THE 21st CENTURY RURAL HOSPITAL

A Chart Book
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Purpose

Hospitals have changed over recent decades. Hospital stays are shorter. Procedures once requiring hospitalization are now done in an outpatient setting. Hospitals have moved beyond providing mainly inpatient and emergency department care. They have become vertically integrated systems with "one-stop shopping" for all of one's health care needs.

The transformation of hospitals has also occurred in rural areas where the presence of a hospital with traditional inpatient and emergency department services may also ensure that other health care is available. Even with a cursory scan of rural hospital websites, one can see that rural hospitals offer a variety of services that range from traditional inpatient medical, surgical and obstetric care to advanced imaging, laboratory, and rehabilitation services. Outpatient primary and specialty care are available, and hospitals provide important health promotion and wellness services for the community. Hospitals vary, however, based on their resources and the needs of the populations they serve. As is often said about many things, "if you've seen one hospital, you've seen one hospital."

This Chart Book uses available data to present a broad profile of the 21st century rural hospital and includes such descriptors as: Where are they located? Whom do they serve? What traditional hospital services do they provide? How do they ensure outpatient services for their community? What other community benefits do they provide or enable for citizens in their area? How are they doing financially? How are they supported by federal programs?

The following pages, each designed as a pull-out document, describe many aspects of today's rural hospital. Each page includes charts comparing rural hospitals to each other and to urban hospitals across different dimensions such as levels of rurality, US Census region, and hospital size. Important data points are emphasized and an illustrative rural hospital is highlighted. Those who are unfamiliar with today's rural hospital may be surprised by many data points shown here; others may use this document to research a particular data point. Regardless of how you use it, we hope you find this Chart Book helpful.

Data and Definitions

Definitions

Hospitals included in this Chart Book are short-term, acute care, nonfederal hospitals that serve the general civilian population of the United States. Long-term care hospitals and specialty hospitals, such as psychiatric, cancer, and children's hospitals, are excluded. Also excluded are hospitals that exclusively serve specific populations such as veterans, the military, children, and Native Americans/Alaskan Natives.

Hospitals are considered to be rural if they are a) in a nonmetropolitan county or b) in a metropolitan county but in an area that has a Rural Urban Community Area (RUCA) code of 4 or greater. Inclusion of some hospitals in metropolitan counties as rural hospitals broadens the definition of rural and captures hospitals located in less-populated areas of otherwise urban counties. This is also the Federal Office of Rural Health Policy's preferred way to define rural.

Rural hospitals are further divided into three levels of rurality:

- **Large Rural Areas** — hospitals in areas with a RUCA code less than 7
- **Small Rural Areas** — hospitals in areas with a RUCA code of 7, 8, or 9
- **Isolated Rural Areas** — hospitals in areas with a RUCA code of 10

For more information on RUCA codes, please see www.ers.usda.gov/data-products/rural-urban-commuting-area-codes.aspx#

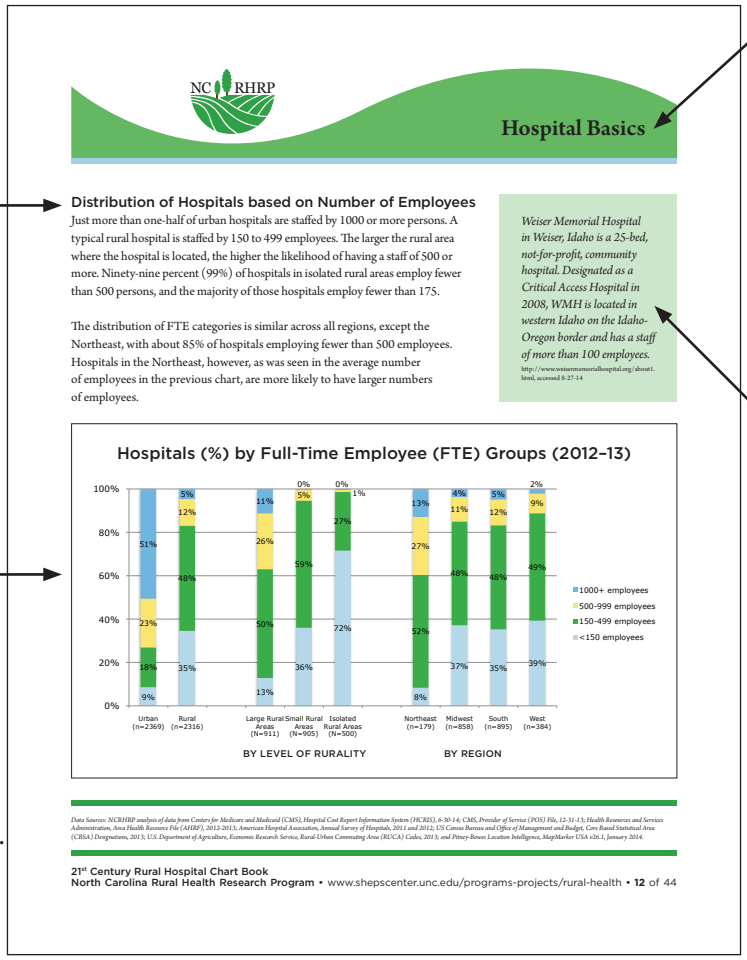
Data Sources

Multiple public-use data sources were used to create the file of short-term, acute-care hospitals used to produce data for this report. They include:

- Core Based Statistical Area (CBSA) Designations, US Census Bureau and Office of Management and Budget, 2013.
- Rural-Urban Commuting Area (RUCA) Codes, Economic Research Service, U.S. Department of Agriculture, 2013.
- MapMarker USA v26.1, Pitney-Bowes Location Intelligence, January 2014.
- Hospital Cost Report Information System (HCRIS), Centers for Medicare and Medicaid Services (CMS), US Department of Health and Human Services (USDHHS), June 30, 2014.
- Provider of Services (POS), Centers for Medicare and Medicaid Services (CMS), US Department of Health and Human Services (USDHHS), December 31, 2013.
- Area Health Resources File (AHRF), Health Resources and Services Administration (HRSA), US Department of Health and Human Services (USDHHS), 2012–2013.
- Annual Survey of Hospitals, American Hospital Association (AHA), 2011 and 2012.
- Labor force data by county (annual averages), Local Area Unemployment Statistics (LAUS), Bureau of Labor Statistics (BLS), 2013.

Understanding the Charts

This Chart Book contains information on 35 characteristics of short-term, acute care, rural and urban hospitals and the counties in which they are located. Information is organized by 5 categories: Hospital Basics, Population Characteristics, Inpatient Services, Outpatient Services, and Finance. For most characteristics, data are presented that compare a) all rural to all urban hospitals, b) rural hospitals by level of rurality as defined by RUCAs, c) rural hospitals by US Census region, and d) rural hospitals by size of the hospital, as defined by the number of beds.



Summary of Findings: Important information from the chart is highlighted.

Chart: A graphical comparison of rural and urban hospitals and rural hospitals compared across dimensions of rurality, region of the United States, and hospital size.

Section: The section of the report appears in the upper right hand corner of each page. The background color changes with each section but is the same for each chart page in the section.

Featured hospital: A rural hospital is featured to illustrate each characteristic, using information as presented on the hospital's website. In the finance section, these boxes are used to define the terms used.

A Typical Rural Hospital

Is There a Typical Rural Hospital?

The data presented in this Chart Book illustrate the variability in rural hospitals across the United States. Using the means, medians and percentages from the data as a guide, we describe what might be considered a typical rural hospital.

The typical rural hospital:

- is located in a small or large rural area, not in an isolated area,
- has 25 beds,
- has 7 inpatients every day,
- employs 321 full-time equivalent workers, and
- has a physical plant that is 10 years old.

The typical rural hospital is located in a county:

- with a median population of 27,980,
- with 36 residents per square mile,
- with 16.8% of the population 65 years and older,
- with an average per capita income of $32,781, and
- with 17.5% of the population living below the federal poverty level.

The typical rural hospital offers inpatient care that includes:

- surgical services,
- obstetric services, and
- swing bed services;

but does not include:

- an intensive care unit,
- a skilled nursing facility,
- a psychiatric unit, or
- a rehabilitation unit.

The typical rural hospital offers outpatient care that includes:

- outpatient surgical services,
- cardiac rehabilitation services,
- breast cancer screening/mammography, and
- a health fair;

but does not include:

- a rural health clinic,
- hospice services,
- home health services,
- chemotherapy services,
- dental services, or
- outpatient alcohol/drug abuse care.

The typical rural hospital has a financial profile with:

- total margin of 2.7%,
- current ratio of 2.2,
- outpatient care representing 69.3% of total revenue,
- charges for Medicare patients representing 31.0% of all charges,
- 58 days cash on hand, and
- patient deductions/allowances making up 52.0% per revenue dollar.

The typical rural hospital is a Critical Access Hospital (53.5% of all rural hospitals). To see maps of CAHs in the U.S., go to: http://www.shepscenter.unc.edu/programs-projects/rural-health/publications/cartographic-archives/ and click on Critical Access Hospital Maps. These maps are updated several times a year.

Hospital Basics

Number of Hospitals

There are nearly 5,000 short-term, acute care hospitals in the United States. Half of which are in urban areas and half are in rural areas. Most rural hospitals are located in large (39%) and small (39%) rural areas. Fewer (22%) are located in isolated rural areas.

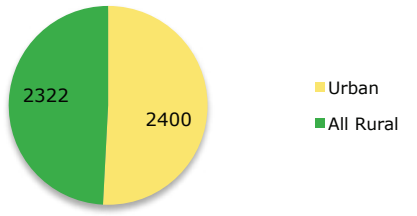
The US South is home to the most hospitals with 920 urban hospitals and 899 rural hospitals. The Northeast region has the fewest hospitals (417 urban and 179 rural).

Rural hospitals in the Northeast, Midwest and West are more evenly distributed across communities of all sizes compared to the South where rural hospitals are more likely to be found in large and small rural areas.

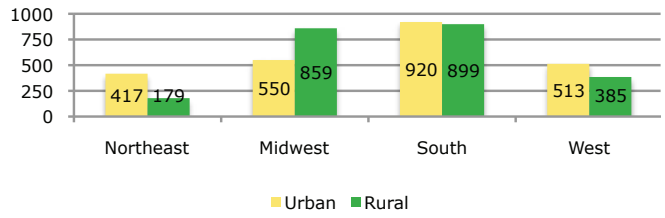
Mayers Memorial Hospital District (MMHD) in Fall River Mills, California opened in 1956 with funds raised by the local community. Named for a local physician and his wife who dreamed of establishing a hospital for the community, MMHD began as a 10-bed largely volunteer-run facility. Today it is a Critical Access Hospital.

http://mayersmemorial.com/getpage.php?name=history&child=History&sub=About+Us, accessed 8-27-14.

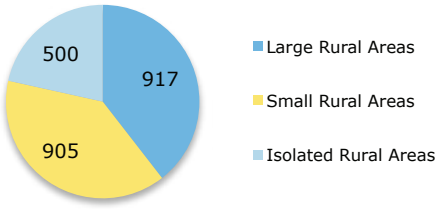
All Hospitals (2012-13)



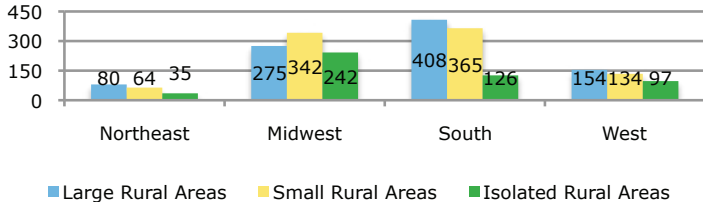
All Hospitals by US Census Region (2012–13)



Rural Hospitals (2012–13)

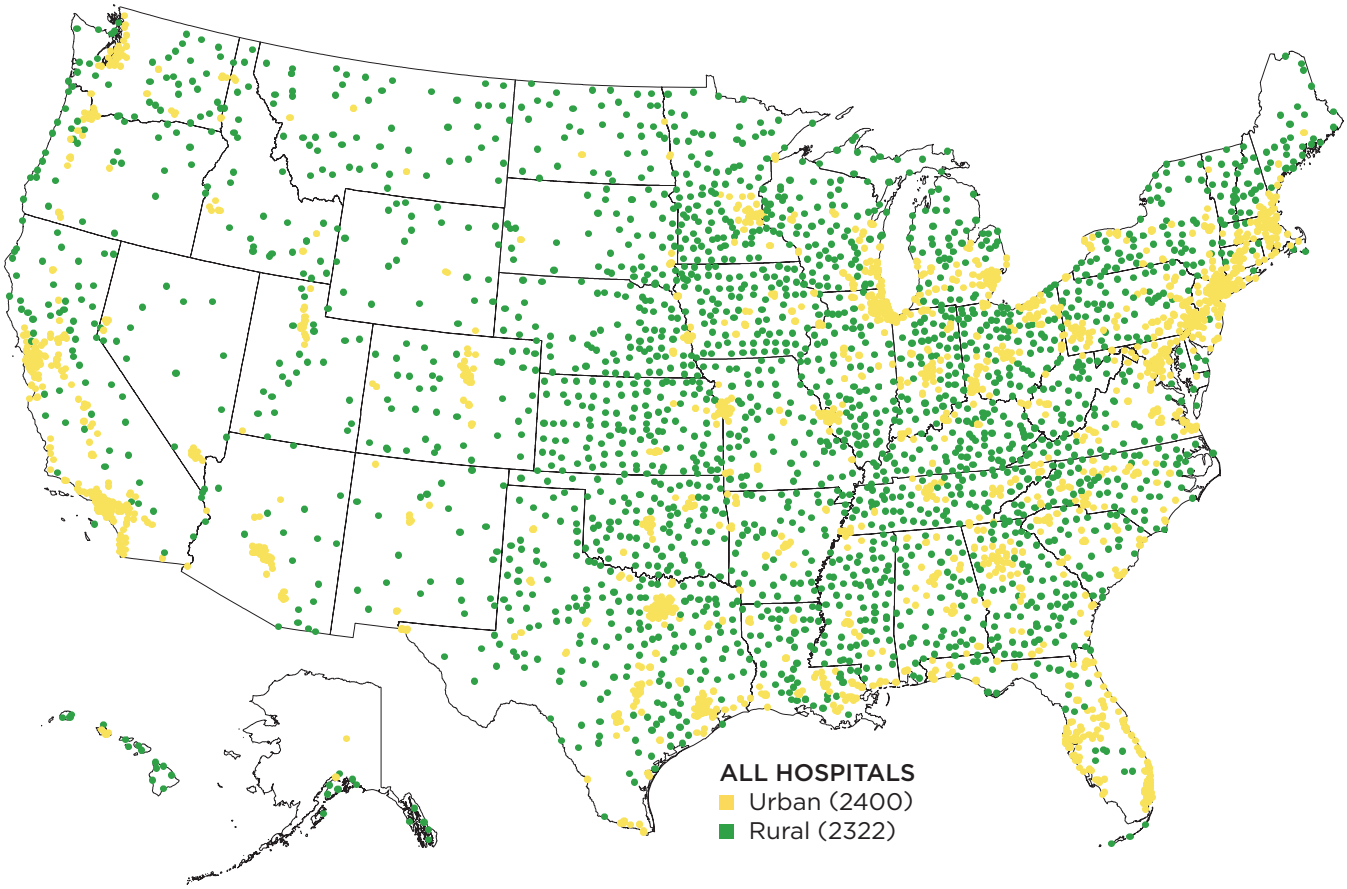


Rural Hospitals US Census Region (2012–13)



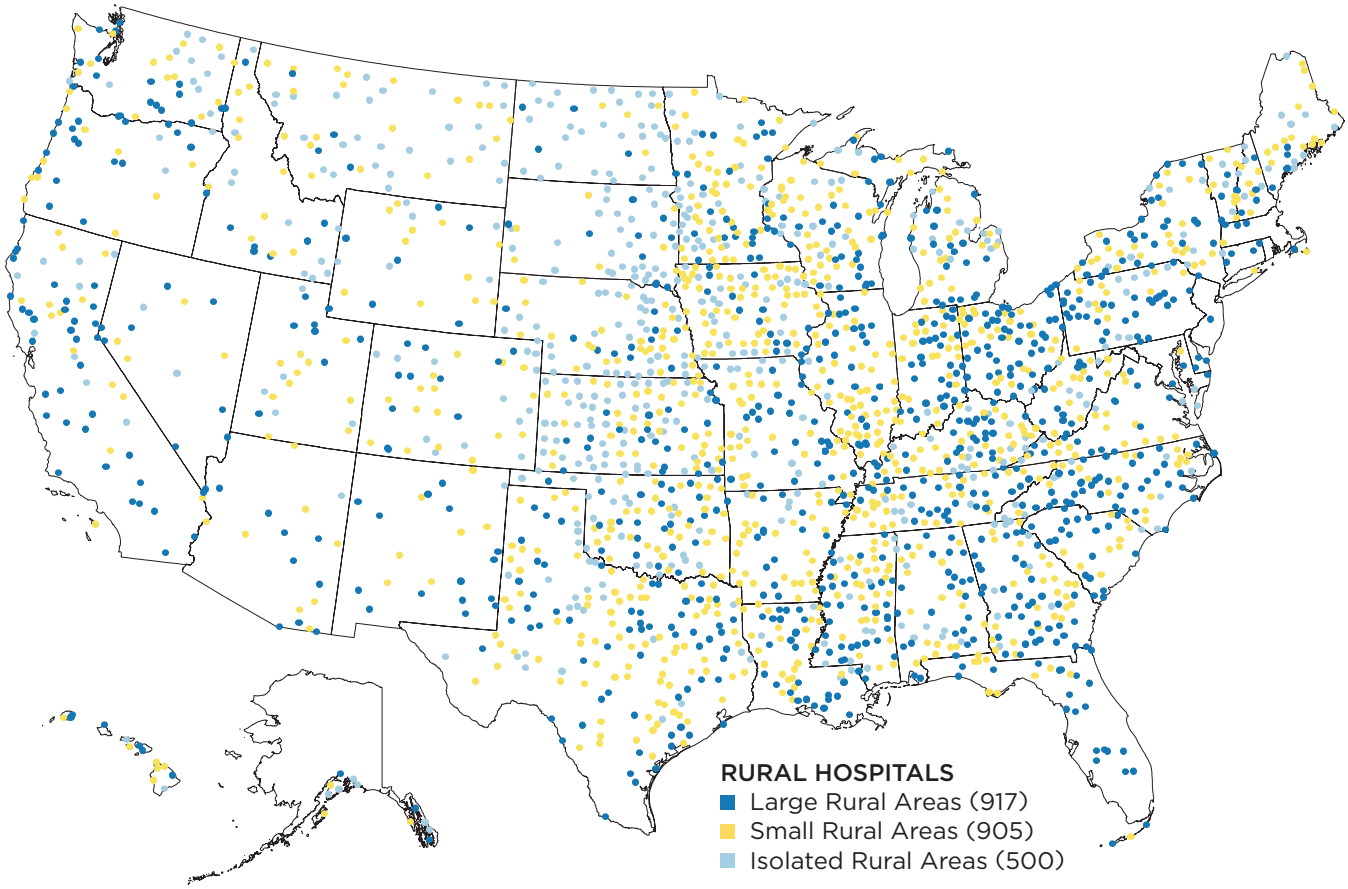
Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Location of Short-Term, Urban and Rural, Acute Care U.S. Hospitals Serving the General Population (2012–13)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Location of Short-Term, Rural, Acute Care U.S. Hospitals by Size of the Rural Area (2012–13)



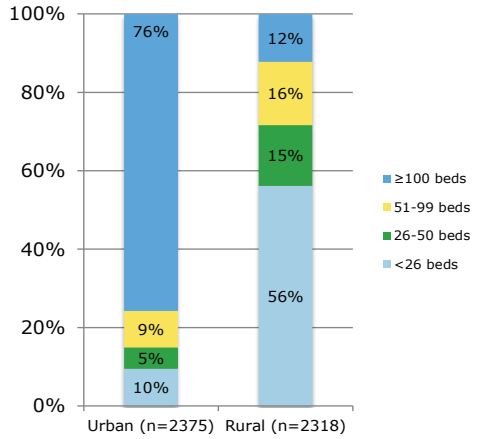
Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Hospital Size

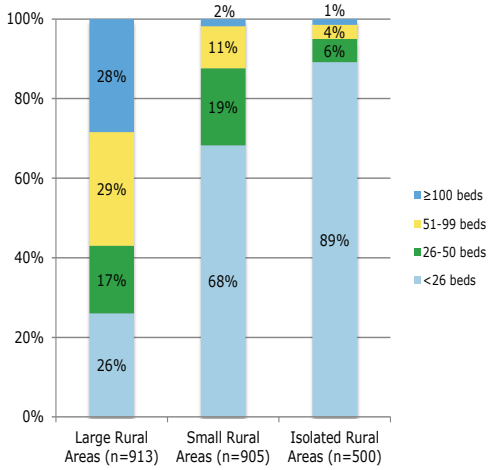
More than three-quarters (76%) of urban hospitals have 100 or more beds while only 12% of rural hospitals are that large. Rural hospitals are smaller with more than half (56%) of them having fewer than 26 beds. The average urban hospital is 4.7 times the size of the average rural hospital in terms of number of beds.

The size of rural hospitals differs by where they are located. Hospitals in large rural areas are almost equally likely to be small (under 26 beds) or large (100 beds or more). In small rural areas, smaller hospitals are more common (68%). Hospitals with fewer than 26 beds predominate in isolated rural areas at 89%.

Hospitals (%) by Number of Beds (2012–13)



Rural Hospitals (%) by Number of Beds (2012–13)



Columbus Community Hospital (CCH) in Columbus, Nebraska is a 47-bed acute care hospital. CCH is a community-owned, not-for-profit hospital that offers inpatient and outpatient services.

https://www.columbushosp.org/about_us.aspx, accessed 8-27-14

Average and Median Number of Beds (2012–13)

	Average	Median
All Urban	234	184
All Rural	50	25
Large Rural Areas	82	65
Small Rural Areas	33	25
Isolated Rural Areas	25	25

Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Number of Inpatients: Average Daily Census (ADC)

The median ADC (number of inpatients per day) in urban hospitals outnumbers ADC in rural hospitals by almost 15 to 1. Among rural hospitals, the average number of daily inpatients varies across rural areas as did the size of hospitals. The median ADC for hospitals in large rural areas is 20 inpatients while hospitals in small and isolated rural areas have a median ADC of 6 and 2 respectively.

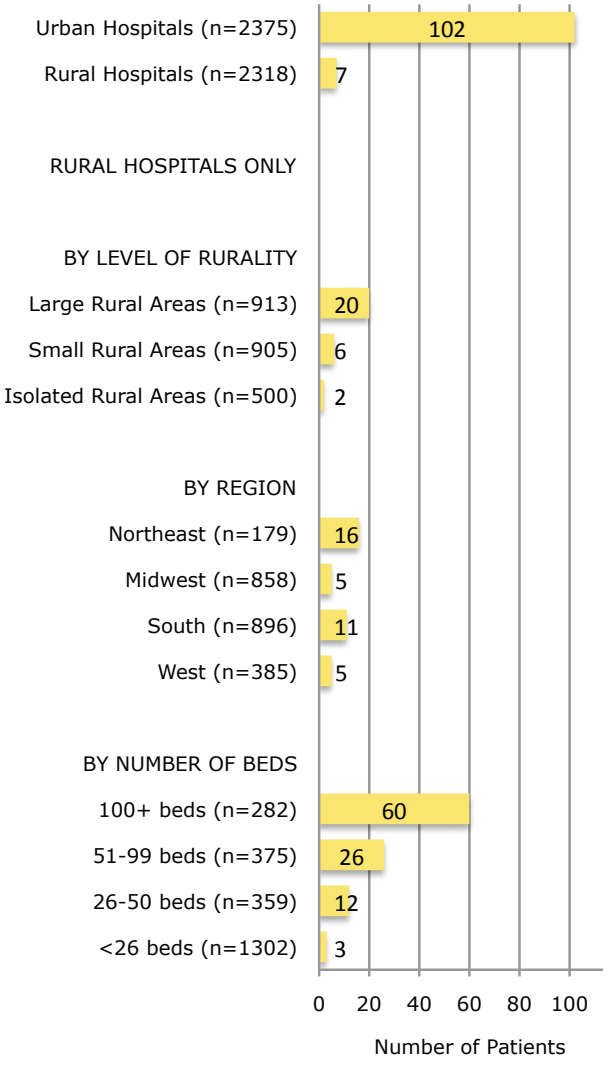
There is also variation in daily census across US Census regions with rural hospitals in the Northeast having more daily inpatients (median of 16), followed by the South with 11, and the Midwest and West with 5.

As expected, rural hospital size as measured by number of beds is closely related to the median ADC. The largest rural hospitals average 60 patients while the smallest averages just 3.

Established in 1917, St. John's Medical Center is a rural hospital in Jackson, Wyoming. In FY 2013, the hospital had 2,116 admissions with an average length of stay of 2.84 days, which averages to 16 patients per day.

http://www.tetonhospital.org/about/fact-sheet, accessed 9-5-14

Median Average Daily Census (2012–13)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Number of Employees

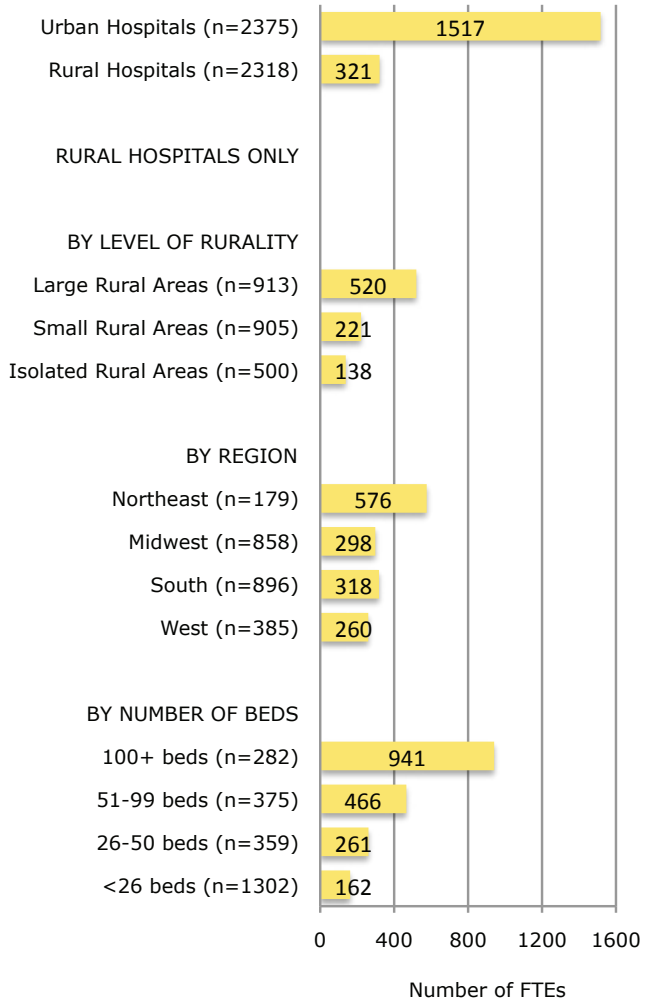
On average, urban hospital employees outnumber rural hospital employees 4.7 to 1. Rural hospitals in large rural areas employ an average of 520 employees, while hospitals in isolated rural areas employ only 138 persons or 26% of the workforce of their urban counterparts.

Staff in rural hospitals in the Northeast outnumber staff in rural hospitals in other regions by 2 to 1. As expected, the bigger the hospital in terms of number of beds, the higher the number of full-time equivalent employees.

Garrett County Memorial Hospital (GCMH) in Oakland, Maryland is a 55-bed acute care hospital. GCMH employs 350 people and is the second largest employer in Garrett County.

https://www.gcmh.com/about-us/, accessed 8-27-14

Average Full-Time Equivalent (FTE) Employees (2012–13)



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Distribution of Hospitals based on Number of Employees

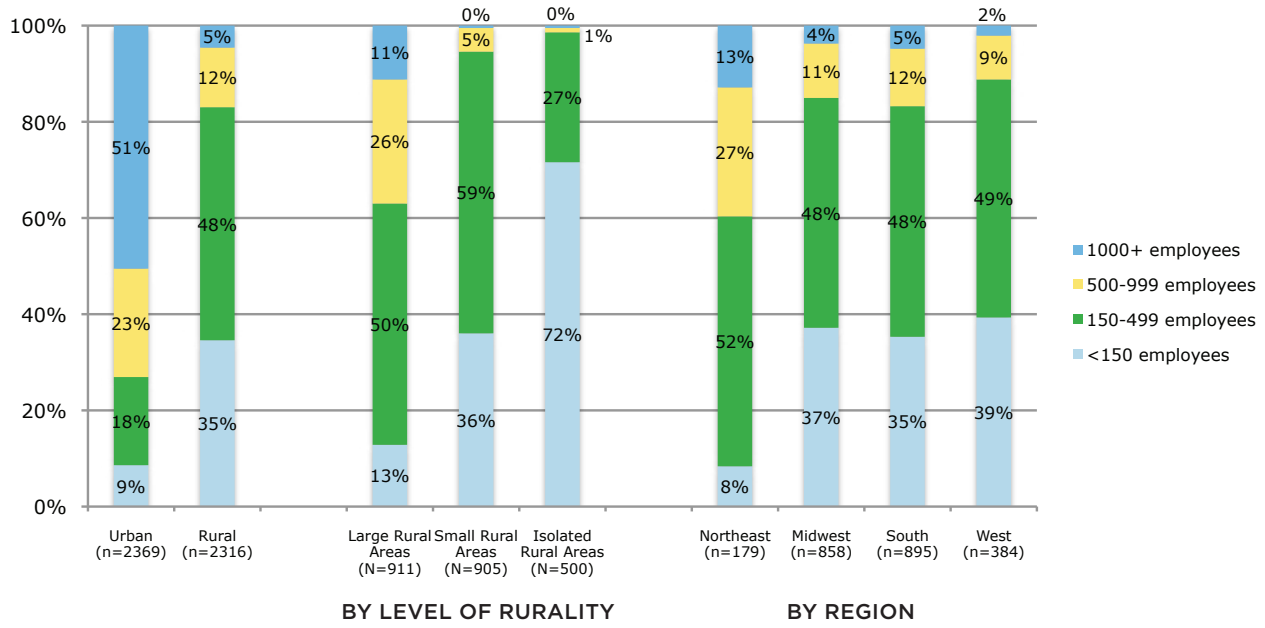
Just more than one-half of urban hospitals are staffed by 1,000 or more persons. A typical rural hospital is staffed by 150 to 499 employees. The larger the rural area where the hospital is located, the higher the likelihood of having a staff of 500 or more. Ninety-nine percent (99%) of hospitals in isolated rural areas employ fewer than 500 persons, and the majority of those hospitals employ fewer than 175.

The distribution of FTE categories is similar across all regions, except the Northeast, with about 85% of hospitals employing fewer than 500 employees. Hospitals in the Northeast, however, as was seen in the average number of employees in the previous chart, are more likely to have larger numbers of employees.

Weiser Memorial Hospital in Weiser, Idaho is a 25-bed, not-for-profit, community hospital. Designated as a Critical Access Hospital in 2008, WMH is located in western Idaho on the Idaho-Oregon border and has a staff of more than 100 employees.

http://www.weisermemorialhospital.org/about1.html, accessed 8-27-14

Hospitals (%) by Full-Time Employee (FTE) Groups (2012–13)



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Age of Physical Plant

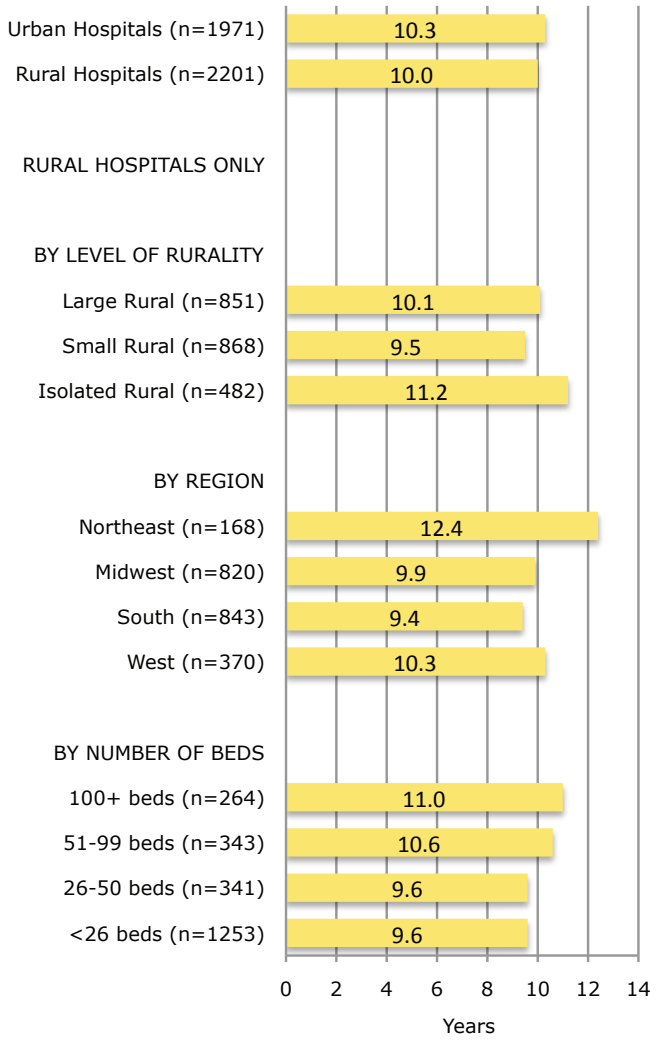
There are few differences in the median age of the physical plant for rural hospitals compared to urban hospitals and across different categories of rural hospitals. Rural hospitals in the Northeast are slightly older, and rural hospitals in the South are slightly newer. Most hospitals in this group of short-term, acute care hospitals in the United States are between 9.5 and 12.4 years of age.

Reliable information on plant age is not available for almost 12% of hospitals, predominantly those in urban areas.

Weatherford Regional Hospital (WRH) in Weatherford, Oklahoma opened in 1962, built with money raised by the community and on land donated by the city. A brand new 62,000 square foot facility was opened in June 2014.

http://www.weatherfordhospital.com/about/history.html, accessed 8-27-14

Median Age of Physical Plant (2012–13)



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Population Characteristics

County Population

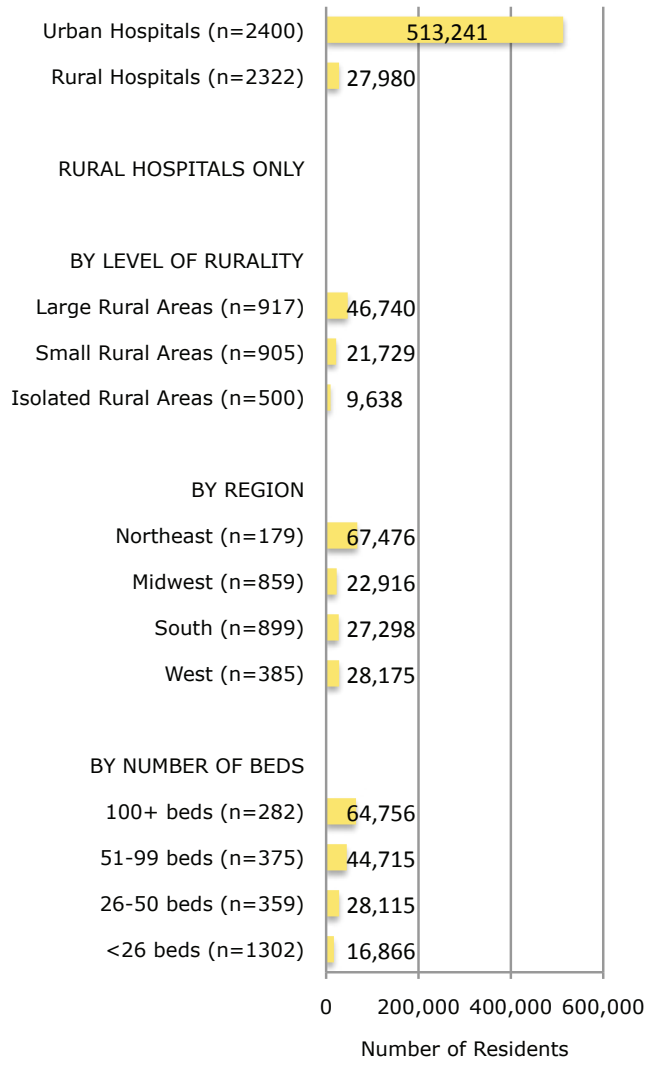
Rural hospitals are located in counties with a median population of under 30,000 compared to urban hospitals, which are located in counties with much larger populations. The size of the county population varies across levels of rurality. Hospitals in large rural areas are located in counties with median populations twice that of counties in small rural areas (46,740 vs. 21,729) and almost five times that of the isolated counties where hospitals are located (46,740 vs. 9,638).

Rural hospitals in the Northeast are located in counties with a median population twice as high as the median populations of counties with rural hospitals in other US Census regions. County median population also varies for hospitals of different sizes with the smallest hospitals located in counties with the smallest median populations.

St. Vincent Salem Hospital (SVSH) is a rural hospital in Salem, Indiana. SVSH is the only hospital in Washington County, a rural county with a population of 27,783 in 2013. Located 30 miles from Louisville, Kentucky, this community hospital became part of the St. Vincent Health system in 2010.

http://quickfacts.census.gov/qfd/states/18/18175.html, accessed 9-2-14; http://www.stvincent.org/St-Vincent-Salem/About-Us/About-Us.aspx, accessed 9-2-14.

Median County Population (2011)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

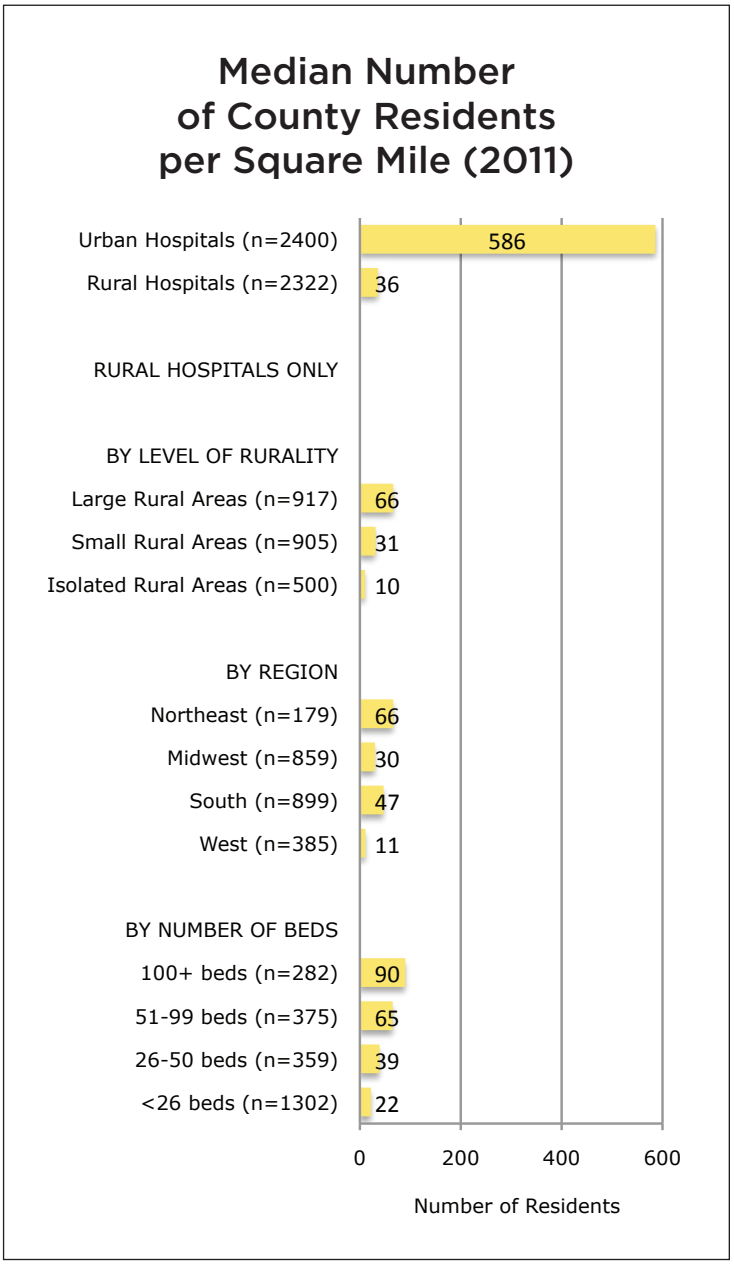
County Population Density

In addition to variation in the overall number of county residents, the number of residents per square mile in counties where hospitals are located varies. Overall, rural hospitals are located in counties with 36 persons per square mile compared to much higher population density in urban counties. As was seen with total number of residents, population density also varies by level of rurality of the hospital. The median density of isolated counties with rural hospitals is only 10 persons per square mile compared to 66 persons per square mile in larger areas.

Population density varies across rural areas of the United States. Hospitals in the West are in counties with a median population density of 11 persons per square mile compared to 66 persons in the Northeast. Population density of the county also varies for hospitals of different sizes. Small hospitals are located in counties with the smallest population density at 22 persons per square mile.

Down East Community Hospital (DECH) is a rural hospital located in Machias, Maine. The hospital serves residents of the town of Machias and of Washington County. Situated in eastern Maine, Washington County borders New Brunswick, Canada and the Bay of Fundy. With a land area of 2,563 miles and an estimated 2013 population of 32,190, the population density of Washington County is 12.6 persons per square mile.

http://www.dech.org, accessed 9-2-14;
http://quickfacts.census.gov/qfd/states/23/23029.html, accessed 9-2-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

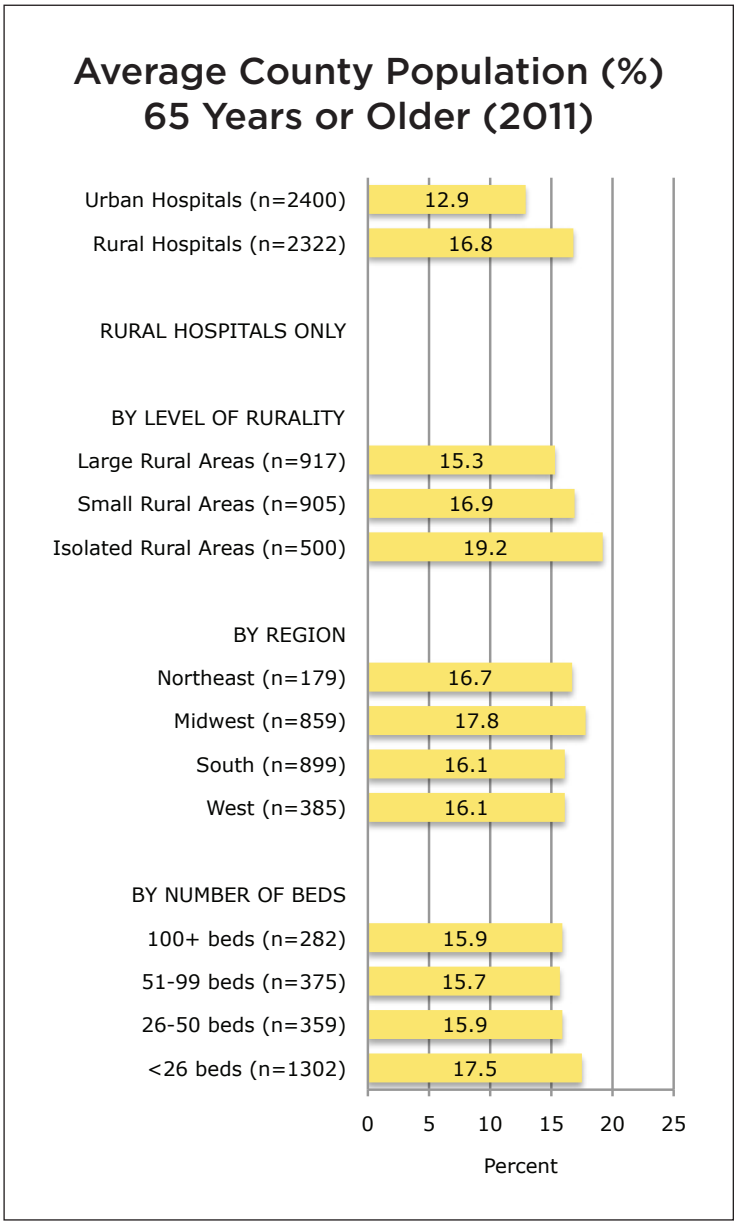
County Elderly Population

On average, the percent of the county population that is 65 years or older is higher in the counties with rural hospitals compared to counties with urban hospitals. The percent that are elderly increases with rurality with the elderly making up almost one-fifth of county population in isolated rural area hospital counties.

The average percent of population that is 65 years or older ranges from 16.1% to 16.7% in counties with rural hospitals in the Northeast, South and West. The elderly population percent is slightly higher in the Midwest. The smallest rural hospitals, i.e., those with 25 or fewer beds, are in counties with a higher proportion of elderly residents compared to larger rural hospitals.

Grundy County Memorial Hospital in Grundy Center, Iowa opened in 1952 as a Veterans Memorial Hospital. Located in Grundy County, the county population in 2013 was estimated to be 12,314, and 19.6% of residents were 65 years or older. GCMH is now a Critical Access Hospital and an affiliate of UnityPoint Health.

http://www.grundycountyhospital.com/body.cfm?id=17, accessed 9-4-14;
http://quickfacts.census.gov/qfd/states/19/19075.html, accessed 9-4-14



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

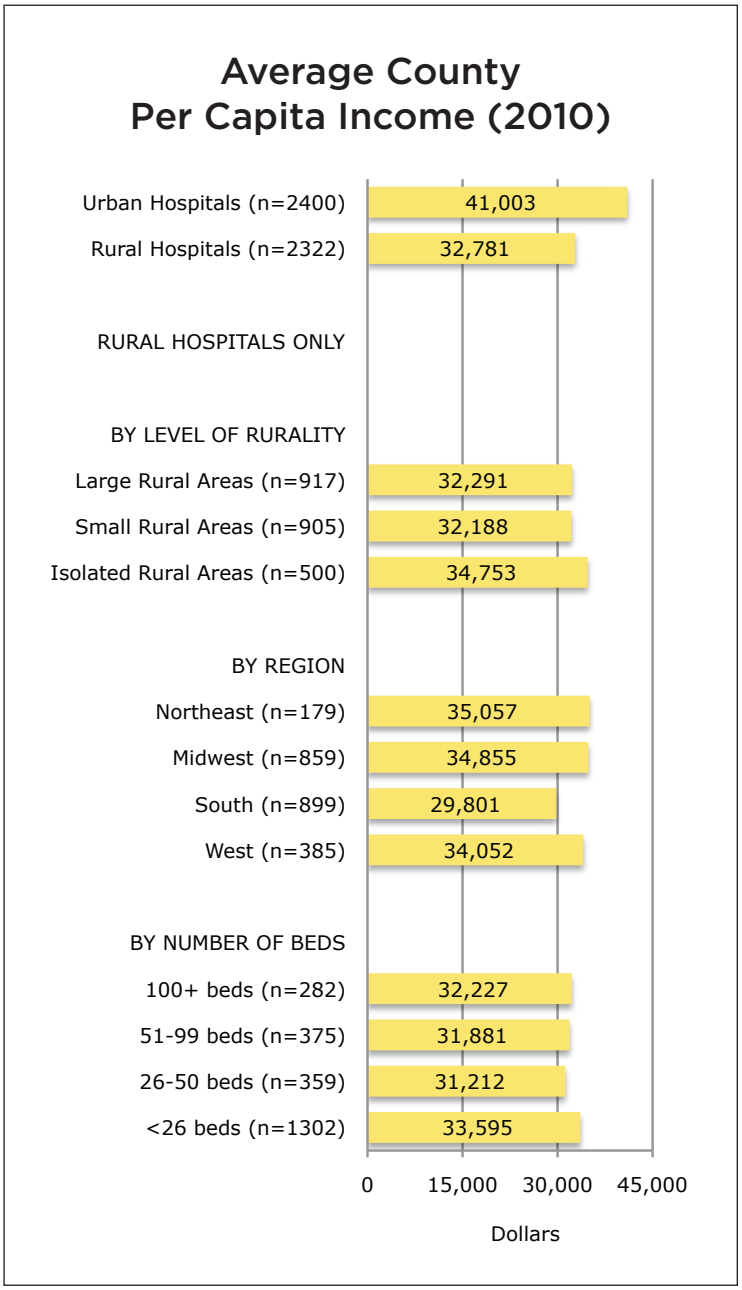
County Income

On average, the per capita income in counties where urban hospitals are located is 20% higher than the income in counties with rural hospitals. The average income in isolated rural hospital areas is slightly higher at $34,753 than the income in larger rural areas.

Average per capita income is notably lower at $29,801 in counties with rural hospitals in the South compared to other regions. The smallest rural hospitals are located in counties with slightly higher average income compared to their larger counterparts.

Bolivar Medical Center (BMC) is a 165-bed rural hospital in Cleveland, Mississippi. BMC has a 35-bed nursing home, and its medical campus also features the Medical Office Building and an Outpatient Rehabilitation Facility with staff offering adult and pediatric physical, occupational and speech therapy as well as an aquatic therapy program.

http://www.bolivarmedical.com/community.aspx, accessed 12-10-14



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

County Employment

Unemployment has been dropping across parts of the country for the past few years. In 2013, the average unemployment rate for the US was 7.0%. County unemployment ranged from 0.9% in Williams County, North Dakota to 27.7% in Yuma County, Arizona.

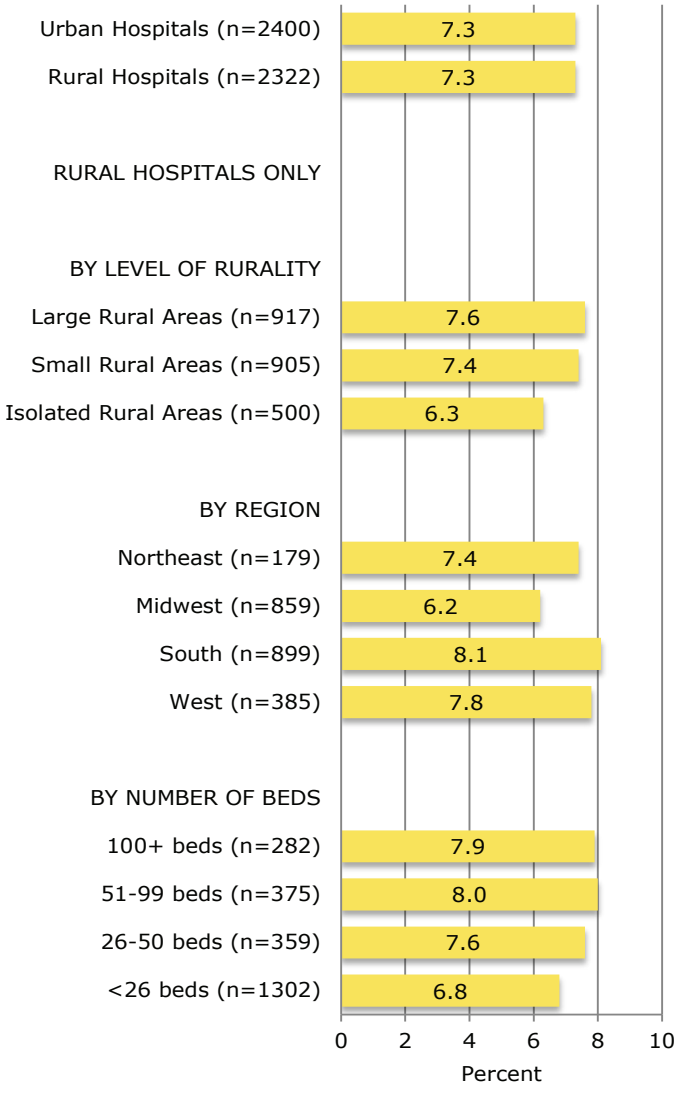
Rural areas mirrored urban areas for average rates of unemployment (7.3%). More surprising is that large rural areas had a slightly higher unemployment rate (7.6%) than small (7.4%) and isolated rural areas (6.3%). The South had the highest unemployment rate (8.1%), followed by the West (7.8%) and Northeast (7.4%), with the Midwest having the smallest (6.2%).

Unemployment was typically higher in areas with hospitals that had 51–100 beds, (8.0% and 7.9%, respectively). Areas with smaller hospitals (26–50 beds) had slightly lower unemployment rates (7.6%), with the smallest (< 26 beds) having the lowest unemployment rate (6.8%).

Pickens County Medical Center (PCMC) is a 56-bed rural hospital in Carrollton, Alabama. PCMC employs more than 300 people and is one of the largest employers in Pickens County. The hospital is owned by the county.

https://www.dchsystem.com/Default.aspx?page=about_us, accessed 2-19-15.

Average Unemployment Rate (%) in Hospital County (2013)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012–2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; Labor force data by county (annual averages), Local Area Unemployment Statistics (LAUS), Bureau of Labor Statistics (BLS); and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

County Poverty Level

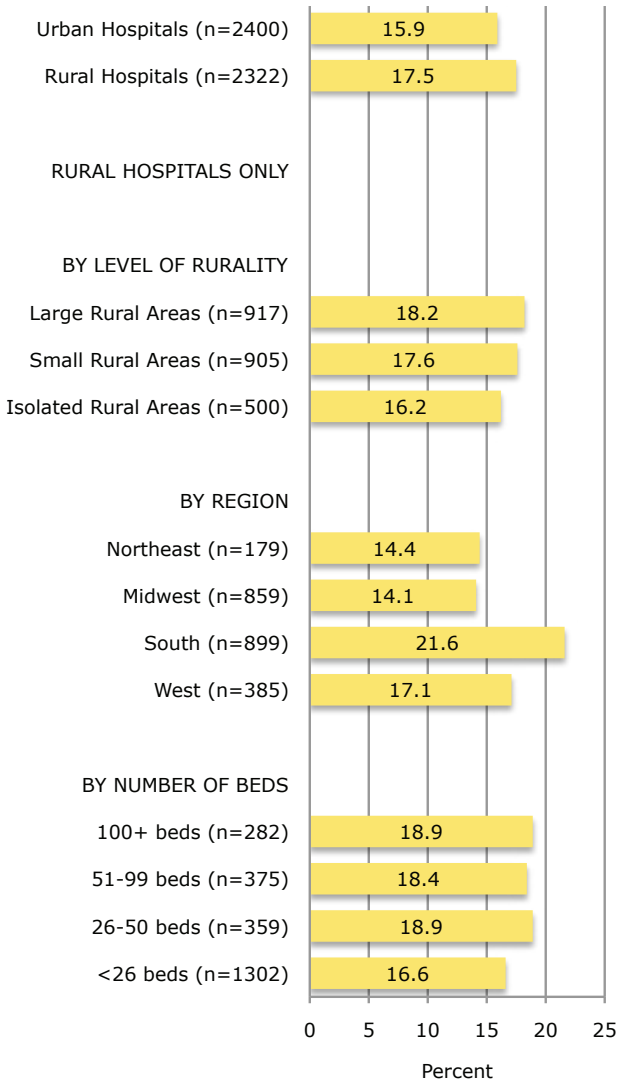
The percent of persons living below the poverty level is 1.6% higher in rural hospital counties compared to urban hospital counties. Across levels of rurality, the percent in poverty was lowest in isolated rural areas (16.2%) and highest in large rural areas (18.2%).

The percent of county residents living in poverty is markedly higher in rural hospital counties in the South (21.6%). At 14.4% and 14.1% respectively, the poverty level in counties in the Northeast and Midwest is lower than that of urban hospital counties. Also notable is the lower poverty level in counties with the smallest hospitals.

Drew Memorial Hospital (DMH) in Monticello, Arkansas is a 49-bed acute care community hospital. The hospital is located in Drew County where the percent of residents below the poverty level was 24.2% for the years 2008-2012. DMH also serves the citizens of six contiguous counties.

https://www.drewmemorial.org/about_us.aspx, accessed 9-4-14;
http://quickfacts.census.gov/qfd/states/05/05043.html, accessed 9-4-14.

Average % of County Population Below Poverty Level (2013)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

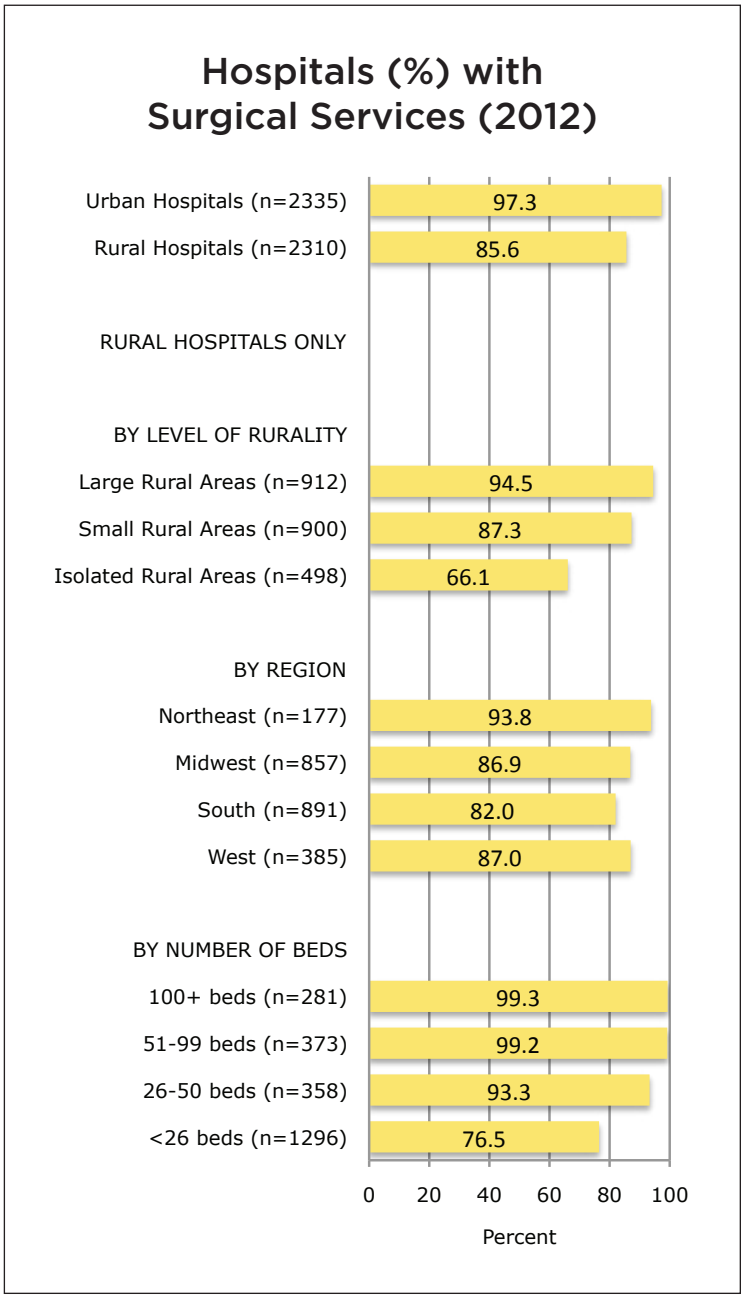
Inpatient Surgical Services

Just over 85% of rural hospitals offer inpatient surgical services compared to almost all urban hospitals (97.3%.) Rural hospitals in large rural areas offer surgical services at a rate that is more comparable to urban hospitals. Hospitals in small or isolated rural areas are less likely to perform surgery (87.3% and 66.1% respectively).

There are smaller regional differences in the availability of inpatient surgery at rural hospitals. Hospitals in the Northeast are most likely to offer these services (93.8%) and those in the South are least likely (82.0%). Comparing across hospital size, rural hospitals with 25 or fewer beds are those that are least likely to perform surgery at 76.5%. More than 90% of hospitals with more than 25 beds offer surgical services.

Payson Regional Medical Center (PRMC) is a 44-bed rural hospital located in Payson, Arizona. PRMC offers inpatient, outpatient, and emergency surgery including, among others, general surgery, orthopedic surgery, and obstetrical and gynecological surgery.

http://www.paysonhospital.com/payson-regional-medical-center/surgicalservices.aspx, accessed 9-18-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

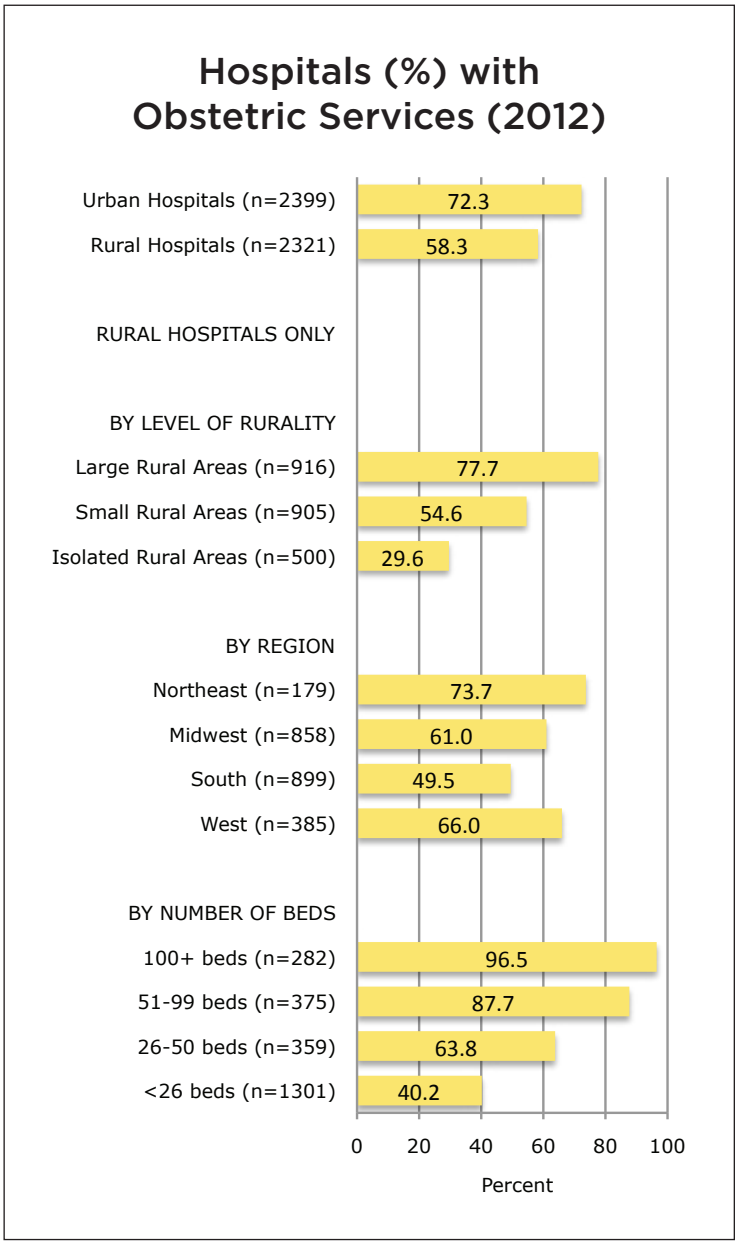
Obstetric Services

Rural hospitals are less likely than urban hospitals to offer obstetric services, with 58.3% providing labor and delivery care for pregnant women. There is variation across rural hospitals in different geographies; the larger the rural area, the more likely that the rural hospital will have obstetric services. Hospitals in large areas are 2.5 times more likely to offer obstetrics than their counterparts in isolated areas at 77.7% and 29.6% respectively.

Variation also exists across US Census regions. Fewer than 50% of rural hospitals in the South offer obstetrical care. Almost three quarters of hospitals in the Northeast provide these services. Availability of obstetrics varies with hospital size. The larger the hospital, the more likely it is that it will offer care for pregnant women.

In fiscal year 2013, 312 babies were delivered at Spencer Hospital, a rural hospital in Spencer, Iowa. In addition to labor and delivery care, the hospital offers pregnancy and parenting classes and breastfeeding education and support.

http://www.spencerhospital.org/index.php?option=com_content&task=view&id=179&Itemid=12, accessed 9-18-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

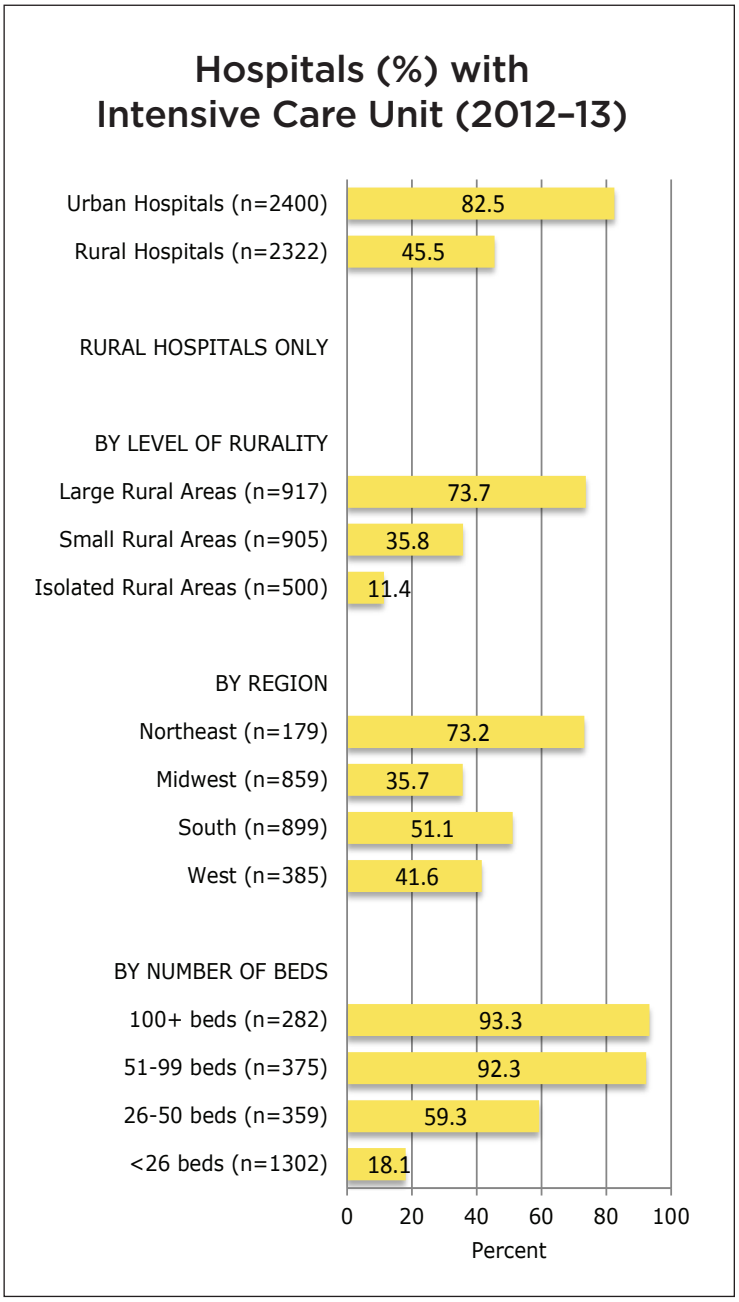
Intensive Care Unit

Fewer than one-half of rural hospitals report that they have an intensive care unit compared to more than 80% of urban hospitals. Few rural hospitals in isolated areas (11.4%) have an intensive care unit. Hospitals in larger rural areas are almost as likely as urban hospitals to offer this care.

Just more than one-third of rural hospitals in the Midwest report that they have an ICU compared to the Northeast where almost two-thirds do. Less than 20% of the smallest hospitals have ICUs while more than 90% of hospitals with more than 50 beds offer this care.

Atchison Hospital is a 25-bed Critical Access Hospital in Atchison, KS. The hospital has 4 ICU beds and specially trained staff with access to advanced life support technology and systems assist critically ill patients in its intensive and coronary care units.

http://www.atchisonhospital.org/getpage.php?name=facility&child=Our+Facility, accessed 12-11-14



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

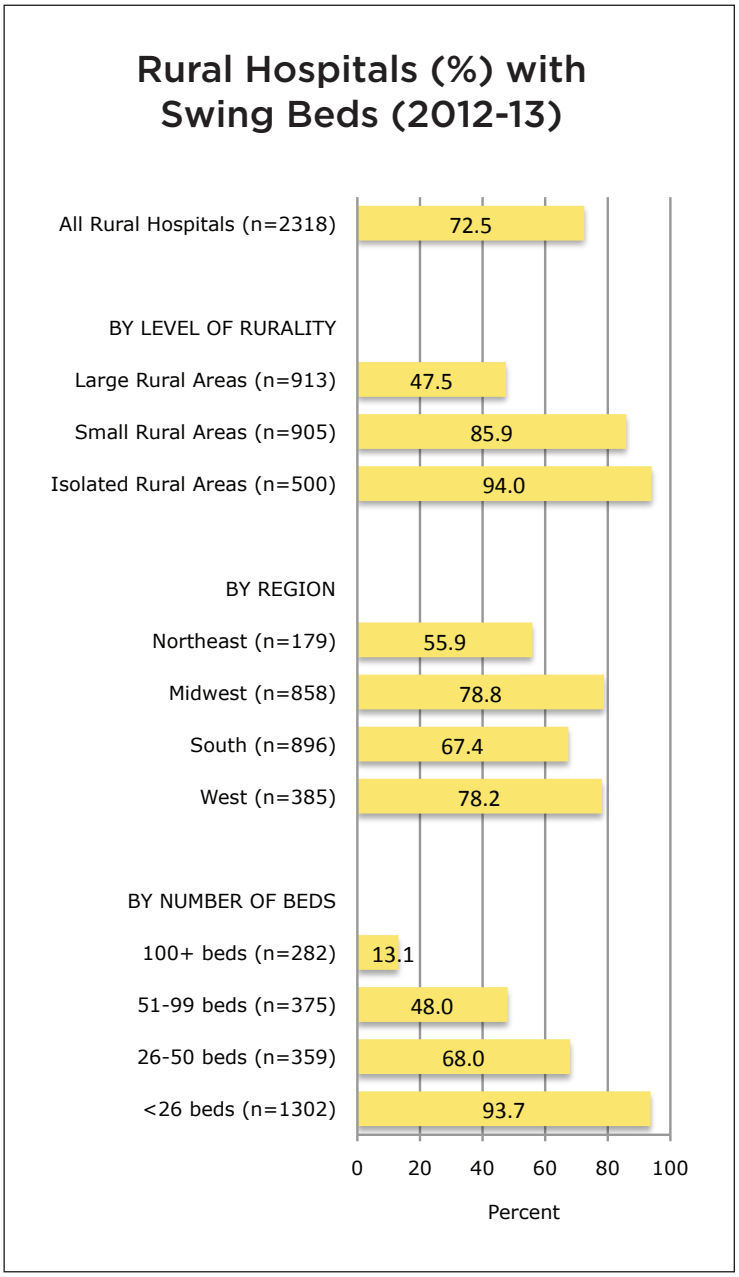
Swing Beds

Almost three-quarters of rural hospitals have swing beds, i.e., inpatient beds that can be used to provide transitional skilled nursing care after a patient is discharged from an inpatient stay. Swing bed designation applies to only rural hospitals with less than 100 beds (excluding beds for newborns and intensive care). Swing beds are particularly common in the most isolated rural areas where 94% of hospitals have them compared to 47.5% of hospitals in large rural areas.

Swing beds are most common among rural hospitals in the Midwest (78.8%) and West (78.2%) and least common in the Northeast (55.9%). The smaller the rural hospital, the more likely they are to have swing beds. Some hospitals with 100+ beds report having swing beds, although the designation is restricted to smaller hospitals. These hospitals are likely counting their inpatient beds differently (e.g., They may be reporting the number of licensed beds they have rather than staffed beds).

Chatuge Regional Hospital (CRH) is a community hospital located in Hiawassee in the north Georgia mountains. CRH has a swing bed program to provide skilled nursing care to help patients transition from inpatient care to home or to a long-term care facility.

http://www.chatugeregionalhospital.org, accessed 9-18-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Skilled Nursing Facilities

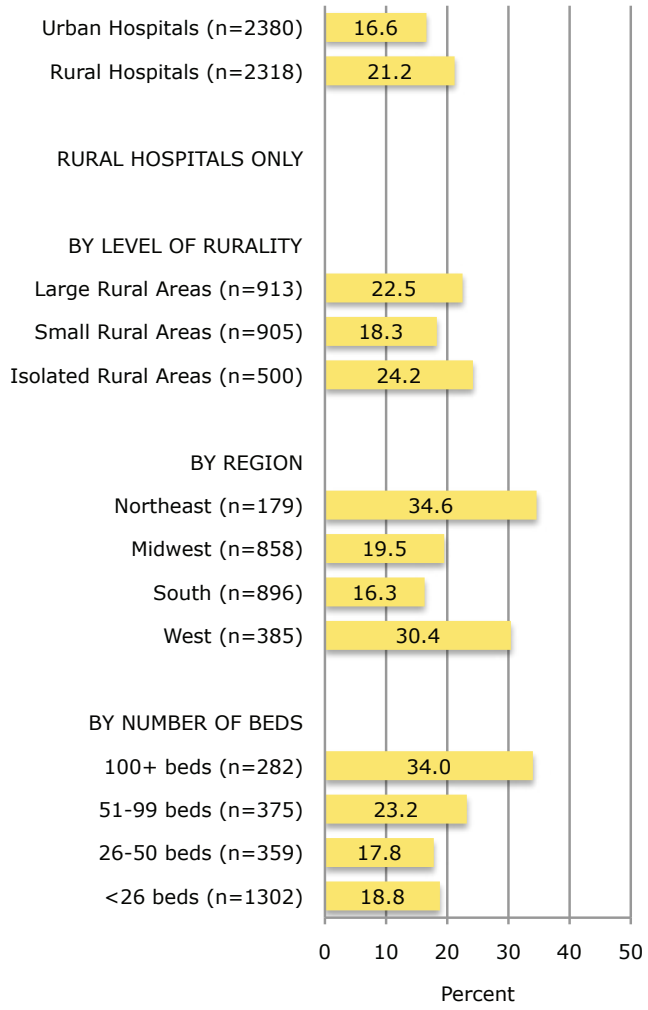
A higher proportion of rural hospitals have skilled nursing facilities (SNFs) compared to urban hospitals but the difference is less than 5%. Fewer than one-quarter of all hospitals operate these facilities. The proportion of rural hospitals with SNFs varies by only 6% across levels of rurality.

Presence of a hospital-based SNF does vary by region of the United States with hospital-operated SNFs more common in the Northeast (34.6%) and the West (30.4%) and least common in the South (16.3%). SNFs are seen most commonly in the largest rural hospitals (34.0%) compared to hospitals with less than 100 beds.

Otsego Memorial Hospital (OMH), a rural hospital in Gaylord, Michigan, offers care at McReynolds Hall, their 34-bed skilled nursing facility. OMH can provide both short-term care for those transitioning from hospital to home or long-term care for those who can no longer live independently.

http://www.myomh.org/mcreynolds-hall, accessed 9-18-14.

Hospitals (%) with a Skilled Nursing Facility (2012–13)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

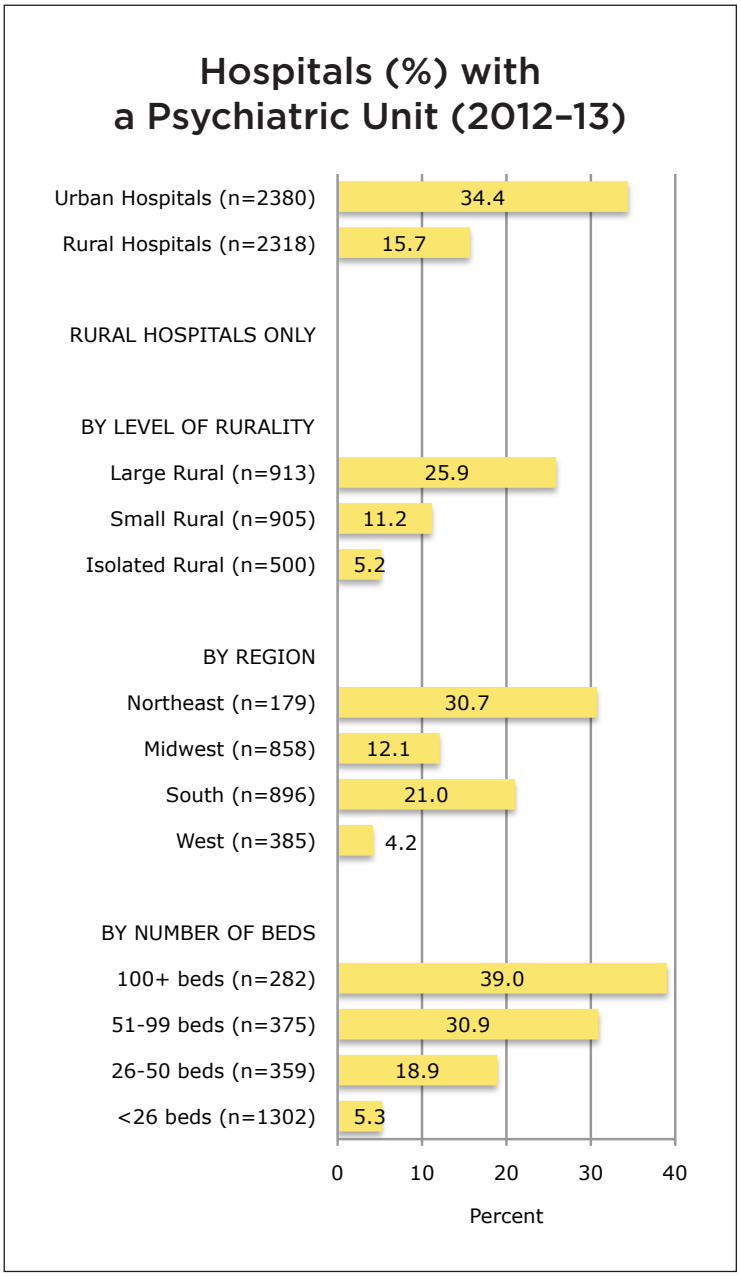
Psychiatric Units

About one-quarter of hospitals have hospital-based psychiatric units, and they are twice as common in urban hospitals (34.4%) as they are in rural hospitals (15.7%). Availability varies by level of rurality with only 5% of the most rural hospitals having these units compared to 26% in large rural areas.

There is also notable variability in the availability of a rural hospital-based psychiatric unit across the United States. They are most common in the Northeast at 30.7% and least common in the West at 4.2%. As with many specialized services, the smaller the rural hospital, the less likely it is that it has a psychiatric unit. Psychiatric units in large (100+ beds) rural hospitals are more common at 39.0% than they are in urban hospitals. They are very uncommon (5.3%) in hospitals with 25 or fewer beds.

Gila Regional Medical Center is a 68-bed acute care hospital in Silver City, New Mexico. Their behavioral health unit offers inpatient care to persons 18 years and older, providing psychiatric care using different treatment modalities including crisis stabilization, and individual, group or family therapy, to name a few.

http://www.grmc.org/Our-Services/Behavioral-Health.aspx, accessed 9-18-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Rehabilitation Units

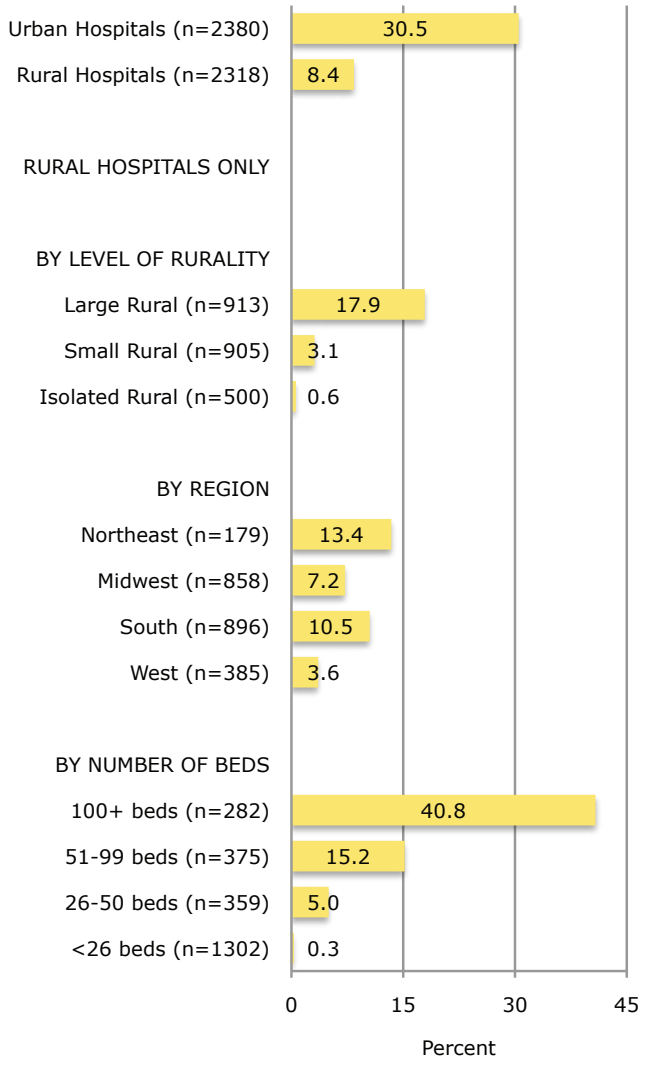
Rehabilitation units are devoted to the rehabilitation of patients with various neurological, musculo-skeletal, orthopedic and other medical conditions following stabilization of their acute medical issues. Hospital-based rehabilitation units are not common in rural hospitals. Only 8.4% of rural hospitals offer these services compared to almost one-third of urban hospitals. Rural hospitals in the largest rural areas are more likely to have rehabilitation units at 17.9%. Only 3 hospitals in isolated rural areas reported having a rehabilitation unit compared to 163 in large rural areas.

Few rural hospitals in the West (3.6%) have rehabilitation units compared to other regions of the United States. Fewer than 15% of rural hospitals in other regions have these hospital-based services. Those that do are likely to be hospitals of 100 beds or more (40.8%).

St. Claire Regional Medical Center (SCRMC) is a 159-bed, Rural Referral Center located in Morehead in northeastern Kentucky. SCRMC provides rehabilitative care in an Intensive Rehabilitation Unit as well as a Transitional Care Unit. Physical, occupational, and speech therapy, and pulmonary rehabilitation and cardiac rehabilitation are available.

http://www.st-claire.org/services_procedures/rehabilitation_services.aspx, accessed 9-18-14.

Hospitals (%) with Rehabilitation Units (2012–13)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Rural Health Clinics

Rural Health Clinics are federally-designated primary care clinics that meet specific measurements. Hospitals without RHCs may still offer outpatient primary care at their hospital or have an RHC in their community.

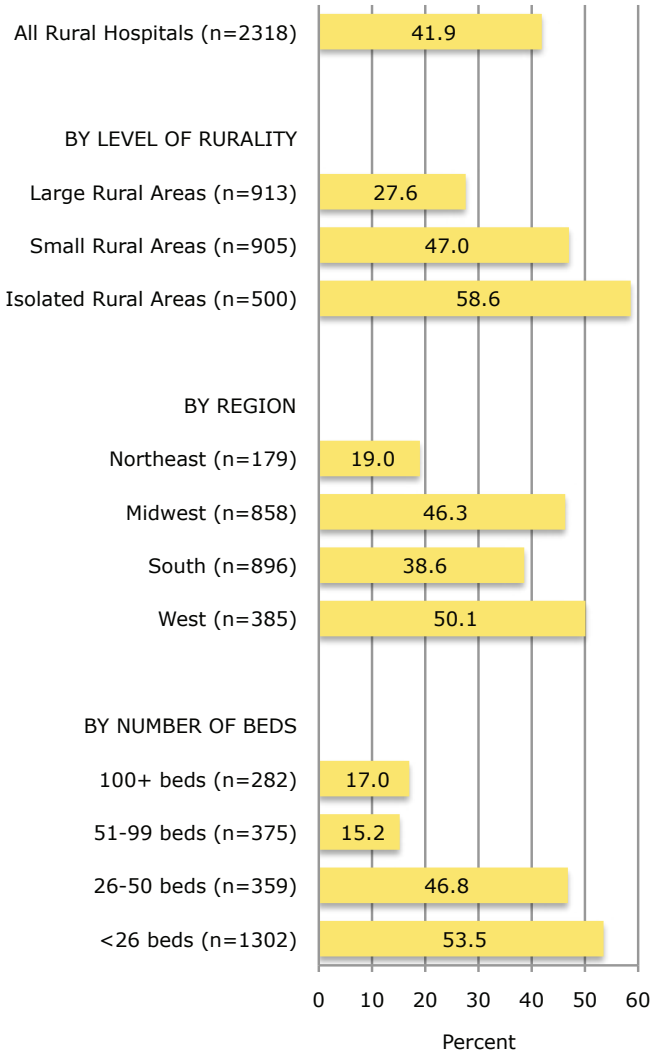
Nearly 42% of rural hospitals operate a Rural Health Clinic (RHC). RHCs are more likely to be run by hospitals that are the most rural, i.e., those in isolated rural areas (58.6%). Just over one-quarter of hospitals in large rural areas offer RHC care.

The distribution of hospital-based RHCs varies by region of the country. In the West, one-half of rural hospitals have an RHC. They are also common in the Midwest at 46.3% but less common in the Northeast at 19.0%. Hospital size is notably associated with the availability of an RHC. More than one-half of small hospitals have them while only 15–17% of the largest rural hospitals (greater than 50 beds) offer this care.

Madison Valley Medical Center (MVMC) is a rural, 10-bed, Critical Access Hospital in Ennis, Montana. MVMC operates a rural health clinic to provide acute and well care. The clinic is staffed by physicians and physician assistants and is open Monday through Friday.

http://www.mvmedcenter.org/services/clinic/, accessed 9-18-14.

Hospitals (%) with a Rural Health Clinic (2012–13)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Outpatient Surgery

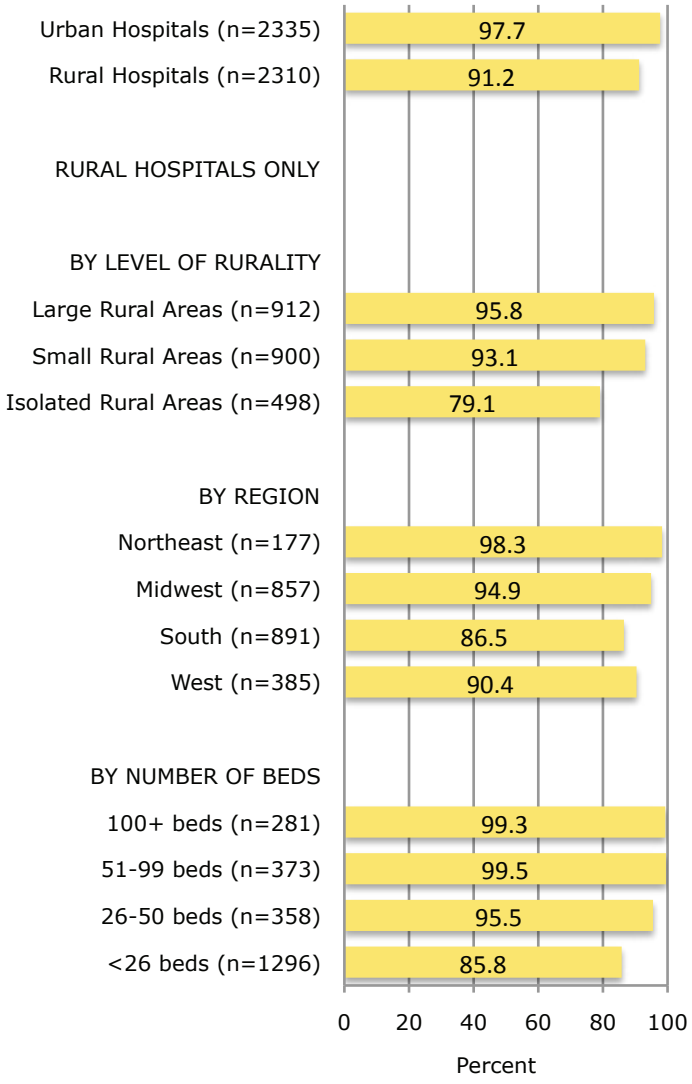
Outpatient surgeries are performed at most rural and urban hospitals. Rural hospitals in isolated areas are least likely to offer outpatient surgery (79.1%), but it is still a service offered by the majority of hospitals in isolated areas.

Rural hospitals in the South are the least likely to report these services at 86.5%. More than 90% of hospitals in all other regions have outpatient surgery in their line of services. Similarly, 85.8% of rural hospitals with 25 beds or fewer offer outpatient surgery compared to greater than 95% of larger rural hospitals.

Northern Dutchess Hospital is a 68-bed, acute care hospital in Rhinebeck, New York. Inpatient and outpatient surgery is provided at the Zipser Surgical Center, which includes a 17-bed Ambulatory Surgical wing.

http://www.health-quest.org/SurgicalServices, accessed 9-18-14.

Hospitals (%) with Outpatient Surgery Services (2012)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

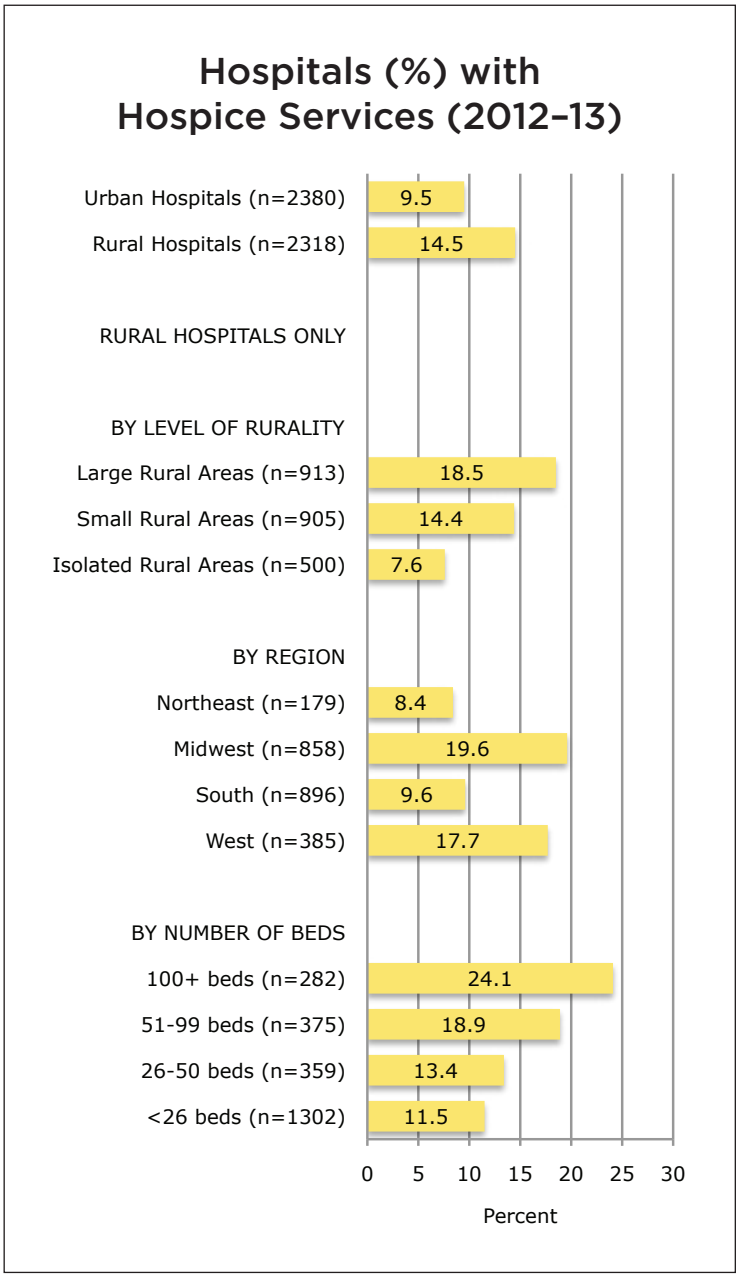
Hospice Services

Hospice services are offered by 12% of all hospitals but are more commonly offered by rural hospitals (14.5%) compared to urban ones (9.5%). Hospice services are more likely to be provided by rural hospitals in large rural areas (18.5%) and least likely by those in isolated areas (7.6%).

There are regional differences in the availability of hospital-provided hospice. Fewer than 10% of rural hospitals in the Northeast and South offer these services compared to 17.7% to 19.6% in the West and Midwest, respectively. The larger the rural hospital, the more likely it is that they will offer hospice services, with almost one-quarter of 100+ bed hospitals offering this care.

Black River Memorial Hospital (BRMH), a 25-bed, rural hospital located in Black River Falls, Wisconsin, provides hospice care to an area that includes 22 communities in western Wisconsin. Pain management and emotional, psychological and spiritual support, are among the services provided by a multidisciplinary team.

http://www.brmh.net/services/hospice/, accessed 9-22-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Home Health Services

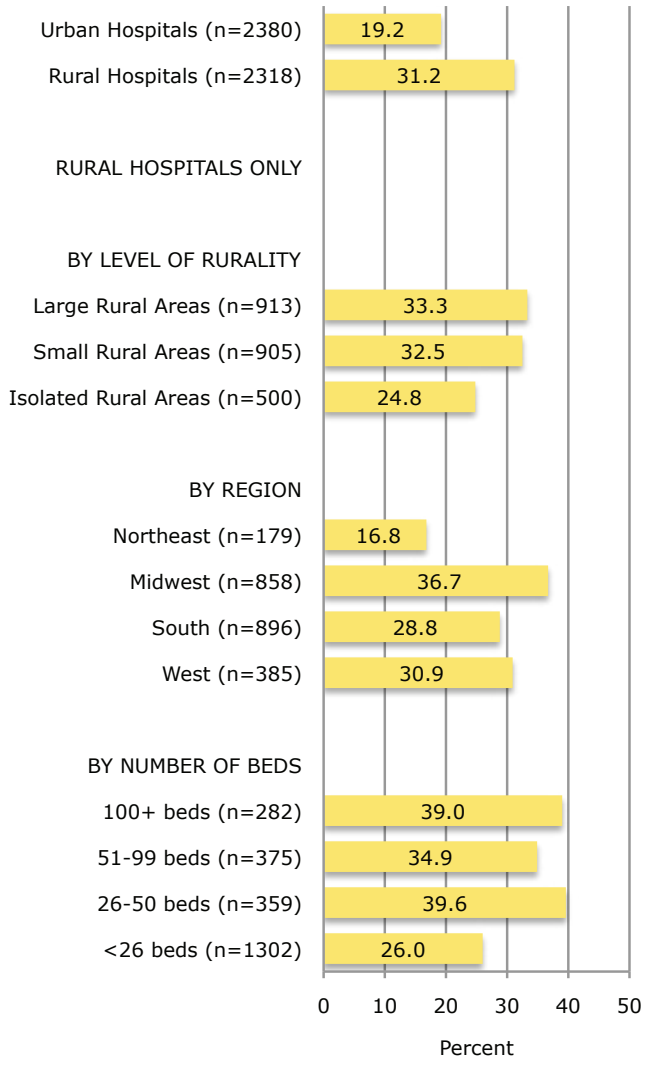
Home health services are offered by 25% of all hospitals but are more commonly offered by rural hospitals (31.2%) compared to urban ones (19.2%). Home health services are more likely to be offered by hospitals in small and large rural areas than by hospitals in isolated areas although 25% of the most rural hospitals provide these services.

Rural hospitals in the Northeast are least likely to offer home health services (16.8%), and those in the Midwest are most likely at 36.7%. Fewer (26.0%) of the smallest rural hospitals, i.e., those with less than 26 beds, offer home health compared to an average of 37.7% for larger hospitals.

Pioneers Medical Center (PMC) is a community-based rural hospital located in Meekers, Colorado. PMC offers home health services by registered nurses, home care aides, and physical, occupational, and speech therapists. They also offer 24-hour emergency on-call response service and electronic medication boxes.

http://pioneershospital.org/about/departments/home-health-services, accessed 9-18-14.

Hospitals (%) with Home Health Services (2012–13)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Outpatient Cardiac Rehabilitation

Of the hospitals completing the American Hospital Association survey (AHA)*, 69.5% report that they or their system provides cardiac rehabilitation services in their community either directly or by arrangement. Rural hospitals are less likely to report these services (60.9%). Cardiac rehabilitation services are more common among hospitals in larger rural areas (67.3%) although 52.3% of the most rural hospitals report these services.

There is regional variation with more than 80% of hospitals in the Northeast and Midwest reporting these services and fewer than 45% of hospitals in the South and West. Cardiac rehabilitation services are available through larger rural hospitals (hospitals with more than 50 beds) more often than they are through smaller ones.

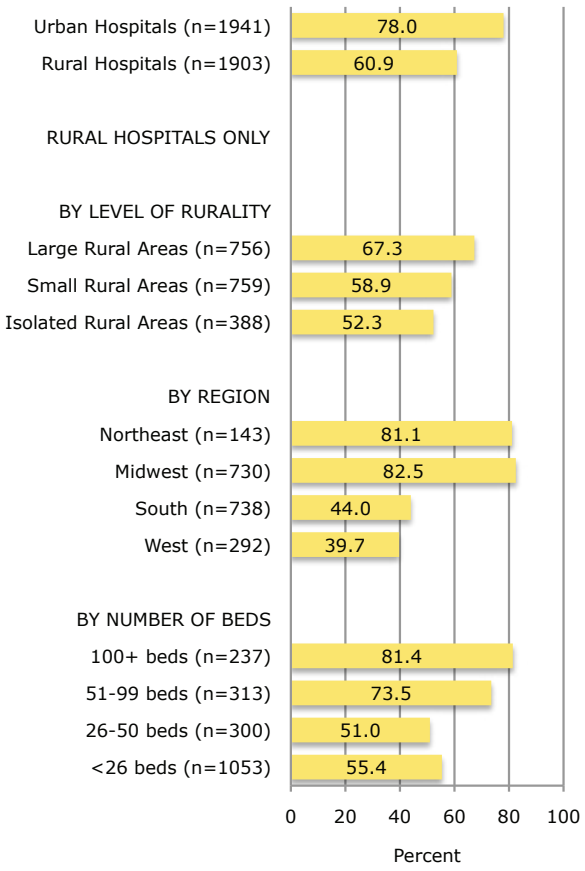
**Does not include data from 18.6% of hospitals that completed the survey but omitted this variable or did not complete the survey because they are not members of the AHA. Non-reporting hospitals are more likely to be in isolated rural areas and in the West and Northeast.*

Respondents report that services are provided in their local community by them, their subsidiary, their system or network, or through an agreement with others.

Grays Harbor Community Hospital, a rural hospital in Aberdeen, Washington, provides cardiac rehabilitation services to patients who have had cardiac surgery or are recovering from a heart attack.

http://ghcares.org/services/cardiacRehab, accessed 9-18-14.

Hospitals (%) with Outpatient Cardiac Rehabilitation Services (2012)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Breast Cancer Screening/ Mammography

Of the hospitals completing the American Hospital Association survey (AHA)*, 89% report that they or their system provides breast cancer screening/ mammography services in their community either directly or by arrangement. Overall, breast cancer screening/mammography is available through rural hospitals almost as frequently (86.7%) as it is through urban hospitals (91.5%). Rural hospitals in the most isolated areas, however, are less likely to provide these services at 75.8%.

Rural hospitals in the South (79.7%) and West (81.9%) are less likely than those in the Northeast (97.9%) and Midwest (93.6%) to offer these services directly or by arrangement. Close to 100% of rural hospitals with more than 50 beds offer breast cancer screening/mammography compared to between 80% and 90% of smaller hospitals.

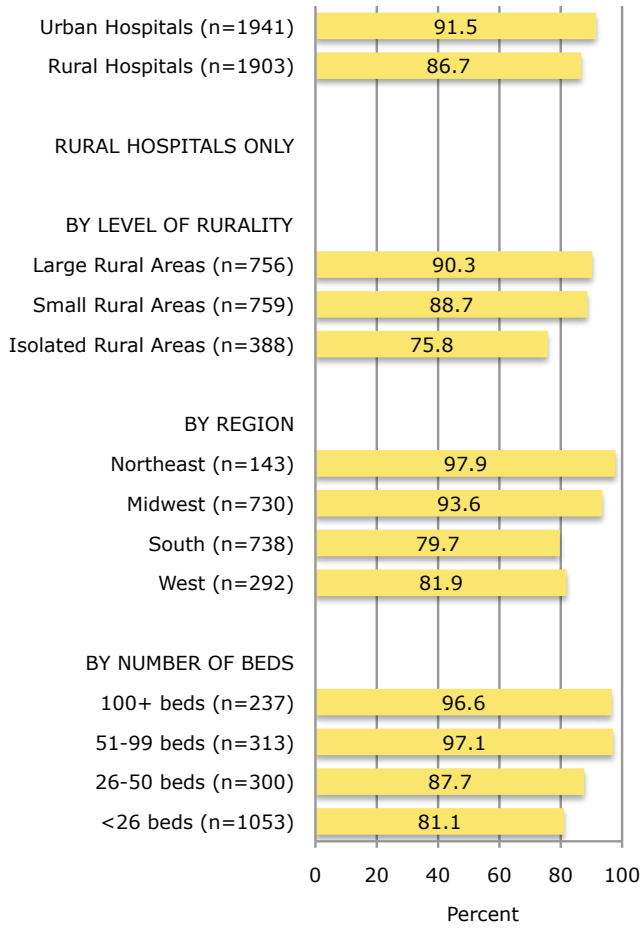
**Does not include data from 18.6% of hospitals that completed the survey but omitted this variable or did not complete the survey because they are not members of the AHA. Non-reporting hospitals are more likely to be in isolated rural areas and in the West and Northeast.*

Respondents report that services are provided in their local community by them, their subsidiary, their system or network, or through an agreement with others.

Ashe Memorial Hospital (AMH) is a small, rural hospital located in Jefferson, North Carolina, in the northwest corner of the state. Digital mammography is provided in their Mammography Suite where they offer "Ladies Night Out" mammography events to encourage women to get this important screening procedure.

http://www.ashememorial.org/home/services/imaging-services.aspx, accessed 9-22-14.

Hospitals (%) with Breast Cancer Screening/Mammography (2012)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Chemotherapy Services

Of the hospitals completing the American Hospital Association survey (AHA)*, almost one-half of rural hospitals report that they or their system provides chemotherapy services in their community either directly or by arrangement. Urban hospitals are more likely to provide these services at 84.1%. Availability of chemotherapy varies by level of rurality. Almost twice the percentage of hospitals in large rural areas (62.3%) report these services compared to rural hospitals in isolated areas (33.3%).

There is also regional variation in availability of chemotherapy through the local hospital. Only 31.7% of hospitals in the South provide these services directly or by arrangement compared to 72.7% in the Northeast. Chemotherapy services are more commonly available at or through the local hospital if that hospital has more than 50 beds.

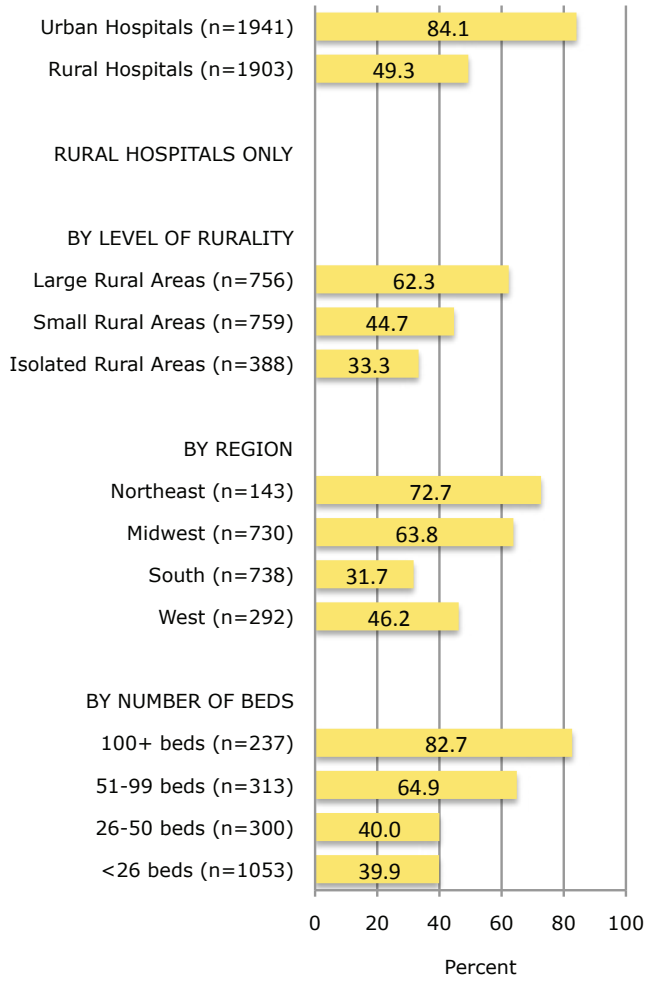
**Does not include data from 18.6% of hospitals that completed the survey but omitted this variable or did not complete the survey because they are not members of the AHA. Non-reporting hospitals are more likely to be in isolated rural areas and in the West and Northeast.*

Respondents report that services are provided in their local community by them, their subsidiary, their system or network, or through an agreement with others.

Bartlett Regional Hospital (BRH) is a 55-bed, rural hospital in Juneau, Alaska. BRH has a Chemo-Infusion Therapy unit with 4 chairs and 1 bed where patients can receive blood transfusions, chemotherapy, and other infusion therapies.

https://www.facebook.com/BartlettRegionalHospital/info, accessed 9-18-14; http://www.bartletthospital.org/services/infusion-center.aspx, accessed 2-19-15.

Hospitals (%) with Chemotherapy Services (2012)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Dental Services

Of the hospitals completing the American Hospital Association survey (AHA)*, almost twice the percentage of urban hospitals (47.0%) report that they offer dental services directly or by arrangement in their community compared to rural hospitals (26.4%). There is small variability across levels of rurality for availability of hospital-provided or arranged dental care.

Rural hospitals in the Northeast are more likely to offer dental care (46.2%) and do so at a rate that is comparable to urban hospitals. There is also variation across size of the rural hospital where the percent of hospitals with dental care ranges from 19% to 35%.

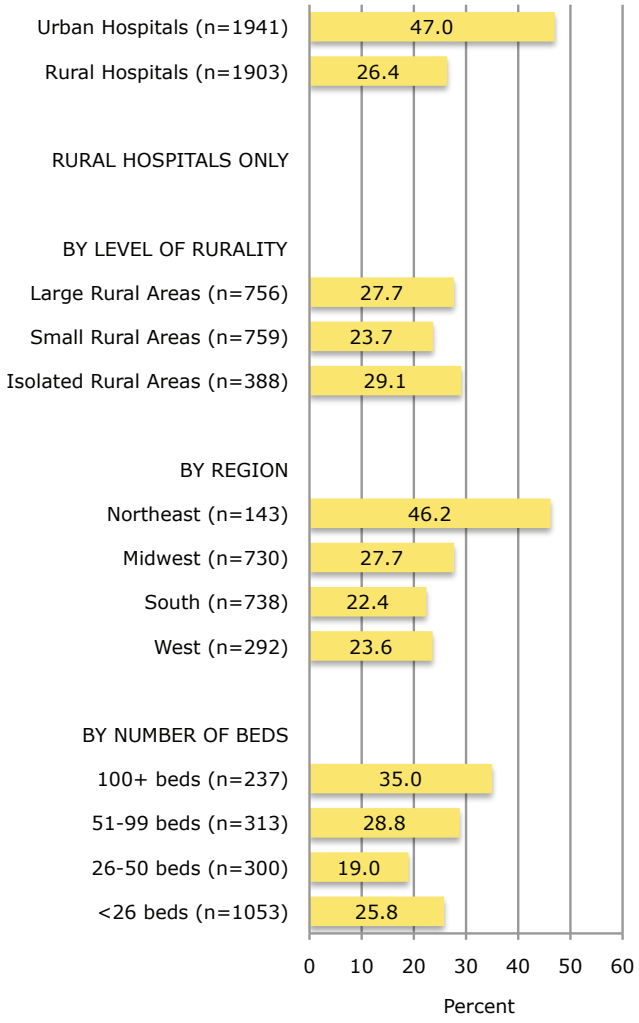
**Does not include data from 18.6% of hospitals that completed the survey but omitted this variable or did not complete the survey because they are not members of the AHA. Non-reporting hospitals are more likely to be in isolated rural areas and in the West and Northeast.*

Respondents report that services are provided in their local community by them, their subsidiary, their system or network, or through an agreement with others.

Minnie Hamilton Health System (MHHS) is a Critical Access Hospital located in Grantsville, West Virginia. MHHS provides general pediatric and adult dental services at their location in Grantsville.

http://mhhcc.com/services.html, accessed 2-19-15.

Hospitals (%) with Dental Services (2012)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Outpatient Services

Alcohol/Drug Abuse Treatment Services

Of the hospitals completing the American Hospital Association survey (AHA)*, urban hospitals are almost four times as likely as rural hospitals to report that they offer alcohol/drug abuse services treatment directly or by arrangement at 43.7% and 12.1%, respectively. Services offered directly or by arrangement by rural hospitals are twice as likely to be offered in large rural areas (17.9%) compared to small or isolated areas (8.2% and 8.5%, respectively).

Few rural hospitals in the South (6.9%) offer outpatient alcohol/drug abuse treatment compared to almost one-quarter of rural hospitals in the Northeast. The largest rural hospitals are more likely to provide these services at 23.2% compared to hospitals with 50 beds or fewer.

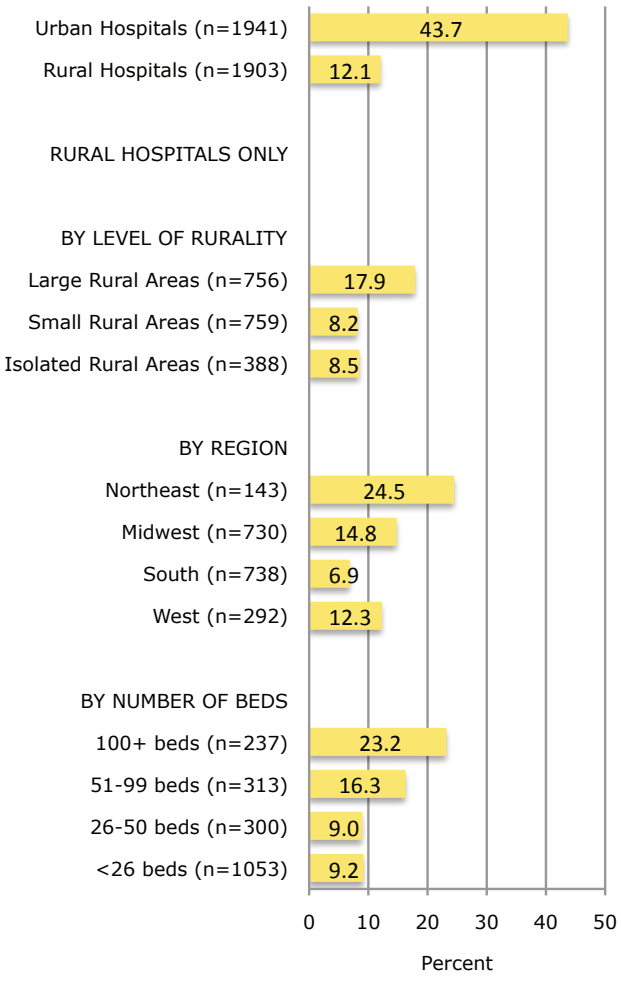
**Does not include data from 18.6% of hospitals that completed the survey but omitted this variable or did not complete the survey because they are not members of the AHA. Non-reporting hospitals are more likely to be in isolated rural areas and in the West and Northeast.*

Respondents report that services are provided in their local community by them, their subsidiary, their system or network, or through an agreement with others

Guadalupe Regional Medical Center (GRMC) is a rural hospital located in Seguin, Texas. This 125-bed hospital provides care to residents of eight central Texas counties, care that includes chemical dependency services provided to individuals and families at the hospital's Teddy Buerger Center.

http://www.grmedcenter.com/patient-support/behavioral-health, accessed 2-19-15.

Hospitals (%) with Outpatient Alcohol/Drug Abuse Services (2012)



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

Health Fair

Of the hospitals completing the American Hospital Association survey (AHA)*, 87% promote health through a health fair with only a small difference between rural hospitals and urban hospitals. There is also little variability across levels of rurality with more than three-quarters of hospitals in the most isolated areas carrying out these health promotion activities directly or by arrangement.

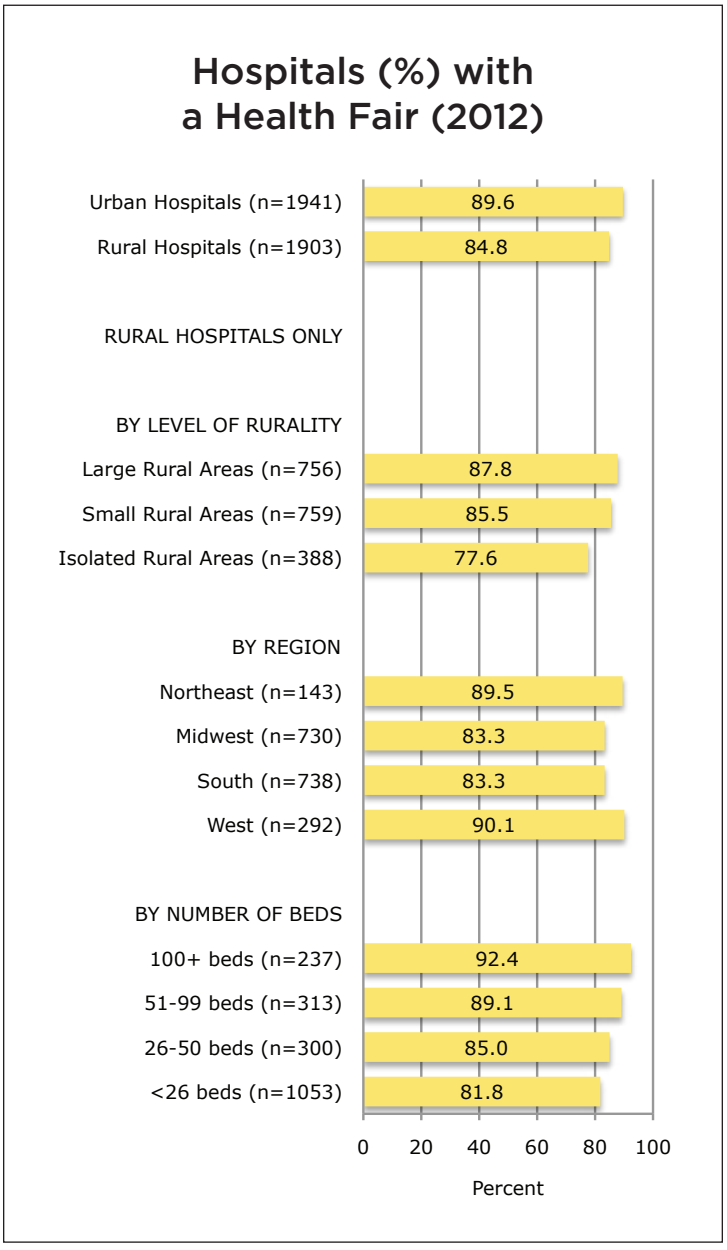
Health fairs are available in all geographic regions of the United States and are provided or facilitated by rural hospitals of all sizes.

**Does not include data from 18.6% of hospitals that completed the survey but omitted this variable or did not complete the survey because they are not members of the AHA. Non-reporting hospitals are more likely to be in isolated rural areas and in the West and Northeast.*

Respondents report that services are provided in their local community by them, their subsidiary, their system or network, or through an agreement with others.

Grace Cottage Hospital (GCH) is a 19-bed Critical Access Hospital located in Townshend, Vermont. The special events page on the GCH website highlights many health promotion activities in which the hospital participates and including the GCH Fair Day and a second county-wide health fair held in collaboration with another hospital. Walks, runs, and bicycle rallies are also featured.

http://gracecottage.org/events/, accessed 9-22-14.



Data Sources: NCRHRP analysis of data from Centers for Medicare and Medicaid (CMS), Hospital Cost Report Information System (HCRIS), 6-30-14; CMS, Provider of Service (POS) File, 12-31-13; Health Resources and Services Administration, Area Health Resource File (AHRF), 2012-2013; American Hospital Association, Annual Survey of Hospitals, 2011 and 2012; US Census Bureau and Office of Management and Budget, Core Based Statistical Area (CBSA) Designations, 2013; U.S. Department of Agriculture, Economic Research Service, Rural-Urban Commuting Area (RUCA) Codes, 2013; and Pitney-Bowes Location Intelligence, MapMarker USA v26.1, January 2014.

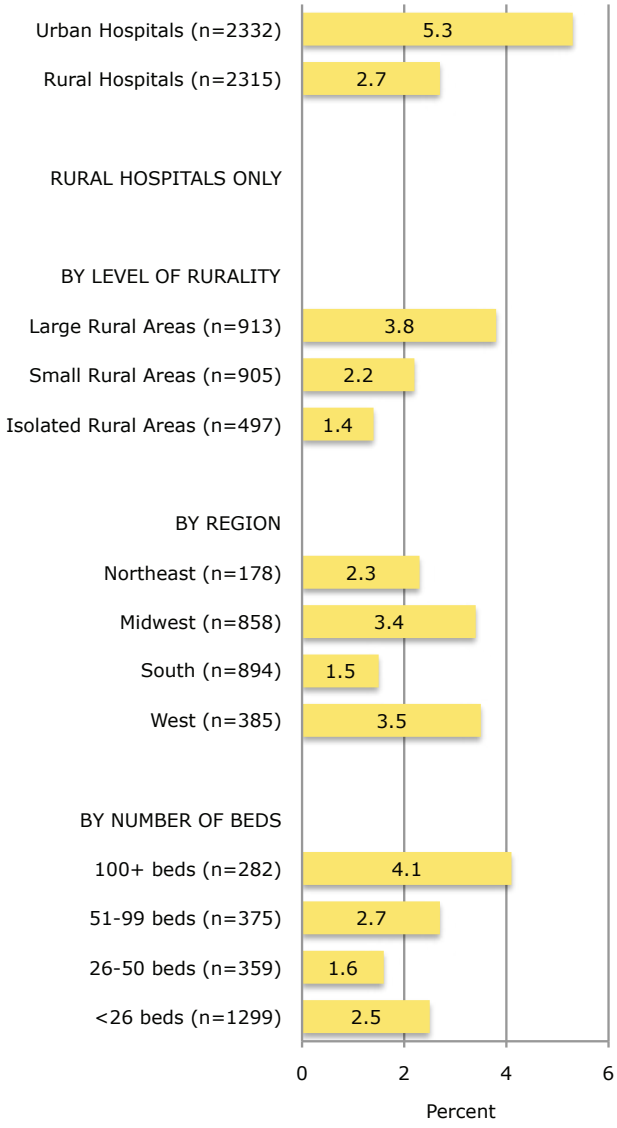
Total Margin: Revenue vs. Expenses

The median total margin, a profitability measure that compares revenue to expenses, is positive for all hospitals but twice as high for urban hospitals compared to rural hospitals at 5.3% and 2.7% respectively. Among rural hospitals in areas of different size, hospitals in large rural areas have the highest median total margin at 3.8% compared to hospitals in isolated areas where the median total margin is 1.4%.

There is variability across regions of the United States with median total margin ranging from highs of 3.4% and 3.5% in the Midwest and West respectively, to a low of 1.5% in the South. Median total margin also varies by hospital size with larger hospitals generally doing better. Hospitals with 26–50 beds have the lowest total margin at 1.6%.

Total margin measures the control of expenses relative to revenues. A positive value indicates total expenses are less than total revenues—a profit. A negative value indicates that total expenses are more than total revenues—a loss.

Median Total Margin (2012–13)



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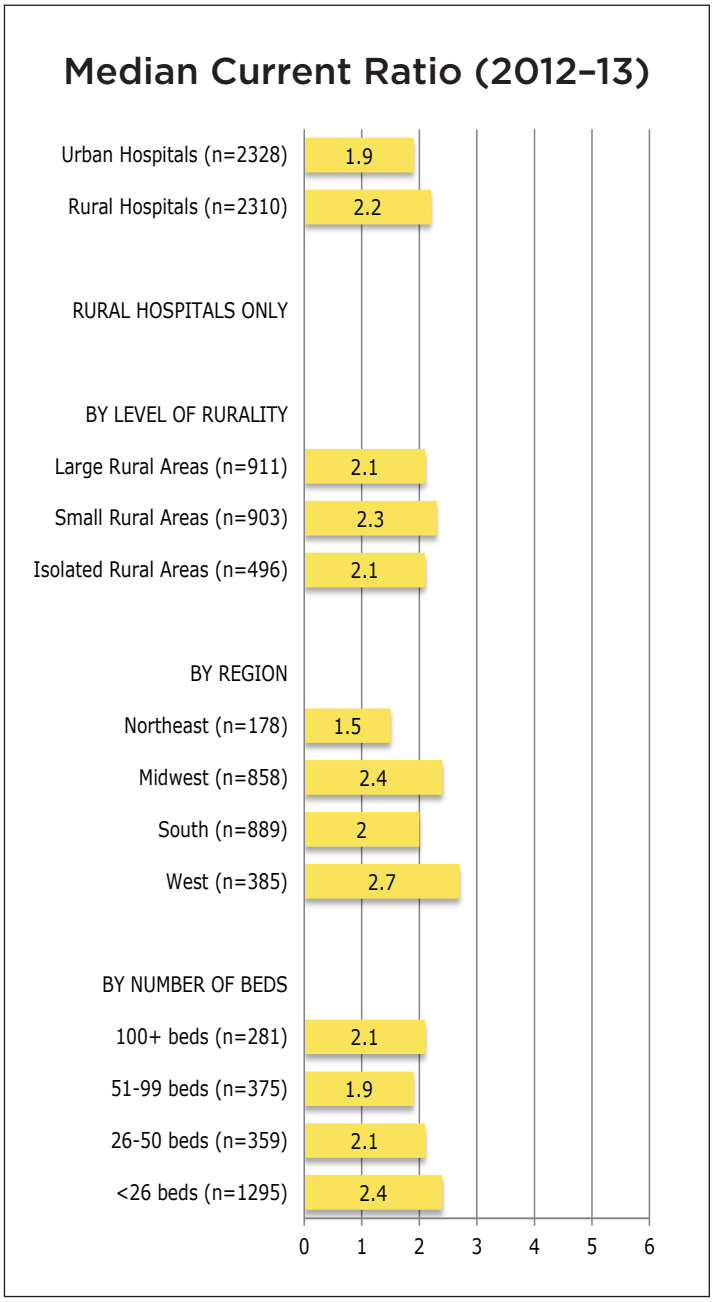
Current Ratio: Current Assets Compared to Current Liabilities

The median current ratio is similar for urban and rural hospitals. The median current ratio indicates that rural hospitals have 2.2 times the short-term assets they need to pay their short-term liabilities compared to median urban hospital assets that are 1.9 times greater than liabilities. Median current ratio varies little across levels of rurality.

There is variation in median current ratio for rural hospitals in different regions of the United States. Hospitals in the Northeast have only 1.5 times the assets needed to cover liabilities compared to hospitals in the West with 2.7 times the assets needed. The median current ratio is similar across hospital size.

Current ratio measures the number of times a hospital can pay its short-term obligations using its short-term assets. A value greater than 1.0 indicates that current assets are greater than current obligations. A value less than 1.0 indicates that obligations are greater than the assets available to pay them.



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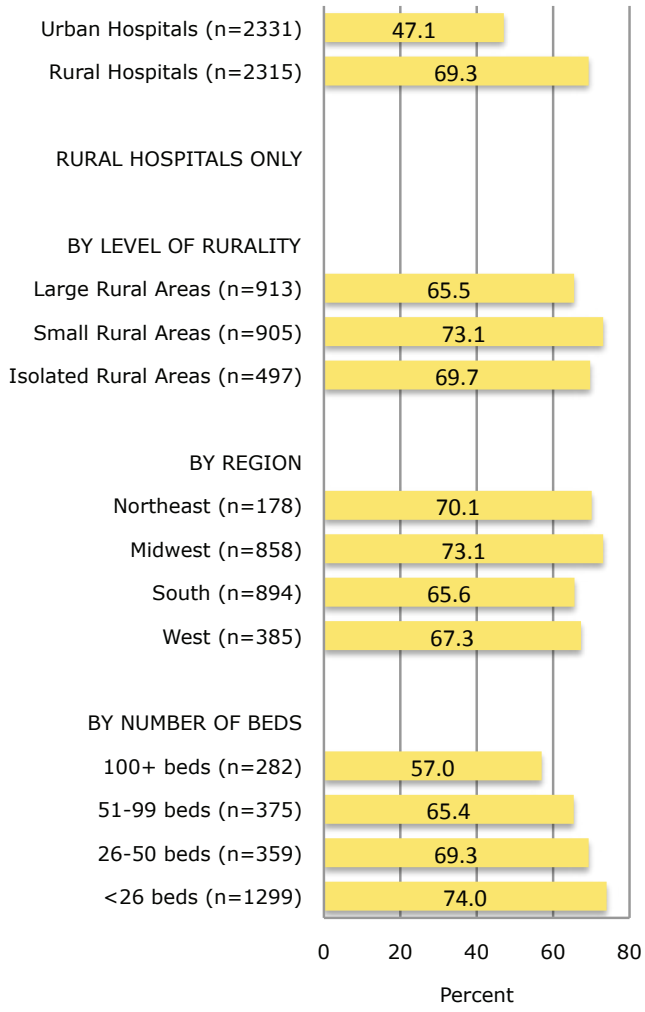
Outpatient Revenue to Total Revenue

A larger portion of rural hospital total revenue comes from outpatient care (69.3%) compared to urban hospitals (47.1%). Rural hospitals in small rural areas have the highest proportion at 73.1%.

Variation across regions of the United States is small and ranges from 73.1% in the Midwest to 65.6% in the South. The smaller the hospital, the higher the proportion of revenue from outpatient care.

Outpatient to total revenue measures the percent of total revenue that comes from outpatient services. The higher the value, the greater the dependence on revenue from outpatient care compared to other care.

Median Percent of Revenue from Outpatient Services (2012–13)



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Medicare Outpatient Payer Mix

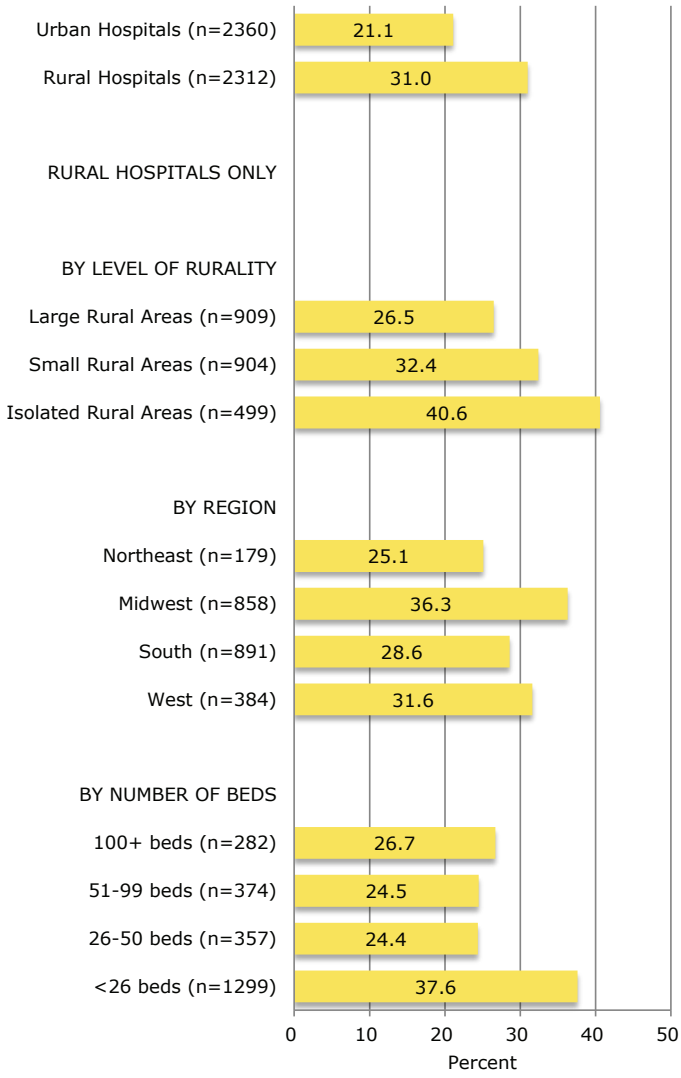
Median charges for hospital services provided to Medicare patients as a portion of all hospital outpatient charges is 31.0% for rural hospitals compared to 21.1% for urban ones. The more isolated the hospital, the higher the portion of charges for Medicare patients; it is 40.6% for hospitals in isolated rural areas.

Medicare outpatient payer mix also varies regionally, from a median of 36.3% for rural hospitals in the Midwest to 25.1% for rural hospitals in the Northeast. The smallest hospitals are most dependent on Medicare charges with Medicare as a payer accounting for 37.6% of all charges. Hospitals with more than 25 beds have a Medicare outpatient payer mix of about 25%.

Medicaid and commercial insurers are also important outpatient payers with about 25% of charges to Medicare.

Medicare Outpatient Payer Mix measures the percent of total outpatient charges that is for Medicare patients. Higher values indicate greater dependence on Medicare reimbursement. Low values indicate less dependence and more diversity in payers.

Median Percent of Charges for Care for Medicare Patients (2012–13)



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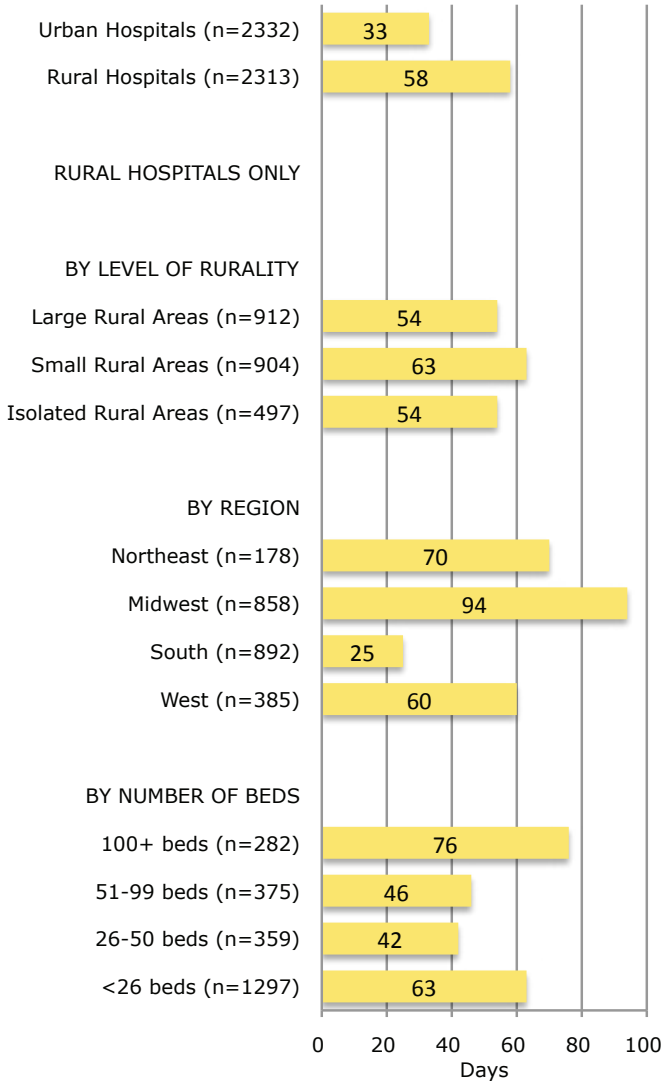
Days Cash on Hand

Median days cash on hand, a measure of the number of days a hospital could operate if no additional cash were received, is 1.8 times higher for rural hospitals compared to urban ones at 58 days compared to 33 days. Hospitals at different levels of rurality are similar with median days cash on hand ranging from 54 to 63 days.

Rural hospitals in the Midwest have the highest median number of days of cash on hand at 94, a notable difference from rural hospitals in the South where days cash on hand is only 25. The largest and smallest rural hospitals have the largest median number of days cash on hand compared to hospitals with 26 to 99 beds.

Days cash on hand measures the number of days a hospital could operate if no cash were collected or received. Days cash on hand is calculated at the end of the fiscal year and does not reflect uneven cash flow during the year.

Median Days Cash on Hand (2012–13)



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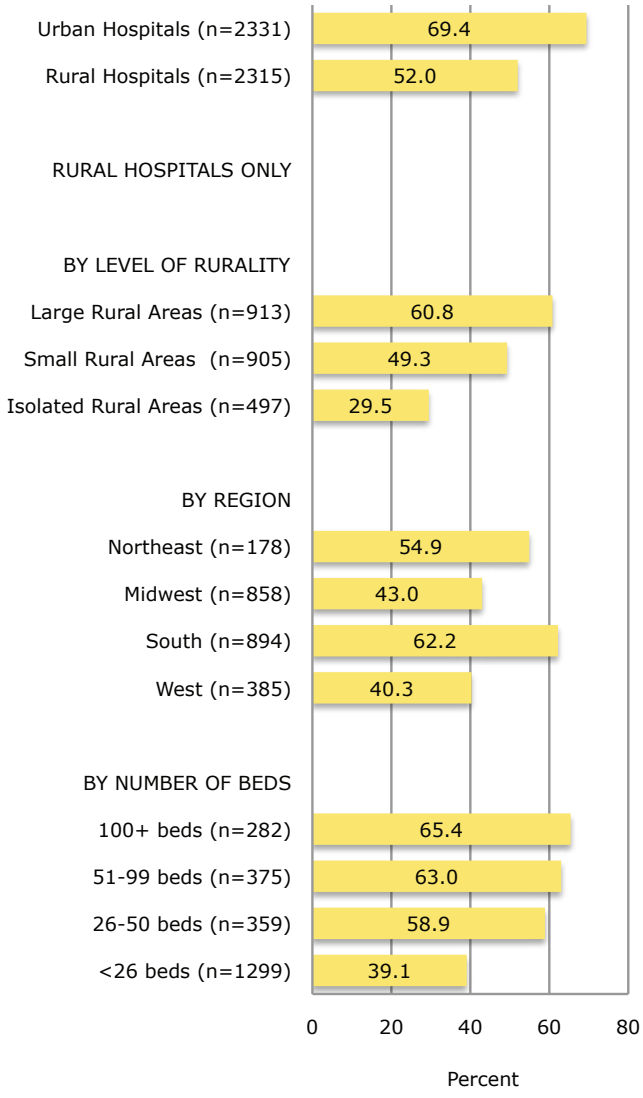
Patient Deductions: Allowances and Discounts to Revenue

The median percent of patient deductions (the portion of each revenue dollar that a hospital gives up) is higher for urban hospitals (69.4%) than for rural hospitals (52.0%). There is variability in median patient deductions across rural areas with the lowest patient deductions in isolated areas (29.5%) and the highest in large rural areas (60.8%).

The median percent of patient deductions also varies by region of the country. The West and Midwest are similar with deductions around 40%, but deductions are higher in the Northeast and South at 54.9% and 62.2% respectively. Patient deductions also vary by hospital size. The smallest hospitals have notably lower median deductions at 39.1% compared to larger hospitals.

Patient Deductions measures the amount each dollar of patient revenue is reduced by allowances or discounts. Higher patient deductions may indicate a higher volume of services provided, higher rate structure, or higher penetration of managed care contracts.

Median Patient Deductions (2012–13)



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Medicare Payment Programs

Critical Access Hospitals (CAHs) make up more than one-half of rural hospitals. Hospitals in small and isolated rural areas and those in the Midwest and the West are predominantly CAHs.

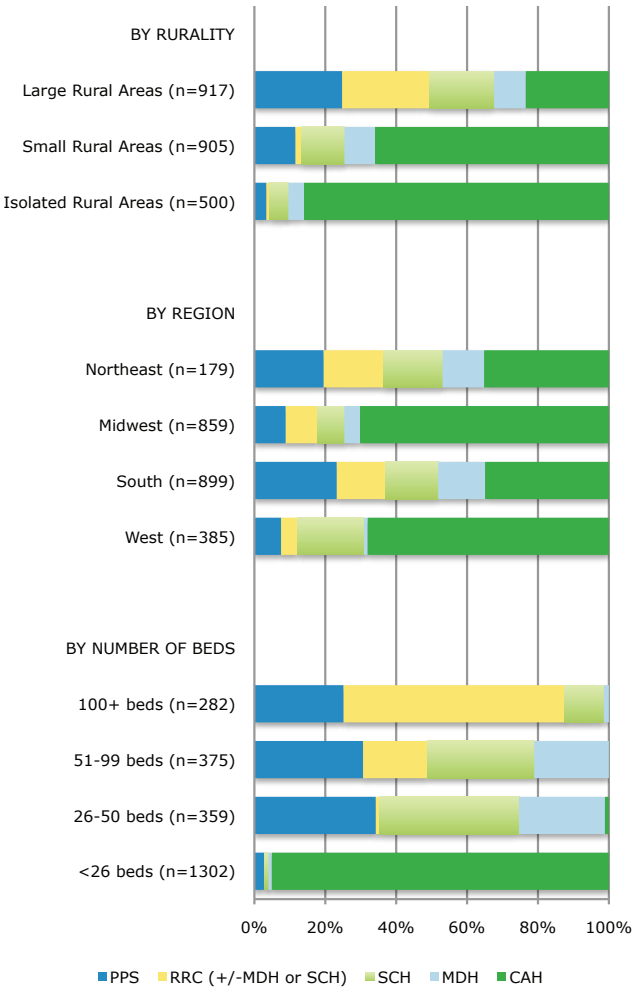
Hospitals designated as only Sole Community Hospitals (SCHs) make up 13% of rural hospitals and are most common in large rural areas (18%), in the West (19%) and in hospitals with 26–50 beds (39%). Hospitals designated as only Medicare Dependent Hospitals (MDHs) make up 8% of rural hospitals and are more common in small and large rural areas compared to isolated areas (9%, 9% and 4%, respectively). They are also more prevalent in the South (13%) and Northeast (12%) and among hospitals with 26–99 beds (23%).

Rural Referral Centers (RRCs) make up 11% of rural hospitals and may also be classified as MDHs or SCHs. RRCS are generally larger hospitals; 62% of 100+ bed hospitals are RRCs. They are most common in the Northeast (17%) and least common in the West (6%).

Rural hospitals may qualify for special Medicare payment programs designed to support the rural health care infrastructure. These payment programs recognize the challenges of providing care in rural settings and provide enhanced or supplemental reimbursement. Qualifications for these programs are complex and may include location, hospital size, staffing, network agreements, patient demographics including insurance, and patient referral patterns. More information on the rural payment programs highlighted here, can be obtained through the Medicare Learning Network (http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNGenInfo/index.html?redirect=/mlngeninfo).

Rural hospitals that do not qualify for one of these programs are paid through the standard Medicare Prospective Payment System (PPS).

Rural Hospitals (%) by Medicare Payment Program (2012–13)



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The North Carolina Rural Health Research Program

The North Carolina Rural Health Research Program (NC RHRP) at the Cecil G. Sheps Center for Health Services Research is built upon more than 40 years of rural health research at The University of North Carolina at Chapel Hill. NC RHRP seeks to address problems in rural health care delivery through basic research, policy-relevant analyses, geographic and graphical presentation of data, and the dissemination of information to organizations and individuals who can use the information for policy or administrative purposes to address complex social issues affecting rural populations.

NC RHRP's research involves primary data collection, analysis of large secondary data sets, and in-depth policy analysis. The program's diverse, multidisciplinary team includes health care professionals and experts in biostatistics, geography, epidemiology, economics, sociology, anthropology, and political science. Our active dissemination component emphasizes the use of geographic methods in research. With a primary focus on Medicaid and Medicare policy, NC RHRP has examined rural health care topics as diverse as hospital finance, emergency medical services, swing bed care, access to care for children with Medicaid, Cesarean section, availability of pharmacy services including impact of Medicare Part D and the 340B Pharmacy Program, intensive care in Critical Access Hospitals, labor costs and the area wage index, and premium assistance programs, among others. NC RHRP also maintains the professional and data resources to respond to quick turn-around data analyses for policy makers, legislators, community programs and others.

The North Carolina Rural Health Research Program's project portfolio currently includes the NC Rural Health Research and Policy Analysis Center and the Medicare Rural Hospital Flexibility Program. These projects are funded by the U.S. Department of Health and Human Services Office of Rural Health Policy.

For more information about the work of the North Carolina Rural Health Research Program, go to:

http://www.shepscenter.unc.edu/programs-projects/rural-health/

Information on research conducted by all of the federally funded Rural Health Research Centers is compiled and available at the Rural Health Research Gateway:

http://www.ruralhealthresearch.org