

WWAMI Curriculum Renewal Panel Review and Recommendations

Executive Report

9-3-2014

Submitted to the Joint Labor, Health, and Social Services Committee

This report is in response to a footnote the Wyoming State Legislature placed on the WWAMI biennial budget during the 2014 session. It reads:

“The University of Wyoming shall conduct a review of the changes in the curriculum for the WWAMI program. The review shall consider: 1. whether the changes favorably or adversely affect the medical education of WWAMI students and 2. shall consider if an appropriate balance is retained among relevant classroom education, practice including rural practice experience and teaching hospital experience. The university shall conduct the review and present it to a review panel of at least seven (7) but not more than fifteen (15) members appointed by the university president. A majority of the review panel shall be physicians in clinical practice in Wyoming. The panel may recommend that the university negotiate changes in the proposed curriculum, may recommend changes at the university to support the new curriculum and may recommend that the university consider affiliating with a different medical school. The review and the recommendations of the review panel shall be submitted to the board of trustees and the Joint Labor, Health and Social Services interim committee on or before a date set by the trustees, which shall not be later than October 1, 2015.

On May 14, 2014, President Richard McGinity appointed the 11 member (7 physicians and 4 health professionals) WWAMI Curriculum Renewal Panel [henceforth referred to as WCRP].

Panel Members

| | | |
|--------------------|---|-------------|
| Melissa Bartley | Health Policy Advisor, Governor’s Office | Cheyenne |
| Wendy Braund, MD | Wyoming Dept. of Health | Cheyenne |
| Sheila Bush | Executive Director, Wyoming Medical Society | Cheyenne |
| Eric Cubin, MD | Radiologist, Casper Medical Imaging | Casper |
| Wendy Curran | Senior Director, Blue Cross Blue Shield | Cheyenne |
| Justin Hopkin, MD | Internist, Lander Medical Clinic | Lander |
| Paul Johnson, MD | ENT, Southeast Wyoming ENT | Cheyenne |
| Mike Jording, MD | Family Physician, Cedar Hills Family Clinic | Newcastle |
| Dan Perdue | President, Wyoming Hospital Assoc. | Cheyenne |
| Diane Noton, MD | Family Physician | Worland |
| Howard Willson, MD | Family Physician, UW Trustee | Thermopolis |

Dr. Justin Hopkin was elected chair and Dr. Mike Jording was elected vice-chair. The panel met 4 times (6/6/2014, 6/26/2014, 7/21/2014, 8/26/2014) and meetings were coordinated by Dr. Timothy Robinson, Director of the WWAMI Medical Education Program. Dr. Robinson, Dr. Joe Steiner (Dean, College of Health Sciences) and Mr. Mike Massie (Director of Governmental Relations) represented the University of Wyoming [henceforth referred to as UW] in these meetings. For readers who are interested in an overview of medical education and a reference point for curriculum renewal, please see the document “An Overview of the Medical Education Process” with accompanying figures.

Summary of Findings

1. Do the proposed curriculum changes at the University of Washington School of Medicine [henceforth referred to as UWSOM] favorably or adversely affect the medical education of WWAMI students?

The WCRP finds the proposed curriculum changes to be advantageous to the medical education of Wyoming students in the WWAMI program.

2. Is there an appropriate balance retained among relevant classroom education and medical practice (including rural practice experience and teaching hospital experience)?

The WCRP finds that an appropriate balance is retained among relevant classroom education, rural practice experience and teaching hospital experience.

3. Should UW negotiate changes in the proposed curriculum?

Yes, the WCRP recommends the following changes in the structure of the new curriculum be negotiated with the UWSOM:

- The expansion of Foundations instruction from 12 to 18 months in Laramie should be delayed by two years, until the fall of 2017.
- All Wyoming WWAMI students will be required to spend clerkship rotations in tertiary care centers in Seattle.

4. Should there be changes at the University to support the new curriculum?

The WCRP finds that the current financial and space resources available to the WWAMI program are inadequate and that these resources should be increased. UW, in order to address the need for additional financial resources, proposes to divert existing medical education funds to the operating budget of the WWAMI Medical Education Program. The WCRP recommends that a WWAMI Advisory Council be established.

5. Should the University of Wyoming affiliate with a different medical school?

The WCRP finds no reason to affiliate with a different medical school. Details to follow.

Discussion of Findings

1. The WCRP discussed the advantages associated with the proposed new curriculum from the UWSOM. The advantages are the following:

- 75% of medical schools in the United States are in the process of or have already transitioned to integrated curriculum models such as the new UWSOM curriculum. The proposed curriculum is producing better greater retention of material and better performance of clinical skills [see Carr, Celenza, Puddey, and Lake (BMC Medical Education, 2014)]. This is primarily due to the fact that content, especially in the 18 month foundational period, will integrate foundational science and clinical practice.

- The new curriculum will offer greater clinical exposure. Currently, there is very little in the way of clinical exposure in the foundational period (approximately 48 hours of clinical preceptor experience in the first year). The new curriculum will require nearly 200 hours of a longitudinal clinical experience in the first year (4-fold increase). Greater clinical exposure in medical school is highly correlated with better clinical skill performance.
 - In the new curriculum, students will finish their required third year rotations several months sooner, thus enabling the completion of sub-internships before applying for residency. Sub-internships greatly enhance the competitiveness of a students' residency application.
 - There is a high correlation between the amount of time trained in a region and likelihood of returning to a region for practice [Ballance, Kornegay, and Evans, *The Journal of Rural Health*, (2009)].
2. The WCRP discussed whether there is an appropriate balance retained among relevant classroom education and medical practice (including rural practice experience and teaching hospital experience). The following is a summary of the discussion on this point:

Currently (old curriculum), students spend their second year of medical school in Seattle and 90% of this time is spent learning foundational science in classroom lectures from PhD scientists and MD clinicians. About 10% of the second year instruction focuses upon clinical skills. The second year of medical school is the ONLY required time for students to spend in Seattle.

The new curriculum proposes that all of the first year and half of the second year (6 months) of medical school be spent in the regional sites. This necessarily implies that ALL of the foundational science and clinical skills will be taught regionally. The question that has been raised is that by replacing the second year in Seattle with a majority of the second year in Laramie, will our students have the necessary clinical experience in Seattle to enable them to develop the same level of skills as those who have historically come through the WWAMI program?

In response to this concern, WCRP members offered the following points:

- Whether students are in Laramie or Seattle for the first two years of medical school, the curriculum is the same. In addition, more time in the regional sites (18 months vs. 12 months) will provide more hands-on clinical experience and smaller class sizes for better learning of foundations material. In Seattle, foundational science is generally taught in large lecture halls where there is little, if any opportunity for student/teacher interaction. Additionally, in Seattle, clinical experience during the foundations period offers little 'hands-on' medicine opportunities due to lack of student seniority.
- The greatest value in spending time in Seattle is the exposure to tertiary care centers and opportunities for bench research. Seattle offers unsurpassed opportunities for a diverse range of clinical settings. These clinical settings are better exploited by the more advanced students (i.e., the third and fourth year students) who are doing clerkship rotations in Seattle.
- While the new curriculum provides opportunities for students to do clerkship rotations in tertiary care centers in Seattle and around the WWAMI region, there is currently no

requirement for tertiary care rotations. Since there are no level 1 tertiary care centers in Wyoming, the WCRP finds this lack of *required* tertiary care experience to be problematic.

- The new curriculum proposes that students spend time in Seattle at the conclusion of the 18 month Foundation Phase before the start of the Patient Care (Clerkship) Phase [first half of spring term in year 2]. This time is intended to enable students to access research opportunities with faculty at the University of Washington and to take advantage of Board exam preparation resources offered at the UWSOM.
3. The WCRP deliberated on whether the University should negotiate changes in the new curriculum. The WCRP in consultation with the UW WWAMI faculty believe that the new curriculum is advantageous for medical students. However, the WCRP recommends the following changes in the curriculum's structure:

A. Negotiate a start date change - The expansion of Foundational instruction from 12 to 18 months in Laramie is schedule to begin with the entering 2015 class. Not only will new faculty need to be hired to deliver the new curriculum, but also beginning in the fall of 2016 there would be 40 medical students in Laramie. The current WWAMI space does not meet the Liaison Committee on Medical Education (LCME) accreditation standards for delivering medical education to 40 students. The WCRP recommend that the expansion from 12 to 18 months in Laramie be delayed for **two years** until sufficient financial and space resources are available to host this additional time in Laramie. The following are specific points which led to this recommendation:

- The current space utilized for the WWAMI program was designed for the initial class in 1997 of 10 medical students (ex. classroom, cadaver lab, study space, faculty offices, etc.). With expansion of the WWAMI class over the years to the current cohort size of 20 students, we currently do not meet the Liaison Committee on Medical Education (LCME) accrediting standards for space. It necessarily follows that the UW WWAMI Program will not meet the space accrediting requirements with 40 students. Below is a comparison of space that is designated for each of the WWAMI regional sites:

Table 1. Space comparisons across sites

| Site | # Students | Space |
|---------|------------|------------------------------------|
| Wyoming | 20 | 2,864 sq.ft. |
| Alaska | 20 | 8,527 sq.ft. |
| Montana | 30 | 10,250 sq.ft. |
| Idaho | 30 | 43,496 sq.ft.* (proposed building) |

- The current WWAMI operational budget did not increase when the WWAMI class was expanded from 16 students to 20 students (expansion occurred in 2010) despite the resulting increased need in the number of preceptors, additional support costs, and an increase in the number of cadavers. The new curriculum will require an increase in the number of teaching physicians in Laramie. The following shows a comparison of financial and teaching resources across the regional WWAMI sites:

Table 2. Resource comparisons across sites

| | Wyoming | Alaska | Montana | Idaho |
|------------------|--------------|-------------|------------|-------------|
| # Clinical (FTE) | 0.5 | 3 | 3 | 2 |
| Administrators | 2 | 2 | 2 | 4 |
| Office support | 2 | 2 | 2 | 2 |
| Operating Budget | 0.75 million | 1.7 million | 1 million* | 1.4 million |
| # Students | 20 | 20 | 30 | 30 |

*Montana operating budget is proposed to double this year

Additional finances will be required for: 1. more clinical faculty and 2. an increased support budget.

Rather than requesting an increase in WWAMI's general fund appropriation to cover these costs, it may be possible for UW to re-purpose some of the existing funding and program revenue to retain these additional faculty and increase the support budget.

B. Negotiate required tertiary care clerkships - The WCRP recommends requiring Wyoming WWAMI students do at least two tertiary care clinical rotations during their 3rd year of medical school and that at least one of these rotations be done in Seattle. This requirement necessarily implies a negotiation with the UWSOM to change the structure of the new curriculum to accommodate this position.

Dr. Paul Ramsey, Dean and CEO of the UWSOM has responded to the WCRP recommendation with the letter provided in the Appendix.

4. Should there be changes at the University to support the new curriculum?

As noted above, the WCRP recommends three changes be implemented by UW: A. Increase financial resources; B. Increase WWAMI physical space and C. Establish a WWAMI Interdisciplinary Advisory Council. Specifically:

A. Increased financial resources (As proposed by UW and the WWAMI Program)

- 5 additional part-time non-benefited lines and 2 additional part-time benefited lines in the WWAMI budget. Note the addition of 2.25 FTE of MD clinical faculty will raise WWAMI's current allocation of 0.5 FTE MD clinical to 2.75 FTE MD clinical.
- Increased operational support budget to accommodate additional preceptors, faculty development for clinical and non-clinical instruction (ex. instruction in active-learning, case/problem-based learning, etc.), learning specialist (LCME accreditation requirement), equipment, and travel.
- Much of the additional financial needs begin to be incurred before UW hosts 40 students in Laramie (i.e., expand hosting in Laramie from 12 months to 18 months) due to a four-fold increase in the amount of clinical instruction in the first 12 months of medical school.

- UW officials believe that the required funds can be obtained, with legislative permission, by moving some existing funds into the WWAMI budget. Specifically, WWAMI students in years 2-4 pay tuition to the University of Wyoming. These payments currently flow to the Medical Education Endowment account and are not part of the current WWAMI operating budget. It is hoped that WWAMI can capture a portion of these payments to meet the financial needs for delivering the new curriculum. In other words, there is no anticipated need at this time to ask the Legislature for new dollars. The WCRP supports the approach of not increasing the state allocation and using existing funds to address current needs.

Budget details are as follows:

| | FY 16 | | FY 17 | | FY 18 | | FY 19 | | FY 20 | |
|--|---------------|---------------|---------------|---------------|----------|---------------|----------|---------------|----------|-------------------------|
| Entering Classes | E15's | E16's | E17's | E18's | E19's | E18's | E19's | E18's | E19's | E19's |
| | AY15/16 | AY 16/17 | AY 17/18 | AY 18/19 | AY 19/20 | AY 18/19 | AY 19/20 | AY 18/19 | AY 19/20 | AY 19/20 |
| Operation Support (B2000) | \$ 58,950.00 | \$ 58,950.00 | \$ 58,950.00 | \$ 58,970.00 | \$ - | \$ 58,970.00 | \$ - | \$ 58,970.00 | \$ - | \$ - |
| Clinical Skills Instruction (B1000) | \$ 234,030.00 | \$ 234,030.00 | \$ 234,030.00 | \$ 234,030.00 | \$ - | \$ 234,030.00 | \$ - | \$ 234,030.00 | \$ - | \$ - |
| Clinical Skills Instruction (B2000) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Clinical Classroom Instruction (B1000) | \$ 234,030.00 | \$ 234,030.00 | \$ 234,030.00 | \$ 234,030.00 | \$ - | \$ 234,030.00 | \$ - | \$ 234,030.00 | \$ - | \$ - |
| Immersion clinical training (B2000) | \$77,790 | \$ 77,790.00 | \$ 77,790.00 | \$ 77,790.00 | \$ - | \$ 77,790.00 | \$ - | \$ 77,790.00 | \$ - | \$ - |
| Clinical Classroom Instruction (B2000) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Preceptor Costs (B2000) | \$ 50,000.00 | \$ 50,000.00 | \$ 50,000.00 | \$ 100,000.00 | \$ - | \$ 100,000.00 | \$ - | \$ 100,000.00 | \$ - | \$ - |
| Add't Science Instruction (B1000) | | | | \$ 60,000.00 | \$ - | \$ 60,000.00 | \$ - | \$ 60,000.00 | \$ - | \$ - |
| Add't Faculty Support costs (B2000) | | | | \$ 22,000.00 | \$ - | \$ 22,000.00 | \$ - | \$ 22,000.00 | \$ - | \$ - |
| Learning Specialist (B1000) | | | | \$ 4,880.00 | \$ - | \$ 4,880.00 | \$ - | \$ 4,880.00 | \$ - | \$ - |
| Brenda Cannon | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | \$ 654,800.00 | \$ 654,800.00 | \$ 654,800.00 | \$ 791,700.00 | \$ - | \$ 791,700.00 | \$ - | \$ 791,700.00 | \$ - | \$ - |
| | | | | | | | | | | 1st year of 40 students |

B. Increase WWAMI physical space

- Existing WWAMI physical space was designed to meet the LCME accreditation standards for hosting 10 WWAMI students. In order to meet accreditation standards for hosting 40 students, the WWAMI space should be increased four-fold. Failing to increase space will put the Wyoming WWAMI program at risk in terms of accreditation.
- Montana and Idaho have recently expanded from 20 first year students to 30 first year students. Alaska is also considering an expansion in the first year class. Any capital construction planning should allow for possible class expansion to meet Wyoming's workforce needs.
- Discussions at UW have already begun in regards to developing strategies for increasing WWAMI physical space.

C. Establish a WWAMI Interdisciplinary Advisory Council

- As with any major curriculum overhaul, details remain somewhat fluid even as the curriculum is implemented.
- As medical education curriculum in the United State considers other improvements in training models, such as an increased emphasis on inter-disciplinary medical education, there will continue to be a need for examination of those concepts and their application in Wyoming.
- It is critical that the WWAMI program remain engaged with Wyoming's medical community and the medical issues that face the state of Wyoming.
- A WWAMI Interdisciplinary Advisory Council should be established for the purpose of offering ongoing experience and expertise to the WWAMI Medical Education Program. The current members of the WCRP are natural candidates to serve on the newly established Advisory Council, with additional representatives from other professions that comprise the healthcare team in medical practice.

5. Should the University of Wyoming affiliate with a different medical school?

The WCRP finds no reason to affiliate with a different medical school. The following advantages were identified for participating in the WWAMI program:

- Students trained by the top medical school in the U.S. For 20 plus years, University of Washington School of Medicine (UWSOM) has been rated as #1 in *U.S. News and World Report* in primary care, family medicine, and rural medicine training, all of which are critical areas of practice for Wyoming. The WWAMI program continues to be an excellent fit for Wyoming's medical needs.
- WWAMI offers the greatest opportunity for the clinical practice of rural medicine in the U.S. (ex. Colorado has 1 location for a rural clerkship experience while WWAMI offers over 100 rural clinical locations).
- 2/3 of WWAMI graduates return to practice medicine in Wyoming – the highest return rate in WWAMI region; of those, 87% are staying beyond the three-year loan repayment period.
- The WWAMI program exposes non-Wyoming students to Wyoming.
- According to the Association of American Medical Colleges (AAMC), Wyoming student per annum cost for medical school is approximately \$55,000 less than the national per annum student cost.

Appendix - Letter from Paul Ramsey, CEO and Dean UWSOM

UW Medicine

August 20, 2014

Justin Hopkin, M.D.
Chair, Wyoming WWAMI Curriculum Review Committee
177 Rosewood Avenue
Lander, WY 82520

Dear Dr. Hopkin,

For over 15 years, the University of Washington School of Medicine (UWSOM) and the University of Wyoming have together built and implemented the Wyoming WWAMI program for Wyoming citizens to attend medical school. This has been a highly successful and satisfying partnership with excellent outcomes to date.

As we transition to a new UW School of Medicine curriculum that begins in the 2015-2016 academic year, the UWSOM is honored to continue to provide outstanding medical education for the citizens of Wyoming. The new medical school curriculum utilizes the dual strengths of Wyoming and the UWSOM in providing the best possible education for medical students.

In the new curriculum, students will be learning clinical skills and knowledge that is integrated with their development of foundational knowledge in the basic sciences during the time they are in Wyoming. In the transition to the new curriculum, Wyoming students will continue to spend the first year of medical school in Wyoming and then come to Seattle to complete their basic science foundational education until needed resources are in place allowing them to spend the entire 18 months of the new foundations phase in Wyoming.

During the patient care phase of the new curriculum, Wyoming students will be required to spend time in Seattle training in tertiary and quaternary care settings. The students will benefit from time spent training in these care settings and experiencing the types and volumes of complex patients not currently available in Wyoming. In Seattle, students will have the opportunity to work with medical residents as well as Seattle-based attending physicians. They will also have the opportunity to spend additional time in Seattle as needed and requested for learning both primary care and specialty skills as well as for participating in research training and other special experiences.

Paul G. Ramsey, M.D.

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*Justin Hopkin
UWSOM/Wyoming WWAMI
August 20, 2014*

This combination of outstanding dual education and training in Wyoming, Seattle and other WWAMI states creates medical education that is second to none in the United States. We are grateful for the opportunity to work with an outstanding partner university and state in building the Wyoming physician workforce for future generations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Paul Ramsey".

Paul G. Ramsey, M.D.
CEO, UW Medicine
Executive Vice President for Medical Affairs and
Dean of the School of Medicine,
University of Washington