Assessing Critical Access Hospital (CAH) Assets & Capabilities for Recruiting and Retaining Physicians:

The North Dakota CAH Community Apgar Program

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Presented at:

Dakota Conference on Rural and Public Health
Grand Forks, North Dakota

Date: May 30, 2012

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

Acknowledgements

- Lynette Dickson, MS, RD, LRD, Associate Director, Center for Rural Health, The University of North Dakota, School of Medicine and Health Sciences
- Funding provided by
  - State Office of Rural Health Grant Program
  - Medicare Rural Hospital Flexibility Grant Program
    - Administered by the Department of Health and Human Services, Health Resources and Services Administration, Federal Office of Rural Health Policy
- 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 refereed 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.

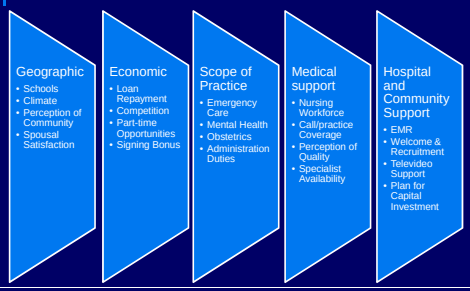
CAH CAQ Development

- 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



CAH CAQ Development

- 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

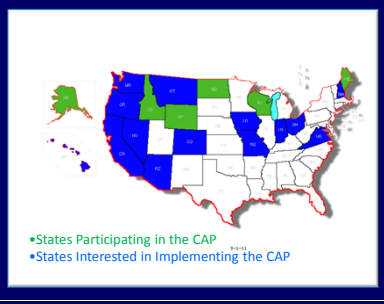
The CAQ Value Proposition

- 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

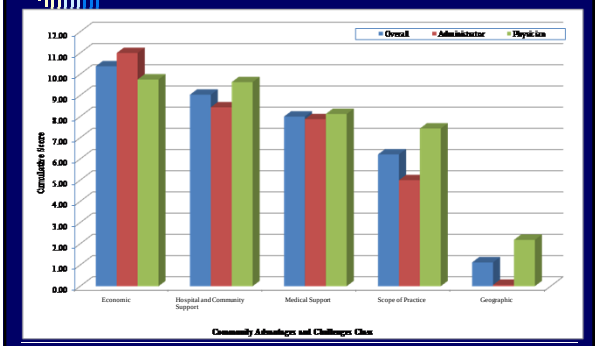
- With further research and collaboration, this tool could also be used to share successful strategies communities have used to overcome challenges which may be difficult or impossible to modify (best practice model).
- CAH CAQ surveys may be useful in identifying trends and overarching themes which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

States Participating/Interested

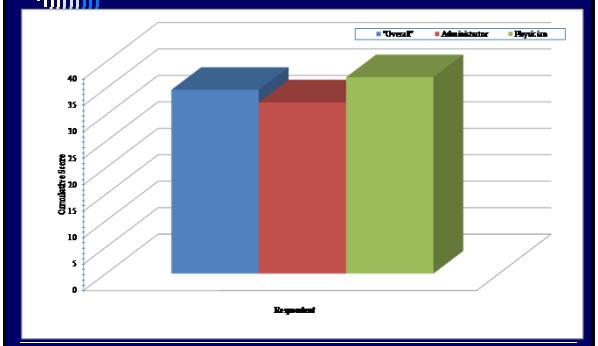


North Dakota Comparative Database Results

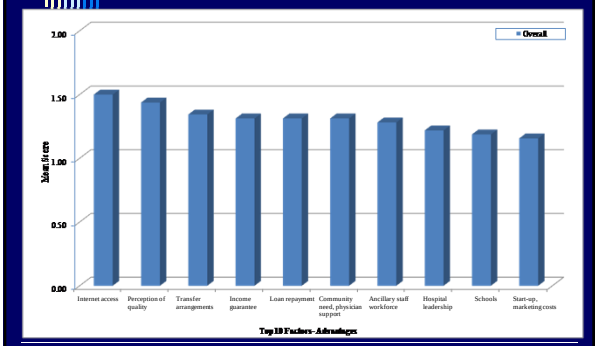
Class CAH Community Advantages and Challenges Cumulative Score



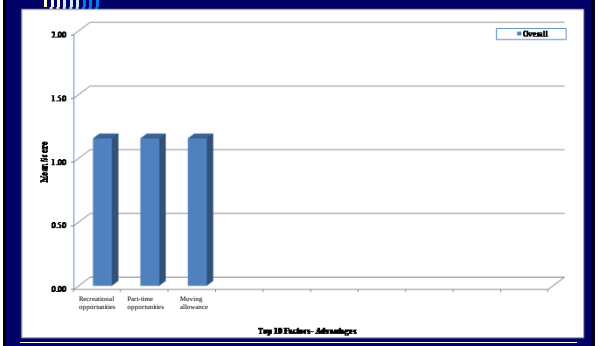
Summary Class CAH Community Advantages and Challenges Mean Score



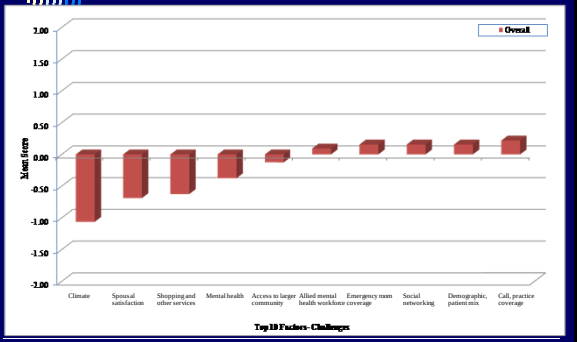
Top 10 CAH Community Advantages Mean Score



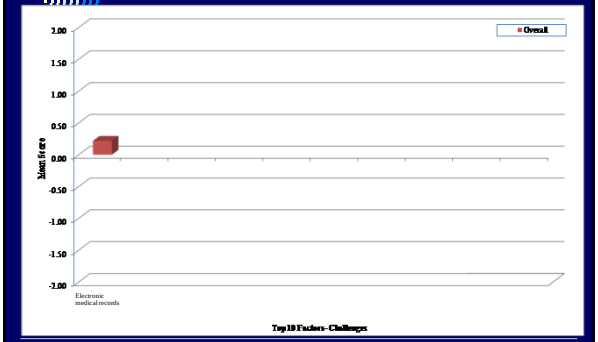
Top 10 CAH Community Advantages Mean Score (Continued)



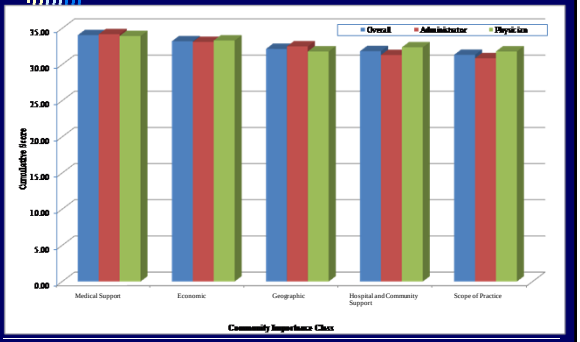
Top 10 CAH Community Challenges Mean Score



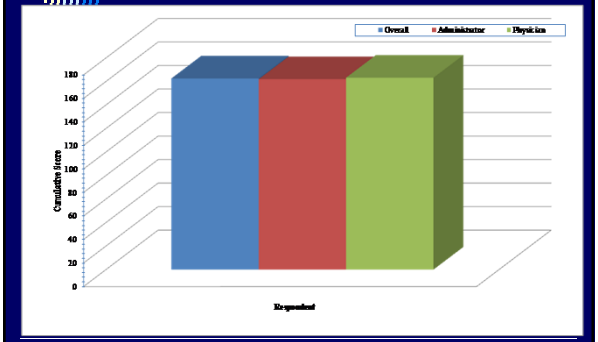
Top 10 CAH Community Challenges Mean Score (Continued)



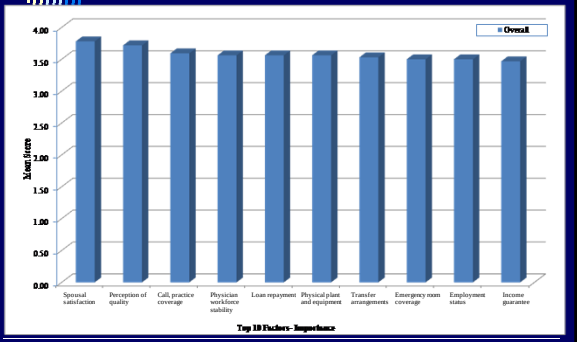
Class CAH Community Importance Cumulative Score



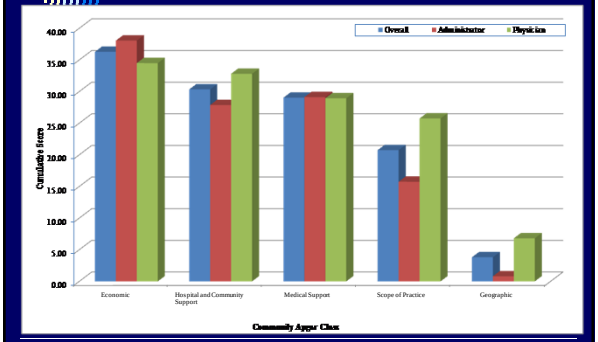
Summary Class CAH Community Importance Mean Score

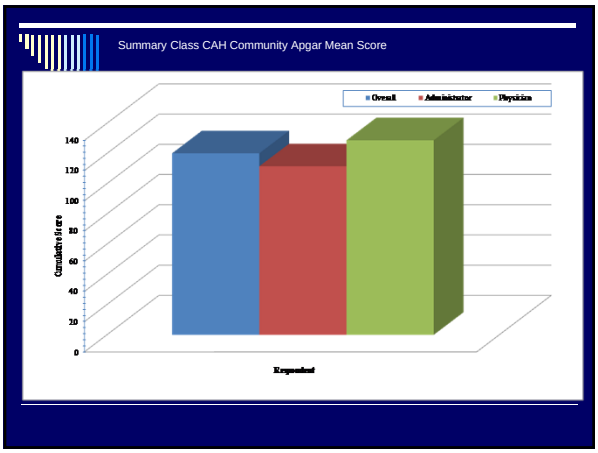


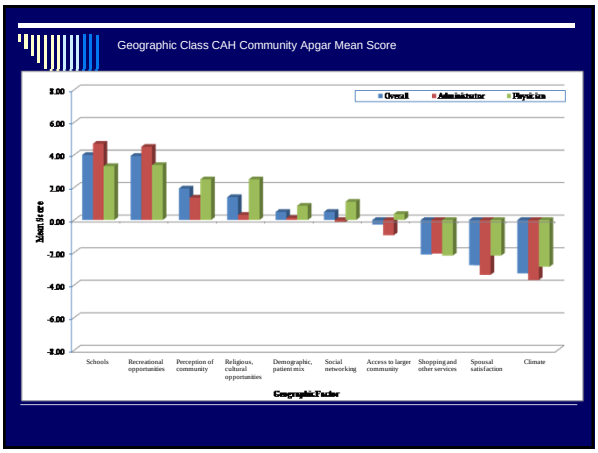
Top 10 CAH Community Importance Mean Score

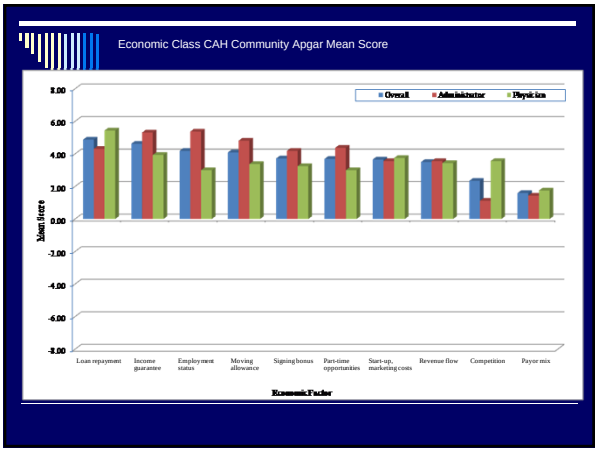


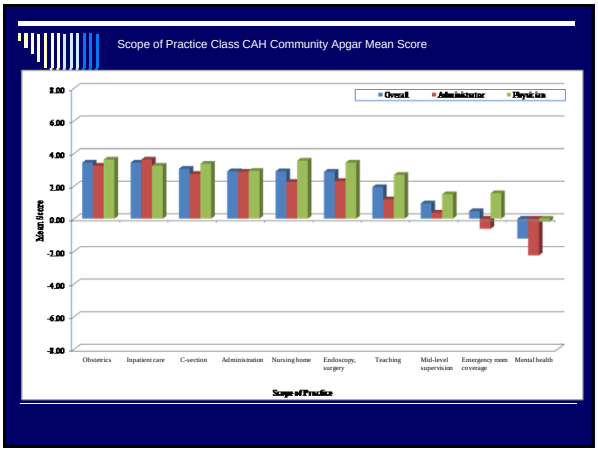
Class CAH Community Apgar Cumulative Score

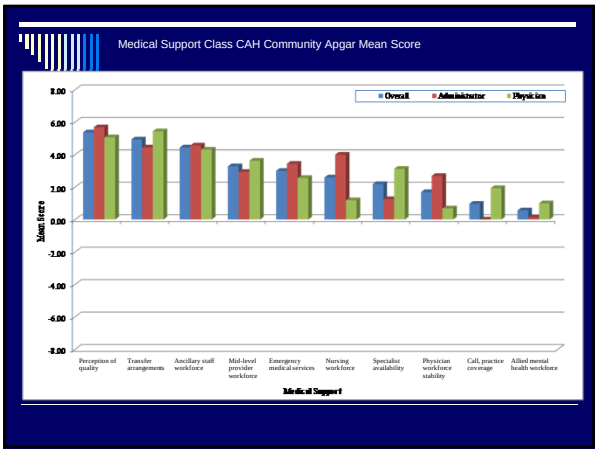


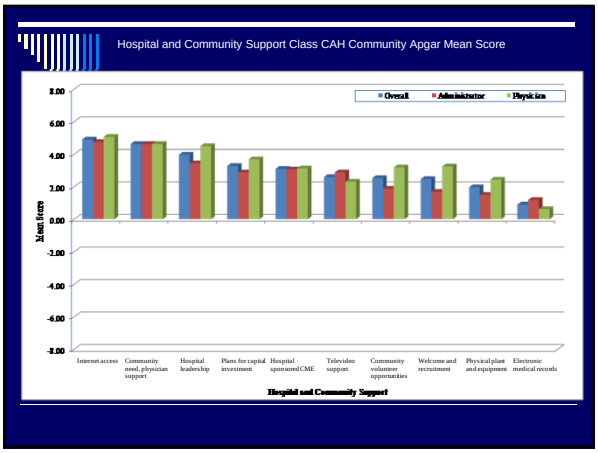

Summary Class CAH Community Apgar Mean Score
Overall
Administrator
Physician
Cumulative Score
Respondent


Geographic Class CAH Community Apgar Mean Score
Overall
Administrator
Physician
Mean Score
Schools
Recreational opportunities
Perception of community
Religious, cultural opportunities
Demographic, patient mix
Social networking
Access to larger community
Shopping and other services
Spousal satisfaction
Climate
Geographic Factor

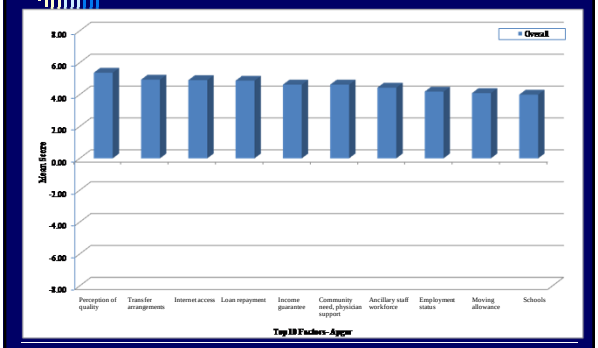

Economic Class CAH Community Apgar Mean Score
Overall
Administrator
Physician
Mean Score
Loan repayment
Income guarantee
Employment status
Moving allowance
Signing bonus
Part-time opportunities
Start-up, marketing costs
Revenue flow
Competition
Payor mix
Economic Factor


Scope of Practice Class CAH Community Apgar Mean Score
Overall
Administrator
Physician
Mean Score
Obstetrics
Inpatient care
C-section
Administration
Nursing home
Endoscopy, surgery
Teaching
Mid-level supervision
Emergency room coverage
Mental health
Scope of Practice

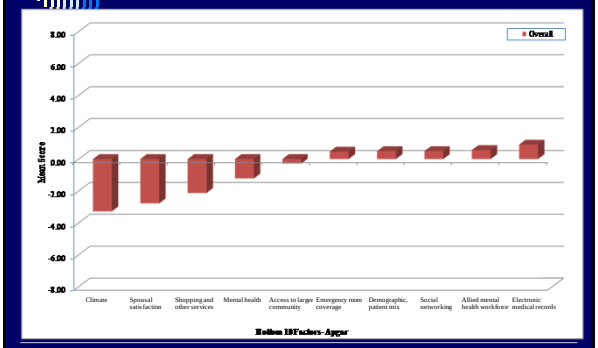

Medical Support Class CAH Community Apgar Mean Score
Overall
Administrator
Physician
Mean Score
Perception of quality
Transfer arrangements
Ancillary staff workforce
Mid-level provider workforce
Emergency medical services
Nursing workforce
Specialist availability
Physician workforce stability
Call, practice coverage
Allied mental health workforce
Medical Support


Hospital and Community Support Class CAH Community Apgar Mean Score
Overall
Administrator
Physician
Mean Score
Internet access
Community need, physician support
Hospital leadership
Plans for capital investment
Hospital sponsored CME
Televideo support
Community volunteer opportunities
Welcome and recruitment
Physical plant and equipment
Electronic medical records
Hospital and Community Support

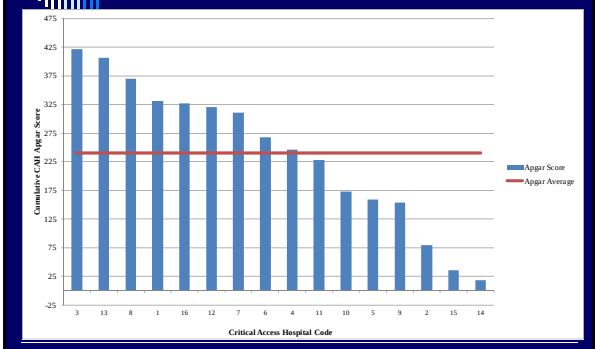
Top 10 CAH Community Apgar Mean Score



Bottom 10 CAH Community Apgar Mean Score

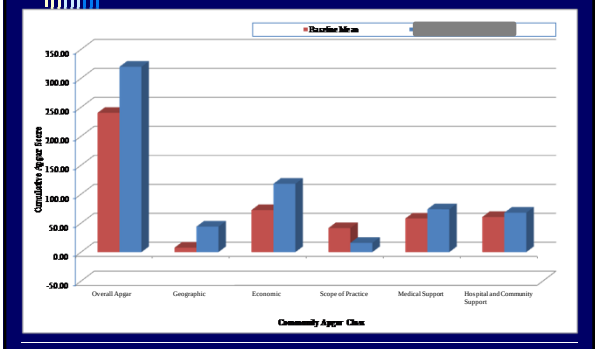


Cumulative CAH Community Apgar Score

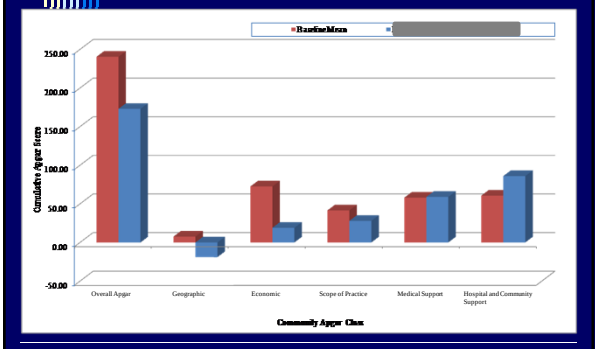


Examples from Hospital Level Reports

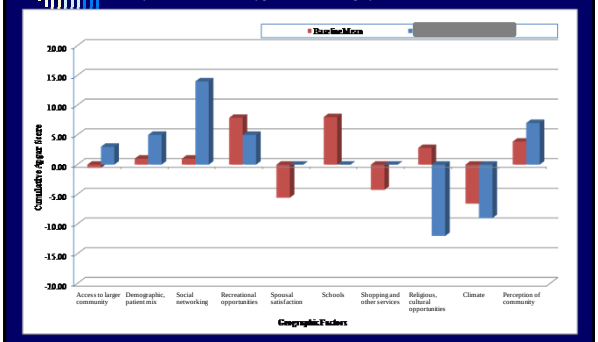
Hospital X
Comparative Cumulative Apgar Score



Hospital X
Comparative Cumulative Apgar Score

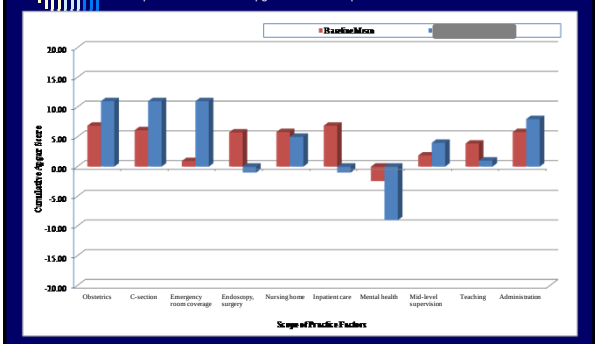


Hospital X
Comparative Cumulative Apgar Score for Geographic Class



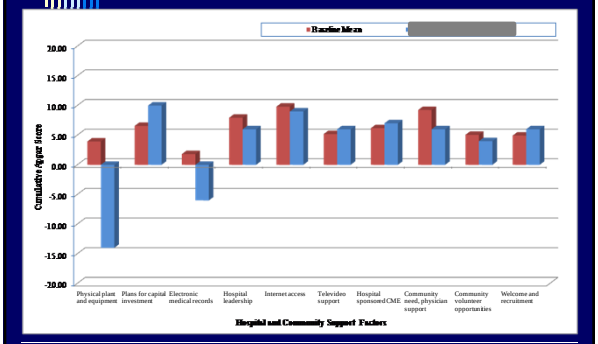
Hospital X
Comparative Cumulative Apgar Score for Economic Class

Hospital X
Comparative Cumulative Apgar Score for Scope of Practice Class



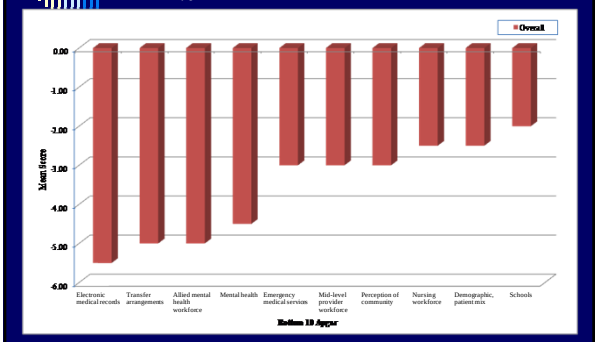
Hospital X
Comparative Cumulative Apgar Score for Medical Support Class

Hospital X
Comparative Cumulative Apgar Score for Hospital and Community Support Class

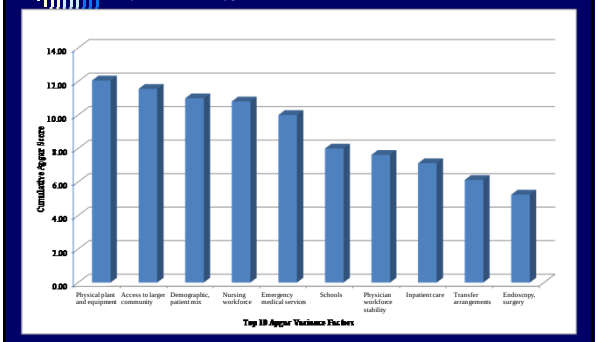


Hospital X
Top 10 Apgar Factors across All 50 Factors

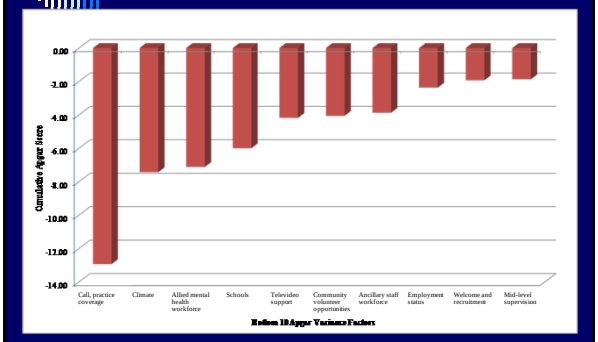
Hospital X
Bottom 10 Apgar Factors across All 50 Factors



Hospital X
Top 10 Cumulative Apgar Variance Factors across All 50 Factors



Hospital X
Bottom 10 Cumulative Apgar Variance Factors across All 50 Factors

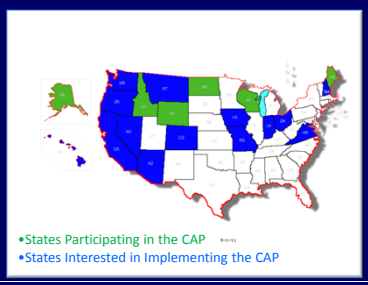


Next Steps

- 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

Questions/Comments for Discussion

Findings from the National Apgar Database



Top 10 Apgar Factors

Idaho (2008)	Wyoming (2010)	North Dakota (2011)	Wisconsin (2012)
•Recreational opportunities	•Employment status	•Perception of Quality	•Employment status
•Community need/support of physician	•Loan repayment	•Transfer arrangements	•Recreational opportunities
•Internet access	•Income guarantee	•Internet access	•Perception of quality
•Income guarantee	•Community need/physician support	•Loan repayment	•Income guarantee
•Hospital leadership	•Recreational opportunities	•Income guarantee	•Nursing workforce
•Plans for capital investment	•Revenue flow	•Community need/physician support	•Religious/cultural opportunities
•Transfer arrangements	•Competition	•Ancillary staff workforce	•Physician workforce stability
•Community volunteer opportunities	•Ancillary staff workforce	•Employment status	•Transfer arrangements
•Perception of quality	•Transfer arrangements	•Moving allowance	•Ancillary staff workforce
•Loan repayment (tie for 10th)	•Moving allowance	•Schools	•Community volunteer opportunities (tie for 10th)
•Inpatient care (tie for 10th)			•Revenue flow (tie for 10th)

Bottom 10 Apgar Factors

Idaho (2008)	Wyoming (2010)	North Dakota (2011)	Wisconsin (2012)
•Spousal satisfaction	•Spousal satisfaction	•Climate	•Spousal satisfaction
•C-section	•Shopping/other services	•Spousal satisfaction	•Televideo support
•Shopping/other services	•Access to larger community	•Shopping/other services	•Inpatient care
•Schools	•Mental health	•Mental health	•Shopping/other services
•Mental health	•Social networking	•Access to larger community	•Mental health
•Electronic medical records	•Allied mental health workforce	•Emergency room coverage	•Social networking
•Part-time opportunities	•Religious/cultural opportunities	•Demographic/patient mix	•Climate
•Social networking	•Climate	•Social networking	•Electronic medical records
•Perception of community	•Electronic medical records	•Allied mental health workforce	•Perception of community
•Allied mental health workforce	•Nursing home	•Electronic medical records	•Mid-level supervision