Medical Education in Montana

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Montana WWAMI

The Montana WWAMI Program

1971 – 2017

Jay S. Erickson M.D.
27% of the total land mass of the U.S.
3% of the U.S. population
25% of the people live in rural areas

WWAMI Population
Urban 7,840,000
Rural 2,580,000
Total 10,420,000
WWAMI

Non-metro percent of population by state

12%  65%
34%  70%
33%
The University of Washington School of Medicine has two distinct missions:

1. Meeting the health care needs of our region, especially by recognizing the importance of primary care and providing service to underserved populations

2. Advancing knowledge and assuming leadership in the biomedical sciences and in academic medicine.
Montana Physician Workforce Data

Per 100K population, Montana ranks:
• 29th in nation for total active patient care physicians
• 24th for active patient care primary care physicians
• 11th for active patient care general surgeons

Montana’s physicians are aging:
• 32.7% of Montana physicians are over age sixty
  (National average is 29.4%)

2015 AAMC State Physician Workforce Data Book
How many Montana students attend medical or osteopathic schools, past 7 years (2010-16)?

- **54** MT residents per year attend medical school in the US
  - MT WWAMI-30
  - WICHE medical school-6

- **19** MT residents per year attend osteopathic school in the US
  - WICHE osteopathic school-2
State supported medical students per 100,000

- Montana: 14.8
- South Dakota: 32.8
- North Dakota: 42.2

Medical Education-Cost per Student

- Montana: $35,871
- South Dakota: $79,075
- North Dakota: $87,958

Medical Education-cost per capita

- Montana: $4.91
- South Dakota: $25.95
- North Dakota: $37.11

2016 data
Specialty Choice of WWAMI Graduates 1973-2017 (top ten)

Medical Specialties of Montana WWAMI Graduates
(Total 776)
Years: 1973-2017

52% matched into a primary care specialty
2017 MT WWAMI Match-25 graduates

- **Primary Care**-68%
- Family Medicine-9
- Internal Medicine-5
- Pediatrics-3
- General Surgery-5
- EM-1
- Interventional Radiology-1
- Prelim-1
## Total Student Debt at Graduation 2016

<table>
<thead>
<tr>
<th>Total Student Debt</th>
<th>MT WWAMI</th>
<th>Public</th>
<th>Private</th>
</tr>
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<tbody>
<tr>
<td>(mean)</td>
<td>$173,595</td>
<td>$180,610</td>
<td>$203,201</td>
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### MRPIP

- Montana Rural Physician’s Incentive Program (MRPIP)
- Tuition Surcharge approx. $5,000/yr
- Loan Repayment of up to $100,000 for practicing for 5 years in qualifying rural or underserved practice in Montana. (2017 legislature increased to $150,000)
## UWSOM Curriculum

<table>
<thead>
<tr>
<th>Scientific Foundations Phase</th>
<th>Patient Care Phase</th>
<th>Career Explore &amp; Focus Phase</th>
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<tbody>
<tr>
<td>Integrated blocks medical science in clinical context</td>
<td>Required clerkships Integrated basic science</td>
<td>Career exploration Specialty-specific preparation</td>
</tr>
<tr>
<td>Clinical experience longitudinal clerkship</td>
<td>Specific rotations in Seattle</td>
<td>Research/scholarship</td>
</tr>
<tr>
<td>Bozeman</td>
<td>Montana, Seattle or the region</td>
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LICs will include all regular intersessions, as well as USMLE Step 2 Preparation.
MT WWAMI TRUST

Targeted Admissions

Separate Admissions Process
- Rural background
- Prior career experience, especially health-related
- Significant volunteer experience in rural or underserved medical settings
- Strong commitment to service

18 Month Foundations Phase
- Underserved Pathway
- TCC visits
- Rural Health Course
- TRUST mentors

FSE: First Summer Experience
- Assignment: TCC and physician mentor
- 7 to 14 day immersion at TCC prior to start of Foundations Phase

UWSOM Underserved Pathway & Mentors

 Foundations Phase (continued)
- 3 four-day TRUST focused intercessions at TCC
- WWAMI TRUST four-day leadership retreat
- Attend National or Regional meeting
- On-line journal club

Patient Care Phase
- WRITE (WWAMI Rural / Underserved Integrated Training Experience) LIC for 18 or 22 weeks
- Attend National or Regional meeting
- On-line journal club

TRUST Continuity Community (TCC) Linkages

Patient Care Phase

Career Exploration Phase
- Electives at TCC
- Residency Linkage
- Attend National or Regional meeting
- On-line journal club

Residency (including Rural Training Tracks)
- TRUST graduates choose Primary Care Residency program or residency in needed regional specialty oriented to rural or underserved settings.
- TRUST develops connections with regional residency programs
- Continue TCC linkages during residency

Rural Underserved Opportunities Program (RUOP)
4 weeks at TCC completing community-oriented scholarly project
Entering 2015 TRUST/WRITE students
Hometowns & Community Placements

Libby
Riley Grogan ~ hometown, Polson

Glasgow
Justinn Marshall ~ hometown, Saco

Lewistown
Justin Brewer ~ hometown, Melstone
Payton Skawinski ~ hometown, Great Falls

Hamilton
Kellee Glaus ~ hometown, Whitehall

Buell
Carlee Fountaine ~ hometown, Bozeman

Butte
Heidi Gross ~ hometown, Bozeman

Hardin
Rebekah Huckeby ~ hometown, Butte

Miles City
Aaron Maus ~ hometown, Wibaux

Livingston

Dillon
Kyler Kingston ~ hometown, Butte

MONTANA WWAMI
2017 MT WWAMI Acceptances–Home Towns

- Browning
- Choteau
- Great Falls
- Helena
- Polson
- Charlo
- Missoula(4)
- Hamilton
- Butte
- Whitehall
- Bozeman(2)
- Livingston
- Gardner
- Chinook
- Glasgow
- Ryegate
- Billings(4)
- Medicine Lake
- Glendive
- Miles City
- Wolf Point
- Plevna
UWSOM TRUST/WRITE
2016-2017  ~  35 sites

TRUST/WRITE Sites
WWAMI Regional Offices
Affordable Greenhouse Construction: A Response to the Climatic and Geographic Impediments to a Diabetic Diet in Heart Butte, MT

University of Washington School of Medicine, Ill Intervention, 2007

Megan Chandler, WWAMI, MS-II

Purpose

This project seeks to offset the geographical and climatic features that challenge attempts to attain a healthy diet by integrating the concept of an inexpensive family greenhouse into home gardening programs implemented by local diabetes organizations and active gardeners already operating within Heart Butte. A greenhouse, correctly utilized will extend the growing season for plants that require more than ninety days to reach maturity and protect seedlings that would easily be damaged by late spring frosts thereby allowing citizens to supplement their diets with affordable vegetables.

Background

In the town of Heart Butte, MT the high cost and distance to affordable food has a major impact on the diet of the local population. The nearest grocery store with vegetables is twenty miles away, but citizens often commute up to two hundred miles to purchase affordable groceries. Heart disease and diabetes, both chronic illnesses that require adherence to a specific diet high in vegetable content, are epidemic among the Native American Indian population. Diabetes mellitus in particular has an incidence among Native Americans three times that of the general U.S. population.

Methods

Research was done to design the appropriate structure necessary for the extreme weather that Heart Butte experiences. The North Carolina Cooperative Extension Service a division of the North Carolina State University College of Agriculture and Life Sciences has engineered an inexpensive, stable greenhouse that can withstand high winds and up to four inches of snow. Contributions from local gardeners allowed for its construction in Heart Butte during which time four individuals were trained in its assembly. Materials were attained from local businesses with costs totaling $150.

Community training and awareness of the greenhouse design was organized through the Blackfeet Special Diabetes Program titled the “Healthy Heart Project.” Already involved in community outreach and patient contact through a family gardening program and the diabetic clinic at the hospital this community-based organization was the ideal group with which to network.

During a Diabetic Clinic held at the hospital staff of Healthy Heart and associated patients were trained on the greenhouse construction process.

Results

Number of people trained in greenhouse construction (directly): 4
Number of people trained in greenhouse construction (indirectly): 15
Number of community organization outreach workers trained: 5
Number of community organization with increased capacity: 1
Number of greenhouses constructed: 1

Members were very excited about the concept of a low cost greenhouse. Currently all the seedlings used in the outreach projects are from the Blackfeet Community College which is far from many of the communities around Browning where Healthy Heart is trying to operate creating additional transport needs for all the plants. It was suggested that at least one greenhouse be built in town where they were operating that could be maintained by a single family or a crop of families.

Discussion

In a community where diabetes has become epidemic in its incidence and severity, community oriented medicine requires more than regular patient education and sensitization during visits to the clinic. Organizations targeting the disease have taken it upon themselves to go out into the community and support behaviors and encourage activities such as gardening. Health care providers outside of the clinic setting should support such proactive measures. Contributing new ideas that support the ongoing efforts of an organization increase its capacity. Physician involvement in that capacity building improves the legitimacy of the organization in the eyes of patients and attitudes of those outreach persons who are working outside the clinic.

The Blackfeet people often come together as a community to build traditional structures such as teepees, medicine lodges at the Sun Dance festivals and sweat lodges. Studies have recommended that interventions in community health be culturally sensitive and incorporate traditional values. Greenhouse construction is an example of how tribal traditions of building small shelters that enhance spiritual, social and family life can be extended into the area of food security.

References

Cox, K., Wayte, S., Campbell, G., Bullock, C. (October, 2002). “Socioeconomic differences in diet-related health behaviors and related health promotion. Our lives were healthier before: focus groups with African American, American Indian, Hispanic/Latino and Hmong people with diabetes.” Diabetes Care 25(10): 1957-1961

Acknowledgements

Special thanks to Dr. Mary DesRosier and her family, John Padget, the Staff of the Heart Butte Clinic, The Healthy Heart Project, The SouthernレビューBegan Diabetes Program and Blackfeet Community Hospital.

Heart Butte is located at a latitude known for high winds, a short growing season and killing frosts. This challenges many attempts by the community to cultivate crops that would supplement their diet. Positive dietary decision making in Heart Butte is undermined by the geographic, financial, and environmental choices available to the community.
Primary Care Preceptorships

Montana WWAMI faculty preceptors provide valuable training and hands-on experiences.

E2015 TRUST Scholar, Carlee Fountaine (Butte) and Dr. Serena Brewer, preceptor, examining a pediatric patient.
WRITE provides a 22 week, longitudinal integrated clerkship in the third-year in one rural/underserved site located in the WWAMI Region

- **Mix of ambulatory and hospital experiences**
- **Rural/underserved primary care**
- **Provides outstanding opportunity for continuity**
- **Student becomes part of the community**
E2016 TRUST Scholars

UWSOM Underserved Pathway

Indian Health Blanket Ceremony 2017

Hardin TRUST Scholar Orin Hansen with Preceptor/Mentor, Dr. David Mark
Montana’s GME history

• **Montana Family Medicine Residency**
  – Billings
  – First class matriculated **1995**
  – 24 residents / 8 per class

• **Family Medicine Residency of Western Montana**
  – Missoula and Kalispell
  – First class matriculated **2013**
  – 30 residents / 10 per class

• **Billings Clinic Internal Medicine Residency**
  – Billings
  – First class matriculated **2014**
  – 18 residents / 6 per class (expanding to 8 with private funding)
333% increase in GME since 2011

PGY-1 (1st year residents)
State comparisons in GME residents per 100,000-2016

- **High**
  - 1\textsuperscript{st} Massachusetts: 81.7
  - 2\textsuperscript{nd} New York: 81.5

- **Mean** 36.9 (Median 27.4)

- **Low**
  - 44\textsuperscript{th} North Dakota 18
  - 45\textsuperscript{th} South Dakota 15.5
  - 47\textsuperscript{th} Montana 8.2
  - 48\textsuperscript{th} Wyoming: 7.2
  - 49\textsuperscript{th} Idaho: 6.4
  - 50\textsuperscript{th} Alaska 4.9
Why is this important?

• *Family Medicine* February 2015
  – “55% of FM graduates in U.S practice within 100 miles of their residency”
  – “Reached 70% in a handful of states” (including MT!)
  – “Thus, addressing the primary care shortage, particularly in underserved areas, will require an increase in the number of residency positions in those locations.”
What increases the likelihood of a resident practicing in the rural and underserved parts of Montana?

- *More exposure* to rural medical communities
- Clear understanding of the *unique cultures* of rural communities
- Good quality and *comprehensive* training
- Opportunities for loan repayment / forgiveness

- *Simply placing a larger number of physicians in MT will not solve the rural / underserved workforce issues.*