

## **Review of the University of Washington Institute for Public Health Genetics Graduate Programs**

### Charge and Timing of Review

This review was initiated as the 10-year evaluation expected of all UW graduate programs. It was originally scheduled for 2019-2020 (previous review was in 2008-2009) however it was delayed for two years by the Covid pandemic. And because of ongoing Covid infection risk in the community this review was conducted on May 16-17, 2022 through internet audio/visual connections which worked well.

### Review Committee:

**William Bremner**, Emeritus Professor and former Chair, UW Department of Medicine (Committee Chair)

**Stephen Hawes**, Chair and Professor, UW Department of Epidemiology; Adjunct Professor, Departments of Global Health and Health Services

**Colleen McBride**, Professor, Department of Behavioral Sciences and Health Education, Rollins School of Public Health, Emory University

**Jennifer Smith**, Director, Certificate in Public Health Genetics; Associate Professor, Department of Epidemiology, School of Public Health; Research Associate Professor, Survey Research Center, Institute for Social Research, University of Michigan

### Current Need for PHG Training

In recent decades there has been a huge increase in new technology and scientific advances related to human genetics, in large part driven by the elucidation of the human genome and dramatic advances in genetic sequencing and improved understanding and, in some cases, treatment of genetic diseases. While there are thousands of talented basic and clinical scientists/physicians developing new knowledge in human genetics there are relatively few individuals trained to address public health and population level implications of the new science, including the policy, ethical, legal and social aspects of the scientific advances.

### Unique Status of UW IPHG; Strengths and Challenges

From its inception through the present time the UW program has been imaginative, original and a leader nationally and internationally in merging laboratory-based genetics and genomics with strong epidemiology and biostatistics, with careful ethics, legal and social discipline to produce a unique training environment.

The faculty, drawn from many departments and various schools in the University is very strong and highly respected locally and nationally. The courses offered and many mentors are excellent and varied. The quality of the students attracted to the program is very high and the enthusiasm, commitment and productivity of the students is palpable and inspirational. The many varied and important roles filled by graduates of the program is clear evidence of the ultimate value of these training programs to society and to the status of the UW, particularly, the School of Public Health, where the program is based.

While the program has these many strengths, it also has vulnerabilities and challenges. Some of both the strengths and the vulnerabilities relate to the many disciplines involved. There are many needs for ongoing commitments, particularly of faculty time from various departments and schools and only a very modest budget to help facilitate this. The Dean of the School of Public Health has initiated a strategic

planning effort, led by Dr. Fohner who is very committed to the IPHG; the Review Group sees that as a very positive step and wishes them well as the planning proceeds.

The IPHG has been and remains a training program unlike any other in the U.S. and internationally with an excellent slate of interdisciplinary faculty and strong curriculum. Indeed, such a training program is probably the only available MPH- and Ph.D.-level training in the social and behavioral science implications of genomic discovery translation. The accomplishments to date are especially impressive given the leadership transitions and the limited funding. The program has a relatively large number of applicants and attracts talented students but available resources limit the acceptance rate. Given the lowering costs of genomic technology and ongoing NIH priorities related to genomics (e.g. Cancer Moonshot Initiative), this program is poised to be the best training program of its kind in the world.

The program is known nationally and internationally for building interdisciplinary competencies in ELSI-related issues. The current curriculum is impressive on this front. Given the broadening scope of genomic discovery particularly in the realm of chronic disease and epigenetics, the program could consider evolving as well. The program might do well to consider expanding curricula to include implementation science, multi-level behavior change interventions, quasi-experimental study design, and the interplay of genomics with the social determinants of health. Accordingly, the program might also consider a name change that reflects this broadened area of emphasis (e.g. including the word Genomics). It appears that the program has strong relationships with Epidemiology, Biostatistics, and Law, but less clear is the ties to Health Services. The latter would be a key partner in the advised expansion of the curriculum.

**Recommendation:** Pursue a strategic planning process to plan a staged expansion of the program, hiring faculty (ideally those trained elsewhere) and include UW leadership in the process to inform future direction.

### **Program Leadership**

Following a period of leadership turnover and programmatic challenges, Professor Bruce Weir was appointed IPHG Director in 2015. Despite budgetary and other challenges, Dr. Weir has provided strong and effective leadership, very ably assisted by Associate Directors Anna Mastroianni (Law), Deborah Bowen (Bioethics and Humanities) and Alison Fohner (Epidemiology). These individuals are to be warmly commended for their dedication to the ideals of these graduate programs and their support for strong multidisciplinary, cooperative scholarship that is fundamental and required for the IPHG programs. The present strength of the trainees and successes of trainees following graduation form a convincing testament to the hard work and dedication of the faculty leadership.

The IPHG programs are approaching some very important leadership changes, Dr. Weir has stated his plan to retire in June 2023. Dr. Mastroianni has accepted a new faculty position at Johns Hopkins, Dr. Fohner is an Assistant Professor who has demonstrated very strong leadership capabilities and following her anticipated promotion to Associate Professor would be in a position to be a strong candidate for additional responsibility in the IPHG.

These transitions will necessitate careful attention and support from the SPH Dean's office. Choices such as national vs internal searches, potential restructuring of Assistant Director positions and roles while maintaining the broad interdisciplinary strengths, providing adequate financial support, space and administrative infrastructure, etc will be key to continued and future successes. The history of the IPHG in the few years prior to 2015 demonstrates the chaos and near-termination of the program in the absence of support from the SPH Dean's office. The departmental basis of the IPHG has been determined by the

location of the faculty appointment of the Director. This is presently in Biostatistics because of Dr. Weir's appointment there, but could switch to Epidemiology or perhaps elsewhere, depending on the next Director. This will require careful planning and hopefully enthusiastic endorsement by the Dean's office and relevant Department Chairs.

**Recommendation:** The magnitude of these upcoming changes and need for active management by the Dean's office, relevant Department Chairs and others are some of the reasons that we are asking for an Interim Report in Four Years.

## **Funding and financial situation**

### *Need for sustained institutional support*

The Institute for Public Health Guidance was established 25 years ago and funded through a University of Washington Initiatives Fund and in the early years had state funding to cover operating costs. However, UW funding is no longer provided and IPHG is not self-sustaining. Funding currently is at the discretion of the Dean's office in the School of Public Health, and during the last decade, support from SPH has varied considerably, putting the program at risk. Currently, the IPHG Director has input into the construction of the budget and funds are allocated on a yearly basis to the IPHG from the office of the Dean as supplemental funds (\$444,297 in 2021-22) through the Department of Biostatistics. Current budget items include salary support for the IPHG Program Manager (1 FTE), partial support for a number of Program Directors (0.4 FTE total), instructional support (faculty and TA's) for IPHG courses, and some additional administrative support and funds for supplies. Under the current SPH faculty compensation model, instructional support for SPH faculty who teach in the IPHG is covered by the SPH funds which are provided to the home department of the instructor, provided that faculty member is not teaching other courses. A few exceptions (some undergraduate courses, for example) necessitate allocation of funds to IPHG for instructional costs. Coordination between the IPHG leadership and instructor home departments is necessary in order to ensure sufficient coverage for IPHG courses. The four directors provide academic advising for the nearly 50 students in the various programs and are the face of the Institute. Additional funds would be necessary to increase enrollment, meet some current instructional needs, or provide additional course offerings.

The sole dependence on yearly SPH support without a long term commitment is problematic and we encourage IPHG leadership to establish a longer term commitment of support from SPH. In addition, additional support should be explored. A number of possibilities could be explored to diversify and increase funding for IPHG, including partnerships with industry, training grants to support students, and center grants which might support infrastructure and faculty.

**Recommendation:** IPHG should work with the SPH Dean's office to establish an MOU for long term financial commitment to support core operations.

**Recommendation:** In addition to the above commitment from SPH, we recommend that IPHG leadership meet regularly with leaders at other key schools (Law, Medicine) and private entities to evaluate potential financial support.

**Recommendation:** IPHG leadership should explore training grants, interdisciplinary research and center grants, and other opportunities to provide support for faculty, staff, and students.

### *Instructional faculty support and staffing needs*

IPHG meets most of its instructional needs through faculty with appointments across a variety of departments, both in and out of the SPH, but does not hire faculty or assign faculty duties. The program is dependent on departments offering core courses consistently, and is vulnerable to faculty retirement and/or departments choosing not to offer the required and elective offerings of the PHG programs due to low enrollment and lack of clear transitions in teaching assignments. As such, it is critical that IPHG works closely with its home department (Biostatistics) and others to ensure coverage of PHG undergraduate and graduate courses.

The diversity of the faculty affiliated with the program is a strength, however, most are uncompensated outside of teaching responsibilities and there are few faculty devoted to the success of the program. Expectations of faculty affiliated with the program are not well established. However, because of the lack of funding, it is challenging to elevate expectations for student advising and building program community amongst faculty affiliated with the program and some faculty described the affiliation as a volunteer effort. As student research assistantship opportunities and dissertation funding within the SPH is typically tied to faculty research funding, IPHG students may have fewer opportunities for funding through these faculty, due to lack of incentives, community, and unclear expectations.

In terms of staffing, the IPHG program has one full-time staff member to support program leadership, curriculum coordination, and tracking progress of nearly 50 graduate students. Aspects of program improvement (updating the website, doing more course marketing, building community events, engaging more with alumni, being represented in more SPH academic leadership activities) exist but will require additional staff time. If the program plans to expand the number of students in the various programs as part of a strategic plan for growth, additional staffing resources will be needed.

**Recommendation:** IPHG leadership should work more closely with SPH departments to identify existing instructors, value support for service within the program, and evaluate the need for new hires.

**Recommendation:** Staffing needs should be assessed to meet program goals and will need to increase with any future growth of students enrolled in the degree programs.

### **Visibility and Outreach of the Program**

As one of 37 degree programs within the School of Public Health, with dispersed faculty across multiple schools, the IPHG does not have high visibility within Seattle, the UW, or even within the School of Public Health. Many of the affiliate faculty and leaders were trained within the program. Given the small FTE devoted to the directors, and the single full time staff person, the program has limited capacity for increasing connections within the UW, marketing, fundraising, and networking with alumni and external stakeholders. The review committee has identified a number of opportunities to elevate the profile of the program which may ultimately enhance student experiences.

**Recommendation:** IPHG Leadership should consider the following opportunities:

- Increase interactions through periodic check-ins with UW chairs/deans and consider more deep connections with the Departments of Global Health and Health Systems and Population Health
- Leverage IPHG synergies with SPH strategic plan around equity and anti-racism and consider opportunities within the UW Population Health Initiative
- Improve relationships across disciplines (schools within UW), leverage alumni, and increase industry connections through networking, seminars, summer institute, and other activities
- Re-implement the external review board

### **Curriculum and teaching**

### *Strong core curriculum in both statistical genetics and ELSI*

Students and faculty agree that the core IPHG courses and curriculum provide a strong foundation in statistical genetics, genetic epidemiology, public health, and the ethical, legal, and social issues (ELSI) in genetics. Across the board, students expressed a high level of satisfaction with course content and offerings, and greatly value the flexibility in choosing their electives to forge a unique path. The current curriculum promotes critical thinking and the ability to approach problems from different angles. In addition to the required classes, which provide a well-rounded foundation, students have nearly complete autonomy in their choice of electives, which is critical for fostering diverse student interests.

The core courses for all IPHG students include Genetic Epidemiology, ELSI in Public Health Genetics, and the PHG Seminar. Other core courses required by at least one of the IPHG degree programs span a broad range of topics that provide in-depth coverage of human genetics, biostatistics, computation and analysis, epidemiologic and social science methods, bioinformatics, and law. Faculty and students alike praise the program for its superb training in biostatistics, statistical genetics, and data analysis, including hands-on experience. Overall, the Committee felt that the core curriculum was cutting-edge, comprehensive, and appropriate. Our only recommendation with respect to core content is that it could be strengthened by adding core coursework that focuses more specifically on health services implementation and translation. Another option would be to leverage existing courses in the school that are new in this area, encouraging students to take them as electives. The Committee notes that incoming faculty, such as Kate West, could help strengthen ties to the Department of Health Systems and Population Health. A further recommendation from PhD students is to include disability studies in the core curriculum, since a large proportion of IPHG students will work with people who have disabilities or will research disabilities. Additional courses on race in genetics and LGBTQ+ issues were suggested by students as well.

**Recommendation:** Include a stronger presence of health services implementation and translation in the core curriculum or suggested electives.

**Recommendation:** Periodic review of curriculum content and the process for changing content (i.e., adding new courses, broadening or narrowing the scope of courses, etc.).

### *Elective courses*

Overwhelmingly, students expressed that one of the most valued aspects of the IPHG graduate programs is the ability to take courses across the UW campus, both inside and outside the School of Public Health. A flexible curriculum opens up opportunities for students to gain expertise in diverse fields, essentially forging their own path. PhD and MS students typically find it possible to fit their desired electives into their schedule. They expressed the core curriculum plus ample room for electives offers a good balance of independence vs. structure. However, it was noted that with the revised MPH curriculum, the MPH students have too few electives and find it difficult to fit their desired electives into their course schedule. Despite this challenge, MPH students expressed that the program was the “best of both worlds”, offering the public health training of a typical MPH program along with the background in statistics needed for biomedical research.

**Recommendation:** Work with faculty leading the MPH core to evaluate options that may allow for more MPH electives. If this is not possible, evaluate whether the MPH degree is still highly compatible with the IPHG vision given the new MPH core requirements.

### *Limited availability of required and elective courses*

Many of the required and elective courses are offered by departments outside the IPHG. Therefore, the PHG students are not in the home department of many courses that they need, and thus often do not have priority for enrollment. Since the IPHG does not “own” many of the courses that the students take, it can

be hard for the IPHG administration to ensure access to these courses. This is especially problematic in courses that are outside of the School of Public Health. For core courses in particular, one option that emerged through the course of the program review is the potential for cost-sharing with home departments in order to open up more slots for IPHG students. The IPHG administration is already working through this model with PHG 536, a requirement for MS students. Recently, this course was reduced to being offered only every 2 years, leaving only 4 slots available for IPHG students. Discussions for cost-sharing are now underway. Students have also noted that although they are theoretically able to take a wide variety of electives, they sometimes experience similar difficulties enrolling in courses due to enrollment caps. Examples include most of the courses in Genome Sciences and courses in Disability Studies.

**Recommendation:** Work closely with departments and instructors both inside and outside SPH to help ensure access to elective courses.

### Teaching

The IPHG offers several undergraduate courses, which are highly successful and have been increasing in enrollment in recent years. Undergraduate offerings include genetic epidemiology, public health genomics, and a direct-to-consumer genetic testing course which are taught by a lecturer hired by the IPHG with 50% effort. Other undergraduate and graduate courses are taught by faculty or clinical instructors from various departments. Expanding the number of students enrolled in the IPHG undergraduate courses or expanding the IPHG courses offered to undergraduates could represent a significant source of revenue for the IPHG. Student interest in the current IPHG courses suggest that this may be possible, and the Committee feels that this prospect has enormous potential for continued fiscal support of the IPHG (indirectly, through funds coming to SPH). Expanding undergrad enrollment is likely to be a necessary first step toward other types of possible program expansions (such as creating a public health genetics minor or formalizing the PHG undergraduate program).

One of the major hurdles for expanding the undergraduate offerings is that it is difficult to find people to teach the courses. Additional effort from lecturers is a possibility, and is generally supported by the Dean's Office. However, there is some reservation about relying on lecturers to teach nearly all of the IPHG undergraduate/core curriculum, since it may be important to have faculty presence in at least some of these courses. While faculty have expressed interest in teaching these courses, it has been functionally problematic because the faculty are typically needed or required to teach courses within their home departments. Since IPHG does not have the funds to directly hire faculty, and there are no other incentives for faculty to teach IPHG courses, they are limited in their ability to attract faculty instructors. Another hurdle to expanding the undergraduate program is that there is no funding at this time for teaching assistants. If additional funding were to be available, it is possible that the current instructors could increase enrollment of their courses. Finally, the difficulty in attracting faculty to teach courses is not limited to IPHG undergraduate studies. Some of the higher-level courses in Biostatistics, for example, have low enrollment numbers and it can be difficult to find faculty to teach these courses as well.

If the IPHG desires to expand undergraduate teaching, strategic advertisement about course offerings may be necessary. At this time, although the courses are quite popular, they are not particularly well advertised and thus additional students could potentially be attracted. Some possibilities include working with the central undergraduate resource center to better advertise the course and working with other departments to make students aware of course offerings (such as Public Health, Global Health, Food and Nutrition) to help create synergism across programs in order to better support one another.

**Recommendation:** Consider expanding PHG course offerings in the undergraduate space to help financially support the IPHG graduate programs (through more SCH funds coming to SPH).

**Recommendation:** Create a more robust model for hiring instructors or a better mechanism for incentivising PHG teaching to ensure needed student courses are taught.

## **Student experience**

### *Interdisciplinary program with solid training in statistical genomics and bioethics*

IPHG students come from a broad range of academic backgrounds including life sciences (molecular/cellular biology, microbiology, chemistry, genetics), mathematics and statistics, public health, environmental sciences, and medical technology to name just a few. It was noted that having students from diverse backgrounds is challenging in some regards, but the IPHG has successfully created an integrative environment in which this diversity creates a unique learning experience. Across the board, students are drawn to the IPHG graduate programs due to their truly unique interdisciplinary nature, stating that they appreciate the exposure to a broad range of topics that include both genomics and ELSI issues. Combined with the flexibility that the programs offer, particularly the MS and PhD, students can explore their intellectual curiosities and forge their own individually-tailored programs. Further, the program offers unique opportunities for students to explore ELSI issues important for both research and public health, including topics like genetics and race. Students stress that there is ample opportunity to work with faculty who support research in bioethics and its implications, as well as those in statistical and applied genomics. Students also have a sense that they are getting the “big picture” of the centering of genomics in population health, precision medicine, and health policy. There is a strong sense that the work students do during the course of their graduate program has the potential to make a big impact in the world. Overall, students appreciate the truly unique skill set that IPHG offers, as this mix is not present elsewhere across the nation.

### *Meaningful interactions with faculty, students, and alumni*

Students in IPHG are greatly appreciative of the faculty, including both core faculty and affiliates. They find the faculty to be qualified and competent in their respective fields, and highly dedicated to providing resources and opportunities to IPHG students. Most students found the faculty to be approachable and responsive to inquiries in a timely manner. They find advisors to be generous with their time and advice, and there is an expectation for students to reach out when they have specific needs and concerns. Students also note that faculty are supportive of student ideas for improving the program. For example, students have formed a journal club, PHG student blog, and a progress in research group, all with the support of the PHG faculty that have been instrumental in bringing students together outside the classroom. Students were also supported in starting a Race and Genetics summer seminar series that became a course currently taught by graduate students in the program. Students appreciate the PHG seminar, which allows them to make connections with a handful of alumni.

Currently, when new students are accepted to the program, they are assigned to one of the four IPHG leaders as their academic advisors. Although students agree that their faculty advisors are highly competent, there is a concern that the program may be growing too large for the four PHG leaders to effectively advise all incoming students for the duration of their first year. Some students expressed a desire for additional faculty advising for coursework and assistance finding research placements. Further, some PhD students felt that advisors could be matched more closely to student research interests in their first year. That is, there would be a more diverse range of advisors available initially. In addition, although students greatly value the role of the IPHG seminar in introducing them to alumni and potential faculty mentors, they would also value additional opportunities to interact with alumni and faculty to help secure faculty research placements.

Students saw the value in interactions with their peers and IPHG students across graduate programs (PhD, MS, MPH). The IPHG seminar is an extremely valuable tool in bringing students together and fostering a

sense of community; however, it is noted that PhD students only need to attend this seminar for the first two years. It is clear that students in all programs would appreciate more opportunities for fellowship. For example, students have suggested additional program events that facilitate sharing research, training opportunities, and guest speakers, such as a retreat or program symposium for all IPHG students. Students would also like to see more purely social events, especially in the fall for first-year students so that they can build relationships with people in their cohort. Without program-wide events, it can be difficult to build a sense of institutional community.

**Recommendation:** Consider expanding the number and diversity of faculty advisors for incoming students, ensuring a faculty-to-student ratio that enables faculty to assist students in coursework and research placements.

**Recommendation:** Consider ways to remove/streamline administrative procedures for getting faculty recognized as PhD/Graduate faculty so that mentorship relationships can be established more quickly.

**Recommendation:** Additional research, networking, and social events that promote community building and bring students and faculty across degree programs together. Consider a yearly retreat to promote fellowship.

#### Funding and placements

Approximately half of the IPHG masters students and nearly all of the IPHG doctoral students have funding. Students are supported primarily through research assistantships (via research grants held by faculty mentors), and a small number of them are supported through training grants or through the Dean's Office. A limited number of teaching assistantships are also available. While the program has been successful in helping many of their students to attain research funding, there is no internal mechanism for supporting students who are having difficulties finding a research placement. Limited student funding, as well as the need for students to locate their own funding opportunities, can be a source of stress for IPHG students, especially those at the doctoral level. The leadership acknowledges that finding funding for students, particularly masters students and first-year doctoral students, can be challenging.

With respect to research assistantships, hiring an IPHG student can be beneficial for faculty in programs that don't have their own graduate students (e.g., medical school), who need specific skills (e.g., a student with lab experience), or for junior faculty that need student connections. However, some students have expressed that they feel embarrassed approaching faculty because they cannot bring their own funding to the table. When they are unable to find support, the IPHG isn't always able to help them locate the funding that they need. Students have also noted that teaching assistantships are difficult to come by because IPHG students are considered a lower priority for hire compared to within-department applicants.

#### Professional development

Students generally remarked that the program prepared them extremely well for academic careers, in particular. They were appreciative of the access that they had to faculty advisors, who played varying roles in helping to prepare them for careers. However, they expressed an interest in additional opportunities for professional development, perhaps as an addition to the current curriculum (e.g., a professional development series). Other suggestions included career counseling that focuses on both academic and non-academic career paths, more assistance in accessing alumni in diverse careers, and/or counseling or resources for locating career opportunities. Students also were interested in additional information pertaining to relevant conferences and funding opportunities for attending these conferences.

**Recommendation:** Increase access to career development resources, especially outside of academia.

#### Program administration and documentation



The IPHG administrative activities are carried out by a single staff member. At this time, her responsibilities include graduate student advising (e.g., meeting with each student every quarter in tandem with academic or thesis/dissertation advisor), curriculum coordination for both graduate and undergraduate programs, tracking student progress such as degree audits, registration and onboarding, assisting with applications, student hiring, and helping students to locate funding (TA/RA opportunities, training grants, and external funding sources). Students and faculty all agree that the workload for a single staff member is high given the current enrollment size of ~50 students/year. If the program were to grow, it would be advisable to seek additional staff support.

Students appreciate the communication and orientation that they receive from IPHG administration, including onboarding sessions that provide expectations/timeline for completing courses, practicum (MPH), thesis (MS), or preliminary examination (PhD). They note that some information is also provided in a weekly email, including information about potential mentors or thesis advisors. However, students expressed an explicit need for more up-to-date documentation about program expectations, required courses, approved electives, forms for waivers, examinations, and who is core and affiliate faculty. The information on the website, including the student handbook, has not been updated in a number of years and some items, such as the list of potential electives, are outdated. Some students also experienced delays in response to time-sensitive inquiries including course enrollments, class waivers, getting faculty members approved to be mentors, and other matters.

**Recommendation:** Up-to-date documentation about program expectations, coursework, exams, career development resources including potential mentors/thesis advisors, and course electives in the form of a student handbook and/or on a program website.

**Recommendation:** Adequate staff to ensure consistent timely communication with faculty and students.

#### Equity, Diversity and Inclusion

Several groups of students expressed an interest in gaining a better understanding of the equity, diversity and inclusion (EDI) priorities within the IPHG. Since the interdisciplinary programs of the IPHG don't fall under a particular department's purview, there may be less opportunity for EDI training and less clarity on EDI processes and procedures compared to students with a home department. Further, some students noted the lack of diversity in PHG core faculty and other PHG staff, suggesting that it would be beneficial to students to have people with different characteristics and backgrounds to guide their education, particularly for issues such as race and genetics and other implications of genetic technology for society.

**Recommendation:** Increase availability of EDI programming and consider diversity when hiring staff and faculty.

#### Summary and Recommendations for a Future Progress Report and Review

This is a very accomplished Institute with many strengths as described in our Review. We believe that it should definitely be continued and be supported as strongly as possible in terms of resources, particularly faculty and administrative time and finances.

At the same time, this Institute has serious vulnerabilities as are also described in our Review. The Institute depends heavily on the SPH, especially the Dean and the Departments of Epidemiology and Biostatistics, but also on the Schools of Medicine, Law and others. In the near future (1-2 years), it will undergo a change in the Director position and in at least one of the Assistant Director positions. We believe that an Interim Report at approximately four years would be appropriate to assure that changes

have gone well and that the Institute is strongly positioned for the future. In that Report, particular attention should be given to what has happened with leadership changes, financial support for the Institute and levels of cooperation and support from the Deans of SPH, Medicine, Law and the Chairs of Epidemiology, Biostatistics, Health Systems and Population Health, Medical Ethics and others. Input should be gathered from students concerning their views on a variety of issues directly concerning them as described in our Review..

Presuming that the Interim Report is satisfactory, we strongly recommend that the Institute be continued and receive its next scheduled Review in approximately ten years as is expected of all UW graduate programs.

Overall, we are very impressed with the quality of this Institute, with its leaders and students, and with the support it has received from the SPH and elsewhere. We wish everyone involved great success in their future work.