Press Release

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N.C. Center Says 16 Rural Hospitals Are "At-Risk"

Sixteen rural North Carolina hospitals are "at risk" of failing to meet their service missions and are candidates for possible shutdown or evolution into rural health clinics, the N.C. Center for Public Policy Research says in a new report released today. The Center says the 16 rural hospitals have abnormal utilization rates and two-thirds of them lost money in 1989, the most recent year for which comparable data are available.

"Rural hospitals are not getting enough patients, enough local support, or enough income to be strong, secure providers of health care in rural areas," says Jack Betts, editor of the Center's quarterly magazine, **North Carolina Insight**. "While our research data do not predict the **at risk** hospitals will close, it is clear that these hospitals may need to re-evaluate their mission, services, and financial condition if they are to continue as vital links in the health care chain in rural areas."

Performed in conjunction with the Rural Health Research Program at the University of North Carolina at Chapel Hill, the research was featured in one of the articles in a theme issue of **Insight** on health care in North Carolina. It also is featured as part of an hour-long documentary on rural health, entitled "Prescription for Change," to be aired statewide tonight on North Carolina Public Television at 9 p.m. This is the seventh joint production for the two centers since 1987.

The N.C. Center examined five key areas of rural hospital utilization for the article and for the documentary. The Center also looked at the most recent net income figures publicly available for rural hospitals.

The research identified eight rural hospitals that were rated abnormal on at least three of the five utilization criteria. These eight hospitals, identified as substantially at risk hospitals, are Blowing Rock Hospital in Watauga County, Highlands-Cashiers Hospital in Macon County, Our Community Hospital in Halifax County, Sea Level Hospital in Carteret County, Ashe Memorial Hospital in Ashe County, Crawley Memorial Hospital in Cleveland County, Person County Memorial Hospital, and Lake Norman Regional Medical Center in Iredell County.

The research identified eight additional hospitals that were abnormal on two of the five measures, and thus are described as moderately at risk hospitals. They are Bertie Memorial Hospital, District Memorial Hospital in Cherokee County, Kings Mountain Hospital in Cleveland County, Murphy Medical Center in Cherokee County, Beaufort County Hospital, Davis Community Hospital in Iredell County, Heritage Hospital in Edgecombe County, and Park Ridge Hospital in Henderson County.

Six other rural hospitals were abnormal on only one measure, and were not characterized as **at risk** hospitals. However, their utilization measures and financial health do bear watching by state and local hospital officials.

The Center says hospitals **at risk** were identified by significantly lower utilization rates on five key measures: (1) low occupancy rates, suggesting that services and facilities aren't being used to their fullest capacity; (2) low number of total days of patient care, indicating declining use; (3) low discharges, also indicating declining use and growing difficulty in meeting fixed costs; (4) high percentage of patient discharges who are 65 years or older, implying a high Medicare dependency and potentially greater risk of financial difficulties; and (5) low percentage of its county's discharges, suggesting patient out-migration for hospital care and loss of market share, with long-term adverse consequences for a hospital's future.

On occupancy rates, for example, the state Division of Facility Services says hospitals should have at least a 70-80 percent occupancy rate for licensed beds, depending upon the hospital's size. Twelve of the 16 hospitals identified as **at risk** had occupancy rates of less than 50 percent. "When you see these kinds of utilization rates on three of five key measures, and troubled financial conditions as well, it's clear why these hospitals should be designated as **at risk** hospitals," says Betts.

Insight also examined the financial health of the 16 institutions by examining the most recently available net income figures reported to the U.S. Health Care Financing Administration. Of the eight **substantially at risk** hospitals, five (62.5 percent) had negative net income in 1989. And of the eight **moderately at risk** hospitals, another five had negative income in 1989.

"More than four of every 10 North Carolina residents live in rural areas, and rural citizens depend upon their local hospitals and other health providers for emergency care as well as for longer-term health needs," says Betts. "Most of these hospitals have done an outstanding job under difficult circumstances, year in and year out. But it's increasingly clear that many of them are struggling to remain open and to provide the kind of care rural residents need."

North Carolina has 118 general acute-care hospitals, and 73 of them are rural hospitals serving rural areas. Eighteen of North Carolina's 100 counties have no hospitals, and residents in these areas must either travel to urban areas to seek care at larger hospitals, depend on local health care clinics and doctor's offices, or use nearby rural hospitals.

The difficulties of rural hospitals reflect general health care delivery problems in rural areas, says Jim Bernstein, director of the state's Office of Rural Health and Resource Development in the Department of Human Resources. "We've got hospitals in trouble, we don't have enough doctors -- especially primary care doctors -- and we have a payment system that is out of whack," says Bernstein.

Reasons for the decline in utilization of rural hospitals abound, ranging from the lure of high-tech care in large urban hospitals to the out-migration of younger and more affluent patients. But usually, rural hospitals do not offer the services patients can get in urban hospitals. "Most residents leave rural area hospitals because they need care that their local facility does not and cannot deliver," says James Queen, administrator of Our Community Hospital in Halifax County. "For example, Our Community Hospital has not performed surgery or delivered babies in seven years, so residents with these needs must go elsewhere. It is not a matter of choice."

In 1989, the N.C. Hospital Association reported that a survey of its members anticipated that by the year 2000, as many as 20 hospitals will close, representing a net loss of 530 beds. Bernstein, who directs the N.C. Office of Rural Health, says, "A number of our smaller hospitals don't have any other option but to close over the next few years."

The Center says its purpose in identifying **at risk** hospitals is to help state policymakers and the affected communities to focus their debate about what health services they need and can afford. The Center emphasizes that the designation of these **at-risk** hospitals does not predict that any of the hospitals will close or that they cannot thrive in the future. For instance, Sea Level Hospital already is changing from an acute-care hospital to an extended care facility. And even the sole hospital that is abnormal on all five utilization measures, Highlands-Cashiers, is in little danger of closing, Bernstein says, "because the wealthy population it serves will most likely not allow that to happen."

Some hospital administrators noted that small rural hospitals always have faced a financial and service struggle. Shannon Elswick, president and chief executive officer of Highlands-Cashiers Hospital, put it this way: "One would have to assume that Highlands-Cashiers Hospital has been considered **at risk** since the hospital opened in 1952. As with many other small rural facilities constructed in the Hill-Burton era, it was built to provide primary care to the residents of the immediate area. Providing an adequate level of care to the residents has never been an easy task, but has been accomplished throughout the years."

Three rural hospitals have closed in North Carolina since 1985 -- Warren County General in 1985; Blackwelder Hospital in Caldwell County in 1988; and Robersonville Community Hospital in Martin County in 1989. Robersonville Community reopened after two doctors agreed to move to the town. Similarly, a clinic is operating at the old Warren County General, where the county health department and a community health center offer services.

●ther small hospitals should begin preparing for such a future, Bernstein says. "Some counties will position themselves to provide care and thrive," predicts Bernstein, "but others won't, they won't have care, and they're just going to dry up. They won't have health care."

North Carolina is one of seven states that will participate in the Essential Access Community Hospital Program, a new federal program designed to help rural hospitals stay open. Under this program, six rural hospitals will be designated Rural Primary Care Hospitals. This means they will offer limited services but will develop formal relationships with larger rural hospitals. The hospitals will shut down most of their beds and serve chiefly as outpatient and emergency care clinics, while their larger partner hospitals will provide care for more severe or complicated cases that require a stay of longer than 72 hours. Six of the hospitals approved for this program show at least one sign of being **at-risk**.

N.C. Hospitals in the Essential Access Community Hospital Program

Rural Primary Care Hospitals	Essential Access Community Hospitals
Anson County Hospital (1)	Richmond Memorial Hospital
Bertie County Memorial (2)	Chowan Hospital
Blowing Rock Hospital (3)	Watauga Hospital (1)
Burnsville Hospital	Spruce Pine Hospital
Our Community Hospital (4)	Halifax Memorial Hospital
Sea Level Hospital (3)	Carteret General Hospital

(Hospitals on the left are paired with the hospitals on the right.)
(Parentheses indicates number of utilization measures on which the hospital was rated abnormal.)

Tom Ricketts, director of the N.C. Rural Health Research Program at UNC-Chapel Hill, says more and more rural hospitals will shift to new arrangements that will more accurately satisfy the needs of the community. "Medicine has changed so drastically just in recent years alone," notes Ricketts. "It was logical 30 years ago to have a 30-to-60 bed hospital" in many rural communities, but financial pressures and service patterns make it hard for those hospitals to survive today. To do so, rural hospitals must offer what the community needs, not try to compete with the huge mega-medicine centers in Chapel Hill and Durham and Charlotte. "I'm a big advocate of regrouping services," Ricketts adds. Adds Bernstein, "We just can't have so many rural hospitals with their patient population going to urban areas. What they [rural hospitals] need to do is to find their niches of care."

The N.C. Center for Public Policy Research is an independent, nonpartisan, nonprofit corporation created to study public policy issues facing North Carolina and evaluate state government programs. This research project was supported by grants from the A.J. Fletcher Foundation in Raleigh and The Kathleen Price and Joseph M. Bryan Family Foundation in Greensboro. The Center also receives general operating support from the Z. Smith Reynolds and Mary Reynolds Babcock Foundations, 120 corporate contributors, and more than 600 individual and organizational members.

In addition to publishing North Carolina Insight magazine, the Center has conducted studies on disparities in funding among rich and poor school districts in North Carolina, campaign finance, mountain-area land-use management, and a comparison of the formal powers of all 50 governors.

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Copies of the issue of Insight magazine containing the research on rural hospitals and health care policy in North Carolina can be obtained from the Center for $12.70, plus $1.50 for postage and handling. To order, call (919) 832-2839, or write the N.C. Center, P.O. Box 430, Raleigh, N.C. 27602.

For more information, call Jack Betts or Mike McLaughlin at the Center at (919) 832-2839.

Table 3. North Carolina Rural Hospitals at Substantial Risk

	1 % Occupancy 1989	2 Discharges 1989	3 Days of Care 1989	4 % Disch. ≥ 65 yrs. 1989	5 % County Disch. 1989	6 Net Income 1989
Hospitals with Fewer than 50 Beds [1] *(standard deviation)*	45.5 (-17)	1026 (-552)	6709 (-3314)	52.9 (+13)	28.0 (-20)	
Blowing Rock Hospital	50.1	390	5116	66.2	6.0	$144,513
Highlands-Cashiers Hospital	14.0	339	1383	67.9	5.2	($529,405)
Our Community Hospital	33.2	123	2425	82.1	1.4	($130,855)
Sea Level Hospital & Extended Care	36.2	386	2111	61.4	5.7	($23,111)
Hospitals with 50 to 99 Beds [2] *(standard deviation)*	56.7 (-14)	2405 (-1133)	14586 (-5676)	40 (+9)	43.7 (-18)	
Ashe Memorial Hospital	41.5	1527	8632	54.8	50.9	$32,836
Crawley Memorial Hospital	66.0	262	12288	66.0	1.6	($111,766)
Person County Memorial Hospital	36.4	1010	7176	58.0	27.2	($902,524)
Hospitals with 100 or more Beds *(standard deviation)*	66.9 (-14)	6716 (-3726)	46254 (-32230)	34.1 (+7)	61.9 (-20)	
Lake Norman Regional Medical Center	34.8	2843	14346	42.6	17.4	$535,445

These eight hospitals were more than one standard deviation away from the average on three or more measures. Shaded areas indicate that the hospital is more than one standard deviation from the mean in the direction that may indicate distress. A standard deviation "(±)" shows the dispersion of the values around the average; it is the square root of the average of the squared deviations from the sample mean. For example, the average occupancy rate for large rural hospitals was 66.9%; its standard deviation was 14. Thus, hospitals with less than 52.9% occupancy are more than 1 standard deviation from the average, and labeled abnormal.

Parentheses in column 6 indicate negative net income; figures without parentheses show positive net income.

[1] The average occupancy rate for each group was calculated by averaging the individual occupancy rates; an alternative method to calculate the measure is:
(Group's Total Days of care)/(Group's Total Beds in Use X 365)

[2] Averages for this size group were calculated without Crawley Memorial Hospital because of its extreme values

Source: N.C. Center for Health & Environmental Statistics; Health Facilities Data Book: Hospital Summary Report, 1989. *Prepared by Jeanne Lambrew & Glenn Wilson, N.C. Rural Health Research Center, Cecil G. Sheps Center for Health Services Research, UNC-Chapel Hill.*

Table 4. North Carolina Rural Hospitals at Moderate Risk

	1 % Occupancy 1989	2 Discharges 1989	3 Days of Care 1989	4 %Disch. ≥ 65 yrs. 1989	5 % County Disch. 1989	6 Net Income 1989
Hospitals with Fewer than 50 Beds [1]	45.5	1026	6709	52.9	28.0	
(standard deviation)	(-17)	(-552)	(-3314)	(+13)	(-20)	
Bertie Memorial Hospital	25.1	471	4481	50.1	18.1	($402,782)
Hospitals with 50 to 99 Beds [2]	56.7	2405	14586	40	43.7	
(standard deviation)	(-14)	(-1133)	(-5676)	(+9)	(-18)	
District Memorial Hospital of Cherokee	66.3	992	12586	49.8	27.3	($75,730)
Kings Mountain Hospital	40.5	1837	13601	41.4	11.3	($118,670)
Murphy Medical Center	41.0	1828	7477	44.2	45.8	$898,959
Hospitals with 100 or more Beds	66.9	6716	46254	34.1	61.9	
(standard deviation)	(-14)	(-3726)	(-32230)	(+7)	(-20)	
Beaufort County Hospital	48.2	3658	20576	44.2	51.7	$277,917
Davis Community Hospital	44.1	3702	23975	22.9	16.6	($292,227)
Heritage Hospital	49.1	3269	22754	28.9	39.5	($648,898)
Park Ridge Hospital	63.0	2303	23688	37.7	17.3	$412,649

These eight hospitals were more than one standard deviation away from the average on two measures. Shaded areas indicate that the hospital is more than one standard deviation from the mean in the direction that may indicate distress. A standard deviation "(±)" shows the dispersion of the values around the average; it is the square root of the average of the squared deviations from the sample mean. For example, the average occupancy rate for large rural hospitals was 66.9%; its standard deviation was 14. Thus, hospitals with less than 52.9% occupancy are more than 1 standard deviation from the average, and labeled abnormal.

Parentheses in column 6 indicate negative net income; figures without parentheses show positive net income.

[1] The average occupancy rate for each group was calculated by averaging the individual occupancy rates; an alternative method to calculate the measure is:
(Group's Total Days of care)/(Group's Total Beds in Use X 365)

[2] Averages for this size group were calculated without Crawley Memorial Hospital because of its extreme values

Source: N.C. Center for Health & Environmental Statistics; Health Facilities Data Book: Hospital Summary Report, 1989. *Prepared by Jeanne Lambrew & Glenn Wilson, N.C. Rural Health Research Center, Cecil G. Sheps Center for Health Services Research, UNC-Chapel Hill.*

Table 1. Rural Hospitals in North Carolina

1	2	3	4	5	6	7	8	9
County	County Population	Hospital	Type of Ownership	Staffed Beds in Use	% Occupied		% Discharges From County	
	1990		1989	1989	1980	1989	1980	1989
Alleghany	9,590	Alleghany County Memorial Hospital	NPA	46	46.0	50.1	67.2	64.0
Anson	23,474	Anson County Hospital	CNTY	52	81.0	43.3	57.0	49.0
Ashe	22,209	Ashe Memorial Hospital	NPA	57	63.8	41.5	64.3	50.9
Avery	14,867	Charles A. Cannon Jr. Memorial Hospital	NPA	79	54.1	45.1	41.2	32.1
		Sloop Memorial Hospital	NPA	38	64.1	57.7	37.9	42.4
Beaufort	42,283	Beaufort County Hospital	CNTY	117	69.3	48.2	58.4	51.7
		Pungo District Hospital	NPA	47	56.2	72.4	19.7	14.6
Bertie	20,388	Bertie Memorial Hospital	CNTY	49	61.5	25.1	32.6	18.1
Bladen	28,663	Bladen County Hospital	CNTY	42	91.6	65.0	46.7	49.3
Brunswick	50,985	Brunswick Hospital	PROP	60	39.4	38.8	24.5	24.3
		J. Arthur Dosher Memorial Hospital	TWNSHP	40	55.9	35.8	16.4	17.8
Caldwell	70,709	Caldwell Memorial Hospital	NPA	97	74.4	73.7	40.5	51.9
Camden	5,904							
Carteret	52,556	Sea Level Hospital & Extended Care	NPA	16	72.3	36.2	14.5	5.7
		Carteret County General Hospital*	CNTY	117	75.5	67.6	65.5	69.6
Caswell	20,693							
Chatham	38,759	Chatham Hospital	NPA	46	71.6	67.0	40.7	33.3
Cherokee	20,170	District Memorial Hospital of SW N.C.	DIST	52	40.5	66.3	39.4	27.3
		Murphy Medical Center	AUTH	50	52.6	41.0	41.4	45.8
Chowan	13,506	Chowan Hospital	CNTY	70	91.6	47.0	74.5	74.3
Clay	7,155							
Cleveland	84,714	Crawley Memorial Hospital	NPA	51	52.5	66.0	7.7	1.6
		Kings Mountain Hospital	NPA	92	78.2	40.5	14.0	11.3
		Cleveland Memorial Hospital*	CNTY	239	74.8	65.6	65.0	62.4
Columbus	49,587	Columbus County Hospital*	CNTY	136	87.5	80.0	69.0	70.5
Craven	81,613	Craven County Hospital *	NPA	276	92.0	78.7	82.5	83.0
Currituck	13,736							
Dare	22,746							
Duplin	39,995	Duplin General Hospital	CNTY	60	60.2	64.7	35.2	41.4
Edgecombe	56,558	Heritage Hospital	PROP	127	59.9	49.1	37.8	39.5
Gates	9,305							
Graham	7,196							
Granville	38,345	Granville Medical Center	CNTY	66	59.0	48.6	38.5	41.6
Greene	15,384							
Halifax	55,516	Halifax Memorial Hospital	DIST	171	84.8	87.3	64.5	62.7
		Our Community Hospital	NPA	20	37.7	33.2	3.6	1.4
Harnett	67,822	Betsy Johnson Memorial Hospital**	CITY	77	69.4	68.3	33.3	31.0
		Good Hope Hospital**	NPA	72	93.7	67.8	17.5	16.0
Haywood	46,942	Haywood County Hospital	CNTY	152	61.2	61.8	78.0	70.1
Henderson	69,285	Margaret R. Pardee Memorial Hospital	CNTY	155	71.8	65.2	68.7	58.1
		Park Ridge Hospital	NPA	103	65.6	63.0	16.9	17.3
Hertford	22,523	Roanoke-Chowan Hospital	NPA	100	81.7	75.6	86.1	82.0
Hoke	22,856							
Hyde	5,411							
Iredell	92,931	Davis Community Hospital	PROP	149	70.5	44.1	24.1	16.6
		Iredell Memorial Hospital	CNTY	183	84.1	80.5	39.4	49.3
		Lake Norman Regional Medical Center	PROP	113	76.6	34.8	18.9	17.4
Jackson	26,846	C.J. Harris Community Hospital	NPA	86	71.4	61.9	75.3	70.6
Johnston	81,306	Johnston Memorial Hospital*	CNTY	114	66.9	70.6	45.9	40.1

Source: N.C. Center for Health & Environmental Statistics; Health Facilities Data Book: Hospital Summary Report & Patient Origin Reports, 1980; 1989;

1	2	3	4	5	6	7	8	9
County	County Population	Hospital	Type of Ownership	Staffed Beds in Use	Staffed Beds % Occupied		% Discharges From County	
	1990		1989	1989	1980	1989	1980	1989
Jones	9,414							
Lee	41,374	Central Carolina Hospital	PROP	137	59.9	55.0	63.6	59.2
Lenoir	57,274	Lenoir Memorial Hospital*	CNTY	226	85.2	76.0	80.9	78.1
Macon	23,499	Angel Community Hospital	NPA	81	66.7	57.2	65.0	62.9
		Highlands-Cashiers Hospital	NPA	27	19.8	14.0	7.3	5.2
Madison	16,953							
Martin	25,078	Martin General Hospital	CNTY	49	70.4	46.0	42.9	37.7
McDowell	35,681	McDowell Hospital	NPA	65	71.0	74.5	53.1	63.8
Mitchell	14,433	Blue Ridge Hospital System	NPA	70	56.8	54.9	68.5	62.5
Montgomery	23,346	Montgomery Memorial Hospital	NPA	50	64.7	46.3	64.5	46.6
Moore	59,013	Moore Regional Hospital*	NPA	312	85.0	85.6	86.6	81.3
Nash	76,677	Community Hospital of Rocky Mount	PROP	50	54.4	54.9	7.5	6.8
		Nash General Hospital*	CNTY	282	88.4	76.5	61.0	60.2
Northampton	20,798							
Pamlico	11,372							
Pasquotank	31,298	Albemarle Hospital*	CNTY	137	68.9	80.1	93.5	93.5
Pender	28,855	Pender Memorial Hospital	CNTY	43	78.1	56.6	37.7	31.4
Perquimans	10,447							
Person	30,180	Person County Memorial Hospital	NPA	54	77.9	36.4	46.4	27.2
Pitt	107,924	Pitt County Memorial Hospital*	CNTY	501	84.1	94.7	86.7	94.2
Polk	14,416	St. Luke's Hospital	NPA	52	56.1	81.0	69.1	69.2
Richmond	44,518	Hamlet Hospital	PROP	64	38.9	43.8	9.9	17.7
		Richmond Memorial Hospital	CNTY	88	58.1	61.0	55.3	42.4
Robeson	105,179	Southeastern General Hospital*	NPA	281	77.5	70.1	65.3	64.6
Rockingham	86,064	Annie Penn Memorial Hospital	NPA	90	75.7	81.1	38.7	29.9
		Morehead Memorial Hospital	NPA	85	63.0	76.8	31.7	34.3
Rutherford	56,918	Rutherford Hospital*	NPA	145	72.3	52.4	64.9	68.1
Sampson	47,297	Sampson County Memorial Hospital	CNTY	116	76.5	60.3	62.5	60.1
Scotland	33,754	Scotland Memorial Hospital	NPA	124	50.7	53.9	71.7	66.2
Stanly	51,765	Stanly Memorial Hospital	NPA	124	67.2	56.8	56.0	59.8
Surry	61,704	Hugh Chatham Memorial Hospital	NPA	58	55.5	66.3	15.4	14.3
		Northern Hospital of Surry County	DIST	116	96.0	61.0	42.9	47.4
Swain	11,268	Swain County Hospital	NPA	46	64.7	40.8	56.2	41.0
Transylvania	25,520	Transylvania Community Hospital	NPA	94	54.7	55.0	63.6	59.9
Tyrrell	3,856							
Vance	38,892	Maria Parham Hospital	NPA	78	66.0	74.0	66.9	58.1
Warren	17,265							
Washington	13,997	Washington County Hospital	CNTY	49	60.5	32.9	56.7	52.5
Watauga	36,952	Blowing Rock Hospital	NPA	28	50.0	50.1	10.6	6.0
		Watauga County Hospital	CNTY	141	52.5	51.3	71.8	68.8
Wayne	104,666	Wayne Memorial Hospital*	NPA	261	73.1	76.9	82.0	79.8
Wilkes	59,393	Wilkes General Hospital	CITY	111	72.1	77.8	59.6	64.0
Wilson	66,061	Wilson Memorial Hospital*	NPA	277	84.6	74.3	91.6	81.8
Yancey	15,419							

* indicates a Rural Referral Hospital

** Harnett County hospitals have been designated as urban for Medicare reimbursement and thus are not included in the analyses of rural hospitals

indicates no hospital in the county

Key to Ownership: NPA: non-profit association; CNTY: county; PROP: for-profit proprietary; TWNSHP: township; AUTH: hospital authority; DIST: district

and U.S. Census, 1990. *Prepared by Jeanne Lambrew, N.C. Rural Health Research Program, Cecil G. Sheps Center for Health Services Research.*