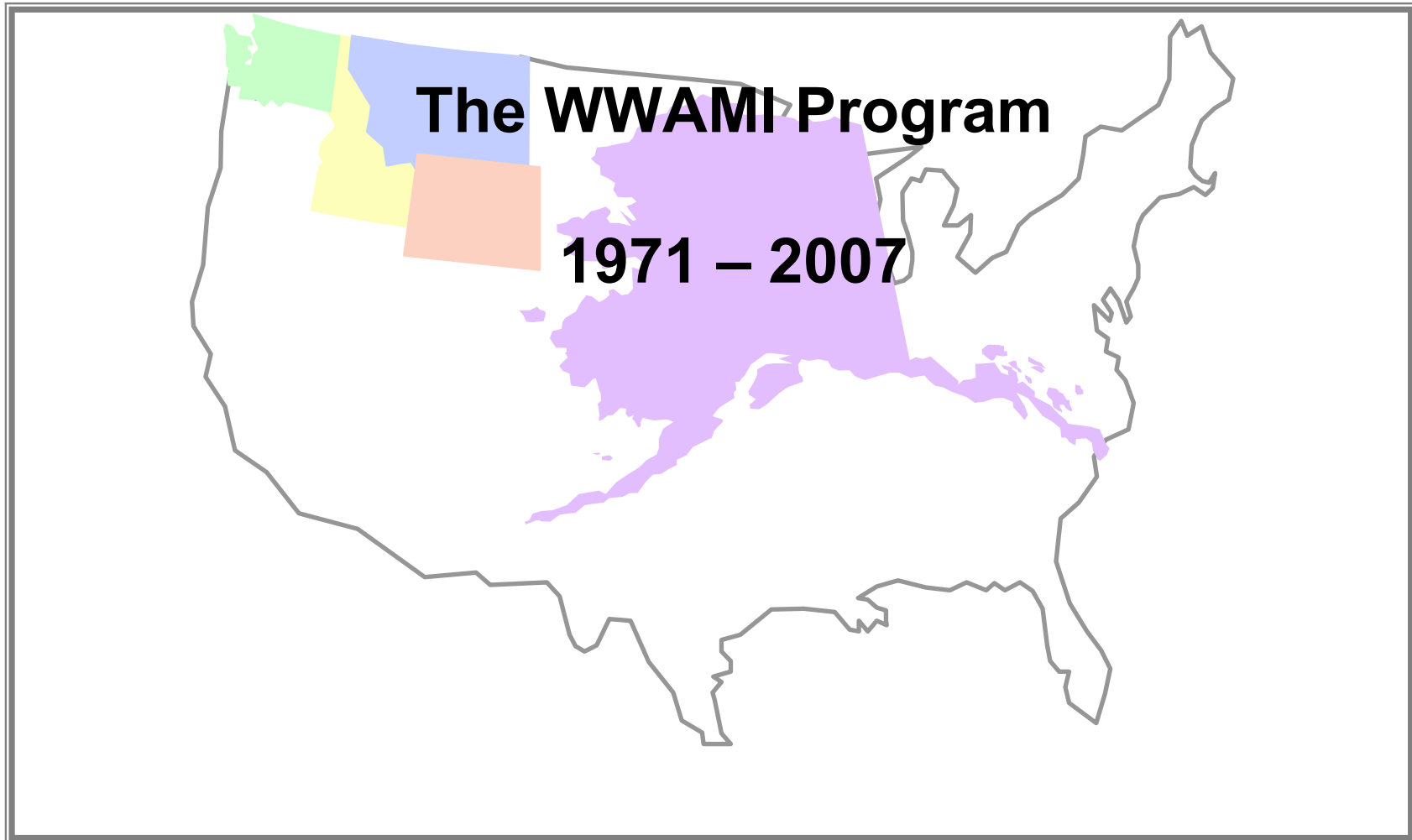




WWAMI




The WWAMI Program: Founding Goals (1971)



- 1) Access to Publicly Supported Medical Education
- 2) Increase the number of primary care providers (MD) /address maldistribution of physicians
- 3) Create Community-Based Medical Education
- 4) Expand GME and CME across WWAMI
- 5) Avoid excessive capital costs by using existing educational infrastructure

Medical School Seats per 100K Population



Vermont	15.6
New York	10.2
Massachusetts	9.7
North Dakota	9.4
Oklahoma	7.0
US Average	6.6
Minnesota	5.6
Hawaii	4.6
Wyoming	3.8
California	3.7
Montana	2.2
Washington	2.0
Idaho	1.6
Alaska	1.2
Delaware	0.0

*prior to 2007 Expansion

Public vs. Private Medical Education Student Finances 2007

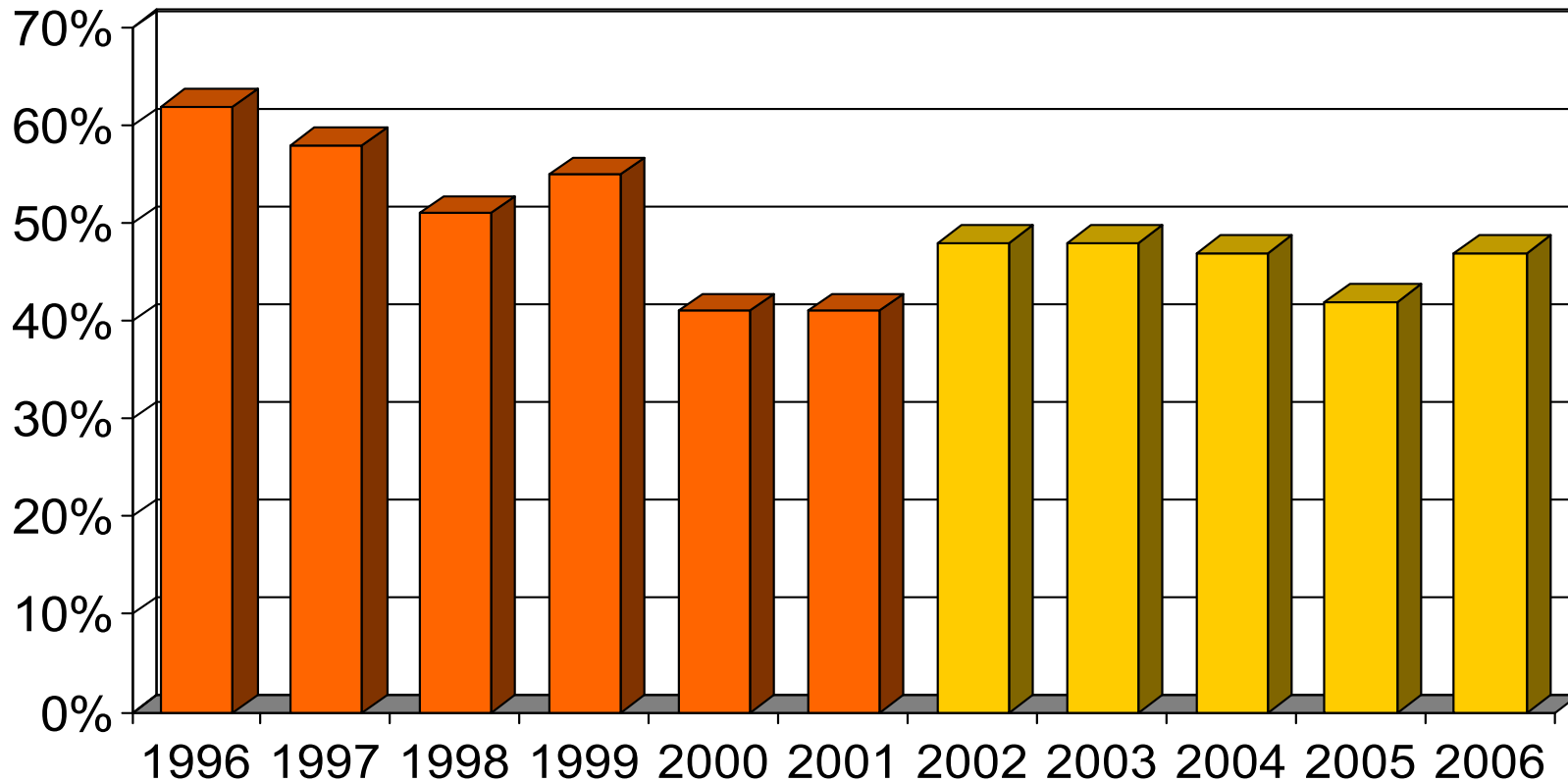
	WWAMI	PUBLIC*	PRIVATE*
◆ STUDENT TUITION			
Resident	\$15,872	\$19,700	\$36,014
Non-Resident	\$37,694	\$38,670	\$37,595
◆ TOTAL STUDENT DEBT (at Graduation)	\$104,919*	\$120,000	\$160,000

**◆ IMPACT ON RESIDENCY
(SPECIALTY) CHOICE**

◆ IMPACT ON PRACTICE SITE

*Mean
Numbers

Percent of SOM Graduates Selecting Primary Care Residencies



UW convention*

UW figure using national convention

*Primary care residencies defined as Family Medicine, Pediatrics and Internal Medicine (primary care track only) for UW convention.

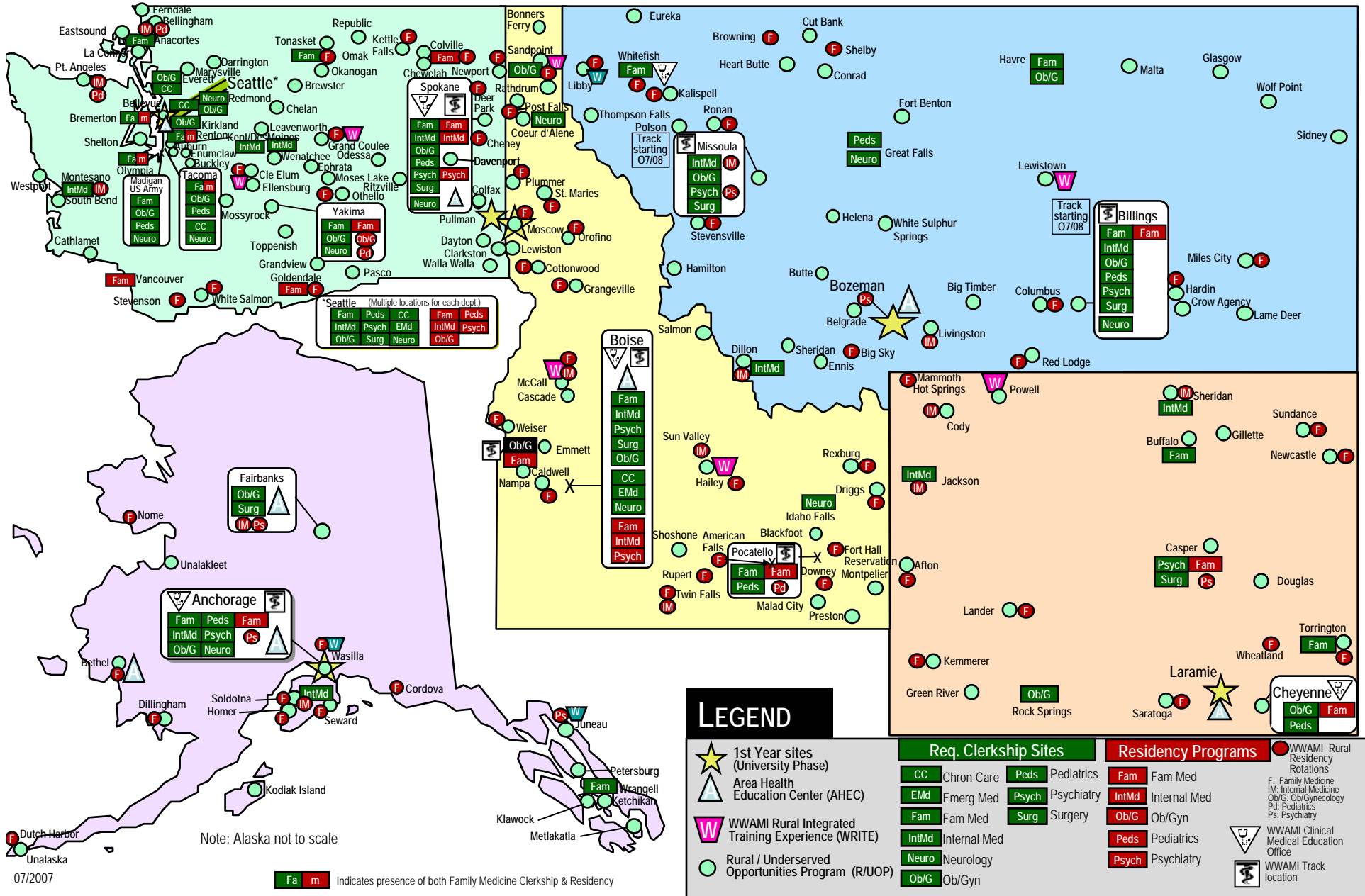
Tracking the Founding Goals

1971 - 2007



3) Create Community-Based Medical Education

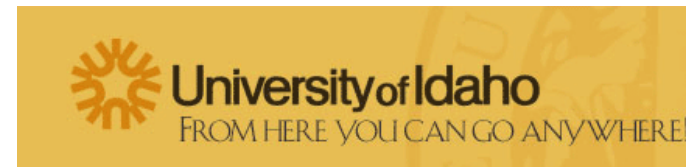
- ◆ Pre Medical Outreach
- ◆ 1st Year University-Based Curriculum
- ◆ Rural Underserved Opportunities Program (RUOP)
- ◆ 3rd and 4th Year Clerkships
- ◆ WWAMI Rural Integrated Training Experience (WRITE)
- ◆ Community Service



University-Based First Year Curriculum

Disciplines

- ◆ Anatomy
(microscopic/Embryology)
- ◆ Biochemistry
- ◆ Molecular and Cellular Basis
of Disease
- ◆ Nervous System/Human
Behavior
- ◆ Immunology
- ◆ Introduction to Clinical
Medicine
- ◆ Critical Reading



WWAMI Research Consortium


“A work in progress” 2003 – 2007



Objective: To create a collaborative biomedical research consortium among the WWAMI state universities and the University of Washington

- ◆ Affiliate Faculty Positions – Library Access
- ◆ “LARIAT” – Linking state universities to Internet II
- ◆ Shared Regional Research Projects
 - ◆ BRIN (Biomedical Research Infrastructure Network) (2004)
 - ◆ Biodefense and Emerging Infectious Diseases (2005)
 - ◆ Clinical and Transitional Science Award (2007)

Rural/Underserved Opportunities Program (R/UOP)



Offers students between first and second years elective preceptorships with practicing physicians in rural and medically underserved urban areas

- ◆ 19 years experience involving over 300 community sites and now consistently over half (60%) of all 1st year students
- ◆ 120+ currently active sites throughout the WWAMI region
- ◆ Can be combined with the Independent Investigative Inquiry (III) focused on Community-Oriented Primary Care

Affordable Greenhouse Construction: A Response to the Climatic and Geographic Impediments to a Diabetic Diet in Heart Butte, MT

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.



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.

University of Washington School of Medicine, III Intervention, 2007

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.

Megan Chandler, WWAMI, MS-II

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.

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 in which 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 group of families



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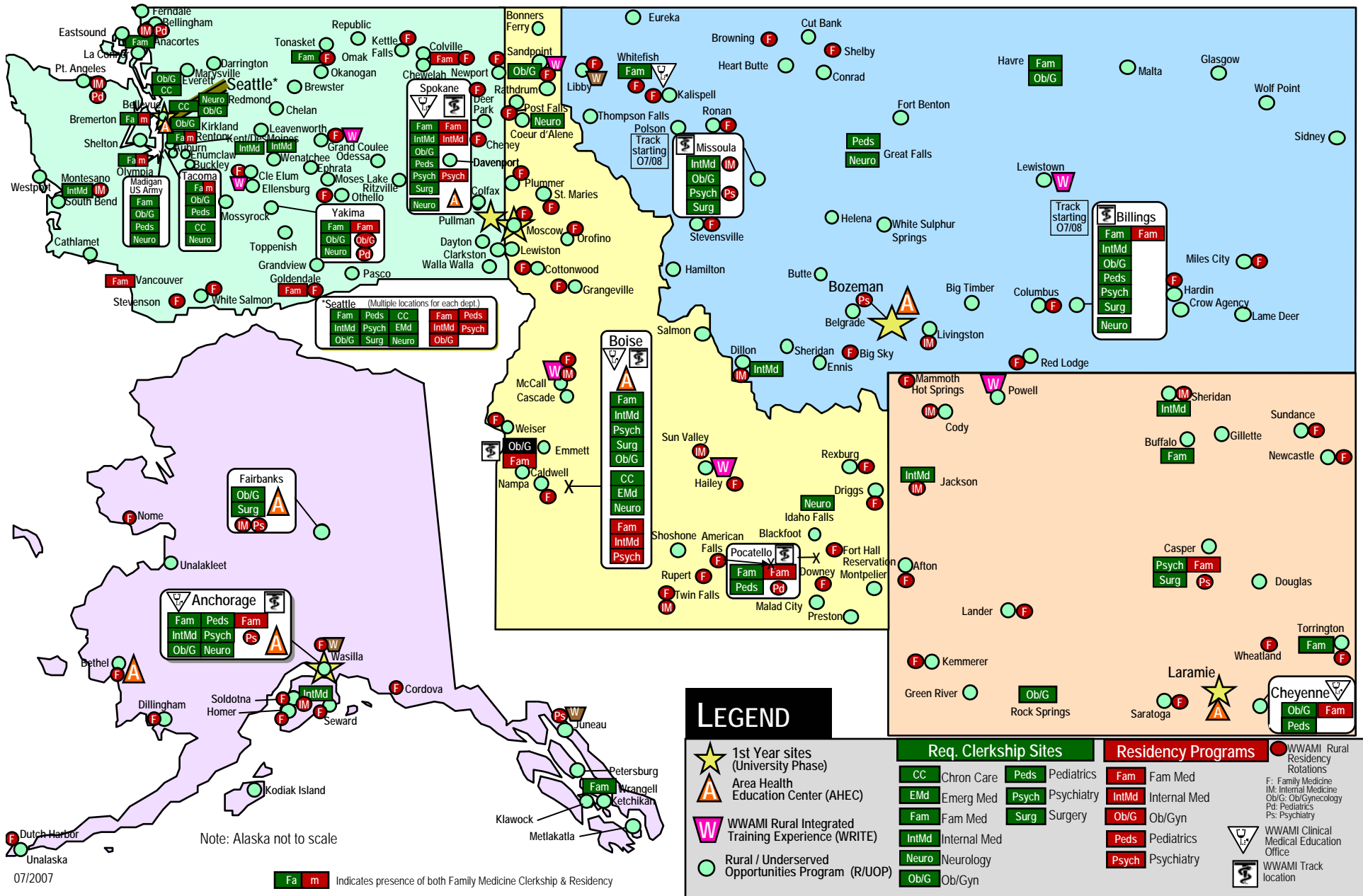
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Acknowledgements

Special thanks to Dr. Mary DesRosier and her family, John Padgett, the Staff of the Heart Butte Clinic, The Healthy Heart Project, The Southern Piegian Diabetes Program and Blackfeet Community Hospital.

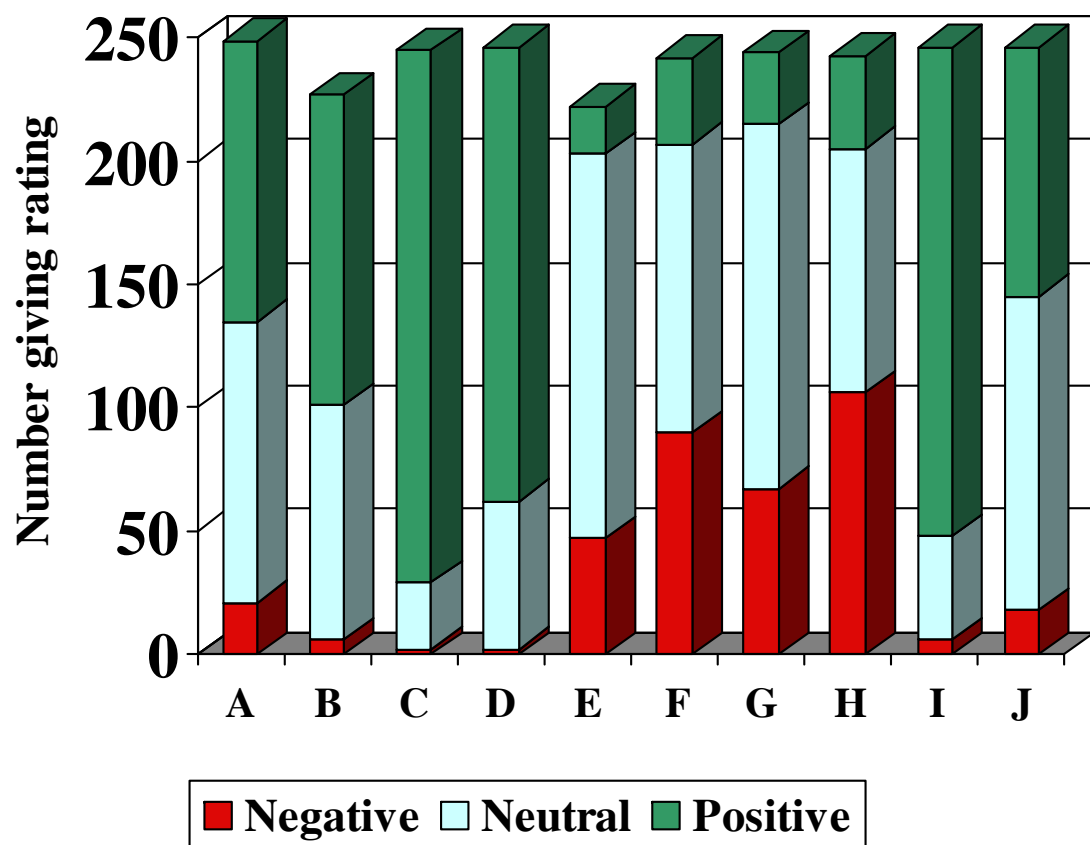
WWAMI Program Site Map

2007-08



2005 WWAMI Faculty Survey

Ratings of the impact of teaching students on various aspects of clinical practice



A = Office

B = Patient care

C = Professional goals

D = Rel. with colleagues

E = Patient referrals

F = Productivity

G = Income

H = Work load

I = Keeping current

J = Computer literacy

State Retention of Graduates from State-Supported Medical Schools

◆ University of California - Irvine	63%
◆ WWAMI - Alaska	
◆ State resident return rate	47%
◆ State resident & WWAMI graduate return rate	84%
◆ WWAMI - Idaho	
◆ State resident return rate	43%
◆ State resident & WWAMI graduate return	71%
◆ WWAMI - Montana	
◆ State resident return rate	40%
◆ State resident & WWAMI graduate return rate	54%
◆ WWAMI - Wyoming	
◆ State resident return rate	60%
◆ University of Oregon	46%
◆ University of Utah	42%
◆ University of South Dakota	41%
<u>NATIONAL AVERAGE</u>	<u>39.0%</u>
◆ University of North Dakota	32%
◆ University of Vermont	13%

Source: AMA Master File 2006
WWAMI Graduate File 2007

WWAMI

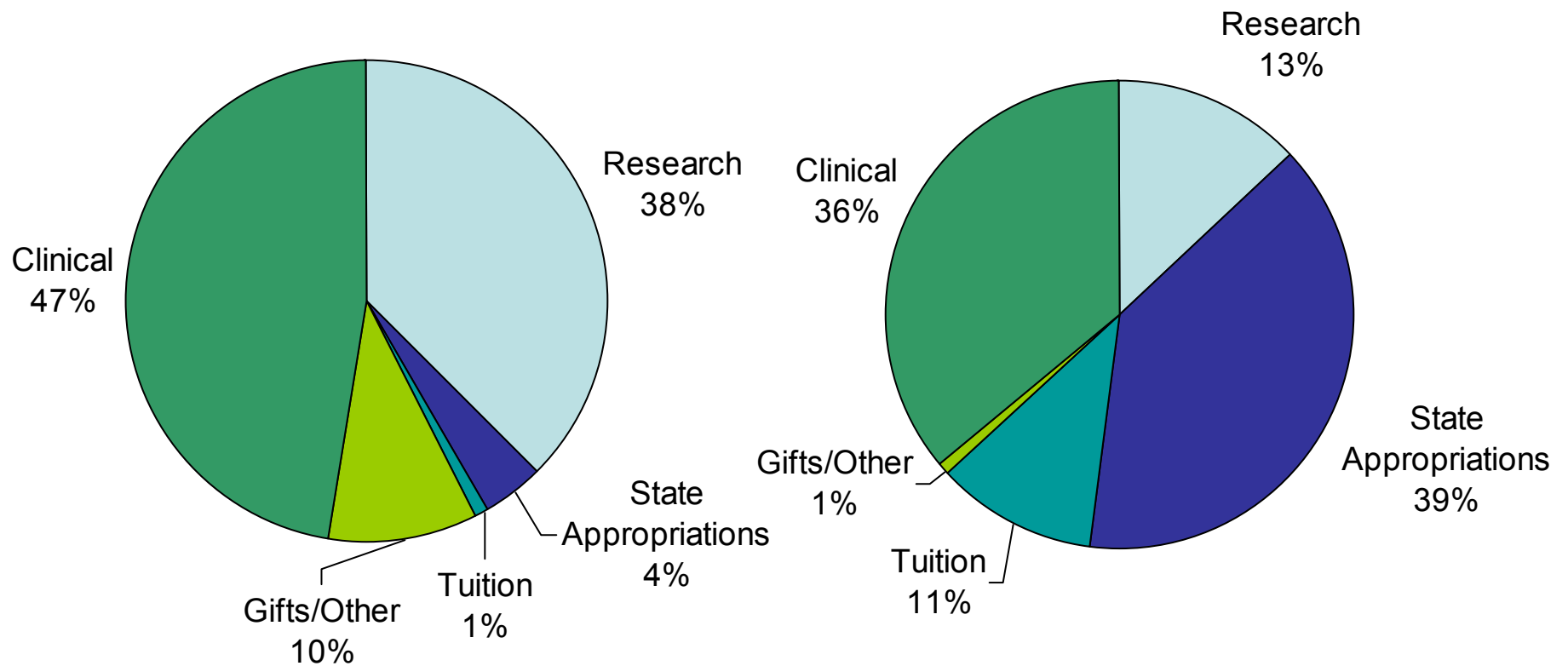
Keys to Success over 30 Years



- ◆ Sensitivity to community needs
 - Selecting the right students and residents
 - Providing learning experiences in community settings
- ◆ Ongoing communication with and support of 5 state legislatures
- ◆ Interdisciplinary program planning and cooperation
- ◆ Community-based medical education
- ◆ Volunteer, enthusiastic community preceptors
- ◆ Accountability to meet the founding goals

Community Based vs. Research Medical Schools

Sources of Revenue/Support

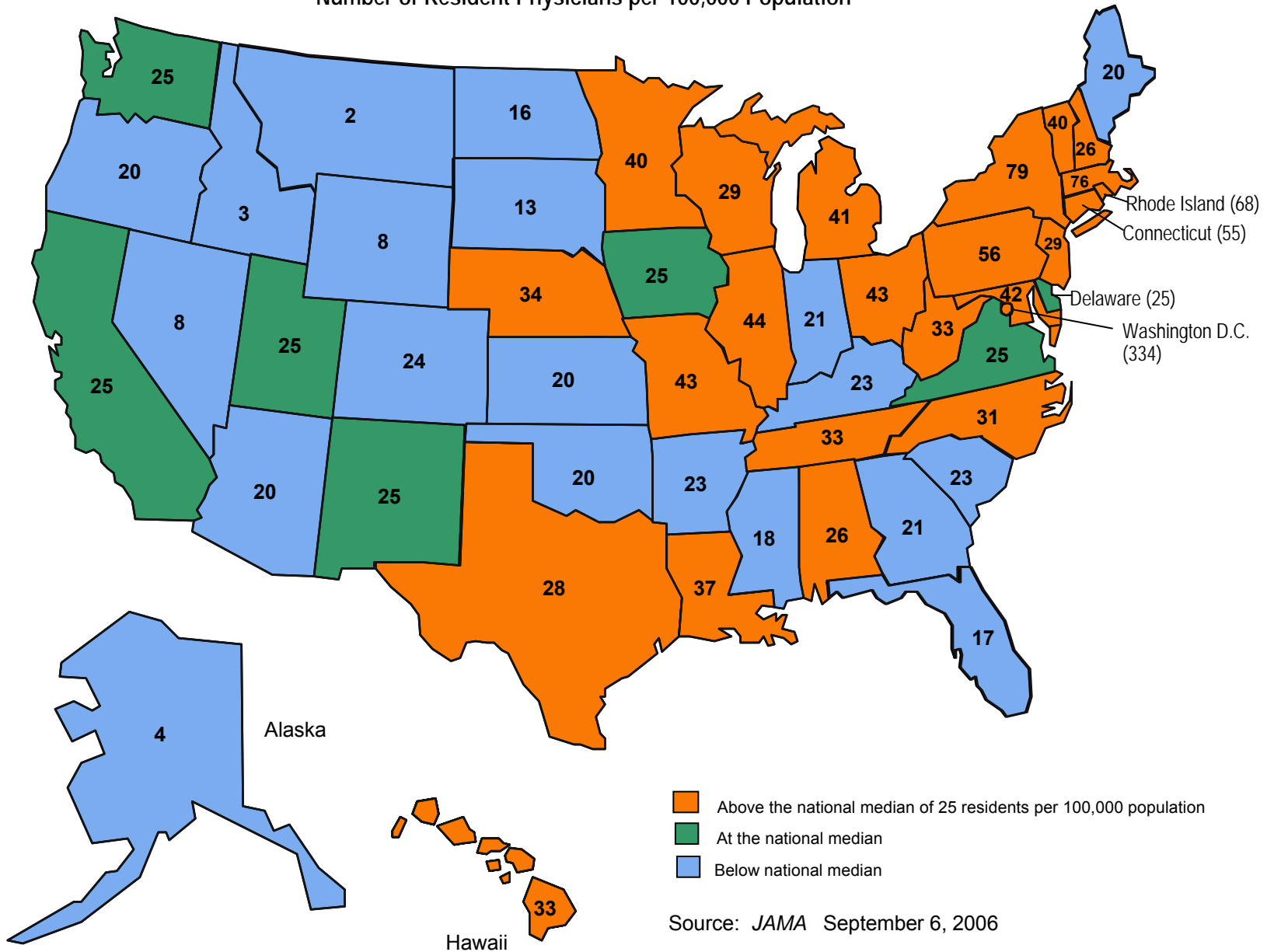


Research Intense (Public)
Approximately \$900 Million

Community-Based (Public)
Approximately \$110 Million

Distribution of Residents Engaged in Graduate Medical Education (August 1, 2005)

Number of Resident Physicians per 100,000 Population



Source: JAMA September 6, 2006