

# Health Sciences and Rural Health Report Card 2010 West Virginia Higher Education Policy Commission Vice Chancellor for Health Sciences Robert R. Walker, M.D.

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### HIGHLIGHTS OF 2010

- Expansion of medical school enrollment has resulted in a greater proportion of out-of-state students. This year, over 53% of first-year students in West Virginia medical schools were residents of other states. By school, the breakdown is West Virginia University, 38%; Marshall University, 22%; and the West Virginia School of Osteopathic Medicine, 74%.
- The *proportion* of medical graduates retained in West Virginia (39%) and in rural areas of the state (9%) has remained relatively flat for over 14 years. In contrast, the *number* of medical graduates retained in the state has increased from 317 to 443 during the same time period as medical school enrollment expanded. The number in rural areas of the state has increased from 89 to 107.
- If state medical school graduates complete their residency training in West Virginia, retention is even higher. This year, 45 state medical graduates completed their primary care residencies in West Virginia and 37 (82%) are now practicing in the state. In comparison, 60 state medical graduates completed out-of-state primary care residencies, and only 8 (13%) are now practicing in West Virginia.
- Retention in other health sciences fields was 22 (47%) of the dentistry graduates and 48 (59%) of the pharmacy graduates.
- From 1991, West Virginia began developing rural training sites for health professions students under the Kellogg Community Partnerships Initiative and the Rural Health Education Partnerships (RHEP) program. Since then, 1,288 graduates in health fields have been retained and are currently practicing in the state. These graduates include 327 physicians, 124 nurse practitioners and nurse educators, 204 physician assistants, 129 dentists, 233 pharmacists, and 271 nursing and allied health personnel.
- State scholarships and loan repayment assistance have helped to recruit rural providers thirty-five percent of the physicians, 44% of the nurse practitioners and nurse educators,
  and 27% of the physician assistants who have graduated since 1991 and are currently
  practicing in rural West Virginia received such assistance.
- This year, the RHEP training consortia reported a total of 107,149 contacts with rural West Virginians while providing community services and education on topics such as oral health, childhood obesity, diabetes, cancer, teen health, and outdoor safety. In addition, RHEP staff and students provide support to CARDIAC, a research project that provides screening, intervention, and health education statewide. Since 1998, the program has screened more than 69,000 fifth graders for cardiovascular risk factors and has added screening of second graders and kindergarten children in recent years.
- This year RHEP dental and dental hygiene students provided 12,762 clinical procedures. Students and faculty participated in 271 outreach activities. RHEP dental sites, including dentists and students, provided over \$2.4 million in uncompensated care.

### INTRODUCTION

Last year at this time, the Higher Education Policy Commission began a process of redesigning our rural health programs in response to problems identified in a Legislative audit and contracted studies. By allowing our health professions training programs more flexibility to be creative, we hoped to address issues of educational quality, performance evaluation, and legal and financial accountability.

To that end, the Office of the Vice Chancellor for Health Sciences has established a working group, comprised of representatives from the three institutions offering graduate-level health professions training. The group is charged with planning the transition of the Rural Health Education Partnerships (RHEP) program to better reflect the priorities established within the Rural Health Initiative (RHI) Act. The Policy Commission will be granting funds directly to these institutions, holding them responsible for fiscal control and program accountability. While the schools already have systems in place to manage personnel, lease property, account for funds, schedule students, and perform any number of other administrative functions, our challenge will be to fairly evaluate progress toward meeting the health care needs of the state of West Virginia, its citizens, and communities. Although we are asking for their input as we consider how to evaluate them, the Vice Chancellor for Health Sciences ultimately has the authority and responsibility to establish the criteria by which their success or failure will be determined.

The Policy Commission will fund and empower the institutions to:

- Expand the rural health professional workforce, particularly in the professions
  that are most difficult to recruit and the geographic areas that are most in need;
- Improve the quality of health care available to rural West Virginians;
- Focus our efforts on a smaller number of students who are most likely to serve in rural West Virginia;
- Enhance the status and develop the leadership potential of the students selected to participate in the program;
- Improve the educational quality of our rural training programs; and
- Maintain a high level of rural community input into the design and ongoing operation of our rural health professions training programs.

The institutional grantees may fulfill our objectives in many ways. Establishing a community-based primary care residency program or a teaching health center in an underserved area would improve access to services while training potential future providers. Creating a corps of rural health scholars, who can someday provide policy direction and leadership on issues of rural health in their communities, can benefit the entire state as well as the students selected. Working with the communities of an underserved area to recruit and retain health professionals can engender a long-term working relationship between several rural communities and our health professions training programs. Development of multi-disciplinary rotations would promote the team and coordinated care approach integral to the "medical home" model, which is the centerpiece of the West Virginia Health Care Reform Act. These are just a few ideas for projects which could make a large contribution to rural access to health care, while familiarizing health professions students with rural practice.

The schools will be given maximum flexibility in designing the rural programs which will meet the educational needs of their students, and will have complete control of the curricula associated with Rural Health Initiative programs, as required by accrediting bodies. The Higher Education Policy Commission will be responsible for maintaining the financial integrity of the program, and for monitoring the performance of the institutions. Although guidelines will be established for various expenditure categories, we anticipate that the largest share of RHI funds will be spent in ways that directly touch health professions students and medical residents. The Office of the Vice Chancellor will designate the geographic areas of most critical need, in consultation with policymakers and the Department of Health and Human Resources, based upon verifiable data.

### **Mini-Grant Projects**

As a way to begin the transition of RHEP for the current RHEP consortia, the Office of the Vice Chancellor for Health Sciences offered supplemental grants of up to \$20,000 for innovative projects that would strengthen partnerships with our health science programs. We received fifteen applications from eight of the consortia, and funded six projects. Two projects focused on encouraging more local students to consider careers in the health professions, and two were designed to encourage student rotations in their respective consortia areas. A fifth project looks at the feasibility of establishing a Teaching Health Center in a rural clinic, and the final one surveyed the RHEP field faculty to identify the strengths and weaknesses of the program. These projects will not be completed until the end of FY 2011, when we look forward to receiving their final reports.

### Perinatal Partnership

The Perinatal Partnership continues to assess and improve state policies having an impact on the health of mothers and babies. The initial funding for this program came from the Claude Worthington Benedum Foundation, but as that grant expires, we hope to provide a permanent home for the partnership within the Office of the Vice Chancellor for Health Sciences.

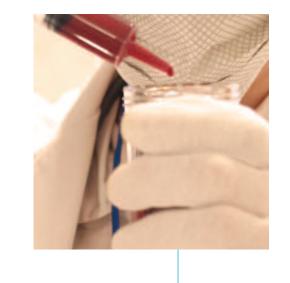


West Virginia University School of Medicine

Average scores for the Medical College Admission Test (MCAT) are reported as "means" for the multiple-choice sections and "medians" for the Writing Sample. Test scores on the multiple-choice are on a scale of 1-15 and on the Writing Sample, a scale of J-T. The national averages for students entering allopathic medical schools in 2009-10 were the following:

Biological Sciences: 10.8
Physical Sciences: 10.3
Verbal Reasoning: 9.8
Writing Sample: P
The national mean GPA was 3.66.

Source: Association of American Medical Colleges.



	2005-06	2006-07	2007-08	2008-09	2009-10
Applicants					
In-State	187	204	212	217	195
Out-of-State	933	1,629	2,454	2,545	2,383
Total	1,120	1,833	2,666	2,762	2,578
Acceptances Issued					
In-State	88	94	94	86	88
Out-of-State	79	84	62	100	91
Total	167	178	156	186	179
First Year New Enrollment					
In-State	43	62	82	66	65
Out-of-State	55	48	26	44	39
Total	98	110	108	110	104
Entering Class Data					
Mean GPA	3.7	3.7	3.7	3.7	3.8
Mean MCAT Scores					
Biology/Biological Sciences	9.6	9.8	9.9	9.9	9.8
Physics/Physical Sciences	9.2	9.2	9.5	9.5	9.3
Reading/Verbal Reasoning	9.0	9.0	9.1	9.0	9.3
Median Writing Sample	0	0	Р	0	0
Total Medical Students	424	424	421	432	432

### MEDICAL SCHOOL ENROLLMENT

Marshall University School of Medicine

	2005-06	2006-07	2007-08	2008-09	2009-10
Applicants					
In-State	167	198	189	209	209
Out-of-State	618	1,375	1,756	1,107	1,940
Total	785	1,573	1,945	1,316	2,149
Acceptances Issued					
In-State	83	96	90	94	94
Out-of-State	19	27	33	34	28
Total	102	123	123	128	122
First Year New Enrollment					
In-State	50	48	51	57	58
Out-of-State	10	16	21	21	16
Total	60	64	72	78	74
Entering Class Data					
Mean GPA	3.5	3.5	3.6	3.5	3.5
Mean MCAT Scores					
Biology/Biological Sciences	8.9	8.7	8.9	9.3	9.2
Physics/Physical Sciences	8.2	8.3	8.7	8.3	8.4
Reading/Verbal Reasoning	9.1	8.9	8.9	8.7	9.0
Median Writing Sample	0	0	М	Q	М
Total Medical Students	211	227	246	281	296



Average scores for the Medical College Admission Test (MCAT) are reported as "means" for the multiple-choice sections and "medians" for the Writing Sample. Test scores on the multiplechoice are on a scale of 1-15 and on the Writing Sample, a scale of J-T. The national averages for students entering allopathic medical schools in 2009-10 were the following:

Biological Sciences:	10.8
Physical Sciences:	10.3
Verbal Reasoning:	9.8
Writing Sample:	P
The national mean GPA w	as 3.66.

Source: Association of American Medical Colleges.

# MEDICAL SCHOOL ENROLLMENT

West Virginia School of Osteopathic Medicine

Average scores for the Medical College Admission Test (MCAT) are reported as "means" for the multiple-choice sections and "medians" for the Writing Sample. Test scores on the multiple-choice are on a scale of 1-15 and on the Writing Sample, a scale of J-T. The national averages for students entering osteopathic medical schools in 2009-10 were the following:

Biological Sciences: 9.2 Physical Sciences: 8.4 Verbal Reasoning: 8.6

The national mean GPA was 3.48.

Source: American Association of Colleges of Osteopathic Medicine.



	2005-06	2006-07	2007-08	2008-09	2009-10
Applicants					
In-State	123	151	136	164	132
Out-of-State	1,512	2,170	2,634	2,715	3,151
Total	1,635	2,321	2,770	2,879	3,283
Acceptances Issued					
In-State	60	84	62	78	62
Out-of-State	250	508	456	442	487
Total	310	592	518	520	549
First Year New Enrollment					
In-State	50	61	56	63	51
Out-of-State	61	135	155	140	142
Total	111	196	211	203	193
Entering Class Data					
Mean GPA	3.4	3.5	3.4	3.4	3.4
Mean MCAT Scores					
Biology/Biological Sciences	7.4	7.9	8.0	8.3	8.5
Physics/Physical Sciences	7.1	7.1	7.4	7.5	7.6
Reading/Verbal Reasoning	7.8	7.8	8.1	8.1	8.0
Median Writing Sample	N/A	N/A	N/A	N/A	N/A
Total Medical Students	397	503	598	710	778

### MEDICAL SCHOOL GRADUATES

Number of Examinees/Number Passing US Medical Licensing Exam, Step 3

	2005-06	2006-07	2007-08	2008-09	2009-10
West Virginia University	81/79 (98%)	64/63 (98%)	77/74 (96%)	88/88 (100%)	95/93 (98%)
Marshall University	44/40 (91%)	38/36 (95%)	38/38 (100%)	38/38 (100%)	46/45 (98%)

All data are for first-time test takers. Data for MD students are based on the US Medical Licensing Exam (USMLE), Step 3. Data for MD students become available two years after graduation, i.e., results for 2007 graduates are shown in 2009-10. The national average for this cohort was 96%.

### Number of Examinees/Number Passing COMLEX-Level 3

	2005-06	2006-07	2007-08	2008-09	2009-10
WV School of Osteopathic Medicine	68/58 (85%)	62/62 (100%)	64/64 (100%)	55/53 (96%)	82/76 (93%)

All data are for first-time test takers. Data for DO students are based on the Comprehensive Osteopathic Medicine Licensing Examination (COMLEX), Level 3. Results are for year of graduation. The national average for the 2009-10 cohort was not available for this report.

### Medical School Graduates Choosing Primary Care Residencies\*

	2005-06	2006-07	2007-08	2008-09	2009-10
West Virginia University	55 (56%)	56 (53%)	43 (49%)	49 (50%)	52 (50%)**
Marshall University	28 (62%)	33 (67%)	26 (62%)	32 (62%)	44 (70%)**
WV School of Osteopathic Medicine	53 (68%)	66 (69%)	62 (66%)	69 (69%)	118 (72%)***
TOTAL	111	136	155	150	214

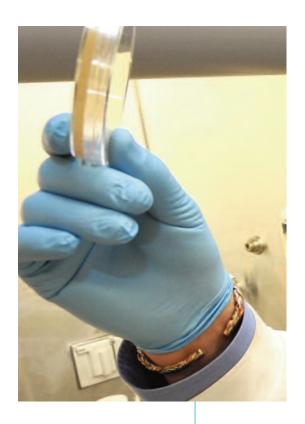
- Primary care includes family medicine, internal medicine, pediatrics, internal medicine/pediatrics, and obstetrics/gynecology.
- \*\* In 2010, the national average for choice of primary care residencies was 46.7 percent for all allopathic (MD) graduates.
- \*\*\* The national average for osteopathic students is not available.



### RETENTION

Medical School Graduates from 2000-2005 Practicing in West Virginia

A total of 1,133 graduates of the state's three medical schools between 2000 and 2005 have completed residency training. Of these graduates, 39.1 percent are practicing in West Virginia, and 9.4 percent are practicing in rural areas. In tracking the retention of graduates, this report factors in the additional 3 to 5 years of residency training that physicians complete in their specialty before beginning practice.



	Graduates from 2000-2005 with Completed Training					
	Total	Number in	Number in	Number in		
Institutions	Number	Practice in WV	Primary Care in WV*	Practice in Rural Areas in WV**		
West Virginia University	457	173 (38.0%)	89 (19.5%)	28 (6.1%)		
Marshall University	276	109 (39.5%)	64 (23.2%)	22 (8.01%)		
WV School of Osteopathic Medicine	400	161 (40.3%)	118 (29.5%)	57 (14.3%)		
TOTAL	1,133	443 (39.1%)	271 (23.9%)	107 (9.4%)		

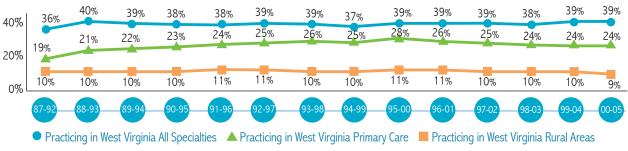
**Note:** Excludes SREB contract students at WVSOM who have a contractual obligation to return to their home state following graduation.

- \* Primary care is defined as family medicine, internal medicine, pediatrics, internal medicine/pediatrics, and obstetrics/gynecology.
- \*\*Rural areas exclude graduates practicing in: Beckley, Charleston (including South Charleston, Dunbar, Nitro, Institute, etc.), Clarksburg, Fairmont, Huntington (including Barboursville), Hurricane, Martinsburg, Morgantown (including Star City and Westover), Parkersburg (including Vienna), Weirton, and Wheeling.

### RETENTION

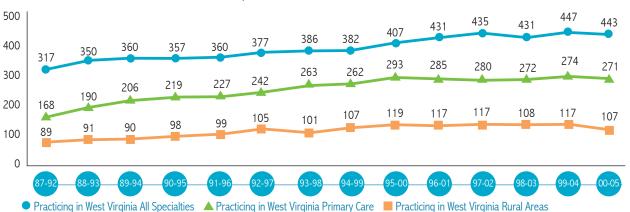
West Virginia Medical School Graduates Practicing in West Virginia

Percentage of Graduates Retained, 1987-2005



6-Year Cohort of Graduates

### Number of Graduates Retained, 1987-2005

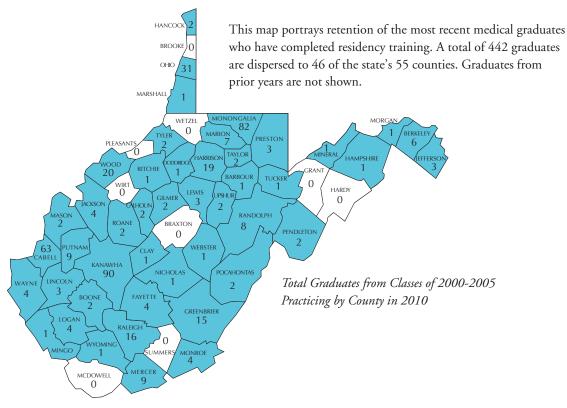


6-Year Cohort of Graduates

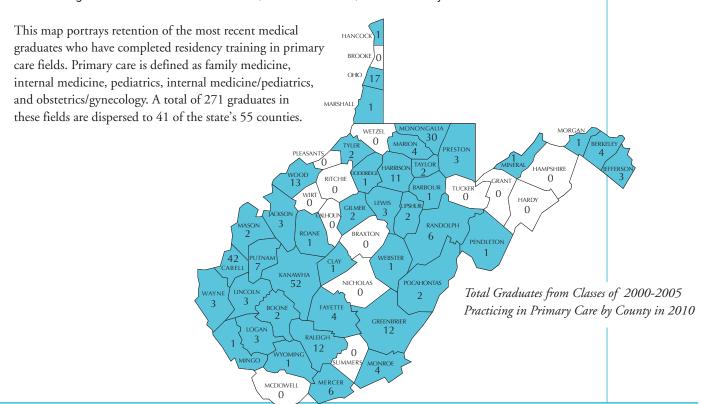
Retention is tracked annually for a 6-year cohort of medical school graduates who have completed residency training. The greatest change has been in retention of graduates in primary care fields. In the past 14 years, the number of graduates retained in primary care increased from 168 (19%) to 271 (24%) although in recent years there has been a slight decline. The proportion of medical graduates retained in West Virginia (39%) and in rural areas of the state (9%) has remained relatively flat. In contrast, the number of medical graduates retained in the state has increased over time as medical school enrollment has expanded.

West Virginia's retention rate of 39 percent is approximately equal to the national average.

### West Virginia Medical Graduates, 2000-2005, in All Specialties



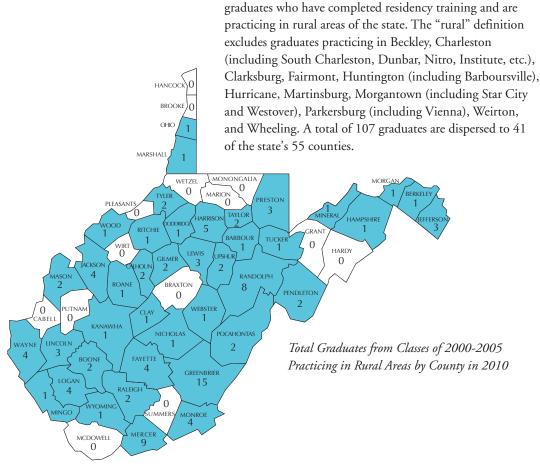
# West Virginia Medical Graduates, 2000-2005, in Primary Care



### RETENTION

West Virginia Medical Graduates, 2000-2005, in Rural Areas

This map portrays retention of the most recent medical



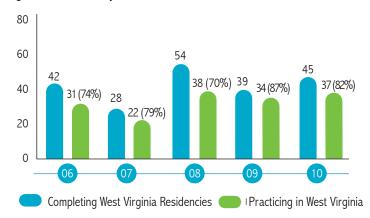
Health Sciences Graduates, 2006-2010

	2006	2007	2008	2009	2010
West Virginia University					
Dental Graduates	40	42	41	50	47
Practicing in West Virginia Pharmacy Graduates	28 (70%) 74	18 (43%) 81	26 (63%) 76	30 (60%) 73	22 (47%) 82
Practicing in West Virginia	41 (55%)	52 (64%)	51 (67%)	47 (64%)	48 (59%)
Nurse Practitioner Graduates Practicing in West Virginia	17 13 (76%)	20 14 (70%)	31 19 (61%)	27 22 (81%)	48 42 (88%)
Marshall University					
Nurse Practitioner Graduates Practicing in West Virginia* * Data on retention were not available	18 - le for this report	18 - t.	23 -	16 -	26 -

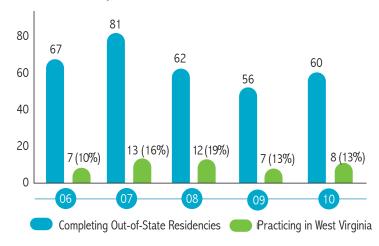
### RESIDENCY TRAINING

Medical school graduates begin practice after completing 3 to 5 years of residency training in a given specialty. Two factors are important in tracking their retention: (1) specialty choice, because primary care fields are generally most needed in rural West Virginia; and (2) location of the residency, because graduates who complete residencies in West Virginia are much more likely to practice in the state. Each year, the medical schools report on retention of graduates who completed in-state and out-of-state primary care residency programs. The charts below show that in 2010 retention of West Virginia medical graduates who completed in-state primary care residencies the previous year was 82 percent, compared to 13 percent for those who completed out-of-state residencies. Efforts are needed to make in-state primary care residencies more attractive to medical graduates who are deciding upon residency programs.

Retention of West Virginia Medical Graduates Completing West Virginia Primary Care Residencies, 2006-2010



Retention of West Virginia Medical Graduates Completing Out-of-State Primary Care Residencies, 2006-2010



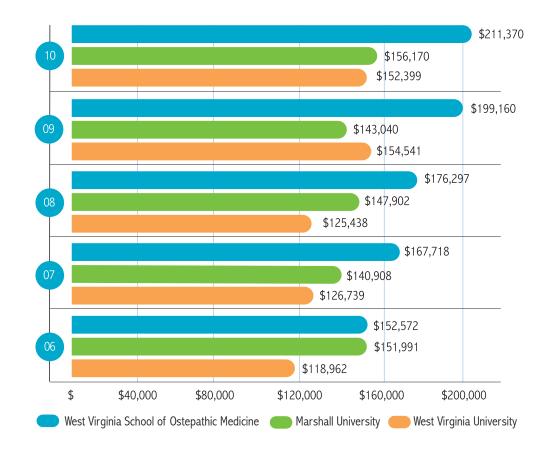
### MEDICAL STUDENT INDEBTEDNESS

2006 - 2010

This chart shows the average indebtedness of graduating medical students. As a point of reference, the annual tuition and fees for the medical schools in 2009-10 are shown below.

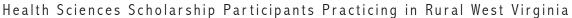
	Resident	Non-Resident
West Virginia University	\$21,270	\$46,018
Marshall University	\$20,268	\$47,058
WV School of Osteopathic Medicine	\$19,950	\$49,950

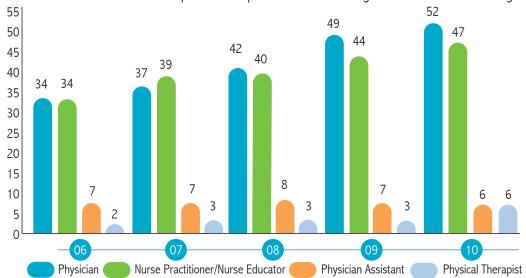
The difference in graduate indebtedness can be attributed in part to differences among the schools in the proportion of students paying non-resident tuition and fees.





### SCHOLARSHIPS AND LOANS





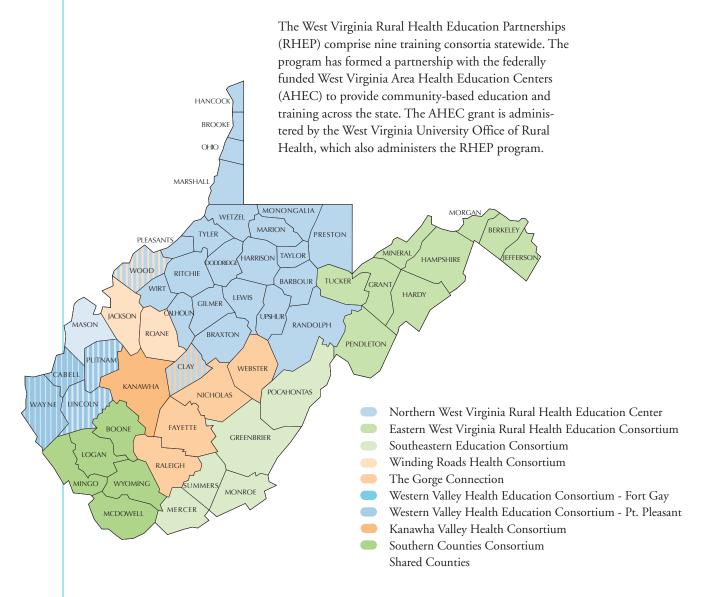
The Health Sciences Scholarship Program provides an incentive for graduates to practice in underserved areas of the state. Medical students receive a \$20,000 award for a two-year service commitment. Other disciplines receive \$10,000. In 2009, mental health disciplines - licensed independent clinical social workers and doctoral clinical psychologists – became eligible. The chart shows graduates who are fulfilling their service obligation, or have been retained past the required two years of service.

### Medical Student Loan Program

	2005-06	2006-07	2007-08	2008-09	2009-10
Loans Awarded in Fiscal Year	317	323	296	312	289
Total Amount Awarded	\$1,023,705	\$1,349,155	\$1,861,456	\$1,881,843	\$2,033,237
Amount of Unexpended Funds	\$3,157,511	\$3,525,991	\$3,145,311	\$2,642,508	\$1,877,002
Loan Forgiveness	47	37	40	47	58
Default Rate on Previous Awards	3.0%	2.9%	2.8%	2.5%	2.7%

The Medical Student Loan Program, which is funded from student fees, is a need-based program for state medical students. Borrowers may earn loan forgiveness of up to \$10,000 per year for practicing in an underserved area or in a medical shortage field in West Virginia. Schools may award loans of up to \$10,000 each year. The unexpended funds include loan repayments. The "loan forgiveness" data show the number of borrowers who are practicing in West Virginia each fiscal year and will qualify for or have received loan forgiveness.

### WEST VIRGINIA RURAL HEALTH EDUCATION PARTNERSHIPS



# TRAINING CONSORTIA

# INFRASTRUCTURE

Consortium Lead Agency and Sub-areas	Counties	Number of Training Sites	Number of Field Faculty
Eastern WV Rural Health Education			
Consortium Martinsburg	Berkeley, Jefferson, and Morgan	37	83
Petersburg	Grant, Hampshire, Hardy, Mineral, Pendleton, and Tucker	56	90
The Gorge Connection	Fayette, Raleigh, Nicholas, and Webster	34	76
Kanawha Valley Health Consortium	Rural areas of Kanawha	23	45
Northern WV Rural Health Education Region 1	n Center Brooke, Hancock, Marshall, Ohio, and Wetzel	50	76
Region 2	Calhoun, Doddridge, Gilmer, Pleasants, Ritchie, Tyler Wirt, and Wood <i>(partial</i> )	32	39
Region 3	Braxton, Harrison, Lewis, Marion, Monongalia, and one site in Clay	74	101
Region 4	Barbour, Preston, Randolph, Taylor, and Upshur	75	124
Southern Counties Consortium	Boone, Logan, McDowell, Mingo, and Wyoming	29	45
Southeastern Education Consortium	Greenbrier, Mercer, Monroe, Pocahontas, and Summers	45	72
Western Valley Health Education Con Ft Gay	sortium Wayne, parts of Cabell, and one site each in Putnam and Lincoln	16	21
Western Valley Health Education Con Point Pleasant	sortium Mason and parts of Cabell, Lincoln and Putnam	42	70
Winding Roads Health Consortium	Clay <i>(partial</i> ), Roane, Jackson, and Wood <i>(partial</i> )	28	57
TOTAL		541	899
	899 Field Faculty by Discipline		

899 Field Faculty by Discipline					
1	Clinical Psychology	158	Nursing	43	Physician Assistant
68	Dentistry	6	Nurse-Midwife	75	Physical Therapy
326	Medicine	66	Nurse Practitioner	8	Social Work
28	Medical Technology	1	Occupational Therapy	1	Speech Therapy
		118	Pharmacy		

# TRAINING CONSORTIA

EXPENDITURES (unaudited)
JULY 1, 2009 TO JUNE 30, 2010

CONSORTIA Lead Agency	EASTERN WVRHEC Grant Memorial Hospital	GORGE CONNECTION New River Health Association	KANAWHA VALLEY Cabin Creek Health Center	NORTHERN WVRHEC Tri-County Health Clinic
Administration	215,600	134,180	74,733	467,860
Education	52,253	72,078	32,907	56,672
Student/Resident Housing	37,014	28,225	2,964	77,864
Staff Travel	4,541	14,806	6,029	26,473
Community Service/Health Promotion	3,318	7,087	10,345	8,052
Recruitment and Retention	154	11,903	-	12,436
Property and Equipment	-	-	-	1,933
Subtotal RHEP Expenditures	\$312,880	\$268,279	\$126,978	\$651,290
Special Project Expenditures (Cardiac, WVGEC,Oral Health, Tobacco)	\$10,925	\$13,000	\$6,500	\$27,071

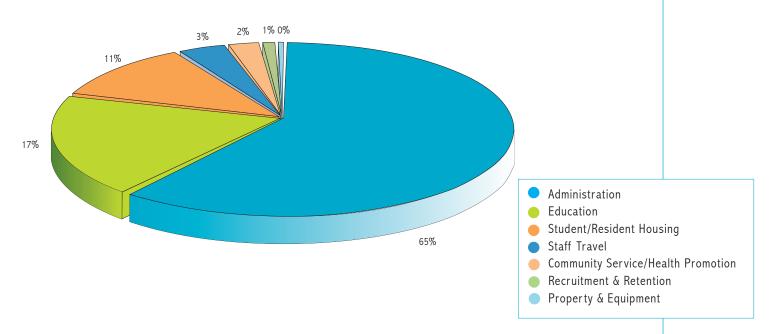
TOTAL PROJECT COST	\$323,805	\$281,279	\$133,478	\$678,361
(LESS:)				
Income from Special Projects, Lead Agencies, etc.	\$13,031	\$13,000	\$6,500	\$15,794
TOTAL RHEP GRANT	\$310,774	\$268,279	\$126,978	\$662,567

### BUDGET CATEGORY DEFINITIONS

Administration	Total salaries, employee benefits, staff development, operating costs, and lead agency administrative costs. Operating costs include the expenses of the administrative offices and the Learning Resources Centers.
Education	On-site clinical director, annual honorarium, faculty development, IDS preparation and presentation, and graduate medical education.
Housing	Rent, lease, or mortgage expense, furnishings, utilities associated with the upkeep of student housing.
Travel	Travel expenses of the salaried RHEP staff listed under administration. May also include mileage reimbursement to students and the expenses related to any vehicles purchased with RHEP funds.
Community Service/Health Promotion	Costs associated with community health fairs, school-based activities, oral health screenings, career fairs, etc.
Recruitment/Retention	Expenses of recruiting and retaining preceptors, e.g., advertising, locum tenens expenses, signing bonuses, etc.
Property/Equipment	Equipment having an original cost of greater than \$1000, and a useful life of more than one year.

SOUTHEASTERN EDUCATION Rainelle Medical Center	SOUTHERN COUNTIES WVU Research Corporation	WESTERN VALLEY - FT GAY Valley Health System	WESTERN VALLEY - PT PLEASANT Pleasant Valley Hospital	WINDING ROADS Jackson General Hospital	TOTALS
161,302	148,827	79,214	120,467	95,447	1,497,630
51,844	30,589	49,347	27,200	15,715	388,605
41,150	35,032	10,086	6,193	18,836	257,364
4,730	3,609	284	2,530	3,754	66,756
6,196	193	312	-	3,111	38,614
-	-	-	-	4,657	29,150
4,408	-	-	-	-	6,341
\$269,630	\$218,250	\$139,243	\$156,390	\$141,518	\$2,284,460
\$11,351	\$3,123	\$1,618	\$7,790	\$7,334	\$88,712
\$280,981	\$221,373	\$140,861	\$164,180	\$148,853	\$2,373,171
\$10,802	\$3,690	\$0	\$8,215	\$7,995	\$79,027
\$270,179	\$217,683	\$140,861	\$155,965	\$140,858	\$2,294,144

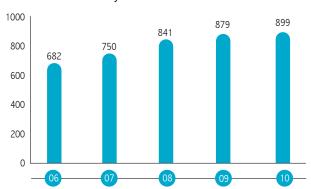
# FUNCTIONAL BUDGET BREAKDOWN



# TRAINING CONSORTIA

West Virginia RHEP field faculty are active rural practitioners who also teach students. In 2010, two regional faculty development sessions were held jointly with Area Health Education Centers to improve teaching skills. A total of 67 field faculty, institutional staff, and others attended these regional meetings.

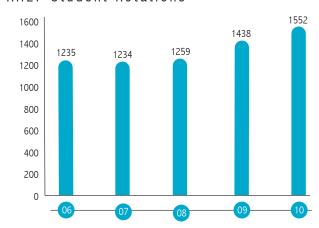
# RHEP Field Faculty



### **RHEP Training Sites**



### RHEP Student Rotations

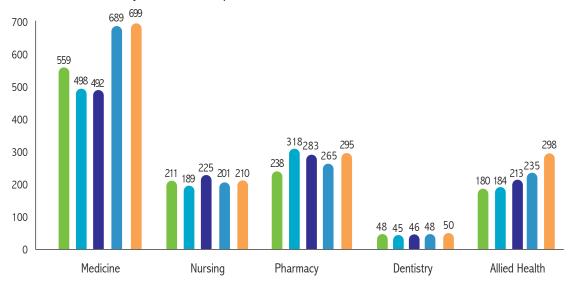




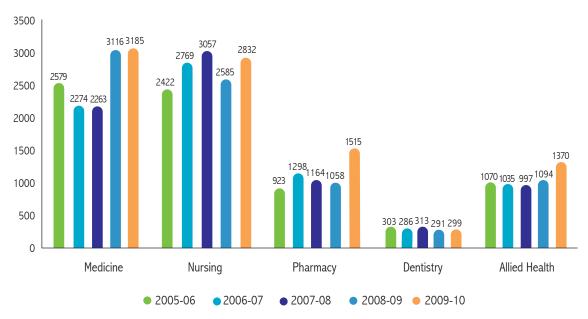
### STUDENT ROTATIONS

2006-2010

RHEP Rotations by Year/Discipline



RHEP Student Weeks by Year/Discipline



NOTE: Medicine includes medical students and medical residents.

Nursing includes nursing and nurse practitioner students.

Allied health includes dental hygiene, medical technology, physician assistant, physical therapy, social work, and speech therapy students.

Rotations by School/Discipline: June 1, 2009- May 31, 2010

	RH	HEP	Other Ru	ral Sites
School/Discipline	Student Rotations	Student Weeks	Student Rotations	Student Weeks
Alderson-Broaddus College Physician Assistant	95	279	0	0
Mountain State University Physician Assistant	113	455	3	12
Marshall University Medicine Medical Resident Nursing Nurse Practitioner	110 0 13 0	511 0 179 0	29 3 0 2	91 68 0 11
University of Charleston Pharmacy	14	72	15	94
WV School of Osteopathic Medicine Medicine Medical Resident	372 1	1,855 4	586 60	2,308 242
West Virginia University Dental Hygiene Dentistry Medical Resident Medical Technology Medicine — Morgantown — Charleston — Eastern Panhandle Nurse Practitioner — Morgantown — Charleston Nursing Pharmacy Physical Therapy	23 50 2 30 128 66 17 13 22 130 281 33	136 299 8 82 480 248 68 207 338 1,657 1,442 390	0 2 3 5 14 0 2 12 20 0 4 2	0 8 25 14 28 0 6 202 296 0 21 16
West Virginia University Institute of Technology Nursing	31	434	0	0
Wheeling Jesuit University Nurse Practitioner	0	0	1	14
Out-of-State Programs Medical Resident Medicine Nurse Practitioner Physician Assistant	2 1 1 4	8 3 18 28	1 3 0 3	4 14 0 15
Total Rotations	1,552	9,201	770	3,489

### COMMUNITY SERVICE CONTACTS

JUNE 1, 2009- MAY 31, 2010

Consortium	Prevention and Education for General Public	Prevention and Education for Adults	Prevention and Education for Children	Total
Eastern WV Rural Health Education Consortium				
Martinsburg	423	1,866	9,566	11,855
Petersburg	693	1,359	7,959	10,011
The Gorge Connection	700	2,194	7,522	10,416
Kanawha Valley Health Consortium	350	0	8,236	8,586
Northern WV Rural Health Education Center				
Region 1	616	2,234	2,148	4,998
Region 2	460	999	2,842	4,301
Region 3	2,208	3,968	9,414	15,590
Region 4	2,644	3,546	7,537	13,727
Southern Counties Consortium	1,140	811	4,382	6,333
Southeastern Education Consortium	6,826	531	2,422	9,779
Western Valley Health Education Consortium				
Fort Gay	60	286	225	571
Point Pleasant	215	710	5,589	6,514
Winding Roads Health Consortium	213	693	3,562	4,468
Total Community Service Contacts	16,548	19,197	71,404	107,149

RHEP provides community services and education on topics such as oral health, childhood obesity, diabetes, cancer, teen health, and outdoor safety. The program links its prevention and education programs to the West Virginia Healthy People 2010 objectives to ascertain where student efforts are being directed across the state. RHEP strives to provide students with service-learning opportunities that are linked to their clinical and educational learning objectives.

CARDIAC is a research project that provides cardiovascular screening, intervention, and healthy lifestyles education to children statewide. The project is carried out locally through RHEP and the public school system. RHEP site coordinators provide local coordination and testing supplies for the screening, and RHEP students, under local preceptor supervision, provide the manpower. Since 1998, CARDIAC has screened more than 69,000 fifth graders for cardiovascular risk factors. Of these children, 47.2 percent were overweight or obese, 26 percent had abnormal lipid values, and 19.7 percent were hypertensive. In recent years, CARDIAC has expanded screening to younger children. To date, more than 15,000 kindergarteners (33.9% overweight or obese) and 31,000 second graders (38.3% overweight or obese) have been screened for cardiovascular risk factors.

In 2009-10, RHEP dental and dental hygiene students provided 12,762 clinical procedures. Students and faculty participated in 271 outreach activities. RHEP dental sites, including dentists and students, provided over \$2.4 million in uncompensated care.

# RECRUITMENT

Health Professionals with RHEP Rotations Practicing in Rural Areas of the State

Discipline	Number in Rural Practice	Number who Received Financial Incentives
Physicians (1991-2007 graduates)	327	116 (35%)
Nurse Practitioners/Nurse Educators	124	55 (44%)
Nurse-Midwife	1	-
Physician Assistants	204	55 (27%)
Nurses	162	-
Dentists	129	2 (2%)
Dental Hygienists	28	-
Pharmacists	233	-
Physical Therapists	64	6 (9%)
Occupational Therapist	1	-
Medical Technologists	15	-
Masters in Public Health	1	-
Social Worker	1	-
TOTAL	1,288	234 (18%)

Data on physicians include graduates from 1991-2007 who have completed residency training. Data on all other disciplines include graduates from 1991-2010.

Recruitment Incentives for Rural Practice

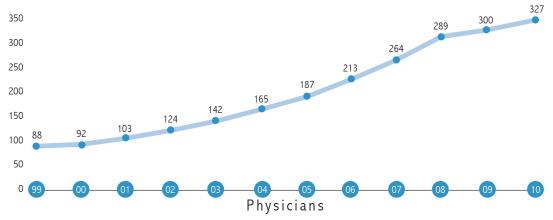
West Virginia Higher Education Policy Commission	
Health Sciences Scholarship Program -	111
WV Rural Health Education Partnerships	
SEARCH Training Stipends -	47
Community Scholarship Program -	6
Bureau for Public Health, Division of Rural Health & Recruit	tment
Recruitment & Retention Community Project -	110
State Loan Repayment Program -	41

TOTAL 315 Awards

State scholarships and loan repayment are coordinated by the RHEP Recruitment and Retention Committee to target financial incentives to students and physician residents with rural training. Some practitioners have received awards from two or more programs. As of 2010, 234 rural practitioners have received a total of 315 awards. The agencies and programs shown above provided these awards.

The Bureau for Public Health provides assistance to the National Health Service Corps (NHSC), which awards educational loan repayment to rural practitioners in West Virginia. These awards are in addition to the 315 state awards shown above.





From 1999 to 2010, the number of physicians who completed RHEP rural rotations and are currently practicing in rural areas has increased steadily. These numbers include physicians who completed rural rotations under RHEP and the federally funded Area Health Education Program. Each of the medical (DO & MD) graduates is re-verified annually so the count each year reflects the loss of some rural practitioners to urban and out-of-state practice. Despite this expected loss, the number of state medical graduates in rural practice has increased in the past 11 years at an



annual rate of 12.7%.

MARSHALL A total of 327 physicians with RHEP rotations were practicing in rural areas of the state in 2010. They WETZEL MORGAN include graduates from 1991-2007. A total of 0 PLEASANTS 116 (35%) of these physicians received HAMPSHIRE state financial incentives. Placements RITCHIE 2 are counted as rural if the physician BARBOUR TUCKER 0 5 HARDY is practicing in a location that LEWIS qualifies as a site for a rural RANDOLPH rotation or if the site is a ROANE BRAXTON 6 PENDLETON federally qualified health PUTNAM WEBSTER center (FQHC) or free CLAY clinic. KANAWHA POCAHONTAS LINCOLN 9 0 16 1 - 3 GREENBRIER 27 **4** - 7 RALFIGH 12 WYOMIN 8 - 17 MINGO

MERCER

MCDOWELL

18-39

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HANCOCH BROOKI

# **HEALTH SCIENCES** Report Card

West Virginia Higher Education Policy Commission

HEALTH SCIENCES

1018 Kanawha Blvd E Charleston, WV 25301