

# PHYSICIAN SHORTAGES AND THE MEDICALLY UNDERSERVED

It's been at least 20 years since a doctor has practiced in Armstrong County, in the Texas panhandle. And there's no point in the county's 2,000 residents driving north to neighboring Carson County or south to Biscoe County to see a doctor. No physician practices in those counties either.

In many rural counties across the country, it's easier to rent a video or check out a book from a public library than to find a doctor to provide medical treatment. In Texas alone, 23 counties—mostly in the western half of the state—have no physician, according to the Texas Medical Board. At least 150 counties—more than half the state—lack an obstetrician, and many medical specialties are likewise limited to more populated areas.

All states face some physician shortages. In Idaho, which has the fewest doctors per capita in the country, approximately one-third of the state's 44 counties have been designated Health Professional Shortage Areas by the federal Health Resources and Services Administration (HRSA). But even Massachusetts, which has the most physicians per capita, has medically underserved pockets. For example, only three physicians serve Nantucket County, which should have nine doctors for its population, according to HRSA.

Sixty million people—approximately one-fifth of the country's population—reside in more than 3,000 shortage areas. The lack of doctors in those places has dramatic consequences for access to medical care. It can mean longer waits in busier doctors' offices, increased travel times to see physicians, less exposure to preventive strategies and poorer outcomes following traumatic injuries and illnesses. Many small rural hospitals have closed due to financial problems and many others are in danger of closing, further compounding the problem of access to care in medically underserved areas.

## Widespread Shortages Predicted

The shortage of physicians in underserved areas may become worse before it gets better. Additionally, many areas that currently have enough physicians are expected to face shortages during the next decade. Medical groups are warning of widespread physician shortages in the U.S. as the percentage of elderly people grows, increasing demand for doctors. Also, as many baby boomer-generation physicians reach retirement age, the supply of physicians is expected to dwindle. Several studies by medical groups have concluded the U.S. will need between 85,000 and 200,000



additional physicians by 2020. As the shortage of physicians becomes more widespread, rural areas—those already facing severe shortages—are likely to be hit hardest.

Ironically, until the mid-1990s, the American Medical Association and other medical groups were warning of a surplus of doctors. In 1994, the *Journal of the American Medical Association* predicted a surplus of 165,000 doctors by 2000. As a result of concerns over physician surpluses, many medical colleges instituted enrollment freezes. From 1980 until 2005, enrollment in medical schools remained virtually unchanged, even though the country's population increased by nearly a third.

The American Association of Medical Colleges has proposed increasing enrollment in medical schools by 30 percent by 2015 through expanding existing medical education programs, as some medical schools have already done, and creating new programs. These new and/or expanded programs would result in an additional 5,000 physicians annually in the U.S. Because it typically takes more than 10 years to train new physicians from the time they enter college—and even longer for specialists—health policy experts say creating new medical colleges needs to begin immediately.

The twin problems of physician shortages and maldistribution of doctors are complex public health policy issues. As Dr. Kevin Grumbach noted in an article published in *Health Affairs*, the vexing problem in health care policy is getting the right number of physicians in the right specialties in the right locations at the right times. Several federal programs can help in communities that are designated as shortage areas.

## Understanding Shortage Designations

Typically, HRSA designates a county as a Health Professional Shortage Area when it has a population-to-primary care physician ratio of more than 3,500-to-1. The administration also created similar but separate designations for dentists and mental health professionals. The designation may apply to a geographic area (usually a county), specific population groups (such as low-income individuals) or facilities (such as prisons).

More than 30 federal programs depend on the shortage area designation to determine eligibility or funding preferences. The National Health Service Corps, for example, provides loan repayment only to health

providers who locate in an area or serve a population that has received a shortage area designation. In addition, other designations—such as Medically Underserved Areas or Medically Underserved Populations and Governor’s Certified Shortage Areas—are used by HRSA to determine eligibility of areas without enough physicians for other federal programs.

In addition to the federal programs, state policymakers have a variety of program options and strategies to increase the number of physicians in underserved areas.

## The States Respond

To convince physicians to practice in underserved areas, many states now offer incentive packages. Loan repayment, visa waivers and flexible work options are all on the table as states attempt to lure doctors away from more lucrative practices in metropolitan areas and into shortage areas.

## Loan Repayment Programs

Medical school-related debt has increased fivefold during the past 25 years. According to the Association of American

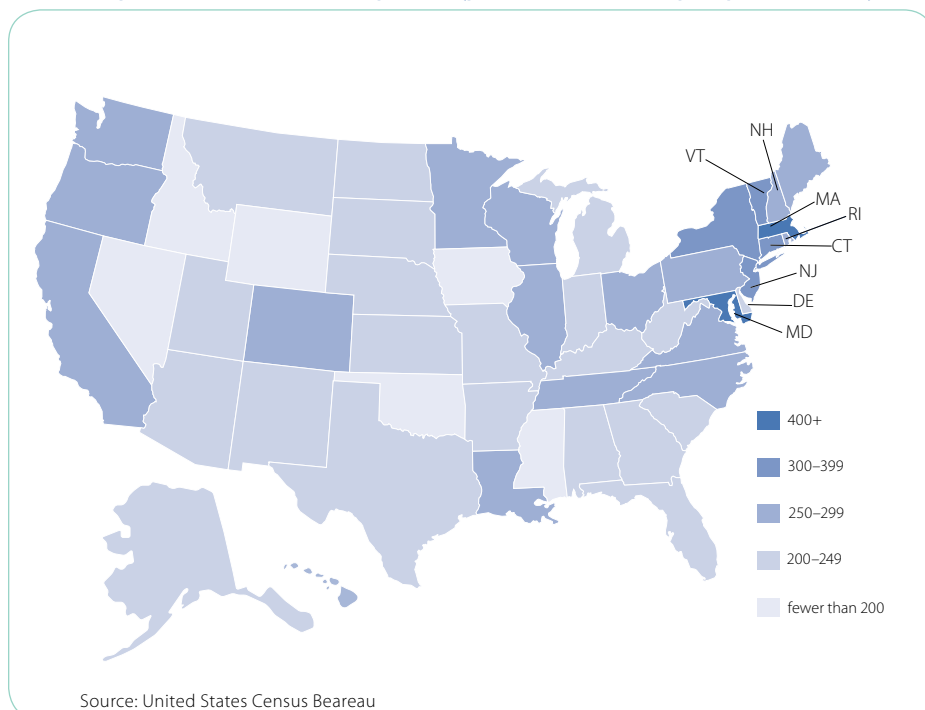
Medical Colleges, nearly 90 percent of 2007 medical school graduates carried student loans with a median amount of approximately \$140,000. Given the high debt load most new doctors carry, many states have found student loan repayment programs can entice physicians to locate in areas where they are most needed.

The federal government provides scholarships and loan repayment to health professionals who agree to practice for at least two years in a shortage area through the National Health Service Corps. In addition, the National Health Service Corps also awards matching funds to states to operate their own loan repayment programs. Primary care health professionals who provide full-time clinical services in a public or nonprofit facility located in a designated shortage area are eligible for the program. Eligibility requirements and benefits vary among the 35 states that participate in the program.

States often find that by creating their own loan repayment programs independent of the National Health Service Corps, they can design more flexible eligibility rules and establish a program to serve their needs more effectively. Nebraska, for example, established a loan repayment program in 1994 and requires communities to share in the program’s cost. Physicians, dentists and clinical psychologists can receive up to \$40,000 per year for three years if they locate their practice in a shortage area designated by the Nebraska Rural Health Advisory Commission. Lower loan repayment amounts are also available to nurse practitioners, physician assistants, physical therapists, pharmacists and other health professionals. The actual amount of the awards in Nebraska is based on the education debt load and the availability of funds.

Communities are required to provide an equal match to state dollars, and the practitioner must agree to a three-year commitment in the underserved area. Since the program’s inception, Nebraska has provided loan repayment for more than 100 physicians in addition to nearly twice that number of health professionals from other fields.

## Physicians Per Capita (per 100,000 population)



## J-1 Visa Waivers

In order to solve America's physician shortage, some state policymakers are looking overseas for answers. International medical graduates account for approximately 25 percent of all physicians practicing in the U.S., according to the American Medical Association. Without foreign-born medical doctors, many places in the U.S. would face even more severe physician shortages than those they already confront.

The J-1 visa program targets foreign medical graduates who attend medical school in the U.S. The visa allows holders to remain in the U.S. only until their studies are completed. After that, they typically must return to their home countries for two years before applying for a permanent visa to work in the U.S.

A J-1 visa waiver removes the two-year home residency requirement and allows a physician sponsored by a federal or state government agency to stay in the U.S. to practice in a federally designated Health Professional Shortage Area or Medically Underserved Area. Under these programs—known as Conrad 30 or State 30 programs—the federal government limits the number of visa waivers available to any state at 30 per year. Some advocates of this program support increasing the number to provide more physicians in underserved areas.

Nearly all states have J-1 visa waiver programs. Some limit the program to certain medical specialties or cap the number of J-1 waivers they will sponsor below the 30 allowed by the federal government.

## Telemedicine

Telemedicine—medical services delivered to or from a distant site via telephone, computer, fax machine or interactive video system—can reduce the sense of isolation many rural practitioners face. Telemedicine saves time and travel expenses for providers and patients, allows for reductions or substitutions in medical personnel and improves the chances for early diagnosis of disease.

Texas Tech University Health Sciences Center received a federal demonstration grant in 1989 from the U.S. Department of Health and Human Service's Office of Rural Health Policy to establish a telemedicine program. HealthNet connects the school's four campuses in west Texas with rural health care facilities and many prisons in remote regions of the state.

HealthNet serves an area including 108 west Texas counties, 99 of which are rural. Half of those counties have a population density of fewer than seven people per square mile. HealthNet provides medical services such as interactive video consultations, teleradiology and data services for rural hospitals, health care consultations for prisons, continuing education for rural hospitals and providers, and training for emergency service personnel.

## Health Professional Shortage Area Designations by State or Territory

State/Territory	Single County	Geographic Area	Population Group	Native American Tribal Population	Facility	Total
Alabama	23	8	32	1	22	86
Alaska	13	3	1	30	23	70
Arizona	5	41	16	28	46	136
Arkansas	18	28	19	0	23	88
California	2	108	72	45	278	505
Colorado	17	14	29	4	44	108
Connecticut	0	7	18	2	14	41
Delaware	0	4	4	0	4	12
District of Columbia	0	4	2	0	8	14
Florida	16	4	106	5	109	240
Georgia	58	9	65	0	56	188
Hawaii	0	6	3	0	22	31
Idaho	14	6	26	3	14	63
Illinois	24	36	66	0	148	274
Indiana	13	14	26	1	41	95
Iowa	14	7	25	1	41	88
Kansas	25	0	64	4	50	143
Kentucky	39	1	47	0	48	135
Louisiana	46	18	9	4	44	121
Maine	0	15	22	5	33	75
Maryland	7	4	16	0	19	46
Massachusetts	2	5	15	1	45	68
Michigan	9	19	55	13	104	200
Minnesota	12	21	28	12	48	121
Mississippi	54	4	19	2	30	109
Missouri	31	1	85	1	62	180
Montana	21	15	14	11	30	91
Nebraska	26	4	1	4	38	73
Nevada	10	9	5	22	9	55
New Hampshire	0	3	5	0	16	24
New Jersey	0	4	7	0	24	35
New Mexico	18	14	8	21	30	91
New York	8	52	31	4	79	174
North Carolina	21	8	30	1	55	115
North Dakota	28	15	7	4	22	76
Ohio	11	32	24	0	47	114
Oklahoma	23	9	29	97	39	197
Oregon	5	15	27	8	44	99
Pennsylvania	2	42	43	0	87	174
Rhode Island	0	2	4	2	12	20
South Carolina	9	9	38	2	30	88
South Dakota	26	20	3	10	32	91
Tennessee	29	11	37	0	43	120
Texas	119	49	67	3	168	406
Utah	10	2	23	5	19	59
Vermont	0	7	1	0	15	23
Virginia	31	23	5	0	56	115
Washington	7	23	29	29	59	147
West Virginia	17	17	8	0	53	95
Wisconsin	12	34	12	16	35	109
Wyoming	13	9	1	3	12	38
American Samoa	0	1	0	0	1	2
Micronesia	4	0	0	0	1	5
Guam	1	0	0	0	1	2
Marshall Islands	0	1	0	0	1	2

Source: U.S. Health Resources and Services Administration as of 6/10/2008

## Other Approaches

State policymakers are using a variety of other programs and strategies to attract physicians to underserved areas.

- ▶ At least six states offer income tax credits to physicians who practice in underserved areas. For example, Georgia provides a maximum tax credit of \$5,000 per year for five years to physicians who practice in designated shortage areas. New Jersey legislators also approved a bill in 2004 that provides tax deductions to primary care physicians working in underserved areas. That legislation also created a low-interest loan program to physicians to construct or renovate office spaces in areas designated as Health Enterprise Zones by the state commissioner of health and senior services.
- ▶ The Arkansas Rural Physician Incentive Revolving Fund provides grants to physicians who locate in underserved areas. The grants are determined by physician eligibility and a community's need. The medical practice must offer primary care in an underserved area with a population of 15,000 or less and must serve Medicaid and Medicare patients. Qualifying physicians can receive grant amounts up to \$25,000 at the start of the first year of the contract and \$10,000 in each of the next three years, totaling up to \$55,000 over the life of the grant.
- ▶ Some states have adopted a “grow your own” approach to encourage high school and college students from medically underserved areas to pursue careers in medicine and to return to those areas to practice medicine. The Pennsylvania Governor's School for Health Care, established in 1991, exposes advanced high school students to careers in a variety of health care fields. More than 100 disadvantaged and minority students from rural and urban underserved areas across the state participate in a five-week program in the summer between the junior and senior years of high school.
- ▶ States can also assist rural practitioners by providing locum tenens, a tempo-

rary replacement for a medical professional who wants a leave of absence to pursue a professional development opportunity or to take a vacation, or one who faces an illness. A program in New Mexico provides temporary relief to physicians in underserved areas. Practice sites are usually billed a per diem rate for replacement coverage based on a sliding scale that prioritizes rural and medically underserved practices. Between 1993 and 2006, the program provided more than 30,000 total days of physician replacement.

- ▶ Physician extenders such as nurse practitioners and physician assistants can augment the role of primary care physicians and fill access gaps in places without enough physicians. Physician assistants and nurse practitioners, if properly trained, can perform many of the same routine diagnostic and treatment services typically provided in other places by primary care physicians. However, their scope of practice varies by state and some states still deny or limit their ability to prescribe medications. Armstrong County, Texas, previously mentioned as an example of a county with no physicians, has a medical clinic with a nurse practitioner. Texas law allows physician extenders to practice in locations separate from those of supervising physicians only in medically underserved areas. Texas also requires physicians to provide on-site consultation and oversight at least once every 10 days.

## Looking Ahead

Some analysts argue the most effective incentive to lure physicians to rural underserved areas might be for states to increase Medicaid reimbursement rates. People in rural areas are more likely to be poor and elderly and are less likely to have private health insurance as those in metropolitan areas. Rural practitioners tend to depend on Medicaid as payment for services more than their suburban and urban counterparts. Consequently, increasing Medicaid reimbursement rates is

frequently cited as one of the most promising incentives to encourage physicians to locate in underserved areas and to reduce the disparity between the medical haves and have-nots. The federal government has begun to address the issue through enhanced reimbursement rates at Federally Qualified Health Centers in designated medically underserved areas or areas with underserved populations.

The shortage of physicians in many rural areas is not a new problem, but predictions of more widespread shortages make it a more worrisome policy issue. Many states are discovering that no single solution will lure enough physicians to underserved areas. Clearly, a combination of strategies and more creative approaches will be required to reduce the number of shortage areas and to meet future demands. Policymakers should consider increasing medical school enrollments to ensure the country has an adequate supply of primary care physicians. They also should consider which approaches will be most effective in recruiting and retaining physicians in underserved areas of their states.

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