



December 10, 2007

Health Care in Rural Western New York

Challenges in Access

Rural Western New York's health care challenges are concentrated in the area of access to care, with pervasive health care professional shortages, insurance gaps and geographic barriers to services. Health outcomes in rural areas, some undoubtedly related to access challenges, are also troubling, with lower rates of health screenings, higher suicide rates and even poorer dental health. The region's rural health picture is further complicated by higher rates of poverty and lower education levels. At the same time, Western New York has made positive strides toward improving care access and quality through rural health networks, innovations in telemedicine and health care workforce development.

A Profile of Rural Western New York. Nearly one-quarter of Western New York's population is rural and six of its eight counties are defined as rural, according to the U.S. Census Bureau. **Several demographic patterns**

in rural Western New York point to unique and changing health care needs (Figure 1).

For instance, although the region's overall population is projected to shrink 11 percent by 2030, the area's rural counties together will see just a 1 percent drop, while two of the region's most rural counties – Allegany and Orleans – will see gains of 23 percent and 12 percent, respectively. The growth of the 65+ population will also be steeper in rural counties over the next two decades, with projected increases of

Figure 1

Profile of Rural Western New York

	Overall Population Growth, 2000-2030	65+ Population Growth, 2000-2030	Percent of Families Living in Poverty, 2000	Educational Attainment, Bachelor's Degree or Higher, 2000	Percent Self-Employed, 2005
Urban Western New York					
Erie	-15%	15%	9.2%	24%	14%
Niagara	-13%	35%	8.2%	17%	15%
Urban Average:	-15%	19%	9%	23%	14%
Rural Western New York					
Allegany	23%	57%	10.5%	17%	30%
Cattaraugus	-4%	42%	10%	15%	21%
Chautauqua	-7%	27%	9.7%	17%	20%
Genesee	-12%	44%	5.6%	16%	22%
Orleans	12%	80%	7.7%	13%	14%
Wyoming	-4%	120%	5.8%	12%	19%
Rural Average:	-1%	51%	9%	15%	21%


up to 120 percent. At this point, rural Western New York is not prepared for a swell in the elder population, as affordable, community-based options for long-term care are scarce to nonexistent. In terms of socioeconomic trends, many rural counties have higher poverty rates and lower education levels compared to the region's urban counties. Also, a greater proportion of rural residents are self employed, which has implications for health insurance affordability.

Rural Western New York Has Significant Gaps in Access to Care.

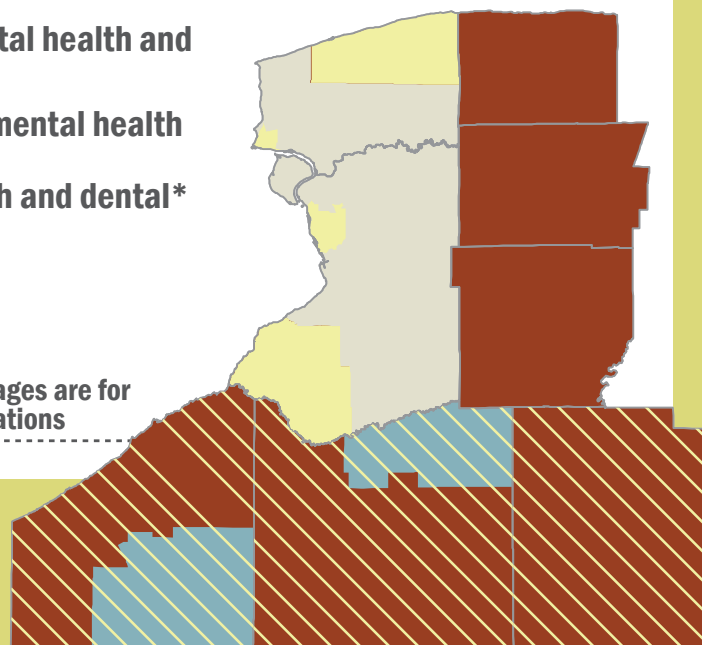
According to the 2007 Cornell University Empire State Poll of rural New Yorkers, 48 percent of those who could not see a doctor in the past 12 months cited a lack of health insurance, 24 percent noted a shortage of specialists or clinics, and 19 percent said doctors' offices were too busy. Western

New York reflects this trend, with critical access challenges in the areas of provider supply and health insurance.

Figure 2
Health Care Professional Shortage Areas, 2007

-  Primary, mental health and dental*
-  Primary and mental health
-  Mental health and dental*
-  Primary
-  No shortages

* Dental care shortages are for low-income populations



Indeed, the scarcity of health care professionals is at a crisis point, with at least portions of three counties qualifying as federal health care professional shortage areas (HPSA) in primary, mental health and dental care (Figure 2).

The region's other three rural counties are entirely primary and mental health care HPSAs. Noteworthy is that primary care shortages in Erie and Niagara Counties are concentrated in the counties' rural stretches.

Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, 2007. Data are county-level, with geographic designations covering entire counties or service areas within a county. Designation takes into account the ratio of providers to population, unusually high needs for services in an area and the availability of providers in contiguous areas, including those crossing county lines.

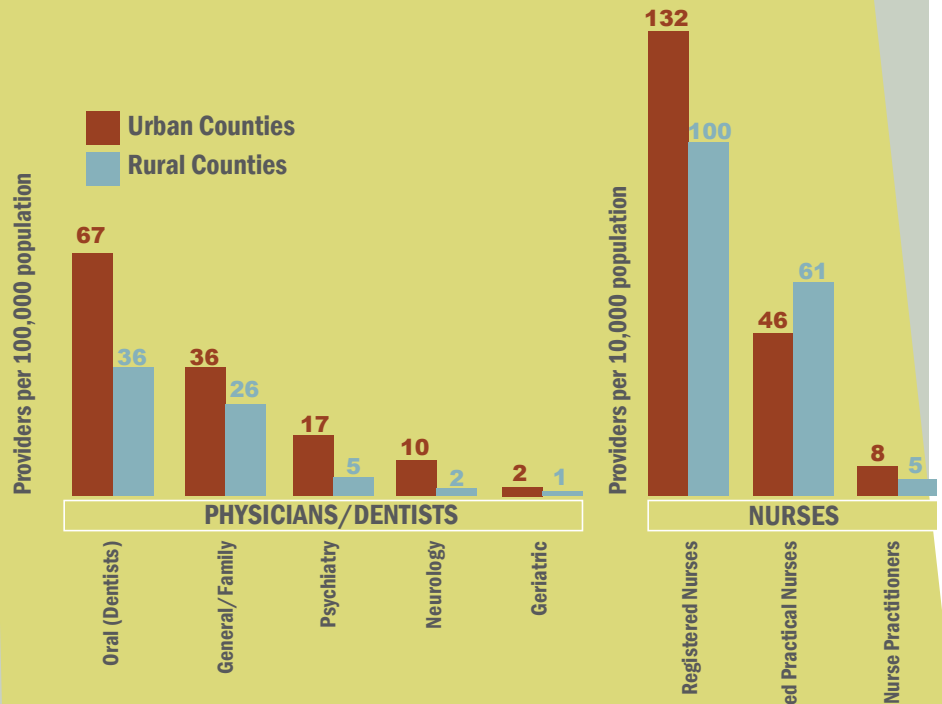
A closer look shows the urban-rural gaps in health care professionals are severe for medical specialists (Figure 3). Per capita, there

are five times as many neurologists and more than three times as many psychiatrists in urban versus rural Western New York. There are twice as many geriatricians in urban areas, and nearly twice as many dentists. There are also proportionally fewer registered nurses and nurse practitioners in rural Western New York.

Access to care is particularly limited for rural counties' low-income populations. Despite federal incentives for rural health clinics, including higher Medicaid reimbursement rates, there is only one federally certified rural health clinic in Western New York – Tri-County Family Medicine – which serves parts of Allegany County. Rural clinics without the federal certification struggle financially. Moreover, rural hospitals are financially strained, with some in jeopardy of closing.

Health insurance gaps further hamper access in rural Western New York. Although the region overall has made great strides in reducing the number of uninsured, the cost of health insurance is disproportionately high in rural Western New York. Family HMO coverage consumed about one-third of household income in 2006 in rural Western New York, compared to about one-quarter for the urban region (Figure 4).

Figure 3
Health Care Professionals Per Capita



Sources include American Medical Association, Area Resource File (ARF) Access System, 2006 (U.S. Department of Health and Human Services) and New York State Education Department

Figure 4
Lowest Cost Family HMO Coverage as a Percentage of Median Family Income, 2006

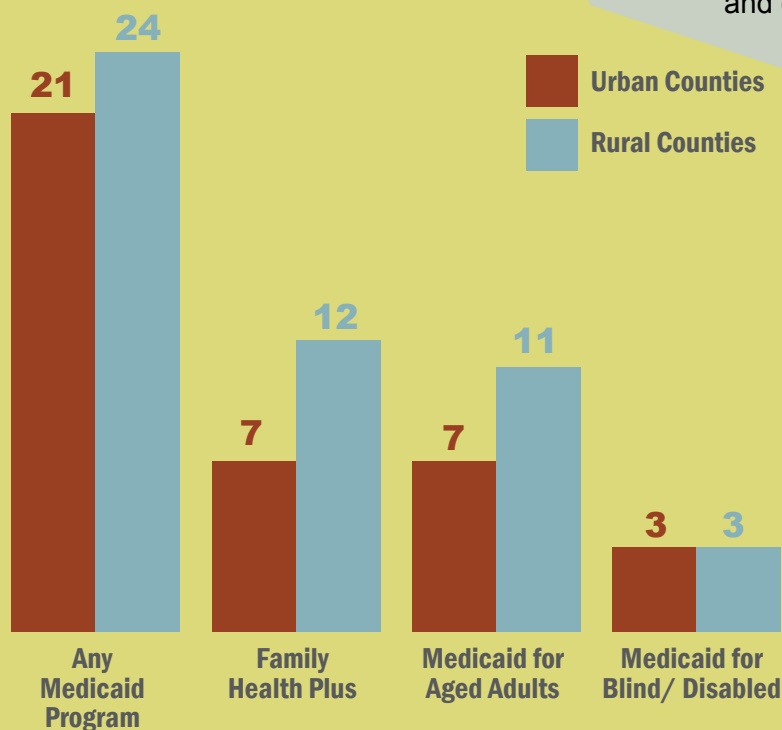
Urban Western New York	
Erie	26%
Niagara	27%
Urban Average:	26%
Rural Western New York	
Allegany	34%
Cattaraugus	33%
Chautauqua	32%
Genesee	27%
Orleans	30%
Wyoming	29%
Rural Average:	31%

Source: New York State Department of Insurance (insurance rates), 2000 U.S. Census (median family income)

Also, rural Western New York has relatively large numbers of Medicaid eligibles (Figure 5), which presents additional access challenges in that not all providers accept this type of coverage and those that do may be at capacity.

Transportation is Critical to Bridging Geographic Divides. Although only 2 percent of respondents to the Empire State Poll cited transportation as the reason for not being able to see a doctor, ensuring rural populations have multiple options to reach health services remains critical. Indeed, fewer rural than urban residents function without an automobile (9 percent of rural Western New Yorkers do not have a car, compared to 14 percent of urban residents, according to the 2000 U.S. Census). Chautauqua and Genesee Counties have public transportation networks to link residents to health and other services, though service is sparse outside municipal centers. Curb-to-curb transportation services are most effective in getting low-income, elderly or disabled rural residents to medical appointments and other essential services. Each of the six rural counties publicly funds such services, though most require riders to have Medicaid and operate only during weekday business hours.

Figure 5
Medicaid Eligibles
Per 100 Capita, 2006



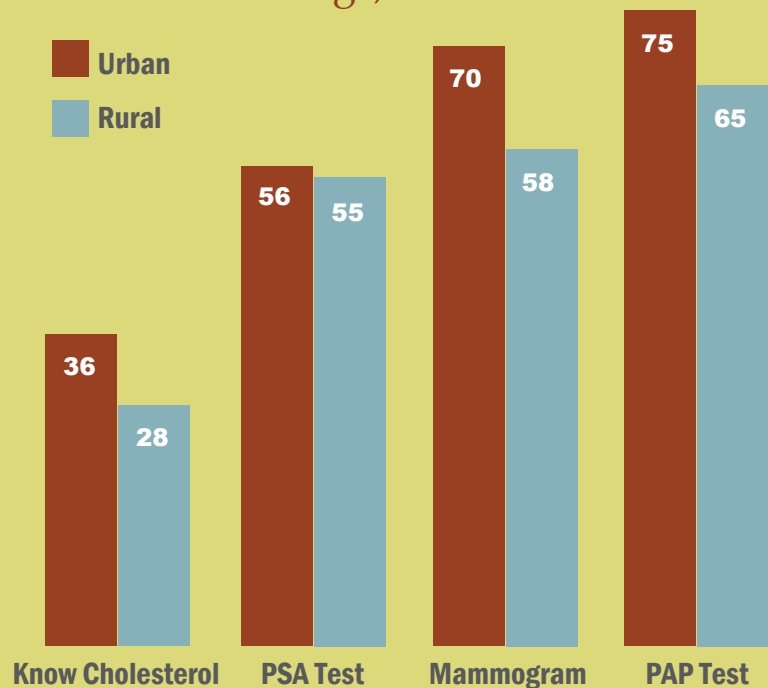
Source: New York State Department of Health, 2006

Emergency care is critical in rural areas. Problems in accessing a usual place of care result in nearly twice as many emergency room visits for rural residents, according to the 2004 Western New York Health Risks Assessment (WNYHRA). Alarming, personal injury accidents in rural areas are more than twice as likely to result in death compared to those in urban areas, according to data from the state Department of Motor Vehicles. Yet many rural emergency services struggle to maintain a largely volunteer cadre of emergency medical technicians, a challenge nationwide.

Many Rural Health Outcomes are Poor Relative to Urban Western New York. Health outcomes in the region's rural counties highlight the deleterious effects of limited access to care and inadequate health awareness.

For instance, compared to urban Western New Yorkers, fewer rural residents know their cholesterol levels or receive screening tests for prostate, breast or cervical cancers (Figure 6).

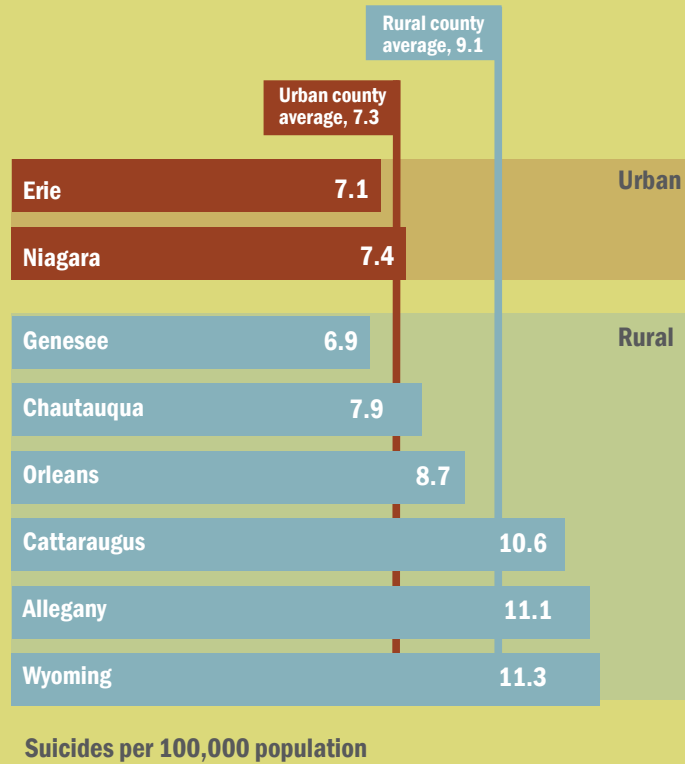
Figure 6
Proportion of Western New Yorkers Receiving Common Health Screenings, 2004



Source: 2004 Western New York Health Risks Assessment

Rural elders are hospitalized about 40 percent more frequently than urban elders for conditions that could be treated in outpatient centers if caught in time, including the flu and pneumonia, according to data from the state Department of Health. Also, suicide rates are higher in rural counties, a possible effect of an inadequate supply of mental health providers (Figure 7).

Figure 7
Suicides
Per Capita,
by County,
2002-2004



Source: New York State Department of Health, 2002-2004

Rural dental health is in need of attention. According to data from the U.S. Centers for Disease Control and Prevention, less than half the population in Allegany County has access to fluoridated water, which helps prevent tooth decay. Between 50 and 74 percent have access in Chautauqua and Cattaraugus Counties; for the other five Western New York counties, 75 to 100 percent of the population has access to fluoridated water. State Department of Health data show third graders in the region's rural counties are over 1.5 times more likely than their urban counterparts to have untreated tooth decay.

Many Efforts in the Region Suggest Progress in Addressing these Challenges. The region has stepped up efforts to improve health care coordination, accessibility and efficiency in rural areas. For example, the region's five rural health networks, which serve all six counties, link health care providers, local health departments and in some cases social service providers to collaboratively

target rural health challenges. Services and programs have included health insurance enrollment efforts, health education and screening, dental outreach, research and health policy advocacy. Such networks, whose success has been attributed to their local, grass-roots nature, are expected to play an increasingly integral role in improving Western New York's rural health care picture.

Telemedicine, which helps bridge geographic distances, increase access to medical specialists and bring continuing medical education to isolated providers, is on the rise in Western New York. Recently, a state-funded program designated Millard Fillmore Gates Circle Hospital in Buffalo as the "hub" of an emergency stroke care telemedicine initiative, with 10 "spoke" hospitals covering most of rural Western New York. Other initiatives include Daemen College's telemedicine network, which provides continuing education to rural health professionals and health awareness services for the general public. Radiologic telemedicine services are common in rural hospitals, while devices now allow home-care providers to transmit real-time prescription and patient data.

Meanwhile, the region's higher education institutions are working to bolster the health care professional pipeline. The University at Buffalo Department of Family Medicine in the School of Medicine and

Biomedical Sciences places about four family physicians in rural areas every year. Overall, the university places 16 percent of its graduates in HPSAs, the third highest rate of all New York State medical schools, according to a 2004 report by the Institute for Urban Family Health. Multiple factors not isolated to Western New York contribute to rural placement challenges, including an under-representation at medical schools of students with a rural background, and real or perceived inferior working conditions for rural physicians. The recently formed Western New York Rural Area Health Education Center is partnering with academic institutions, students, health facilities and professionals to address health care workforce supply. Also, many of the area's nursing programs are expanding to address nurse shortages.

Improving health outcomes for rural Western New York will require addressing both structural and qualitative barriers to care with continued focus on care quality. While the region needs to expand insurance coverage, strengthen transportation and reinforce workforce development, it also needs to enhance public awareness of health services and promote preventive care while bolstering support systems in technology and volunteer or community-based services.



Data Sources and Notes

Figure 1

Population growth data by county come from the Cornell Institute for Social and Economic Research, 2002 Populations Projections, New York Statistical Information System Data (http://www.ciser.cornell.edu/PAD/nysis_data.shtm). Poverty data and educational attainment are from the U.S. Bureau of the Census, 2000 Census, Summary File 3. Self-employment data are from the Regional Economic Information System of the U.S. Bureau of Economic Analysis (<http://www.bea.gov/>).

Figure 2

The U.S. Department of Health and Human Services Health Resources and Services Administration provides data on health care professional shortages by county (<http://hpsafind.hrsa.gov/>) for primary care, dental, and mental health care providers, with geographic designations covering entire counties or service areas within a county. Designation takes into account the ratio of providers to population, unusually high needs for services in an area and the availability of providers in contiguous areas, which may cross county lines.

Figure 3

Physician counts as of August 2006 by medical specialty and county are from the American Medical Association (<http://www.ama-assn.org/cgi-bin/sserver/datalist.cgi>). Dentists by county are from the Area Resource File (ARF) Access System, 2006 and reflect total active dentists by county as of 1998, the latest data available. The New York State Education Department Office of the Professions maintains statistics by county for nursing professionals (<http://www.op.nysed.gov/nursecounts.htm>).

Figure 4

The New York State Department of Insurance provides premium rates by county for HMO health plans (<http://www.ins.state.ny.us/ihmoindx.htm>). Costs reflect prices for the lowest cost family plan available. Median family incomes, which have been adjusted for inflation to reflect 2006 dollars, come from the 2000 U.S. Census.

Figure 5

The New York State Department of Health provides Medicaid program statistics by county, including the number of eligibles by program of eligibility (<http://www.health.state.ny.us/nysdoh/medstat/medicaid.htm#table1>). Eligibles per capita were calculated using population data from the 2000 U.S. Census.

Figure 6

Health screening data by county come from the Western New York Health Risks Assessment Online Calculator (<http://www.wnyhra.org/live.php>). Data reflect the proportion of adult Western New Yorkers who know their cholesterol as well as those who reported having a PSA test, mammogram or PAP test within the past 12 months.

Figure 7

The New York State Department of Health provides age-adjusted suicide mortality rates by county through its NYS County Health Assessment Indicator Report (<http://www.health.state.ny.us/statistics/chac/chai/index.htm>).

Other Citations

Empire State Poll: Blakely, Robin M. and Simon I. Kosali. "Empire Poll, Cornell University Health Care Access in Rural NY: It's Not Just About Having Health Insurance," *Rural New York Minute* (Cornell University's Community and Rural Development Institute), Issue No. 5, May 2007.

Vehicle Use: 2000 U.S. Census, Summary File 3 provides county-level data on vehicle availability for households.

Emergency Room Visits: Western New York Health Risks Assessment Online Calculator (<http://www.wnyhra.org/live.php>) provides data on the reasons Western New York adults used an emergency room in 2004.

Personal Injury Accidents Resulting in Death: The New York State Department of Motor Vehicles provides county-level statistics on vehicle accidents, including the number of personal injury accidents and deaths during 2000 (<http://www.nydmv.state.ny.us/Statistics/count2k.htm>).

Urban/Rural Elder Hospitalization Rates: The New York State Department of Health provides rates of hospitalization for pneumonia/flu in adults 65+ for 2002-04 through its NYS County Health Assessment Indicator Report (<http://www.health.state.ny.us/statistics/chac/chai/index.htm>).

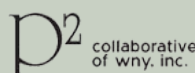
Fluoridated Water Access: The U.S. Department of Health and Human Services Centers for Disease Control and Prevention provides data and maps on water fluoridation at the county level through its Oral Health Data Systems (<http://apps.nccd.cdc.gov/gisdoh>).

Tooth Decay in Third Graders: The New York State Department of Health provides rates of third graders with untreated caries for 2002-04 through its NYS County Health Assessment Indicator Report (<http://www.health.state.ny.us/statistics/chac/chai/index.htm>).

Telemedicine: Articles published in *The Buffalo News* between 1999 and 2007.

Rural Health Networks: Web sites of Allegany/Western Steuben Rural Health Network, Chautauqua County Health Network, Healthy Community Alliance, Lake Plains Community Care Network, and Southern Tier Health Care System.

Health Care Workforce Development: Articles published in *The Buffalo News*, personal interviews with University at Buffalo Department of Family Medicine faculty, and *New York State Health Professionals in Health Professional Shortage Areas*, by The Institute for Urban Family Health (May 2004).



This research brief was prepared by the University at Buffalo Regional Institute.

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