Assessing Critical Access Hospital (CAH) Assets & Capabilities for Recruiting and Retaining Physicians: The North Dakota CAH Community Apgar Program

Presented by:
- David Schmitz, MD, FAAFP
  Associate Director of Rural Family Medicine
  Family Medicine Residency of Idaho
  Boise State University

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Presentation Overview
- Background/Purpose/Development
- Using the Critical Access Hospital Community Apgar Questionnaire (CAH CAQ)
- North Dakota Comparative Database Results
- Examples from Hospital Level Report
- Next Steps
- Questions/Comments for Discussion
- Findings from the National Apgar Database

Presentation Overview

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- Boise State University Center for Health Policy Research Staff
  - Sean Wasden, MHS, Research Assistant
  - Lisa MacKenzie, Graduate Research Assistant
  - Bradley Morris, Undergraduate Research Assistant

Background
- How did we get here – Why research?
  - Boise State University: Ed Baker, PhD
  - Family Medicine Residency of Idaho: Dave Schmitz, MD
  - Office of Rural Health and Primary Care: Mary Sheridan
  - An intersection of workforce, education and advocacy
  - Practical knowledge, relationships, experience and investment
  - Answering needs and necessary questions
  - Applied research: Development of tools
  - Partnerships with those with “skin in the game”

Background
- Six Years of Work
  - Year 1
    - Idaho Family Physician Rural Work Force Assessment Pilot Study (Published in the Journal of Rural Health)
  - Year 2
    - Critical Access Hospital Community Apgar Questionnaire (CAH CAQ) (Published in the Rural and Remote Health Journal)
  - Year 3
    - Examining the Trait of Grit and Satisfaction in Idaho Physicians (Under revision - Journal of the American Board of Family Medicine)
    - Community Apgar Program (CAP) Pilot for Critical Access Hospitals in Idaho
    - Nursing Community Apgar Questionnaire (NCAQ)

Background
- Six Years of Work (cont.)
  - Year 4
    - Community Health Center Community Apgar Questionnaire (CHC CAQ) (Current release by the Rural and Remote Health Journal)
    - Community Apgar Program (CAP) for Community Health Centers in Idaho
    - Community Apgar Solutions Pilot Project
  - Years 5 & 6
    - Expansion of the Community Apgar Program (CAP) for Critical Access Hospitals and Community Health Centers:
      - Wyoming, North Dakota, Wisconsin and Alaska (CAHs)
      - Maine (CHC)
Purpose of the Critical Access Hospital CAQ (CAH CAQ)

- A validated tool used to assess a rural community’s assets and capabilities in recruiting and retaining family physicians.
- This should accurately correlate to historical community-specific workforce trends.
- Designed to be a real-time assessment tool providing guidance for the most helpful interventions at the present.

Purpose of the CAH CAQ (cont.)

- Presentation of individual CAQ Scores facilitating discussions with key decision makers in each community for specific strategic planning and improvements.
- The CAH CAQ can also be used to track a community’s progress over time, similar to the clinical use of Apgar scores in newborns.

CAH CAQ Development

Goal
- Develop an objective measurement tool (CAH CAQ) to assess the characteristics and parameters of rural Idaho communities related to successful recruitment and retention of family physicians.

Process
- Research the scientific literature
- Site visits to rural Idaho communities
- Discussions with rural physicians and hospital administrators

CAH CAQ Development

The CAH CAQ
- Questions aggregated into 5 Classes
  - Geographic
  - Economic
  - Scope of Practice
  - Medical Support
  - Hospital and Community Support
- Each Class contains 10 factors for a total of 50 factors/questions representing specific elements related to recruitment and retention of family medicine physicians in rural areas.
- Three open-ended questions.

CAH CAQ Development: Class/Factor Examples

Geographic: School, Distance of Community, Geophysical
Economic: Loan Repayment, Competition, Part-time Opportunities
Scope of Practice: Emergency Care, Obstetrics, Administration
Medical Support: Nursing, Administrator, Education, Marketing
Hospital and Community Support: EHR, Welcome & Recruitment, Televideo Support, Plan for Capital Investment

Community Apgar Score
- Constructed from the sum of weighed parameters in the five classes of the CAQ.
- Similar to the five dimensions of the neonatal Apgar
- A repeatable measure of a community’s assets and capabilities.
- Designed to differentially diagnose a community health center’s relative component strengths and challenges.
- Prioritize improvements.
- Identify marketing opportunities.
### CAH CAQ Development:
North Dakota Sample and Administration

- **CAH CAQ Target Communities in North Dakota**
  - 16 critical access hospitals
  - 16 hospital administrators, 15 physicians and one nurse practitioner for a total sample of 32

- **CAH CAQ Administration**
  - Participants mailed the CAH CAQ survey in advance with consent form [IRB approval from Boise State University] and one hour interviews scheduled
  - Separate structured one hour interviews by Aaron Ortiz for each participant where consent form was reviewed and executed and CAQ completed

### Use of the CAH CAQ:
North Dakota Analyses and Reporting

- **North Dakota Analyses**
  - Development of a North Dakota comparative database for physician recruitment and retention
  - Statewide technical report and presentation for Year 1 results
  - 16 critical access hospital individual Board reports each year of the program

- **CAH CAQ Board Reports**
  - Individual data from each North Dakota critical access hospital reviewed with Board of Directors of each facility each year of the program
  - Action plans developed in Year 1 for improvement in areas identified by the CAH CAQ
  - Year 2 review focuses on movement towards achieving improvement identified in Year 1

### Use of the CAH CAQ

- This assessment allows for identification of both modifiable and non-modifiable factors and also may suggest which factors are most important for a community to address with limited available resources.

- The CAH CAQ may be used by communities to assess their relative strengths and challenges, the relative importance of CAQ factors, and to gain a better understanding of which CAQ factors are seen as most important from the physician point-of-view.

### Making the most of the CAH CAQ

Recruiting and Retaining Family Physicians:
- community self-evaluation
- prioritizing improvement plans
- advertising and interviewing
- negotiation strategies and contract construction

### The CAQ Value Proposition

- Beyond “Expert Opinion”
- A new approach to the old problem of physician recruiting
- Self-empowering for the community: knowledge as power, not an outside “headhunter”
- Beyond physician recruitment to community improvement

### Future of the CAH CAQ

- With further research and collaboration, this tool could also be used to share successful strategies communities have used to overcome challenges which may be difficult or impossible to modify (best practice model).
- CAH CAQ surveys may be useful in identifying trends and overarching themes which can be further addressed at state or national levels.
States Participating/Interested

- States Participating in the CAP
- States Interested in Implementing the CAP

North Dakota Comparative Database Results

Comparative Database Results

Class CAH Community Advantages and Challenges Cumulative Score

Summary Class CAH Community Advantages and Challenges Mean Score

Top 10 CAH Community Advantages Mean Score

Top 10 CAH Community Advantages Mean Score (Continued)
Top 10 CAH Community Apgar Mean Score

Bottom 10 CAH Community Apgar Mean Score

Cumulative CAH Community Apgar Score

Examples from Hospital Level Reports

Comparative Cumulative Apgar Score
Questions/Comments for Discussion

Findings from the National Apgar Database

Next Steps

- Return in 2012 to re-assess using Community Apgar Questionnaire at original 16 critical access hospitals
- Develop Year 2 North Dakota state comparative database
- Develop reports for 16 individual critical access hospitals using updated year 2 North Dakota comparative database
- Present individual reports to 16 critical access hospitals highlighting progress towards action plan goals
### Top 10 Apgar Factors

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<td>Recreational opportunities</td>
<td>Planning of Quality</td>
<td>Employment status</td>
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<tr>
<td>#2</td>
<td>Community need/support of physician</td>
<td>Transfer arrangements</td>
<td>Televideo support</td>
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<td>#3</td>
<td>Internet access</td>
<td>Physician workforce</td>
<td>Electronic medical records</td>
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<td>#4</td>
<td>Income guarantee</td>
<td>Nephrology workforce</td>
<td>Inpatient care</td>
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<td>Hospital leadership</td>
<td>Clinical support</td>
<td>Social networking</td>
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<td>Plans for capital investment</td>
<td>Allied mental health workforce</td>
<td>Climate</td>
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<td>Transfer arrangements</td>
<td>Emergency room coverage</td>
<td>Emergency room care</td>
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<td>Community volunteer opportunities</td>
<td>Demographic/patient mix</td>
<td>Social networking</td>
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<td>Perception of quality</td>
<td>Community need/physician support</td>
<td>Allied mental health workforce</td>
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<td>Loan repayment (tie for 10th)</td>
<td>Income guarantee</td>
<td>Social networking</td>
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<td>Inpatient care (tie for 10th)</td>
<td>Community need/physician support</td>
<td>Allied mental health workforce</td>
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### Bottom 10 Apgar Factors

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