The Community Apgar Project: A Validated Tool for Improving Rural Communities' Recruitment and Retention of Physicians



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Presentation Overview

- Acknowledgements
- The Community Apgar Questionnaire (CAQ)
 - Validation through research
 - Development in Idaho and initial findings
 - The CAQ Process
 - CAQ value
 - Future applications
- Questions

Acknowledgements

Contributors

- Steven Millard, President, Idaho Hospital Association
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- Ayaka Nukui, BS, Center for Health Policy, Boise State University

Acknowledgements

- Collaborative Partners
 - Idaho Academy of Family Physicians
 - Idaho Hospital Association
 - Idaho Medical Association
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The Community Apgar Questionnaire



Validation through Research

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"

Purpose of the CAQ Research

- Development and validation of a tool which identifies and weighs factors important to communities in recruiting and retaining rural family physicians
- Differentially diagnose modifiable factors for strategic planning in individual critical access hospitals
- Presentation of individual CAQ Scores facilitating discussions with key decision makers in each community for specific strategic planning and improvements
- Designed to be applied serially, like a neonatal "Apgar Score"

The Structure of the CAQ

- The Community Apgar Questionnaire (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 physicians in rural areas
 - Three open-ended questions



CAQ Class/Factor Examples

- Geographic Class
 - Schools, climate, perception of community, spousal satisfaction
- Economic Class
 - Loan repayment, income guarantee, revenue flow, competition
- Scope of Practice Class
 - Obstetrics, C-sections, ER, endoscopy/surgery, nursing home
- Medical Support Class
 - Nursing workforce, EMS, call coverage, perception of quality
- Hospital and Community Support Class
 - Physical plant and equipment, internet, hospital leadership, EMR

The Community Apgar Questionnaire



Development in Idaho and Initial Findings

Research Design

- CAQ Target Communities
 - Selected based on site visits and discussions with the IHA and the State Office of Rural Health and Primary Care
 - Twelve rural communities with critical access hospitals identified
 - Communities classified as alpha [N=6] or beta [N=6] based on historical success in recruiting and retaining family physicians
 - Final sample included 6 alpha and 5 beta communities [91.7% participation rate] as one community declined initial participation but requested to participate in subsequent community assessments

Research Design

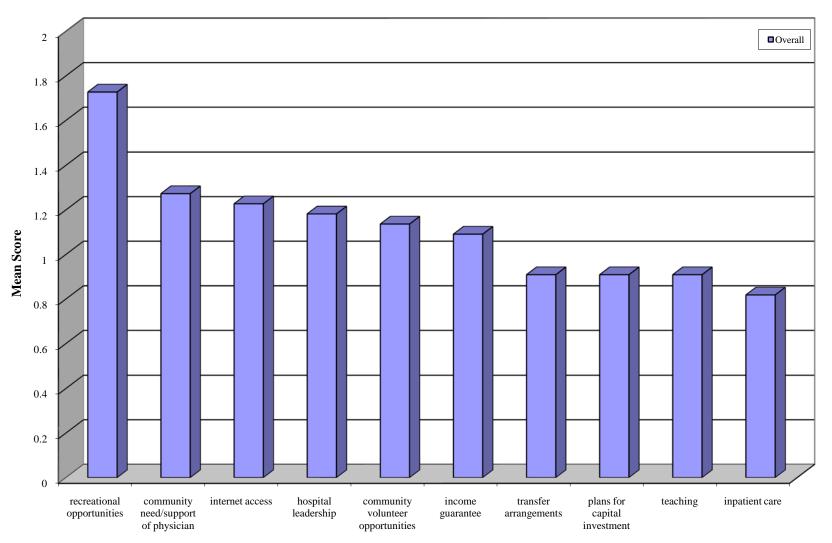
CAQ Respondents

 Eleven rural critical access hospital administrators and eleven rural physicians with leadership roles in recruitment and retention [Total N=22]

CAQ Administration

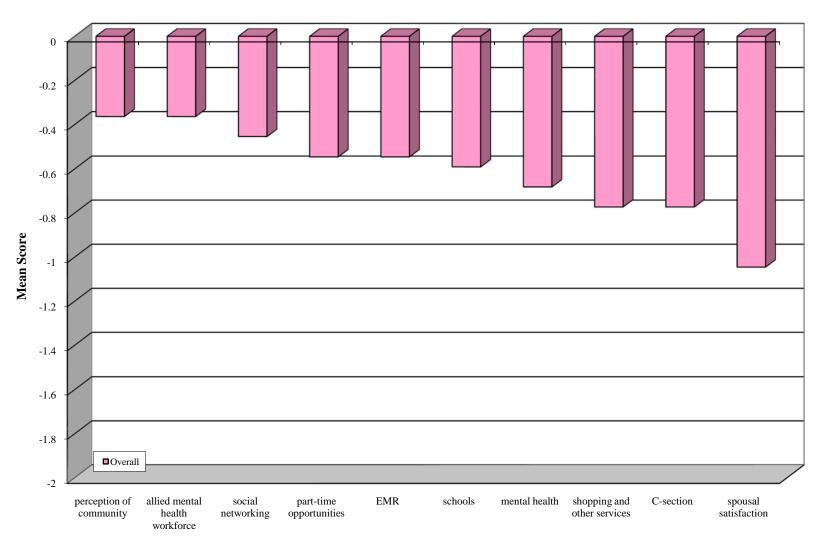
- Participants mailed the CAQ survey in advance with consent form [IRB approval from Boise State University] and one hour interviews scheduled
- Separate structured one hour interviews for each participant where consent form was reviewed and executed and CAQ completed

Top 10 Advantage Factors across All 50 Factors



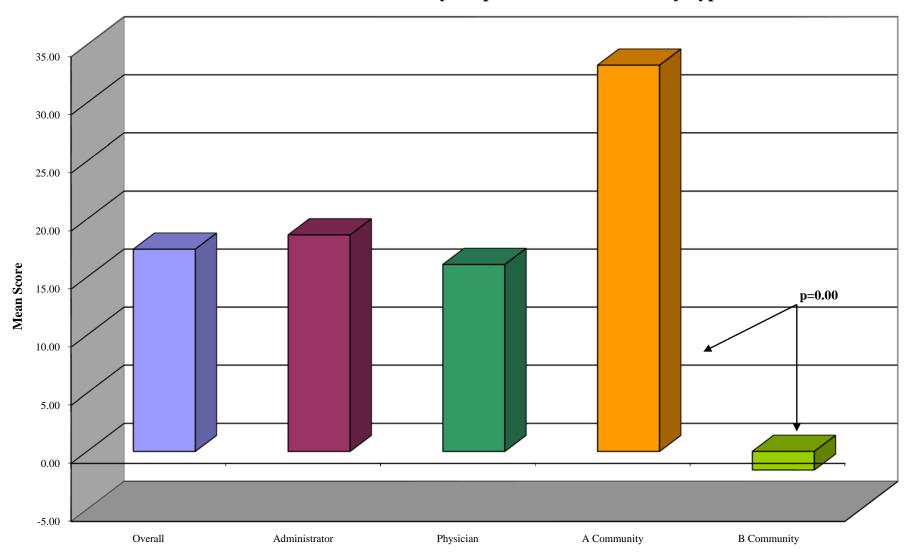
Top 10 Advantage Factors

Top 10 Challenge Factors across All 50 Factors

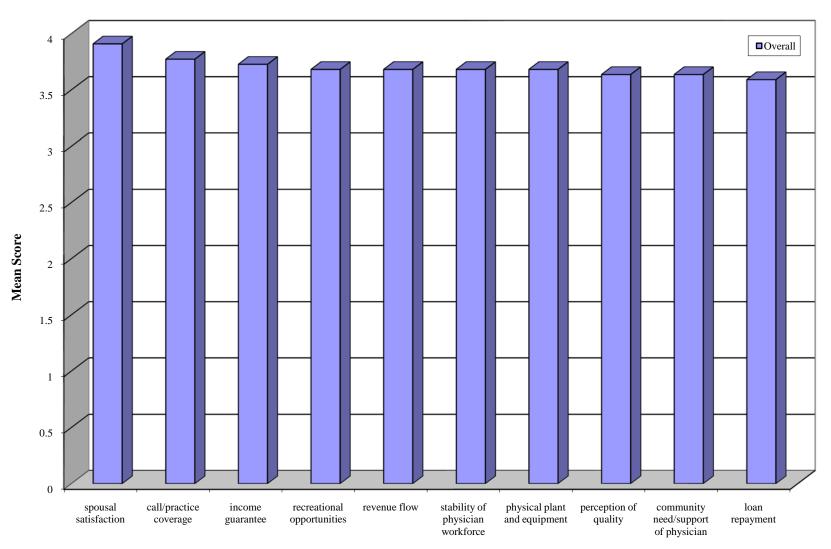


Top 10 Challenge Factors

Summary Class Community Advantages and Challenges Mean Score Overall by Respondent and Community Type

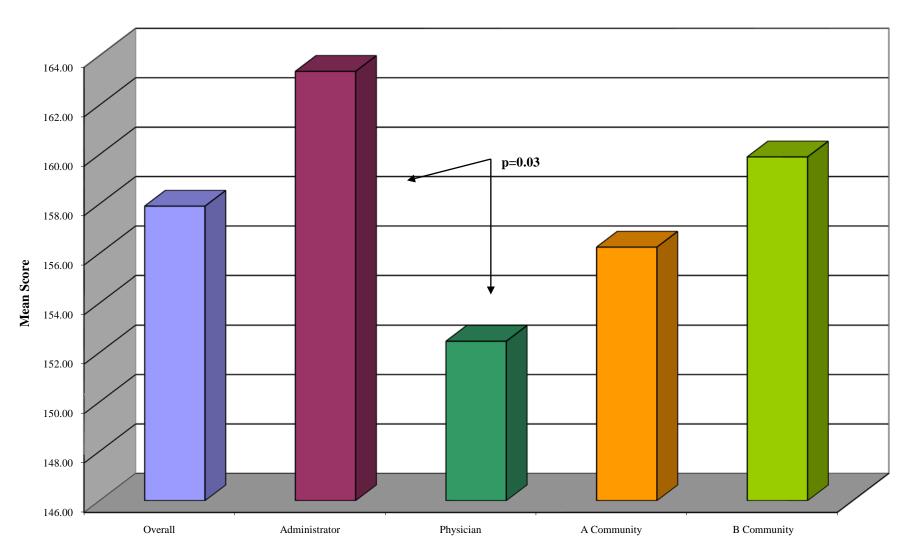


Top 10 Important Factors across All 50 Factors

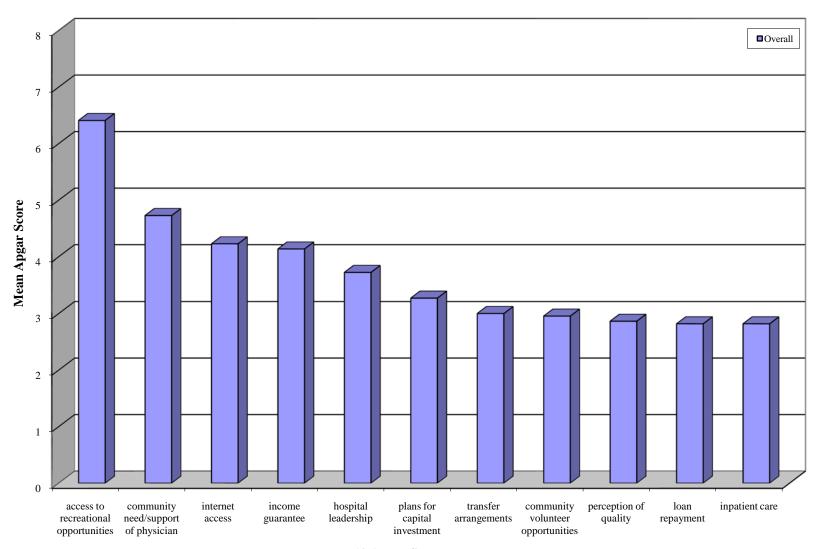


Top 10 Important Factors

Summary Class Community Importance Mean Score Overall by Respondent and Community Type

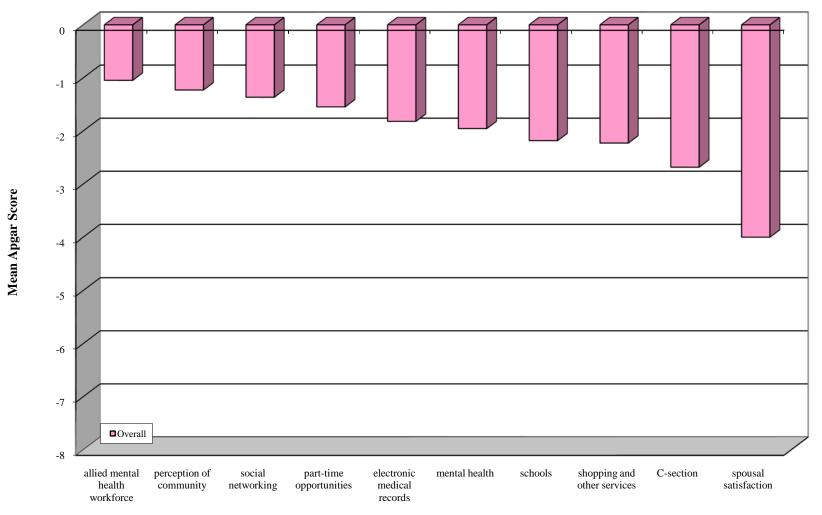


Top 10 Apgar Scores by Factors across All 50 Factors



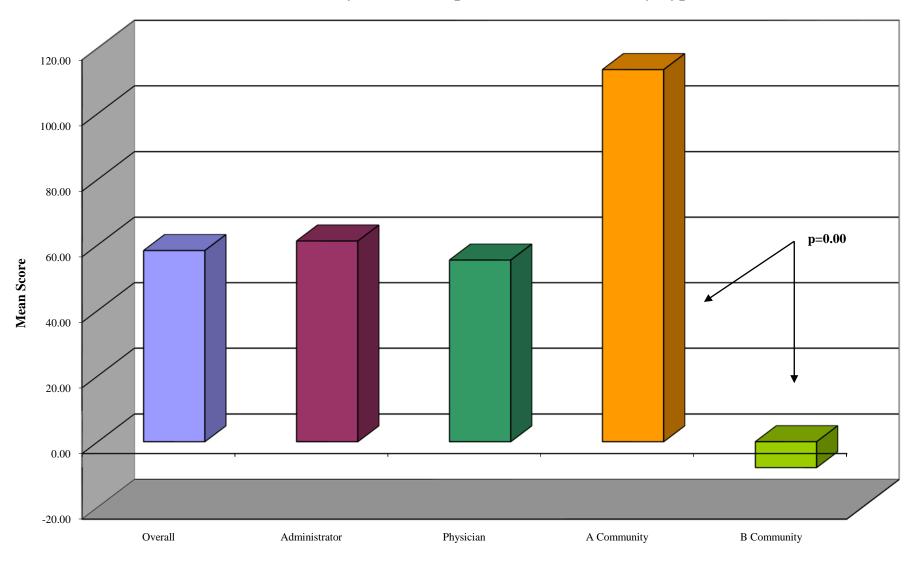
Top 10 Apgar Scores by Factors

Bottom 10 Apgar Scores by Factors across All 50 Factors

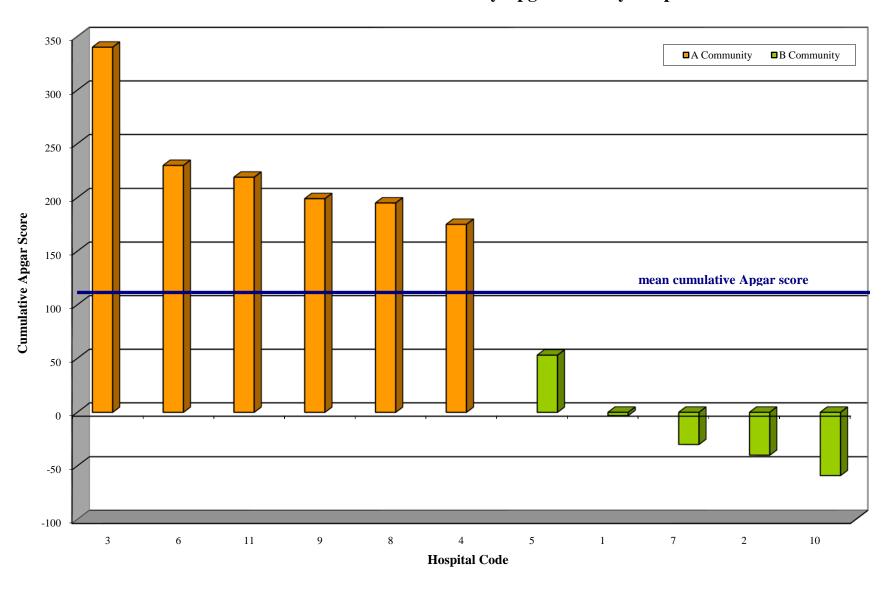


Bottom 10 Apgar Scores by Factors

Summary Class Community Apgar Mean Score by Overall Respondent and Community Type



Cumulative Community Appar Score by Hospital



The CAQ Applied in Idaho

- 27 critical access hospitals in Idaho over 4 years; 54 facilitated discussions
- Each community with private information contributes anonymously to the peer data base
- Strategic plans to address gaps are anonymously contributed to identify "best practices" and advocacy priorities

The Community Apgar Questionnaire



The Process

Year 1

- Visit one: Dr. Schmitz conducts site evaluation and 2 interviews
 - Hospital CEO and Lead Physician
- Data is analyzed with peer databases
- Visit two: Dr. Schmitz presents to hospital leadership and Board of Directors
 - Discussion of community data and comparisons with explanation of differences from peers
 - Strategic planning session for improvement of weaknesses and marketing of strengths

Year 2

- <u>Visit three</u>: Dr. Schmitz conducts a second site evaluation and 2 interviews
 - Hospital CEO and Lead Physician
- Data is analyzed with peer databases and prior year scores
- Visit four: Dr. Schmitz presents a second time to hospital leadership and Board of Directors
 - Discussion of community data and comparisons with explanation of differences from peers and prior year scores
 - Strategic planning session for improvement of weaknesses and marketing of strengths
 - Discussion of effectiveness of strategic plan implementation and the CAQ Program

CAQ Program

- Each Community Hospital has 4 visits with 2 presentations approximately 1 year apart
- CAQ can be continued or reinitiated years later when community changes or needs arise
- Community is well known to the CAQ consultant who can help in recruitment

Expansion Beyond Idaho

- Successful implementation and state by state databases beyond Idaho
- State and regional data comparisons
- Training of state-specific CAQ consultant partners
- Linkages to State Offices of Rural Health, residency programs, workforce agencies, and others

The Community Apgar Questionnaire



CAQ Value

According to the Research: The Community Apgar Score

- Shown in this retrospective study to prognosticate successful recruitment and retention of family physicians to rural critical access hospitals
- With further participation may be able to identify additional specific attributes that make communities "recruitable": mental health, EMR, specific aspects of contracts...

Validation with Research Means Confidence in Outcomes

- CEOs can have confidence in predictive value of the individual findings
- Board members can know this is worth their time and effort to better understand the issues
- Decisions made for strategic planning have individual foundational data

The CAQ Value Proposition

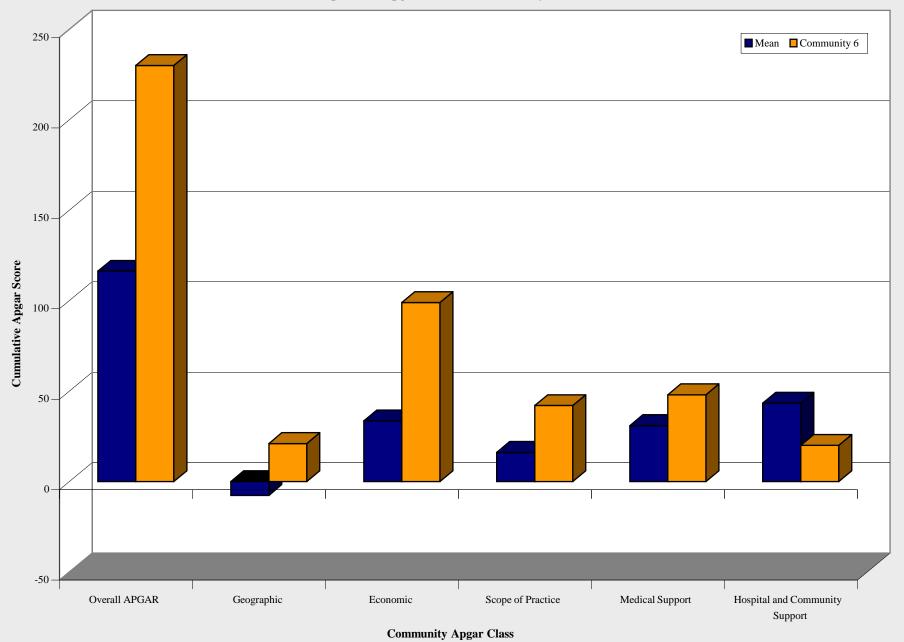
- Beyond "Expert Opinion"
- A new approach to the old problem of physician recruiting
- Self-empowering for the community: knowledge as power, not an outside "headhunter"
- Beyond physician recruitment to community improvement

Community "6"

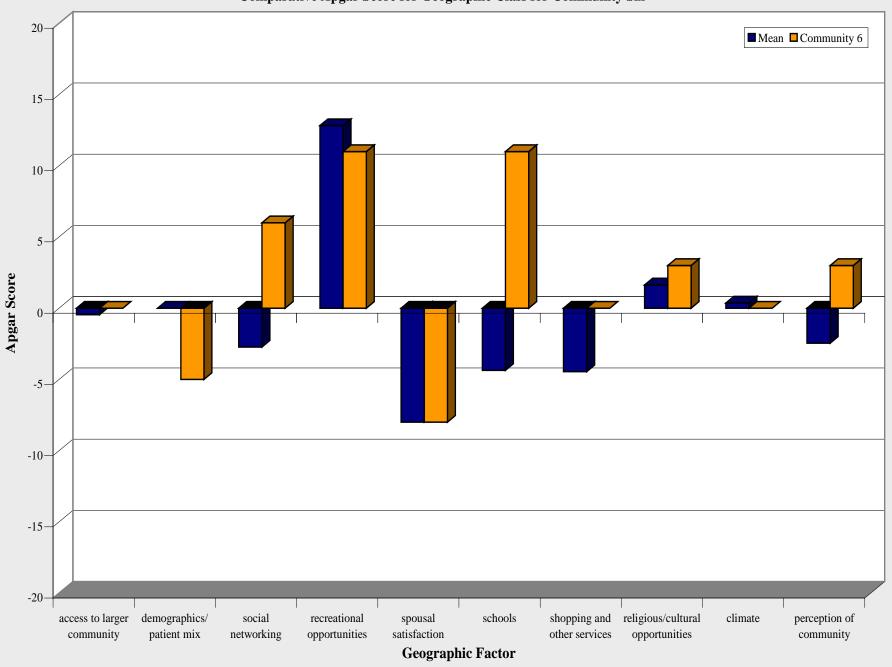


Example of Initial CAQ
Assessment Information

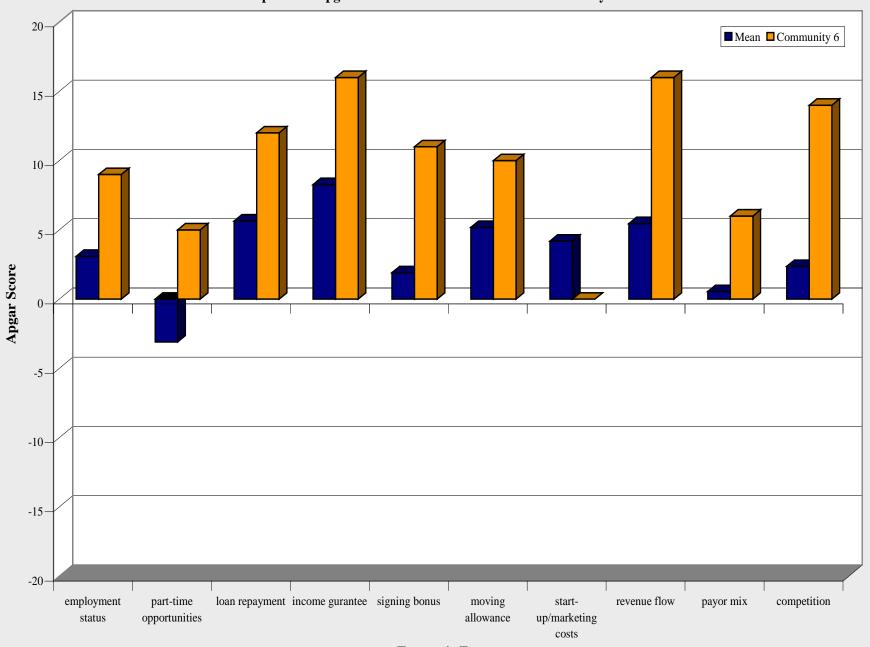
Comparative Apgar Score for Community Six



Comparative Apgar Score for Geographic Class for Community Six

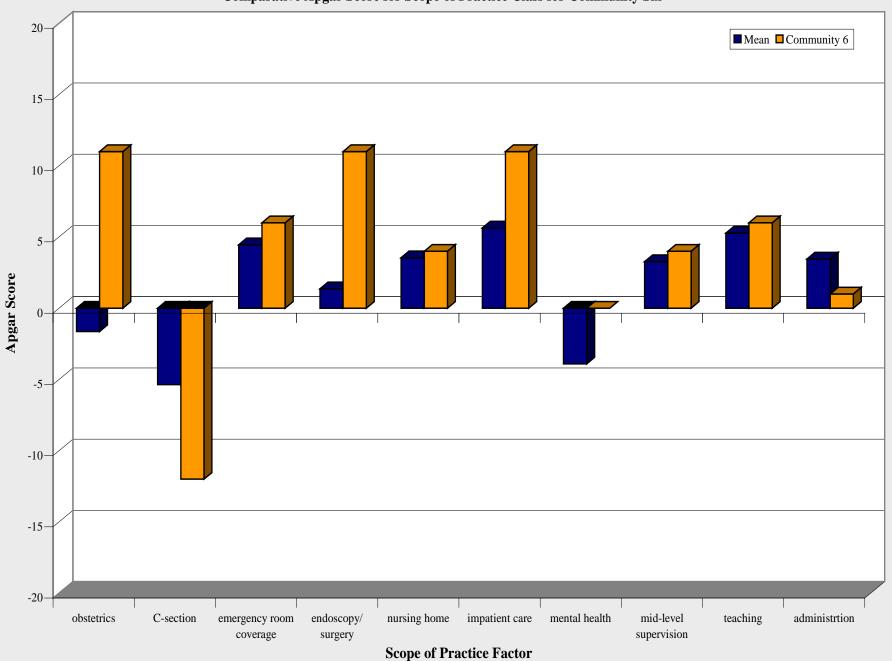


Comparative Apgar Score for Economic Class for Community Six

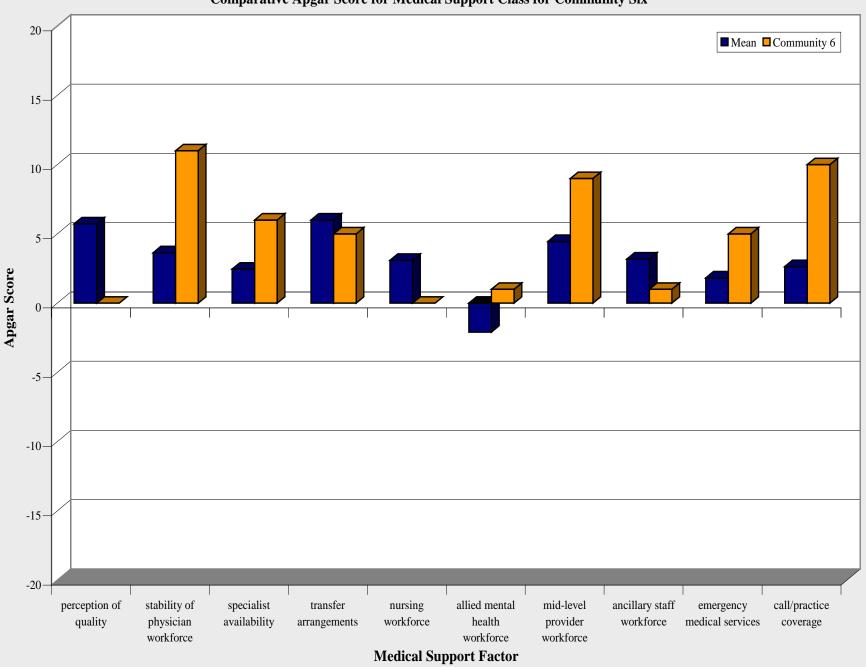


Economic Factor

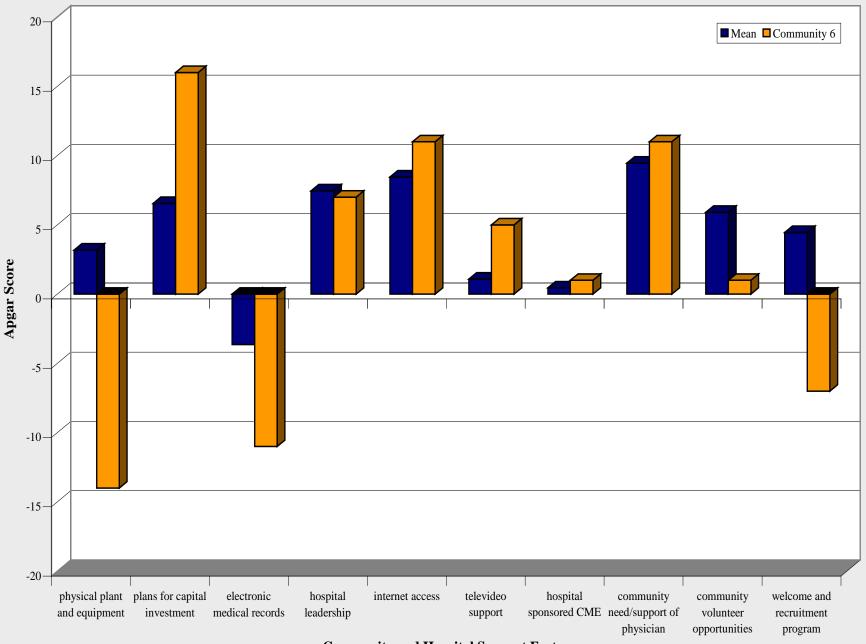
Comparative Apgar Score for Scope of Practice Class for Community Six



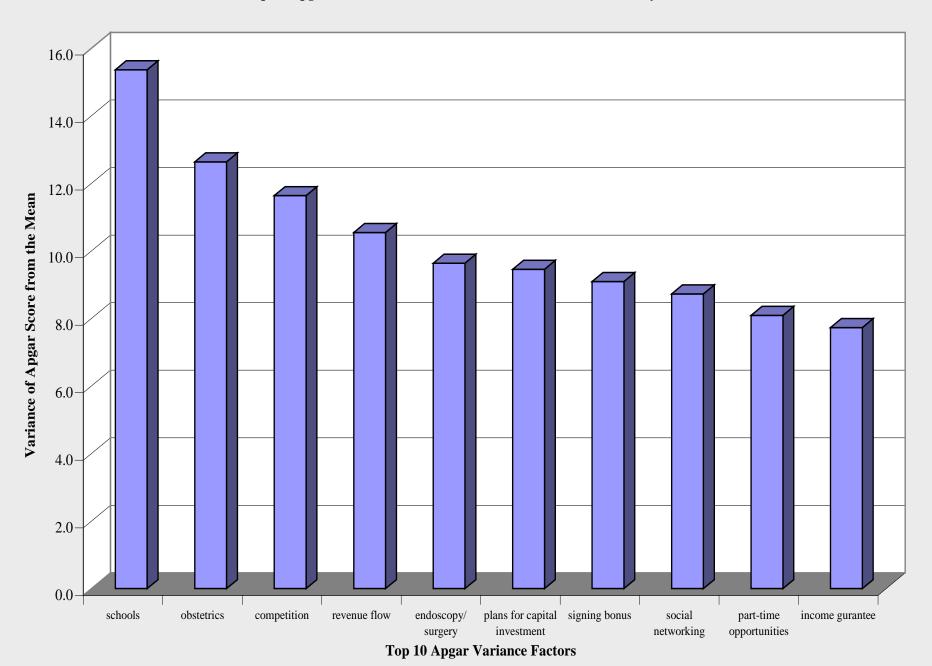
Comparative Apgar Score for Medical Support Class for Community Six

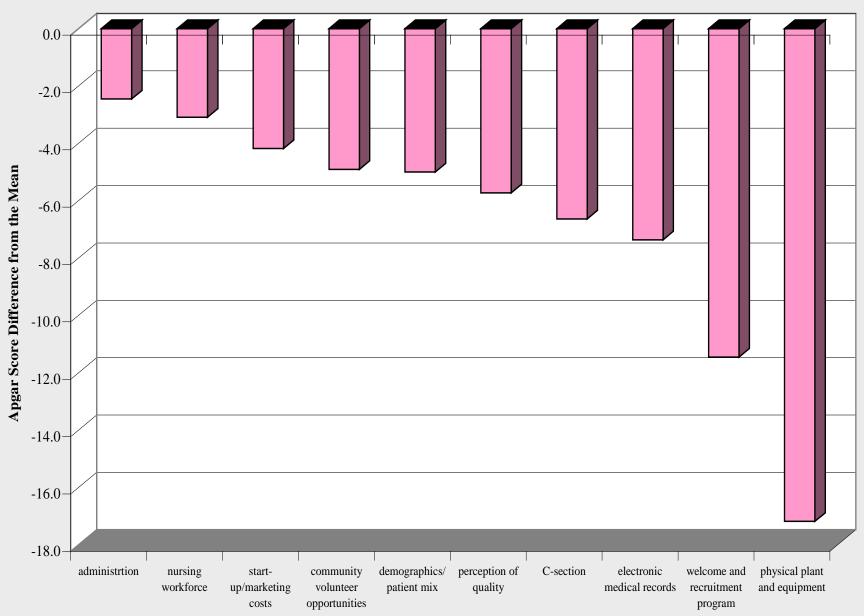


Comparative Apgar Score for Community and Hospital Support Class for Community Six



Top 10 Apgar Variance Factors Across All 50 Factors in Community Six





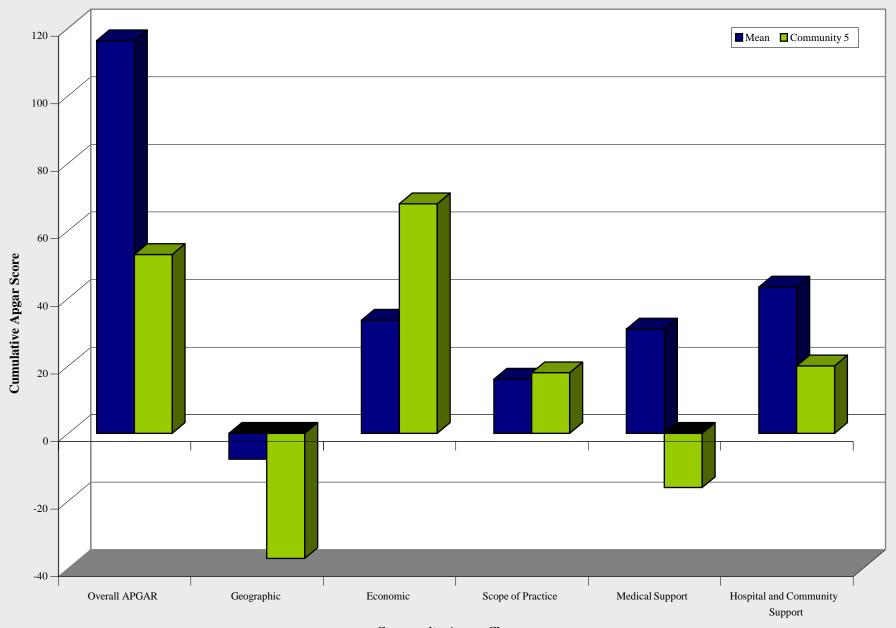
Bottom 10 Apgar Variance Factors

Community "5"



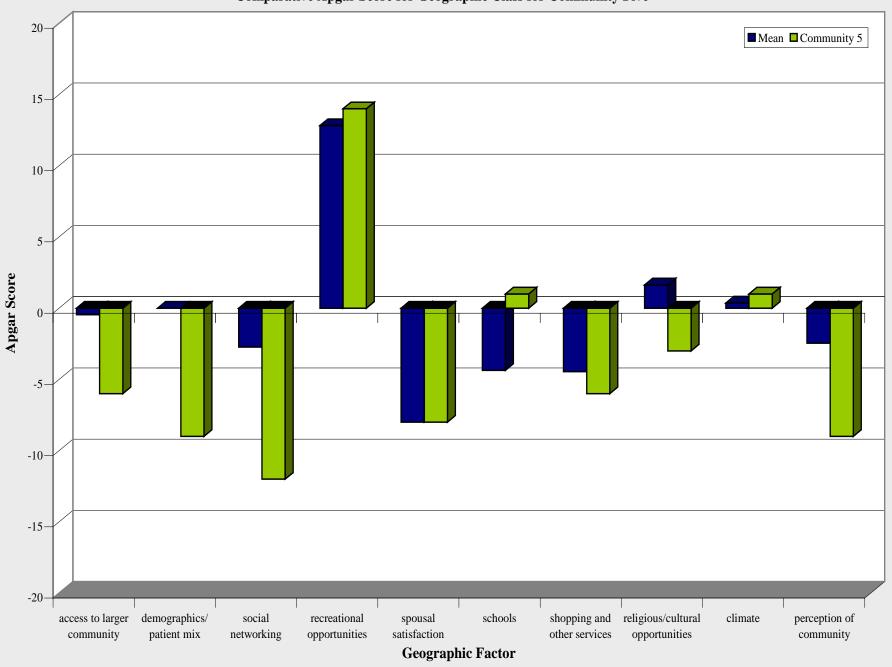
Example of Initial CAQ
Assessment Information

Comparative Apgar Score for Community Five

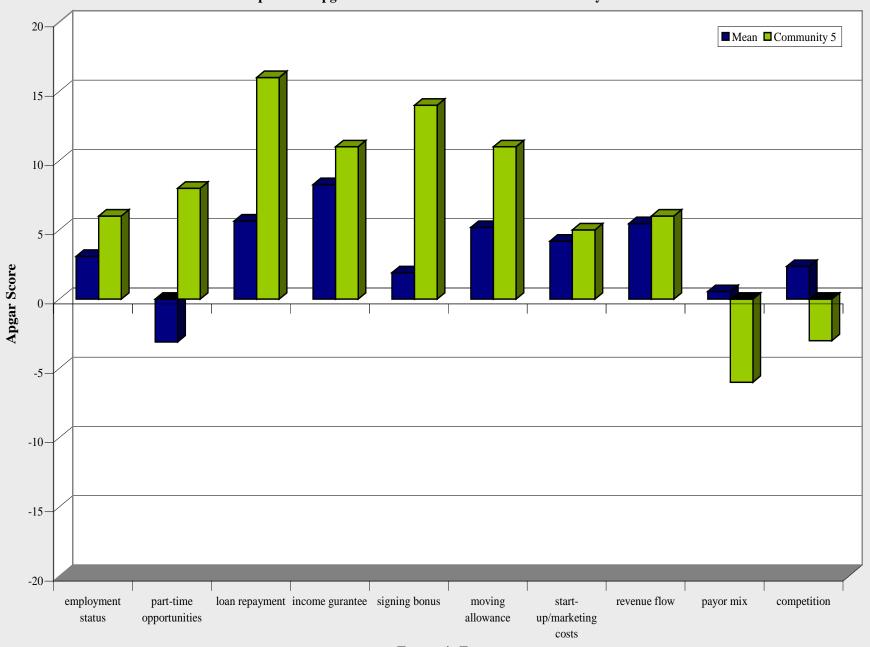


Community Appar Class

Comparative Apgar Score for Geographic Class for Community Five

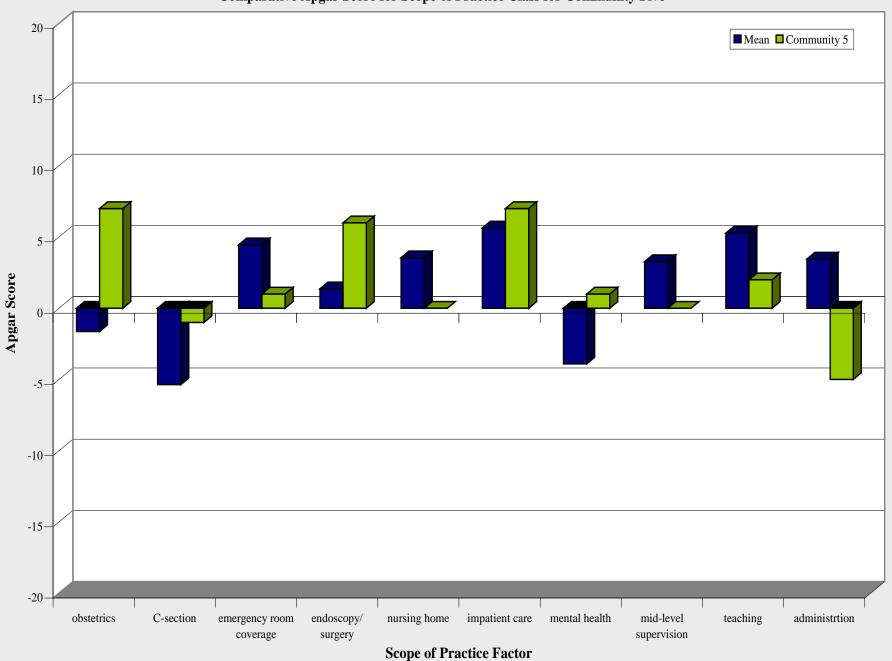


Comparative Apgar Score for Economic Class for Community Five

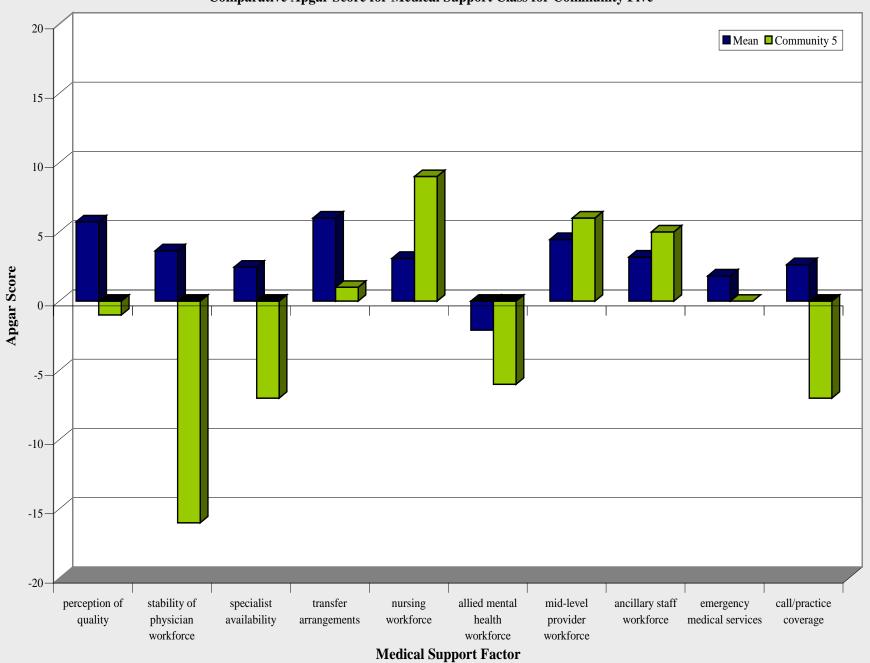


Economic Factor

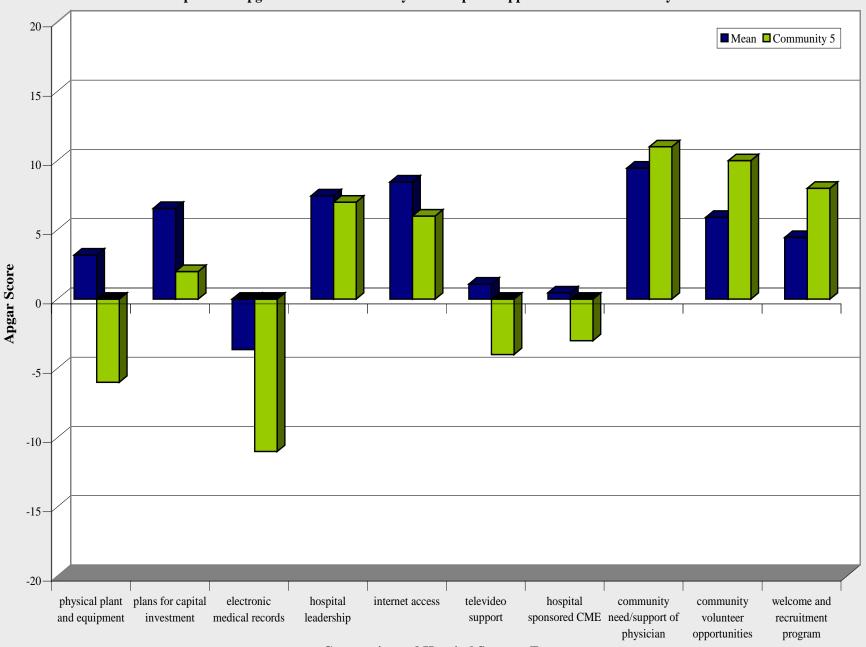
Comparative Apgar Score for Scope of Practice Class for Community Five



Comparative Apgar Score for Medical Support Class for Community Five

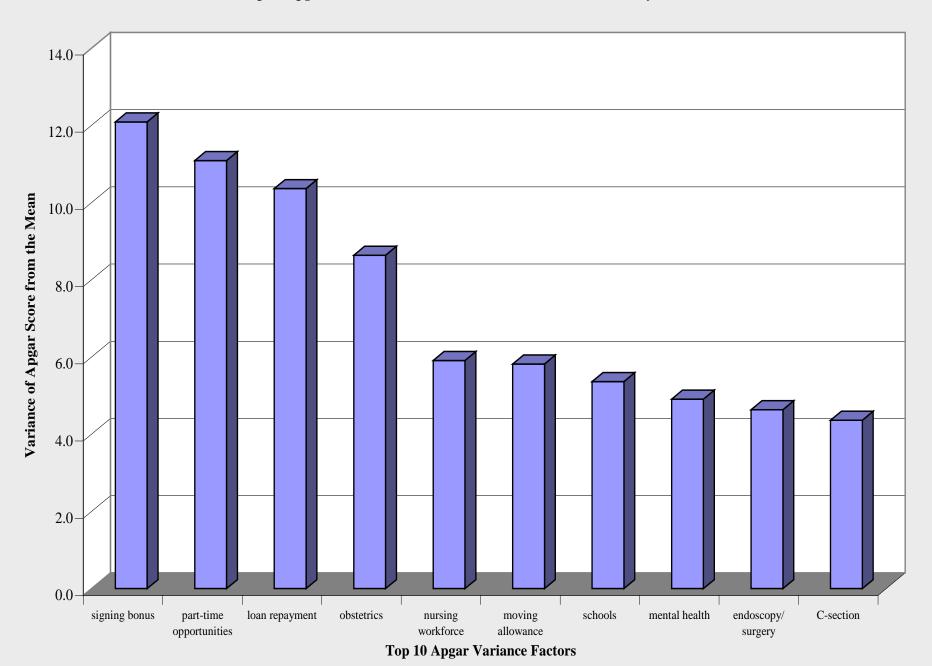


Comparative Apgar Score for Community and Hospital Support Class for Community Five

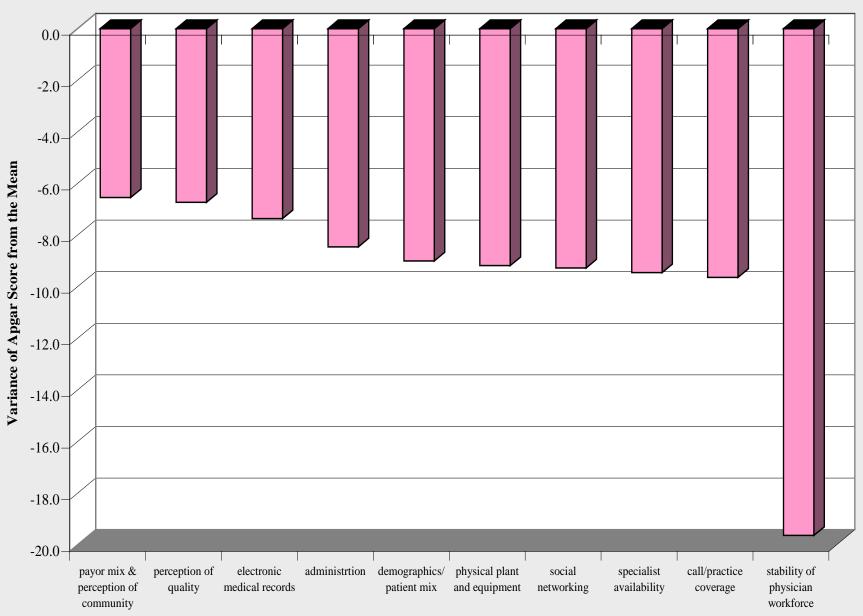


Community and Hospital Support Factor

Top 10 Apgar Variance Factors Across All 50 Factors in Community Five



Top 10 Apgar Variance Factors Across All 50 Factors in Community Five



Bottom 10 Apgar Variance Factors

The Community Apgar Questionnaire



Future Applications

CAQ Sister Programs

- Community Health Center CAQ development completed (2010) in partnership with Idaho Primary Care Association
 - Funded for 6 CHCs in Idaho (2010-11)
- Nursing CAQ under development in partnership with Boise State University Department of Nursing

Regional and National Use of the Community Apgar Project

- The Peer Group Data Bases (anonymous):
 - Idaho, Wyoming (possibly adding Wisconsin, Maine, Virginia, Montana, Washington, others)
 - Individual state comparisons
 - Regional database
 - National database
 - Individual communities benefit immediately
 - Further research with a "rising tide raising all boats"

CAQ Funding

- Funding Sources
 - FLEX funds
 - State Office of Rural Health funds
 - Grant funds (e.g. USDA)
 - Direct cost share with institutions

Questions?



More information available at:

www.ruralidmed.org

Or contact: dave.schmitz@fmridaho.org