
Underserved Pathway Annual Report **August, 2012**

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Summary

During the 2011-2012 academic year, the Underserved Pathway (UP) continued to expand its student participation, curricular content, and innovations. The UP provides a curricular focus and support for students interested in health care for underserved populations and individuals. Now entering its seventh year, the UP remains dedicated to supporting the varied interests of our students. To these ends, UP faculty and staff have designed a pathway, including mentoring, that can be tailored to each student's interests and goals.

Since its inception, 74 students have completed the Underserved Pathway. Depending on their interest and educational needs, students may enroll in the UP and meet all the requirements of completion to earn a certificate or they may simply participate in the various components. In June 2012, the UP awarded 26 students certificates of completion and 7 graduating students participated in the UP without completing it. Subsequent to the completion of the initial HRSA Title VII funding,¹ the Dean of the School of Medicine has funded UP faculty. The Department of Family Medicine provides staff, administrative, web development and management support. The 2011-2012 academic year was notable for involvement of Targeted Rural/Underserved Track (TRUST) clinical sites and faculty in providing direction for curricular development.

In addition to activities with the 184 students enrolled in the UP in the 2011-2012 academic year, the Pathway team created three new modules. All existing modules were revised to make them more interactive and topical. An important focus was coordination with TRUST, including two to three quarterly in-person sessions, some specifically for TRUST scholars and some for both TRUST scholars and other UP students. The Pathway team is also researching the association of the UP with residency choice and developing a qualitative inquiry to understand the role of the UP in the academic lives and career aspirations of its participants.

This report summarizes the demographics of our students, evaluation data, the achievements of the past year, and plans for the coming year. The curricular components of the UP are in Appendix A. The sections of this report are: A) Participants: Students and Mentors, B) Assessment, C) Initiatives

¹ D54HP05261, Academic Administrative Unit in Primary Care, PI Drs Berg/Losh, Family Medicine, 09/01/05 - 08/31/08

A. Current Participants

- 184 students were enrolled in the UP in the 2011-2012 academic year.
 - 69 (37%) are male, 115 (63%) are female.
 - 52% of students spent or are spending their first year of medical school at a WWAMI region campus:
 - Alaska: 14
 - Wyoming: 1
 - Montana: 32
 - Idaho: 13
 - Eastern WA (WSU Pullman (14) and Spokane (19): 33
 - Seattle: 91
- Anticipated new enrollment during 2012-13 is approximately 50-55 students.
- 26 students graduated in June 2012, earning UP certificates. Another seven from the graduating class were enrolled but did not complete the requirements.
- During 2011-12, 77 physicians volunteered to be mentors for students in the UP. Of these, 40 are mentoring more than one student. UP mentors are physicians in the community, the student's college mentor, preceptors, or other physicians working with underserved populations.
 - 70% are located in Western Washington (rural and urban).
 - 30% are located throughout the WWAMI region, primarily in rural areas.
 - Alaska: 4
 - Wyoming: 0
 - Montana: 9
 - Idaho: 3
 - Eastern WA: 7
 - Western WA: 54
- The current 50 TRUST scholars, including the 15 TRUST scholars entering in Autumn 2012, are enrolled in the UP. The 15 E2012 TRUST scholars completed the Public Health Epidemiology module as part of their TRUST First Summer Experience.

B. Assessment

1. Outcome measures

Underserved Pathway graduates select residencies in many specialties. The majority, however, continue to enter primary care residencies. (Table 1)

Table 1							
Residency Choice of Underserved Pathway Graduates							
Year	2008	2009	2010	2011	2012	Total	Specialty
Specialty	(Number)	(Number)	(Number)	(Number)	(Number)	(Number)	(Percent)
Family Medicine	1	5	6	5	7	24	32.4
Pediatrics	0	2	5	2	3	12	16.2
Primary Care IM	0	1	1	1	3	6	8.1
Internal Medicine	0	1	2	1	4	8	10.8
Ob-Gyn	0	1	2	2	3	8	10.8
Surgery	0	1	1	1	2	5	6.7
Other	0	2	2	3	4	11	14.9
Total	1	13	19	15	26	74	
Primary Care Total (FM, Peds, PCIM)	1	8	12	8	13	42	56.8

The match rate to primary care specialties (Family Medicine, Pediatrics, or Primary Care Internal Medicine) was 56.8% for all students completing the Underserved Pathway, compared with 40.7% of the UWSOM graduating students from 2008-2012 who did not complete the UP. The overall UP match rates to Family Medicine and Pediatrics, but not General Internal Medicine, were also higher for UP graduates than for other students. (Table 2) Further match analyses are planned, including whether there is a relationship between UP participation and selecting a residency with an underserved focus.

Table 2		
Primary Care Residency Match, Students Graduating 2008-2012; UP Graduates Compared With Other Graduates		
Residency match	% of UP Graduates	% of Graduates not completing UP
Family Medicine	32.4	10.3
Pediatrics	16.2	8.3
General Internal Medicine	6.2	14.0
Primary Care total	56.8	40.7

2. Student survey responses

All students enrolled in the UP were surveyed spring 2012. The response rate was low, with only twenty-five responding after two reminders. They were distributed across all years: 20% E08, 15% E09, 36% E10, and 28% E11. Results are presented below by theme. Topics of inquiry included, but were not limited to: the relationship between the UP and career thoughts/interests, the benefits of different components of the pathway, individual evaluation of each module, suggestions for improvements to the curriculum and to the program in general. The majority of students was pleased with their experience and provided constructive feedback. A common sentiment among responses was student appreciation that the

Underserved Pathway served as a way to expand their knowledge of issues related to working with underserved populations and systems. Many students also commented that the UP provides a framework for customizing their medical education.

a. Underserved Pathway Overall

Student preferences for particular module content and UP requirements did not cluster. The diversity and spread of feedback about particular components and about the benefits of UP participation is consistent with the diversity of interests among our participating students.

Specifically, all but three respondents said the UP has increased their interest in caring for the underserved in their future careers. In the comment sections of the survey, five students suggested that UP hold a journal club or post relevant articles on the web site as they are published. Six students noted that in-person sessions can build cohesion and asked that these be more available to the WWAMI sites. Three students suggested speakers or a speaker series covering topics such as challenges faced by physicians in different types of practices and dealing with the doctor-pharmaceutical industry relationship once in practice.

b. Mentorship: Value and Challenges

Two thirds of the students found the mentoring experience to be useful, and the rest were neutral or did not respond. In discussions with individual students, they valued mentors who were easy to reach, had time to meet, and who were engaged in the individual student's process.

We have learned over past years that students who match with a mentor with whom they already have a relationship tend to be more successful than students matched with unfamiliar physicians.

c. Web Based Curriculum

Moodle tracks module participation. Viewing and completion of online modules appears to be fairly consistent over the course of the calendar year.

80% of the students who had completed modules found them helpful. Students would like the in-person sessions to continue.

In the 2011-12 academic year a catalyst survey was attached to each module assignment. Completion was voluntary. There have been 114 responses across all modules. 69% said the module contributed a great or good deal to knowledge about the subject. Another 23% said it contributed some to their knowledge. None said it contributed little or nothing. Two thirds found the modules very or extremely effective in conveying the information. 56% said the module

would have an impact on future work, with 61% saying the modules were encouraging about working with vulnerable populations and the underserved.

In addition to comments acknowledging the content and delivery of the modules, there were a number of suggestions:

- More depth (Medicare, Intimate Partner Violence, Substance Abuse),
- Focus on solutions being tried (Rural Health, Substance Abuse),
- New or additional topics (models for defining poverty, how epidemiological data is collected)

d. Community Service

UP Students have no difficulty completing community service; most are active in projects throughout their medical student careers. There continues to be requests for more activities in the WWAMI sites outside of Seattle.

e. WWAMI-Specific Issues

While several non-clinical selectives that focus on underserved issues have been created on the campuses outside of Seattle, students would like more. The question of distance learning is still being pursued by a number of Seattle based courses.

f. Activities and Events

Students continue to endorse the concept of in-person sessions: module sessions, journal club, socializing. Having these available to students on the other first year WWAMI campuses remains important to students. There was one event per quarter 2011-12 that was open to all UP students. Attendance ranged from 15-30 students at each event.

3. Mentor survey results

Twenty-two mentors responded to the annual survey. A majority (64%) said they met with their students 3-4 times a year. Meetings were by phone, in person, Skype, with some email communication. Their comments suggested that the UP Team remind them more often about contacting their students and suggest topics for conversation. Some suggested a monthly mailing instead of the quarterly memo we send. Others suggested a journal club with students and mentors. Several suggested an orientation packet that clarifies expectations and more formal check in with mentors about their contact with students.

C. Initiatives 2011-2012 and Looking Forward for 2012-2013

Module Development

1. All modules are revised annually; this process includes a survey of existing curriculum to avoid duplication. There are currently 16 modules.
2. This past year we completed the major rewrite of every module, updating content and references, and adding new activities. An evaluation component was added to each module as a part of the activity, reflection, or quiz. Four in-person module sessions were held for all UP students; another three were co-hosted by TRUST for TRUST scholars. These will continue.
3. We plan to host a trial webinar format for a module fall quarter 2012.
4. In conjunction with TRUST, focus groups were held with key constituents from around the regions: TRUST site faculty, residency faculty, UWSOM deans and faculty representing clinical and basic science departments. With these groups, we explored their perceptions of what information and skills will be needed by the next generation of physicians who will be caring for the rural and other underserved populations. Three new modules are being created in response to these conversations:
 - a. Interprofessional collaboration and teams in rural health
 - b. Interprofessional collaboration and teams in the community health centers
 - c. What is community health?
5. Modules developed and completed 2011-12:
 - a. Advocacy
 - b. Health Literacy
 - c. Rural Health

In addition to those above, the following topics are being considered for development or in development:

- a. Immigrants and Refugees
- b. Self-Paying Patients
- c. Women's Health
- d. Elder health
- e. Comparative Health Systems–International
- f. Incarcerated Populations
- g. Health Care among American Indian and Alaska Native (AI/AN) Populations

- h. Health disparities and African Americans
- i. Mental Illness
- j. GLBTQ Community
- k. Community Health Centers
- l. Human Trafficking
- m. Sex Workers
- n. Youth and Young Adults
- o. Ethical Issues and the Underserved

Web Modules can be accessed using UW NetID at the following website:

<https://depts.washington.edu/fammed/online/anytime/course/view.php?id=124>

Mentor Relations

Based on the evaluations by students and mentors, we revamped the quarterly Mentor Memo to provide more ideas for structuring the relationship.

Plans for 2012-13:

1. Development of an orientation packet for students and mentors that assists each to initiate and continue contact and to understand expectations. It will contain some prompts for conversations.
2. Development of a monthly communication strategy. This will be a combination of several outreach ideas. At least quarterly we will email an article to mentors and students with some discussion questions. We will host a journal club for any who can attend in person or over phone/web and encourage all pairs to discuss the article. We will use twitter to occasionally post some interesting event or news item to mentors and students.
3. We will continue the quarterly Mentor Memos as a way to keep mentors abreast of where students are in their medical school journey.
4. We will invite mentors to all in-person sessions.
5. We are considering ways to thank our mentors, if possible in person. As we develop a map of regional mentors, we will collaborate with regional partners for possible ways they can assist us in visiting practices to deliver a thank you.

Web Development

With the support of the Department of Family Medicine, the UP website has made further links to SOM's Service Learning website, the TRUST site and other service sites. Moodle facilitates tracking of module use, mentor relations, and completion of course work.

The Underserved Pathway-TRUST Interface

The UP is responsible for providing key components of the medical school curriculum for TRUST scholars. All students enrolled in TRUST (year one until graduation) are enrolled in the UP. The UP Director serves on the TRUST Steering Committee and works closely with TRUST faculty to ensure that the UP meets the needs of TRUST scholars.

As a select community of students within the UP, the TRUST curriculum will be enriched further with enhanced mentoring, web-based modules, and learning sessions. With a goal to sustain TRUST scholars' desires to choose careers with the underserved, the UP will work to support them as a community. The following components integrate TRUST and the UP:

1. The very successful second tier rural class continues. It brings TRUST scholars together during the second year, when they are all in Seattle. In 2013, this course will be offered for the fourth year.
2. The TRUST program assigns each TRUST scholar to a continuity community site with a specified physician mentor. TRUST scholars have their "First Summer Experience" at their sites during the summer before autumn quarter of their first year of medical school. This TRUST continuity mentor also serves as the UP mentor for each given student. The UP team solicits this agreement and works with the regional deans, mentors, and their students to encourage a meaningful longitudinal relationship, including return visits.
3. The UP/TRUST team hosts a welcome dinner for all TRUST scholars when they arrive in Seattle.
4. The UP works with regional faculty to ascertain which non-clinical selectives could be made available to first year students on those campuses via webinar or podcast etc.
5. The UP works with regional faculty to assist in identifying or creating service learning opportunities for first year students.

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6. TRUST scholars of all years will have two to three sessions per quarter (in person or live/virtual) that will be a journal club, a career-relevant presentation, or a group session to complete a web-based module. These are hosted by the UP team in conjunction with TRUST.

The Underserved Pathway in Collaboration with other School of Medicine Pathways

The UP remains committed to the All Pathways Working Group. This collaboration among the four pathways demonstrates an effective partnership that benefits all of the participating students, and maximizes meaningful experiences targeted to each individual student's interests.

Dissemination

1. The UP team has presented to various student and faculty groups, including the Pre-Matriculation program of OMCA, AWARE retreat participants, and UWSOM College Faculty.
2. The UP presented at Society of Teachers of Family Medicine (STFM) Medical Student Education Conference, January 2012 and at the Annual Conference in Spring 2012. Two proposals are submitted for these same meetings in 2013 and to the AAMC.
3. One manuscript on residency selection and UP participation will be submitted fall 2012. A qualitative study on the impact of UP participation has been designed; IRB approval is pending however the study is anticipated to begin interviews by winter 2013.

4. Publications:

Waterman SU, Kost A, Lazzar R, Dobie S. Medical Education. The Underserved Pathway; Fostering Medical Student Interest in the Care of Vulnerable Populations. Virtual Mentor. 2011; 13:539-543. <http://virtualmentor.ama-assn.org/2011/08/medu1-1108.html>. Accessed Aug. 2, 2011.

Kost, A and Ruegg, D. A Recipe for Addressing Health Literacy. STFM Messenger, 9/30/11.

Appendix A: Requirements

The Underserved Pathway supports medical students interested in working with underserved populations through mentorship, academic and experiential activities, service learning, and advising. UP students must complete the following requirements longitudinally through medical school (Figure 1):

Mentorship

- Students are matched with a mentor with shared interests who is a healthcare provider working in an underserved setting.
- They establish a long-term mentoring relationship with this mentor and meet a minimum of once per quarter for duration of time in the UP.
- They obtain career and educational counseling, support, and advice and are introduced to work in an underserved setting.

Web-based learning modules

- Students must complete eight online modules that are discussions and presentations of various aspects of underserved medicine.
- Modules focus on specific issues affecting underserved populations.
- Students complete the online activity or quiz and module evaluation associated with the module to get credit for the module. Some modules require participation in an online discussion with UP faculty.
- Activity is tracked by UP faculty who respond to all reflections and discussion posts.

Preclinical Activities:

- Students complete R/UOP and/or a preclinical preceptorship with a physician working in a medically underserved community.
- Students earn 2 credits of non-clinical selectives that focus on topics affecting underserved populations.

- Students complete their Independent Investigative Inquiry (III) with a focus on care for the underserved and/or underserved populations. It can be in any of these categories:

Literature review

Research project

Community-based project (completed via RUOP or IHOP)

Clinical Activities:

Students complete least 12 credits of approved clinical courses (required or elective clerkships, advanced preceptorships, or sub-internships) at a site serving a large proportion of underserved patients.

Community Service:

Students are required to complete average of two hours of community service per quarter. They may work with any number of organizations, directly related to health or not. CHAP, Al-Shifa, and SITC are several UW organizations where volunteer students are vital.

Figure 1

