Community Apgar Recruitment and Retention: Partnering for Rural Workforce

UNIVERSITY OF NORTH DAKOTA

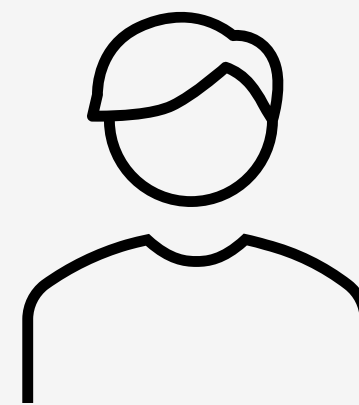3RNET Annual Conference

August 27, 2025

Presenters:
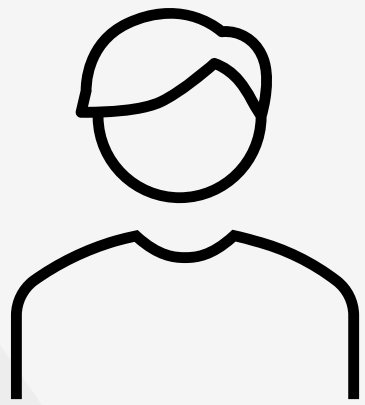
David Schmitz, MD
Professor & Chair
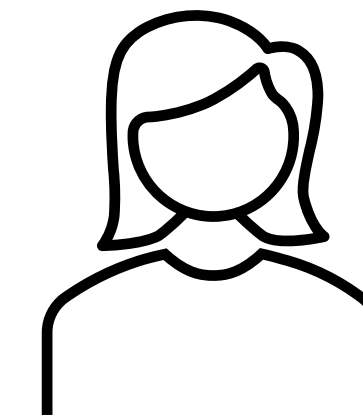Department of Family and Community Medicine
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- Original Community Apgar Program developmental funding provided by Mary Sheridan, Bureau Chief, Idaho Bureau of Rural Health and Primary Care
- Our partners across the US and Australia who have worked with us to improve health care in rural and underserved communities

Presentation Overview

❑ History of the Community Apgar Program (CAP)

❑ Purpose/Development

❑ Recruitment and Retention Factors

❑ Using the Community Apgar Questionnaire (CAQ)

❑ Interactive/ Audience participation

❑ Examples from Community Level Results

Background

How did we get here – Why research?

- Boise State University: Ed Baker, PhD
- University of North Dakota: David Schmitz, MD
- Idaho Bureau 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"
  - 3RNET
  - NOSORH
  - University of Melbourne, Australia
 - Federation University, Australia

Apgar Score for Newborns

- Devised in 1952 by Virginia Apgar, an anesthesiologist, as a simple and repeatable method to quickly and summarily assess the health of newborn children immediately after birth

- Determined by evaluating the newborn baby on five simple criteria (**A**ppearance, **P**ulse, **G**rimace, **A**ctivity, **R**espiration) on a scale from zero to two, then summing up the five values thus obtained

A new response to the same old problem…

What if there was a similar test for hospitals – quick and repeatable with intervention measures on standby – to assess readiness for recruiting CEOs?

- Something new
- Something based on quantifiable data
- Something that incorporates the whole community
- Something that shows people on graphs and charts

 where they are and how to achieve their goals
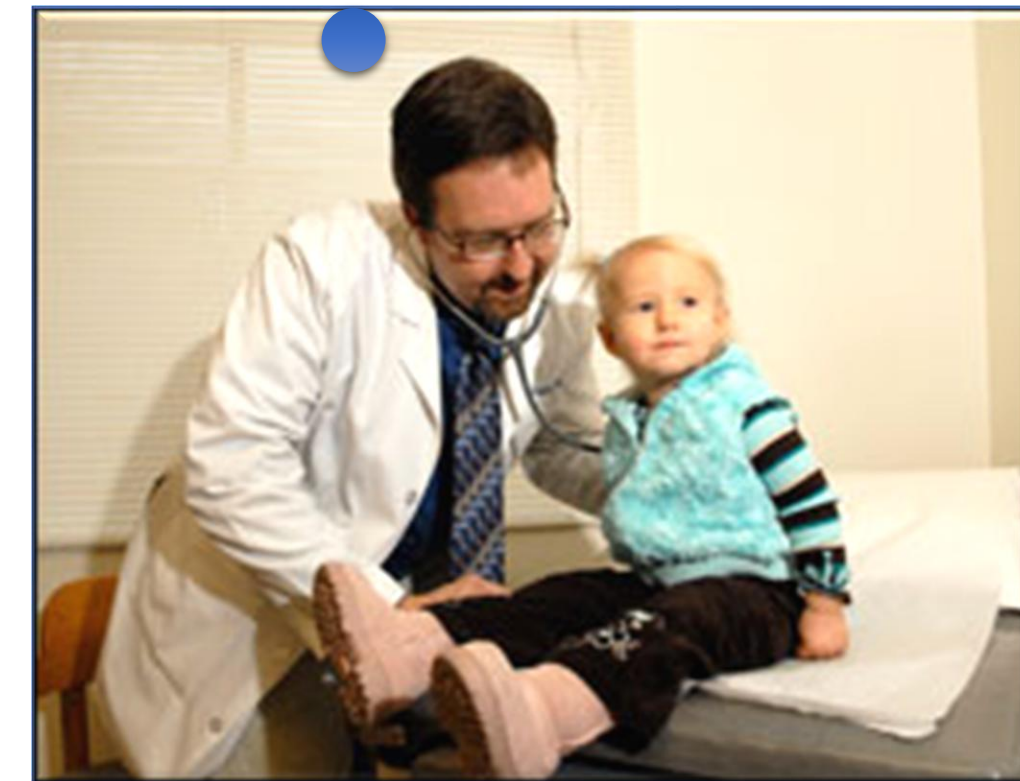
Community Apgar History

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Year 1 (2007)
Idaho Family Physician Rural Work Force Assessment Pilot Study [Published in the *Journal of Rural Health*]

Year 2 (2008)
Critical Access Hospital Community Apgar Questionnaire (CAH CAQ) [Published in the *Rural & Remote Health Journal*]

Year 3 (2009)
• Examining the Trait of Grit and Satisfaction in Idaho Physicians [Published in the *Journal of the American Board of Family Medicine*]
• Community Apgar Program (CAP) Pilot for Critical Access Hospitals in Idaho
• Nursing Community Apgar Questionnaire (NCAQ) [Published in *Rural & Remote Health Journal*]

Year 4 (2010)
• Community Health Center Community Apgar Questionnaire (CHC CAQ) [Published in the *Rural & Remote Health Journal*]
• CAP for Community Health Centers in Idaho
• Community Apgar Solutions Pilot Project

Years 5-13 (2011-2019)
• Expansion of the CAP for Critical Access Hospitals and Community Health Centers
 - Wyoming, North Dakota, Wisconsin, Alaska, Indiana, Utah, Montana, and Iowa (CAH)
 - Maine (CHCs)
•Rural Community Variation in Physician Recruitment Readiness [Published in *Journal of Health Science*]
• Nursing CAP in Idaho
•Assessing Idaho Rural Family Physician Scope of Practice over Time [Published in the *Journal of Rural Health*]
•Expansion of the CAP in Australia

Years 14-17 (2020-2023)
•HPERC CAP
•Rural Pharmacists CAP
•CAH CEO CAP
•Updated Nurse CAP

Community Apgar Suite of Research Tools

Purpose of the Community Apgar Questionnaire (CAQ)

- A tool used to assess a rural community's assets and capabilities in recruiting and retaining health professionals in rural/underserved areas

- Designed to be a real-time assessment tool providing guidance for the most helpful interventions at the present

- Presentation of individual CAQ Scores facilitating discussions with key decision makers in each community for specific strategic planning and improvements

- The CAQ can also be used to track a community's progress over time, like the clinical use of Apgar scores in newborns

Community Apgar Questionnaire (CAQ) Development

Goal

Develop an objective measurement tool to assess the characteristics and parameters of rural communities related to successful recruitment and retention of various health professions

Process

Research the scientific literature → Expert opinions → Collaboration

CAQ Development

- The CAQ

  - Questions aggregated into five classes

  - Each class contains 10 factors for a total of 50 factors/questions representing specific elements related to recruitment and retention of health professionals to rural areas

  - Open-ended questions

Geographic

Economic

Scope of Responsibility

Administrator Support

Hospital & Community Support

CAQ
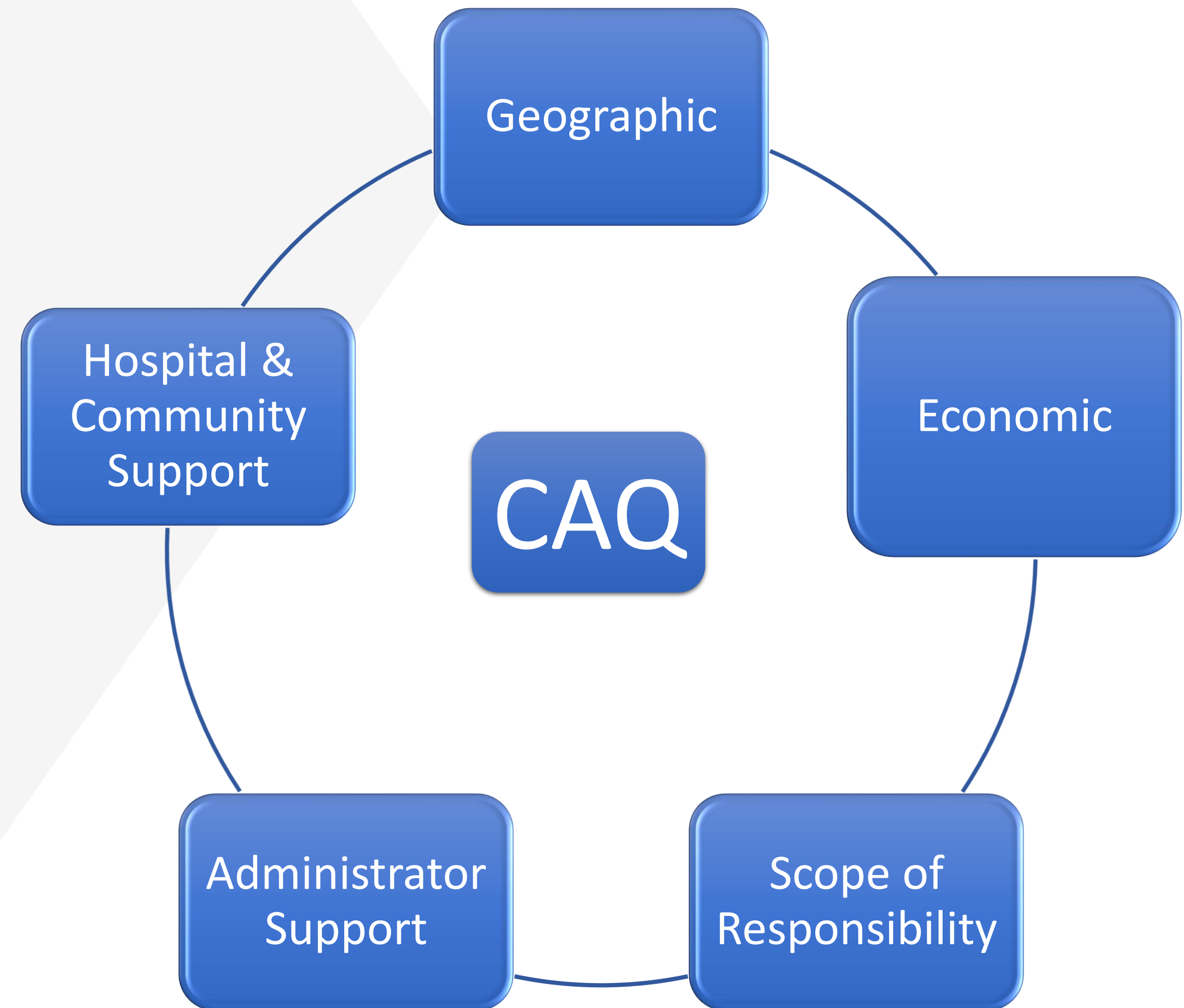
Family Physician CAH CAQ Class/Factor Examples

Geographic
- Schools
- Climate
- Perception of Community
- Spousal satisfaction
- Social Networking

Economic
- Loan Repayment
- Competition
- Part-time Opportunities
- Signing Bonus

Scope of Practice
- Emergency Care
- Mental Health
- Obstetrics
- Administrative Duties
- Teaching

Medical Support
- Nursing Workforce
- Call/Practice Coverage
- Perception of Quality
- Specialists Available

Hospital & Community Support
- EMR
- Welcome & Recruitment
- Televideo Support
- Plans for Capital Investment
- Hospital Leadership
- Community Need and Support

FQHC CAQ Class/Factor Examples

Geographic

- Access to a Larger Community
- Spousal Satisfaction
- Demographics/ Payor Mix
- Shopping and Other Services
- Climate

Economic

- Part-Time Opportunities
- Loan Repayment
- Salary
- Signing Bonus/Moving Allowance
- Fiscal Stability

Scope of Practice

- Obstetrics: Prenatal Care
- Inpatient Care
- Emergency/ Stabilization
- Teaching
- Administration

Medical Support

- Perception of Quality
- Specialists Available
- Nursing Workforce
- PA/NP Workforce
- Call/Practice Coverage

Facility & Community Support

- Physical Plant and Equipment
- Plans for Capital Investment
- EMR
- Leadership
- Community Need/Support

RHC CAQ Class/Factor Examples

Geographic

- Access to a Larger Community
- Climate
- Spousal Satisfaction
- Schools
- Shopping and Other Services

Economic

- Perceived Fiscal Stability
- Loan Repayment
- Signing Bonus
- Take-Home Pay
- Retirement Package
- Competition

Scope of Practice

- Inpatient Care
- Emergency/ Stabilization Care
- Mental Health
- Administration
- Teaching

Medical Support

- Perception of Quality
- Call/Practice Coverage
- PA/NP Workforce
- Nursing Workforce

Hospital & Community Support

- Physical Plant & Equipment
- Plans for Capital Investment
- EMR
- Community Need and Support

CEO CAH CAQ Class/Factor Examples

Geographic

- Recreational Opportunities
- Housing
- Schools
- Spousal/ Significant Other Satisfaction

Economic

- Salary
- Hospital Budget Constraints
- Hospital Sponsored Educational & Professional Development
- Retention Bonus

Scope of Responsibility

- CEO Financial Skills Requirement
- Management of Physician Workforce
- Board of Directors Relationships
- Administrative Call

Administrator Support

- Collegial Support
- Stability & Strength of Board
- Services Responsive to Community Need
- CEO Support Staff

Hospital & Community Support

- CEO Induction & Orientation Program
- Community Need & Support of CEO
- Physical Plant & Equipment
- Marketing Support

Nurse CAH CAQ Class/Factor Examples

Geographic

- Schools
- Climate
- Demographics/ Patient Mix
- Access to a Larger Community

Economic

- Housing
- Moving Allowance/ Signing Bonus
- Child Care
- Shift Differential

Management/ Decision Making

- Hospital Leadership/ Management
- Autonomy
- Recognition/Positive Feedback
- Teaching/Mentoring

Practice environment/ Scope

- EMR
- Clinical Variety/Emergency Care
- Patient Safety/Quality Care
- Job Satisfaction/Morale

Community/ Practice Support

- Welcome and Recruitment program
- Community Health/Nursing Services
- Acceptance of nurses new to professional community
- Nursing Workforce Adequacy and Stability

Use of the CAQ

- Identify modifiable and non-modifiable factors
- Suggest/ identify most important factors to address
- Assess strengths, challenges, and importance of factors to gain a better understanding of "bigger picture"
- Gain real-time context of key issues at local and state levels

Making the most out of the CAQ

Assessing a rural community's assets and capabilities for recruitment and retention of health professionals:

☐ Community self-evaluation

☐ Prioritizing improvement plans

☐ Networking and collaboration

☐ Advocacy

Future of the CAQ

- Community Apgar studies have been used to share **successful strategies** communities have used to **overcome challenges** which may be difficult or impossible to modify (Best Practice Modeling).

- CAQ surveys may be useful in **identifying trends and overarching themes** which can be further addressed at state or national levels.

Current Apgar Partners
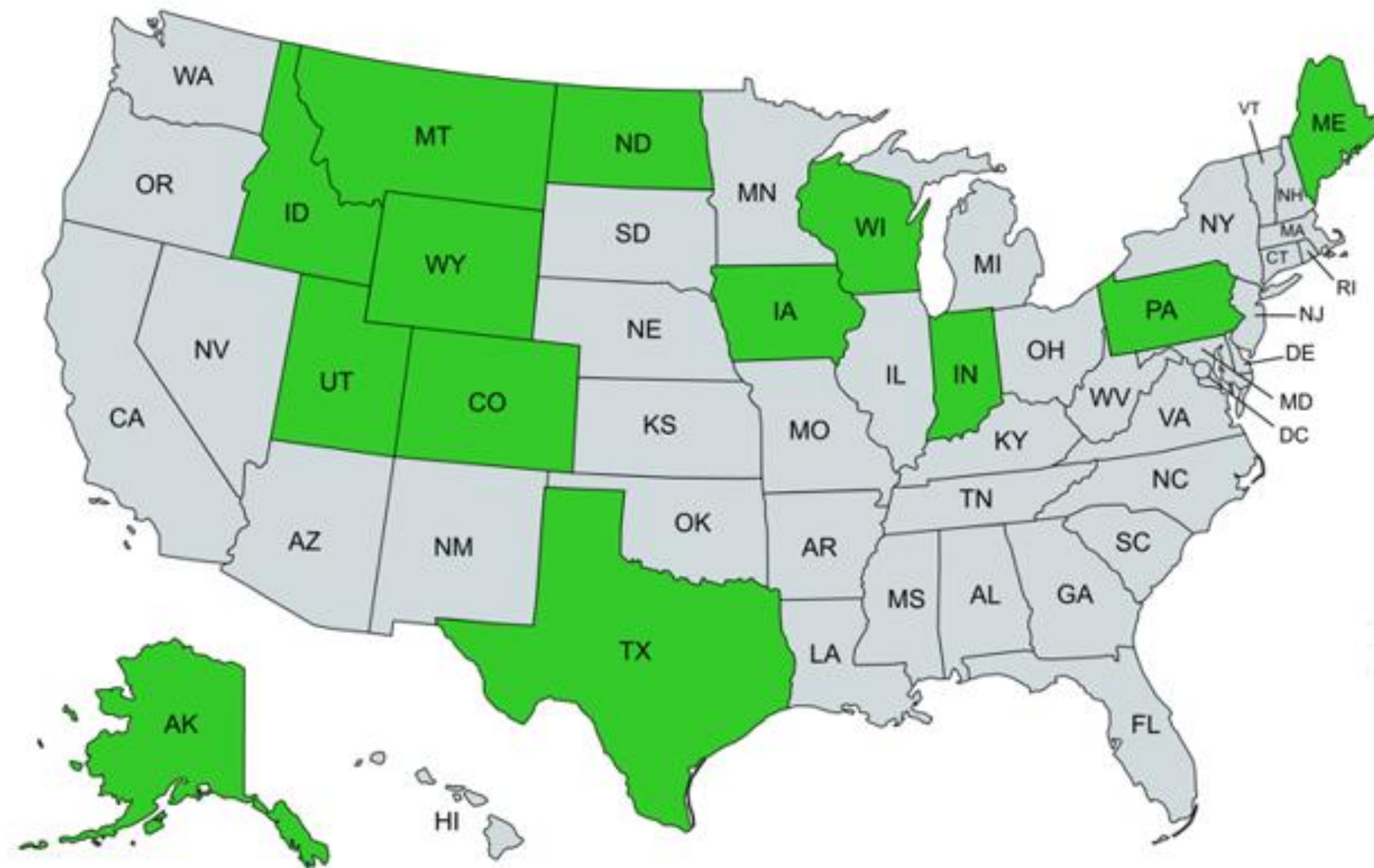
•States Participating/Participated

Examples from Overall North Dakota Community Level Results

Top 10 Advantage Factors across All 50 Factors

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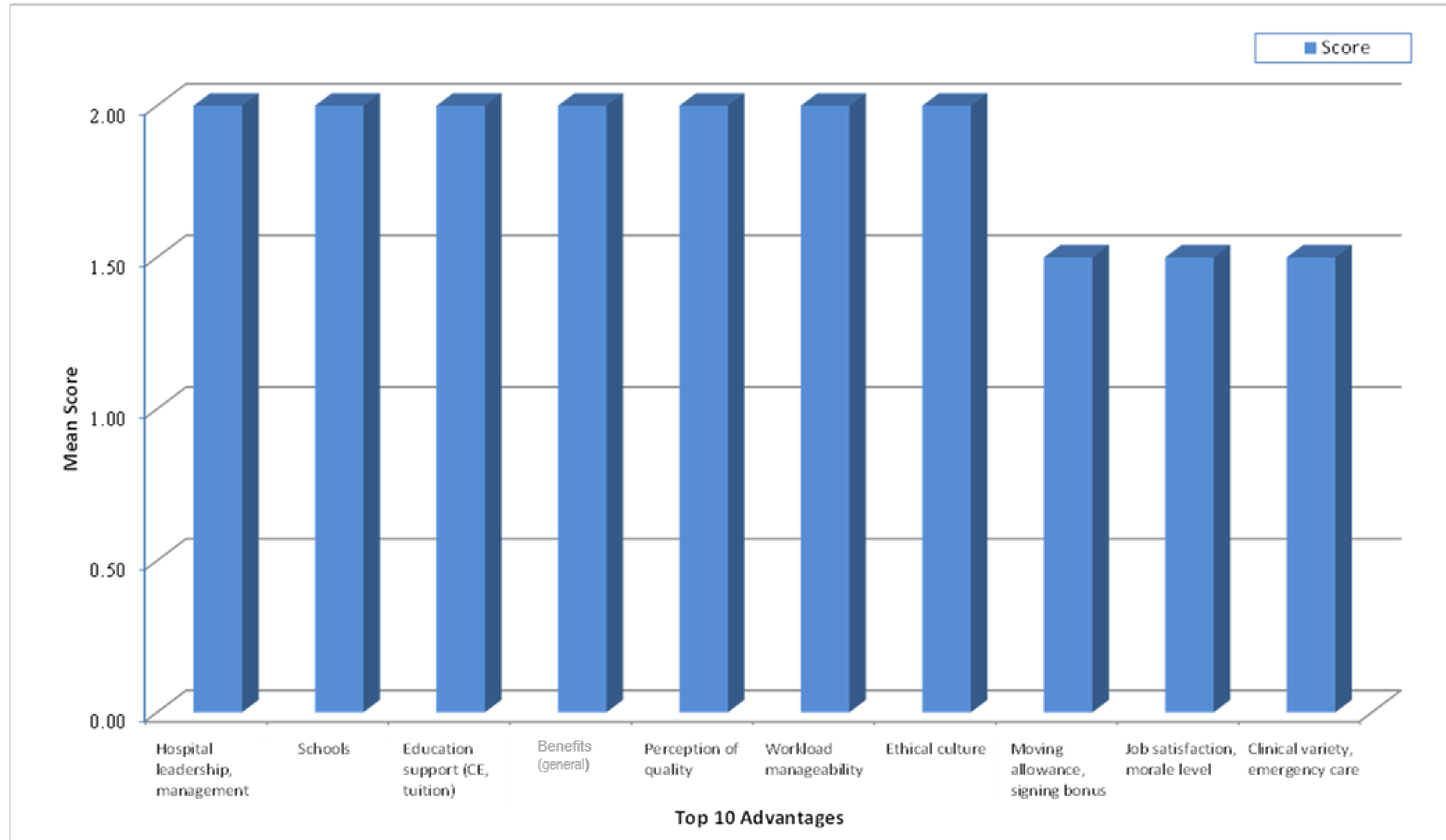
Top 10 Challenge Factors across All 50 Factors
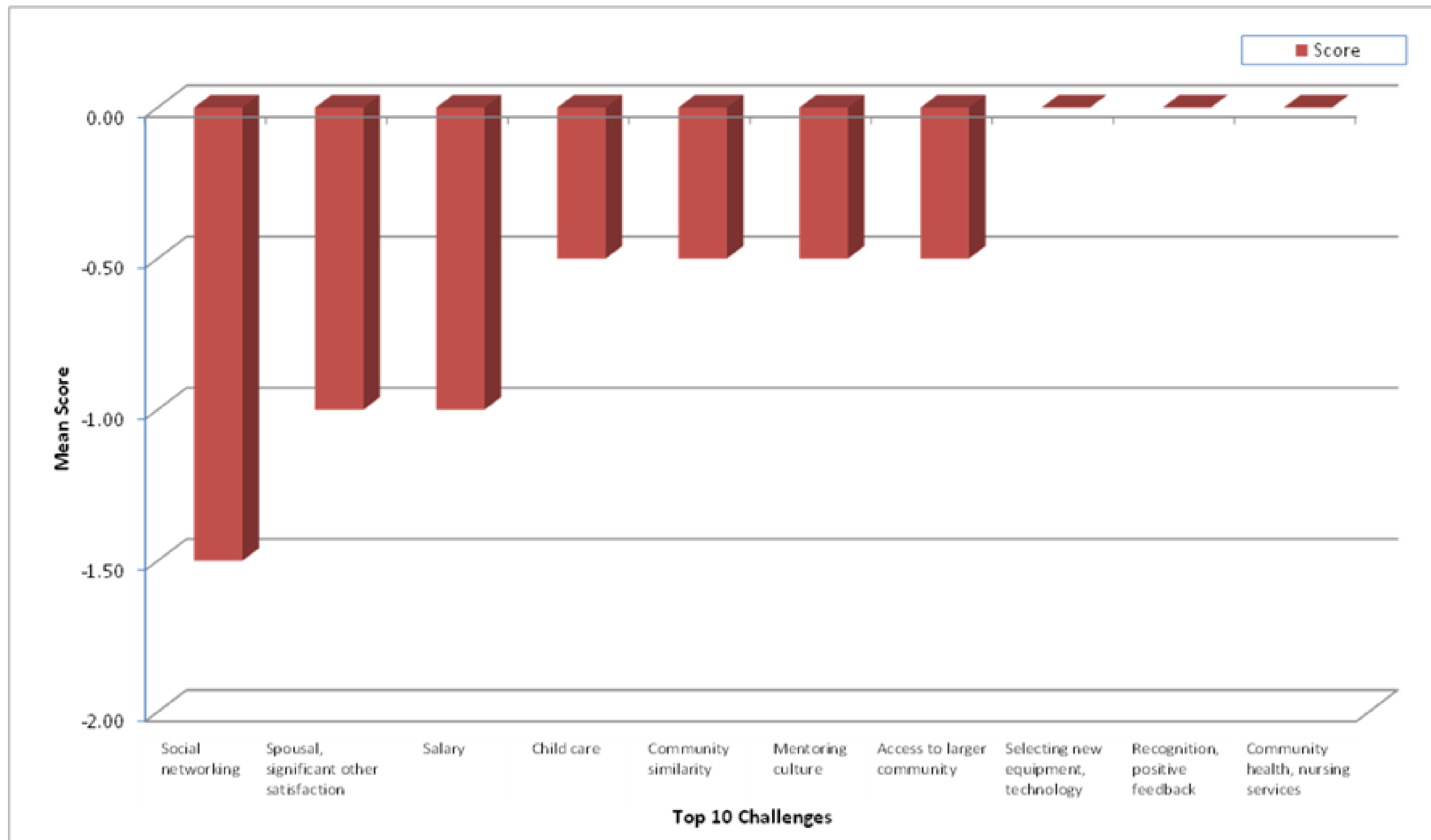
Top 10 Importance Factors across All 50 Factors
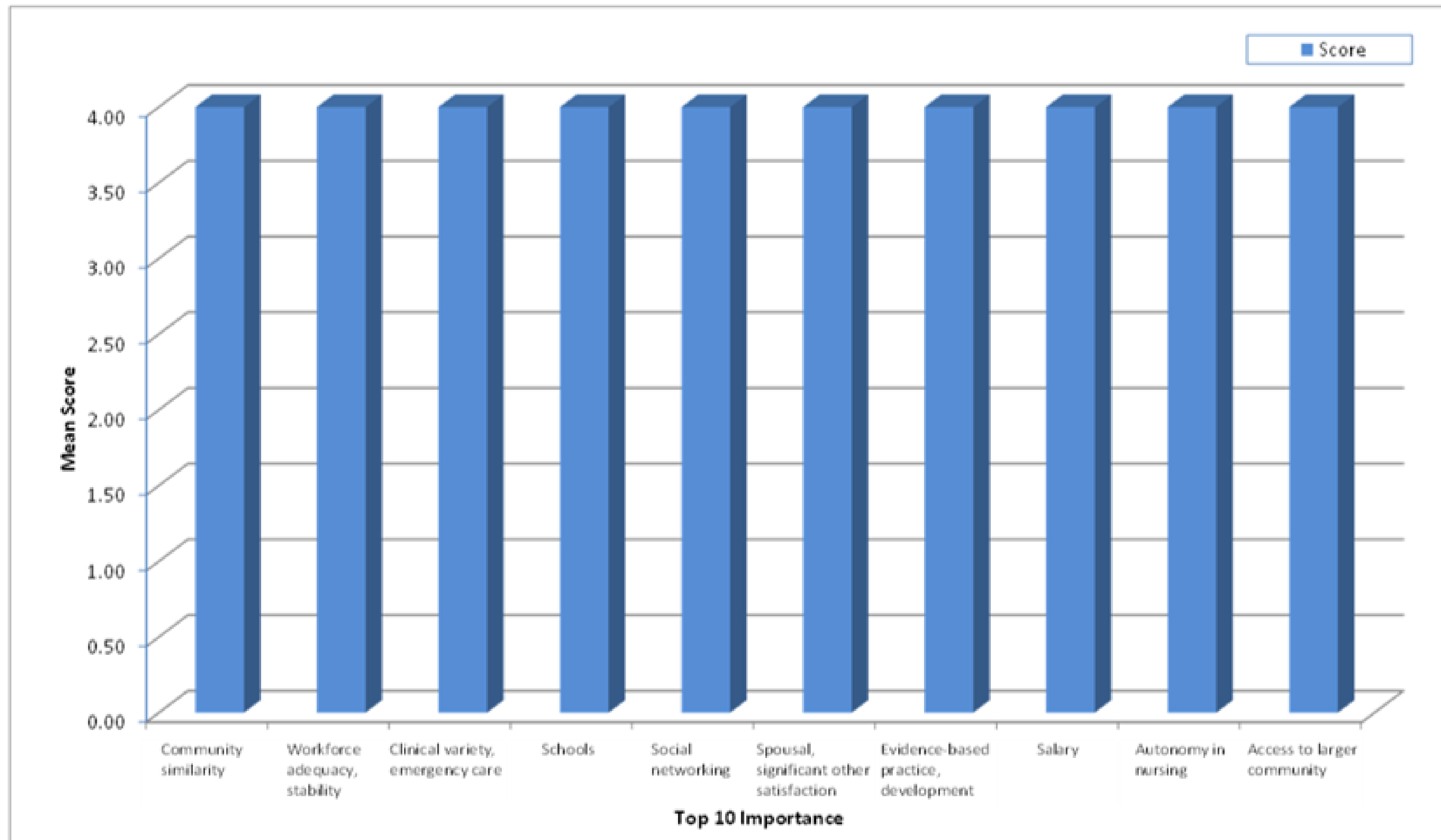
Top 10 Apgar Factors across All 50 Factors
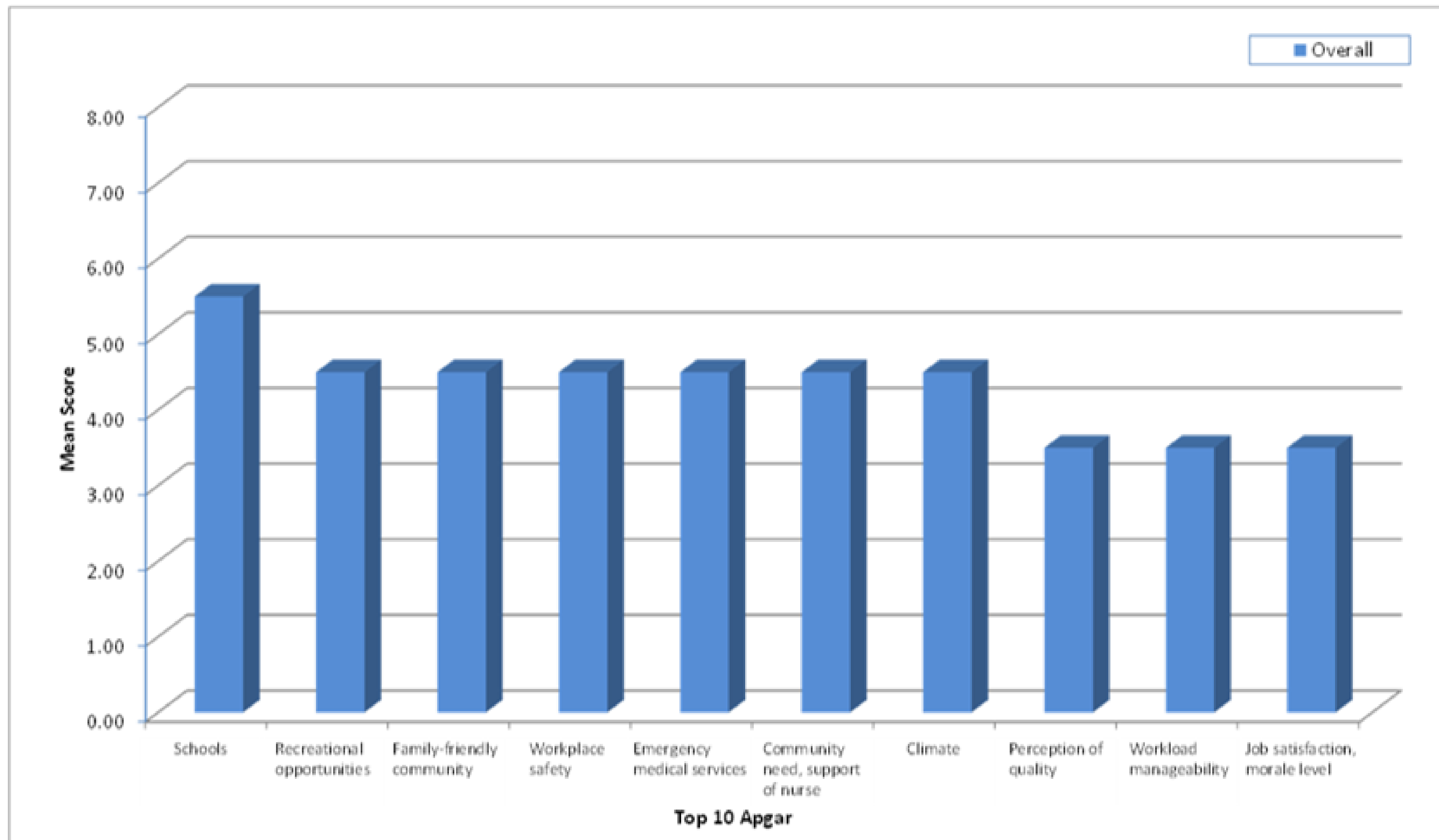
Bottom 10 Apgar Factors across All 50 Factors
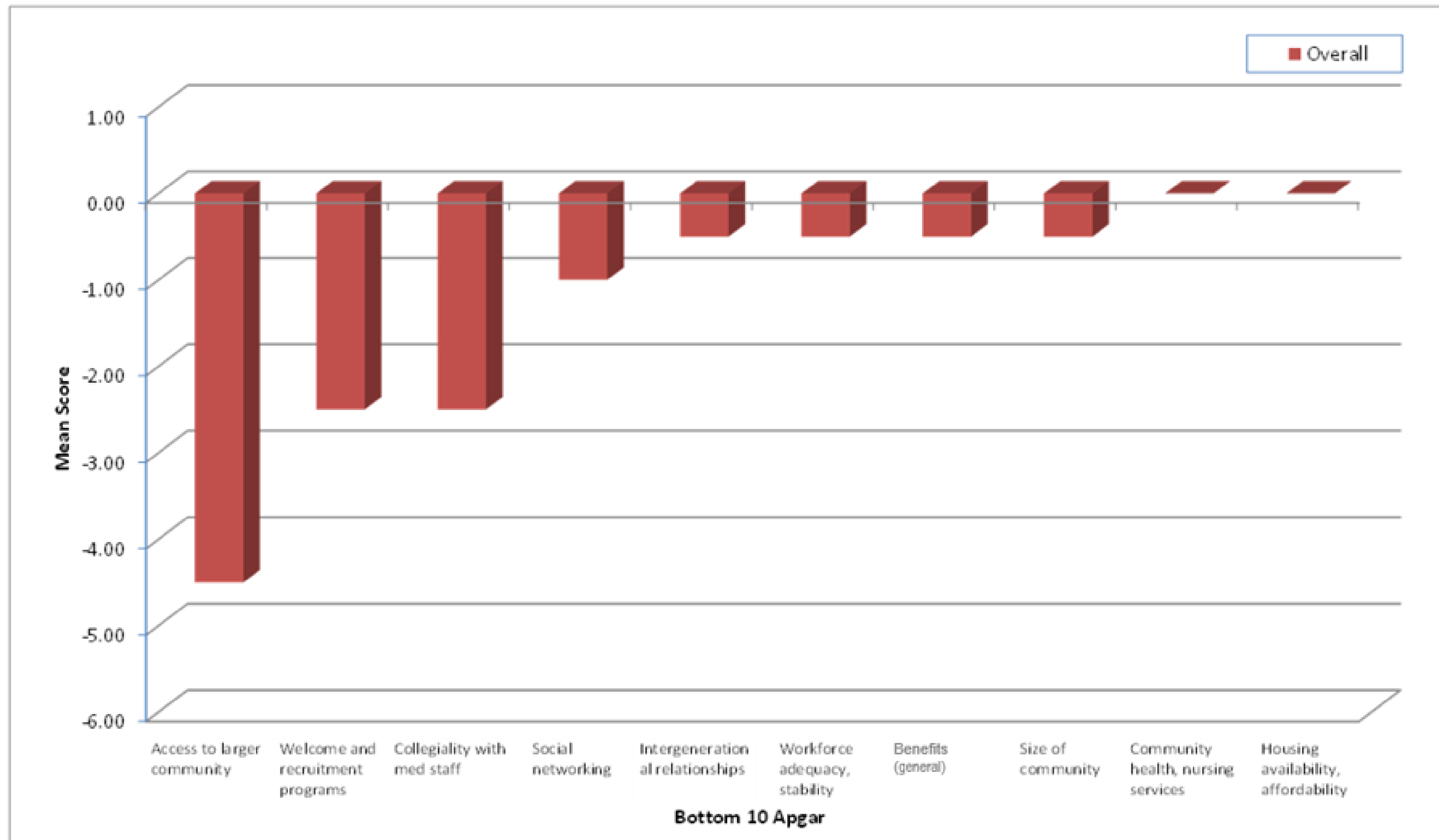
Examples from Comparative
North Dakota Community Level Results

Comparative Cumulative Apgar Score

Comparative Cumulative Apgar Score for Geographic Class

Comparative Cumulative Apgar Score for Economic/Resources Class

Comparative Cumulative Apgar Score for Management/Decision Making Class

Comparative Cumulative Apgar Score for Practice Environment/Scope Class
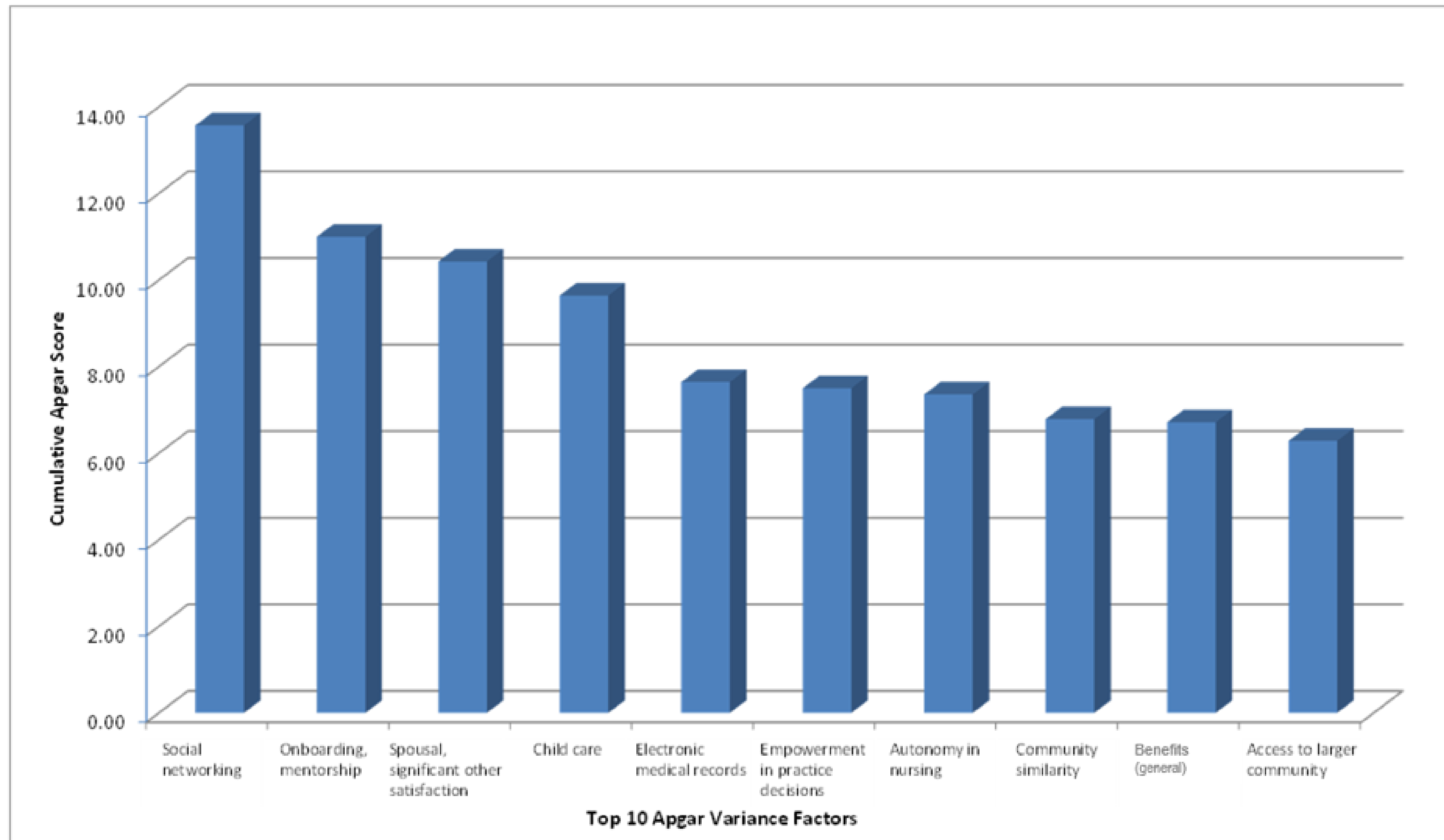
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Comparative Cumulative Apgar Score for Community/Practice Support Class
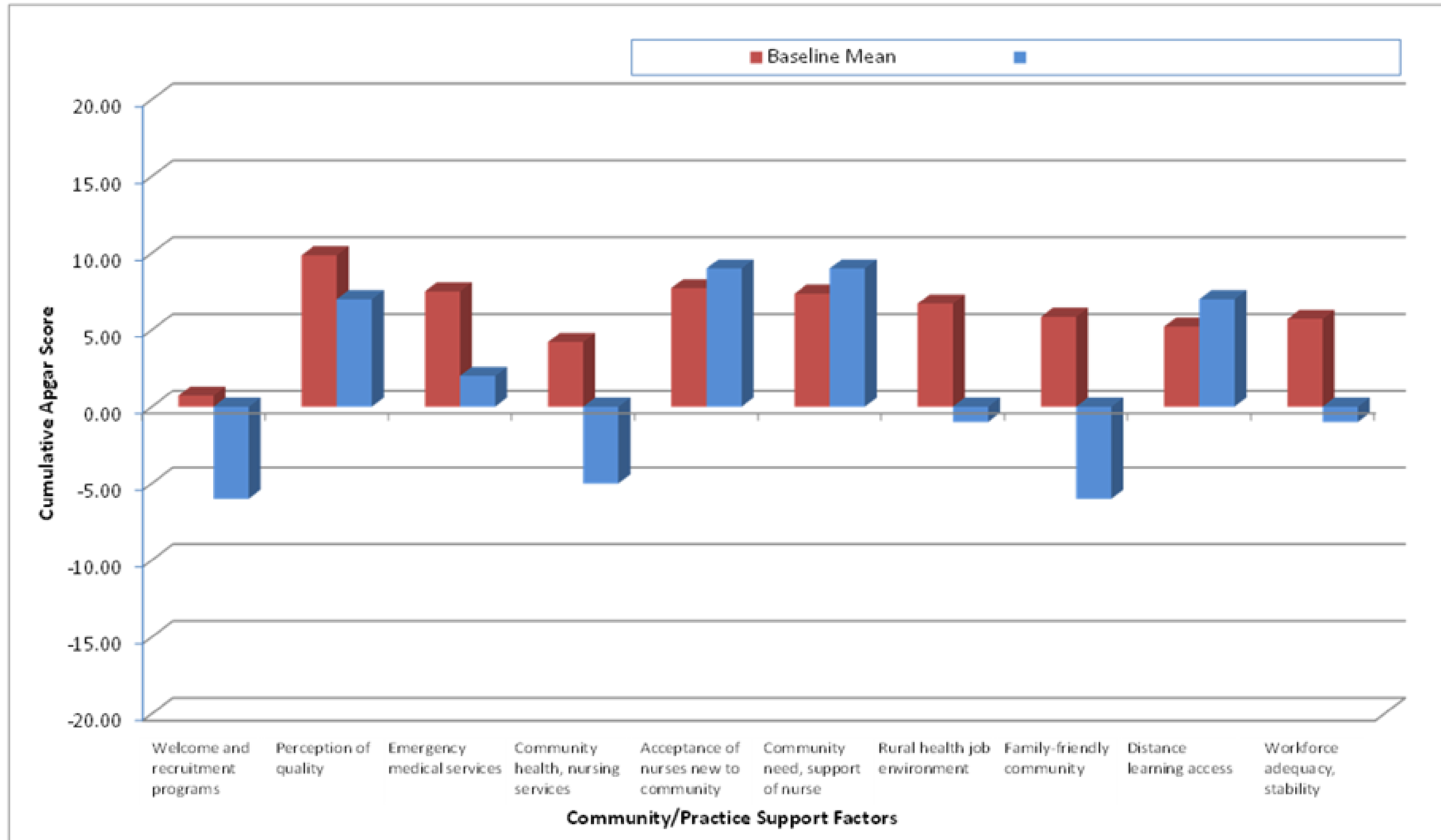
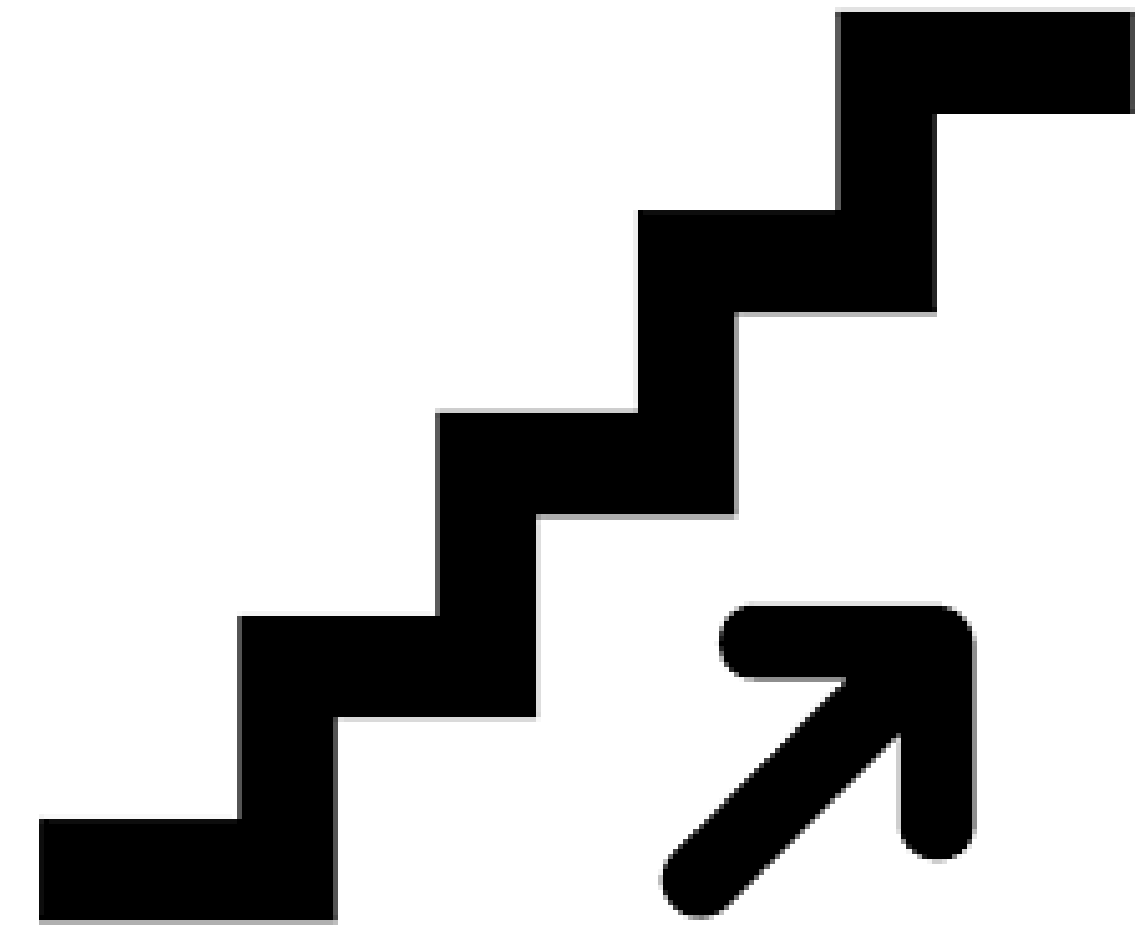Top 10 Cumulative Apgar Variance Factors across All 50 Factors

Bottom 10 Cumulative Apgar Variance Factors across All 50 Factors
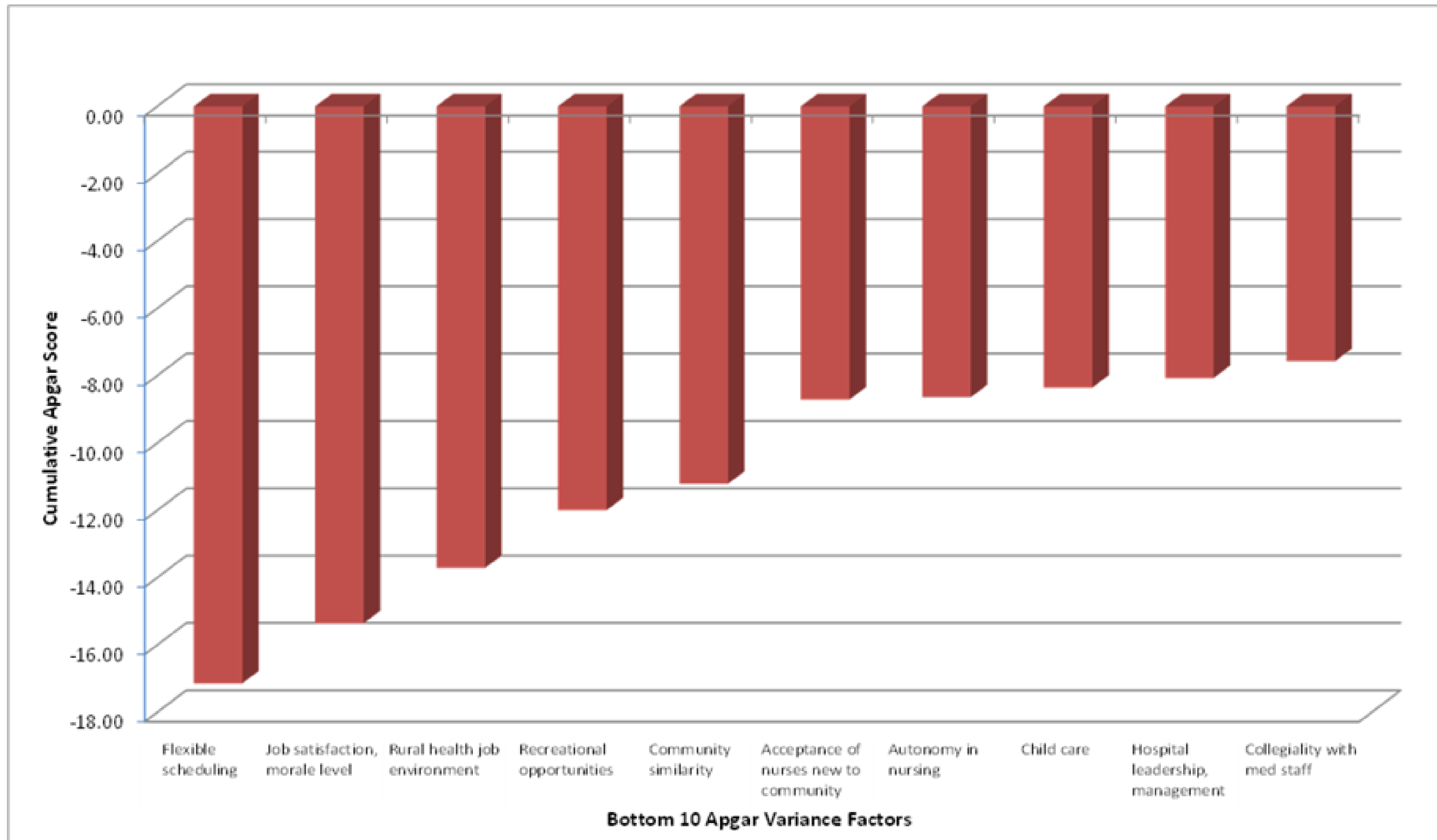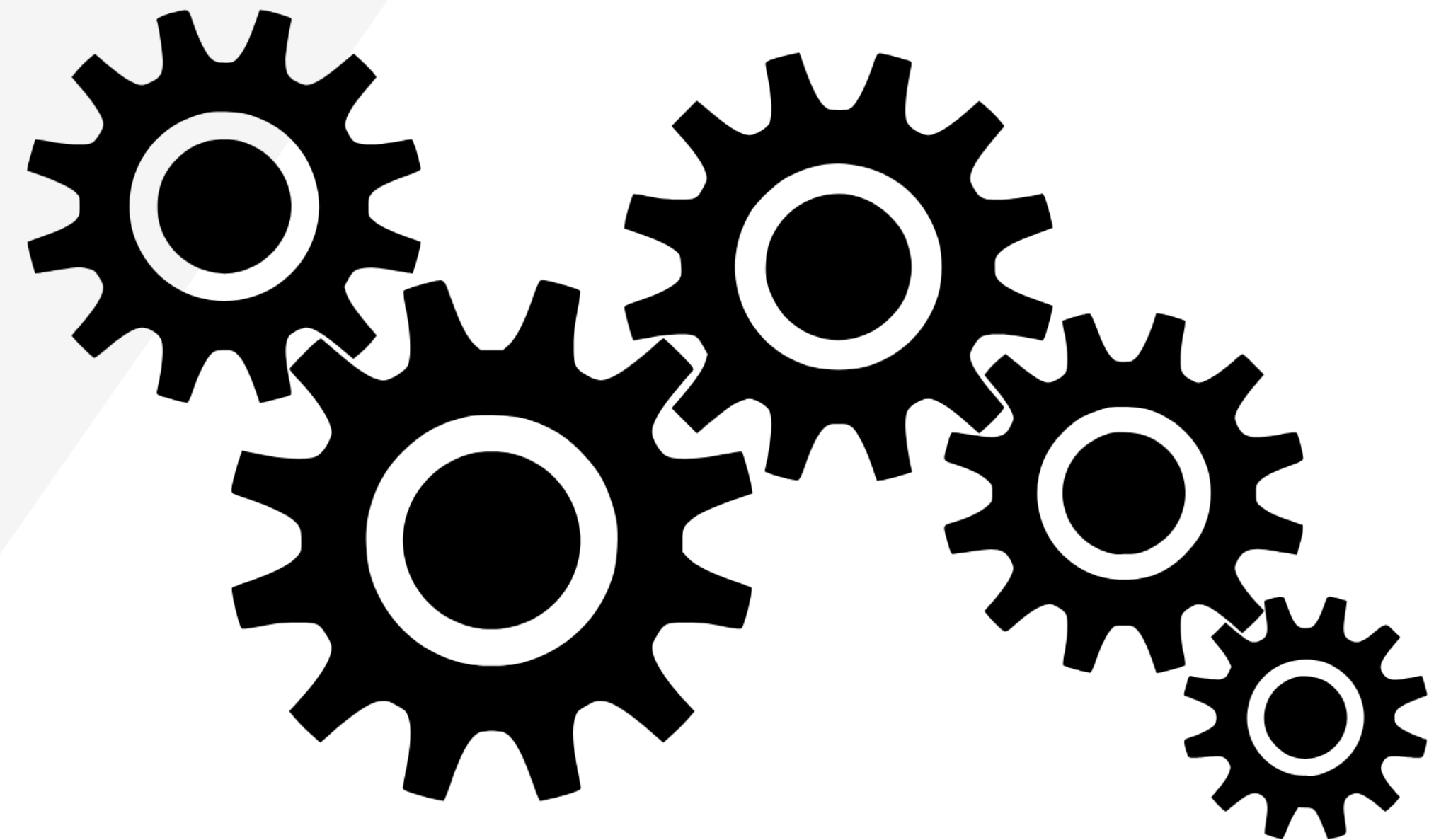
Next Steps

1. Develop action plan (next slide)

2. CAQ administered again in second year

3. Second leadership team presentation

Action Plan (3-5 bullet points)

Be as specific as possible:

1.

2.

3.

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