

# The WWAMI Targeted Rural Underserved Track (TRUST) Program: An Innovative Response to Rural Physician Workforce Shortages

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## Abstract

### Problem

Too few physicians practice in rural areas. To address the physician workforce needs of the Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) region, the University of Washington School of Medicine developed the Targeted Rural Underserved Track (TRUST) program in August 2008. TRUST is a four-year curriculum centered on a clinical longitudinal continuity experience with students repeatedly returning to a single site located in a rural community or small city.

### Approach

The overarching theme of TRUST is one of linkages. Students are strategically

linked to a rural community, known as their TRUST continuity community (TCC). The program begins with a targeted admission process and combines new and established programs and curricular elements to form a cohesive educational experience. This experience includes repeated preclinical visits, clerkships, and electives at a student's TCC, and rural health courses, the Underserved Pathway, and the Rural Underserved Opportunities Program (which includes a community-oriented primary care scholarly project).

### Outcomes

TRUST was piloted in Montana in 2008. With the matriculating class of 2015,

every state in the WWAMI region will have TRUST students. From 2009 (the year targeted admissions began) to 2015, 123 students have been accepted into TRUST. Thirty-three students have graduated. Thirty (90.9%) of these graduates have entered residencies in needed regional specialties.

### Next Steps

Next steps include implementing a robust evaluation program, obtaining secure institutional programmatic funding, and further developing linkages with regional rural residency programs. TRUST may be a step forward in addressing regional needs and a reproducible model for other medical schools.

### Problem

There is a persistent paucity of rural physicians in the U.S. health care system.<sup>1</sup> With 27% of the U.S. landmass and 3.3% of the population, Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) are among the most rural areas of the country.<sup>2</sup>

The University of Washington School of Medicine (UWSOM), the only four-year MD-granting medical school in the five states of the WWAMI region, currently admits 240 students per year. To address the physician workforce needs of this region, the UWSOM developed one of the first decentralized regional medical education programs, with preclinical and clinical

educational experiences in rural areas of each state.<sup>3</sup> Despite these early efforts, from 1996 to 2005 the percentage of UWSOM students entering primary care residencies dropped from 60% to 30%.<sup>4</sup> An innovative program was necessary to meet the workforce needs of the WWAMI region.<sup>5</sup>

Previously established medical education programs in the United States are also aimed at addressing rural physician workforce needs.<sup>6</sup> Although each program has a different approach, general characteristics include targeted admissions for students with a background or interest in primary care or rural settings, training opportunities in rural communities such as longitudinal clinical clerkships, directed rural mentorship, and the development of knowledge and skills needed for rural practice. Similar successful programs in Canada and Australia combine a four-year rural longitudinal medical school curriculum with an extended rural longitudinal integrated clerkship.<sup>7</sup>

Ideas from these programs and our own innovations led to the development of a new program at the UWSOM in

August 2008, called the Targeted Rural Underserved Track (TRUST). TRUST is a four-year curriculum centered on a required four-year clinical longitudinal continuity experience with students repeatedly returning to a single site located in a rural community or small city. TRUST sites range in population from 1,000 to 30,000 people. This longitudinal placement in a single community differs significantly from other rural programs in the United States.

### Approach

#### TRUST innovations

The overarching theme of the TRUST program is one of linkages. Specially selected students are strategically linked to a single rural community over four years, known as their TRUST continuity community (TCC). Established programs and curricular elements such as the Rural Underserved Opportunities Program (RUOP), the Underserved Pathway (UP), the WWAMI Regional Integrated Training Experience (WRITE), and rural preclinical electives are linked with new programs and curricular elements including an immersive First Summer

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Experience (FSE), ongoing preclinical continuity visits to the TCC, and multiple informal social and educational experiences to form a cohesive educational experience (Figure 1). Coordinated leadership—to foster the engagement of all five WWAMI states in the TRUST program—allowed the rapid uptake and expansion of this program. Key aspects of TRUST include targeted admission, linking students to their TCC, and linking the aforementioned programs and curricular elements together.

**Admissions.** TRUST students are selected through a targeted admissions process that exists within the general UWSOM admission process. It includes a secondary application requesting the size of their home communities and an essay about their intentions towards rural practice. The admissions committee interviews all TRUST applicants with attention to applicants' backgrounds and behaviors that the literature has shown tend to predict a

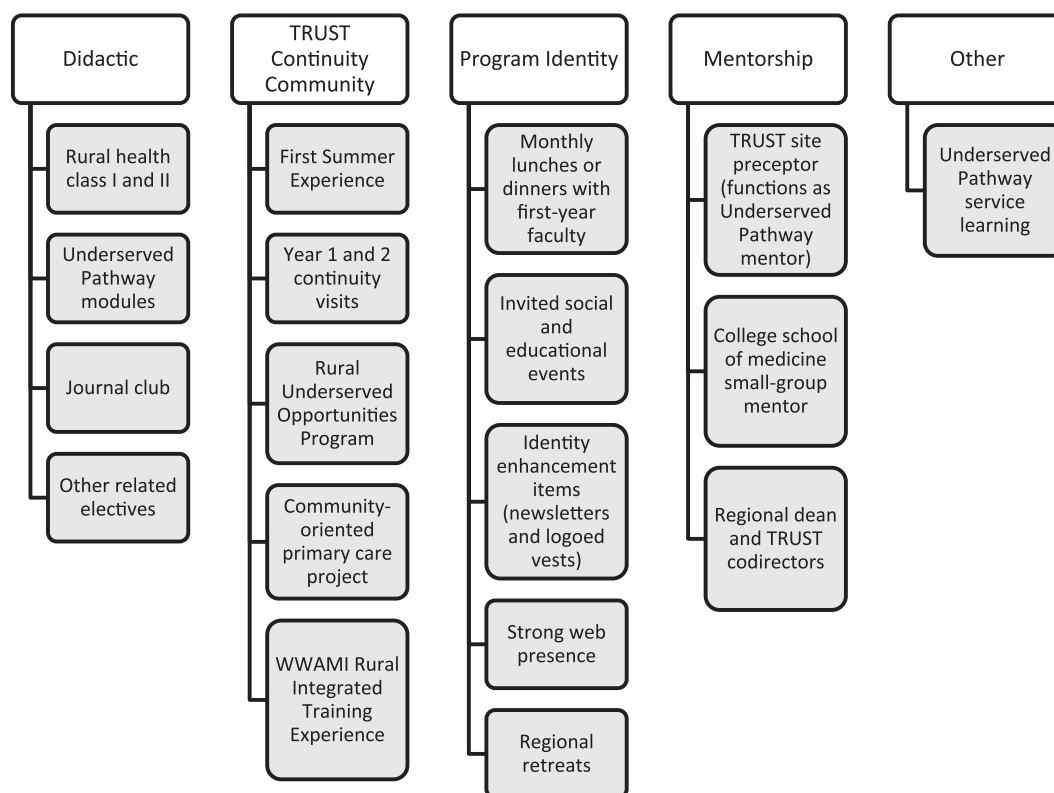
return to rural underserved practice.<sup>8</sup> Specifically, the interview addresses applicants' knowledge and experience with rural or underserved medicine as a career and the likelihood of the applicant working in a rural practice.

**Single community.** A TRUST student will visit and learn from the same TCC for a minimum of 23 weeks throughout their four years of medical school; generally, only one TRUST student per year is assigned to each TCC. On some occasions, more than one TRUST student in different years of training will be at a TCC concurrently. At most, each TCC may have four students, one from each year of medical school. Many TRUST students take advantage of the option to increase their TCC time by 4 or more weeks. Making repeated visits to the same site allows for the development of a true connection with the TCC and strengthens the relationship between the student, his/her TRUST site preceptors, and his/her continuity patients.

**Program linkages.** The TRUST program was built on established programs and curricular elements, several of which are already associated with entering primary care or practicing in a rural area.<sup>9,10</sup> TRUST innovatively links the established programs and curricular elements with new ones in a logical sequence (Figure 2), integrating and situating them in the TCC. Non-TRUST students have the option to partake of some of the programs and curricular elements that existed prior to TRUST, including the RUOP, UP, rural preclinical electives, and WRITE. Non-TRUST students do not participate in the programs and curricular elements that are new to TRUST, including the FSE, repeated preclinical visits to the TCC, and social or educational events that are for TRUST students only.

## Curriculum

**FSE.** Before beginning medical school classes, the entering TRUST student completes a 7- to 14-day clinical and community experience in his/her TCC.



**Figure 1** Programs and curricular elements in the Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) region Targeted Rural Underserved Track (TRUST) program, University of Washington School of Medicine. The Underserved Pathway is a comprehensive longitudinal extracurricular program that teaches students the fundamental principles of underserved medicine. The First Summer Experience is a 7- to 14-day clinical and community experience in a student's TRUST continuity community (TCC) prior to the start of classes. The Rural Underserved Opportunities Program is a monthlong rural underserved experience in a student's TCC that incorporates clinical learning and principles of community medicine. The WWAMI Rural Integrated Training Experience is an 18- to 23-week rural longitudinal integrated clerkship experience at a student's TCC that emphasizes the rural physician's responsibilities and roles in diagnosing, treating, and managing the majority of medical, surgical, obstetrical, and psychosocial problems on a continuity basis.



**Figure 2** Illustration of the continuum from admissions through residency and beyond of the Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) region Targeted Rural Underserved Track (TRUST) program, University of Washington School of Medicine (UWSOM). The illustration includes key features of the curriculum and indicates linkages to rural communities. Figure used with permission of the University of Washington.

The goals of this include developing a mentoring relationship with the TRUST site preceptor, getting to know the clinic site and local community, and learning how a health care team functions in a rural community. Students interact with multiple members of the health care team, perform a directed observation of the community, and complete an online epidemiology module on their TCC.

**TRUST year one.** Like all UWSOM students, TRUST students begin medical school at one of the six first-year campuses in the WWAMI region. All TRUST students participate in a rural health course that explores the health care system from a rural perspective and other dedicated meetings that examine issues pertinent to rural medicine. Multiple weekday or weekend experiences are scheduled at their TCC, with students visiting their TCC for one to two days, two to six times during the first year.

TRUST students enroll in UP, a comprehensive longitudinal extracurricular program that teaches students the fundamental principles of underserved medicine. UP supports medical students interested in working with the underserved by providing them with mentorship, academic, and

experiential activities. The TRUST site preceptor also serves as the designated UP mentor.

During the summer between TRUST years one and two, TRUST students participate in the monthlong RUOP in their TCC that incorporates clinical learning and principles of community medicine. Employing faculty-guided reflective journaling and a direct clinical immersion experience, the RUOP provides students with early exposure to the challenges and rewards of practicing rural primary care. As part of the RUOP, TRUST students also complete a community-oriented primary care scholarly project using principles of population medicine as a framework.

**TRUST year two.** The second-year curriculum for all UWSOM students occurs in either Spokane or Seattle, Washington. Year two of the TRUST curriculum includes an advanced rural health course focusing on rural medicine and related issues unique to rural communities. The university-based UP faculty facilitate important connections for the students by providing regular in-person learning modules and journal clubs related to underserved medicine.

TRUST students are encouraged to make at least one visit to their TCC during the second year.

**TRUST year three.** WRITE, an 18- to 23-week rural longitudinal integrated clerkship, serves as the core of the third-year TRUST curriculum. TRUST students complete WRITE in their TCC. WRITE includes ambulatory and hospital experiences while enhancing continuity-based relationships with patients, and emphasizes the rural physician's responsibilities and roles in diagnosing, treating, and managing the majority of medical, surgical, obstetrical, and psychosocial problems on a continuity basis. Through WRITE, TRUST students receive full or partial credit for several required third-year clerkships including family medicine, pediatrics, and psychiatry. At some TCC sites, students also complete part of their required internal medicine clerkship. The amount of credit received for the different clerkships depends on the educational resources of the individual TCC site.

**TRUST year four.** TRUST students are encouraged to complete a fourth-year elective in their TCC. Career counseling

for TRUST students is directed toward WWAMI regional needs. Counseling emphasizes primary care and other rural- and underserved-oriented specialties, including family medicine, general internal medicine, general pediatrics, general surgery, obstetrics–gynecology, psychiatry, and orthopedics. Through outreach and information on the TRUST Web site, we link TRUST students with regional rurally oriented residencies (e.g., subinternship opportunities).

## Outcomes

### Growth and governance

TRUST was piloted in Montana in August 2008. The establishment of the TRUST program in Washington soon followed in 2009. With the matriculating class of 2015, every state in the WWAMI region will have TRUST students (Figure 3). Between 2008 and 2015, the program has grown in size from 3 to 29 students per year. TRUST developed a central leadership group to coordinate the regional programs, develop overall educational goals, create a Web presence, organize regional and national presentations, and help regions build on strengths while allowing for regional diversity in some aspects of the program. An executive committee made up of regional UWSOM clinical leaders and representatives of key programs (the RUOP, UP, and WRITE) guides the coordination efforts and builds links with regional graduate medical education programs, emphasizing those committed to training the rural physician workforce.

### The student experience

The students in the TRUST pilot were volunteers; targeted admissions began with

the class that matriculated in August 2009. From 2009 to 2015, 776 medical students applied to TRUST, 467 were interviewed, and 123 were accepted into the program. Only 4 students have withdrawn from TRUST; these students have continued with the standard UWSOM curriculum. Thirty-three TRUST students from the matriculating classes of 2008 to 2011 have graduated. Of these 33 graduates, 30 (90.9%) entered needed regional specialties as defined by regional workforce needs. Fifteen (50.0%) of these 30 graduates remained in the WWAMI region for their residency training.

### Success in meeting goals

It is too early in the TRUST experience to determine whether the program is producing more rural physicians to meet regional needs. Preliminary measures, however, show significant entry into needed specialties, though half of the students choose to attend residency outside of the region. This may be a reflection of limited regional residency opportunities, although career advisors specifically direct TRUST students to rurally oriented residencies in the WWAMI region. Though there is an informal expectation that TRUST students will return to practice in their home state, currently there is no mechanism to enforce this expectation. While specific outcomes remain undetermined, the program is enjoying growth and is becoming highly visible within the UWSOM and within the WWAMI region, showing the feasibility of a coordinated and comprehensive program.

### Institutional and funding support of TRUST

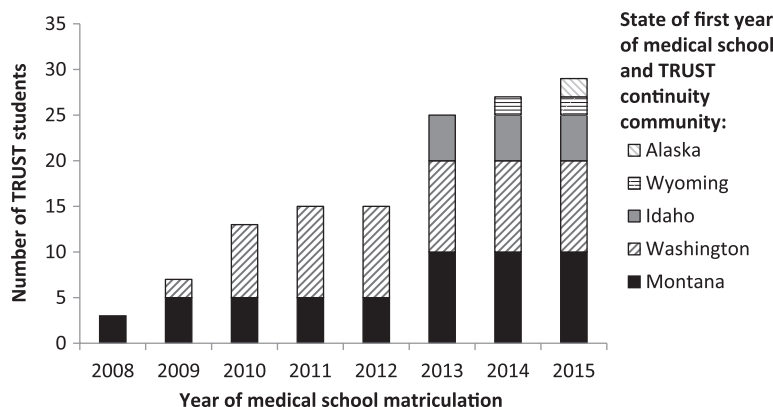
Innovative new programs almost always require institutional support and some

source of new funding. We enjoy the support of clinical deans, vice deans for regional and academic affairs, department chairs, and the dean of the UWSOM. We received a Health Resources and Services Administration (HRSA) Title VII grant to support new programs and curricular elements, some travel, faculty development, and central coordination. Given the rapid uptake of this program, we are hopeful that it will receive institutional programmatic funding after the HRSA Title VII grant ends.

## Next Steps

Next steps for the TRUST program include implementing a robust evaluation program, obtaining secure institutional funding to support the new curricular elements and central coordination, and further developing linkages with regional rural residency programs. To evaluate TRUST, we have developed a tracking system to collect data beginning with matriculation and continuing on to eventual practice. We plan to link student-reported variables with outcomes such as board scores, medical specialty selection, and ultimate site of practice. For funding, TRUST is currently supported by a HRSA Title VII grant that ends in September 2016. UWSOM leaders have recognized our early successes; we are working with these leaders to secure ongoing funding for the central coordination of TRUST. To fully meet the aspirations of the TRUST continuum, regional residency programs with a rural focus for all needed specialties are desirable. The WWAMI region already has established residency programs with a rural focus in family medicine, internal medicine, pediatrics, and psychiatry. But currently there are no general surgery or obstetrics–gynecology residency programs with a focus on rural or small-city practice in the WWAMI region. Another potential linkage between TRUST and WWAMI residencies would be the possibility of TRUST students obtaining a regional residency slot with a rural focus prior to the Match. TRUST continues to encourage rurally focused residencies to link to the TRUST Web site, and we are expanding field trips for TRUST students to regional residencies.

U.S. medical schools continue to struggle to identify ways to recruit and train students for rural practice. Our early experience with TRUST can help inform



**Figure 3** Number of students from each state in the region matriculating into the Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) region Targeted Rural Underserved Track (TRUST) program, University of Washington School of Medicine, 2008–2015.



other schools facing similar challenges. For example, the following were key to the wider adoption of the TRUST program:

- Using infrastructure from established programs to create a coherent longitudinal experience spanning each student's entire medical school career (see above).
- Situating a substantial educational experience in a longitudinal integrated rural or small-city site (see above).
- Allowing flexibility within an overarching structure that allows for participation and use of resources from around the region (regional faculty and administration). This regional flexibility resulted in buy-in from a number of disparate stakeholders and a richer learning experience for program improvement.
- Achieving institutional support by aligning with the UWSOM goals of addressing multispecialty regional workforce needs while requiring small to moderate fiscal impacts (linking established programs), and by starting with a small pilot program and then building on early successes.
- Balancing regional and local concerns with educational needs and the available resources (e.g., we found it important to allow flexibility to meet site-specific needs while maintaining central coordination to ensure an equitable experience for all participating students and to meet Liaison Committee on Medical Education accreditation requirements).

The aging physician workforce, health care reform, and recruitment challenges in rural areas threaten to exacerbate an already-existing paucity of physicians in rural areas. The TRUST program, through its targeted admissions process, linkages to a single TCC through the

four-year medical school experience, and integration of new and established programs and curricular elements, may be a step forward in addressing regional needs and a reproducible model for other medical schools.

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*Previous presentations:* Information about the TRUST program has been presented at the Association of American Medical Colleges Annual Meeting, November 4–9, 2011, Denver, Colorado; the Society of Teachers of Family Medicine Annual Conference on Medical Student Education, January 2–5, 2012, Long Beach, California; the Society of Teachers of Family Medicine Annual Spring Conference; April 25–29, 2012, Seattle, Washington; the Society of Teachers of Family Medicine Annual Spring Conference, May 1–5, 2013, Baltimore, Maryland; and the Consortium of Longitudinal Integrated Clerkships International Conference, September 29–October 2, 2013, Big Sky, Montana.

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