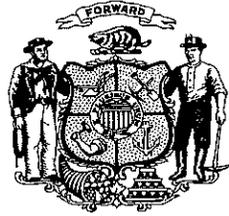


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JOINT COMMITTEE ON FINANCE

MEMORANDUM

To: Members
Joint Committee on Finance

From: Senator Alberta Darling
Representative John Nygren

Date: October 12, 2016

Re: UWS Report to JFC

Attached is the annual 2015-16 Rural and Underserved Urban Medicine Programs report from the University of Wisconsin School of Medicine and Public Health, pursuant to s. 13.106(4), Stats.

This report is being provided for your information only. No action by the Committee is required. Please feel free to contact us if you have any questions.

Attachments

AD:JN:jm

University of Wisconsin School of Medicine and Public Health

Rural and Underserved Urban Medicine Programs
2015 - 2016

Annual Report to the Wisconsin State Legislature



OCT 12 2016
J. Finance

WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Contents

Introduction 3

13.106 (4) (b) (1) Number of students enrolled in rural or underserved urban
medicine programs 3

13.106 (4) (b) (2) Medical specialties and residency locations of students in
rural or underserved urban medicine programs 5

13.106 (4) (b) (3) Initial post-residency practice locations for graduates of
rural or underserved urban medicine programs 11

Introduction

The University of Wisconsin School of Medicine and Public Health (SMPH) has a strong and growing commitment to addressing health disparities in our state and the expansion of the physician workforce in underserved rural and urban settings is a key component of our strategy.

This report provides the information, as prescribed under Wisconsin Statute 13.106 (4), on the enrollments, medical specialties and residency locations, and initial post-residency practice locations of graduates of the TRIUMPH and WARM programs. Both programs strive to connect students to underserved populations and to communities where their future practices could make a real difference in addressing health disparities.

The Wisconsin Academy for Rural Medicine (WARM) program is a rural education program within the Doctor of Medicine (MD) program curriculum and admits students who have a strong interest in practicing in Wisconsin rural communities and prepares students for residency in any specialty with an emphasis on primary care. The Training in Urban Medicine and Public Health (TRIUMPH) program immerses students in clinical service within underserved urban communities, exposes them to positive physician role models and community leaders, engages them in addressing complex community and public health problems, and encourages them to consider primary care or subspecialty medical careers that will address urban health needs. Both programs embody the Wisconsin Idea for the 21st century - to share and apply advances in knowledge for the common good in collaboration with the state, its constituents and communities and its partners around the world.

13.106 (4) (b) (1): Student Enrollment

Wisconsin Academy for Rural Medicine

The Wisconsin Academy for Rural Medicine (WARM) is a four-year rural medicine education program within the MD Program curriculum at the University of Wisconsin School of Medicine and Public Health. Applicants apply directly to WARM, which is identified as a distinct program in our medical school admissions process. WARM students are provided with unique curricular elements throughout their four years of medical school that focus on rural practice and health care issues, with an emphasis on health disparities in rural populations. WARM students develop the relevant clinical and community skills through their participation in rural clinics and training at community centers. WARM recruits prospective students who intend to practice rural medicine, provide them with training and education that is tailored to meet the needs of rural communities, and thereby increase the number of physicians who practice in rural Wisconsin.

The UWSMPH's Wisconsin Academy of Rural Medicine aims to significantly increase the number of UW graduates who practice in medically underserved rural areas in Wisconsin, especially in primary care and other specialties needed there. Aspiring physicians with a strong interest in rural practice who meet the UWSMPH admission standards are recruited into WARM cohorts of up to 26 students. With each cohort, the program strives to:

- 1) maintain their interest in rural practice over four or more years of medical school even as students are exposed to positive rural role-models-tempering challenges of treating patients in rural settings;
- 2) provide students with the broad skill set and wider perspective needed to be successful physicians in rural areas with fewer health care providers and resources.

Table 1: WARM enrollments 2009 - 2015

WARM Enrollments	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015
AMCAS applications	40	40	54	64	57	57	119
Interviews	40	29	48	53	51	40	54
Offers	21	21	26	26	24	27	31
Number of students admitted	18	21	23	25	25*	26	26
Avg GPA admitted	3.62	3.65	3.57	3.54	3.66	3.64	3.64
Avg MCAT admitted	28	28	29	29	30	29.8	30.9

*Includes deferred from 2012

Training in Urban Medicine and Public Health

Training in Urban Medicine and Public Health (TRIUMPH) is a unique urban health track within the MD Program curriculum at the UW Madison School of Medicine and Public Health (SMPH). TRIUMPH selects second year medical student applicants who are committed to providing health care and promoting health equity for urban, disadvantaged communities. The program combines Milwaukee-based third-year clinical rotations in primary care, obstetrics and gynecology, and internal medicine, the fourth-year preceptorship and clinical electives with hands-on community service-learning and public health experiences. In this way, the program integrates clinical medicine with community and public health throughout the third- and fourth-years of medical school. TRIUMPH has attracted students from Wisconsin and across the nation and from racial and ethnic populations that are underrepresented in medicine including African Americans, Latinos, Southeast Asians and Native Americans.

History

The SMPH established TRIUMPH in early 2008 to recruit, train and retain physicians to practice in medically underserved urban areas of the state. Initially, faculty leaders selected six highly motivated third-year medical students for a six-month pilot. Based on the overwhelming success of the pilot, the program was expanded to accept eight students/year into a fifteen-month long third and fourth year (M3/M4) program in 2010.

Student and community interest continued to exceed program capacity. Therefore, TRIUMPH was further expanded with the addition of eight students/year into an abbreviated six-month M3 only program (Summer/Fall). Although the abbreviated program was a success, students and community partners agreed that a longer program was more beneficial for students and communities. When funds became available, the M3/M4 TRIUMPH program was expanded to accept sixteen new students/year and the abbreviated program was discontinued in 2014.

Full TRIUMPH (M3/M4 Program)

Seven annual cohorts, a total of 71 students, have participated in the M3/M4 version of TRIUMPH from 2010 to 2016. Fifty of these students have graduated. The demographics of these students are noted in Table 1.

All TRIUMPH students had prior experience working with disadvantaged populations. In addition, 35 (49%) self-identified as coming from minority or low-income backgrounds; more than half (47, or 66%) were Wisconsin residents, and 25 (35%) came from the metro Milwaukee region. Thirty-six (51%) of the students speak Spanish.

Table 2: Demographics of TRIUMPH full-program students who started the program in 2010-2016, compared to all other UWSMPH students from the same classes.

	Gender	Under-Represented Ethnic Minorities	WI Home State	Milwaukee Metro Home *
TRIUMPH full-program students, N=71	34% (24) male 66% (47) female	34% (24) URM 49% (35) Disadvantaged**	66% (47)	35% (25)
Traditional UWSMPH students, (N=925)	51% (476) male 48% (448) female	Not available	76% (668)	Not available

Definitions: Milwaukee Metro Area* - Milwaukee, Ozaukee, Racine, Waukesha, and Washington counties.

**Disadvantaged--minority or low SES background (first generation in family to get four-year college degree)

13.106 (4) (b) (2): Medical Specialties and Residency Locations

WARM

Of the 101 WARM students who have graduated from the program so far, 55.5% (55) have entered residency programs in primary care (Internal Medicine, Family Medicine, Pediatrics, or Internal Medicine/Pediatrics), compared to 39.2% of *regular* UW medical students, defined as those students in the MD program including those in the Medical Science Training Program (MSTP) and does not include WARM or TRIUMPH program UW medical students, in the same time period. In addition, 47.5% of WARM graduates (48) have entered residency programs in Wisconsin, compared to 30.5% of regular UW medical graduates in the same time period. Putting those two factors together, the 34.7% (35) of WARM graduates from 2011-16 doing Wisconsin Primary Care residencies is three times the rate of UW's regular MD graduates (12.6%).

Table 3: Graduates from the UWSMPH's MD programs from 2010-2016 who went into residencies in Wisconsin and/or in Primary Care specialties (Internal Medicine, Family Medicine, Pediatrics, Internal Medicine/Pediatrics).

Location/Specialty	WARM	TRIUMPH	Regular * MD Students	Grand Total
In Wisconsin	47.5% (48)	27.2% (22)	29.3% (271)	30.5% (341)
Primary Care	34.7% (35)	17.3% (14)	12.6% (117)	14.8% (166)
Other specialty	12.9% (13)	9.9% (8)	16.6% (154)	15.7% (175)
Outside WI	52.5% (53)	72.6% (59)	70.7% (654)	69.5% (766)
Primary Care	19.8% (20)	46.9% (38)	26.6% (246)	27.5% (304)
Other specialty	32.7% (33)	25.9% (21)	44.1% (408)	42.0% (462)
Primary Care Total	54.5% (55)	64.2% (52)	39.2% (363)	42.3% (470)
Grand Total	100.0% (101)	100.0% (81)	100.0% (925)	100.0% (1107)

*Regular UW Medical Student includes students in the MD program, including the MSTP, and does not include WARM or TRIUMPH students.

Longer-term program outcomes are gradually emerging as WARM cohorts complete their residency training and make decisions about where to practice, and so far those outcomes are encouraging. By the summer of 2016, there were 23 WARM graduates from 2011-2013 who had completed residency whose post-residency practice locations were known. Twenty (87%) of these post-residency WARM alumni were/will be practicing in Wisconsin, 12 (52%) were/will be practicing in what could be considered rural Wisconsin (most in communities under 20,000, one at 39,000), and another 3 were practicing in La Crosse, the community of 52,000 where they had done most of their WARM clerkships.

Table 4: WARM Medical Specialties and Residency Locations for alumni 2011 – 2016

Specialty and Residency Location	Residency Count
Anesthesiology	1
University of Nebraska Affiliate Hospitals (Omaha, NE)	1
Child Neurology	1
St. Louis Children's Hospital	1
Emergency Medicine	10
Geisinger Health System	2
HealthPartners Institute/Regions Hospital (St. Paul, MN)	1
Madigan Army Medical Center (Tacoma, WA)	1
Medical College of Wisconsin	2
Ohio State University	1
University of Wisconsin Hospital and Clinics	1
University of Nebraska Affiliate Hospitals (Omaha, NE)	1
University of Virginia (Charlottesville, VA)	1
Family Medicine	37
Altru Health System (Grand Forks, ND)	1
Aurora St. Luke's Medical Center (Milwaukee, WI)	1
Baraboo, rural training track	1
Family Medicine Res of Idaho (Boise, ID)	1
Greenville Hospital, USC (Greenville, SC)	1
Gundersen Health System (La Crosse, WI)	1
Gundersen Lutheran Med Fdn (La Crosse, WI)	1
Kootenai Health (Coeur D'alene, ID)	1
La Crosse Mayo	3
Medical College of Wisconsin	1
Medical College of Wisconsin (Appleton, WI)	1
Medical College of Wisconsin (Waukesha, WI)	2
Mercy Health System (Janesville, WI)	1
Oregon Health & Science University (Klamath Falls, OR)	1
Oregon Health & Science University (Klamath Falls, OR)	1
St. Anthony North (Westminster, CO)	1
Sutter Med Ctr of Santa Rosa-CA (Santa Rosa, CA)	1
University of Minnesota (Duluth, MN)	3
University of Minnesota (Mankato, MN)	1
University of Minnesota (North Memorial)	1
University of North Carolina Hospitals (Chapel Hill)	1

University of Rochester (Rochester, NY)	1
University of Wisconsin (Fox Valley) (Appleton, WI)	1
University of Wisconsin School of Medicine & Public Health (Appleton, WI)	3
University of Wisconsin School of Medicine and Public Health (Augusta/Eau Claire)	1
University of Wisconsin School of Medicine and Public Health (Fox Valley)	1
University of Wisconsin School of Medicine and Public Health (Madison, WI)	4
General Surgery	10
Bassett Medical Center (Cooperstown, NY)	1
Central Iowa Health System (Des Moines, IA)	1
Des Moines	1
Marshfield/St. Josephs (Marshfield, WI)	1
Rush University Medical Center (Chicago, IL)	1
University of Wisconsin Hospital and Clinics	2
University of Minnesota (Minneapolis, MN)	1
University of South Dakota (Sioux Falls, SD)	1
Wright State University Boonshoft School of Medicine (Dayton, OH)	1
Internal Med/Peds	3
Indiana University School of Medicine (Indianapolis, IN)	1
Marshfield/St. Josephs (Marshfield, WI)	2
Internal Medicine	10
Abbott Northwestern (Minneapolis, MN)	1
Aurora Health Care (Milwaukee, WI)	1
Aurora Health Care/Aurora Sinai Medical Center (Milwaukee, WI)	1
Central Iowa Health System/IA Methodist (Des Moines, IA)	1
Gundersen Lutheran Med Fdn (La Crosse, WI)	2
Marshfield/St. Josephs (Marshfield, WI)	1
Medical College of Wisconsin	1
University of Wisconsin Hospital and Clinics	1
University of Vermont (Burlington, VT)	1
Internal Medicine/Emergency Medicine	1
Hennepin County	1
Neurology	1
University of Utah Affiliated Hospitals (Salt Lake City, UT)	1
OB/GYN	4
St. Vincent Hospital Center (Indianapolis, IN)	1
University of Buffalo School of Medicine (Buffalo, NY)	2
West Virginia University School of Medicine (Morgantown, WV)	1
Orthopaedic Surgery	4
Mayo School of Graduate Medical Education (Rochester, MN)	1
University of Wisconsin Hospital and Clinics	1

University of Iowa Hospitals and Clinics (Iowa City, IA)	1
Wright State University Boonshoft School of Medicine (Dayton, OH)	1
Otolaryngology	1
University of Kentucky Medical Center (Lexington, KY)	1
Pediatrics	4
Mayo School of Graduate Medical Education (Rochester, MN)	1
University of Wisconsin Hospital and Clinics	3
Physical Medicine and Rehab	1
Barnes and Jewish Hospital (St. Louis, MO)	1
Psychiatry	6
University of Washington Affiliated Hospitals (Seattle, WA)	1
Loyola University (Maywood, IL)	1
University of Wisconsin Hospital and Clinics	3
University of Washington (Seattle, WA)	1
TY/Dermatology	1
University of Wisconsin Hospital and Clinics (TY Tulane School of Medicine)	1
TY/Ophthalmology	1
University of Arizona (TY Gundersen Health System)	1
TY/Physical Medicine	2
Carolinas Medical Center (Charlotte, NC) (TY University of North Dakota)	1
University of Wisconsin Hospital and Clinics (TY Wheaton Franciscan Healthcare-St. Joseph)	1
TY/Radiology	3
Medical College of Wisconsin (TY Gundersen Lutheran Medical Foundation)	1
Ohio State University (TY Wheaton Franciscan Healthcare-St. Joseph)	1
University of Wisconsin Hospital and Clinics (TY Gundersen Lutheran Medical Foundation)	1
Urology	1
Grand Total	102

TRIUMPH

Across the seven full TRIUMPH cohorts from 2010-2016, all of the graduates have entered residencies serving urban, underserved populations. The vast majority (78.0% or 39 out of 50) of students have entered residencies in primary care specialties (Family Medicine, Internal Medicine, Internal Medicine/Pediatrics, Internal Medicine/Primary Care and Pediatrics), a percentage almost 2 times higher than for traditional SMPH graduates (39.2%) from the same classes. Sixteen graduates (32%) have remained in Wisconsin for their residency training, including six at Aurora Family Medicine; five at the Medical College of Wisconsin (Internal Medicine (2), Internal Medicine/Pediatrics, Pediatrics (2)); and five at UW-Madison (Emergency Medicine, Family Medicine (2), and Psychiatry (2)).

Table 5: TRIUMPH Medical Specialties and Residency Locations for Full TRIUMPH Program Alumni (N=50) – Graduating Classes of 2010-2016

Specialty (In-state Residency Location)	Residency Program Count
Emergency Medicine	6
UW- Madison	1
Family Medicine	21
UW Madison	2
Aurora Health Care	6
Internal Medicine	7
Medical College of Wisconsin	2
Internal Medicine/Pediatrics	2
Medical College of Wisconsin	1
Internal Medicine/Primary Care	2
Obstetrics and Gynecology	2
Pediatrics	7
Medical College of Wisconsin	2
Pediatrics/Psychiatry	1
Psychiatry	2
UW Madison	2
Grand Total	50
Total in State	16

Abbreviated TRIUMPH (M3 Program)

The abbreviated M3 6-month TRIUMPH program was created in 2011 to increase capacity prior to expanding the full program. The abbreviated program ran from 2011 – 2013. Of the 31 students who participated in the abbreviated program, all had graduated as of May 2016. Of these alumni, 13 (42%) are in primary care specialties (5-Family Medicine, 4-Internal Medicine, 1-Internal Medicine/Pediatrics, and 3-Pediatrics). Eighteen (58%) of the abbreviated TRIUMPH program alumni are in non-primary care residencies (1-Dermatology, 6-Emergency Medicine, 4-Obstetrics/Gynecology, 1-Ophthalmology, 1-Otolaryngology, and 5-Surgery). Five (17%) of these remained in Wisconsin for residency training, three at Medical College of Wisconsin and two at UW Madison.

Table 6: TRIUMPH Medical Specialties and Residency Locations for Abbreviated TRIUMPH Program Alumni (N=31) – Graduating Classes of 2010-2016

Specialty (In-state Residency Location)	Residency Program Count
Anesthesiology	1
Dermatology	1
Emergency Medicine	6
Medical College of Wisconsin	1
Family Medicine	5
UW Madison	1
Internal Medicine	4
Internal Medicine/Pediatrics	1
Obstetrics and Gynecology	4
Medical College of Wisconsin	1
Ophthalmology	1
UW Madison	1
Otolaryngology	1
Pediatrics	3
Medical College of Wisconsin	1
Surgery	4
Medical College of Wisconsin	1
Grand Total	31
Total in State	6

13.106 (4) (b) (3): Postresidency Practice Locations

WARM Postresidency Practice Locations

As of August 2015, seven WARM students from the graduating classes of 2011 (1) and 2012 (6) have completed their residencies, and five of those are now practicing in WI, with one more just over the border in Duluth. Six of these graduates are in Family Medicine (with one now doing a sports medicine fellowship) and one is in Internal Medicine. The specialties and current practice locations of the first seven WARM graduates to complete residency are the following:

- FM: Practices in Oconto Falls, WI, with Prevea Health.
- FM: Practices in Shawano, WI, with ThedaCare Physicians
- FM: Practices in Black River Falls, WI, with Krohn Clinic
- FM: Practices in La Crosse, WI, with Mayo Clinic Health System-Franciscan Healthcare
- FM: Practices in Duluth, MN, with St. Luke's
- FM: Sports Medicine fellowship in MT, with Montana Family Medicine Residency, completed a residency with University of Wisconsin Hospital and Clinics, Appleton, WI
- IM: Practices in Menomonie, WI, with Red Cedar Clinic

Table 7: Postresidency Practice Locations for WARM Graduates

WARM Graduates in Practice as of Fall 2016	Count of Specialty
Dermatology	1
Gundersen Health System-La Crosse	1
Emergency Medicine	2
Aspirus Wausau Hospital	1
Virginia	1
Family Medicine	16
Black River Memorial Hospital	1
Colorado	1
Essentia Health (Superior)	1
Fox Valley Family Medicine Residency (Appleton)	1
FQHC-Milwaukee	1
Mayo Clinic Health System-Rice Lake	1
Mayo Health System (La Crosse)	1
Mayo Clinic-Franciscan Healthcare, La Crosse	1
Monroe Clinic-Albany	1
Oconto Falls and Green Bay	1
Prevea, Oconto Falls (Emergency Services)	1
Richland Medical Center-Richland Center	1
Signed in southcentral Wisconsin upon return--spending a year practicing in New Zealand	1
St. Joseph's Hospital--Froedtert Health, West Bend	1
St. Luke's Duluth Internal Medicine Assoc.	1
ThedaCare--Shawano	1
General Surgery	1
Sauk Prairie Healthcare	1

Internal Medicine	3
Marshfield Clinic	1
Red Cedar Clinic, Menomonie	1
University of Wisconsin Hospital and Clinics	1
Grand Total	23

Of the 23 graduates who have completed residencies, 20 work in Wisconsin, 12 of them in rural areas including Black River falls, Oconto Falls, Rice Lake and Shawano. A survey of recent of the WARM graduates indicated that 40% of those who matched out of state (8/20) would have preferred to match in Wisconsin, and all students surveyed indicated they intend to return to Wisconsin for practice. One challenge to keeping WARM graduates in the rural areas of Wisconsin is a lack of residencies in the state. In response to this shortfall of residency opportunities, the SMPH plans to start a rural, community-based OB-GYN residency next year with training in Monroe, Portage, Ripon, Waupun and Watertown, Wisconsin. Additional residency positions in the state in 11 programs are planned.

TRIUMPH Postresidency Practice Locations

Due to the length of post-graduate residency training (3 or more years) and challenges with alumni follow-up post residency, a subset of the data is available for alumni who have completed their residency and have been in recent contact with the program. Their initial practice areas are indicated in the Table 3 below. All of the 19 alumni who graduated from the program and who had completed residencies will be/are practicing in urban areas, with 8 remaining in and/or moving back to Milwaukee and one located in Madison. Eight graduates of TRIUMPH are currently practicing in the City of Milwaukee, one family medicine physician is based at a Federally Qualified Health Center (FQHC) and four graduates are full time physicians serving urban populations within Aurora (1-Emergency Medicine and 3-Family Medicine). Seven will practice in clinics and hospitals where they report at least 50% of their patients are low-income; many others plan to return to practice in Milwaukee in the long-term.

Table 3: Post-Residency Practice Locations for TRIUMPH Alumni

# TRIUMPH Alumni	Practice Location	Specialty
1	Madison, WI	Family Medicine
1	Milwaukee, WI	Cardiology
1	Milwaukee, WI	Emergency Medicine
4	Milwaukee, WI	Family Medicine
1	Milwaukee, WI	Internal Medicine
1	Milwaukee, WI	Pediatrics
1	Portland, OR	Emergency Medicine
1	Portland, OR	Pediatrics
1	Pottsville, MI	Internal Medicine
1	Saint Paul, MN	Family Medicine
1	Salt Lake City, UT	Internal Medicine
1	San Francisco, CA	Emergency Medicine
1	Seattle, WA	Internal Medicine
1	Houston, TX	Obstetrics and Gynecology
1	Long Island, NY	Emergency Medicine
1	West Allis, WI	Family Medicine

At the time of this report (August 2016) most graduates from the class of 2013, and all from the classes of 2014 – 2016 are still in residency training. There will be more information on practice location for the class of 2012 by fall 2016.

TRIUMPH Benefits to Urban Wisconsin

Innovative strategies are required to address physician shortages for urban MUPs. Physician shortages persist in Milwaukee, Wisconsin's largest city, where an additional 57 PCPs would have been required to meet minimal thresholds for primary care physician coverage in 2013.² Community partners have welcomed TRIUMPH students and consistently submit more project proposals than the number of students. FQHCs in Milwaukee have also welcomed senior TRIUMPH students for longitudinal preceptorships.

Many Wisconsin counties are designated as Health Professional Shortage Areas (HPSAs). HPSA status is conferred by the US Health Resources and Services Administration to designate service areas, populations, or facilities with shortages of human resources to provide essential primary health care services. In early 2016 the state of WI had 126 primary care HPSAs; 27 were designated as metro, 73 as non-metro, 2 as frontier, and 23 were individual clinics serving rural populations (1 was undesignated). More than 439,726 WI residents live in metro HPSAs. Due to the greater density of urban populations, while just 27/103 (26.2) % of WI HPSAs are metro, 44.0% of people living in WI HPSAs are urban medically underserved populations (MUPs)³.

TRIUMPH has been successful in recruiting, training and retaining physicians to work with urban medically underserved populations (MUPs). Participants have been more likely to enter primary care careers as compared to non-TRIUMPH and non-WARM students. Early outcomes confirm graduates who have completed residency are continuing to provide health care to the urban underserved.