WEST VIRGINIA HIGHER EDUCATION POLICY COMMISSION

## HEALTH SCIENCES & RURAL HEALTH REPORT CARD 2004





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### WEST VIRGINIA HIGHER EDUCATION POLICY COMMISSION

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# HIGHLIGHTS

- Almost 37% of West Virginia's medical school graduates are staying in the state after completing residency training.
- Retention of state medical school graduates who complete residency training in West Virginia is even higher – 74% in primary care fields such as family practice.
- In the past 8 years, the greatest change has been in retention of medical graduates in primary care fields. Their numbers have increased from 168 to 262, a gain of 56%.
- About 73% of West Virginia's dental graduates are staying in the state. This year the retention of pharmacy graduates dropped from 68% to 54%, primarily because of a recruitment effort by a large out-of-state drug chain.
- The Health Sciences & Technology Academy (HSTA) program has prepared 2,068 high school students for health careers. The college-going rate for HSTA graduates is 95%; 121 HSTA students have graduated from college; and six are currently in medical school.
- The State Rural Health Advisory Panel approved a merger and consolidation plan for the Rural Health Education Partnerships (RHEP) that calls for the reduction of 13 consortia to 7 by July 1, 2005. These changes are designed to gain greater efficiencies while maintaining and improving program quality.
- This year RHEP provided 100,231 community service contacts, including health fairs, health screenings, flood relief clinics, tobacco awareness, sports physicals and oral hygiene. In recent years, the number of contacts has declined, most likely because of changes in reporting definitions and school curricula, and a reduction of staff at rural sites.
- This year RHEP dental and dental hygiene students provided 12,032 clinical procedures, compared to 8,696 the previous year, an increase of 38%. RHEP dental sites provided almost \$1 million in uncompensated care.
- The CARDIAC program expanded to 54 counties and screened nearly 10,000 children and some parents. The CARDIAC program has received state and national awards.
- In 1991 West Virginia began developing rural training sites for health professions students. Since then, 661 graduates in health fields, including 165 physicians, began and are continuing to practice in rural West Virginia. Other fields include nurse practitioners, physician assistants, dentists, and pharmacists.
- State scholarships and loan repayment are helping to recruit rural providers 39% of the physicians, 53% of the nurse practitioners, and 47% of the physician assistants recruited since 1991 and currently practicing in rural West Virginia.
- In the past 6 years, the number of physicians in rural practice who participated in the RHEP program increased from 88 to165, an increase of 88%, or an average annual rate of 13.4%.



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West Virginia University Health Sciences Center

|                            | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 |
|----------------------------|---------|---------|---------|---------|---------|
| Applicants                 |         |         |         |         |         |
| In-State                   | 291     | 284     | 241     | 223     | 228     |
| Total                      | 998     | 834     | 787     | 736     | 845     |
| Acceptances Issued         |         |         |         |         |         |
| In-State                   | 101     | 120     | 104     | 108     | 116     |
| Total                      | 104     | 126     | 119     | 130     | 164     |
| First Year New Enrollment  |         |         |         |         |         |
| In-State                   | 83      | 87      | 81      | 87      | 82      |
| Total                      | 83      | 90      | 90      | 99      | 110     |
| Total Medical Students     | 356     | 358     | 349     | 375     | 376     |
| Entering Class Data        |         |         |         |         |         |
| Mean GPA                   | 3.7     | 3.6     | 3.7     | 3.7     | 3.7     |
| Vean MCAT Scores           |         |         |         |         |         |
| Biology/Biological Science | 9.1     | 9.2     | 9.5     | 8.8     | 9.4     |
| Physics/Physical Science   | 8.9     | 8.6     | 9.2     | 8.9     | 8.7     |
| Reading/Verbal Reasoning   | 9.0     | 8.9     | 9.0     | 9.4     | 9.1     |
| Median Writing Sample      | Р       | 0       | 0       | Ν       | C       |

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 sections are on a scale of 1-15 and a scale of J-T on the Writing Sample. The national averages for students entering allopathic medical schools in 2003-04 were:

Biological Science: 10.2 Physical Science: 9.9 Verbal Reasoning: 9.5 Writing Sample: P

The national mean GPA was 3.62



Source: Association of American Medical Colleges.

Marshall University School of Medicine

|                            | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 |
|----------------------------|---------|---------|---------|---------|---------|
| Applicants                 |         |         |         |         |         |
| In-State                   | 293     | 259     | 228     | 197     | 209     |
| Total                      | 941     | 893     | 786     | 696     | 711     |
| Acceptances Issued         |         |         |         |         |         |
| In-State                   | 74      | 70      | 86      | 93      | 85      |
| Total                      | 77      | 72      | 95      | 101     | 96      |
| First Year New Enrollment  |         |         |         |         |         |
| In-State                   | 47      | 46      | 45      | 45      | 47      |
| Total                      | 48      | 48      | 48      | 48      | 53      |
| Total Medical Students     | 209     | 207     | 198     | 194     | 199     |
| Entering Class Data        |         |         |         |         |         |
| Mean GPA                   | 3.5     | 3.5     | 3.5     | 3.6     | 3.5     |
| Mean MCAT Scores           |         |         |         |         |         |
| Biology/Biological Science | 9.3     | 9.2     | 8.8     | 9.2     | 8.9     |
| Physics/Physical Science   | 8.7     | 8.4     | 8.6     | 8.4     | 8.7     |
| Reading/Verbal Reasoning   | 9.2     | 9.2     | 9.5     | 8.9     | 8.9     |
| Median Writing Sample      | 0       | Р       | Р       | Р       | 0       |

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 sections are on a scale of 1-15 and a scale of J-T on the Writing Sample. The national averages for students entering allopathic medical schools in 2003-04 were:

Biological Science: 10.2 Physical Science: 9.9 Verbal Reasoning: 9.5 Writing Sample: P

The national mean GPA was 3.62



2

Source: Association of American Medical Colleges.

West Virginia School of Osteopathic Medicine

| •                          |         |         |         |         |         |
|----------------------------|---------|---------|---------|---------|---------|
|                            | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 |
| Applicants                 |         |         |         |         |         |
| In-State                   | 182     | 184     | 171     | 146     | 156     |
| Total                      | 1,493   | 1,553   | 1,408   | 1,372   | 1,432   |
| Acceptances Issued         |         |         |         |         |         |
| In-State                   | 68      | 69      | 68      | 66      | 79      |
| Total                      | 157     | 155     | 149     | 179     | 267     |
| First Year New Enrollment  |         |         |         |         |         |
| In-State                   | 50      | 53      | 54      | 51      | 50      |
| Total                      | 75      | 77      | 80      | 81      | 103     |
| Total Medical Students     | 274     | 285     | 296     | 306     | 336     |
| Entering Class Data        |         |         |         |         |         |
| Mean GPA                   | 3.4     | 3.5     | 3.5     | 3.5     | 3.4     |
| Mean MCAT Scores           |         |         |         |         |         |
| Biology/Biological Science | 7.2     | 7.4     | 7.4     | 7.4     | 7.5     |
| Physics/Physical Science   | 7.0     | 7.2     | 7.0     | 6.8     | 7.0     |
| Reading/Verbal Reasoning   | 7.9     | 7.9     | 7.9     | 7.8     | 7.8     |
| Median Writing Sample      | N/A     | N/A     | N/A     | N/A     | N/A     |

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 sections are on a scale of 1-15 and a scale of J-T on the Writing Sample. The national averages for students entering osteopathic medical schools in 2003-04 were:

Biological Science: 8.5 Physical Science: 8.0 Verbal Reasoning: 8.1 Writing Sample: O

Source: The American Association of Colleges of Osteopathic Medicine.

The national mean GPA was 3.45



### **MEDICAL SCHOOL GRADUATES**

#### Number of Examinees/Number Passing USMLE Step 3

|                          | 1999-00      | 2000-01     | 2001-02      | 2002-03     | 2003-04     |
|--------------------------|--------------|-------------|--------------|-------------|-------------|
| West Virginia University | 76/76 (100%) | 83/81 (98%) | 65/65 (100%) | 69/65 (94%) | 71/68 (96%) |
| Marshall University      | 51/50 (98%)  | 43/40 (93%) | 50/47 (94%)  | 39/33 (85%) | 46/43 (93%) |

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 becomes available two years after graduation, i.e., results for 2001 graduates are shown in 2003-04. The national average for this cohort was 96%.

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

|                                   | 1999-00     | 2000-01     | 2001-02     | 2002-03     | 2003-04     |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|
| WV School of Osteopathic Medicine | 70/61 (87%) | 59/54 (92%) | 56/55 (98%) | 51/50 (98%) | 73/67 (92%) |

Licensing Examination (COMLEX), Level 3. Results are for 2004 graduates. The national average for this cohort was 90%.

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

|                                   | 1999-00  | 2000-01  | 2001-02  | 2002-03  | 2003-04** |
|-----------------------------------|----------|----------|----------|----------|-----------|
| West Virginia University          | 51 (63%) | 54 (58%) | 39 (48%) | 46 (48%) | 32 (46%)  |
| Marshall University               | 32 (74%) | 34 (67%) | 34 (72%) | 32 (68%) | 29 (73%)  |
| WV School of Osteopathic Medicine | 44 (71%) | 39 (64%) | 40 (63%) | 48 (67%) | N/A***    |
| TOTAL                             | 127      | 127      | 106      | 126      |           |

\*Primary care includes family medicine, internal medicine, pediatrics, internal medicine/pediatrics, and obstetrics/gynecology. \*\*In 2004, the national average for choice of primary care residencies was 49.2% for all allopathic graduates.

\*\*\*Osteopathic students enter a one-year rotating internship after graduation. Thus, their data lags one year behind the allopathic graduates. In 2003, 40 (63%) of WVSOM 2002 graduates chose primary care residencies. The national average is not available.



# Medical School Graduates in West Virginia (MD and DO), 1994-1999

|                                   |                              | G               | Training                       |  |   |
|-----------------------------------|------------------------------|-----------------|--------------------------------|--|---|
| Institutions                      | Total Number<br>of Graduates | Total<br>Number | Number in<br>Practice in<br>WV | Number in<br>Primary<br>Care in<br>WV* | Number in<br>Practice in Non<br>Urban Areas in<br>WV ** |
| West Virginia University          | 484                          | 451             | 166 (36.8%)                    | 98 (21.7%)                             | 25 (5.5%)   |
| Marshall University               | 291                          | 274             | 106 (38.6%)                    | 65 (23.7%)                             | 28 (10.2%)  |
| WV School of Osteopathic Medicine | 312                          | 312             | 110 (35.2%)                    | 99 (31.7%)                             | 54 (17.3%)  |
| TOTAL                             | 1,087                        | 1,037           | 382 (36.8%)                    | 262 (25.2%)                            | 107 (10.3%)   |

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

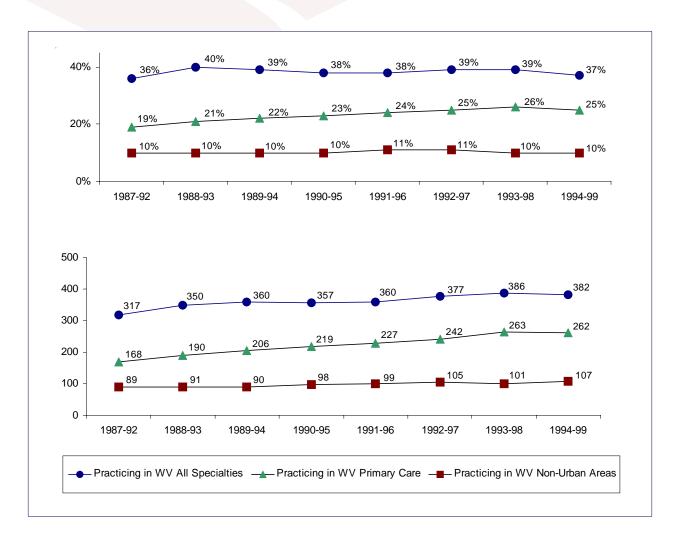
\*Primary Care is defined as family medicine, internal medicine, pediatrics, internal medicine/pediatrics, and obstetrics/gynecology.

\*\*Non-urban 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.

A total of 1,037 students graduating from WV medical schools between 1994 and 1999 have completed their residency training. Thirty seven percent of these graduates are practicing in West Virginia, and approximately 10% 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. The table, chart, and maps on pages 5-9 present data on graduates from 1994-1999.



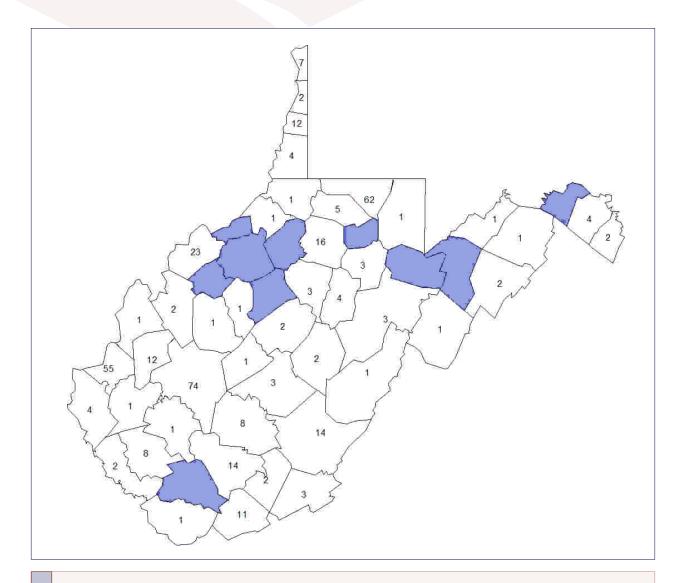
#### West Virginia Medical School Graduates



Retention is tracked annually for a rolling 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 8 years, their numbers have increased by 56% from 168 to 262. The percentage of total graduates retained in primary care has increased from 19% to 25%.



### WV Medical Graduates, 1994-99, in All Specialties



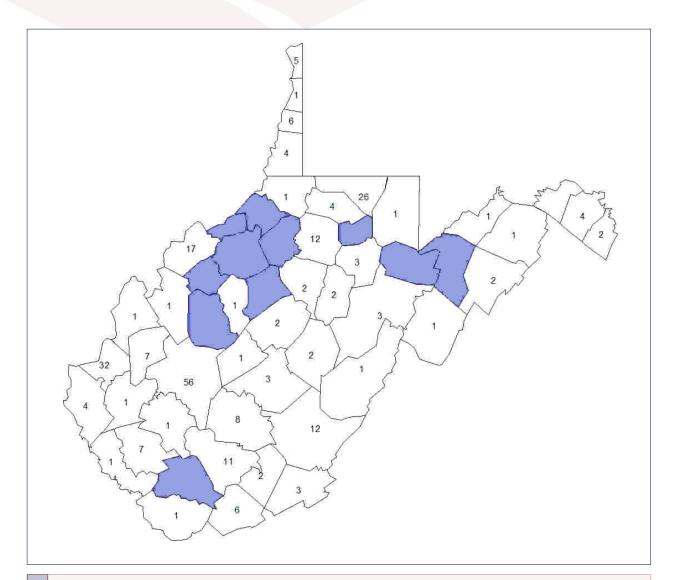
The map shows total graduates of WV medical schools from 1994-99 who are practicing in each county. The statewide total is 382 (37%).

The shaded counties have no graduates from 1994-99 practicing.



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#### WV Medical Graduates, 1994-99, in Primary Care



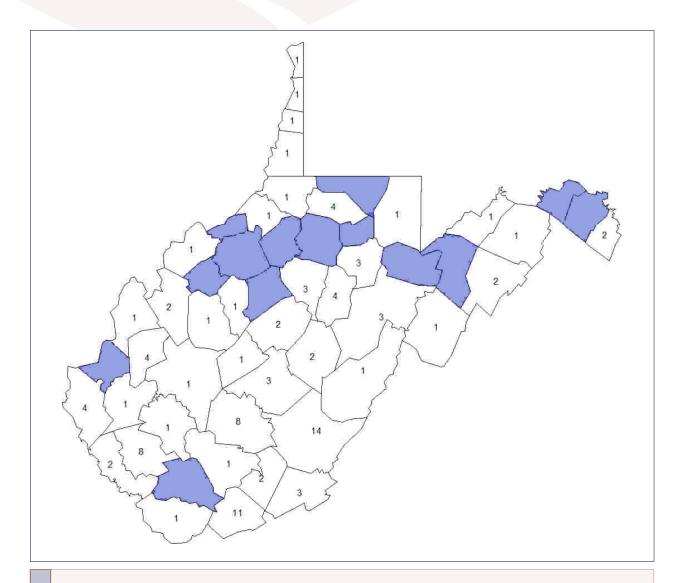
The map shows total graduates from WV medical schools from 1994-99 who are practicing in primary care in each county. The statewide total is 262 (25%). Primary care is defined as family medicine, internal medicine, pediatrics, internal medicine/pediatrics, and obstetrics/gynecology.

Shaded counties have no graduates from 1994-99 practicing in primary care.





#### WV Medical Graduates, 1994-99, in Non-Urban Areas

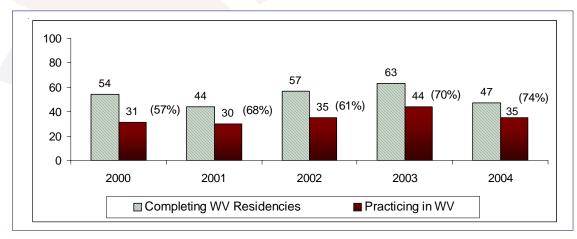


The map shows total graduates of WV medical schools from 1994-99 who are practicing in non-urban areas of each county. The statewide total is 107 (10%). The map excludes graduates practicing in Beckley, Charleston (including South Charleston, Dunbar, Nitro, Institute, etc.), Clarksburg, Fairmont, Huntington (including Barboursville), Hurricane, Martinsburg, Morgantown (including Star City and Westover), Parkersburg (including Vienna), Weirton, and Wheeling.

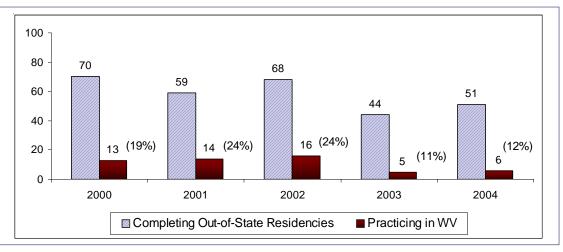
Shaded counties have no graduates from 1994-99 practicing in non-urban areas.



#### WV Medical Graduates Completing WV Primary Care Residencies



WV Medical Graduates Completing Out-Of-State Primary Care Residencies



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 most needed in rural West Virginia; and (2) location of the residency, because graduates who complete residencies in West Virginia are more likely to practice in the state.



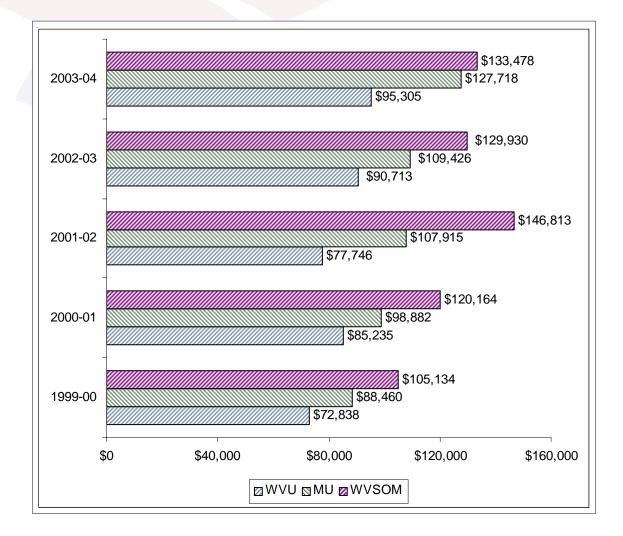
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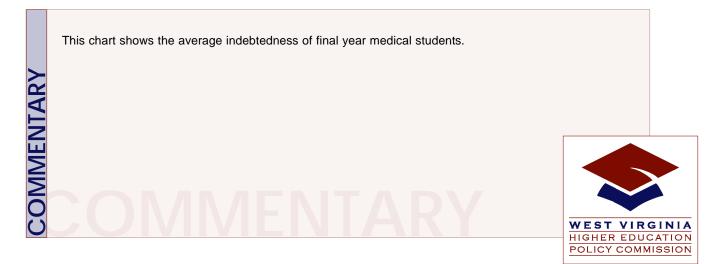
### Health Sciences Graduates, 2000-2004

|                    | 2000     | 2001     | 2002     | 2003     | 2004     |
|--------------------|----------|----------|----------|----------|----------|
| est Virginia Unive | rsity    |          |          |          |          |
| Dental             | 37       | 40       | 35       | 34       | 37       |
| Practicing in WV   | 13 (35%) | 24 (60%) | 16 (46%) | 27 (80%) | 27 (73%) |
| Pharmacy           | 46       | 49       | 60       | 71       | 65       |
| Practicing in WV   | 35 (76%) | 37 (76%) | 41 (68%) | 48 (68%) | 35 (54%) |
| Nurse Practitioner | 30       | 26       | 17       | 12       | 32       |
| Practicing in WV   | 26 (87%) | 24 (92%) | 13 (76%) | 10 (83%) | 28 (88%) |
|                    |          |          |          |          |          |
| arshall University |          |          |          |          |          |
| Nurse Practitioner | 16       | 15       | 11       | 11       | 11       |
| Practicing in WV   | 12 (81%) | 11 (73%) | 9 (82%)  | 10 (91%) | 5 (45%)  |



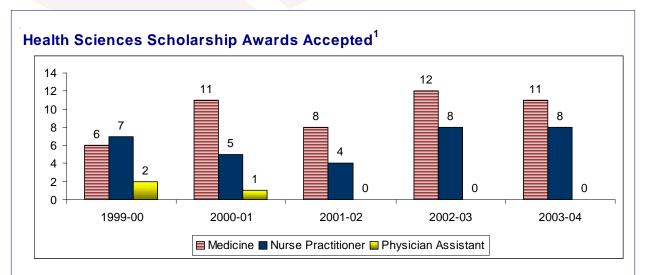
## MEDICAL STUDENT INDEBTEDNESS





Source: Data submitted from Medical School Institutions to HEPC.

### SCHOLARSHIPS AND LOANS



1. The Health Sciences Scholarship Program provides an incentive for students to practice in underserved areas of West Virginia. Medical students receive a \$20,000 award for a two-year service commitment. Other disciplines receive a \$10,000 award.

#### Medical Student Loan Program<sup>2</sup>

|                                 | 1999-00     | 2000-01     | 2001-02     | 2002-03     | 2003-04     |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|
| Loans Awarded                   | 258         | 370         | 283         | 289         | 291         |
| Total Amount Awarded            | \$1,156,286 | \$1,189,500 | \$1,225,000 | \$1,246,500 | \$1,354,228 |
| Amount of Unexpended Funds      | \$581,336   | \$995,697   | \$1,498,494 | \$2,039,706 | \$2,296,022 |
| Loan Forgiveness                | 19          | 10          | 20          | 13          | 21          |
| Default Rate on Previous Awards | 3.5%        | 2.7%        | 2.9%        | 2.5%        | 2.5%        |

2. The Medical Student Loan Program, a component of the Health Education Student Loan Program, is a need-based program to assist state medical students. It is funded from medical student fees, and borrowers may earn loan forgiveness for practicing in an underserved area or in a medical shortage field in West Virginia. The unexpended funds include loan repayments. This year the HEPC approved a proposed rule change to allow the schools to increase loans from \$5,000 to \$10,000 so that these funds will be utilized.



### HEALTH CAREER PATHWAY

#### Health Sciences and Technology Academy

| Number of<br>Students<br>Currently<br>Served | Number of<br>Teachers<br>Participating | Number of High<br>School<br>Graduates to<br>Date, 1998-2004 | High School<br>Graduates to | Percent to<br>major in Health<br>Sciences &<br>Technology in<br>College |
|--|--|---|-----------------------------|---|
| 746  | 76                                     | 580   | 95%                         | 59%   |

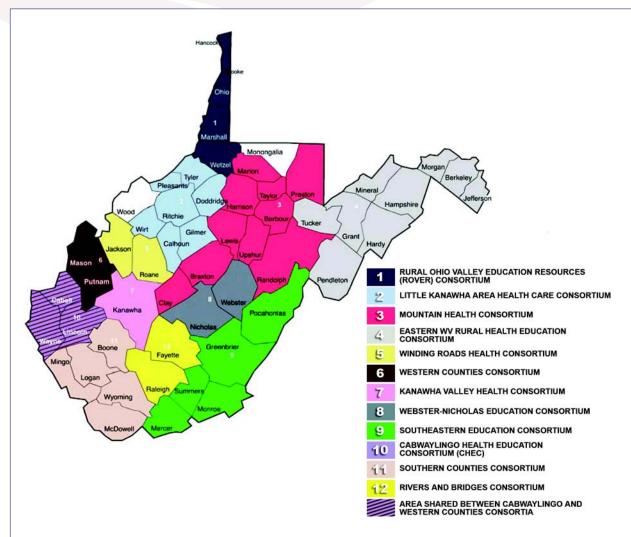
#### Program Outcomes

- 2,068 students have been served by HSTA since 1994.
- 121 HSTA students have graduated from college; 14 (11.5%) are now enrolled in health sciences graduate programs or professional schools.
- Six HSTA students are currently in medical school.

The Health Sciences and Technology Academy (HSTA) reaches out to minority and disadvantaged students in 26 counties and helps them prepare for higher education and health careers. Students from the 9th-12th grade progress through 4 years of training with local teachers and campus-based faculty.



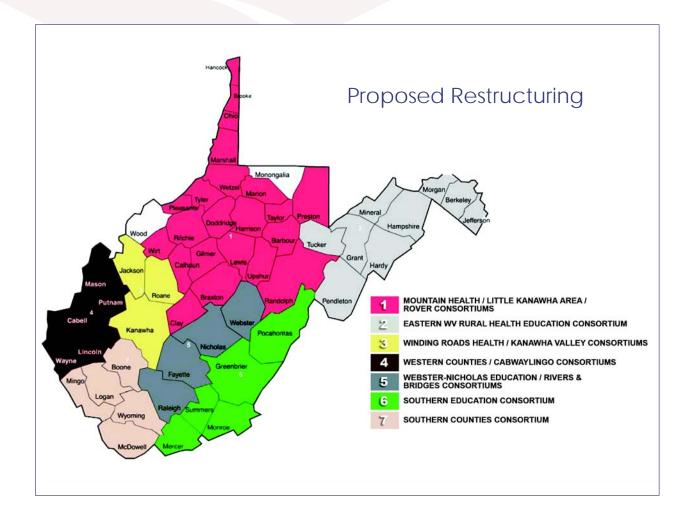
#### **RURAL HEALTH EDUCATION PARTNERSHIPS**



In 1995 RHEP maintained 13 training consortia. This year two consortia merged, resulting in 12 consortia statewide. In 2004-05 reductions in staff as well as mergers and consolidations will result in 7 consortia. These changes are designed to gain greater efficiencies while maintaining and improving the quality of educational experiences for trainees.

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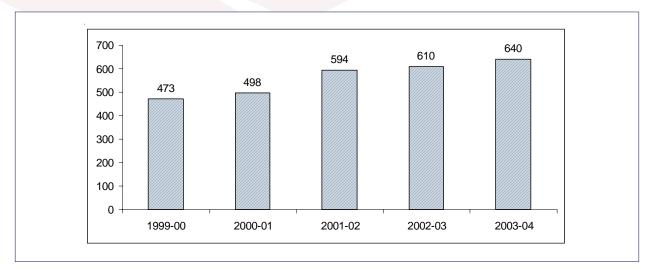
### **RURAL HEALTH EDUCATION PARTNERSHIPS**



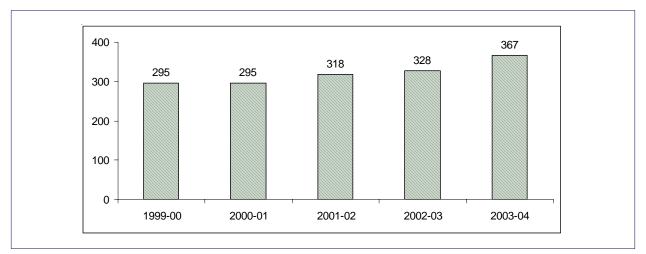


### FIELD FACULTY AND TRAINING SITES

#### **RHEP Field Faculty**



#### **RHEP Training Sites**



West Virginia RHEP field faculty are rural practitioners who also teach students. In 2004, the Faculty Development Conference was held jointly with Area Health Education Centers and the Mountain State Geriatric Education Center. The theme was "Learning, Teaching and Serving West Virginia." A total of 131 field faculty members attended.



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**OMMENTARY** 

### TRAINING CONSORTIA INFRASTRUCTURE

| Consortium<br>Lead Agency and Subsites | Counties             | Number of<br>Training<br>Sites | Number of Field Faculty |                           |  |
|--|----------------------|--------------------------------|-------------------------|---------------------------|--|
|  |                      |                                |                         |                           |  |
|  |                      |                                | 7 Medicine              | 3 Pharmacy                |  |
| Kanawha Valley Health Consortium       | Underserved areas    |                                | 2 Dental                | 4 Nurse Practitioner      |  |
| Cabin Creek Health Center              | of Kanawha           | 15                             |                         | 3 Nursing                 |  |
|  |                      |                                | 14 Medicine             | 1 Pharmacy                |  |
| Cabwaylingo Health Education           | Cabell, Wayne, and   |                                | 5 Dental                | 2 Physician Assistant     |  |
| Consortium                             | Lincoln              |                                | 4 Nurse Practitioner    |                           |  |
| Ft. Gay Family Health Center           |                      | 14                             | 4 Nursing               |                           |  |
|  |                      |                                | 31 Medicine             | 8 Pharmacy                |  |
| Eastern WV Rural Health Education      | Grant, Hardy,        |                                | 3 Dental                | 10 Nursing                |  |
| Consortium                             | Hampshire, Mineral,  |                                | 1 Physician Assistant   | 3 Nurse Practitioner      |  |
| Grant Memorial Hospital                | Pendleton, and       |                                | 1 Occupational Therapy  | 4 Physical Therapy        |  |
|  | Tucker               | 33                             | 1 Social Work           | 1 Clinical Psychology     |  |
|  |                      |                                |                         |                           |  |
|  |                      |                                | 28 Medicine             | 9 Nursing                 |  |
|  | Berkeley, Jefferson, |                                | 2 Dental                | 7 Physical Therapy        |  |
| City Hospital                          | and Morgan           | 17                             |                         | 14 Pharmacy               |  |
|  | Calhoun,             |                                |                         |                           |  |
|  | Doddridge, Gilmer,   |                                | 14 Medicine             | 7 Pharmacy                |  |
|  | Pleasants, Ritchie,  |                                | 1 Dental                | 4 Nursing                 |  |
| Little Kanawha Area Consortium         | Tyler, and Wirt      | 18                             | 1 Physician Assistant   | 4 Nurse Practitioner      |  |
|  |                      |                                | 37 Medicine             | 5 Nursing                 |  |
|  |                      |                                | 3 Dental                | 10 Physical Therapy       |  |
|  |                      |                                | 1 Medical Technology    | 1 Certified Nurse-Midwife |  |
|  | Barbour, Lewis,      |                                | 10 Pharmacy             | 1 Nurse Practitioner      |  |
| Mountain Health Partners Consortium    | Randolph, and        |                                | 1 Social Work           |                           |  |
| St. Joseph's Hospital                  | Upshur               | 43                             |                         |                           |  |
|  |                      |                                | 8 Medicine              | 6 Nursing                 |  |
|  |                      |                                | 3 Dental                | 1 Physical Therapy        |  |
| Braxton County Memorial Hospital       | Braxton and Clay     | 15                             | 1 Physician Assistant   | 1 Pharmacy                |  |
|  |                      |                                | 18 Medicine             | 32 Nursing                |  |
|  |                      |                                | 12 Dental               | 1 Nurse Practitioner      |  |
|  |                      |                                | 1 Social Work           | 8 Physical Therapy        |  |
|  |                      |                                | 8 Pharmacy              | 2 Medical Technology      |  |
|  |                      |                                | Certified Nurse-        | 1 Occupational Therapy    |  |
|  |                      |                                | 2 Midwife               | . cooperional morupy      |  |
|  | Taylor, Harrison,    |                                | 2 Physician Assistant   |                           |  |
| Grafton City Hospital                  | Preston, and Marion  | 64                             | -                       |                           |  |



### **TRAINING CONSORTIA INFRASTRUCTURE**

| Consortium<br>Lead Agency and Subsites | Counties      | Number of<br>Training<br>Sites | Number o               | f Field Faculty            |
|--|---------------|--------------------------------|------------------------|----------------------------|
| Lead Agency and Subsites               | Counties      | Siles                          | 13 Medicine            | 2 Nurse Practitioners      |
|  |               |                                | 2 Dental               | 3 Pharmacy                 |
| Rivers and Bridges Consortium          | Fayette and   |                                | 4 Physician Assistant  | 4 Nursing                  |
| New River Health Association, Inc.     | Raleigh       | 11                             | 2 Social Work          | 1 Certified Nurse- Midwife |
|  | Wetzel.       |                                | 7 Medicine             | 8 Nursing                  |
| Rural Ohio Valley Education            | Brooke.       |                                | 2 Dental               | 1 Nurse Practitioner       |
| Resources                              | Hancock.      |                                | 2 Physical Therapy     | 5 Pharmacy                 |
| (ROVER) Consortium                     | Marshall and  |                                |                        | -                          |
| Cameron Community Health Center        | Ohio          | 17                             |                        |                            |
|  | Boone, Logan, |                                | 27 Medicine            | 3 Pharmacy                 |
|  | McDowell.     |                                | 2 Dental               | 2 Nursing                  |
| Southern Counties Consortium           | Mingo, and    |                                | 2 Physician Assistant  | 6 Nurse Practitioner       |
|  | Wyoming       | 23                             |                        |                            |
|  | Greenbrier,   | 20                             | 46 Medicine            | 5 Pharmacy                 |
|  | Mercer,       |                                | 3 Dental               | 4 Nursing                  |
|  | Monroe,       |                                | 1 Physician Assistant  | 2 Nurse Practitioner       |
| Southeastern Counties Consortium       | Summers, and  |                                | 8 Physical Therapy     | 1 Social Work              |
|  | Pocahontas    | 37                             |                        |                            |
| Webster-Nicholas Education             |               |                                | 10 Medicine            | 3 Pharmacy                 |
| Consortium                             | Webster and   |                                | 1 Dental               | 1 Nursing                  |
| Camden-on-Gauley Medical Center        | Nicholas      | 7                              | 1 Physician Assistant  | 1 Physical Therapy         |
|  | Lincoln,      |                                | 37 Medicine            | 2 Nursing                  |
|  | Mason,        |                                | 2 Dental               | 1 Physical Therapy         |
|  | Putnam,       |                                | 3 Pharmacy             |                            |
| Western Counties Consortium            | Wayne, and    |                                |                        |                            |
| Pleasant Valley Hospital               | rural Cabell  | 38                             |                        |                            |
|  |               |                                | 13 Medicine            | 1 Nursing                  |
| Winding Roads Health Science           |               |                                | 3 Dental               | 1 Certified Nurse Midwife  |
| Consortium                             | Roane and     |                                | 7 Pharmacy             | 4 Nurse Practitioner       |
| Roane County Family Health Care        | Jackson       | 15                             | 2 Physical Therapy     |                            |
|  | Total         |                                | 310 Medicine           | 81 Pharmacy                |
|  | Training      | 367                            | 46 Dental              | 95 Nursing                 |
|  | -             |                                | 15 Physician Assistant | 32 Nurse Practitioner      |
|  |               |                                | 3 Medical Technology   | 44 Physical Therapy        |
|  |               |                                | 1 Clinical Psychology  | 2 Occupational Therapy     |
|  |               |                                | 6 Social Work          | 5 Certified Nurse- Midwife |
|  |               |                                | Field Faculty Total    | 640                        |

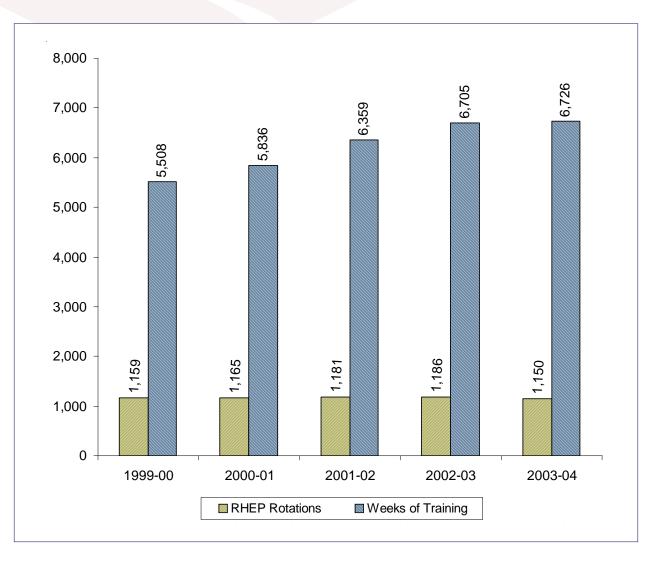
The RHEP training infrastucture covers the most underserved areas of 53 counties. Training sites include rural hospitals; health centers; private physician offices; dental offices; pharmacies; public health departments; human service agencies; mental health centers; schools; and other health care organizations (e.g., home health).

See Page 16 for proposed changes to the infrastructure in 2005.

OMMENTARY



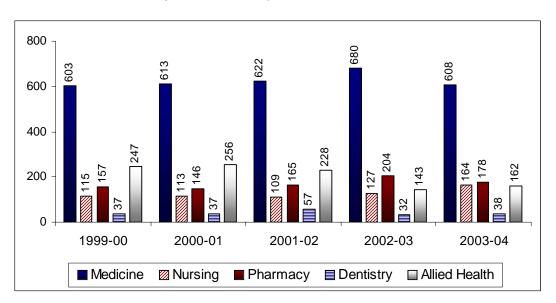
### RHEP Student Rotations by Year





#### **RHEP Rotations by Year/Discipline**

**RHEP Student Weeks by Year/Discipline** 



#### 4,000 3,107 3,500 2,736 2,716 2,752 3,000 554 2 2,072 2,500 1,640 1,534 2,000 1,336 1,296 1,277 1,500 962 922 836 759 733 694 726 1,000 593 671 340 224 224 230 500 200 0 1999-00 2000-01 2001-02 2002-03 2003-04 Medicine □ Allied Health **Nursing** Pharmacy Dentistry



### Rotations by County: June 1, 2003 - May 31, 2004

|            | RHEP Other Rural Sites |                  |                     | RHEP             |            | Other Rural Sites   |                  |                     |                 |
|------------|------------------------|------------------|---------------------|------------------|------------|---------------------|------------------|---------------------|-----------------|
| County     | Student<br>Rotation    | Student<br>Weeks | Student<br>Rotation | Student<br>Weeks | County     | Student<br>Rotation | Student<br>Weeks | Student<br>Rotation | Studen<br>Weeks |
| Barbour    | 5                      | 26               |                     |                  | Mingo      | 1                   | 6                |                     |                 |
| Berkeley   | 65                     | 336              |                     |                  | Monroe     | 10                  | 58               |                     |                 |
| Boone      | 19                     | 107              | 4                   | 13               | Monongalia |                     |                  | 1                   | 8               |
| Braxton    | 18                     | 122              |                     |                  | Morgan     | 16                  | 92               |                     |                 |
| Brooke     |                        |                  |                     |                  | Nicholas   | 20                  | 114              | 8                   | 10              |
| Cabell     | 20                     | 111              | 2                   | 11               | Ohio       | 4                   | 43               |                     |                 |
| Calhoun    | 3                      | 13               |                     |                  | Pendleton  | 2                   | 8                |                     |                 |
| Clay       | 2                      | 18               | 1                   | 17               | Pleasants  | 2                   | 8                |                     |                 |
| Doddridge  |                        |                  |                     |                  | Pocahontas |                     |                  |                     |                 |
| Fayette    | 45                     | 271              | 5                   | 20               | Preston    | 59                  | 492              | 1                   | 14              |
| Gilmer     |                        |                  |                     |                  | Putnam     | 57                  | 261              |                     |                 |
| Grant      | 28                     | 146              |                     |                  | Raleigh    | 21                  | 101              | 25                  | 92              |
| Greenbrier | 156                    | 751              | 78                  | 262              | Randolph   | 49                  | 270              | 2                   | (               |
| Hampshire  | 5                      | 20               |                     |                  | Ritchie    | 7                   | 66               |                     |                 |
| Hancock    |                        |                  |                     |                  | Roane      | 21                  | 107              |                     |                 |
| Hardy      | 5                      | 35               |                     |                  | Summers    | 11                  | 62               |                     |                 |
| Harrison   | 30                     | 209              | 9                   | 38               | Taylor     | 37                  | 208              |                     |                 |
| Jackson    | 19                     | 108              | 2                   | 18               | Tucker     | 5                   | 28               |                     |                 |
| Jefferson  | 27                     | 137              |                     |                  | Tyler      | 3                   | 36               |                     |                 |
| Kanawha    | 60                     | 527              | 1                   | 3                | Upshur     | 49                  | 267              |                     |                 |
| Lewis      | 26                     | 159              |                     |                  | Wayne      | 53                  | 266              | 49                  | 198             |
| Lincoln    | 9                      | 49               |                     |                  | Webster    | 11                  | 62               |                     |                 |
| Logan      | 28                     | 194              | 26                  | 137              | Wetzel     |                     |                  |                     |                 |
| Marion     | 29                     | 167              | 2                   |                  | Wirt       |                     |                  |                     |                 |
| Marshall   | 39                     | 278              |                     |                  | Wood       |                     |                  |                     |                 |
| Mason      | 34                     | 145              | 1                   | 8                | Wyoming    | 15                  | 91               | 1                   |                 |
| McDowell   | 10                     | 51               |                     |                  | , <u>,</u> |                     |                  |                     |                 |
| Mercer     | 7                      | 41               | 64                  | 246              |            |                     |                  |                     |                 |
| Mineral    | 8                      | 59               |                     |                  |            |                     |                  |                     |                 |
|            |                        |                  |                     |                  | Total      | 1,150               | 6.726            | 282                 | 1,117           |



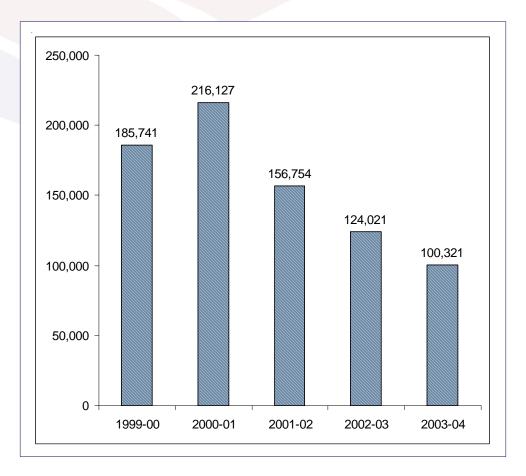
#### Rotations by School/Discipline: June 1, 2003 - May 31, 2004

|                               | RHE               | Р             | Other Rura        | l Sites       |
|-------------------------------|-------------------|---------------|-------------------|---------------|
| School/Discipline:            | Student Rotations | Student Weeks | Student Rotations | Student Weeks |
| Alderson-Broaddus             |                   |               |                   |               |
| Nursing                       |                   |               |                   |               |
| Physician Assistant           | 46                | 183           |                   |               |
| Mountain State University     |                   |               |                   |               |
| Physician Assistant           | 67                | 335           |                   |               |
| Nurse Practioner              | 6                 | 64            |                   |               |
| Marshall University           |                   |               |                   |               |
| Medicine                      | 97                | 422           | 46                | 169           |
| Nursing                       | 19                | 138           | 3                 | 16            |
| West Liberty                  |                   |               |                   |               |
| Dental Hygiene                | 6                 | 18            |                   |               |
| WV School of Osteopathic      |                   |               |                   |               |
| Medicine                      |                   |               |                   |               |
| Medicine                      | 297               | 1,430         | 215               | 765           |
| Medical Resident              | 3                 | 13            |                   |               |
| West Virginia University      |                   |               |                   |               |
| Nursing                       | 80                | 990           |                   |               |
| Nurse Practitioner            | 19                | 312           | 1                 | 14            |
| Nurse Practitioner-Charleston | 18                | 271           | 6                 | 102           |
| Physical Therapy              | 21                | 248           | 1                 | 1:            |
| Dentistry                     | 38                | 230           |                   |               |
| Dental Hygiene                | 19                | 103           |                   |               |
| Medicine                      | 140               | 576           | 8                 | 34            |
| Medicine-Charleston           | 65                | 269           | 1                 |               |
| Medical Resident              | 6                 | 26            |                   |               |
| Other                         |                   |               |                   |               |
| Pharmacy                      | 178               | 726           |                   |               |
| Social Work                   | 2                 | 71            |                   |               |
| Psychology                    | 1                 | 4             |                   |               |
| West Virginia University      |                   |               |                   |               |
| Institute of Technology       |                   |               |                   |               |
| Nursing                       | 22                | 297           |                   |               |
| Dental Hygiene                |                   |               | 1                 |               |
| Total                         | 1,150             | 6,726         | 282               | 1,117         |



## **COMMUNITY SERVICE CONTACTS**

#### Community Service Contacts by Year, 1999-2004



RHEP provides a wide variety of community services, such as health fairs, health screenings, flood relief clinics, tobacco awareness, high-risk pregnancy programs, osteoporosis clinics, playground safety, sports physicals, and oral hygiene. The declining number of community service contacts is most likely due to changes in reporting definitions, changes in school curricula, and reduction of staff at rural sites who assist students in conducting these activities.

RHEP dental and dental hygiene students provided 12,032 clinical procedures compared to 8,696 the previous year, an increase of 38%. Students and faculty participated in 173 outreach activities serving more than 12,351 West Virginians. RHEP dental sites provided almost \$1 million in uncompensated care.

The CARDIAC (Coronary Artery Detection in Appalachian Communities) program expanded to 54 counties and screened nearly 10,000 children and some of their parents. The objective is to reduce heart disease mortality. In 2004, CARDIAC received a grant from the Benedum Foundation to create a liaison position between the RHEP site coordinators and the AHEC directors to assist with scheduling. The CARDIAC program has received awards from the National Rural Health Association, the American Public Health Association, and the West Virginia Rural Health Conference.



### Contacts by Consortia: June 1, 2003 - May 31, 2004

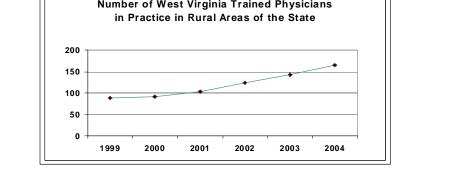
| Consortium  | Prevention and<br>Education for<br>General Public | Prevention and<br>Education for<br>Adults | Prevention and<br>Education for<br>Children | Total   |
|---|---|---|---|---------|
| Kanawha Valley Health Consortium                            |   |   |   |         |
|   | 1,785   | 2,453                                     | 5,420                                       | 9,658   |
| Cabwaylingo Health Education Consortium                     | 756   | 190                                       | 439   | 1,385   |
| Country Roads Consortium                                    | 1,500   | 1,985                                     | 2,224                                       | 5,709   |
| Eastern WV Rural Health Education Consortium                |   |   |   |         |
| Grant Memorial Hospital                                     | 833   | 1,507                                     | 5,072                                       | 7,412   |
| City Hospital, Martinsburg                                  | 2,247   | 655                                       | 4,165                                       | 7,067   |
| Little Kanawha Area Consortium                              | 3,232   | 744                                       | 4,129                                       | 8,105   |
| Mountain Health Consortium                                  |   |   |   |         |
| St. Joseph's Hospital                                       | 1,850   | 1,480                                     | 3,074                                       | 6,404   |
| Braxton County Memorial Hospital                            | 826   | 231                                       | 2,092                                       | 3,149   |
| Grafton City Hospital                                       | 8,325   | 1,173                                     | 3,511                                       | 13,009  |
| Rivers and Bridges Consortium                               | 1.150   | 2.166                                     | 2.978                                       | 6,294   |
| Rural Mountain Consortium                                   | ,   | ,   | ,   | ,       |
| Rural Ohio Valley Education Resources<br>(ROVER) Consortium | 0   | 35  | 32  | 67      |
|   | 985   | 716                                       | 5,414                                       | 7,115   |
| Southern Counties Consortium                                | 2,980   | 2,011                                     | 1,015                                       | 6,006   |
| Webster-Nicholas Education Consortium                       | 933   | 646                                       | 1,109                                       | 2,688   |
| Western Counties Consortium                                 | 3,690   | 806                                       | 3,247                                       | 7,743   |
| Winding Roads Health Consortium                             | 2,801   | 1,867                                     | 3,842                                       | 8,510   |
| Totals  | 33,893  | 18,665                                    | 47,763                                      | 100,321 |



### RECRUITMENT

West Virginia Trained Health Professionals in Practice in Rural Areas of the State

| Discipline N                                  | lumber in Rural Practice           | Number who Received<br>Financial Incentives |
|---|------------------------------------|---|
| Physicians                                    |                                    |   |
| (1991-2001 graduates)                         | 165                                | 65 (39%)                                    |
| Nurse Practitioners/Nurse Educato             | rs 64                              | 34 (53%)                                    |
| Nurse-Midwives                                | 1                                  | 1 (100%)                                    |
| Physician Assistants                          | 78                                 | 37 (47%)                                    |
| Nurses  | 96                                 |   |
| Dentists                                      | 70                                 | -   |
| Dental Hygienists                             | 17                                 | -   |
| Pharmacists                                   | 130                                | -   |
| Physical Therapists                           | 35                                 | -   |
| Occupational Therapists                       | 1                                  | -   |
| Medical Technologists                         | 4                                  |   |
| TOTAL   | 661                                | 137 (21%) *                                 |
| Methodology: Data on physicians include gra   | duates from 1991-2001 who have com | pleted residency training. Data on al       |
| other disciplines include graduates from 1991 |                                    | . , , ,                                     |
|   |                                    |   |
|   |                                    |   |



The number of medical graduates in rural practice has increased 88% in the past 6 years at an average annual rate of 13.4%. \*The RHEP Recruitment and Retention Committee coordinates state recruitment efforts, including financial incentives, as a companion strategy to rural training. A total of 195 incentives was awarded to these 137 rural practitioners:

West Virginia Higher Education Policy Commission Health Sciences Scholarship Program - 61 Awards

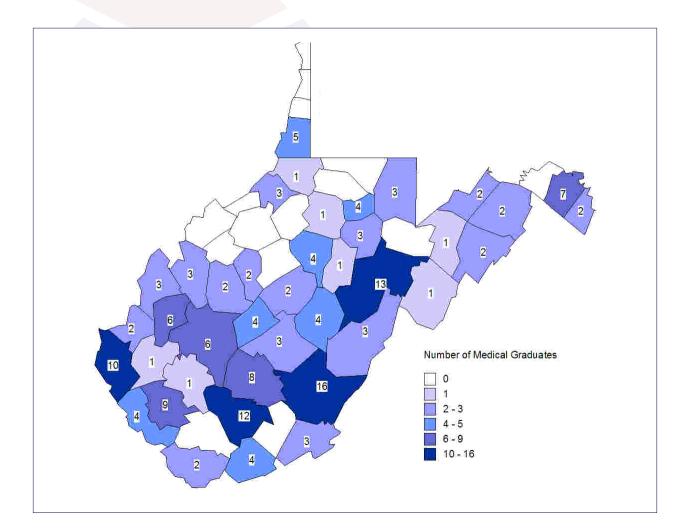
WV Rural Health Education Partnerships SEARCH Training Stipends - 40 Awards Community Scholarship Program - 9 Awards

Bureau for Public Health, Division of Recruitment Recruitment & Retention Community Project - 67 Awards State Loan Repayment Program - 18 Awards



### RECRUITMENT

Recent WV Medical Graduates Practicing in Rural Areas in 2004



A total of 165 West Virginia trained physicians were practicing in rural areas of the state in 2004. They include graduates from 1991-2001. Sixty-five (39%) of these physicians received state financial incentives.

Recruitment data on pages 25 and 26 were provided by the HEPC, WVDHHR, medical schools, and RHEP staff.

