
Underserved Pathway Annual Report September, 2014

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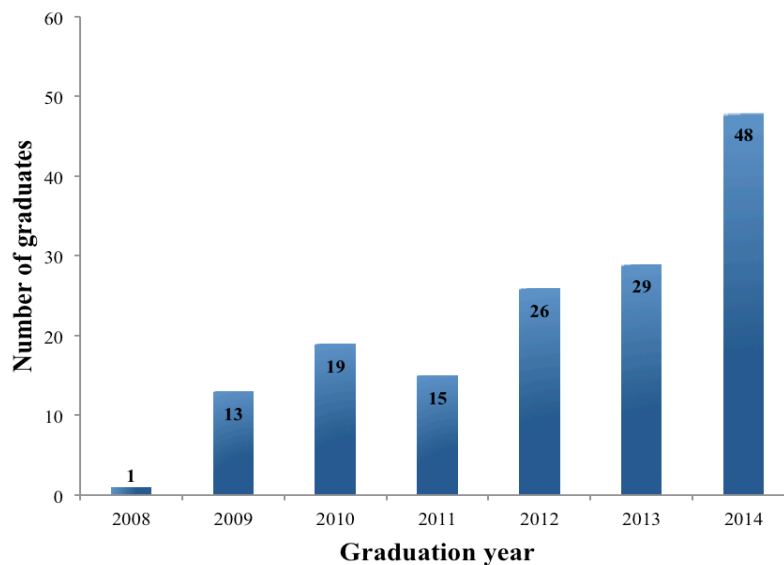
Summary

The Underserved Pathway (UP) is entering its ninth year and continues to expand its offerings and its participants. Notable landmarks and events for the 2013-2014 academic year include:

1. 48 students graduated in 2014 with certificates in the UP. Another 11 graduating students participated in the UP, not completing all requirements for a certificate.
2. Since its inception, 151 students have completed the Underserved Pathway (Figure 1).
3. 234 were enrolled in the UP in the 2013-14 year.
4. UP students continue to choose primary care residencies at higher percentages than students who do not participate in the UP (Table 1).
5. The UP team implemented new activities that a) encourage students to enroll earlier (and thus have a longer longitudinal experience), b) better support students and mentors c) improve our system for evaluating and d) ease students' ability track progress.
6. Two new modules were developed and one new module was piloted, with development continuing. A student and a community mentor are currently developing a new module to be piloted and published during the next academic year. Students and residents were involved in development of two.
7. All existing modules are revised annually for content accuracy, relevance, and functionality of web references and data sources.
8. All Targeted Rural Underserved Track (TRUST) scholars participate in the UP. A total of 25 students were TRUST scholars during this past year and that number will increase to 27 for 2014-2015. The UP faculty work with TRUST continuity community leaders, TRUST Scholars, and the TRUST executive committee to develop web modules and programs that support the TRUST concept. We led discussions at three quarterly in-person sessions some specifically for TRUST Scholars and some for both TRUST Scholars and other UP students. The faculty from both the Targeted Rural/Underserved Track (TRUST) and the UP continue as part of a learning collaborative with community physicians and administrators to provide direction for curricular development.
9. The UP team continues to work with the other three pathways to ensure coordination and to begin to develop proposals for inclusion of some of the pathways' curricula in the new curriculum renewal courses being developed. The UP will continue with these efforts and then begin to develop further materials for more in depth exploration by the UP enrolled students.

10. Dissemination of the UP work continues.^{1, 2, 3, 4, & 5}
11. The Dean of the School of Medicine provides funding for UP faculty. The Department of Family Medicine provides staff, administrative, web development and management support. Operational support is also provided by Family Medicine, and includes teaching sessions and other events such as the Pathways Informational Kickoff and Pathways Graduation. Initial funding for the UP was from HRSA Title VII.⁶

Figure 1: Underserved Pathway Graduates 2008-14



¹ Kost A, Benedict J, Andrilla CH, Osborn J, Dobie SA. Primary care residency choice and participation in an extracurricular longitudinal medical school program to promote practice with medically underserved populations. *Academic Medicine*. 2014 Jan;89(1):162-8

² El Rayess F, Evans DV, Ryan M, Nokes K. Training Students to Care for Underserved Populations: Aligning Mission, Values, and Vocation. STFM Annual Spring Conference, San Antonio, TX, May 2014

³ Kost A, Overstreet F, Evans D, Dobie S. Can I Tell You a Secret? An Anonymous Exercise to Address Individual Bias and Improve Health Disparities. STFM Conference on Medical Student Education, Nashville, TN, Jan 30 – Feb 2, 2014

⁴ Nokes K, Evans D, Brown K, Krasin B, Dobie S, Kost A, Mitchell S, Wertheimer R. From Training to Practice: Comparing Values and Motivators of Newbies and Veterans in Underserved Communities. STFM Conference on Medical Student Education, Nashville, TN, Jan 30 – Feb 2, 2014

⁵ Binienda J, Chadwell M, Conniff K, Cyr P, Hoffman M, Kost A, Minor S, Prunuske J, Williams M, WinklerPrins V. Engaging Today's Medical Student. Society of Teachers of Family Medicine, Conference on Medical Student Education, Nashville, Tennessee, Jan 30 – Feb 2, 2014 (Workshop)

⁶ 54HP05261, Academic Administrative Unit in Primary Care, PI Drs Berg/Losh, Family Medicine, 09/01/05 - 08/31/08

A. Current Student Participants

- 234 students were enrolled in the UP in the 2013-2014 academic year.
 - 60 (28.2%) are male, 153 (71.8%) are female.
 - 58% of students spent or are spending their first year of medical school at a WWAMI region campus:
 - Alaska: 11 (5%)
 - Wyoming: 4 (2%)
 - Montana: 54 (23%)
 - Idaho: 21 (9%)
 - Eastern WA (WSU Pullman (16) and Spokane (29)): 44 (19%)
 - Seattle: 99 (42%)
- We had 61 new enrollees during the 2013-2014 year.
- Anticipated new enrollment during 2014-15 is approximately 60 students.
- 48 students graduated in May 2014, earning UP certificates. Another 11 from the graduating class were enrolled but did not complete the requirements.
- The current 79 TRUST scholars, including the 27 TRUST scholars entering in Autumn 2014, are enrolled in the UP. The 22 E2013 TRUST scholars completed the Public Health Epidemiology module as part of their TRUST First Summer Experience.

B. Mentors

- From 2006 to 2014, over 150 healthcare providers have participated as mentors.
- During 2013-14, 140 physicians volunteered to be mentors for students in the UP. Of these, 45 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.
 - 66% are located in Western Washington (rural and urban).
 - 34% are located throughout the WWAMI region, primarily in rural areas.
 - Alaska: 7
 - Wyoming: 4 (This is the first year for Wyoming mentors.)
 - Montana: 20
 - Idaho: 17
 - Eastern WA: 13
 - Western WA: 79

C. Assessment

Outcome measures

Underserved Pathway graduates select residencies in many specialties. The majority, however, continue to enter primary care residencies (Table 1). Within the next few years, using American Medical Association data, we will follow our graduates into practice to evaluate in what settings and communities they are beginning practice.

Table 1: Residency Choice of Pathway Graduates 2008 -2014

Year Specialty	2008 (Number)	2009 (Number)	2010 (Number)	2011 (Number)	2012 (Number)	2013 (Number)	2014 (Number)	Total (Number)	Specialty (Percent)
Family Medicine	1	5	6	5	7	9	11	44	29.1
Pediatrics	0	2	5	2	3	5	8	25	16.6
Primary Care IM	0	1	1	1	3	0	7	13	8.6
Internal Medicine	0	1	2	1	4	6	2	16	10.6
Ob-Gyn	0	1	2	2	3	1	4	13	8.6
Surgery	0	1	1	1	2	4	3	12	7.9
Other	0	2	2	3	4	4	13	28	18.5
Total	1	13	19	15	26	29	48	151	
Primary Care Total (FM, Peds, PCIM)	1	8	12	8	13	14	26	82	54.3

The match rate to primary care specialties (Family Medicine, Pediatrics, or Primary Care Internal Medicine) was 54.3% for all students completing the Underserved Pathway, compared with 30.3% of the UWSOM graduating students from 2008-2014 who did not complete the UP (Table 2). The individual UP match rates to Family Medicine, Pediatrics, and Primary Care Internal Medicine were all higher for UP graduates than for other students matching in each of these specialties. Further match analyses are planned, including whether there is a relationship between UP participation and selecting a residency with an underserved focus.

Table 2: Percent of Graduating Students Matching in Primary Care Residencies, UP Graduates Compared With Other Graduates, 2008-2014;

Residency match	% of UP Graduates % (N=103)	% of Graduates not completing UP % (N=1264)
Family Medicine	29.1 (44)	13.3 (168)
Pediatrics	16.6 (25)	10.4 (132)
Primary Care Internal Medicine	8.6 (13)	6.6 (83)
Primary Care totals	54.3 (82)	30.3 (383)

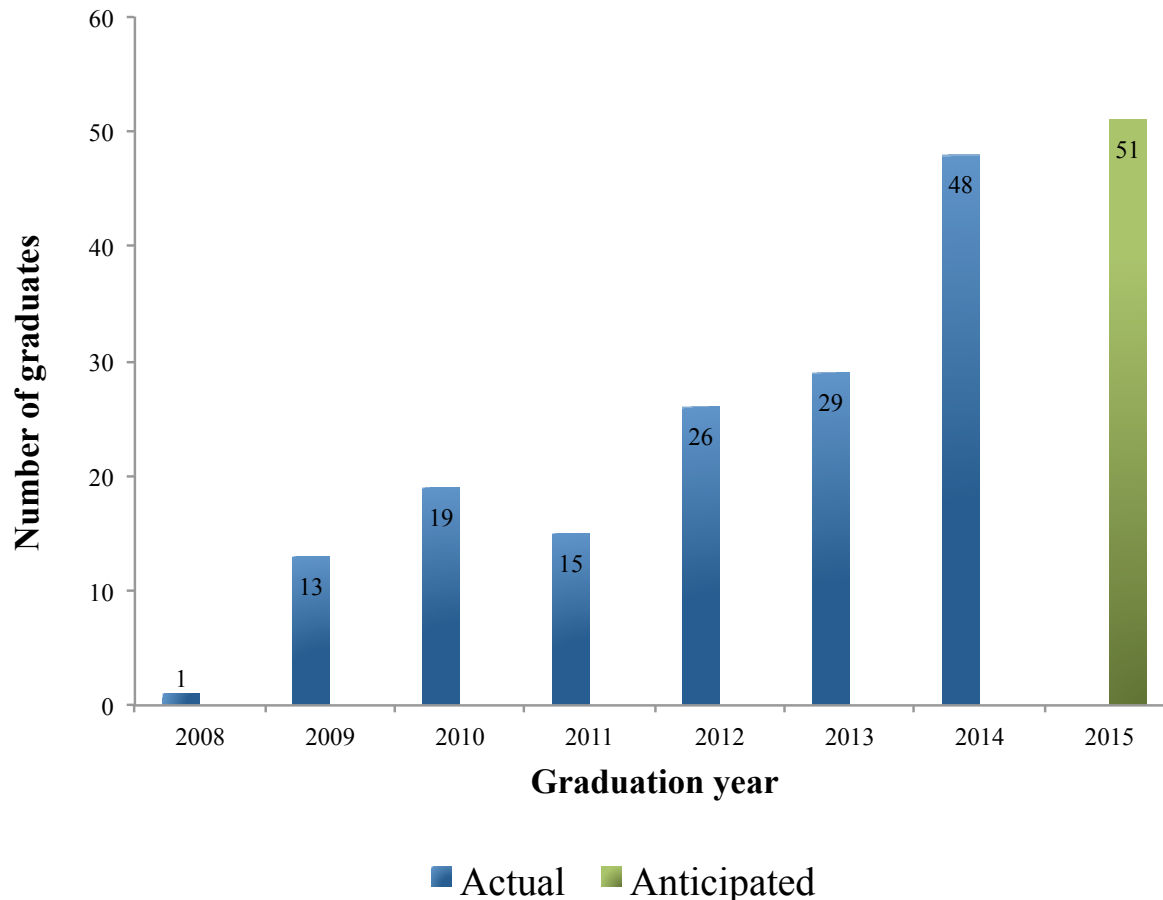
Evaluations

Evaluation data from students for this academic year exists from three sources. First, UP students complete an end-of-the-year survey in June. Second, each student completing each module is asked to complete an evaluation. Third, participants in the in-person sessions complete an evaluation. Together these sources provide information about the various components of the UP.

a. Underserved Pathway Overall

In addition to the measures that formally evaluate the pathway, student participation levels are a measure of the value to students and they continue to participate in the UP in increasing numbers. 48 students earned certificates in 2014, up from 29 in 2013. Fifty-one are on track to earn certificates in 2015 (Figure 1.1).

Figure 1.1: Actual and Anticipated Underserved Pathway Graduates 2008-14



The end-of-the-year survey is distributed to all UP enrolled students in all years. This academic year it had only 36 responses. Of those, no respondents were from Wyoming. Half were graduating or rising fourth year students and the other half were from the preclinical years.

Consistent with responses from prior years, there is no single value reported by students and their comments cluster around several themes:

- The UP provides a structure for creating a personalized curriculum that supports and strengthens interest.
 - “It gave me ... a structure within which to pursue my existing interests.”
 - “I love this program- it’s a great way to stay connected to what motivates me in medicine.”
 - “Foundation of knowledge and support for pursuing interest in working with these populations.”

“The Pathway forced me to think about the underserved even during times when that population was not at the forefront of my daily life... It was a longitudinal education that kept me focused on this group no matter what was happening in my life. The Pathway also reinforced my commitment to serving and working with the underserved in the future.”

“I feel like I have met like-minded peers and faculty, and have been able to hang onto what motivated me to go into medicine...”

- The curriculum provides a foundation of knowledge and resources.

“Knowledge of underserved populations and ways to change my practice to address the barriers faced by my patients.”

“Exposure to various aspects of advocating for the underserved- policy level change, clinical care, specific needs of different populations, etc.”

“Additional insight about underserved populations that my other classmates haven’t addressed.”

b. Mentorship: Value and Challenges

In past surveys, about two thirds of the students have found mentorship to be valuable. This year, three quarters of the respondents agreed or strongly agreed that the mentor relationship was meaningful. The increase in satisfaction with mentors may be for several reasons. First, we individually spend time with students to recommend mentors who share the student’s interests, hopefully providing connection that facilitate longitudinal contact. Second, we now ensure that our Mentor and Student memos are distributed quarterly; with these, we are providing both mentors and students with more ideas for conversations. We also provide lists of questions to ask and we are inviting mentors to events, both suggestions from prior students. We want to have this be an important experience for more of our students and we recognize the difficulties inherent in our multi-state education. We continue to work towards an even higher rating for this component of our program.

“I appreciate that I have a formal/required mentorship because otherwise I might not always make sure we communicate throughout the year.”

“...another mentor, information and participation...deepening an understanding of underserved populations and persons.”

c. Web Based Curriculum

In the end-of-the-year survey, students were asked if the modules were relevant and helpful and to rate the level of detail. 73% agreed or strongly agreed that the modules were relevant and 17% were neutral. 76% rated the difficulty as “just right” and 24% said they were too detailed. No one thought they were “far too simple,” “too simple,” or “far too detailed.” Many comments highlighted the enjoyment and benefit from the “in-person” module sessions that are held at least quarterly.

“The in-person modules are dynamic and fun. I think these events are a great learning experience.”

“I love that the talks... are tailored to us- the health care in prisons talk was a wonderful idea.”

During the 2013-14 academic year, 399 modules were completed and there were 281 evaluations, for a response rate of 70%. All students must complete “Who are the Underserved?” and all TRUST Scholars also complete “Public Health Epidemiology.” The popularity of the each module can be seen in Figure 2. Students are asked four questions in addition to being asked for suggestions for improvement. Ninety-two percent said the modules contribute to their knowledge about the stated topic. Ninety-five percent said the module was effective in communicating the information. Eighty-five percent said the module was very or extremely likely to influence future work. Only 4% said that the modules were somewhat or very discouraging to interest in working with the underserved. (Figure 3)

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

- More in-person sessions
- Additional modules: LQBT (in development) and migrant health (planned for development)
- New or additional topics (models for defining poverty, how epidemiological data is collected)

Figure 2: Number of Students Completing Each Underserved Pathway Module: 2013-14

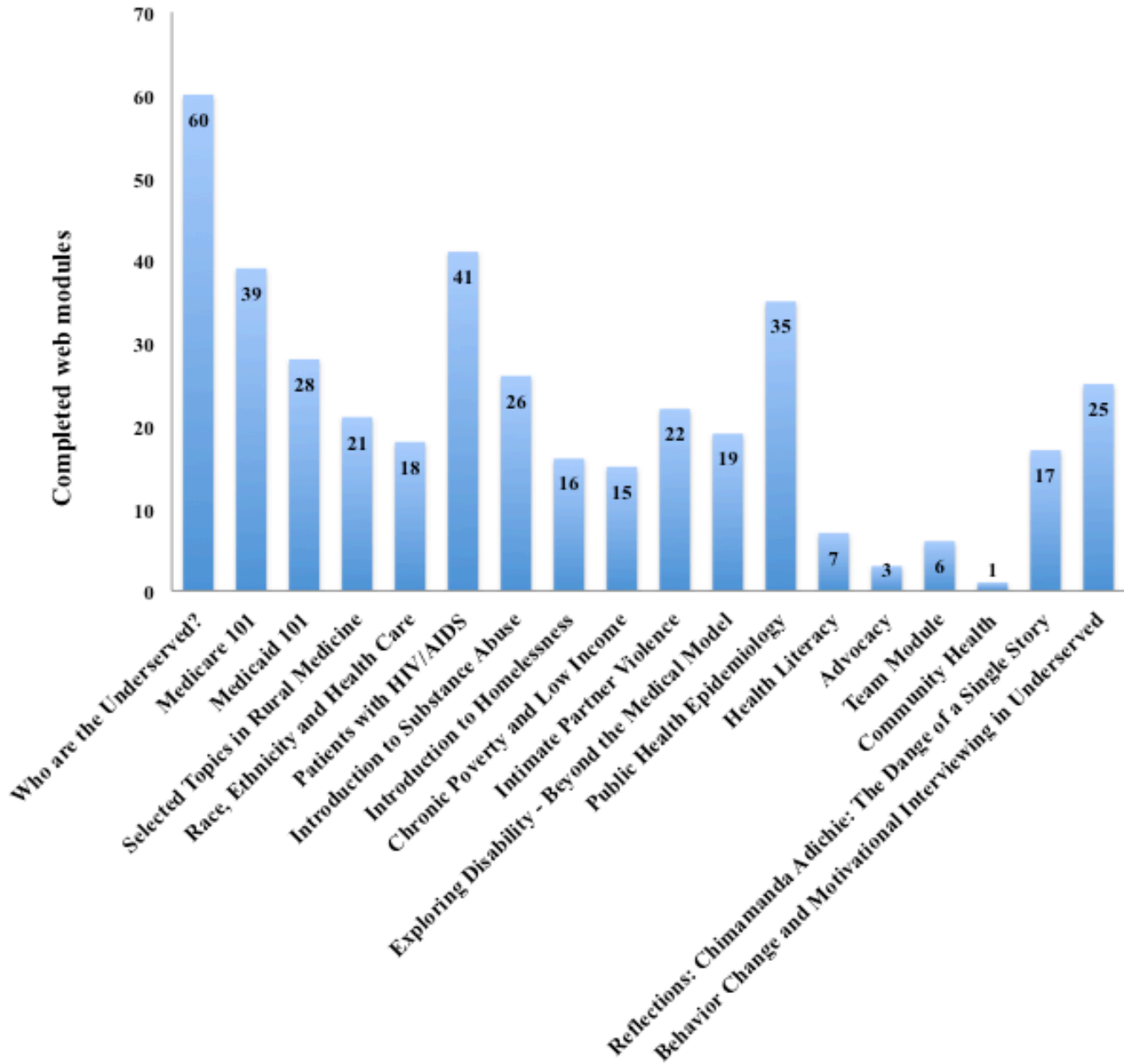
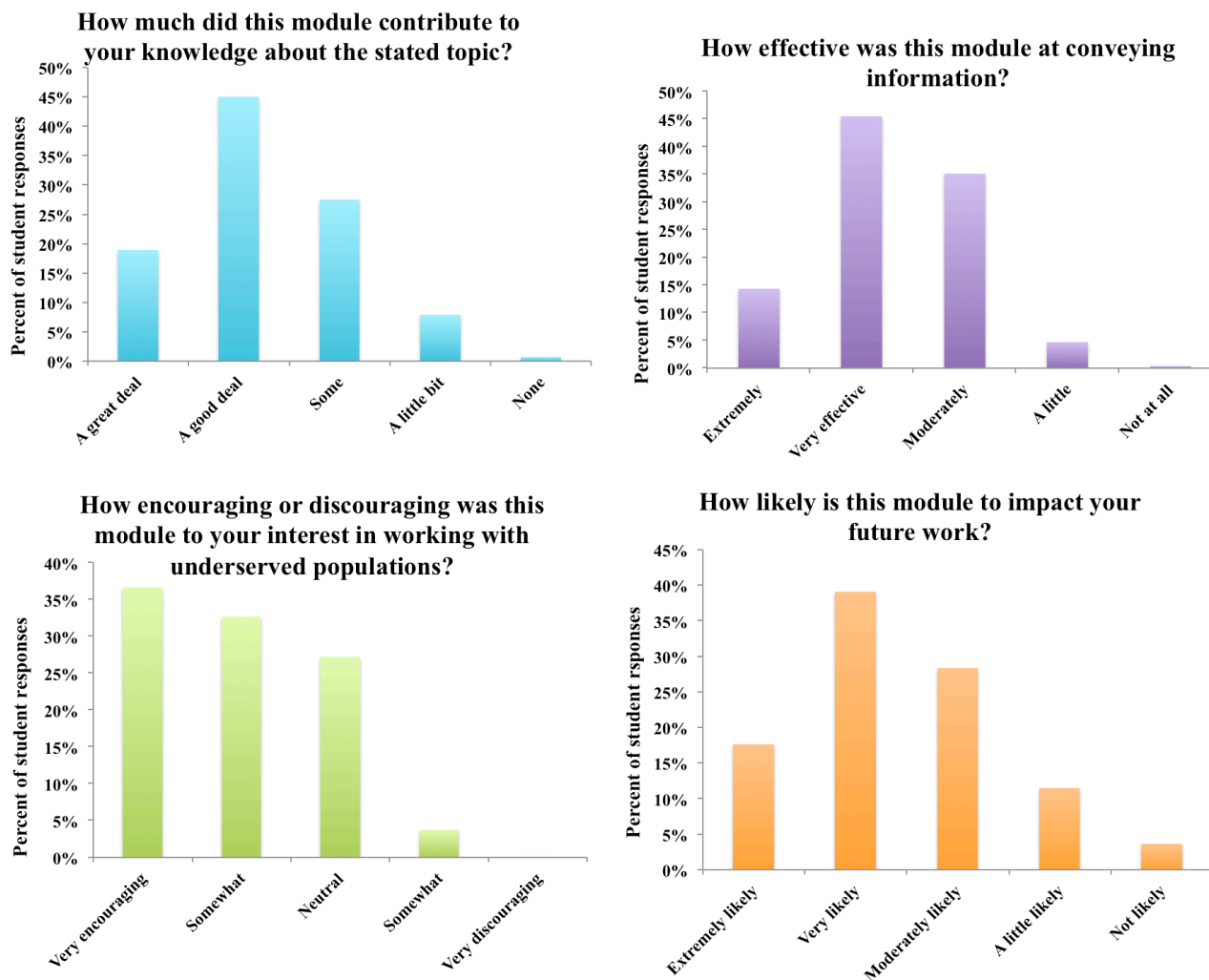


Figure 3: Underserved Pathway Total Module Evaluation Results: 2013-14



d. In-Person Sessions

Four in-person sessions were held for UP and TRUST students: The Danger of a Single Story, Race Ethnicity, and Healthcare Bias, Health Literacy, and Healthcare for the Incarcerated. Attendance ranged from 5 for TRUST only modules to close to 100 for modules open to the entire UP. In January of 2014, the evaluation changed to include the same questions of the web based module evaluations.

All sessions continue to receive high ratings for both content and process. The students value getting together and the interactive nature of the sessions.

Specifically, students value the content and the presentation of tangible skills. The TRUST students in particular seem to routinely comment that it is useful to come together as a group. Most suggested more time for the session; a minority asked the sessions be shorter. Other suggestions for improvement include having more time for discussions and having more sessions in person. Comments included:

“The small group breakdown was very helpful! Appreciated the methods presented to augment health literacy.”

“Role-playing with the recipes was a humbling experience. I learned the teach-back method/practice which seems effective and wise.”

“Defining incarcerated care, identifying laws, limitations in services provided, etc. Dr. Geisel's advise to those of us entering a career of serving underserved patients.”

“Learning about what federal funding covers while in prison.”

“Delving into a different underserved population to see their challenges.”

“This session will serve as another reminder to think of people as a ‘whole story’”

“Being asked to think about some of the social/cultural biases I may be bringing to my work as a physician.”

“Discussing with colleagues and physicians about implementation of ACA. Excellent food!”

“Meeting several new people (including deans!) from a variety of places and getting several perspectives.”

e. 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.

f. WWAMI-Specific Issues

We continue to seek ways to offer support to the other campuses, particularly ways to provide modules through distant learning. This need will become even more critical with the decentralization of the entire foundations phase education throughout the region.

C. Initiatives 2014-2015 and Looking Forward

Curriculum Renewal

The UP faculty, along with the other pathways, will work to have core concepts incorporated into the curriculum all students receive.

Student Enrollment and Correspondence

With increased interest in the Underserved Pathway, there has been a need to re-examine our processes and make sure students are completing all requirements consistently throughout their time in the UP. Part of this process has been to revamp our correspondence sent to new and prospective UP students. It is the goal of the Underserved Pathway to promote early enrollment and to better support students while they are in the pathway.

1. To encourage a longitudinal relationship with the UP, we have focused efforts to encourage early enrollment of students, increasing the overall length of time a student is in the UP:
 - a. Each spring quarter the UP will engage with entering students at the spring Second Look Seminar for new students. (initiated 2014)
 - b. Each summer this UP will send all entering students electronic information about the Underserved Pathway. (initiated E14)
 - c. Each fall quarter the UP will attend the UW SoM Student Activities Fair and continue to have kickoff events with the other UW SoM Pathways.
2. To inspire students to get started on UP requirements as early as possible, immediately after they join the UP, the UP team developed and will continue to improve initial correspondence sent to students (initiated 2013-14).

Each UP welcome letter:

- a. Identifies at least 4 modules that may be of interest to the student - based of the content of their UP application.
- b. Outlines the policy for UP mentorship, and if noted in student's application, also provides mentorship suggestions.

Module Development

With a focus on providing both content and activities that broaden the cultural skills of our students, our module work this past year has focused on continuing development of modules that increase cultural skills, appreciate diversity, and offer tangible tools and strategies that might work for health improvement in diverse communities.

1. All modules are revised annually; this process includes a survey of existing curriculum to avoid duplication. There are currently 18 modules.

2. The UP will coordinate with the Spokane campus faculty to test strategies for in person module completion for their students. (continuing from 2013-14)
3. The UP team provides a link for each online module directly to the student's assignment tracker. This is to ease the process of logging completed modules (started in 2013-14, all future modules will have this direct link).
4. The UP team continues to meet regularly with the TRUST team. With the learning collaborative of TRUST preceptors, the UP will continue to identify topics that the TRUST preceptors believe to be critical to educating future physicians to work with vulnerable populations. Last year we reported that they desired modules on the following topics: inter-professional collaboration and teams in rural health, inter-professional collaboration and teams in the community health centers, and what is community health? Two of these have been written and are on-line.
5. Modules developed and piloted or completed 2013-14:
 - a. Bias
 - b. Behavior Change Strategies for Working with the Underserved
 - c. Oral Health
 - d. Health Care of Incarcerated (piloted)

Web Modules can be accessed using at the following website:
<https://courses.washington.edu/fmocw/>

Mentor Relations

Based on the evaluations by students and mentors, we revamped the quarterly Mentor Memo to provide more ideas for structuring the relationship. We have opened a Twitter account and send tweets to registered mentors and their students; these might be articles or news items for them to discuss. We are inviting mentors to in-person sessions.

Plans 2014-15

1. Complete development of an orientation packet for students and mentors that will assist each to initiate and continue contact and to understand expectations. It will contain some prompts for conversations. (begun in 2013-14)
2. Mentors are invited to all in-person events and encouraged to submit ideas for the memo.

Service Learning

Students throughout the SOM are increasingly interested in participating in Service Learning. In general students find the most time to participate later in first year, throughout second year, and in fourth year, and if expanded, during the expanded years. New projects were developed or are in development in Wyoming, Alaska, and Washington. The UP continues to work with the Service

Learning Advisory Committee and the Inter-professional Service Learning Committee on the Seattle campus, in particular to help other campuses develop opportunities.

IT Development

With the support of the Department of Family Medicine, the UP continues to work on integrating into the newly established database. Other departmental IT priorities made completion of this not possible in the 2013-14 timeframe. The UP maintains links to SOM's Service Learning website, the TRUST site and other service sites. We continue to tweet interesting articles for mentors and students. In the 2013-14 year, the student tracker was linked to the modules so that students can more easily register completion of modules.

The Underserved Pathway-TRUST Interface

The UP provides key components of the TRUST curriculum for TRUST scholars. All students enrolled in TRUST (year one until graduation) are required to enroll 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 Scholars have a curriculum with enhanced mentoring and more in-person learning sessions and journal clubs than is required of the non-TRUST UP students. With a goal to sustain TRUST scholars' desires to choose careers with the underserved, the UP supports them as a community. The following components integrate TRUST and the UP and the UP will be working to improve these offerings:

1. Both the introductory and the second year rural health classes need to be offered on all campuses with TRUST scholars and second year students.
2. As the new curriculum for the entire school takes shape, TRUST will need to work with its community and academic partners, including the UP, to design and modify requirements and offerings to best support and to provide the best education for the TRUST scholars.
3. Each TRUST scholar has a continuity community site with a specified physician mentor. The 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.
4. The UP/TRUST team hosts a welcome dinner for all TRUST scholars when they arrive in Seattle.
5. TRUST scholars of all years will continue to 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. Collaboration may become targeted towards curriculum renewal to ensure all students receive some of the content currently only offered by the Pathways. The UP team supports the continued existence of multiple pathways however. By having options and a heightened presence of pathways, elective offerings, and service learning and community engagement opportunities, students receive an important messages within the "hidden" curriculum: that these values matter, that our communities deserve better health, and that our students and we need to be part of the solutions.

Dissemination

1. Kost A, Benedict J, Andrilla CH, Osborn J, Dobie SA. Primary care residency choice and participation in an extracurricular longitudinal medical school program to promote practice with medically underserved populations. *Academic Medicine*.2014 Jan;89(1):162-8
2. El Rayess F, Evans DV, Ryan M, Nokes K. Training Students to Care for Underserved Populations: Aligning Mission, Values, and Vocation. Society of Teachers of Family Medicine, Annual Spring Conference, Lecture-Discussion, San Antonio, Texas, May 2014 (Presentation)
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6. Two manuscripts are in preparation:
 - a. Kost A, Cawse-Lucas J, Evans D, Overstreet F, Dobie S. Family Medicine Extracurricular Experiences in Medical School and Choosing to Become a Family Physician
 - b. Evans DV, KrasinB, Brown K, Kost A. Dobie S. Student perceptions about benefits from an extracurricular curriculum: Experience from the Underserved Pathway