

SELF-STUDY REPORT
FOR
THE GRADUATE PROGRAM REVIEW
OF
THE PhD IN HEALTH SERVICES

Name of unit authorizing degrees: Department of Health Services

School: School of Public Health and Community Medicine

Degrees offered:

PhD in Health Services Research

MPH in Health Services

MS in Health Services

MHA (Interdisciplinary Graduate School Degree Program)

BS in Health Information Administration

Introduction

1. The field of health services

As an academic field of study, “health services” addresses the planning, organization, financing, regulation, management, and evaluation of health care and population health services and systems. Given the causes and risk factors for illness and injury and the distribution of health needs in the population, the field of health services examines how society’s resources are allocated and organized to respond to these needs. Health services research seeks to understand the factors affecting the structure, functioning, and performance of health care and public health systems to inform the design and management of efforts to improve health and to inform public policy-making.

Research, teaching, and service within the Department of Health Services focus on how the nation’s public health and health care systems are organized, financed, regulated, managed, and, increasingly, driven by market forces. Also emphasized are how the circumstances and behavior of individuals and communities, and societal factors, affect health, access to, and outcomes of health care. Of particular concern is the effectiveness of health systems, not only in providing good quality “sickness care” but also in keeping people healthy. Also of concern are equity and social justice in responding to people’s needs and how the disparities that exist can be reduced.

There is growing recognition that the sickness care focus of our health system, despite consuming 90% of the nation’s health expenditures, is not the answer to improving the health of the population. Rather, emphasis must be placed on addressing the basic determinants of health, collaborating with communities to address health needs, preventing disease to the extent possible, and, given the aging population, on the management of chronic disease. Much of the research and teaching in the Department of Health Services focuses on these issues.

As a nation, we have a long way to go in achieving equity, efficiency, and acceptable health system outcomes, and the mounting pressure for change has increased demands for well-trained health services researchers and practitioners.

2. Continuing need for training and research in health services

The UW School of Public Health and Community Medicine is the only accredited school of public health in the Pacific Northwest. The School has grown steadily. During 1999-2004, the School's faculty increased by 12%, from 190 to 213, and the student body expanded by 31%, from 601 to 785. Also during this period, annual research expenditures increased by 47%, from \$35 million to \$56 million.

The School's ranking in *U.S. News and World Report* places it fourth among the 32 accredited schools of public health in the United States and second among public universities. The Master's in Health Administration (MHA) Program within the Department of Health Services is ranked fourth among 80 accredited health administration programs in the country.

The health industry is one of the fastest-growing sectors in the U.S. economy. Underlying its growth is a continuing increase in demand driven by an aging population, advances in medical technology, and the public's ever-increasing, insurance-fueled appetite for the latest and best health care available. The health system has grown rapidly in response to this demand, but it has become increasingly complex, fragmented, and expensive. And there is a great variation in the quality and outcomes of health care. Care provided falls short of standards in 45% of physician visits, and patient safety is problematic. Prevention and healthy lifestyles are underemphasized. Despite spending more for health care than any other nation in the world, the health of the U.S. population ranks 26th in life expectancy among all advanced nations. And 15% of the U.S. population lacks health insurance and thus faces serious barriers to care.

Given these pressures on the health system, the United States will likely undergo major changes over the next decade in its method of financing, perhaps leading to implementation of a single-payer system. Major reform will require health services professionals with strong training in cost-effectiveness analysis, organizational behavior, health policy, social determinants of health, prevention, and health promotion. It will also require more research to help identify casual pathways and ways of ameliorating social differences in health and evaluating new treatments.

There can be no doubt that these trends and developments will continue to drive demand for more health workers, including master's- and PhD-level trained health services professionals, to search for answers, to develop and evaluate solutions, to advocate for policy interventions, and to manage the increasingly complex health system. Society will look to these professionals to identify and develop strategies to improve access to health care, to reduce health disparities, and to integrate more effectively the causes of ill health and the delivery system for health care. They will be needed for positions in academic and research institutions and in public and private sector jobs in consulting, program planning and evaluation, policy, management, and public health practice.

Public health—long “second fiddle” to the nation’s sickness care system—is experiencing a resurgence of support with recognition of the need to safeguard communities from the threat of bioterrorism. More applied research is needed to address international health problems tied to specific diseases such as AIDS and malaria. (In this regard, the Department of Health Services is uniquely placed with its university affiliation combined with very operational, health services-focused field programs.) There is also growing recognition of the importance of prevention and of interventions to address behavior, lifestyle, and “social determinants” to improve the health of populations. These forces have increased the demand for future health services graduates and also for continuing education, training, and technical assistance to strengthen the existing public health workforce.

Health services research is supported primarily by the federal government and private foundations. Although general biomedical research funding has increased over the past decade, dollars for health services have not grown as quickly. In 2004, 5.6% of total health care expenditures in the United States was spent on biomedical research; less than .1% was spent on health services research (H Moses et al., *JAMA* 9/21/2005). The budget for the Agency for Healthcare Research and Quality, the foremost federal agency for health services research, has been flat in recent years with only \$1-4 million per year allocated for investigator-initiated research. In the past, the National Institutes of Health has not been a major supporter of health services research, but this may change with the emphasis of its current director, Elias A. Zerhouni, to translate more effectively research to practice and policy and to use interdisciplinary approaches to enhance health (*Health Affairs*, March 2006). Today, there is more competition for resources and there may

be some regional bias concerning whom foundations fund. In 2002, organizations in four states (CA, MA, NJ, NY) and the District of Columbia received three-fifths of the foundation health policy grant dollars (Foundation Center, March 2004). The trend is to give awards for lower amounts to be done in a shorter time frame, often within 18 months. These trends make it increasingly difficult for academic health services researchers to compete with consulting firms.

3. Description of the Department of Health Services

The Department of Health Services is one of the five departments in the School of Public Health and Community Medicine—Biostatistics, Epidemiology, Environmental and Occupational Health Sciences, Health Services, and Pathobiology. The Department currently consists of 49 University-based, 14 non-University based, 61 adjunct, and 153 clinical faculty; 300 students enrolled in 10 different degree programs/tracks; six certificate programs; seven research and training centers; \$15 million annually in external funding generated by more than 100 proposals submitted each year; and four major affiliations with organizations that employ non-University based faculty (Group Health Cooperative, Center for Health Studies, Fred Hutchinson Cancer Research Center, Division of Public Health Sciences, Public Health—Seattle & King County, and the Seattle VA Medical Center, Health Services Research and Development Center). The organization of the Department is showed in Appendix 1.

The Department was established when the School of Public Health and Community Medicine was founded in 1970. Health Services is one of the five disciplines required for accreditation by the Council on Education in Public Health. Initially, the Department had two divisions, Community Medicine (which offered the MPH and MS) and Health Services Administration (which offered the MHA, a Graduate School group degree administratively housed in the Department). Over the years, the Community Medicine MPH has evolved into several specialized programs or tracks:

- Health and Policy Research
- International Health (administratively housed in Health Services, co-sponsored by Epidemiology)
- Maternal and Child Health (administratively housed in Health Services, co-sponsored by Epidemiology)
- Social and Behavioral Sciences

- Community-Oriented Public Health Practice (COPHP)

A post-baccalaureate certificate program in Health Information was established in 1992, and a BS in Health Information Administration, in 2001.

The Department administers the School's undergraduate minor in public health and undergraduate General Studies major in public health.

The Department also offers graduate certificate programs in:

- Public Health
- Medical Management
- Maternal and Child Health
- Health Behavior/Health Promotion
- International Health
- Health Policy

The MPH degree is offered as a full-time, in-residence program and as a partial distance learning/partial on-campus program for working professionals (Extended Degree MPH).

The MHA degree is offered as a full-time, in-residence program and as a one-weekend-a-month on-campus program for working professionals (Executive MHA).

The Department established the PhD in Health Services Research in 2000. This report focuses on the progress of the PhD Program and the findings of evaluations of this program conducted during 2005-06. Information about the Department is provided only as directly relevant to assessing the PhD Program.

The Department of Health Services administers a number of multi-departmental or multi-school programs. The International Health and Maternal and Child Health MPH programs are co-sponsored by the Department of Epidemiology but managed by the Department of Health Services. The Department houses the School's Social and Behavioral Sciences faculty. (SBS is one of the

five disciplines required of schools of public health for accreditation by the Council on Education for Public Health.) The Department houses the interdisciplinary Graduate School MHA degree program. It also manages the Extended MPH degree program, the public health minor, and the General Studies public health major on behalf of the School. And the Department directs the Gates/Packard-funded Population Leadership Program, which it co-sponsors with the Evans School of Public Affairs.

The MPH is offered as a joint degree with the MAIS, MD, MN, MSW, and MPW with a MPH/JD and MPH/MSD under development. The MHA is offered jointly with the MBA, MD, MN, and MPA. The PhD is offered jointly with the MD.

The Department spearheaded three major School-wide initiatives during the past few years that took the form of developing strategic plans for strengthening teaching, research, and service in international health, the social and behavioral sciences, and health policy. Each of the three, year-long planning processes was chaired by a Health Services faculty member. Participants from across the campus and from outside the University served on the strategic planning task forces. Findings and recommendations highlighted broad collaboration. The IHP strategic plan laid the groundwork for the establishment of the joint School of Public Health/School of Medicine Global Health Department just authorized by the Board of Regents. The SBS strategic plan led to a new School-wide course covering the social determinants of health, community engagement, and health behavior/health promotion as the SBS requirement for all MPH degree students. Other recommendations for expanding SBS teaching, research, and service have been implemented; but many await additional resources. The health policy strategic plan led to the establishment of a Resource Center for Health Policy to facilitate cross-campus research and policy dissemination. Here again, full implementation of the strategic plan's recommendations awaits the identification of additional resources.

4. Mission, values, and service

The Department of Health Services prepares future health practitioners, managers, and researchers to conduct the unfinished work of improving the well-being of communities in the United States and throughout the world. It trains students for influential jobs in health system management,

program design and evaluation, health promotion, public health practice, research, and policy analysis. Its graduates can envision a better way to marshal and manage health resources—and they have the skills to improve system performance (Appendix F).

The Department offers innovative and rigorous academic preparation that integrates learning, service, and research opportunities. It emphasizes practical experience and student-faculty collaboration. Through this approach, its students master the competencies they need for success. Its large and diverse academic and clinical faculty is proficient in theory and practice and committed to teaching and mentoring.

The Department has earned a prominent standing through its research in the conditions that affect health status, the effects of interventions that address health problems, and the policies that shape health care finance and delivery.

The Department holds to the following values:

- Pursuit and communication of knowledge through research and other scholarly activities
- Objectivity, integrity, and ethical practice in research, education, and service
- Diversity and cultural competency
- Collaboration with communities to improve health
- Local, regional, national, and global responsibility in our scope of action
- Learning through the application of theory to practice
- Compassion, equity, and social justice in defining and addressing health
- Innovative approaches to learning
- Supported, equitable, effective, and efficient distribution of scarce resources
- Vigilance, to recognize and forecast threats to public health
- Creative and interdisciplinary approaches to debating and solving local and global health problems
- Prevention of disease and injury and the promotion of the public's health

Appendix 2 shows the faculty's heavy involvement in professional, University, and community service.

5. Governance

As Appendix 1 shows, each of the teaching programs/tracks has a Program Director appointed by and reporting to the Chair. About a dozen faculty are associated with each program. Several choose to participate in the faculty groups of several programs. Program faculty groups meet quarterly or more often. The Chair delegates to the program directors and associated faculty groups authority for curriculum and student-related and operational decisions regarding the programs. Budget and resource allocation decisions remain the responsibility of the Chair, as do decisions whose affects are broader than the individual programs. The Chair's management style is collegial, and input is sought on all matters affecting the Department.

Faculty meetings are held monthly and are open to students and staff. Directors of all Department's teaching programs meet twice a month. The program directors constitute the Department's **Curriculum Committee**, which the Chair looks to for advice or decisions on all matters relating to the curriculum, needed and new courses, the evaluation of courses/instructors, teaching, admissions, and student-related issues. The Curriculum Committee meets monthly. Student representation is invited.

The Department has an **Admissions Committee** for each degree program: MPH, MHA, and PhD.

The Department has a **Research Committee** that the Chair looks to for advice on ways to facilitate and support research and on the deployment of the Department's research support resources. External funding makes up 86% of the Department's budget and so is critical to its functioning.

The Chair holds informal meetings with the full professors quarterly to get their thoughts and recommendations about challenges facing the Department.

All faculty below the rank of professor are assigned a faculty mentor senior in rank to advise and assist them in progressing toward promotion. Each faculty member is reviewed each September at the annual faculty review meeting. Faculty senior in rank discuss activities, accomplishments, progress toward promotion, and any problems of each faculty member in response to a year-in-

review report by the faculty mentor. Feedback to the faculty member is given by the faculty mentor and the Chair.

6. Faculty participation in the Graduate School review self-study process

Given the focus of this review on the Department's doctoral program, preparation for the review has been carried out mostly by the PhD core faculty group. This self-assessment process is described below. The entire faculty was involved, however, in assessing departmental strengths and weaknesses and external trends, many of which affect the PhD program. This process began at the May 2005 faculty meeting. An outside facilitator was used to facilitate a brainstorming process.

The Department faculty identified internal factors and external trends likely to affect the teaching, research, and service missions of the Department. The facilitator and the Chair drafted-up the results of the brainstorming exercise. At the Departmental retreat in June, faculty reviewed the draft SWOT and added ideas and recommendations, again guided by an external facilitator. Considerable discussion focused on external trends likely to affect future research priorities and the availability of research funding. Changes in the field of practice likely to affect the demand for graduates and the types of training the Department should be providing were also discussed at length. Another major topic was the effectiveness of the Department's teaching, research, and service. Also at the retreat, the faculty shared their ideas about strategic goals for the Department during the next three-to-five years.

Following the retreat, the Chair refined the SWOT analysis and goals statement. This was discussed by the faculty at the July faculty meeting and finalized by the Chair thereafter (Appendix 3). Also shared with the faculty at the July faculty meeting was the Chair's sense of the "big ideas" that came up at the retreat. At a number of points in the assessment and goal-setting process, e-mail input was solicited about specific issues. And informal faculty discussions have been frequent.

A General Self-evaluation

The Department of Health Services monitors its performance through a variety of measures, including student course evaluations, peer reviews of courses, program evaluations of courses and curriculums, enrollment in Department courses from other departments and schools, the number and quality of applications for admission to the Department's programs, exit surveys, and graduates' success in securing the jobs they seek. Research is evaluated by the faculty's success in bringing in grants and contracts, peer-reviewed publications and other scholarly work, grant-funded research assistantships for students, student participation in research, invitations to serve on editorial boards, study sections and expert panels, invitations to present at national meetings, and other forms of external recognition. Leadership roles in professional organizations, University service, and community service are also highly valued.

In its "SWOT" analysis, Health Services faculty identified the following strengths and weaknesses:

1. Faculty

Strengths are its breadth, depth, and reputation; its multidisciplinary make-up, which fosters interdisciplinary teaching and research; a dedication to teaching; approachability and willingness to help; collegiality; and *esprit de corps* (Appendix G). **Weaknesses** are inadequate state support, a faculty that is stretched too thin, lack of diversity, with women of color concentrated in the lecturer track; and faculty shortages in some areas of specialization.

2. Culture

Faculty identified as **strengths** the Department's dedication to teaching; its entrepreneurial approach to research and problem-solving; the freedom it offers to pursue areas of interest; progressive values, including its emphasis on equity and social justice; its balanced orientation toward population health and health care; and its strong volunteerism. The noted **weaknesses** in the Department's culture were its collegial, but not nurturing, environment; its inward focus; the fact that its entrepreneurial orientation leads to separate turfs and fiefdoms; a lack of communication across tracks and research centers and across different views; and an unclear relationship between research and teaching. The Department is also trying to achieve a new balance between providing master's level professional training—its previous emphasis—and doctoral and post-doctoral research training.

3. Administration and resources

Strengths are an exceptional staff and well-run administration; support for proposal preparation and grants management; a high level of external funding; centers that are self-supporting and otherwise successful; and positive relationships with affiliated institutions. Identified **weaknesses** are dependence on external funding; a high-risk financial base; inadequate state support for teaching, community service, and collaboration; inadequate state funding for faculty recruitment; a high stress level for faculty; a hierarchical, compartmentalized environment; offices that are too spread-out geographically to achieve a sense of community; and duplication of effort across some programs.

Based on this analysis and reflection, the Department composed the following goals for the next three-to-five academic years. (A more detailed list is shown in Appendix 4.)

1. Increase the Department's financial resource, particularly from state sources.
2. Attract and retain an outstanding faculty.
3. Broaden the diversity of ideas, experiences, and perspectives in the Department by increasing the diversity of the faculty and by emphasizing the value of diversity in courses, conferences, seminars, guest speakers, etc.
4. Provide an environment that attracts and nurtures an outstanding and diverse group of students, enhances learning, and fosters commitment to improving population health, equitable health care, and social justice.
5. Advance knowledge and practice in the fields of health services and public health through collaborative, interdisciplinary research that seeks answers to contemporary issues in population health, health promotion, and health care in support of policy and practice.
6. Encourage service by faculty and students to the community, state, nation, and international communities.
7. Continue to strengthen existing degree programs and expand course content and offerings in areas of increasing importance.

8. Make evidence-based advocacy for improved population health, equitable health care, and social justice in the United States and abroad central themes in teaching, research, and service.
9. Develop a clearer identity for the Department, and increase its impact and visibility locally, regionally, nationally, and globally.

B Research and Productivity

The Department of Health Services is strongly committed to research, and the prowess of the Department's faculty in getting grants and contracts is extraordinary. The UW Office of Research's *Annual Report of Awards and Expenditures* for July 1, 2004 to June 30, 2005 (Appendix 5) reports that, in FY 2005, Department faculty received grant and contract awards totaling \$20.3 million. These awards were generated by the submission of more than 100 proposals per year (128 during FY 2005, 116 during FY 2004, and 122 during FY 2003). The Department's externally-funded direct expenditures in FY 2005 were \$15.9 million. This represented 86% of the Department's total FY 2005 budget. Sixty percent of the \$15.9 million was for research, and 40% was for training and other purposes. Awards and externally-funded expenditures generated by Department faculty have increased steadily over the years. (Externally-funded expenditures were \$8.2 million in FY 2001, \$10.1 million in FY 2002, \$11.8 million in FY 2003, \$13.3 million in FY 2004, and \$15.9 million in FY 2005.)

The success of the faculty in competing for external support is truly remarkable and attests to the quality of the faculty, their national reputations, and the number and significance of their publications. But this is both a blessing and a curse. Because state funding for instruction and operations has increased little over the years while the Department's teaching programs have grown, the Department is heavily dependent on research funding to support instruction and scholarly activities not directly supported by research. According to the latest *University of Washington Departmental Academic Profile* (Appendix B), state instructional funding for the Department (i.e., GOF) totaled \$1.2 million in FY 2005. Another \$825,479 came to the Department from indirect cost recoveries (RCR). About 65% of the RCR is used to maintain the research support infrastructure in the Department, which directly supports the submission and administration of grants and contracts, and 35% is used to subsidize instruction. Not shown on the

Academic Profile report is the \$15.9 million in external funding that came to the Department. If only the state budget was available to support faculty, the Department faculty would number about 10. Instead, the Department's University-based faculty numbers 49, representing a largely self-supporting resource (86% of the Department's total budget for FY 2005 was externally funded) for teaching, research, and service.

Grants and contracts provide the funds to support research, but research output is measured primarily by publications and by the national reputation faculty achieve because of their contributions to advancing knowledge in their fields. During 2004, the last full year for which data are available, Health Services faculty published 248 articles in peer-reviewed journals, 17 book chapters, and numerous other scholarly papers and reports (Appendix 6). Fifty-seven of these articles and 11 of the book chapters were first-authored. This represents an annual publications rate of one first-authored article or chapter and four total publications per faculty member. Also important is the extent to which faculty members mentor student research and involve students in their own research. In 2004, 23 peer-reviewed publications were first-authored by students who were mentored by Health Services faculty. In the Spring 2005 *Exit Questionnaire Summary Report* (Appendix 7), 12% of graduating Health Services students reported having a paper published while a student, and 59% reported plans to publish based on their dissertation or thesis. These figures compare to 24% and 79% for the School of Public Health and Community Medicine as a whole, and 7% and 26% for all UW graduate programs.

The School's higher rate of student publishing is due to the greater portion of doctoral to master's students in the other departments compared to Health Services and the recent startup of the Health Services PhD program. The Health Services faculty are pleased with the extent and outcome of student involvement in research.

More important than the number of publications is the quality the faculty's scholarly work and the creativity and importance of their contributions in their fields of specialization (Appendix C). Particularly important is the extent to which research is drawn on to inform policy. The *Citation Index* shows that a significant portion of faculty publications are frequently cited by other authors in subsequent publications. The quality, methodological rigor, creativity, and significance of

faculty research are emphasized in annual faculty reviews and in letters from outside reviewers when faculty are considered for promotion. Invitations to speak at conferences, to serve on expert panels and study sections, to serve on editorial boards, etc., also attest to the importance outside parties attach to the scholarly work of the faculty.

About half of the faculty's research is based in one or another of nine centers housed in the Department of Health Services:

	FY 2005 Awards
Center for Cost and Outcomes Research (Kopjar, Deyo)	\$ 523,874
Center for Disability Policy and Research (Patrick)	643,019
Center for Health Education and Research (Downer)	3,837,077
Center for Health Management Research (Conrad)	173,869
Center for Public Health Informatics (Oberle)	334,590
Child Health Institute (Zimmerman, Christakis)	422,597
Health Promotion Research Center (LoGerfo)	2,477,863
Northwest Center for Public Health Practice (Thompson)	2,741,854
Resource Center for Health Policy (Watts)	<u>574,852</u>
	\$11,729,595

More detailed descriptions of these centers are shown in Appendix 8.

Also central to the Department's research mission are affiliations with the Center for Health Studies at Group Health, the Division of Public Health Sciences at the Fred Hutchinson Cancer Research Center, the Health Services Research and Development unit at the VA Puget Sound Health System, and Public Health—Seattle & King County. A total of 14 investigators based at these centers hold regular or research faculty appointments in the Department of Health Services, and many more hold affiliate appointments. Close working relationships with these centers broaden the research opportunities available to faculty and students, stimulate multidisciplinary research, and provide settings for applied research and evaluation studies. These affiliations are a major strength of the Department. Another great strength is represented by the 61 adjunct faculty

whose primary appointments are in other UW departments but whose interest in collaboration and in multidisciplinary research has led them to seek adjunct appointments in Health Services.

C Teaching

Teaching **strengths** of the Department of Health Services are evident in the broad, interdisciplinary orientation of its courses and programs, the continued high performance of its students and in the breadth and diversity of the programs, courses, and certificates offered. The Department, through its EDP, EMHA, and HIA programs, allows degree modalities for working professionals, and it offers public health major and minor opportunities for undergraduates. It values and implements training for both research and practice, as evident by the establishment of the PhD Program in Health Services Research in 2000 and the degree program in Community-Oriented Public Health Practice in 2002. Finally, the Department has been making consistent progress toward a competency- and skills-based curriculum.

Weaknesses in the Department's teaching are nearly all tied to funding pressure. Its programs are not competitive with the top schools for the top students in the country. Teaching suffers because of inadequate state support for instruction. This shortfall compromises all of the teaching programs in the Department, including the PhD program, and prevents the Department from expanding its course offerings and enrollment to accommodate the growth in applicants and in students from other departments interested in Health Services. More fundamentally, inadequate state support prevents the Department's teaching programs, especially the PhD Program, from achieving their full potential.

1. Growth in teaching programs

The *Graduate Student Statistical Summary* (Appendix A) shows a steady increase in enrollment in the graduate degree programs of the Department of Health Services, from 134 students in 2000-01 to 214 in 2005-06, a 60% increase. Nearly all of these students were enrolled in the MPH program. In addition, enrollment in the MHA program, an interdisciplinary graduate program housed in the Department, grew from 51 in 2000-01 to 81 in 2005-06, a 59% increase. Despite the increase in demand for the Department's degree programs, beginning in 2004, the Chair imposed a cap on admissions because its fixed state instructional funds could not be stretched any further.

According to the *Academic Unit Profile for Health Services* (Appendix B), graduate student credit hour enrollment in Department courses increased 53% from 2000-01 to 2004-05, from 6,760 to 10,368 credit hours. The importance of the Department's courses in serving the greater University is indicated by the fact that about half of these credit hours were taken by students from other departments and schools.

The growth in enrollment is partially a result of a steady increase in applicants to the Department's MPH and MHA programs and partially a result of the establishment of new graduate programs—the PhD Program in 2000, the Community-Oriented Public Health Practice MPH in 2002, and the Peace Corps Masters International (PCMI) MPH in 2003. The PhD program enrolled 6-8 students per year from 2000-05 and currently has 29 enrolled. The MPH in Community-Oriented Public Health enrolled 12 students in 2002, 16 in 2003, 17 in 2004, and 22 in 2005. The PCMI Program has enrolled nine students. In addition, in 2004 the Department began offering graduate certificate programs in six areas of specialization.

The Department's undergraduate programs have also grown. The Department began offering a BS in Health Information Administration in 2001 (average enrollment = 30). And the Department administers the School's undergraduate minor in public health and undergraduate general studies major in public health (average enrollment = 75). Although these programs draw on the Department's faculty resources, their enrollments are not included in the above graduate program statistics.

To support the growth in students and programs, the number of courses offered by the Department increased from 64 in 2000-01 to 90 in 2004-05 (Appendix 9). Beginning in 2004, however, the Chair imposed a “moratorium” on new courses, again because of inadequate state instructional funding.

2. Applicants and enrollment in individual programs and tracks

Applications to the MPH and MHA programs have grown steadily. The quality of applicants ranges widely, but the quantity of applicants has been great enough to enable the selection of a

strong cohort of students each year. For the MPH program, on average over the 2000-05 period, 50% of MPH applications were denied, and 57% of students offered admission enrolled. The average GPA of students who enrolled ranged from 3.44 to 3.64 over the 2000-05 period. GRE scores of enrolled students were in the mid- to high-500s for verbal and mid-600s for quantitative. Forty-seven MPH degrees were awarded in 2001, growing steadily to 70 in 2005. Nearly all MPH students complete the program in two years.

For the MHA program, 31% of admissions were denied (2000-05), and 59% of offers enrolled. The average GPA of enrolled students ranged from 3.33 to 3.42 over this period. Verbal GRE scores averaged only in the high 400s to low 500s; quantitative scores were in the high 500s. Thirty-three MHA degrees were awarded in 2001, 38 in 2005. All MHA students complete the program in two years.

During the 2000-05 period, according to the *Graduate Student Statistical Study*, ethnic minorities averaged 21% of MPH enrollment and 26% of MHA enrollment. International students made up another 8% of the MPH enrollment and 6% of the MHA enrollment.

Appendix 10 gives a detailed breakdown of the number of students admitted to each of the Department's degree programs and tracks (areas of specialization within the MPH degree) over the past five years, and the admission caps imposed for Autumn 2006. Admissions to the state-supported programs grew steadily from 2001 to 2004. But because the Department's state instructional budget has remained essentially fixed since FY 2002, while enrollment, salaries, and operating costs increased, it has become increasingly inadequate to support the Department's educational mission. As a result, reluctantly, the chair capped admissions in 2005 at slightly below 2004 and has imposed an even lower admissions limit for 2006. The faculty understand the need to cut admissions in the face of inadequate state support, but they are disappointed to see qualified applicants turned away, especially given the applicant demand and the increasing need for well-trained public health professionals.

Admissions to the Extended Degree MPH, Executive MHA, and Health Information Administration programs have not been capped because these are tuition-supported vs. state-supported programs.

3. Faculty complement and teaching workloads

The Department's faculty has gradually increased over the years, from 57 at the beginning of 2000 to 63 today, plus 61 adjunct faculty. Of the 63, 49 are University-based and 14 are based at affiliated institutions. The growth in faculty has been slower than the growth in enrollment and new programs. Rather, it has been driven mainly by the dramatic growth in external funding for research and non-degree training—from \$8.7 million in awards and \$8.2 million in direct expenditures in FY 2001 to \$20.3 million in awards and \$15.9 in direct expenditures in FY 2005.

Courtesy faculty (affiliate and clinical) number 153. They contribute substantially to the Department's teaching programs, linking the classroom to the field of practice by guest lecturing, providing fieldwork projects, mentoring students, supervising practicums and research projects, etc. About 15 of the 153 courtesy faculty are ethnic minorities.

As noted above and discussed in more detail below, because of inadequate and essentially fixed state instructional funds, the Department has not been able to recruit for new junior faculty in recent years. New faculty must essentially bring their own source of support—unlikely for new graduates just entering the faculty market. As a result, the Department's faculty is aging and top-heavy. Nearly half, 30 of the 63 faculty, are regular or research professors, 13 are regular or research associate professors, 3 are regular or research assistant professors, and 17 are senior lecturers or lecturers (Appendix D).

Teaching assignments reflect a balance of faculty interests and Department needs. Because of the large number of faculty in the Department and the wide range of interests represented, it is rare that there is not a match between faculty interest and course needs. Because most faculty are dependent on external research funding for most of their support, teaching loads are relatively light. Many faculty would like to teach more if more instructional funds were available, and a number of identified needs for new courses have not been acted upon because of inadequate

funding for instruction. Appendix 11 shows that the Department's one regular-track assistant professor teaches two courses a year. (All faculty in the School of Public Health and Community Medicine are on 12-month appointments). Associate professors teach one to four courses per year, but if three or four courses, one or two are typically seminars or shared responsibility courses. Professors typically teach two to three courses per year and may also be responsible for one or two seminars. Even lecturers teach no more than three courses per year. Lecturers such as the professorial faculty are expected to bring in substantial external support for themselves, and most carry substantial administrative responsibilities, e.g., as director of a center or a training program, in addition to teaching. Several courses are taught by courtesy faculty, and courtesy faculty guest lecture in many courses.

4. Evaluation and improvement of teaching effectiveness

The faculty are committed to quality teaching, and they have struggled to keep the effectiveness and rigor of teaching high despite inadequate state instructional support. The Office of Educational Assessment's *Department Ratings Summary* for 2004-05 (Appendix 12) reports an adjusted median student rating for all the Department's graduate courses on the question "the course as a whole was" of 4.0 (on a 5-point scale). The adjusted median rating for "instructor's effectiveness in teaching the subject matter" was 3.9. These ratings are good, but slightly below the ratings for the School and for the University as a whole. And, the 2005 "instructor's effectiveness" rating (3.9) fell below the 4.1 rating earned the previous year. The Spring 2005 *Exit Questionnaire Summary Report* (Appendix 7) also shows decline in graduating students' ratings of the "overall quality of the program" to 3.87 in 2005 from 3.91 in 2004, 4.08 in 2003, and 4.13 in 2002. Similarly, the "overall quality" of the MHA program slipped to 3.5 in 2005 from 3.95 in 2004, 3.94 in 2003, and 4.08 in 2002. These declines and the Department's slightly lower ratings on "overall quality" than the School's rating (3.97) are believed to reflect the under-funding of instruction.

Although generally satisfied that the Department is providing a quality education for students, the faculty believe these ratings can and should be improved. Clearly, however, the time available for teaching is compromised by the fact that the majority of faculty support comes from research. This situation, plus the fact that the state instructional budget is not sufficient to compensate for

teaching in equal measure to compensation for research, places great demands on the faculty to devote the time to teaching they would like. The Department's financial situation is described in more detail below.

The faculty have taken several measures to encourage and support quality teaching. The Department's Curriculum Committee, consisting of the program directors and Chair, meets every other week and regularly discusses ways to improve the Department's teaching. In addition, the program faculty groups address this challenge at their quarterly meetings. And strengthening instruction is always a topic of discussion at the Department's annual faculty retreat. The student course evaluations from the Office of Educational Assessment are reviewed by the Curriculum Committee and each Program Director is given the evaluations for courses offered by his or her program for discussion at the quarterly program faculty meetings.

The Department maintains a regular peer review system. The Chair assigns a faculty reviewer for: 1) new courses (the second year they are taught), 2) courses for which the instructor is new (the second year they are taught), 3) courses taught by instructors nearing consideration for promotion, 4) required courses, 5) low enrollment courses, and 6) courses that have not been rated highly by students. The reviewer meets with the instructor during and at the end of the course, reviews the syllabus and course materials, visits at least one class, and at the end of the term, reviews the student ratings and the distribution of grades given by the instructor. The peer reviewer completes the Department's Peer Review Evaluation form (Appendix 13), discusses it with the instructor, and then meets with the Curriculum Committee to present findings and recommendations for improvement. Feedback to the instructor is given by the peer reviewer, the appropriate Program Director, and when called for, by the Chair. Newly added to the Peer Review Evaluation form this past year is an assessment of how the course addresses student writing and presentation skills. Student and peer reviewer course/instructor evaluations are explicitly discussed at the Department's annual faculty evaluation meeting.

Discussions at faculty meetings and the annual faculty retreat about the effectiveness and rigor of teaching led to the initiation of quarterly and end-of-year reports of the distribution of grades for all courses offered by the Department (Appendix 14). Individual instructors can compare the

grades they give to grading practices in the Department as a whole. The Department has developed guidelines for grading (Appendix 15) that are included in course syllabi and to which instructors are encouraged to adhere. Also, in the last academic year, an evaluation was undertaken of the ratings students gave Department courses on the questions concerning academic rigor and hours spent per credit. A distribution for all Department courses was developed and feedback was given to individual instructors as to how their courses compared on these metrics. This information for pertinent courses was also discussed at the quarterly program faculty meetings.

5. Instructional budget

According to the *Academic Unit Profile* report for Health Services (Appendix B), the Department's GOF (instruction and operations) budget jumped from \$788,187 in FY 2001 to \$1,226,146 in FY 2002 and has declined slightly since to \$1,207,655 in FY 2005. The FY 2001 to FY 2002 increase was the result of negotiations regarding state funding in conjunction with the appointment of Pat Wahl as Dean in 1999. Of the increase, approximately \$175,000 was earmarked for the start-up the PhD Program and \$175,000 for the COPHP program. The subsequent decline in the GOF budget is the net result of cost-of-living and merit increases granted by the University over this period, offset by the 1% UIF cut in 2001 and the 2% and 2.27% cuts imposed in 2002 and 2003. Faculty and staff salaries, of course, have been rising each year. The Dean was able to allocate one-time temporary funds from the School's RCR during the 2003-05 biennium to help fund the startup of the PhD, COPHP, and undergraduate programs, but this support ended on June 30, 2005 and did not continue into the current biennium.

Greatly complicating the financial status of the Department was the withdrawal of state support for the Executive MHA program when the University required this program to convert to self-sustaining. The University had granted \$600,000 in instructional support for the establishment of the Executive MHA in 1998. (Because the EMHA was then and continues to be administered by UW Educational Outreach, these funds have not been shown in the GOF line in the *Academic Unit Profile* reports). The University took back the \$600,000 in July 2003, when the EMHA converted to a fee-supported program. This give-back of state funds has been particularly difficult for the Department because several faculty had been tenured with the University funds previously

provided for the Executive MHA and because the tuition-based revenue the Department receives from UWEO covers only the teaching of courses and does not provide for the other scholarly activity of the faculty.

Putting the above statistics together reveals that the instructional budget has become increasingly inadequate to support the growing educational mission of the Department. GOF dollars per enrolled student declined from \$5,981 in FY 2002 to \$4,540 in FY 2005. GOF dollars per student credit hour fell from \$158 to \$116. This biennium, GOF dollars per faculty FTE equal about \$24,000. But these figures greatly overstate support for faculty and instruction, because a substantial portion of the GOF budget must go to support staff and operations. The major portion of faculty salaries are funded by research, and the GOF budget is heavily supplemented by RCR funds to support teaching.

6. Research and teaching

Research has increasingly subsidized the Department's educational mission. About a third of the RCR returned to the Department must be used to supplement the GOF budget. This means fewer dollars to support the Department's research infrastructure, which is a critical lifeline to the 86% of the Department's total budget that is externally funded. The fact that state funds make up only a small portion of the Department's faculty salary budget means that not all deserving faculty can be awarded tenure, even given the School's policy of guaranteeing only 50% of the salary of tenured faculty. Only one associate professor in the Department is tenured, and the last four appointments/promotions to full professor have been without tenure because of the shortage of state dollars. Faculty recruitment is essentially limited to people who can bring their own funding. This makes it very difficult to attract junior faculty, especially minority faculty, for whom competition with other universities is intense. The sense among the faculty is that the leveraging of the declining state instructional budget with more and more research dollars has gone much too far.

7. The "point system"

The Department of Health Services uses a "point system" to allocate its instructional funds (GOF + about 1/3 of the Department's RCR) to individual faculty based on the amount and types of

teaching they do (Appendix 16). Points are granted for classroom and out-of-classroom teaching, chairing or serving on PhD dissertation and master's thesis committees, administration, etc. The point system was developed by a faculty task force and endorsed by the faculty and has been in use for more than ten years. It is seen as a fair and equitable way to distribute the Department's instructional funds. And when first implemented, the point system was also seen as providing "adequate" compensation for teaching and teaching-related work.

But over the years, because the Department's instructional funds have not grown commensurate with the growth of the Department's teaching, the value of a point has steadily eroded. And points are no longer awarded for advising, supervising practicums, supervising independent study for students outside the Department, attending seminars, guest lecturing, serving on administrative committees, carrying out administrative projects, or School or University service outside the Department. And even with these cuts, it has been necessary to reduce the value of a point by about 15% in the past two years. So for example, teaching a regular three-credit-hour course, which used to be worth 10 points (10% of annual salary), now produces 9% of the faculty member's salary. Discontinuing points for teaching-related activities and devaluing the points granted for teaching has demoralized the faculty and made them reluctant to take on more than the minimum amount of teaching and related work.

Further, because faculty are compensated less for teaching than research, there is less incentive to teach. Faculty feel pressed to continue to generate the majority of their salary that comes from research. And it may become increasingly difficult to find faculty willing to teach more than a minimum amount.

Inadequate state funds also make it impossible for the Department to support financially those scholarly activities not directly related to teaching or research. These include writing grants, writing manuscripts, serving on study sections, reviewing grants or journal articles, serving on Department, School, University, or national committees, community service, informal mentoring of students, mentoring junior faculty or faculty and students outside of the Department, participating in seminars, etc.—and yet these are the activities that contribute to a robust and stimulating intellectual community. The faculty are concerned that they may not be able to

continue even the current level of these activities without additional financial support. The extra time to give exemplary support to each other and to students and to devote time to improving courses and programs may simply not be available, to the long-run detriment of the Department and its national reputation. In the beginning, when points were worth more, there was a sense that the point system implicitly provided for these activities. But that is not the case today.

8. PhD Program budget

The proposal to the Graduate School to establish the PhD in Health Services Research included a budget for the new state funds that would be required (Appendix 17). The first year budget (2000-01) was for \$228,912 in new dollars to support instruction for six FTE students, increasing to \$244,266 in Year 4 for 20 FTE. (Today the program has a total of 29 full-time students.) In addition to the new state funds requested, the Department committed to reallocate internally approximately \$50,000 per year of its funds for staff support for the PhD program, and another \$40,000 (mainly RA support) was to come from other sources.

The Dean was able to obtain an increase in the Department's GOF budget of \$175,000 in permanent state funding for the PhD Program. Cuts in the state GOF budget over the past several years have reduced this to \$166,000. Although this new state funding was critical to launching the PhD Program, the Department's essentially fixed state instructional budget had to cover internally a larger amount than anticipated, and this was in the face of simultaneous demands to support the expanding enrollment in existing programs and in other new programs described above. Thus the Department has had to reduce the amount of support provided to faculty for a given amount of teaching and serving on dissertation committees. No points are given for mentoring students during the first two years. Most faculty believe that the 10 points given for chairing a dissertation committee are appropriate, but the two points per committee member are not sufficient to cover their effort.

Appendix 18 shows the Department's dollar support for the PhD program for this academic year (2005-06). Appendix 17 shows the "Year N" budget for the program, which was included in the Department's proposal to the Graduate School to establish the degree. Year N was to represent the program's steady state with a full complement of 20 students. The budget figures were not

adjusted upward for inflation, and so they are not comparable to the Department's actual current expenditures. A relevant comparison, however, is the Year N budget projection of a core PhD faculty complement of 2.0 FTEs, compared to the 1.6 faculty FTEs the Department is actually able to support. Further, note that .10 of the current FTEs for teaching courses are donated (by the VA HSR&D program). Hence, the Department is truly supporting only 1.5 FTEs for PhD Program direction and teaching. The original Graduate School budget was very conservative because it was known that state funds for new programs were very tight. But the Department's current ability to support the program is clearly inadequate, both because the Department cannot provide the faculty complement called-for in the original budget and because the Department's capacity to compensate faculty for teaching and teaching-related activities (via its "point system") has eroded since the time the PhD Program was established, as described above. Staff and operations support are also inadequate to support a top caliber program. The PhD Program is as strong as is because of the dedication and good will of the core faculty and their willingness to subsidize the time they devote to the program from their research support.

* * * * *

The purpose of this section is to describe accurately the financial status of the Department and the limitations this places on the faculty to capitalize fully on its potential. The faculty have done a remarkable job with the resources available, and they have demonstrated great prowess in garnering research dollars. Research has greatly strengthened the Department's teaching programs, especially the PhD Program. But the Department has become increasingly dependent on research dollars to support its teaching programs. State dollars cannot be stretched any further, nor can research further subsidize teaching. The PhD Program has the potential to be among the top five or six programs in the nation. But achieving this prominence will require additional state investment in keeping with the original PhD Program budget request.

D Diversity

The Department is strongly committed to achieving equal opportunity for its students and faculty and throughout its programs regardless of race, ethnicity, national origin, or sexual orientation. It recognizes and supports the equal opportunity goals and policies of the University of Washington,

the School of Public Health and Community Medicine, and the explicit goals of its own faculty. Although the Department, in common with others at the SPHCM, is challenged in this undertaking by limited resources for outreach and recruitment to both prospective students and faculty, it is making a sincere, sustained effort to achieve a diverse and culturally competent environment for students, faculty, and staff.

1. Student diversity

According to the *Graduate School Statistical Summary Report* (Appendix A), graduate students in the Department of Health Services (PhD, MPH, MHA) are overwhelmingly White (64% in 2005) and female (77%). Only 21% identify themselves as ethnic minorities (African American, American Indian and Alaska Native, and Hispanic). Another 8% are international students. These data make clear that the Department—and the School of Public Health as a whole—must become more effective in their efforts to recruit and retain minority students.

All departments in the School face this challenge; unacceptable as the Health Services statistics may be, they show greater success in this area than does the School as a whole, whose share of underrepresented minorities across all departments is only 17% in 2005. Trends in minority enrollment in the Department of Health Services and the School over time show that the share of minority students has recovered from the impact of Washington State Initiative 200, which prohibited the state from using race or ethnicity in deciding student admissions or employment.

Data from the Association of University Programs in Health Administration (AUPHA) help put these trends in context. AUPHA reports that minority representation in graduate programs in health administration is now on average about 26%. Minority enrollment has actually dropped from a 30% share since 2001, but it has increased, from 14%, since 1991.

As do other departments in the School, Health Services faces several challenges in recruiting and enrolling students of color. Among the most significant of these barriers are:

- The Department and the School lack sufficient student scholarship resources to be fully competitive with older schools of public health in this area.

- The Department has insufficient recruitment resources to market its degree programs, attend meetings, visit universities, and finance candidate visits to the UW.
- Seattle is not known to be a particularly welcoming community to students of color, due in part to its geographical isolation from most of the nation's largest and most diverse cities. For this reason, it has a less-evolved support structure for minority students.

To overcome these challenges, the Department engages in the following activities:

- The Department works closely with the UW Graduate Opportunities and Minority Achievement Program (GO-MAP), making full use of its University-wide options for networking and other types of student support. The program makes possible a nine-month research assistantship that the Department has used successfully for recruiting purposes, and one student who has won this support has gone on to participate in the Department's PhD program (The Dean's office provides another research assistantship that is often made available to minority students.) In addition, GO-MAP makes possible about three tuition waivers a year, based on both merit and financial need, which has been a consistent source of support to minority and low-income students. Finally, the Department coordinates with GO-MAP in conducting field visits to promising applicants to its programs.
- The School's Office of Student Services (OSS) contacts with admissions advisers at historically black colleges and universities and at Washington state institutions, such as central Washington University, with higher-than-average shares of minority enrollment.
- To begin supporting prospective students "early in the pipeline," the Department is responding to a rising interest in the University's undergraduate minor in Public Health and to an undergraduate General Studies major with a public health concentration. The General Studies major, the School's first step into an undergraduate major in public health, accepts 30 students a year School-wide.
- The Department continually upgrades recruitment materials and web site content to make them more interesting and appealing to minority applicants. In some cases, this has involved replacing images of more racially and ethnically diverse groups of students.
- The Department matches prospective students with peer advisers, and when possible, considers race and ethnicity in these assignments.

- The Department maintains and mobilizes a fund specifically to assist minority students. These resources support such broad needs as tutoring and travel costs for prospective applicants who want to visit the UW campus.

2. Faculty diversity

Health Services faculty restated their commitment to diversity at their June 2005 retreat, during which they unanimously approved a Department goal to “Broaden the diversity of ideas, experiences, and perspectives in the Department by increasing the diversity of faculty, and by emphasizing the value of diversity in courses, conferences, seminars, guest speakers, etc.”

To implement this goal, the faculty agreed to undertake the following three steps:

- Conduct an in-depth and frank assessment of why the faculty are not more diverse.
- Set goals for faculty diversity and find or allocate resources to recruit faculty of color.
- Develop a plan to embed “academic cultural competence” and content throughout the Department’s research and teaching.

The Department’s Organizational Cultural Competency Work Group will oversee the assessment, which will be conducted by an experienced external reviewer across the domains of teaching, research, governance, recruitment, and retention of both students and faculty. This will be a sustained effort, including a plan for tracking and evaluation of implementation over time. Faculty have resolved to “own” the issue of ensuring greater diversity among their ranks, and in this work, will complement the efforts of the School of Public Health’s Diversity Task Force, which convened in 2005 to develop a strategic plan that would include new minority recruitment and retention efforts for faculty.

The assessment work builds on the Department’s longstanding commitment to develop complements of students and faculty that reflect both the increasingly diverse population of Washington State and the complex cultural mix of the many communities with which it works. This commitment extends to all of the Department’s teaching, research, and service. In addition, the Department’s recruitment policies require every faculty search committee to contact “as many people and organizations as necessary” to maximize the number of minority candidates. Despite

these efforts, the Department still has a disproportionately small share of underrepresented minorities among ladder and research faculty.

The Department of Health Services, and the University of Washington as a whole, lacks sufficient state resources to open new faculty positions and do national searches—especially for junior faculty. The School of Public Health is particularly challenged by the fact that it can offer only 50% tenure at the most to faculty, and usually at the full professor level, as a result of the modest level of support it receives for faculty positions from the state General Fund. When the Department has added faculty, the new hires are usually positioned to bring their own funding, a situation that tends to favor senior faculty and that often precludes truly “open” searches. The resource pressures produce a faculty mix that is both independent and entrepreneurial—yet another barrier to recruiting minorities to their ranks.

Less than 11% of qualified applicants for Department faculty positions during 1999-2005 were qualified minority applicants—and of 23 faculty hires during this period, searches were either waived or not required for 9 (Appendix 19). This is a consequence of the Department’s burden of recruiting for faculty on “soft money,” particularly research and service grants. The specifications for faculty supported on these resources are particularly narrow in terms of the specialty, experience, and skills associated with particular project subjects. In addition, several recent faculty openings have been for positions based at affiliated institutions including the Fred Hutchinson Cancer Research Center, Group Health Foundation, and the Department of Veteran’s Affairs.

Nationally, the Department competes with older and better “resourced” schools for a small pool of minority applicants. As AcademyHealth reported in its 2004 analysis of *Racial/Ethnic Diversity in Health Services Research*, only 77 “underrepresented minorities” were enrolled in PhD programs in health services research during 1998-2002, with only seven new graduates during this period. The strongest minority candidates are often offered full tenure at competing schools.

The findings of the Department’s diversity assessment of its faculty should inform policies that will address this balance. Ongoing efforts to improve minority representation on the faculty include:

- **Succession planning:** The Department has recently conducted an analysis showing that, over the next decade, a considerable share of its faculty will leave for retirement. Among all Health Services faculty, 52% are likely to retire during the next 10 years, as will a likely 56% of research faculty, and 59% of lecturers. The retirements will create vacancies and new opportunities to recruit faculty of color.
- **Bridge funding.** The Department during the past decade has twice sought three-year funding bridges for minority faculty who are recruited to the University without support in place. This provides a window for new minority faculty to develop this support after they begin work in the Department. The Provost's Office has been receptive to these requests.

The Department mobilized every opportunity to bring students in contact with racial and ethnic minorities serving as guest lecturers, mentors, site supervisors, and clinical faculty. Of 153 clinical faculty in the Department, about 15 are representative of racial and/or ethnic minorities. In addition, through scores of practicums and capstone projects during the past 10 years, students in Department programs have worked closely with minorities and vulnerable populations in such organizations and agencies as the Seattle Indian Health Board, the Region X Office of Minority Health, SeaMar Community Health Centers, and Odessa Brown Children's Clinic.

In addition to achieving diversity in the number of its faculty and students, the Department is working to achieve improve academic cultural competence in its curriculum. Beginning in Spring Quarter 2006, it will implement a survey of faculty to identify and define cultural competence and determine how it can be integrated in their teaching. The Department will plan and conduct workshops to serve as an introductory, overview module on cultural competency for both faculty and staff, and it will conduct a pre/post evaluation of the training to identify needs and gaps.

E PhD Program

1. Mission and learning objectives

The mission of the PhD Program in Health Services is to prepare research leaders to improve health by conducting interdisciplinary studies in a rapidly changing health care and social-political environment. The program is designed to prepare graduates for research careers in universities, research and policy organizations, the health care industry, and public health departments. Its goal

is to train health services researchers and health policy analysts to conduct independent, collaborative research by offering multidisciplinary, applied research opportunities under the close mentorship of faculty.

The program distinguishes itself from others by first, providing a curriculum that balances comprehensive knowledge of the determinants and disparities of population health with knowledge of the health care system and health policy. Second, it provides rigorous methodology training in key disciplines so that students can conduct interdisciplinary research and translate it into practice and policy. Students also acquire expertise in an Area of Emphasis through intensive preparation in theory, content, and methods.

The goals of the program are to:

1. Prepare graduates to provide leadership in solving domestic and global health problems.
2. Gain recognition as one of the top programs in health services research in the country.
3. Enhance the program's excellent faculty by adding junior faculty and those from targeted minority groups, and by broadening participation in the PhD program.
4. Recruit the best students nationally and help them complete their doctoral training within 4-5 years.
5. Maintain a rigorous and leading-edge curriculum.

The PhD Program began in 2000 and by 2005 had enrolled 42 students, including 9 graduates, 29 continuing students, and 4 students who left the program prior to completion.

The PhD Program provides substantial benefits to the Department of Health Services by contributing to and raising the intellectual and scholarly activities of the Department. Student and faculty interactions have led to increased research productivity, the development of research grants, and the publication of papers improving methods used in research. The program is helping to build the capacity for health services research locally (by students and faculty working with communities and health organizations) and regionally (one graduate is an assistant professor at Boise State). Lastly, it is hoped that the research produced by the program has contributed to the more efficient delivery of care and improved health of the population.

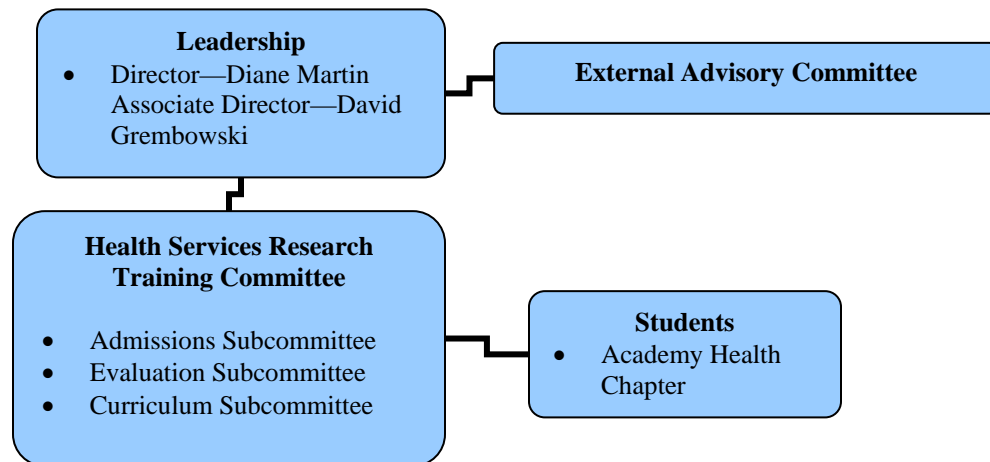
2. PhD faculty and administration

PhD Program faculty (Appendix D) represent diverse disciplines, including clinical sciences, social and behavioral sciences, and quantitative methods, and they are skilled in conducting multidisciplinary research. All 44 program faculty members have an appointment in the Department of Health Services. Only 3 are assistant professors and 20 work for research partners such as the Fred Hutchinson Cancer Research Center, VA Health Services Research and Development, and the Group Health Cooperative, Center for Health Studies. Faculty are successful researchers funded by AHRQ, NIH, and many foundations (Appendix G). Their research provides leading-edge examples for teaching, expertise in grant writing, and numerous research opportunities for students.

The faculty have been extraordinarily supportive of the PhD Program and its students, giving time to mentorship and administration without financial compensation. Nearly all faculty listed have participated in the program by teaching formal courses, giving a health services seminar, mentoring students, or serving on PhD supervisory committees. Students rate their interaction with faculty as excellent but suggest that the level of program participation should be more evenly distributed across faculty.

The PhD Program grew out of a Department with a 35-year history of strong master's level professional programs in health administration and public health. The experience of these programs was particularly beneficial during the start-up years and supports an intellectual diversity and active dialogue that continues to strengthen the PhD Program. But this history and the very legitimate differences in professional teaching programs versus PhD research programs creates tension, especially when faculty must compete for resources and volunteer their time to work with master's or doctoral students. The primary tasks for faculty of the Master's in Health Administration Program and the MPH in Community-Oriented Public Health Program are to teach and work with outside organizations. The faculty associated with the PhD Program has incentives to obtain research funds and publish papers, and this is consistent with working with students on research but not necessarily with teaching courses and mentoring during the first year or two of the program.

The administrative structure of the PhD Program is shown below. The program leadership is carried out by two faculty: Program Director Diane Martin (responsible for the overall direction of the program and its committees, day-to-day supervision of trainees and staff, and mentorship supervision); and Associate Director David Grembowski (responsible for curriculum and student affairs). The program plans to form an External Advisory Committee within the next year.



The Health Services Research Training (HSRT) Committee and its subcommittees carry out the major work of the program. In addition, the program conducts an annual retreat and mentorship meetings to which all PhD faculty and students are invited. Each subcommittee consists of representatives from Department of Health Services research partners and students. The HSRT Committee sets overall program competencies and policies, reviews student progress, and provides strategic planning for the program. It is chaired by Diane Martin and meets quarterly.

The Admissions Subcommittee oversees the recruitment and admissions process, allocates merit-based funding to students, and reviews student progress. The subcommittee is chaired by Diane Martin and meets in December, February, March, and April.

The Curriculum Subcommittee is responsible for curriculum development and review and oversight of student affairs, including the preliminary exam development and grading, and review of the short dissertation proposal and written general exam questions. It also approves students' Area of Emphasis applications. The subcommittee is chaired by David Grembowski and meets monthly. All curriculum changes and student and peer course evaluations are also reviewed at the Health Services Program Directors Meetings.

3. Program evaluation

Evaluation criteria were established early by the Evaluation Committee, chaired by Associate Professor Frederick Zimmerman. The criteria were modified during 2003 based on *Assessing Research-Doctorate Programs: A Methodological Study*, prepared in 2003 by the National Research Council's Committee to Examine the Methodology for the Assessment of Research-Doctorate Programs; and the 2000 project, "Re-envisioning the PhD" (<http://www.grad.washington.edu/envision/>).

The PhD Program's evaluation plan includes the following outcome measures and process review procedures.

1. **Recruitment and admissions:** recruitment resources and recruitment approach (especially for underrepresented subgroups); number and strengths of applicants, offers, and percent admitted; percent applicants from minority or underrepresented groups; quality of all applicants per yearly cohort as judged by mean GRE scores and the number of offers made by and accepted by applicants from peer institutions; fit with the program and faculty interests

Process: annual review by the Admissions Subcommittee and HSRT Committee

2. **Student progress and outcomes:** completion rates and time to completion; funding of students; number of students receiving traineeships and research and teaching assistantships; student publications and posters/presentations; preliminary and general exam pass rates; student awards and grants; placement of graduates

Process: Six-month progress reports and plans, review by mentors, annual review by HSRT Committee

3. **Curriculum, research training, and professional development:** assessment of whether core course objectives were met, including student and peer course evaluation and views on the adequacy of faculty mentorship; social support; quality of instruction; number of “participating faculty” who mentored, taught, or served on dissertation or faculty committees; ease of choosing mentors/dissertation committee; satisfaction with mentors; timeliness of curriculum and its relevance to students in the field of health services research

Process: Curriculum Subcommittee review of curriculum, exams, and quality of dissertation plans, review by HSRT Committee and Health Services program directors

4. **Resources:** faculty available and diversity of research and disciplines, financial resources available to participating faculty for services rendered; space; staff support; funding sources available to the PhD students; access to computers and software; seed money for students’ research studies, travel, and discretionary funds; fundraising

Process: review by the Admissions, Evaluation, and HSRT committees

5. **Relationships to regional practice and research communities:** formal affiliate relationships; number and quality of research projects and mentors; dissertation committee members from affiliate organizations; interaction with other UW departments and research centers

Process: HSRT Committee and annual PhD retreat

6. **Non-faculty assessments:** student and alumni satisfaction surveys; qualitative comparisons with peer schools; evaluation of training grant proposals

Process: HSRT Committee reviews of student course evaluation; third-year student evaluations; exit surveys and interviews; training grant application scores and percentiles

This self-study includes information obtained from five program evaluations conducted during 2005:

1. "Health Services PhD Program Evaluation," by Associate Professor Clarence Spigner, Dr. PH
2. Perceptions of Key Program Faculty Regarding the University of Washington (UW) Health Services PhD Program," January 2006, presenting qualitative data collected from program faculty
3. Three student-conducted reports on mentorship and support, diversity, and curriculum

4. Program strengths and weaknesses

These evaluation results reveal that the PhD Program has been enormously successful during its first five years. The program has attracted students who also apply to doctoral programs in health services at Harvard University, Johns Hopkins University, the University of California (Berkeley and Los Angeles), the University of Michigan, the University of Minnesota, and the University of North Carolina at Chapel Hill. The students have benefited from strong faculty mentoring and productive relationships with research partners, and they have been supported by traineeships from a variety of federal sources. All graduates are working in health services research positions. This progress has been achieved despite consistently inadequate resources from the University of Washington.

The following is a summary of more specific strengths and weaknesses as identified from the evaluations noted above. In general, there was a strong consensus between faculty and students concerning the major issues facing the program. Each of these issues is discussed in more detail later in this report.

Program strengths

1. The PhD Program's students and alumni have achieved success in time to graduation (3.6 years), research productivity, and careers in health services research.

2. The faculty is a major strength of the program. They possess expertise in a wide variety of disciplines. Their research is of high-quality and yields opportunities for student research, and they have obtained three federal training grants to support students. The faculty are highly successful at garnering research funds and in using limited state resources efficiently. They have volunteered much time and energy to the program.
3. The program's curriculum offers a rigorous package of methodological courses encompassing tools from various disciplines, coupled with the flexibility to choose an individual area of emphasis. The program is one of the few in the country to emphasize population health and health disparities in addition to the health care system and policy in its core curriculum.
4. Students appreciate the high quality mentoring in the PhD Program and rate teaching above the Department and School averages.

Program weaknesses

1. The **major weakness** of the PhD Program is insufficient financial resources. Both students and faculty report that the program is seriously under-funded, and existing resources do not cover the true costs of teaching, mentoring, and scholarly activities. No additional state funding would present a serious threat to the continuing success of the program. New resources are needed to:
 - Support teaching and mentoring by both UW and research partner faculty. This includes increasing the number of faculty with skills to teach doctoral-level students and providing more financial support for intellectual and national leadership.
 - Increase student financial support through more UW RA and TA positions.

- Increase student academic support by including more financial support for faculty mentoring of individual students to ensure they have the knowledge and skills they need for research; to cover increased mentoring for students from underrepresented groups or from other countries; and to provide tutoring or TA help in STATA and the health services advanced research methods courses.
 - Cover costs associated with a program coordinator's position and other professional support (librarian, web master, computer specialist, and fiscal specialist).
 - Provide more space for faculty and students, space for a program coordinator, and classrooms with appropriate information technology.
2. Student and faculty diversity in the PhD Program should be increased. The Department should achieve greater success in recruiting faculty and students from underrepresented minorities (African Americans, American Indians and Alaska Natives, and Hispanics). The Department should also recruit junior faculty members.

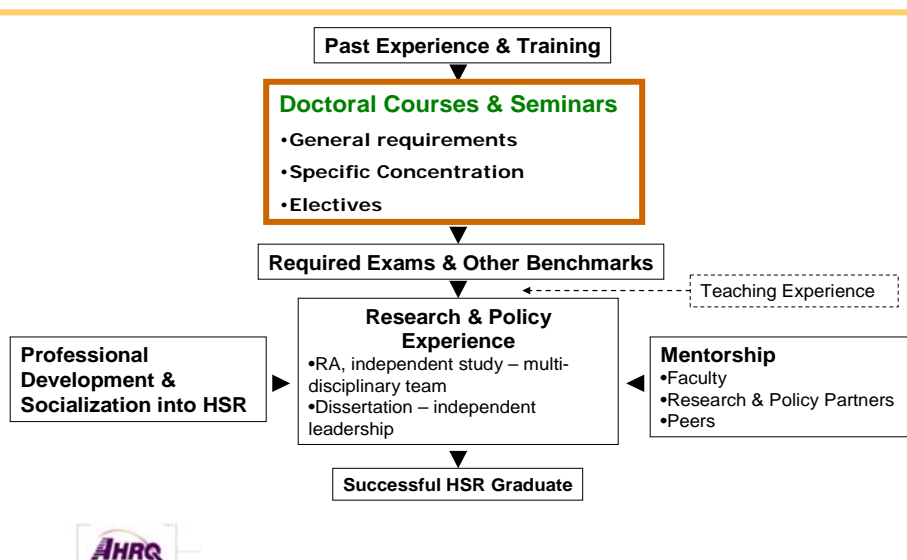
5. PhD curriculum and dissertation research

When the PhD Program was developed in 2000, most program faculty believed that health services research had matured sufficiently so that a doctoral degree in the field could be given. There was a lively discussion about the merits of providing three to four discipline-focused concentrations versus a more general health services research-based education encompassing a number of disciplines. The faculty agreed to teach the latter, presenting theories, conceptual models, and methods from several fields, i.e., social and behavioral sciences and health sciences in formal courses, and allowing students independently to learn in-depth theory and methods in an Area of Emphasis related to dissertation research. The faculty continue to debate this issue as well as the breadth and depth of material covered, as they monitor the skills of students and alumni.

The PhD Program is based on the philosophy that health services researchers, teachers, and policy analysts must have strong analytical and research methods skills and must bring a multidisciplinary

perspective to their research. The faculty agreed upon the competencies and learning objectives for the program and then placed them into courses, seminars, and experiential learning activities. As seen in Appendix 20, each learning objective for the program is followed by an evaluation measure. The following figure shows the structure of the program.

HSR Doctoral Education



9

The faculty differentiated the University of Washington program from other doctoral programs in health services in the United States. First, the curriculum balances knowledge of population health and social determinants of health with health care systems and policy. It grounds students in health services and also includes theory and conceptual models from the health sciences and the social and behavioral sciences. Second, students take rigorous methods courses in a variety of disciplines, i.e., biostatistics, epidemiology, health economics, and program evaluation. Many students who arrive with master's degrees from other universities repeat these courses and report they are more rigorous than those at their former institutions. Students also take three advanced health services methods courses that focus on solving problems commonly encountered in health services research, such as case mix adjustment, selection bias, longitudinal data analysis, data clustered by clinic and physician, testing a causal model with observational data, etc. The PhD curriculum is based on a core of diverse research methods surrounded by a triangle of population health, health care, and policy.

Most trainees (40 out of 41) admitted to the PhD Program in Health Services hold a master's degree. They are required to complete a minimum of 100 credits toward the PhD. This includes required Core Competencies, doctoral courses in Advanced Theory and Methods in Health Services Research, and a minimum of five courses in an Area of Emphasis. Other requirements for the PhD Program include a written preliminary examination, written and oral general examinations, a dissertation, and a dissertation defense. (Sample curriculums and course descriptions may be found in Appendices 21 and 22.)

In the first year of the program, all students are required to complete the three-quarter U.S. Health and Health Care series. The seminar series prepares students for their end-of-year preliminary examination covering population health, U.S. health care, and policy. More importantly, the series reflects a key assumption of the PhD Program that medical care is just one of several determinants of health, and therefore, knowledge of the determinants of population health and health policy is fundamental to health services research. Each course pairs content with building research skills. The first course discusses issues in U.S. health care and stresses the critical appraisal of evidence. The second course covers social determinants of population health and emphasizes causal models and their analysis. The third course emphasizes health policy, health policy analysis, and the skills to translate research results into practice and policy. In addition, students take courses in biostatistics, epidemiology, health economics, and program evaluation.

During the second year of the program, students are required to complete a series of three courses on Advanced Health Services Research Methods and Analysis. Most published public health research relies heavily on just two primary methods: linear regression for continuous outcome variables, and logistic regression for binary outcome variables. But available data are often much richer than can satisfactorily be analyzed with these tools, and developing a more sophisticated approach to data analyses enables researchers to answer more questions about the data and to answer them in greater detail than would otherwise be possible. These three courses introduce trainees to a variety of techniques from econometrics, psychometrics, demography, and sociology that are useful for health services research questions. During the series, students pose a research question, obtain a large data set, conduct analyses to answer the question, and write a paper of

publishable quality. Trainees are encouraged to take additional research methods courses that aid their dissertation work.

PhD trainees choose an Area of Emphasis appropriate to their interests and career goals. They take a minimum of five courses or 16 credits that must include content, theory, and methods in the area. The program has defined eight areas of emphasis, but about a third of the students have designed their own areas (Appendix 23). Trainees may fulfill this requirement by taking courses in a given discipline, e.g., economics, or by taking courses across disciplines relevant to a health services issue, e.g., maternal and child health. The trainee, with help from faculty, applies these discipline-specific theories, or topic-specific concepts and methods, to health services problems. Trainees demonstrate their proficiency in an area as part of the written General Exam. It is anticipated that the Area of Emphasis courses and their subsequent application on the dissertation will lead to depth of knowledge in that area. This expertise will aid trainees in their job search as well as making them sought-after members of research project teams.

Students attend the Health Service Research Training seminars that are a combination of student presentations of their work in progress, presentations by UW faculty on the methods they are using and problems they face in conducting health services research, and professional development activities. The seminars help to build communication skills by teaching students to review journal articles, write and submit papers for publication, write and review grant applications, and prepare abstracts and give presentations and posters at national conferences.

The PhD Program was designed with the philosophy that much of the learning in a doctoral program is experiential and supported by strong mentorship. PhD trainees are strongly encouraged to pursue independent studies under faculty supervision or to conduct collaborative research by working as research assistants on faculty projects. These provide a base of experience from which the doctoral student can form a research question and conduct dissertation research. The PhD faculty believe that the most important learning will occur through the conduct and dissemination of health services research and that this can be guided and modeled by the doctoral supervisory committee. The students complete the following steps toward a dissertation: pass the preliminary

exam, discuss possible dissertation topics with faculty; form a dissertation committee; write a short dissertation proposal; pass the written general exam; write a full dissertation proposal; pass the public oral general examination (the official UW candidacy exam); conduct the research and write three papers for publication; prepare a final dissertation; and defend the dissertation (Appendix 24).

6. Curriculum review, student progress, and outcomes

The curriculum for the PhD Program is based on the health services learning objectives. Both the Department of Health Services and the PhD Program regularly monitor the curriculum and student outcomes to ensure that learning objectives have been achieved. Because this is a new program, thorough yearly evaluations were conducted, using student and peer reviews and alumni suggestions to improve the curriculum.

As expected for a new program, student course evaluations for the PhD Program improved over time, with an adjusted median score of 4.2 in 2005 (Appendix 25), which is slightly higher than those for the Department and the School of Public Health. During the early years of the program, students were particularly helpful in evaluating the courses (informally and formally in evaluations and surveys) and their thoughtful suggestions were incorporated into the core health services courses. Based on the overall curriculum evaluation in 2005, students recommended more emphasis on policy and more theories and methods from sociology and social psychology. They particularly appreciated the flexibility of the area of emphasis and the encouragement to take courses outside of the School of Public Health.

Alumni complete exit interviews and program surveys to identify any deficiencies in training. Alumni from the first few years would have preferred more targeted reading in core courses and less specific programming, e.g., programming the MLE, and more interpretation of the results of analysis in advanced methods courses. The faculty changed the courses accordingly. The program has begun to contact employers to obtain their perspective on strengths and weaknesses of graduates and suggestions that could mitigate deficiencies.

Faculty peer reviews were conducted each year for the first three years that the courses were taught. The faculty peer evaluators met with the course instructors to discuss the results. In addition, the peer evaluations were discussed at the Curriculum Subcommittee, the HSRT Committee, and at Department program directors meetings. The learning objectives and course syllabi were also reviewed yearly by the curriculum and HSRT committees.

The PhD Program keeps curriculum timely and relevant to the field through discussions with other program directors and employers. In addition, Program Director Diane Martin is co-chair of a national group developing health services research competencies with representatives from academia, industry, and government. That group compared the learning objectives and curriculums from the major health services research programs in the United States. To gain a more global perspective, the Program Director also discussed objectives and curriculum with the PhD faculty of the University of British Columbia during a two-day workshop. Major insights were gained into the integration of population health and evidenced-based health policy decision-making into the UW curriculum.

Many of the competitor programs do not employ learning objectives or competencies. After examining the curriculums from other programs, the University of Washington program differs by providing more population health, social determinants of health, and health disparities, and a greater range of methods and tools, encompassing biostatistics, epidemiology, econometrics, and other social sciences. The UW program provides less on global health, but its students can take courses in the International Health Program, or starting next year, in the new Global Health Department. One goal for the future is to incorporate more global health issues into the core courses.

Student progress is evaluated in a number of ways: by course grades; passing the preliminary, general written and oral exams; and from assessments by mentors, program faculty, and dissertation committees. Out of 35 students who have taken the preliminary exam, one failed, probably because he was an international student interested in global health instead of U.S. health care. Eleven others failed one or more parts of the preliminary exam and then passed the retake.

About a third of students have had to rewrite one or more questions on the written general exam. All students have passed the oral general exam and their final defense.

Students are moving through their dissertation in a timely way, perhaps because both students and mentors are becoming more diligent about creating and discussing plans and progress reports. The average time to graduation has been 3.6 years, which is under the goal of four years, and this will no doubt lengthen as the program matures (Appendix E). Of the 2000 cohort, one student of six has not graduated, and of the 2001 cohort, two students have not yet graduated. One of the latter students is participating in an RCT in Mozambique, which required a longer time frame for data collection, and is scheduled to graduate in June (Appendix 26).

The most important outcomes are the students' conduct and dissemination of high quality research on important issues and whether they continue to be productive health services researchers over time. While in the program, students typically publish two or three peer reviewed journal articles (range 0-9). During their doctoral education, nearly all of the students have submitted abstracts and have given posters or presentations at national meetings (Appendix 27). The faculty has discussed using a standardized form for formal assessment of each student's process and outcomes during their doctoral studies, but up to now, the assessment has been done informally by the supervisory committee after the dissertation defense.

Program graduates have obtained the jobs they want: five are working in academia, three are post-doctoral fellows, and one is conducting health services research in a health care organization. All but one published during their training (mode=3 publications) and six of nine have published post-graduation; four obtained grants prior to and three since graduation (Appendix E).

7. Program diversity

The PhD Program must sustain a diverse academic community if its graduates are to take their places as future leaders in the field of public health research and policy and if they are to undergo a full academic and research experience while pursuing their doctorates. The leadership and faculty of the PhD Program are dedicated to providing a welcoming, supportive environment for

multiculturalism, to attracting more faculty from diverse backgrounds who will participate in academic research and teaching, to maintaining vigorous outreach efforts to potential students from underrepresented groups, and to helping build a diverse health services research workforce.

The PhD Program crafted an evidence-based strategy to recruit a large number of trainees from among targeted minorities (Appendix 28). This strategy has five points: outreach to local institutions, emphasizing those with high minority representation; pipeline cultivation; targeting; peer group development; and geographical mitigation. Unfortunately, due to lack of resources and staff, these have been implemented only sporadically. Three other strategies—instant admissions contact, faculty contact and mentoring, and curriculum targeting—are in place for all trainees, not just minorities.

Among other activities that the program pursues to meet its diversity goals are:

- Faculty “survival tips” workshops to minority graduate students visiting the UW campus each year who have been accepted but have not been enrolled. These survival tips sessions function as a pre-orientation welcome to prospective students and offer the opportunity to enhance social support, if they accept admission.
- Survival skills workshops for undergraduates, including the Minority Medical Education Program sponsored by the UW Medical School and the School of Public Health’s health services courses for undergraduates
- Continued participation in GO-MAP events
- Faculty participation in the Minority International Research Training (MIRT) program, which is funded by a National Institutes of Health Fogarty Grant. The MIRT program has operated at the UW School of Public Health since 1994, and several PhD faculty act as mentors to promising undergraduate students studying biomedical sciences and living in international locations.

The School of Public Health also aids in recruiting minorities by outreach to community college students and to students at schools such as Heritage College and Central Washington University with growing populations of American Indian and Alaska Native and Hispanic populations. The

School has sponsored a Saturday Academy to introduce disadvantaged 8-12th graders to health careers, and it co-sponsors the Minority Pre-Health Student Organization's annual conference.

Of all applicants to the PhD Program in 2000, 7% were representative of targeted minority groups (African American, American Indians and Alaska Natives, and Hispanics), and this increased to 14% in 2005. The enrolled students from these groups increased from 0% to 19% (Appendix 29). Another 26% of enrolled students are considered to be representative of vulnerable groups due to sexual preference, disability, or socio-economic factors—i.e., they are the first members of their family to attend college.

The Health Services PhD Program faces significant barriers to recruiting the strongest students from racially and ethnically underrepresented groups. One is the lack of significant targeted minorities in the region and state, where 82% of the population is White. Second, due to low numbers of students and faculty from targeted minority groups, it is difficult for these students to see role models or to build appropriate social and cultural support systems. If the Department had the funds to hire a more ethnically and racially diverse faculty, a more supportive departmental atmosphere would be created. As with minority outreach and recruitment for the Department of Health Services as a whole, the PhD Program needs more resources to compete effectively with comparable programs for the strongest students to make up a student complement that is racially and ethnically diverse. To be successful, these doctoral students often require scholarships with no research or teaching responsibilities and stipends to cover living expenses.

8. Research and community partnerships

The PhD Program offers a wide range of research topics and many opportunities for collaborating with researchers at the University of Washington and at the following research partner sites:

- Fred Hutchinson Cancer Research Center
- Group Health Cooperative, Center for Health Studies
- Veterans Affairs Puget Sound Health Care System
- Public Health—Seattle & King County
- Washington State Department of Health
- Washington State Department of Social and Health Services

- Washington State Health Care Authority
- Washington State Department of Labor and Industry
- Bastyr University
- Program for Appropriate Technologies in Health (PATH)
- Qualis Health
- Premera Blue Cross, Regence Blue Shield
- Virginia Mason Medical Center

These relationships form a rich environment that has been used successfully for health services research training over the years. Each research partner has physicians and PhD scientists who can mentor trainees. The trainee, the site mentor(s), and the UW mentor(s) form a team to guide the research process. The relationship between program faculty and these research partners is long-standing—some relationships have existed for more than 25 years. The program depends on each research partner's front-line health care experience to ensure that trainees' choose practical, cutting-edge research projects. In turn, the research partners benefit from the expertise of the trainees and their UW mentors. Students and alumni report that these research partnerships are one of the major strengths of the program by providing RAs and other excellent research opportunities. The program has greatly benefited from faculty at these partner organizations who teach courses, provide student RA positions, and serve on dissertation supervisory committees (N=15). The faculty at research partners have donated their time, and this represents thousands of dollars of unpaid level of effort. If the Department had to pay for these services, the PhD Program could not continue.

F PhD Students

1. Recruitment and retention

Applicants are attracted to the PhD Program because they are interested in population health, social determinants of health, and multidisciplinary research methods. Many apply because of the program's reputation for interdisciplinary research and because they are familiar with faculty research. The PhD Program maintains a website with links from websites of the schools of public health, AHRQ, and AUPHA. The website (<http://depts/washington.edu/hservphd/>) includes all information normally sought by prospective applicants. The program disseminates two brochures

and three bookmarks, all with multicultural emphasis, which faculty and students distribute widely at conferences and meetings across the country (See materials in plastic sleeve at back of binder). The program supports booths at APHA and AcademyHealth, and it advertises in the *American Journal of Public Health* and *The Nation's Health*. It has participated in several on-campus recruiting fairs. Next year, it will advertise on Graduateschool.com.

Prior to the admissions meeting, each applicant is called by the director of the program as well as by at least one other faculty member who shares similar research interests. All program applicants are encouraged to visit, and many do visit the program during the summer and fall. All top candidates are flown to the University of Washington to meet with faculty and craft a mentoring and funding package. The program does not offer visiting days, instead preferring to bring candidates to campus and structuring an individual agenda for them to meet with faculty and students. As a new program, most applicants say that they would not seriously consider accepting offers of admission without a visit, and they appreciate the individual attention they receive and believe that it is indicative of the mentoring they will receive as students. The Graduate School provides crucial funding for these visits (\$3,000 toward airfare). Applicants must pay for their own lodging and meals, costs that are typically covered at competitor schools. The competitors have excellent reputations and can offer a higher level of funding over multiple years at the time of admission, especially for students from targeted minority groups.

The Admissions Subcommittee and the HSRT Committee closely monitor recruitment, acceptances, funding, and retention. The top applicants have a prior master's degree, experience conducting health services research, and one to two publications. The number and quality of applicants has increased over time. In the first year, the PhD Program received only 30 applications, but last year, it received 64. Offers have been made to about 25% of the applicants, with the percent accepting ranging from 38% in 2005 to 62% in 2004. Most (82%) of the applicants and acceptances are females. For 2005 applicants, median GRE scores were 540 verbal, 675 quantitative, and 5.5 writing, while scores were higher for those offered admission (V-640, Q-725, W-5.5). (Appendix 29).

To date, the PhD Program has experienced a 90.5% retention rate. Of 42 students, 4 dropped out: one married and left the state; one failed the program's preliminary exam; one did not enjoy research; and one did not complete the first year coursework. The program has minimized attrition by accepting highly qualified applicants who are a good "fit" with the program and faculty interests, have strong academic and work records, and have excellent potential as health services researchers. Once enrolled, the program provides strong mentorship.

Every year, some of the program's best applicants are those interested in global health. In the past, it has been a challenge to provide appropriate mentorship for these students and to fund their coursework and international dissertation research. The University is starting a new Global Health Department this summer that will be shared by the School of Medicine and the School of Public Health. It is expected that the new department will generate more resources for students and faculty interested in this area.

2. Advising, mentoring, and professional development

The PhD Program communicates expectations to faculty and students through its website, the student handbook, the first-year orientation consisting of four monthly sessions, and special sessions on dissertation steps in later years. The program places great importance on ensuring that each student knows and follows the requirements of the program and the Graduate School.

The PhD Program maintains an intranet site that is password-protected with UW NetID. The site includes the student handbook, forms for student progress, travel, etc., and resources for services on and off campus, as well as restaurants and recreational activities. The Student Handbook lists the program learning objectives and evaluation, required courses, examinations, and procedures for the dissertation process. Students can check their progress through the program using the PhD Program Timeline (Appendix 31).

The program seminars include sessions on work in progress, program expectations and scholarly integrity. In addition, many courses include content on responsible conduct of research and human subjects issues. All students on federally funded training grants also participate in the Biomedical Research Integrity Series offering summer seminars and discussion groups.

Mentorship forms the foundation for each PhD student's individual experience. Strong mentorship has always been the hallmark of the Department of Health Services, and these concerted mentoring efforts facilitate high-quality research products completed in a timely fashion. Mentorship includes faculty mentors, peer mentors, integration with research teams, and program oversight. Both students and faculty are provided with copies of the Graduate School booklets on mentoring, and specific responsibilities of students, faculty, and the Program Director are included on the program intranet site.

Faculty mentors guide students in constructing their individualized health research program, provide role models, and help shape trainees' academic and career development. Trainees are encouraged to put together a mentoring team, with mentors playing different roles. Specific mentor responsibilities include helping to craft the trainee's learning contract, assessing progress, facilitating research collaboration, and providing career counseling. The PhD Program's intranet site lists faculty expertise in specific research methods and large databases. This aids trainees in choosing mentors for course projects and for dissertation topics. The frequency of mentor/trainee meetings depends on the stage of the trainee's research; weekly meetings may be necessary during the planning and analysis phase of a study, whereas monthly meetings may be appropriate during data collection. Mentorship also occurs through trainee integration into multidisciplinary research teams. Whenever possible, students spend time doing research with an already established team on a project that relates to their interests. Lastly, mentors support students in obtaining pedagogical skills through TAs, taking courses on teaching, gaining help from the Center for Instructional Development and Research, or informal teaching of research staff.

The faculty mentor, the doctoral supervisory committee, and the Program Director provide information about careers in health services research. Each week, students receive e-mail messages about fellowships and specific jobs. They also receive career planning information from the UW Career Services Office. The students find this information increasingly helpful as they near graduation. There are many jobs available in health services, so the effort is on matching the student's skills and desires with a job.

The PhD Program provides oversight of student mentorship. Program leaders meet frequently with trainees until they have established relationships with mentors. The Program Director meets with trainees each quarter for the first two years in the program to review the mentor/trainee relationship and progress. Twice a year, in October and April, the student completes a Student Planning Form and Timeline with plans for the next six months and provides a CV and Student Progress Form in June (Appendix 30). In addition, the progress of trainees is discussed each year by the Curriculum and HSRT committees. Results of this evaluation are communicated to the student by the mentor and also occasionally by the chair of the Curriculum Subcommittee or the Program Director. If a student is not making steady progress, his or her mentor, doctoral supervisory committee, and/or program directors meet with him or her to identify barriers to progress and to suggest strategies or resources to overcome these barriers.

Each incoming trainee is also paired with a peer mentor, who is a source of guidance and support. These matches are made by the AcademyHealth student chapter and orientation committee and are based on common backgrounds and research interests. They provide opportunities for informal socialization and the sharing of experiences. Students interact through taking courses together, working on group projects for courses, and studying together in the program study quarters. The students in a cohort usually form a study group to prepare for the preliminary exam. The faculty and peer mentor programs function to build a sense of community and to improve trainees' social and professional interactions with each other and with the UW faculty.

Because the program has had only nine graduates, it is easy to stay in touch and track their success. The program conducts exit interviews about three months after graduation. Each year, the Program Director calls alumni to discuss their career progress and to request CVs. The Program Director has also talked informally to employers about the knowledge and skills of alumni.

Students receive a list of past graduates and their job placements each year, see alumni at the annual graduation celebration, and attend seminars at which alumni are invited speakers.

The program provides **professional development** through its mentoring activities and as part of the HSRT seminar series. Each year, the group makes one or two field trips to visit a research

partner, a UW research center, or another organization conducting health services research.

Seminar topics related to professional development have included:

- Career possibilities in academia, government, and research and policy organizations
- Considerations in job searches and characteristics of a ‘good ‘ job
- Work/life balance
- Curriculum development and pedagogical concerns
- Responsible conduct of research and professional integrity
- Journal article preparation and publication strategy
- Journal article review
- Funding opportunities, grant writing, and grant review
- Abstract preparation and review
- Conference attendance tips and poster/presentation practice and review
- Leadership skills and networking
- Project management skills
- Writing and presentation skills for different audiences
- Information management skills
- Efficient search methods for information
- Use of software tools
- Translating research into policy and practice
- Effective use of research by policy makers
- Major issues and changes in the field of health services research

Students are pleased with the professional development aspects of the program. Most attend one national conference a year, e.g., the annual meeting of AcademyHealth, American Public Health Association, Association of University Programs in Health Administration, American Medical Informatics Association, Medical Decision Making, or Society of General Internal Medicine. During the HSRT seminar, students critique abstracts, posters, presentations, and identify strategies for the conference sessions, poster session discussions and the meeting of national experts and peers working in their field of interest.

3. Program and student resources

The UW Graduate School supports the PhD Program by providing admissions and database services, training for staff, financial support for student recruitment, and recruitment and retention of minorities via GO-MAP. The program receives crucial resources for recruitment of applicants from the University: one 9-month GSFEI RA position and \$3,000 for airfare costs per year. The University also provides teaching assistant training and career development information. The School of Public Health and Community Medicine provides free space for the trainees, and the Department of Health Services provides financial support for faculty/staff and computer equipment.

The PhD Program is harmed by insufficient state dollars to cover faculty effort for teaching, advising, and scholarly activities. First, both faculty and students advocate hiring additional faculty in the areas of organizational studies, population health, health disparities, minority health issues, and global health. Second, the current PhD Program faculty requires a higher level of state support. Faculty report that the “points” they receive from the Department are not sufficient for mentoring students or participating on a doctoral supervisory committee. Faculty believe that they can no longer continue donating time to teaching and scholarly activities at the expense of their research projects. Student evaluations of the PhD Program clearly reveal the need for more interaction with faculty for mentoring and professional development. To continue the PhD Program’s scholarly work and increase its national reputation, state funding must increase to cover professional work, such as serving on study sections or national committees, contributing as editors or reviewers for journals, and working with organizations to translate health services research into practice and policy.

Department faculty has been successful in obtaining federally funded training grants to support students. Three training grants have principal investigators in the Department and each received the highest percentile or score from peer review: NRSA AHRQ Training Grant (Martin PI); Biobehavioral Cancer Training Grant (Patrick PI); and ERC Occupational Health Training Grant (Wickizer PI). Doctoral students have also been supported by training grants in other departments: Quentin Burdick Rural Health Training Grant (Eleanor Bond PI, Nursing) and NLM and Biomedical Informatics Training Grant (Peter Tarczy-Hornoch PI, Bioinformatics).

But these training grants support only a few of the students, and the PhD students' major request is for more UW RA- and TA-funded positions. The program is working with Department faculty and fiscal staff to include more RA positions on grant applications. The need for teaching assistantships is particularly acute as the students desire more teaching experience.

The state funding shortfall for the PhD Program is also observed in inadequate space for both faculty and students. Project offices and faculty are housed in many off-campus locations, with limited opportunities for interactions with colleagues and students. This problem makes it difficult for some faculty to have a regular presence on campus, and it makes recruiting of faculty more difficult. The lack of a regular presence is especially a concern regarding a substantial number of faculty who are based with research partners. In addition, many of the program faculty whose main office is at the University of Washington must conduct their research off-site due to lack of research space. This creates a barrier between teaching and research and does not allow students to participate easily in faculty research.

The PhD Program coordinator/student counselor currently sits in a central cubicle and thus cannot carry on private conversations with students. Therefore, an office with a door is necessary. Students also identified the need for more office space and computers, especially while conducting their dissertation work. The students occupy two small rooms in the T-Wing of the Health Services Building and share five computers. This is conducive to a quick check of e-mail and homework, but it is not adequate for someone working on a research project or a publication. Having students together in the same work space contributes to collegiality and more in-depth scholarly discussions. Students who currently work at home on their dissertations report a feeling of isolation. Students have also requested more high-quality computers and software to conduct their dissertation work and more classrooms with up-to-date computer technology.

Although the PhD Program has a discretionary fund to which four faculty members contributed \$850 in 2005, the program needs to increase fundraising. The Program Director attempted to start a formal fundraising program three years ago but it was abandoned after the Development Director for the School of Public Health advised that the effort must be part of a formal School or

Department fundraising plan—but as yet, no such plan exists. Such a discretionary fund could provide students with scholarships and seed money for pilot studies prior to their dissertation, subsidize travel to conferences and workshops, and fund student orientation and social events.

The issue of resources elicited considerable comment in the student evaluations of the PhD Program. As mentioned above, their primary request was for more financial support for students and faculty. The students would primarily appreciate UW RA and TA support, but they also suggested working with local employers to establish research assistantships. They noted that the presence of a full-time program coordinator is crucial. (The program was without a program coordinator for two years due to a Department budget shortfall.) Although they praised the availability of such academic supports as preliminary exam preparation, special tutoring for minority students, and small classes, they expressed a need for more tutoring or TA assistance in STATA and advanced health services methods. The students believe that increased faculty funding for advising and mentoring would allow faculty more time for guiding students toward a dissertation project and to plan for funding early in the program.

4. Student inclusion in governance

Students are included as voting members of all PhD Program committees, and some are elected to School or University committees. The student chapter of AcademyHealth, the major health services research organization, elects the representatives each year to the committees and the co-chairs for the new student orientation. In addition, students are actively involved in recruitment and outreach locally and nationally. The atmosphere between students and faculty has supported informal discussion of program issues that are then brought to the appropriate committee for discussion.

No student has lodged a formal grievance since the inception of the program. An academic grievance process is outlined in the student handbook on the intranet website. The student is asked first to discuss the situation with his or her mentor, then the Program Director, the Department Chair, and then with the Associate Dean for Academic Affairs of the School of Public Health. At any point, the student may bring the issue directly to the Graduate School, following the grievance procedures outlined on their website

(<http://www.grad.washington.edu/Acad/gsmemos/gsmemo33.htm>). There are also formal grievance procedures governed by the collective bargaining agreement for RAs and TAs (<http://www.washington.edu/admin/hr/laborrel/contracts/uaw/contract/a08.html>).

5. Funding and graduate student service appointees

Decisions awarding students merit funding are made by the Admissions and HSRT committees. Students receive funding from many sources, including traineeships, RA and TA positions, and as employees of the UW or state. Traineeships typically support students for two to three years and provide some travel funds. Trainees are paid at a level specified by the funding source and receive pay raises accorded by the source. RA positions (now covered by collective bargaining) must be contracted on a quarterly basis, but in reality, commitments are made for 9-12 months. The program does not recommend that students teach until they complete all coursework toward the PhD. The Department characteristically has fewer than a half-dozen TA positions and most are at 25% FTE or less. All RAs and TAs are paid on the standard UW scale and promoted according to degree level and passing the general examination. If an RA has a 20-hour per week appointment, he or she receives a waiver of tuition. The UW waives the non-resident differential tuition for most pre-doctoral trainees. Students who are employees of the State of Washington receive tuition credits (6) each quarter. (The program aids students in accessing the UW for need-based financial aid.)

Trainees receive formal letters outlining their traineeships and receive instructions from the principal investigator of their training grant. RAs and TAs are referred to the general UW website outlining the general rules and requirements of these positions

(http://www.washington.edu/admin/hr/laborrel/contracts/uaw/addons/contract_sum.html).

An RA or TA receives his or her primary training and supervision from the faculty member with whom he or she works. Generally, the student's mentor is also his or her RA supervisor. Students may also work with other faculty or staff on a teaching or research project, and the program encourages participation as a member of a team. TAs are required to attend the UW teaching workshops and work with the Center on Instructional Development and Research, and the program recommends that they take a course in teaching methods.

PhD Program Summary

The PhD Program has made enormous progress during its first five years and is highly successful. The applicant pool has increased in numbers and in quality over time, and the students have made good progress in the program, with an average time to graduation of 3.6 years. In general, the students have had funding throughout their doctoral studies, partly because faculty have been successful in securing a number of training grant positions. The excellent scores received on these training grants from scientific peers are an indication of the regard for the PhD Program. Most importantly, the program graduates have secured the jobs they have wanted, with half in academic positions.

The major challenge for the program in the future is to garner more state funds for teaching, advising, and scholarly activities. Money is also needed to recruit junior faculty and those from targeted minority groups. The program will continue to apply for training grants and begin a fundraising campaign. It will work with School of Public Health and University resources to improve outreach and recruitment of students from minority groups.