Research Portfolio of the North Carolina Rural Health Research & Policy Analysis Center

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Today’s discussion will:

- Describe some of our projects in three main focus areas
  - Rural Hospitals
  - Emergency Services
  - Medicaid
- Identify resources available to you
- Present limited research results

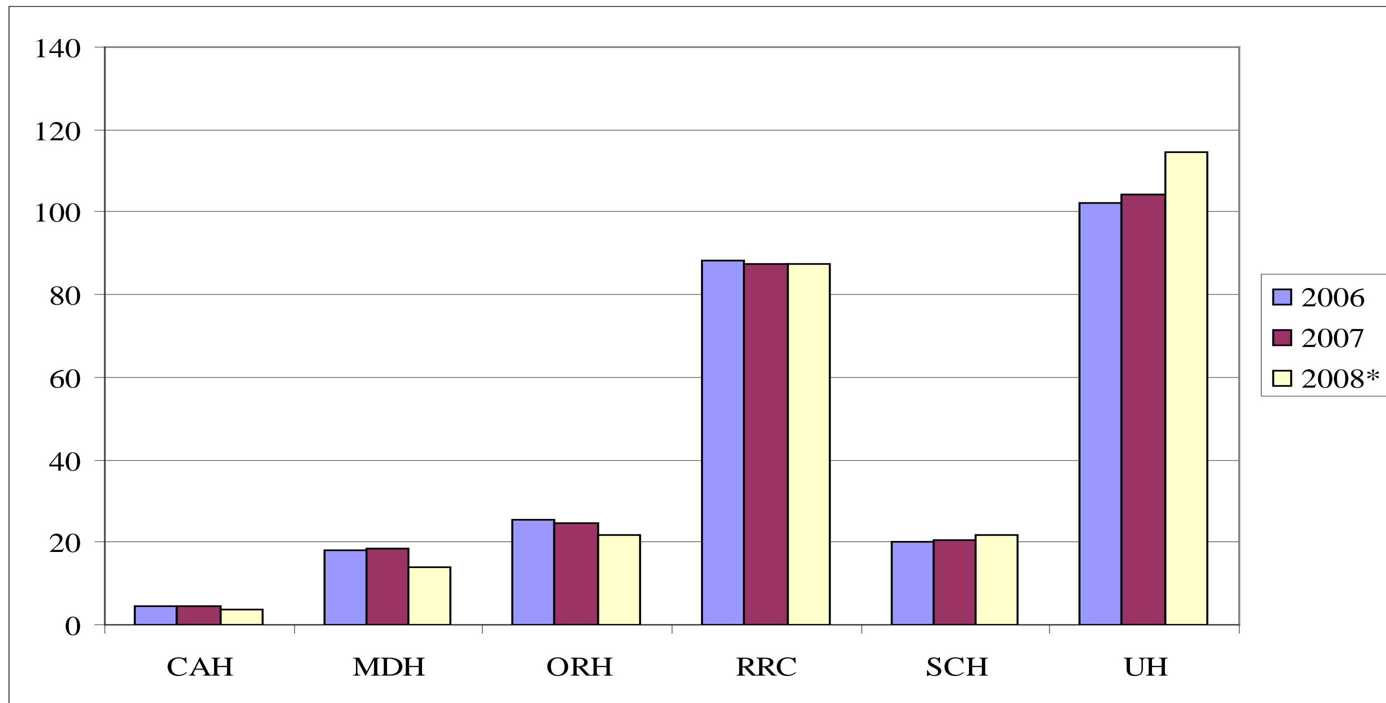
Rural Hospitals—Current Projects

- A rural-urban comparison of hospital financial performance by Medicare payment classification *(rural center)*
- A national survey of the financial status of rural hospitals in 2009 *(rapid response)*
- Critical Access Hospital Financial Indicators Report *(Flex Monitoring Team)*

A rural-urban comparison of hospital financial performance by Medicare payment classification

- Compares financial experience of rural hospitals by Medicare payment category
- Uses Medicare cost report data
- We can share state or regional level trends if useful

Average daily census – acute beds (median)



$$\frac{\text{Inpatient acute care bed days}}{\text{Days in period}}$$

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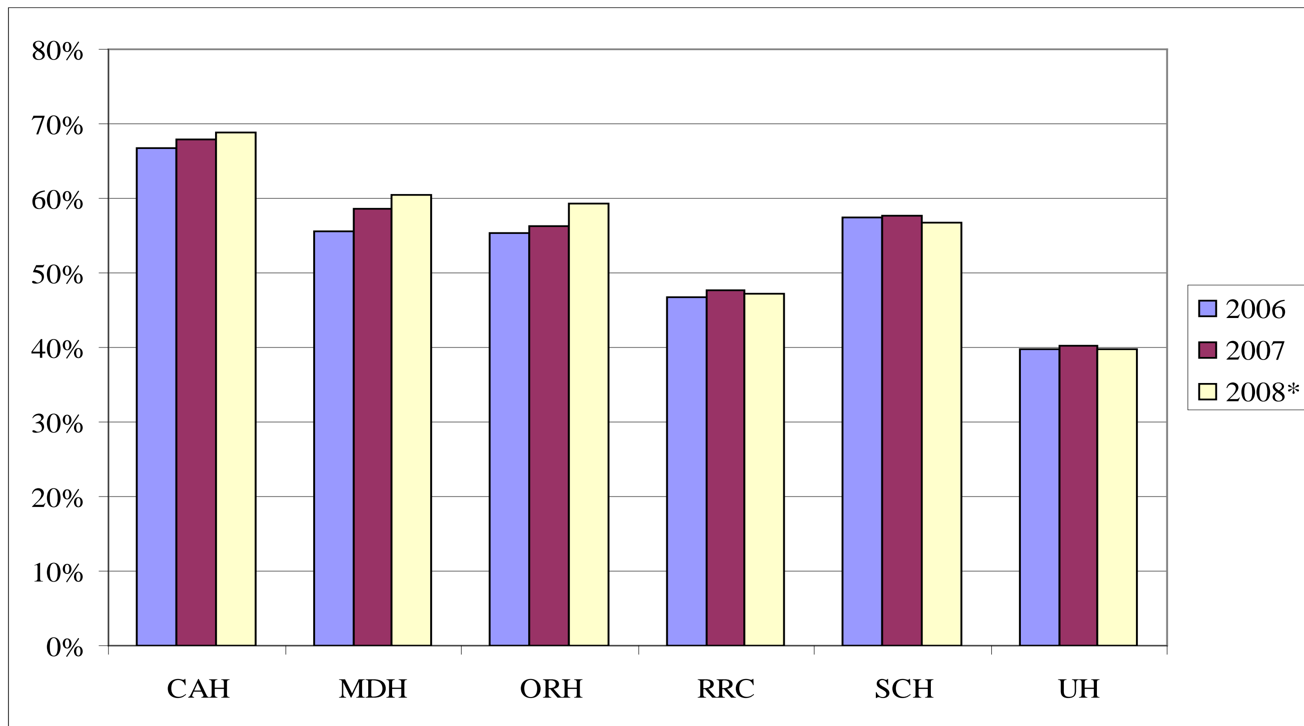
** Data for 2008 were incomplete at the time these slides were made*

Outpatient revenue to total revenue (median)



Total outpatient revenue
Total patient revenue

** Data for 2008 were incomplete at the time these slides were made*

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Percent with negative cash flow margins over time

*Only includes hospitals with data for all three years.

	2006	2007	2008
Critical Access Hospitals	24.47	23.96	23.45
Medicare dependent	25.61	18.29	28.05
Rural referral	3.32	6.64	7.11
Sole community	11.35	14.89	18.09
Other rural	15.63	20.09	20.98
Urban	17.20	16.33	20.46

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A national survey of the financial status of rural hospitals in 2009

- Purpose: Support health reform efforts
- 485 rural hospitals responded to a web survey
- Results will be available in a series of *Findings Briefs* over the coming weeks
- Promised confidentiality, can possible do regional aggregates

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Financial performance and condition compared to 6 months ago and future predictions:

- 59% rate their current operating activity and results as fair, poor, or extremely poor and 38% say it is worse than six months ago.
- Decreases are predicted by 49% for total margin, 46% for operating margin, and 43% for days cash on hand.
- 84% predict bad debt and charity care will increase over the next year.
- 50% percent predict their hospital's charitable contributions/philanthropy revenue will decrease over the next year.

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Financial performance and condition compared to 6 months ago and future predictions (cont)

- 36% report that liquidity and stability are worse than six months ago.
- 80% report that access to capital is difficult, and 36% believe it will get worse. 80% had capital projects planned for the current year: 13% stopped projects in progress, 50% decided not to move forward.
- 18% predict a smaller scale of operation a year from now, 24% predict a struggling operation, and 1% predict bankruptcy.
- Smaller hospitals are more likely to say that a year from now they predict they will be struggling, both CAHs and nonCAHs.

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Physician supply and hospital staff

- 84% consider physician supply to be a very important influence on financial condition.
- 37% have reduced staff in the past six months (either part-time, full time or both), with significant variation across hospital type:

  CAHs – 27%, Rural referral – 60%,

  Other rurals – 50%
- 40% percent predict the number of staff will decrease over the next year:

  CAHs – 35%, Rural referral – 45%

  Other rurals – 46%

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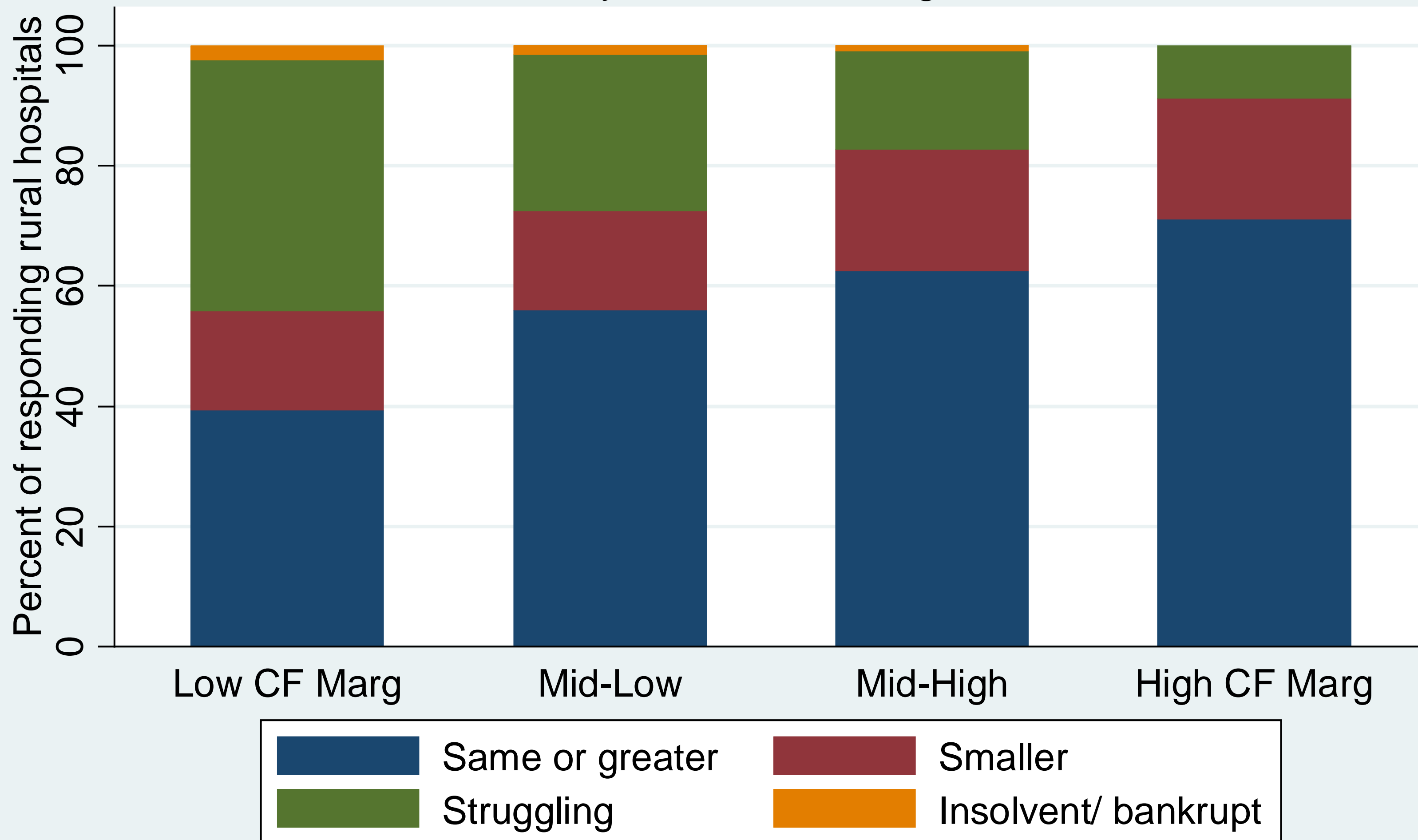
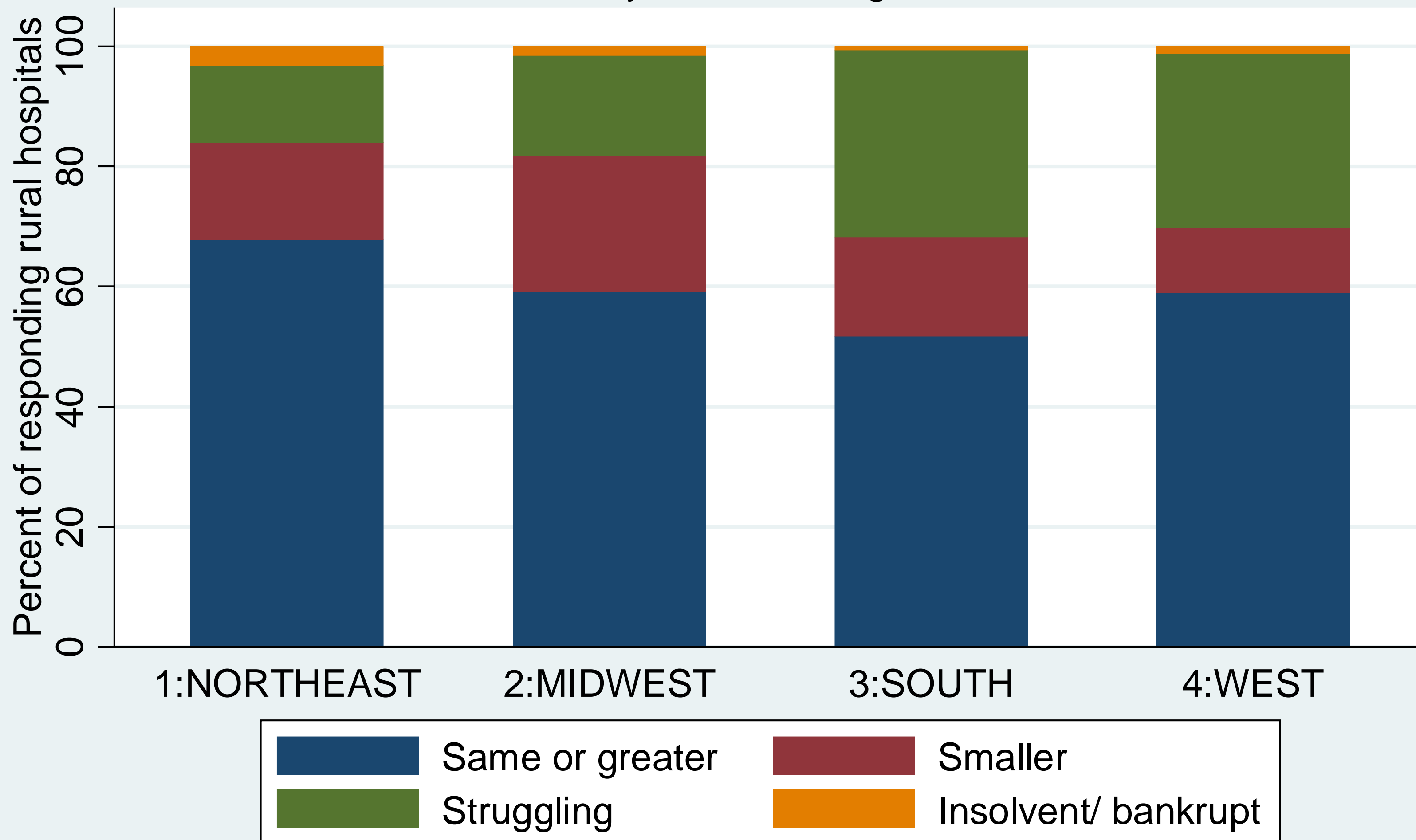
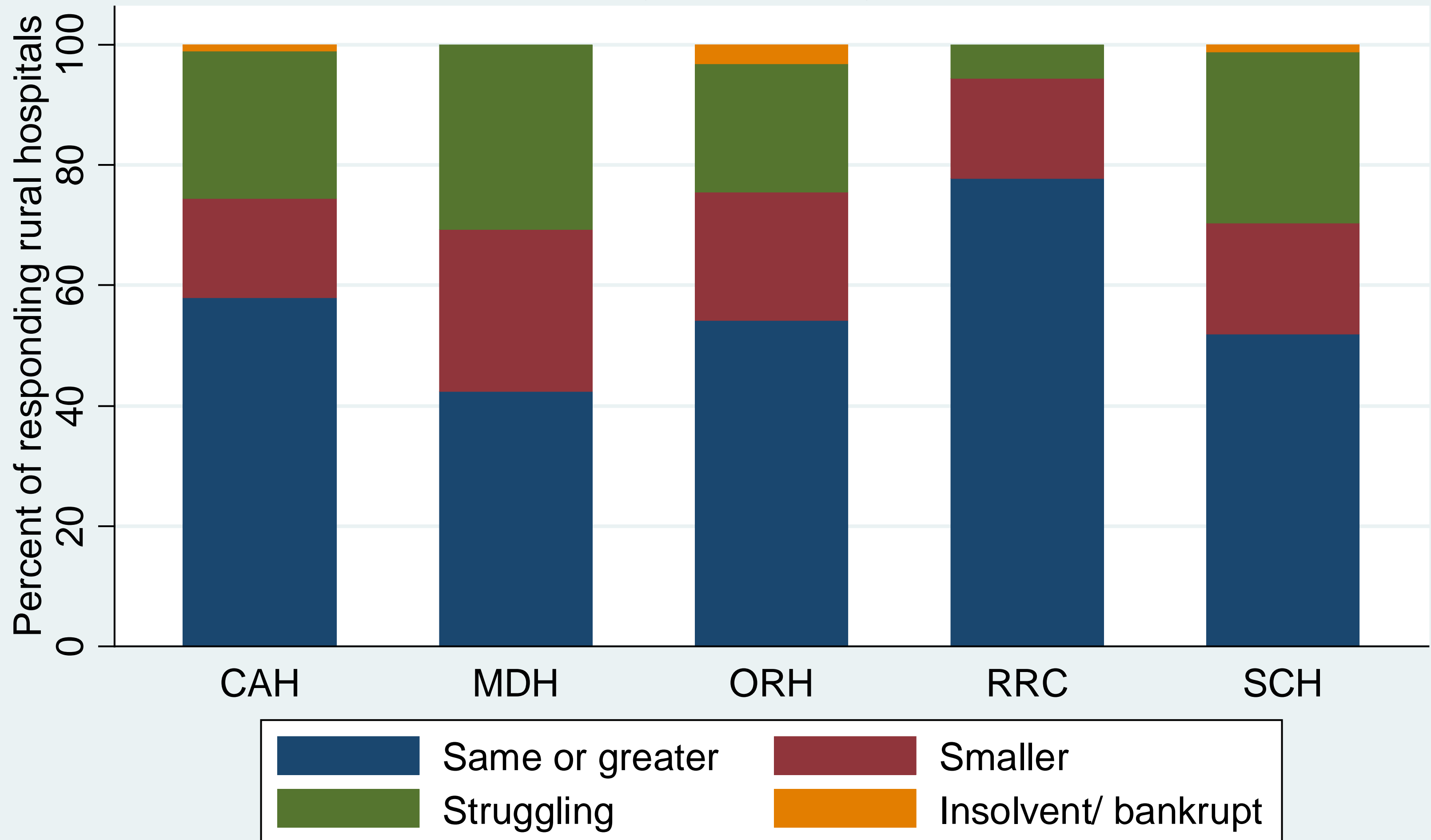
Access

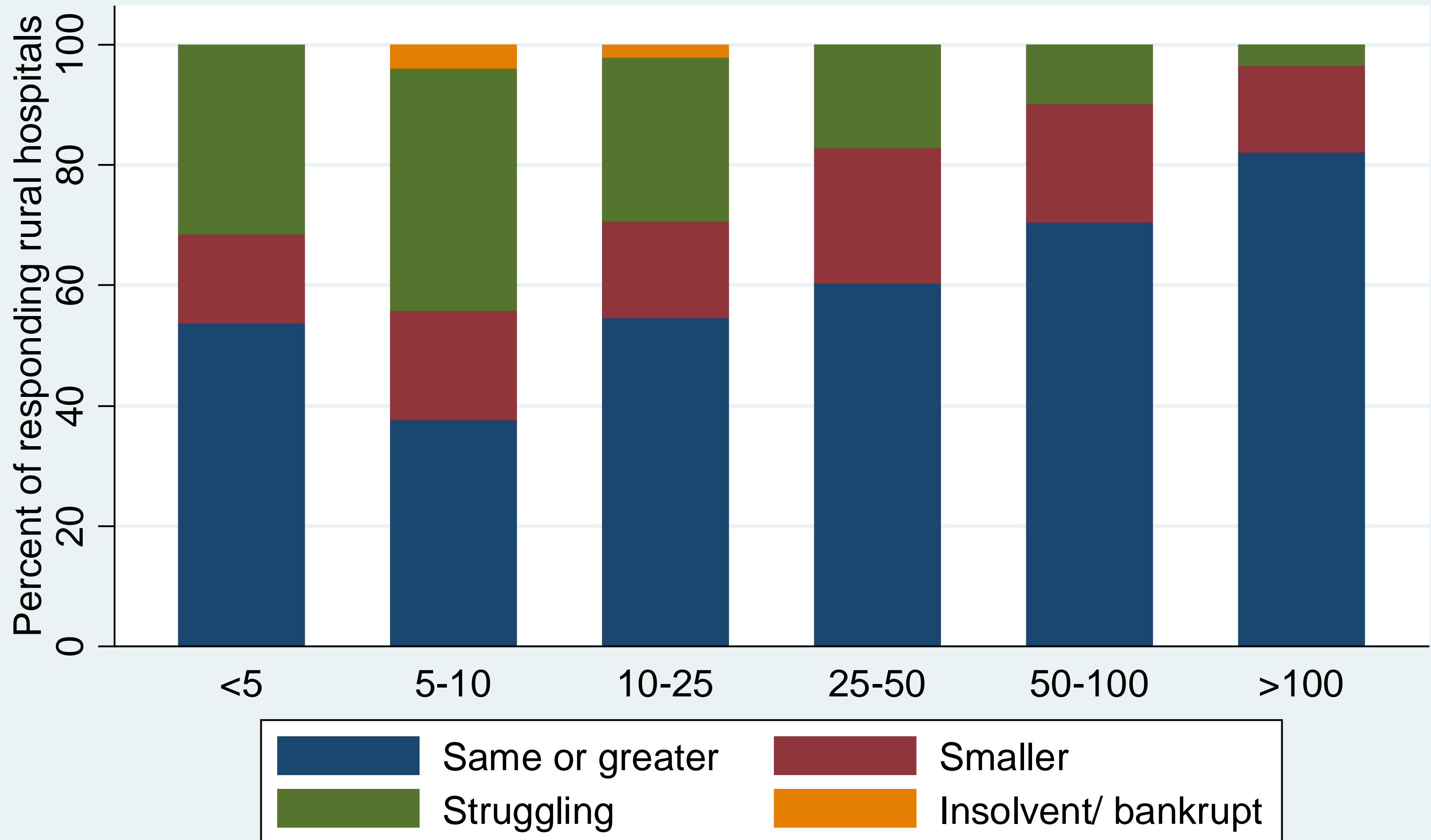
- 30% predict inpatient admissions will decrease
  CAHs – 29%, Other rurals – 34%
  Rural referral – 5%
- 30% expect outpatient visits to decrease.
- 55% predict number of elective procedures will decrease.
- 50% predict ED visits will increase next year
- Non-CAHs are significantly more likely to predict that elective procedures will decrease and ED visits will increase.


Prediction
By Cash Flow Margin
Percent of responding rural hospitals
0
20
40
60
80
100
Low CF Marg
Mid-Low
Mid-High
High CF Marg
Same or greater
Smaller
Struggling
Insolvent/ bankrupt
Data Pull Date: 13 May 2009



Prediction
By Census Region
Percent of responding rural hospitals
0
20
40
60
80
100
1:NORTHEAST
2:MIDWEST
3:SOUTH
4:WEST
Same or greater
Smaller
Struggling
Insolvent/ bankrupt
Data Pull Date: 13 May 2009


Prediction
By Hospital Type
Percent of responding rural hospitals
0
20
40
60
80
100
CAH
MDH
ORH
RRC
SCH
Same or greater
Smaller
Struggling
Insolvent/ bankrupt
Data Pull Date: 13 May 2009


Prediction
By Revenue
Percent of responding rural hospitals
0
20
40
60
80
100
<5
5-10
10-25
25-50
50-100
>100
Same or greater
Smaller
Struggling
Insolvent/ bankrupt
Data Pull Date: 13 May 2009

CAH Financial Indicators Report

- Work done by UNC as part of the Flex Monitoring Team over last 5 years
- Produce CAH-specific reports on 20 indicators of financial performance, 5 of which are compared to benchmark
- Data are available at a number of different levels:
  - CAH administrators can access their report on a password protected website
  - State Flex Coordinators can see all CAHs in their state (individual reports and summary tables)
  - Summary data reports are available publicly

EMS Research

- National survey of 1465 rural and urban local EMS directors (completed in 2006)

- Focus on:

  - Medical Direction

  - Recruitment and Retention of EMTs

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Selected Findings from the National Survey

- Rural EMS is more likely to be volunteer and freestanding, i.e., not affiliated with fire.

- Rural services are more likely to have problems getting a DMD. Main barrier to recruiting a DMD is willingness of local physicians <u>not</u> the lack of physicians.

- Rural EMS has more problems recruiting and retaining staff.

  - No time to volunteer – service cannot pay.

  - Training is too long, too far away, and too expensive

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Current Research

- Emergency Department Preparedness for Pediatric Care
- Workforce Challenges and Solutions for Rural Volunteer EMS
- Hospital-based Ambulance Service in Rural America

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Emergency Department Preparedness for Pediatric Care

- Part I: National survey data (EPSES 2002-03)

  - Survey of hospitals regarding ED pediatric care

  - Staffing and transfer arrangements

  - Availability of equipment for pediatric care

  - Compare rural hospitals to urban hospitals

Emergency Department Preparedness for Pediatric Care

- Part II: Rural Hospital ED Directors

  - 65 ED directors – phone or mail survey

  - Additional focus on staff training

  - Identify ways to improve pediatric care in ED

Emergency Department Preparedness for Pediatric Care

Preliminary Results

- Rural hospitals less likely to have
  - emergency medicine and pediatrics specialists
  - inpatient unit for pediatrics

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Emergency Department Preparedness for Pediatric Care

Preliminary Results - continued

- Equipment
  - 131 equipment or supply items in 6 categories
  - summary score = % of supplies in that category
  - compared average summary scores – rural vs. urban
- Rural lower than urban in two categories
  - Vascular access (19 items) – 71.4% vs 78.7%
  - Airway management (74 items) – 74.2% vs 83.8%
- 78% of hospitals we surveyed had a special pediatric emergency cart, most often a Broselow cart

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Emergency Department Preparedness for Pediatric Care

Preliminary Results

- Training for nurses and others in pediatric care is the main need
- Time and money are the barriers.

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Workforce Challenges and Solutions for Rural Volunteer EMS

(work in progress)

- Anecdotal reports of volunteer services failing
- Interviews with a randomly chosen sample of rural volunteer respondents to previous survey
- Changes in pay for volunteers
- Changes in revenue, e.g., billing
- Solutions to their workforce challenges

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Hospital-based Ambulance Service in Rural America
(work in progress)

- How can rural hospitals support EMS?

- How many hospitals provide EMS services themselves?

- What are the factors that influence a hospital's decision to implement EMS or discontinue EMS?

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Hospital-based Ambulance Service in Rural America– work in progress

Part I: Analysis of hospital cost report data to examine trends in the provision of EMS services among rural hospitals.

Part II: Semi-structured interviews with 12 hospitals across the US (3 hospitals each in 4 Census regions)

Hospital-based Ambulance Service in Rural America– work in progress

- Description of service
  - Equipment and staffing (EMTs and DMD)
  - Services provided – 9-1-1 response, critical care transport, nonemergency transport
- Relationship with other EMS providers
- Impact on hospital staffing and EMS staffing
- Reimbursement for services
- Factors in the decision to stop or start EMS

Medicaid

- Current study on participation rates
  - Among those that qualify, rural residents are more likely to enroll (76% versus 73%)
  - In rural areas, qualified children from families with incomes>200 FPL, and children 13 and older are much less like to enroll
- Website: state-specific documents with Medicaid information

http://www.shepscenter.unc.edu/medicaidprofiles/

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Reaching us

Website:

http://www.shepscenter.unc.edu/research_programs/rural_program/

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