Core Topics in Global Health	Gonzales, Wade	AS	1
*GH 502/402	Contemporary Issues in Global Health	Wade, Beschta	W	1
GH 503/403	Multidisciplinary Perspectives in Global Health	Gonzales, Wade	Sp	1
GH 590/LAW H 506	International Bioethics, Social Justice, & Health Seminar	Rivin	AWSp	1
*GH 590	Legal & Policy Solutions to Improve Health of Women, Adolescents & Children	Slyker, Lenga-Long	W	1-2
*GH 590/490	Bioengineering Solutions to Improve Health of Women, Adolescents & Children	Guthrie	W	1-2
*GH 590	Adolescent Health in Resource Limited Settings	Katzenellenbogen	Sp	1
*GH 590	Disease Diagnosis, Surveillance & Response: Role of Medical Labs in a PH Setting	Martin, Perrone	Sp	1
*GH 590	Intro to Implementation Science for STDS/HIV	Sherr	S	1
510-519 History and Context of Population Health				
GH 511	Problems in Global Health	Gloyd	A	3-4 | also required PhD, Certs
GH 514	Global Societal Determinants of Health	Bezruchka	Sp	2-3
GH 516/LAW H 540	Health & Human Rights	Rivin	W	3
GH 590/LAW H 506	Seminar in International Research, Social Justice & Health	Rivin	AWSp	1
GH 590/LAW H 511	International Research Ethics, Policy & Law	Rivin	not offered 15/16	3
GH 590/LAW H 515	Global Health Law	Lenga-Long	Sp	3
520-529 Leadership/Policy/Management				
*GH 521	Leadership Development for Global Health	Campbell	A	3
GH 522	Global Program Management & Leadership	Downer	W	3 | also required Certs
*GH 523	Policy Development & Advocacy for Global Health	Katz, Lane	Sp	3
GH 590/LAW H 517	Legal Issues for Global Health Programs	Lane	W	2
*GH 590	Managing Global Health Programs for Success	Sherris	S	2
530-539 Evaluation/Metrics				
GH 531/EPI 539	Research & Evaluation Methods in Global Health	Mock, O'Malley	W	3-4 | also required Certs
GH 532/EPI 586	Responsible Conduct of International Research	Farquhar, Drake	A	3 | also required Certs
*GH 533/HSERV/CS&SS 527	Survey Research Methods	Mokdad	Sp	4
*GH 537/HSERV 526	Advanced Qualitative Research Methods in Public Health	Pfeiffer	Sp (odd years)	4
GH 538/HSERV 521/ANTH 519	Advanced Qualitative Methods in Anthro. & P.H.	Pfeiffer	Sp (even years)	5
*GH 539	Methods, Tools & Data in Global Health	Gakidou	A	2
*GH 590	Mortality Analysis for Global Health	Wang	W	3
*GH590	Quantitative Impact Evaluation	Ng	Sp	1 or 3
*GH 590/490	Supply & Demand of Health and Health Services in Developing Countries	Dieleman, Hanlon	Sp	4
*GH 590	Global Burden of Disease	Naghavi	S	3
*GH 590	Interactive Data Visualization for Global Health	Flaxman, Freeman	S	3
*GH 590	Intro to Public Health Surveillance	El Bcheraoui	S	1
*GH 592	Program Seminars: IHME Seminar	Gakidou	AWSp	1
*GH 592	Program Seminars: HME Track Seminar	Gakidou	AWSp	1
***GH 592**	**Program Seminars: Post-Graduate Fellows Seminar**	**Flaxman**	**AWSp**	**1**
540-549 Health Systems/Primary Health Care				
*GH 541	Fundamentals of Implementation Science in Global Health	Sherr, Wasserheit	Sp	4-5
GH 543/PHARM 581	Global Health Pharmacy: Medicines, Practice & Policy	Garrison, Stergachis	W	2
GH/HSERV 544	Maternal Child Health in Developing Countries	Denno	W	3
GH 545 (eMPH only)	Child Health in Developing Countries	Denno	W	3
GH 590/PHARM 582	Special Topics in Global Health Pharmacy & Medical Products	Babigumira, Stergachis, Downing	Sp	1-3
*GH 590/490	Global Perspectives on Reproductive Health	Drake, Unger	Sp	3
*GH 590	Implementation Science for Family Planning & Reproductive Health	Wasserheit	S	3
*GH 590	Global Health Economics	Verguet, Babigumira	S	3

550-569 Conditions & Diseases				
GH/NUTR 555	Nutrition in Developing Countries	Gorstein	Sp (odd years)	3
*GH 556/456	Global Mental Health	Rao	Sp	3
GH 560	Principles of STD/HIV Research	Graham, Winer	S	3
GH/MED 561	Tropical Medicine	Buckner, Pottinger	Sp	1
GH 562/EPI/MED 530	AIDS: Multidisciplinary Approach	Farquhar	A	2
GH 563/EPI 549	HIV/STI Prevention Research Methods	Baeten, Heffron	Sp	3
GH 566/PABIO 551	Biochemistry & Genetics of Pathogens & Their Hosts	Campbell	A	4
GH 590/490	Global Violence & Health	Rao, Mock	W	3
570-579 Clinical Care				
*GH 571	Essentials of Clinical Care & Capacity Building in LICs	Zunt, Pak-Gorstein	W	2
*GH 572	Global Health Fieldwork: Preparation, Integration, Reentry	Graham	S	2
GH 573/CONJ 553	Clinical Management of HIV	Kim, Chung	Sp	2-3
***GH 575**	**Integrated Residency Global Health Leadership**	**Roxby, Farquhar**	**A**	**3**
*GH 590	Health in Complex Humanitarian Emergencies	Townes, CDC faculty	S	3
***CONJ 625**	**Global Health Clinical Elective (conjoint course with SOM)**	**Graham**	**WSp**	**10-20**
***CONJ 626**	**Global HIV Medicine Elective**	**Chung**	**AWSpS**	**10-20**
Additional Courses				
GH 580	Global Health Doctoral Seminar	Gakidou, Lukehart, Sherr	AWSp	2
GH 593	MPH Workshop	Rao	AWSp	1
GH 595	Master's Practicum	Variable	AWSpS	3-6
GH 600	Independent Study	Variable	AWSpS	VAR
GH 700	Master's Thesis	Variable	AWSpS	9
GH 800	Doctoral Dissertation	Variable	AWSpS	

Pathobiology Courses

Course #	Course Title	Instructor	QTR	CR
100-400 Undergraduate Courses				
PABIO 498	Undergraduate Thesis (*)	Variable	AWSpS	VAR
PABIO 499	Undergraduate Research (*, max. 12)	Variable	AWSpS	VAR
500+ Graduate Courses				
PABIO 500	Introduction to Pathobiology Research (Lab Rotation)	Variable	AWSpS	3-9
PABIO 536	Bioinformatics and Gene Sequence Analysis	Rose	Sp	3
PABIO 551	Biochemistry and Genetics of Pathogens and Their Hosts	Campbell, Rajagopal	A	4
PABIO 552	Cell Biology of Human Pathogens and Disease	Grundner, Gardner	W	4
PABIO 553	Survival Skills for Scientific Research	Sodora	W	2
PABIO 580	Pathobiology Seminar	Polyak	W	1, max. 21
PABIO 581	Current Literature in Pathobiology	Lingappa	A	1, max. 15
PABIO 582	Critical Thinking and Research Design in Pathobiology	Giacani	Sp	1.5
PABIO 590	Selected Topics	Variable	Sp	1-20, max. 20
	- Scientific Writing	Lingappa	Sp	1
	- Clinical Trial Basics	Frahm	Sp	1
	- Rational Drug Design	Feagin	Sp	1
PABIO 598	Didactic Pathobiology (student teaching for pabio students)	Variable	AWSpS	2
PABIO 600	Independent Study or Research	Variable	AWSpS	VAR
PABIO 700	Master's Thesis	Variable	AWSpS	VAR
PABIO 800	Doctoral Dissertation	Variable	AWSpS	VAR

G H 101 Introduction to Global Health: Disparities, Determinants, Policies, and Outcomes (5) I&S *Gloyd, Sparke*
Provides an introduction to global health, including: the burden and distribution of disease and mortality; the determinants of global health disparities; the making of global health policies; and the outcomes of global health interventions. Offered: jointly with GEOG 180/JSIS B 180; W. Offered online: ASp

G H 210 Confronting Global Diseases: Introductory Biologic Principles and Context (3) NW *Parsons*
Provides a broad introduction to the leading causes of disability and death globally. Covers the basic biologic and scientific principles of globally prevalent human health problems, including the connections between the biology of disease and current prevention and treatment interventions used in public health. Not intended for biological science majors. Offered: Sp.

G H 399 Global Health Study Abroad (1-5, max. 15) I&S
For participants in approved study abroad programs. Requires credit evaluation by department or faculty. Does not automatically apply to major or minor requirements. Offered: AWSpS.

G H 401 Core Topics in Global Health (1) *Gonzales, Wade*
Addresses a variety of foundational topics and central themes in global health, including the history and scope of the field, the complexities and contexts for global health problems, and the multidisciplinary nature of global health work. Credit/no-credit only. Offered: A.

G H 402 Contemporary Issues in Global Health (1) *Beschta, Wade*
Explores contemporary topics in global health. Offered: W.

G H 403 Multidisciplinary Perspectives in Global Health (1) *Gonzales, Wade*
Presenters from a variety of disciplines discuss their experiences working on global health issues in resource-poor settings. Speakers illustrate how their work is influenced by communication, culture, economic and socio-political realities. Credit/no-credit only. Offered: Sp.

G H 410 Advanced Biologic Principles of Global Diseases (3) NW *Coler*
Presents selected communicable and noncommunicable diseases of global health importance at an advanced level. Students learn about biological principles, host-pathogen interactions, and other factors that influence the burden of global health diseases. Prerequisite: either BIOL 180, G H 210, or MICROM 301. Offered: A.

G H 456 Global Mental Health (3) I&S, DIV *Rao*
Examines the socio-cultural and political forces that impact assessment, manifestation, and treatment of mental illnesses worldwide. Students take a critical view of diagnostic systems and examine cultural differences in presentation of mental illness. Also reviews treatment practices in low resource settings, cultural-specific communication, and stigma. Offered: Sp.

G H 490 Bioengineering Solutions to Improve the Health of Women, Adolescents & Children (1) *Guthrie*

This course is a seminar series that engages students in interdisciplinary discussions about current challenges to the health of women, children and adolescents, and how novel bioengineering approaches may be developed to address these challenges. Students are encouraged to actively participate in discussions to foster creative problem solving and collaboration between students and researchers from clinical, epidemiology, and bioengineering departments. Offered: W

G H 490 Global Violence and Health (3) *Rao, Mock*
Examines the socio-politico-cultural forces that give rise to violence, and the impact of violence on population health. Discusses public health methods, policies, and interventions that can be used to decrease the occurrence and severity of violence in real world circumstances, including countries at all economic levels. Offered: W

G H 490 The Health of Populations (4) *Bezruchka*
Explores what makes a population healthy or unhealthy. Examines why the United States is less healthy than all other rich countries, despite being one of the healthiest fifty years ago. Offered: jointly with HSERV 482; Sp

G H 490 HIV/AIDS: Issues and Challenges (5) *Montano, Kasprzyk*
Develops ideas, concepts, or institutions that cut across the arts, humanities, social sciences, and natural sciences. For University Honors Program students only. Offered: jointly with HONORS 391; Sp

G H 490 Global Perspectives on Reproductive Health (3) *Drake, Unger*
Provides comprehensive overview of global reproductive health, with an emphasis on current issues and challenges in resource-limited settings. Students will be engaged in topics from diverse disciplines, including public health, demography, epidemiology, policy, sociology, and medicine. Topics covered include contraception, abortion, human rights, HIV/STIs, access to services, and politics. Offered: Sp

G H 490 Supply and Demand of Health & Health Services in Developing Countries (4) *Dieleman, Hanlon*
Examines the demand, supply and financing of health and health services in developing countries. Introduces evidence about thematic topics and the use of theoretical frameworks from the field of economics to interpret evidence. Focuses on empirical methodology used to generate evidence from data. Prerequisite: BIOST 310 or STAT 220. Offered: Sp

G H 499 Undergraduate Research (1-15, max. 15)
Offered: AWSpS.

G H 500 Global Health Seminar (1, max. 6)
Explores issues relevant to global health; themes vary by quarter. Credit/no-credit only. Offered: jointly with EPI 592; AWSp.

G H 501 Core Topics in Global Health (1) *Gonzales, Wade*
Addresses a variety of foundational topics and central themes in global health, including the history and scope of the field, the complexities and contexts for global health problems, and the multidisciplinary nature of global health work. Offered: A.

G H 502 Contemporary Issues in Global Health (1) *Beschta, Wade*
Explores contemporary topics in global health. Offered: W.

G H 503 Multidisciplinary Perspectives in Global Health (1) *Gonzales, Wade*
Presenters from a variety of disciplines discuss their experiences working on global health issues in resource-poor settings. Speakers illustrate how their work is influenced by communication, culture, economic, and socio-political realities. Offered: Sp.

G H 511 Problems in Global Health (3 or 4) *Gloyd*
Explores social, political, economic, environmental determinants of developing countries' health; traces development of societal responses to problems. Includes: origins of primary healthcare; child survival; traditional systems; population; water; sanitation; international agencies; impact of economic policies. Case study formulating pharmaceutical policy in a developing country. Offered: A.

G H 514 Global Societal Determinants of Health (2-3) *Bezruchka*
Examines societal determinants of heath of nations around the globe. Asks why there is an increasing inequity in health outcomes today? Topics include early life, population health biology, medical care, mental health, and the environment. Offered: Sp.

G H 516 Health and Human Rights (3) *Rivin*
Examines the basic concepts in the fields of human rights law and public health, and uses those concepts to examine the interdependence and tensions between the two fields. Introduction to the fields of public health and human rights law, examining the impact of health policies and programs on human rights. Offered: jointly with LAW H 540; W.

G H 521 Leadership Development in Global Health (3) *Campbell*
Primarily taught through self and group assessment, case studies and small group work, explores student's leadership and management effectiveness, strengths and weaknesses. Establishes frameworks (communication, effective influencing, culture, values, vision and mission, and decision-making) explored throughout the three-quarter sequence. Offered: A.

G H 522 Global Program Management and Leadership (3) *Downer*
Focuses on management and leadership skills for complex global health settings. Includes personal leadership strengths/values; management dilemmas, data-driven decisions; program planning design and evaluation; and resource management. Offered: W.

G H 523 Policy Development and Advocacy for Global Health (3) *Katz, Lane*
Primarily taught through case- and problem-based learning and small group work, explores complex factors affecting global health policy and how context (e.g., ideology, culture, and history), international institutions, scientific knowledge, and stakeholder interests affect the

structure of and changes to a nation's health system and its performance. Offered: Sp.

G H 531 Research and Evaluation Methods in Global Health (3-4) *Mock, O'Malley*
Provides an overview of a range of evaluation and research designs used in global health. Students learn practical methodologies to obtain, validate, and analyze information regarding health status, services, and programs. Discusses usefulness, validity, limitation of vital records, health reports, household (and cluster) surveys, and qualitative methods. Offered: jointly with EPI 539; W.

G H 532 Responsible Conduct of International Research (3) *Drake, Farquhar*
Prepares international and U.S. students to develop research proposals, conduct international field research, and present scholarly work. Topics include proposal writing, human subjects protection, data management, peer review, scholarly integrity, responsible authorship, and grants and budget management. Open to graduate and non-matriculated students. Offered: jointly with EPI 586; A.

G H 533 Survey Research Methods (4) *Mokdad*
Provides students with skills in questionnaire development and survey methods. Students develop a questionnaire and design a survey research proposal on a health-related or social topic. Offered: jointly with CS&SS 527/HSERV 527; Sp

G H 538 Advanced Qualitative Methods in Anthropology and Public Health (5)
Provides students with both a theoretical foundation in qualitative approaches to research in anthropology and public health and in-depth training in qualitative data management, analysis, interpretation, and presentation. Focuses on how to frame research questions, design, appropriate research strategies that incorporate qualitative methods, and analyze data. Offered: jointly with ANTH 519/HSERV 521; Sp, even years.

G H 539 Methods, Tools, and Data in Global Health (2) *Gakidou*
Familiarizes students with current global health issues and their analytical challenges. Introduces analytical methodologies, quantitative concepts, statistical packages applied to global health challenges, and software used in health metrics and evaluations research. (Two weeks). Offered: A.

G H 541 Fundamentals of Implementation Science in Global Health (4-5) *Sherr, Wasserheit*
Provides an introduction to the emerging field of implementation research by outlining various methods that are applied to improving implementation (including applied engineering, management tools, health systems, and policy research), and using experiential case studies from global health leaders. Addresses barriers to effective replication and scale-up in local settings. Offered: Sp.

G H 543 Global Health Pharmacy: Medicines, Practice, and Policy (2) *Garrison, A. Stergachis, Babigumira*
Introduces the critical role of pharmaceuticals in addressing the major diseases affecting persons in resource-limited settings, such as HIV/AIDS, malaria, and tuberculosis. Addresses the wide range of relevant issues, including burden of disease, human resource capacity, regulation, drug

safety/pharmacovigilance, drug distribution, pharmacoeconomics, financing, intellectual property, and drug trade policies. Offered: jointly with PHARM 581; W.

G H 544 Maternal and Child Health in Developing Countries (3) *Denno*
Emphasizes critical health problems of women and children in developing countries in social, economic, and cultural contexts. Practical approaches to developing MCH programs shared via lecture/discussions, exercises, and small group work. Students acquire skills in baseline assessment, setting objectives, planning and evaluating interventions, and involving communities. Offered: jointly with HSERV 544; W.

G H 545 Child Health in Developing Countries ([0-3]-, max. 3) *Denno*
Provides an understanding of the causes and functional effects of the most prominent child health problems. Examines trends and progress in global child health and explores potential explanations for these trends. Offered: Sp.

G H 555 Nutrition in Developing Countries (3) *Gorstein*
Introduces issues of nutrition in developing countries, with an emphasis on the control and prevention of under nutrition and micronutrient deficiencies. Offered: jointly with NUTR 555; Sp, odd years.

G H 556 Global Mental Health (3) *Rao*
Examines the socio-cultural and political forces that impact assessment, manifestation, and treatment of mental illnesses worldwide. Students take a critical view of diagnostic systems and examine cultural differences in presentation of mental illness. Also reviews treatment practices in low resource settings, cultural-specific communication, and stigma. Offered: Sp.

G H 560 Principles of STD/HIV Research (3) *Graham, Winer*
Provides MD and PhD fellows and graduate students with a comprehensive overview of the current state of knowledge in specific areas of STD/HIV research, including study design, laboratory methods, production of instruments for data collection, and methods for data analysis. Credit/no-credit only. Offered: S.

G H 561 Tropical Medicine (1) *Buckner, Pottinger*
Intended for professional health science students interested in learning the pathophysiology, epidemiology, and clinical presentation of disease conditions that are more commonly seen in less-developed countries, resource-limited settings, or tropical climates, and how to diagnose, treat, and follow the resolution of these diseases with commonly limited resources. Credit/no-credit only. Offered: jointly with MED 561; Sp.

G H 562 AIDS: A Multidisciplinary Approach (2) *Farquar*
Comprehensive overview of the public health, clinical, and laboratory aspects of human immunodeficiency virus (HIV) infection and disease. Topics include the pathogenesis, natural history, and management of HIV infections; the impact of HIV/AIDS on community and global healthcare; and prospects for prevention and control. Credit/no-credit only. Offered: jointly with EPI 530/MED 530; A.

G H 563 HIV/STI Prevention Research Methods (3) *Baeten, Hefferon*
Focuses on current research and implementation of HIV/STI prevention (biomedical, behavioral, and public health interventions). Includes analyzing strength of research evidence to support candidate interviews, understanding key features of clinical trial design, and applying appropriate/feasible interventions for specific settings and populations. Offered: jointly with EPI 549; Sp.

G H 566 Biochemistry and Genetics of Pathogens and Their Hosts (4) *L. Campbell*
Provides a strong foundation in biochemistry, molecular biology, and genetics for students interested in disease. Principles illustrated through examples focusing on pathogens, and infectious and non-infectious disease. Prerequisite: undergraduate-level coursework in molecular biology or biochemistry, or permission of instructor. Offered: jointly with PABIO 551; A.

G H 571 Essential of Clinical Care and Capacity Building in Low Income Countries (2) *Pak-Gorstein, Zunt*
An interdisciplinary case-based forum of presentations by local and international lecturers and class discussions on realities of providing healthcare in low-income settings. Covers issues in prevention, socioeconomic underpinnings, management of medical and surgical conditions, and sustainable strategies to build capacity. Credit/no-credit only. Offered: W.

G H 572 Global Health Fieldwork: Preparation, Integration, Reentry (2) *Graham*
Prepares students for community-based global health experiences, and provides them the opportunity to share, discuss, and reflect on these experiences after returning to the United States. Explores the problems and promise of current global health strategies. Prerequisite: participation in International Health Opportunities Program or similar experience. Credit/no-credit only. Offered: S.

G H 573 Clinical Management of HIV (2-3) *Kim*
Provides in-depth case-based training on the diagnosis and clinical management of HIV and associated conditions. Includes interactive format with speakers who have experience in both resource-rich and resource-limited settings. Offered: jointly with CONJ 553; Sp.

G H 575 Integrated Residency Global Health Leadership (3) *Farquhar, Roxby*
One-month rotation course for residents integrated in career in global health. Designed to teach residents the skills necessary to become future leaders in this field. Comprised of several different components, including field visits to local global health organizations, lectures, and small group case-based discussions. Credit/no-credit only. Offered: A.

G H 580 Global Health Doctoral Seminar: Biology, Systems, and Measurement (2, max. 8) *Gakidou, Lukehart, Sherr*
Examines the most critical issues in global health and currently available solutions. Introduces complementary perspectives of pathobiology, metrics, and implementation science to build a multidisciplinary understanding of these issues, including effective and appropriate strategies for their control. Offered: AWSp.

G H 590 International Bioethics, Social Justice and Health Seminar (1) *Rivin*
Explores case studies of ethical dilemmas in research and medical practice and violations of international human rights norms in the design, implementation and evaluation of health programs and policies. Bioethics and human rights law will be the foundational tools for critically evaluating global health impact. Credit/no credit only. Offered: jointly with LAW H 506; AWSp

G H 590 Bioengineering Solutions to Improve the Health of Women, Adolescents & Children (1-2) *Guthrie*
This course is a seminar series that engages students in interdisciplinary discussions about current challenges to the health of women, children and adolescents, and how novel bioengineering approaches may be developed to address these challenges. Students are encouraged to actively participate in discussions to foster creative problem solving and collaboration between students and researchers from clinical, epidemiology, and bioengineering departments.Offered: W

G H 590 Mortality Analysis for Global Health (3) *Wang*
Introduces students to the fundamentals of demographic analysis of mortality and provides an overview of the conceptual, methodological and empirical basis for quantifying health among individuals and populations. Students will learn the strength and limitation in applying mortality analysis methods in developing countries with limited data. Offered: W

G H 590 Legal & Policy Solutions to Improve Health of Women, Children & Adolescents: A Forum w/ Health, Legal & Community Leaders (1-2) *Lenga, Slyker*
Case/problem-based discussion will define ways in which law and policy can both create and address health inequities for women, adolescents, and children; with a focus on comparative global and domestic examples. Each session will include a short presentation and expert panel discussion (legal, health, government/policy, community), followed by a networking reception. Offered: jointly with LAW B 599; WSp

G H 590 Global Violence and Health (3) *Rao, Mock*
Examines the socio-politico-cultural forces that give rise to violence, and the impact of violence on population health. Discusses public health methods, policies, and interventions that can be used to decrease the occurrence and severity of violence in real world circumstances, including countries at all economic levels. Offered: W

G H 590 Legal Issues for Global Health Programs (2) *Lane*
Examines the role of law in advancing global health programs. The overarching objective of this course is to provide future lawyers, global health program managers, and clinicians an introduction to the legal issues impacting global health programs and prepare them to successfully navigate these issues as future practitioners. Offer: jointly with LAW H 516; W

G H 590 Supply and Demand of Health & Health Services in Developing Countries (4) *Dieleman, Hanlon*

Examines the demand, supply and financing of health and health services in developing countries. Introduces evidence about thematic topics and the use of theoretical frameworks from the field of economics to interpret evidence. Focuses on empirical methodology used to generate evidence from data. Prerequisite: BIOST 310 or STAT 220. Offered: Sp

G H 590 Global Health Law (3) *Lenga-Long*
Provides an examination of the legal, economic, social, ethical, and political aspects of global health. It will explore the emergence of global health law as a multilateral tool to address health disparities and improve the health of vulnerable populations**.**
Offered: jointly with LAW H 515; Sp

G H 590 Global Perspective on Reproductive Heatlh (3) *Drake, Unger*
Provides comprehensive overview of global reproductive health, with an emphasis on current issues and challenges in resource-limited settings. Students will be engaged in topics from diverse disciplines, including public health, demography, epidemiology, policy, sociology, and medicine. Topics covered include contraception, abortion, human rights, HIV/STIs, access to services, and politics. Offered: Sp

G H 590 Adolescent Health in Resource Limited Settings (1) *Katzenellenbogen*
Designed to highlight issues to adolescents in resource limited settings with an initial focus on what makes adolescents unique. Topic-based seminars, journal article discussions, and self-journaling will include: adolescent development; physical and psychological trauma; illicit activities; ethics and the law; adolescent-focused research and programming; and the economy and public policy. Offered: Sp

G H 590 Disease Diagnosis, Surveillance and Response – the Role of Medical Laboratories in a Public Health System (1) *Martin, Perrone*
The role that clinical and public health laboratories play in a public health system, in the US and globally. Topics cover disease diagnosis, surveillance, outbreak response, law and regulation and how laboratory information contributes to health policy development. Opportunities to improve laboratory capacity in low-middle income countries will be featured. Offered: Sp

G H 590 Quantitative Impact Evaluation (1 or 3) *Ng*
Discusses application of quantitative techniques for impact evaluation, including classic methods like instrumental variable, double-difference, regression discontinuity and matching. One method introduced each week. Lecture/discussion/lab format, with half of the course devoted to discussion of readings and the other half devoted to hands-on analysis experience. Prerequisite: *G H 531; either BIOST 511 and BIOST 512, BIOST 514 and BIOST 515, or BIOST 517 and 518 or equivalent.* Offered: Sp

G H 590 P-Special Topics in Global Health Pharmacy and Medical Products: Assessing The Cost Effectiveness of Medical Interventions In Resource Poor Principles and Practices (1 cr) *Babigumira.*
Provides in-depth instruction on selected special topics relating to the use, access to, and impact of pharmaceuticals, vaccines, and diagnostics/medical devices in global health. Credit/no-credit only. This section meets weeks 1, 2, 3. Offered: jointly with PHARM 582 A Sp

G H 590 P-Special Topics in Global Health Pharmacy and Medical Products: Pharmacovigilance & Drug Safety Issues in Resource Poor Settings (1 cr) *Stergachis.*
Provides in-depth instruction on selected special topics relating to the use, access to, and impact of pharmaceuticals, vaccines, and diagnostics/medical devices in global health. Credit/no-credit only. This section meets weeks 4, 5, 6. Offered: jointly with PHARM 582 B Sp

G H 590 P-Special Topics in Global Health Pharmacy and Medical Products: Pharmacy Practice In Resource-Poor Settings (1 cr) *Downing.*
Provides in-depth instruction on selected special topics relating to the use, access to, and impact of pharmaceuticals, vaccines, and diagnostics/medical devices in global health. Credit/no-credit only. This section meets weeks 7, 8, 9. Offered: jointly with PHARM 582 C Sp

G H 592 Program Seminars (1-6, max. 6)
Addresses specific educational needs of students within the Department of Global Health. Prerequisite: permission of instructor. Credit/no-credit only. Offered: AWSp.

G H 593 MPH Workshop (1, max. 3) *Rao*
Introduces students to the issues involved in conceptualizing and completing thesis projects and the various international health organizations and faculty members available as resources to projects. Prerequisite: first-year Global Health MPH students. Offered: AWSp.

G H 595 Master's Practicum (1-6, max. 6)
Supervised practice experience providing an opportunity to apply knowledge and skills in a setting of relevance to global health. Prerequisite: permission of faculty adviser. Credit/no-credit only. Offered: AWSpS.

G H 600 Independent Study or Research (*-)
Prerequisite: permission of instructor. Offered: AWSpS.

G H 700 Master's Thesis (*-)
Prerequisite: permission of instructor. Offered: AWSpS.

G H 800 Doctoral Dissertation (*)
Prerequisite: permission of Graduate Program Advisor. Offered: AWSpS.

Global Health Minor

The Global Health Minor gives undergraduates an opportunity to become familiar with the major problems and policy issues in global health. Students participating in the minor are able to understand and discuss the determinants of global health and global responses to health problems, including health systems. By becoming knowledgeable in these core areas of global health, students should also be able to engage actively in efforts to improve health as global citizens.

Student Learning Goals

Students graduating with a minor in global health from the University of Washington will be able to demonstrate a basic understanding of:

- The burden of the most important health problems contributing to excess morbidity and mortality in developing countries and low-resource settings, including their magnitude and distribution and disparities in health status by gender, race, and economic class.
- Major historical, political, social, environmental, and economic determinants of adverse health in developing countries and low-resource settings in rich countries.
- Pathophysiology of the most prevalent infectious and chronic diseases and medical and public health approaches for prevention and treatment.
- Current and historic health programs and policies designed to address major health problems in low-resource setting and the roles of global health institutions, recommended levels of resources for implementation of interventions, and key barriers and challenges.
- How to analyze critically relevant topics in

Declaring a Minor

Students must have completed a minimum of 45 credits of coursework and have declared a major. Minors are declared through the major.

Minor Requirements 30 Credits

REQUIRED COURSES | 11 credits

INTRODUCTORY COURSE | Winter | 5 credits
G H 101 Introduction to Global Health: Disparities, Determinants, Policies & Outcomes

BIOLOGIC PRINCIPLES IN GLOBAL HEALTH
Autumn or Spring | choose one | 3 credits
- G H 210 Confronting Global Diseases: Introductory Biologic Principles and Context
- G H 410 Advanced Biologic Principles of Global Diseases

PERSPECTIVES IN GLOBAL HEALTH SERIES
Must take all three | 3 credits (1 credit each)
- G H 401 Core Topics in Global Health (GH)
- G H 402 Contemporary Issues in GH
- G H 403 Multidisciplinary Perspectives in GH

ELECTIVE AREAS | 19 credits
*One course in each area from approved list**
A. The Environment & Global Health
B. Comparative Health Systems & Approaches to Health
C. Sociocultural Ecology of Health
D. Regional & Area Studies

* Up to 5 credits from a study abroad experience may be applied to one of the elective areas

- Min. 15 credits must be completed at UW
- Min. 15 credits of upper division coursework (to encourage advanced study of global health topics)
- Min. 15 credits unique to the minor (not shared with student's major) – to encourage exploration of global health beyond the student's major

Master of Public Health (MPH)

The Global Health MPH program emphasizes a social justice approach to global health with a focus on the social, economic, and political determinants of health, and the history and context of global responses to health problems. The core curriculum develops competencies in the basic tools of public health, including epidemiology, biostatistics, global health systems, environmental health, and social behavioral sciences. Courses in research methods and management are also required. A practicum provides hands-on experience with local or international agencies engaged in global health activities, and academic coursework culminates with independent scholarship leading to a research or practice thesis. The curriculum is highly interdisciplinary, with faculty and courses from across campus including natural and social sciences and the humanities. Case studies and applied learning are common approaches, and contributions by students provide a major component of the learning environment.

Student Learning Goals

Upon satisfactory completion of the MPH in Global Health, graduates will be able to:

- Meet SPH learning objectives for the MPH degree;
- Meet Core-Specific Learning Objectives for all MPH students;
- Describe the most common causes of morbidity and mortality globally, both communicable and non-communicable, among newborns, children, adolescents, women, and men and apply this knowledge in the design, implementation, or evaluation of health services or programs;
- Describe the major components of health information systems (e.g., surveillance, national registries, surveys, administrative data) and some of the uses, challenges and limitations of gathering and using health statistics;
- Analyze the role of leading factors, institutions and policy frameworks in shaping the organization and governance of international health since the mid-20th century;
- Analyze how historical, political, and economic factors have and are shaping, maintaining and reforming health and health care systems; and
- Apply scientific methods to plan, scale up and/or evaluate interventions to improve determinants of health and health systems.

Required Credits - 63

SPH REQUIREMENTS

- BIOST 511: Medical Biometry I, or BIOST 517 Applied Biostatistics
- EPI 511: Introduction to Epidemiology, or EPI 512/EPI 513 Epidemiologic Methods I & II
- GH 511: Problems in Global Health
- ENV H 511: Global Envtl& Occupatl Health
- HSERV 510: Society and Health
- GH 595: Practicum (3-6 cr, 120-240 hours)
- GH 700 Thesis (min. 9 credits)

DGH REQUIREMENTS
For GEN, LPM, PCMI, & MD/MPH Tracks

Methods Requirement | one of the following:

- GH 531: Research Methds in Developing Cos
- GH 532: Responsible Conduct of Intl Research

Management Requirement

- GH 522: Global Program Mgmt & Leadership

MPH Workshop (1 cr) | meets quarterly
For LPM Track:

- GH 523: Policy Devt & Advocacy for GH

For HME Track:

- GH 539 Methods, Tools and Data in GH
- GH 590: Mortality Analysis for GH
- GH 592 A: IHME Seminar
- GH 592B: HME Track Seminar

Appendix M | PhD Student Learning Goals & Requirements

PhD in Global Health: Metrics & Implementation Science

The PhD program in Global Health builds on the expertise of our faculty in the areas of Metrics and Implementation Science. This unique, interdisciplinary program is comprised of a core curriculum in advanced quantitative methods, epidemiology, population health measurement, impact evaluations and implementation science methods.

Student Learning Goals

- Meet SPH learning objectives for the MS degree;
- Meet SPH learning objectives for the PhD degree;
- Discuss and evaluate the major issues confronting global health, including their levels and trends, determinants, and effect on individual and populations;
- Describe, evaluate and apply the methods and metrics used in the Global Burden of Disease Study and alternative summary measures of population health;
- Develop in-depth skills to design, implement, monitor and/or evaluate health programs and health systems, including their inputs, outputs, effectiveness, cost-effectiveness, and financial management;
- Describe the biology of major global health diseases, and differentiate among the pathogenesis of diseases, infectious disease transmission modes, genetic susceptibility, nutritional concepts and the biological basis of major biomedical public health interventions;
- Explain and assess the functions, operations, processes and performance of health systems, including critical decision-making and priority-setting mechanisms;
- Analyze, explain and assess the role of global institutions, international non-governmental organizations and major funders and review their impact on global health;
- Differentiate principles of financing in global health and health systems at the macro- and micro-level;
- Critically appraise the current literature, evaluate evidence, synthesize findings, draw inferences, and apply theoretical and conceptual models from a range of relevant disciplines to global health;
- Effectively collect, collate, synthesize, and analyze global health data, including primary and secondary data from health information systems and a variety of other sources;
- Acquire qualitative, quantitative, operations research and modeling skills and apply them to developing new innovative solutions for global health problems;
- Ensure the ethical conduct of research in the design, implementation and dissemination of research;
- Develop culturally-relevant professional leadership skills to work collaboratively, and to motivate and inspire others to help solve global health problems;
- Conduct independent research that is of publishable quality and is characterized by conceptual and methodological rigor, as well as practical value;
- Critically appraise grants and participate in the grant writing and review process;
- Effectively communicate research findings and their implications to appropriate academic, professional, policy, and lay audiences; and
- Demonstrate skills critical to teaching and mentoring.

Required Credits – 94

Time to complete: 4-5 years, or sooner with master-level graduate studies in a relevant area

CORE CREDITS (35 CREDITS)

- Problems in Global Health (4)
- Global Health Doctoral Seminar (4)
- Epidemiology (8)
- Quantitative Methods (8)
- Implementation Science Methods (5)
- Mortality Analysis for Global Health (3)
- Impact Evaluation (3)

AREAS OF EMPHASIS (16 CREDITS)

Metrics

- Advanced Quantitative Methods (8)
- Global Health Measurement (4)
- Leadership, Policy & Management (4)

Implementation Science

- Advanced Health System Research Methods (8)
- Operations Research/ Modeling (4)
- Leadership, Policy & Management (4)

ELECTIVES (16 CREDITS)

- Advanced Research Methods
- Advanced Quantitative Methods
- Advanced Qualitative Methods

DISSERTATION (27 CREDITS)

Students begin research within their respective area of emphasis in their first year by working as a research assistant or teaching assistant with a faculty member. During their third year they typically begin working on their dissertation research, leading to a three-paper or a book-length dissertation.

Global Health Graduate Certificates

Global Health | Global Health of Women, Adolescents & Children (Global WACh) | Global Injury & Violence Prevention | HIV & STIs

Required Credits - 15

The Global Health curriculum emphasizes the sociopolitical, economic, and geographic factors that, in addition to biomedical factors, have an impact on health in developing countries. Graduate Certificates are intended to enhance the education of matriculated UW graduate and professional students beyond their regular course of study. Overlap of coursework applied towards the certificate program and degree program must not exceed 6 credits and is limited to elective coursework in each program. Core course requirements of a degree program may not be counted toward the certificate.

Global Health

Student Learning Goals

- Describe the most common proximate causes of morbidity, mortality and disability globally, both communicable and non-communicable, among newborns, children, adolescents, women and men;
- Analyze how historical, political and economic factors shape, maintain and reform health and health care systems;
- Apply quantitative or qualitative research methods within a low resource setting; and
- Work effectively and respectfully with individuals among diverse disciplines and populations.

Requirements

Required Courses (9 credits)

- GH 511 Problems in International Health (3 cr)
- Global Health Seminars (3 cr)

Select one of the following:

- G H 531/EPI 539 Research Methods in Developing Countries (3-4 cr)
- G H/HSERV 544 MCH in Devg Cos (3)
- G H 514 Societal Determinants of Health (3)

Elective Courses (6 credits)

Taken from Global Health graduate course list

Capstone

May be completed in US or overseas, but must directly relate to issues relevant to global health (e.g., work with immigrant populations in the US or research related to health problems of direct relevance to developing country populations).

Global Health of Women, Adolescents & Children (Global WACh)

Student Learning Goals

For women, adolescent & child health:

- Describe the burden of diseases and public health problems worldwide;
- Describe important determinants, socio-political, and economic factors;
- List and describe key policies and laws related to their health and protection;
- Summarize major interventions and key advancements; and
- Apply knowledge of health problems and interventions by assisting faculty with an ongoing project or developing a new one

Requirements

Required Courses (7 credits)

- G H/HSERV 544 MCH in Devg Cos (3)
- GH 590 Adol Health in Low-Res Settings (1)

Select one of the following:

- Global Health Seminars (1 cr each, for 3 cr tot)
- GH 511 Problems in International Health (3 cr)
- GH course (3), with certificate approval

Elective Courses (5 credits)

Taken from list of approved courses

Capstone (3 credits)

Three independent study credits in Global Health or another department, approved by certificate program director. Acceptable projects include assisting with the design, conduct, or evaluation of research projects, service delivery programs, or policies.

Global Injury & Violence Prevention

Student Learning Goals

- Recognize that injuries can be approached and controlled as with any other global health problem;
- List, describe, and compare the common features in approaching control of the various mechanisms that cause unintentional injury;
- Recognize that similar principles can be applied to the study and prevention of intentional injuries;
- Explain how improvements in care of injured persons (trauma care) can be approached systematically as part of overall health system strengthening activities, at all points along the spectrum of care;
- Devise approaches for better prevention and treatment of injuries in general (or any specific type of injury) suitable for any environment.
- Appropriately utilize tools from health and non-health fields such as engineering, social work, law, architecture, and others to devise locally-appropriate injury control (prevention and care) strategies;
- For students from non-health backgrounds, be able to use the tools of your field to devise locally-appropriate injury control strategies;
- Recognize that injury control is a matter of social justice.

Requirements

Required Courses (3 credits)

- EPI 585: Injury and Violence – A Public Health Approach (3 cr) (
- ENVH 560/NSG 506: Occupational Safety Management (4 cr)
- GH 531/EPI 539: Research Methods for Developing Countries (with the requirement that the main course assignment be on an injury topic) (3-4 cr) (
- URBDP 576/CEE 586: Pedestrian Travel, Land Use, and Urban Form (3 cr)

Elective Courses (9 credits)

Taken from list of approved courses

Capstone (3 credits)

Service or research project integrating aspects of injury and violence prevention

HIV & STIs

Student Learning Goals

- Describe the epidemiology of HIV and STIs;
- Describe the contextual issues surrounding these epidemics, with a focus on vulnerable populations;
- Identify primary and secondary prevention approaches to control HIV/STI epidemics;
- Identify diagnostic and treatment approaches most appropriate and feasible for domestic and international settings;
- Design, implement and evaluate an HIV/STI program or research study; and
- Communicate effectively in a multidisciplinary team of professionals.

Requirements

Required Courses (8 credits)

- GH 560 - Principles of HIV & STI Research (3)
- EPI 586/GH 532 - Responsible Conduct of International Research (3)
- EPI 530/GH 562/MED 530 - HIV: A Multidisciplinary Approach (2)
- GH573/CONJ 553 - Clinical Mgmt of HIV (2-3)
- GH 522 - Global Prog Mgmt & Leadership (3)
- GH 563/EPI 549 - Prevention Research Methods for HIV & STIs (3)
- ANTH 483 - Africa Living with HIV/AIDS (5)

Elective Courses (4 credits)

Taken from list of approved courses

Capstone (3 credits)

Students complete an individual Capstone project or paper. Capstone may include providing technical assistance to ongoing HIV/STI research studies (development of study instruments, data analysis, field implementation, laboratory testing), writing a paper exploring a contextual aspect of HIV/STI (intersections between gender and HIV, analysis of international AIDS policy, program evaluation of a STI treatment program), or developing a clinical case scenario.

Appendix O | Teaching Assistant (TA) Job Description

Course #: _____	**Course Name: _____**
Appointment Period: A W Sp S (pls underline or circle appropriate qtr)	**Appointment:** 10 Hr___ 20 Hr___ 20 Hr (2courses)*____ *please submit a form for each course
Faculty Supervisor:	
TA Name: **_____**	TA has UW Employee ID (EID)? □ yes □ no If yes, please note here: _____

Check all duties that apply to this individual. Please note:

1) In addition to the duties below, all new DGH TAs are **required to attend a TA training** prior to the quarter of service, either through UW Center for Teaching & Learning, or a department-sponsored training.
2) DGH TA positions are **required to include responsibilities that provide opportunities for TA learning and professional development**. If not indicated in the items below, please add under 'other specific duties' below.

☐ Attend lectures [all__, most___]
☐ Hold regular office hours ____ hrs/wk
☐ Tutor students
☐ Manage and respond to course-related e-mail
☐ Develop and maintain electronic bulletin boards, discussion sites, etc.
☐ Request or acquire necessary equipment
☐ Coordinate guest speakers
☐ Prepare webpage for course materials
☐ Maintain (update) webpage for course materials
☐ Review textbooks for use
☐ Order textbooks
☐ Place course materials on library reserve
☐ Conduct quiz section meetings
☐ Prepare lectures for quiz sections
☐ Prepare review materials for quiz sections
☐ Hold extra review sessions for exams
☐ Obtain room for review sessions
☐ Prepare test questions
☐ Proctor exams
☐ Score exams
☐ Prepare course attendance records
☐ Maintain course attendance records
☐ Grade papers
☐ Maintain records on individual students' assignment completion
☐ Maintain grading records
☐ Calculate quarter grades
☐ Coordinate with Department staff for student course evaluations
☐ Prepare lecture materials & handouts
☐ Present lectures
☐ Facilitate discussions
☐ Review literature
☐ Attend instructor/TA meetings
☐ Act as liaison/mediator between student and professor

Other specific duties:

_____

_____

_____

TA Signature: _____ Date:_____

Instructor Signature: _____ Date:_____

Appendix P | MPH Faculty Advising Guide

Department of Global Health, MPH Program
Faculty Advising Guide

Faculty Advisor tasks

Faculty advisors assist students to set goals for their time in the MPH program and to strategically achieve those goals through coursework, practicum, thesis, networking and other professional development opportunities.

Faculty advisors help advisees negotiate the process of identifying a thesis chair. Once a thesis chair has been confirmed, the role of faculty advising moves from the faculty advisor to the thesis chair. It is the student's responsibility to let their faculty advisor know when they have identified a thesis chair.

- The Graduate School's Mentoring: A Guide for Faculty is a great resource and has strategies for addressing students' diverse needs.
- Faculty advisors should meet with their advisees at least once per quarter, monthly is ideal.

Staff Advisor tasks

Staff advisors can answer student's questions about policies and procedures in the Department, School, and University. They will also ensure that students have satisfied degree requirements.

- Staff advisors assist students with planning a course of study that meets program requirements and the student's individual needs.
- Staff advisors provide information regarding campus resources in regards to funding, writing assistance, tutoring, counseling, etc.
- Students meet with staff advisors quarterly and as needed.

Student timelines

Depending on their track, financial limitations, and separation from family, students take anywhere from 4 consecutive quarters to 4 years to complete their degree. Specific factors include:

- how long they can take off from their work;
- if they will be separated from their family;
- how much money they have to spend on tuition and housing;
- if they are working while pursuing their MPH;
- if they are a concurrent program (MD, MN, PhD, Masters, etc)
- how long it takes to get their Peace Corps placement if in the PCMI track

Human Subjects

The below is a requirements for all MPH students.

- Prior to matriculation, students are required to complete UW Human Subjects Division's Protection of Human Research Subjects (PHRS) Training, the Social/Behavioral Course.

Appendix P | MPH Faculty Advising Guide

- The *Use of Human and Animal Subjects for UW Graduate Student Theses and Dissertations Form* must be completed when a student's thesis committee is constituted. It must have original signatures of both the faculty committee chair and the graduate student. Once complete, the student is responsible for making sure form is placed in the students permanent file which is kept by his/her staff advisor.

A student's thesis chair will help students determine if a Human Subjects application is warranted. Ideally, each student must have their thesis project reviewed by the Human Subjects Division. Students are encouraged to speak to someone in the HSD as they are working on their Thesis Proposal with their thesis committee. If the HSD advisor states an IRB application is necessary the student must tighten up their proposal with HSD advisor and their thesis committee. Once approved by the thesis committee, the IRB application must be approved by Stephen Gloyd, the Associate Chair for Education and Curriculum before going to the HSD for final approval.

Coursework

- Students look to faculty to help them identify courses that will help them meet their career goals.
- A minimum of 63 credits are required; this includes thesis and practicum credits.

Practicum

Every SPH MPH student is required to complete a practicum field experience. The goal of the practicum is to provide students the opportunity to use knowledge and skills acquired in the academic program in a practice agency or environment, under the direction of a supervisor in the agency different from their academic adviser or their job supervisor. The practicum also affords an opportunity to develop and apply certain competencies that tend to be better developed outside of the classroom.

- Students often work with their faculty advisor to begin identifying a practicum.
- Some students ask their faculty advisor to be their practicum faculty advisor. More on this role can be found on the SPH Practicum webpage: http://sph.washington.edu/practicum/
- Students must register for a minimum of 3 credits (120 hours) to a maximum of 6 credits (240 hours +) of G H 595.
- Students are encouraged to complete a local, mentored practicum, ideally spanning the course of a few months.
- Faculty give out their faculty code to students who are ready to register for practicum credit.
- Waivers are rarely accepted.

Thesis Proposal & Thesis

The School of Public Health defines the master's thesis as: "An original research study that uses rigorous methods that are appropriate to the research question, generates new knowledge, applies concepts and methods from disciplines relevant to public health, and is presented in a scholarly format. The thesis demonstrates the student's comprehensive knowledge of the substantive area of the study and the research methods used. It represents the culminating product of the master's program in which students are expected to integrate and apply the concepts and methods learned in coursework."

Appendix P | MPH Faculty Advising Guide

- Students often work with their faculty advisor to begin identifying a thesis topic and/or committee members.
- As a faculty advisor you are under no obligation to be on your advisees committee. You are encouraged to help your student network with potential thesis committee members.
- Students must write up a thesis proposal prior to beginning their thesis work. The proposal must be approved by all members of the thesis committee. Students must provide each committee member and their staff advisor with a copy of their final proposal.
- Students must register for a minimum of 9 credits (no maximum) of G H 700.

Independent Study

Occasionally students want to complete an independent study project (often research) outside of their practicum and thesis. If this is the case the student must complete and turn in an Independent Study Registration Form to both the faculty member s/he will be working with and their staff advsior before registering for credit. The form is a way to document what deliverables are being agreed upon as well as the method of grading. Students can request the form from their staff advisor.

MPH Workshop & HME Seminar

- DGH MPH students in the General, LPM, PCMI, and WWAMI concurrent MD/MPH tracks are required to register for the DGH MPH workshop in their first year in the program (3 quarters). The Workshop focuses on: cohort building, equity and social justice issues, program navigation, thesis and career development.
- Students in the HME track are required take 6 quarters of the HME track Seminar and 3 quarters of the IHME students.

Monthly/quarterly meetings

It is ideal to meet with your advisee once a month to discuss coursework and to make sure they are getting the depth and breadth desired. It is also a time to check in and discuss degree progress, goals as well as exciting new ideas that may help them refine their concentration for their thesis and or practicum. Offer suggestions about other people inside or outside the University whom s/he should meet in order to help them define their focus or with whom to begin developing professional networks.

In addition, make sure to share a bit about yourself as well.

- Share your research projects and interests and discuss how they complement or diverge from the student's interest.
- Tell your advisee how frequently you will be able to meet and that it is their responsibility to arrange and take the lead in these meetings.
- Let them know your known travel dates or periods of time when you will be extra busy or unavailable.

Appendix P | MPH Faculty Advising Guide

General Guidelines for Meeting with Students

This **is a general guideline of items to discuss with students throughout their first year. Students with funding, time restrictions, or serving in Peace Corps will operate o**n different **time** schedules. Pursuing a practice thesis or secondary data is highly encouraged fo**r those with a tight timeline.** Travel for such students should be relatively short-term, if at all.

Autumn – First meeting	Find out where your advisee is from & inquire about previous educational and professional experiences. --- *If international student, ask about adjustment to USA.*	Learn why s/he decided to go to graduate school. Discuss what s/he hopes to achieve in pursuing a MPH degree.	Find out how long the student plans to take to complete their degree. --- If need to complete in 1 year, begin discussing practicum & thesis.	Discuss with student what to expect during the course of their MPH program.	Tell your advisee how frequently you will be able to meet and that it is their responsibility to arrange and take the lead in these meetings.
Autumn – Mid quarter meeting	For Workshop students, watch student's new student presentation. Staff will send out information on dates.	Discuss how classes/program is going. Is student struggling academically or emotionally? If so, talk to student's staff advisor ASAP.	Review winter quarter course options. Continue to help student design course schedule around long-term goals.	Begin discussing practicum and thesis, if not discussed already.	Assist with networking. Offer suggestions about people to meet inside and outside the UW. Encourage students to make connections.
Winter	Review with student his/her grades from Autumn quarter. --- Has the student's area of interest changed?	Discuss how classes/program is going. If student is struggling talk to student's staff advisor. --- Has student found a practicum?	Encourage student to start writing their thesis proposal and assemble their thesis committee. --- Discuss Human Subjects. Will IRB approval be needed?	Review spring quarter course options. --- If travel is part of student's goal for summer/year 2, then s/he should apply for travel funding.	Continue to assist with networking. --- Discuss transition of faculty advising. Once student begins working with a thesis chair the role of advising moves to the thesis chair.
Spring	Review with student his/her grades from Winter quarter. --- Has student found a practicum? If not, refer to staff advisor.	Discuss how classes/program is going. If student is struggling talk to student's staff advisor.	Ideally a thesis committee will be set by the end of Spring quarter and the thesis proposal will be nearly finished as well.	Discuss autumn quarter, and 2nd year, course options.	

Appendix Q | 2013 EAB Metrics Discussion Guide

Session 4: Potential Domains and Process for identifying Metrics for Success of the Department of Global Health

In 2011, the EAB asked us "How will you know when you are succeeding" and recommended that the Department articulate our goals and objectives and establish measures of success. We started the process of answering that question during 2012. For our 2012 faculty retreat, we asked each C/P/I to put forward their own goals, objectives, outcomes and metrics for success. Over the next year we will begin developing goals and objectives for the department as a whole, along with metrics of success. These will incorporate some C/P/I and academic program metrics at an aggregate level, and will also include some additional, cross-cutting, departmental measures of success, aiming to make the whole more than the sum of its parts.

Based on existing documentation (CPI summaries, EAB minutes, Faculty Retreat report, and several other DGH planning documents) we have identified the following domains, which could serve as a springboard for this year's EAB discussion around DGH goals, objectives, and metrics of success.

Domains:

1. **Education:** reputation as a premier education and training department (both domestically and globally); number of applicants; rates of acceptance for admissions; number and type and diversity of graduates, ROI for students, academic rigor, number and scope and types of academic programs and academic courses, student and peer faculty evaluation of the quality of courses and of faculty teaching, alignment with educational activities to departmental priorities and the needs and interests of students from other UW departments and alumni, monitoring success and needs, and providing services to alumni.
2. **Research:** reputation as a premier global health research department, quantity and types of research, research funding, publications, and impact.
3. **Service and capacity building:** high impact advocacy, capacity building (e.g. with direct service providers, governing bodies, FBOs, INGOs, NGOs, private sector, international health and development organizations), and advocacy.
4. **Global partnerships:** characteristics (values such as equity, interdiscplinarity, geography, diversity); types (across DGH, SPH, UW, and externally); and purposes (education and training, research, service, advocacy, administrative efficiencies, competition for funding through grants and contracts). Are the collaborations effective? Are they achieving what they are supposed to achieve and/or are they having unintended positive or negative consequences?
5. **Impact on the UW, the State and on the world:** in what ways has DGH contributed to making the university stronger, the state a global health nexus, and the world a healthier place (examining outcomes, and not just participation, (e.g., in terms of policy change, improvements in service delivery, increase in use of data to strengthen health programs)? What is the signature or brand of the department?
6. **Human resources and departmental expertise:** range, depth, and diversity of faculty, CPIs, staff; momentum in the direction we want to be moving (breadth, depth, other ways to get expertise we want/need). Number, individual and collective productivity/contributions, morale and growth of the departments most valuable asset.
7. **Interdisciplinarity:** extent to which education, research, and service content and collaborations are interdisciplinary, and evidence that interdisciplinarity added value.
8. **Innovation:** in the areas of education, research, service, partnerships, and departmental organization, is the department on the cutting edge, looking into the future in terms of global health needs and opportunities, and what the department and UW have to offer? The Department wants to anticipate what is needed.
9. **Sustainability:** financial balance sheet, sources of income (e.g. educational programs, donations, program income, grant and contract proposals) and efficiencies of operation. Local ownership, imbed into existing structures, long term, multiple programs.
10. **Social Justice and Equity:** how does the department use its resources to promote these values?

Appendix Q | 2013 EAB Metrics Discussion Guide

We'd like our evaluation framework to be specific enough to be useful as a guide to meaningfully measure our Department's progress and achievements, but flexible enough to withstand and capitalize on fluctuations in our dynamic internal and external environment. Measuring the overall success of the DGH will require a kind of developmental evaluation or performance management approach that can measure the success of complex programs. Characteristics of "complexity" commonly include diverse interacting agents, mutually affecting each other, generating novel behavior for the system or environment as a whole. As the environment of a C/P/I and the department change, so will the behaviors of their agents, and, as a result, so will the behaviors of the C/P/Is and department as a whole. Complex programs or organizations are also characterized by evolving activities, very sensitive to context, full of iterative cycles and feedback loops, disproportionate relationships (at critical points, a small change can make a big difference) and emergent outcomes. These are characteristics of our Department of Global Health.

Process

We expect that the process of establishing measures of success in relation to departmental goals and specific objectives will be continually iterative and involve a range of stakeholders, both internal to the university (e.g. students, faculty, deans, Provost) and external (e.g. NGOs, Governmental partners).

Questions for EAB:

1. Do you think the proposed domains are the right starting points? Are there others you would suggest?

2. What goals and metrics sit at the CPI level and what sits at the departmental level?