

Community APGAR Program: A Tool for Improving the Recruitment and Retention of Rural Communities - An Assets and Capabilities Assessment:

Experiences from Maine and Review of National Data

Presented by:

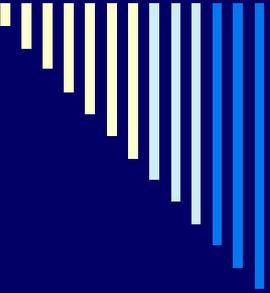
David Schmitz, MD, FAAFP
Associate Director of Rural Family Medicine
Family Medicine Residency of Idaho

Ed Baker, PhD
Director, Center for Health Policy
Boise State University

Presented at:

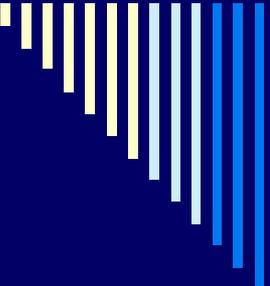
Arizona Recruitment and Retention Forum 2013
Phoenix, Arizona

Date: January 15, 2013



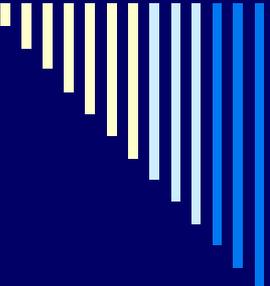
Presentation Overview

- ❑ Background/Purpose/Development
 - ❑ Using the Community Health Center Community Apgar Questionnaire (CHC CAQ)
 - ❑ Maine Comparative Database Results
 - ❑ Examples from Facility Level Report
 - ❑ Next Steps
 - ❑ Findings from the National Apgar Database
 - ❑ Questions/Comments for Discussion
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Acknowledgements

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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
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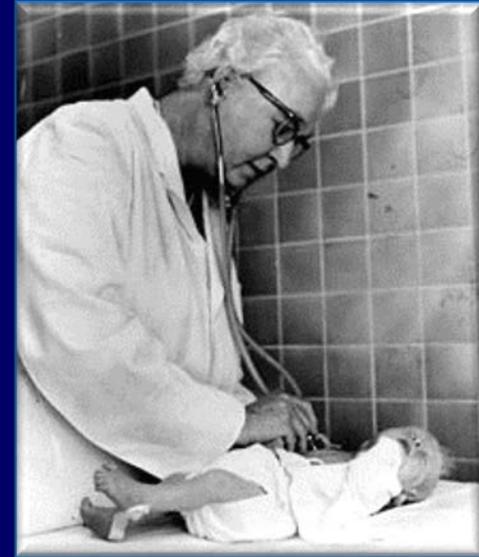


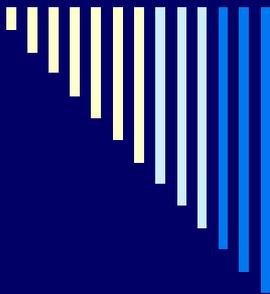
Background

- 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”
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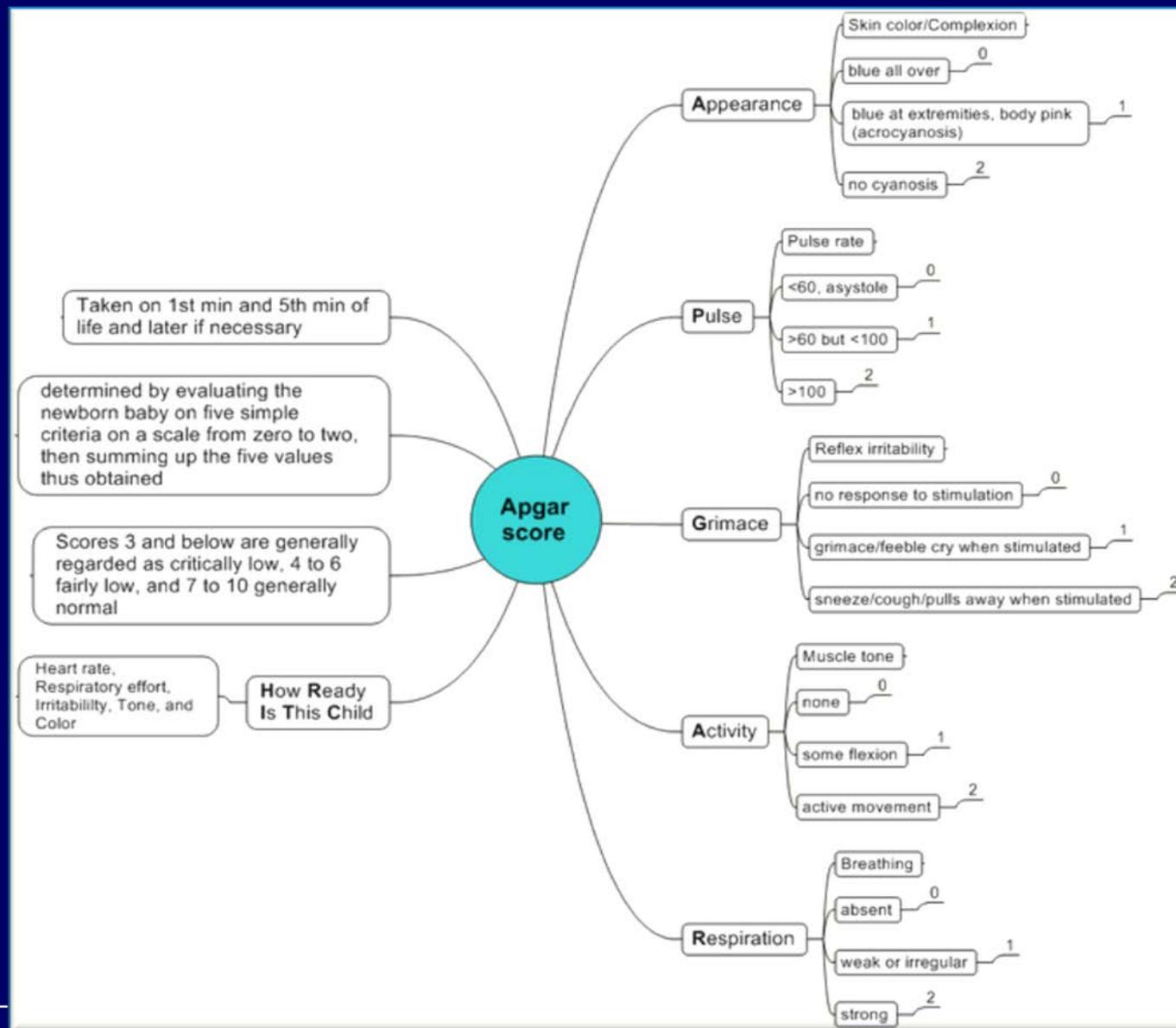
Apgar Score for Newborns

- 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





Mind Mapping Apgar Scoring



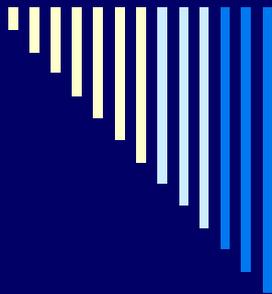
How Ready is this Child?

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 physicians?

- 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.





A History of Community Apgar

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)

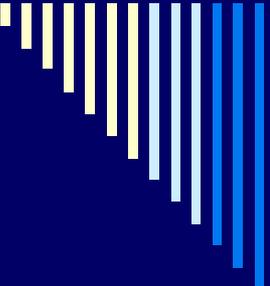
- Examining the Trait of Grit and Satisfaction in Idaho Physicians [Accepted for publication in the Journal of the American Board of Family Medicine]
- Community Apgar Program (CAP) Pilot for Critical Access Hospitals in Idaho
- Nursing Community Apgar Questionnaire (NCAQ)

Year 4 (2010)

- Community Health Center Community Apgar Questionnaire (CHC CAQ) [Under review for publication in the Rural and Remote Health Journal]
- Community Apgar Program (CAP) for Community Health Centers in Idaho
- Community Apgar Solutions Pilot Project

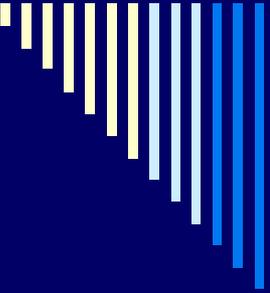
Years 5 & 6 (2011/2012)

- Expansion of the Community Apgar Program (CAP) for Critical Access Hospitals and Community Health Centers
 - Wyoming, North Dakota, Wisconsin and Alaska (CAHs)
 - **Maine (CHCs)**



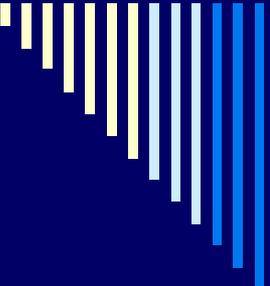
Purpose of the Community Health Center CAQ (CHC CAQ)

- A validated tool used to assess an underserved 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.
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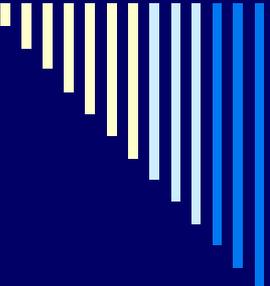
Purpose of the CHC CAQ (cont.)

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

- The CHC CAQ
 - Questions aggregated into 5 Classes
 - Geographic
 - Economic
 - Scope of Practice
 - Medical Support
 - Facility and Community Support
 - Each Class contains 10 factors for a total of 50 factors/questions representing specific elements related to recruitment and retention of physicians in underserved areas.
 - Three open-ended questions
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CHC CAQ Development: Class/Factor Examples

Geographic

- Schools
- Climate
- Perception of Community
- Spousal Satisfaction

Economic

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

Scope of Practice

- Mental Health
- Emergency Care
- Inpatient Care
- Administration Duties

Medical support

- Nursing Workforce
- Call/practice Coverage
- Perception of Quality
- Specialist Availability

Facility and Community Support

- EMR
- Welcome & Recruitment
- Televideo Support
- Plan for Capital Investment

Community Apgar Project Timeline for Maine's CHCs

May – Dec. 2011



May – Oct. 2012

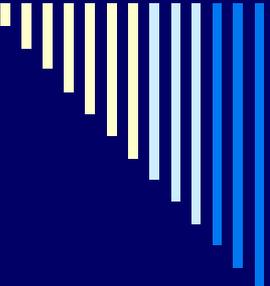


Two Rounds of Structured Interviews

Two Rounds of Community Presentations

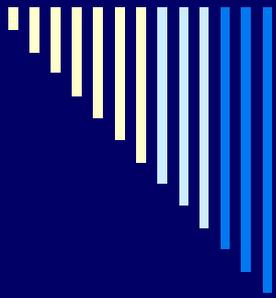
Jan. – May 2012

Dec. 2012 – May 2013

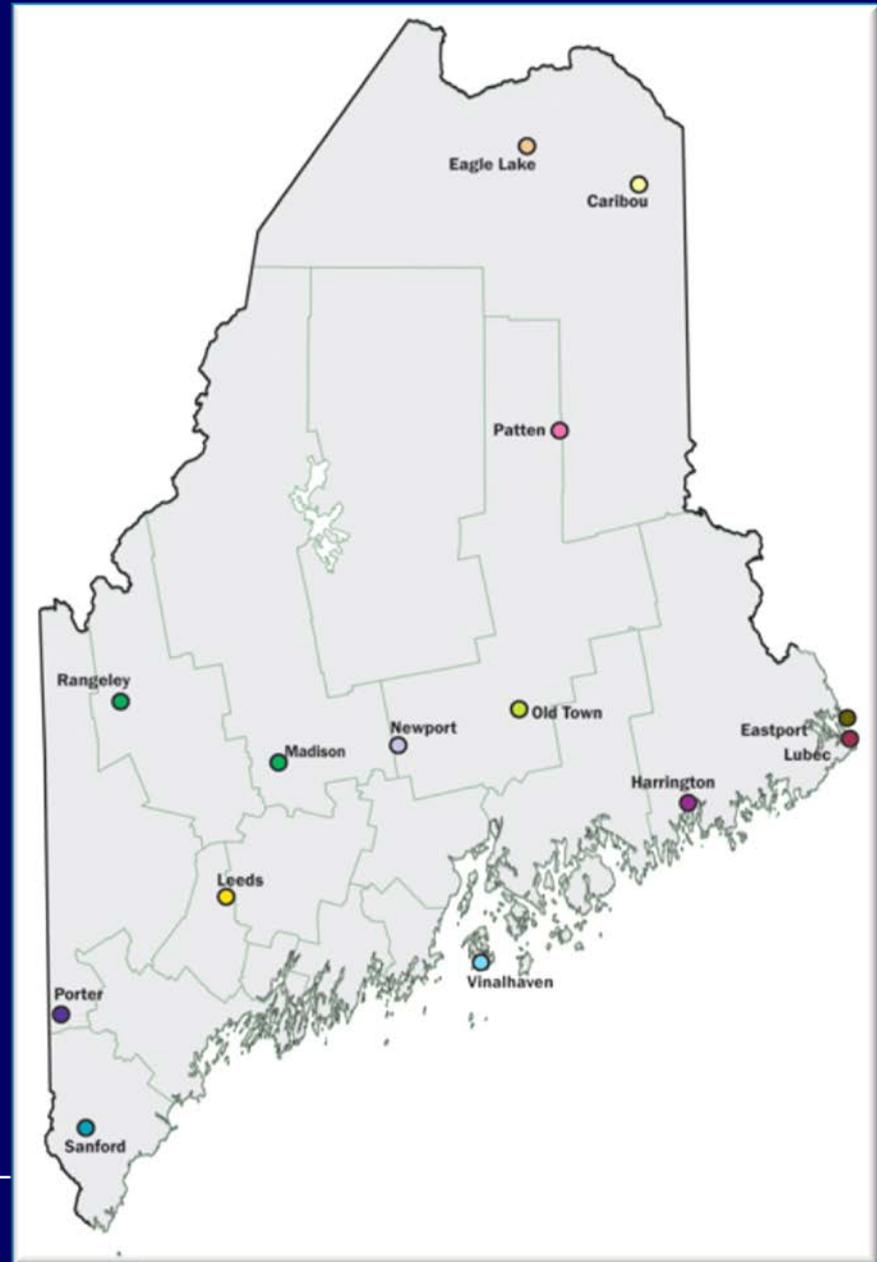


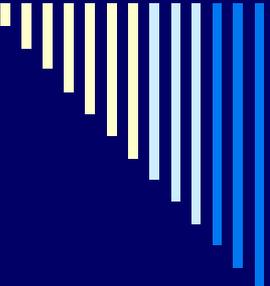
CHC CAQ Development: Maine Sample and Administration

- CHC CAQ Target Communities in Maine
 - 13 CHCs and 14 sites (one CHC had two sites that participated)
 - 14 facility administrators and 14 clinicians (8 physicians, 5 nurse practitioners and 1 physician assistant) for a total sample of 28
 - CHC CAQ Administration
 - Participants mailed the CHC 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
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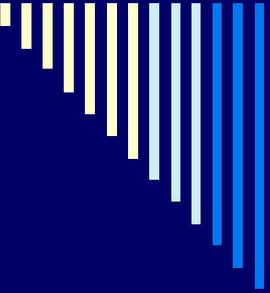
Community Apgar Participating Sites





Use of the CHC CAQ

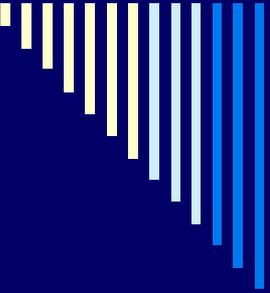
- This assessment allows for identification of both modifiable and non-modifiable factors and also may suggest which factors are most important for a community to address with limited available resources.
 - The CHC CAQ may be used by communities to assess their relative strengths and challenges, the 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.
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Making the most of the CHC CAQ

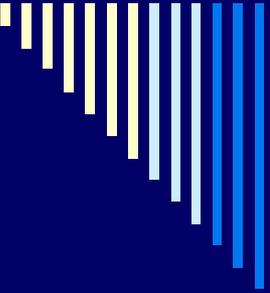
Recruiting and Retaining Family Physicians:

- ❑ community self-evaluation
 - ❑ prioritizing improvement plans
 - ❑ advertising and interviewing
 - ❑ negotiation strategies and contract construction
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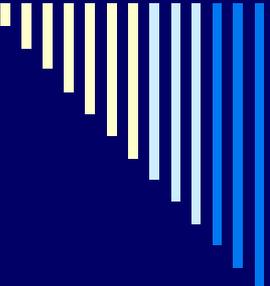
The CAQ Value Proposition

- 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
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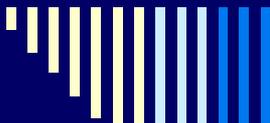
Future of the CHC CAQ

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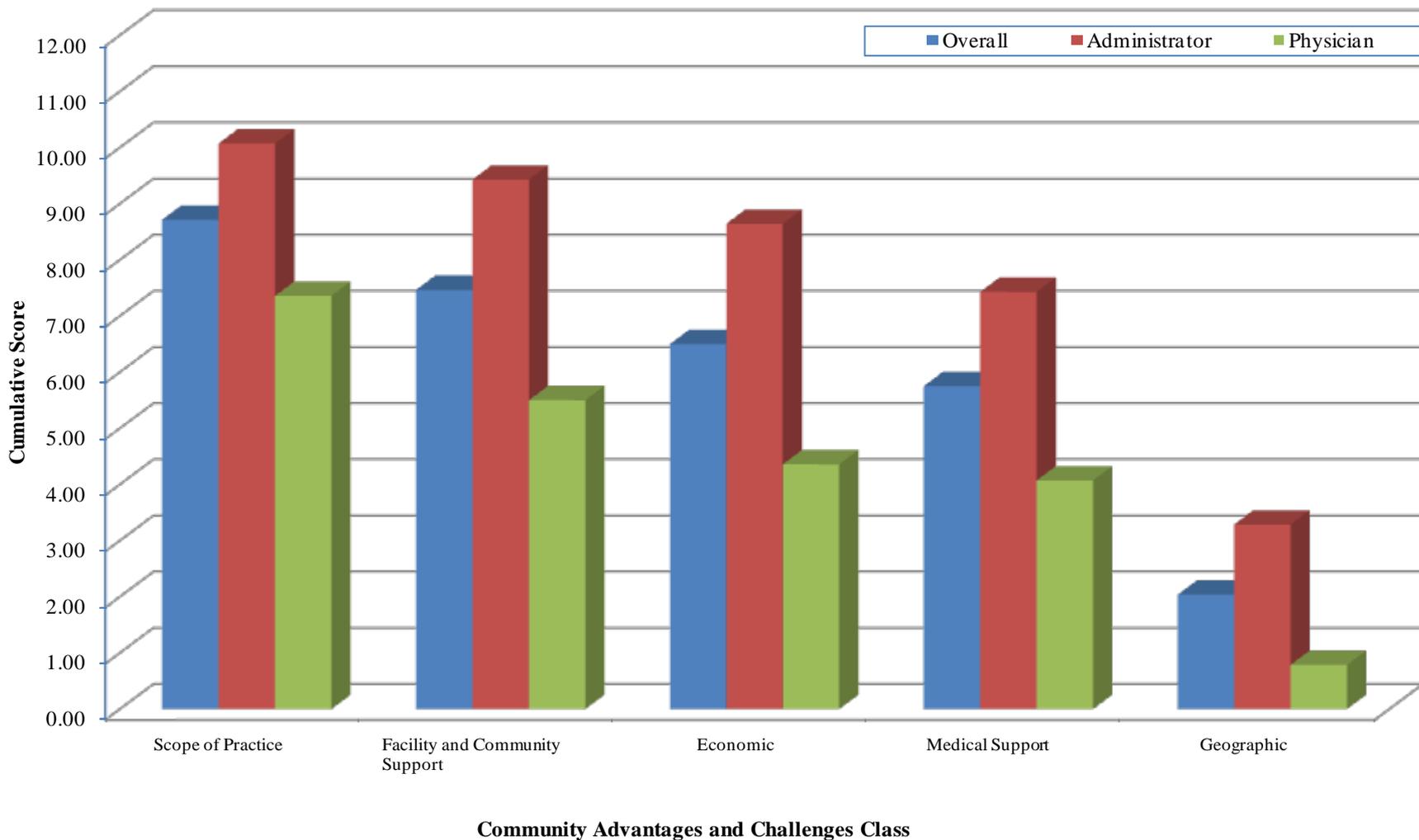


Maine Comparative Database Results

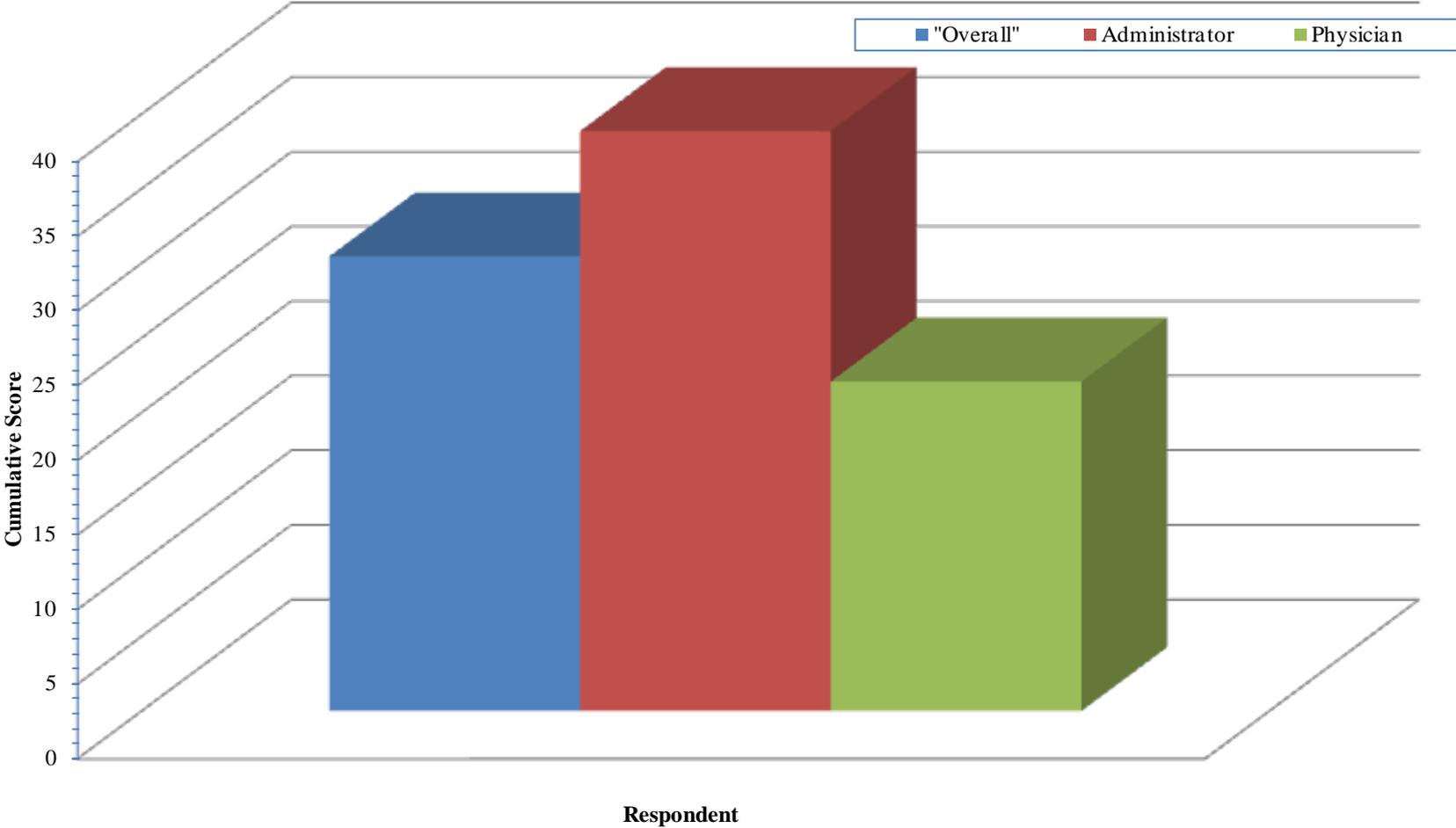


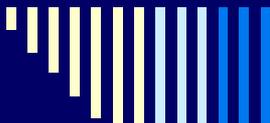


Class CHC Community Advantages and Challenges Cumulative Score

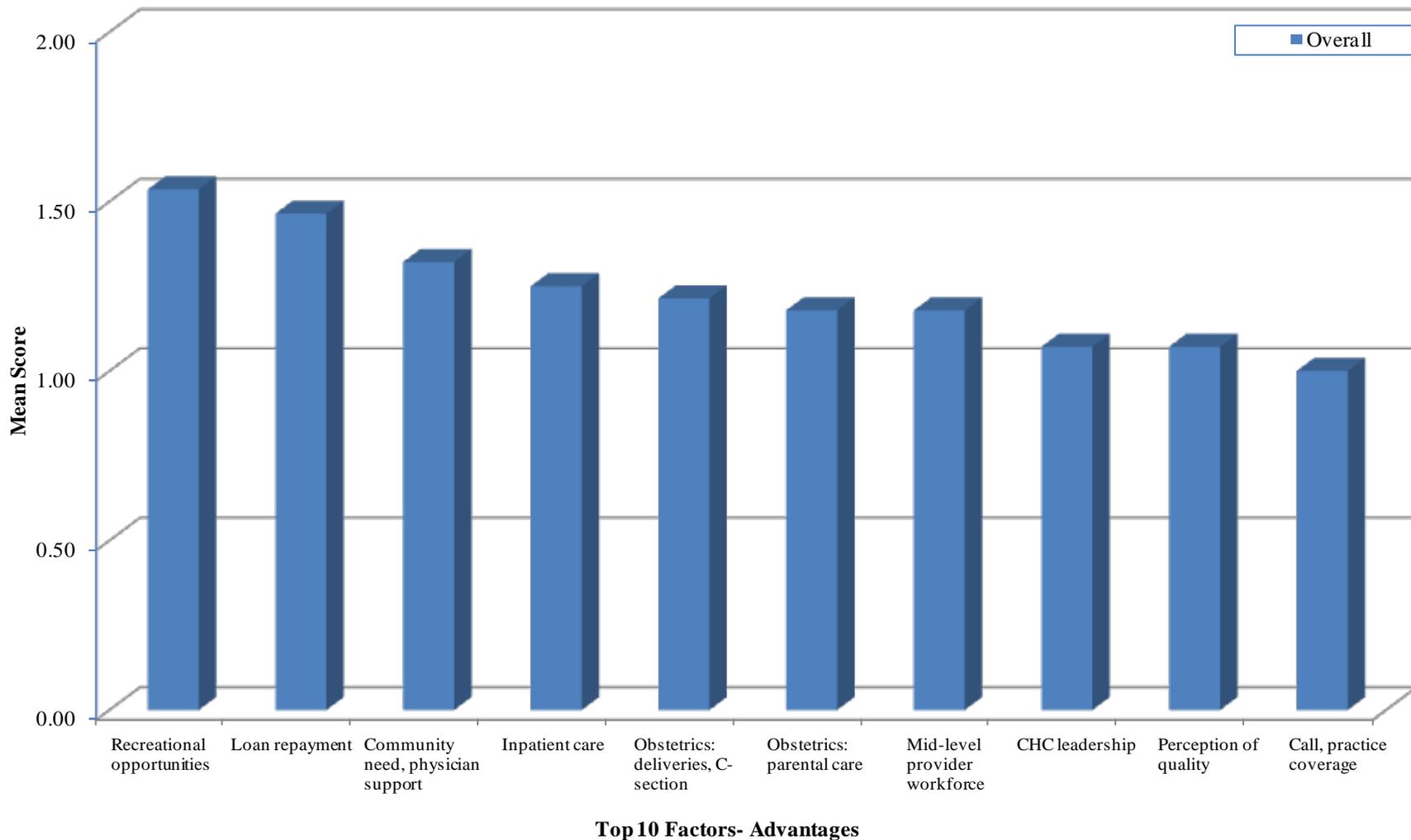


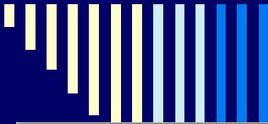
Summary Class CHC Community Advantages and Challenges Mean Score



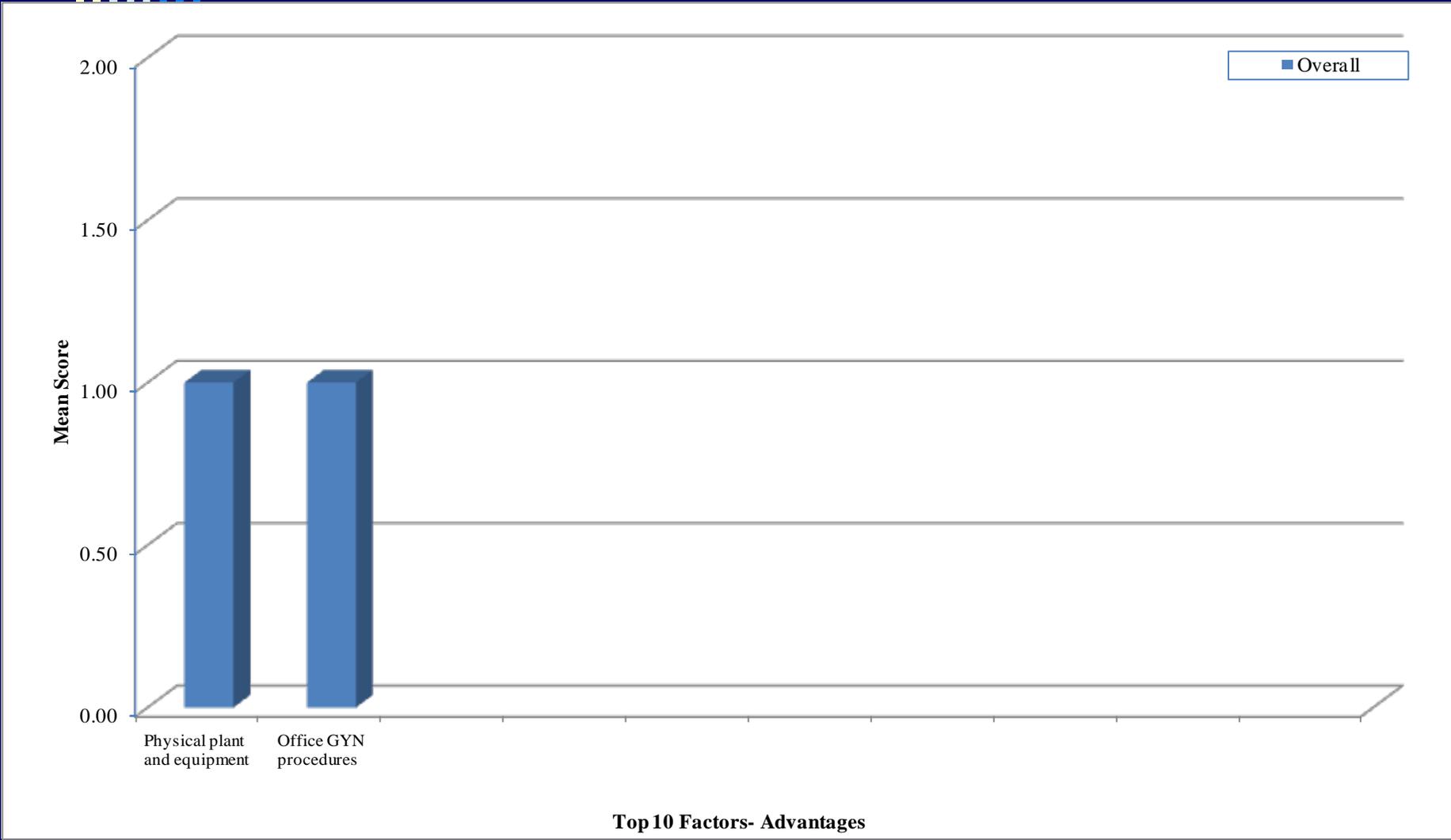


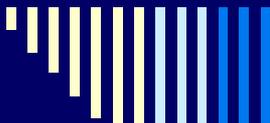
Top 10 CHC Community Advantages Mean Score



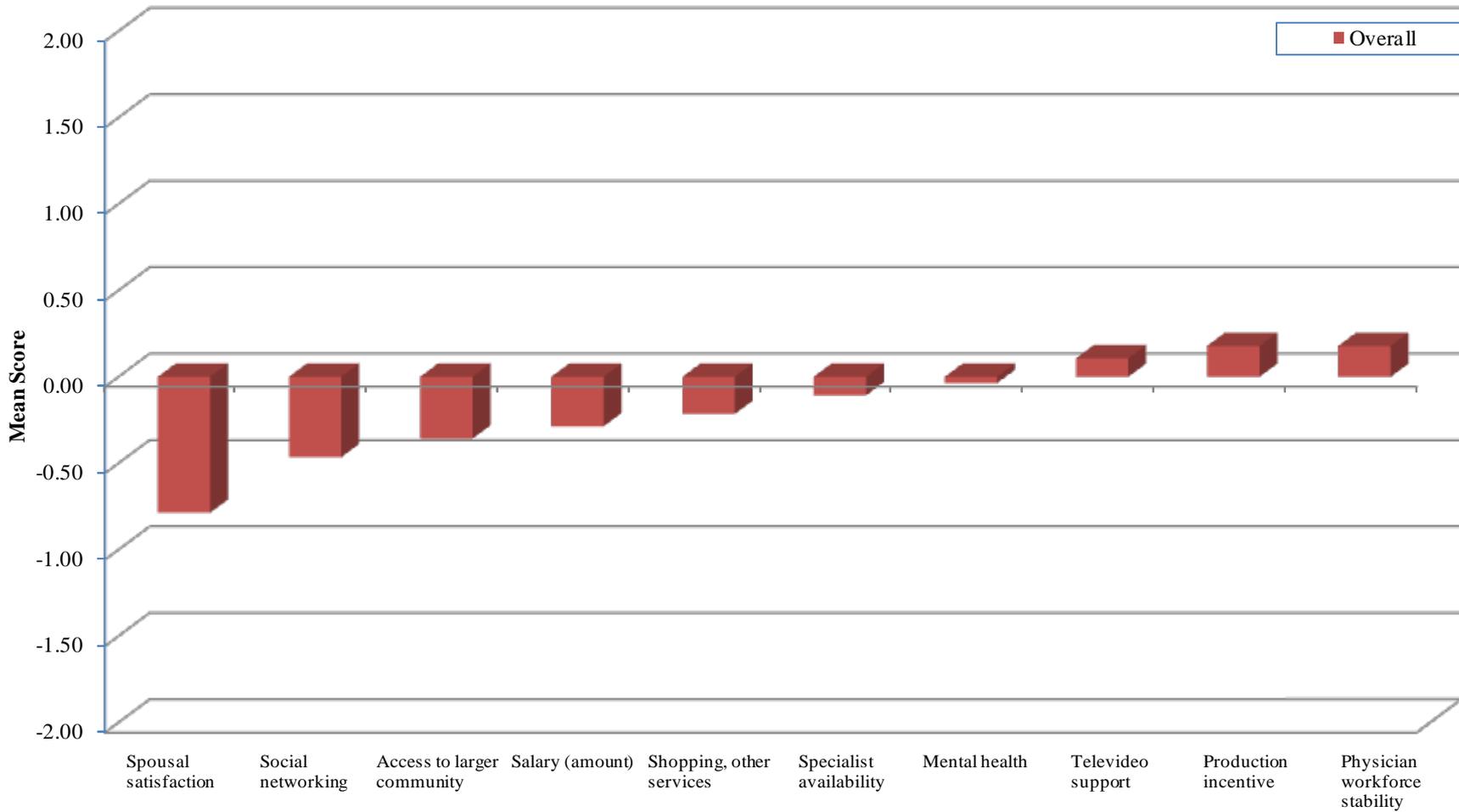


Top 10 CHC Community Advantages Mean Score (Continued)

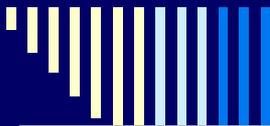




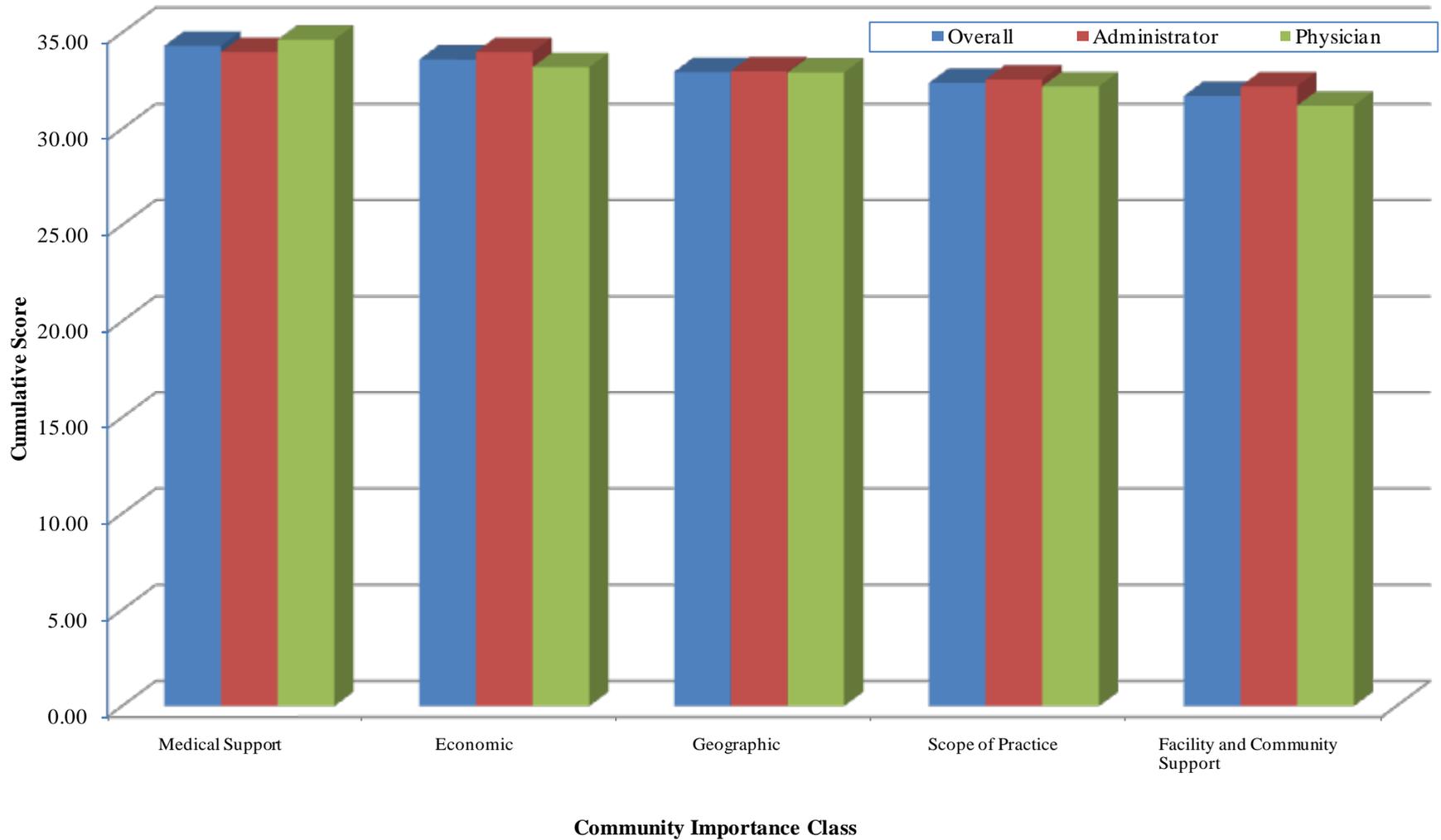
Top 10 CHC Community Challenges Mean Score



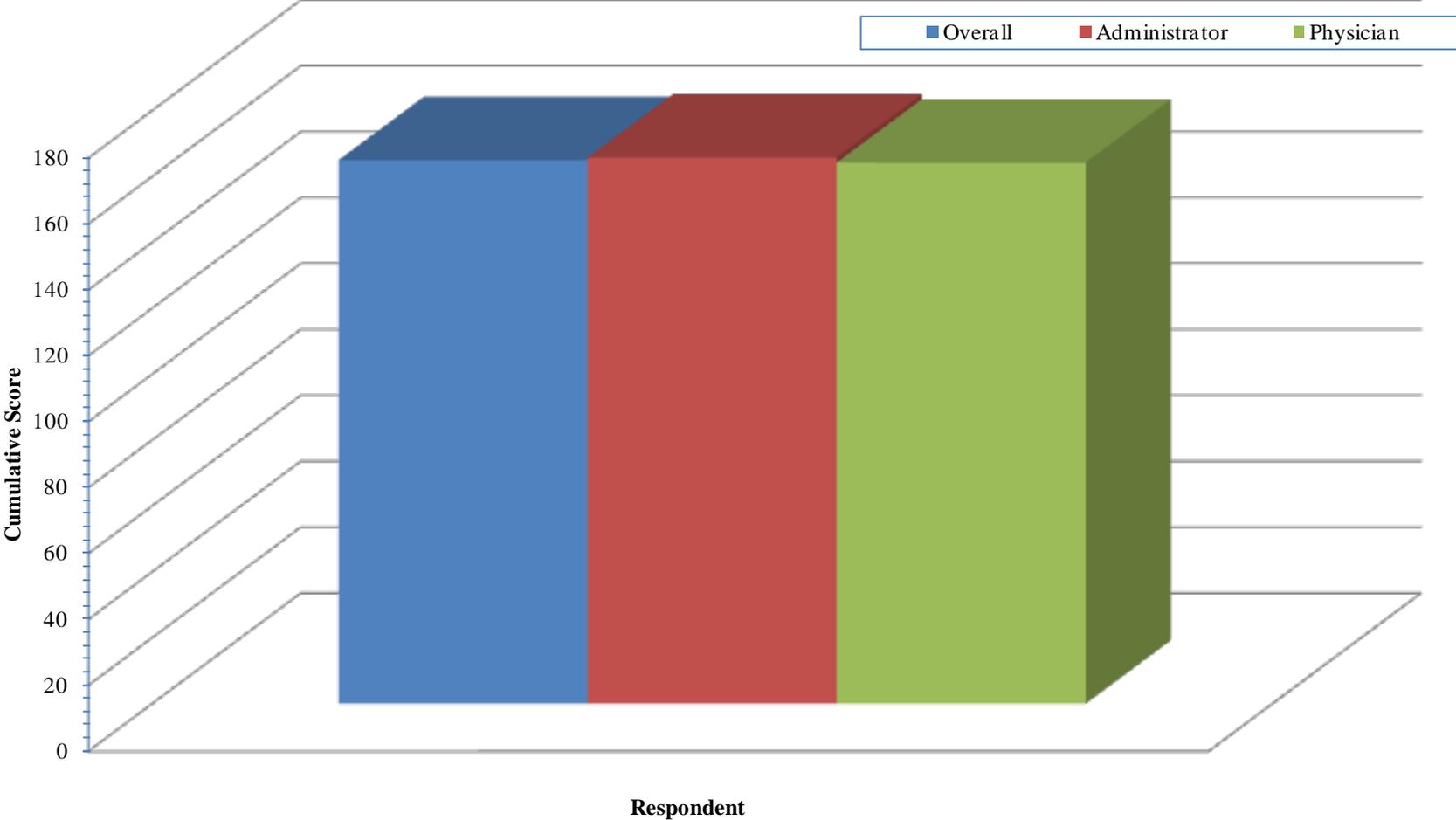
Top 10 Factors- Challenges

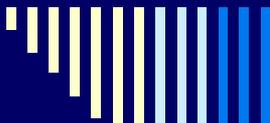


Class CHC Community Importance Cumulative Score

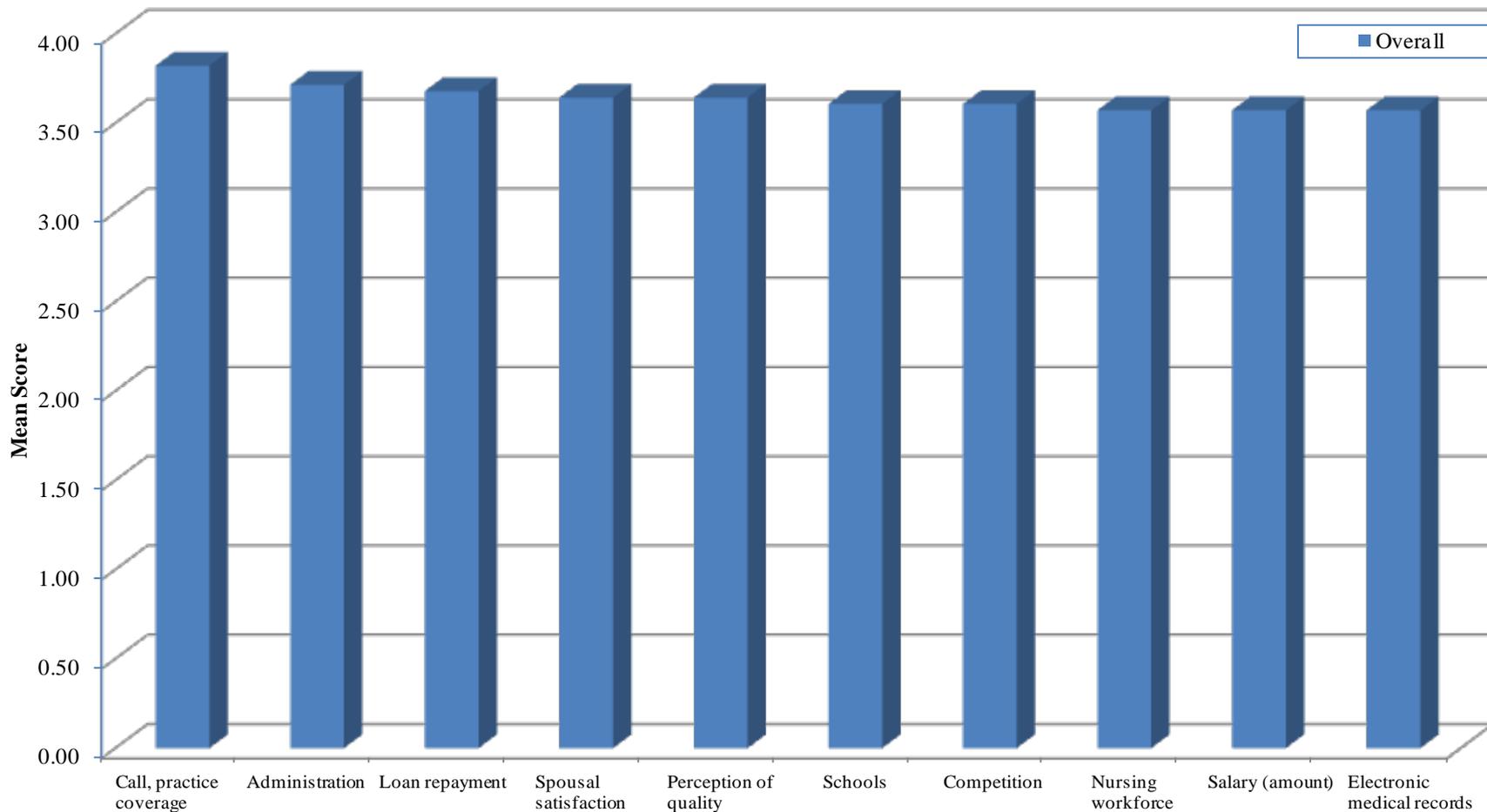


Summary Class CHC Community Importance Mean Score



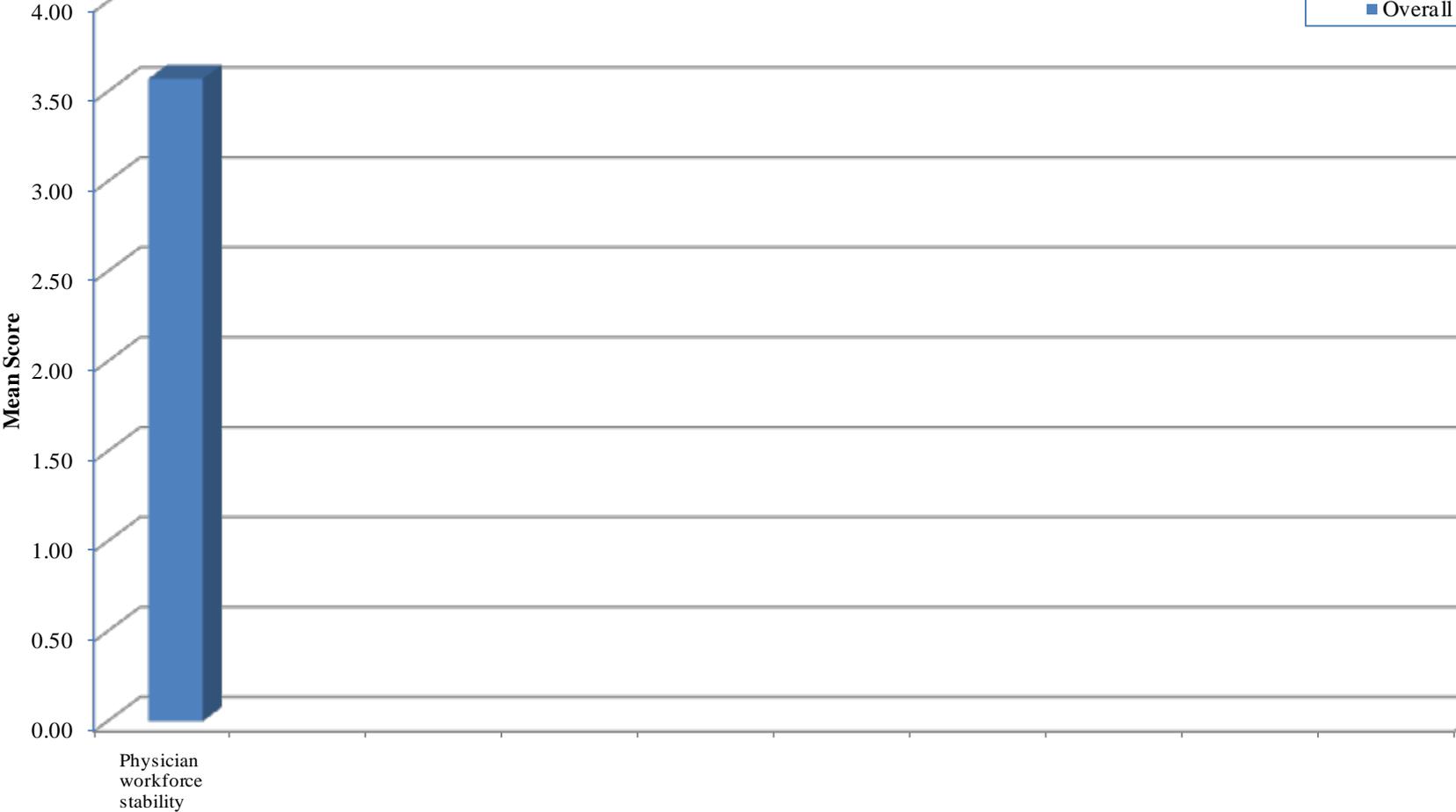


Top 10 CHC Community Importance Mean Score

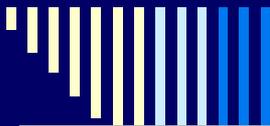


Top 10 Factors- Importance

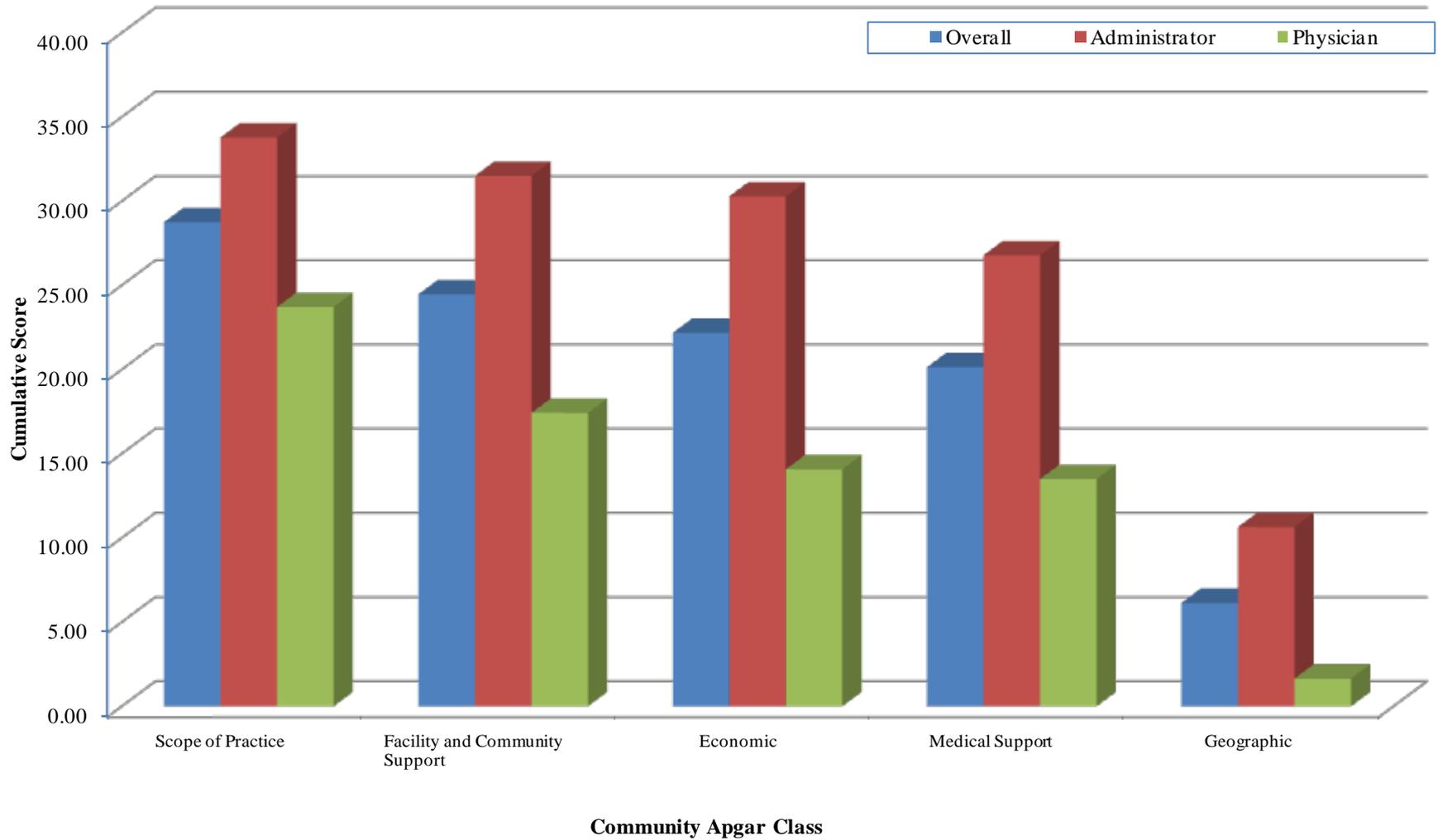
Top 10 CHC Community Importance Mean Score (Continued)

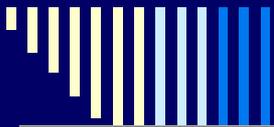


Top 10 Factors- Importance

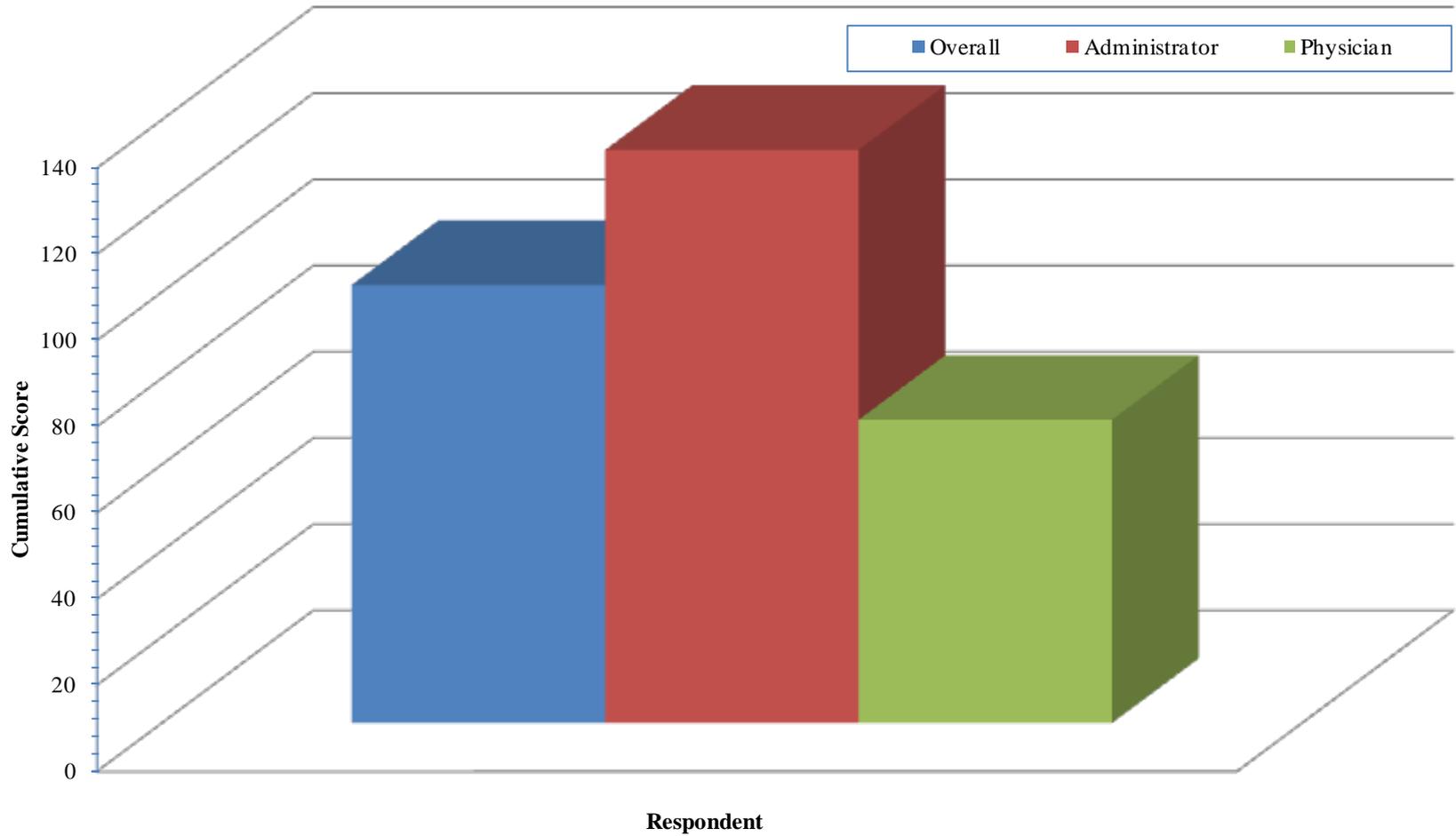


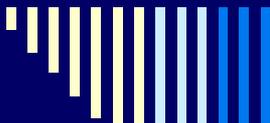
Class CHC Community Apgar Cumulative Score



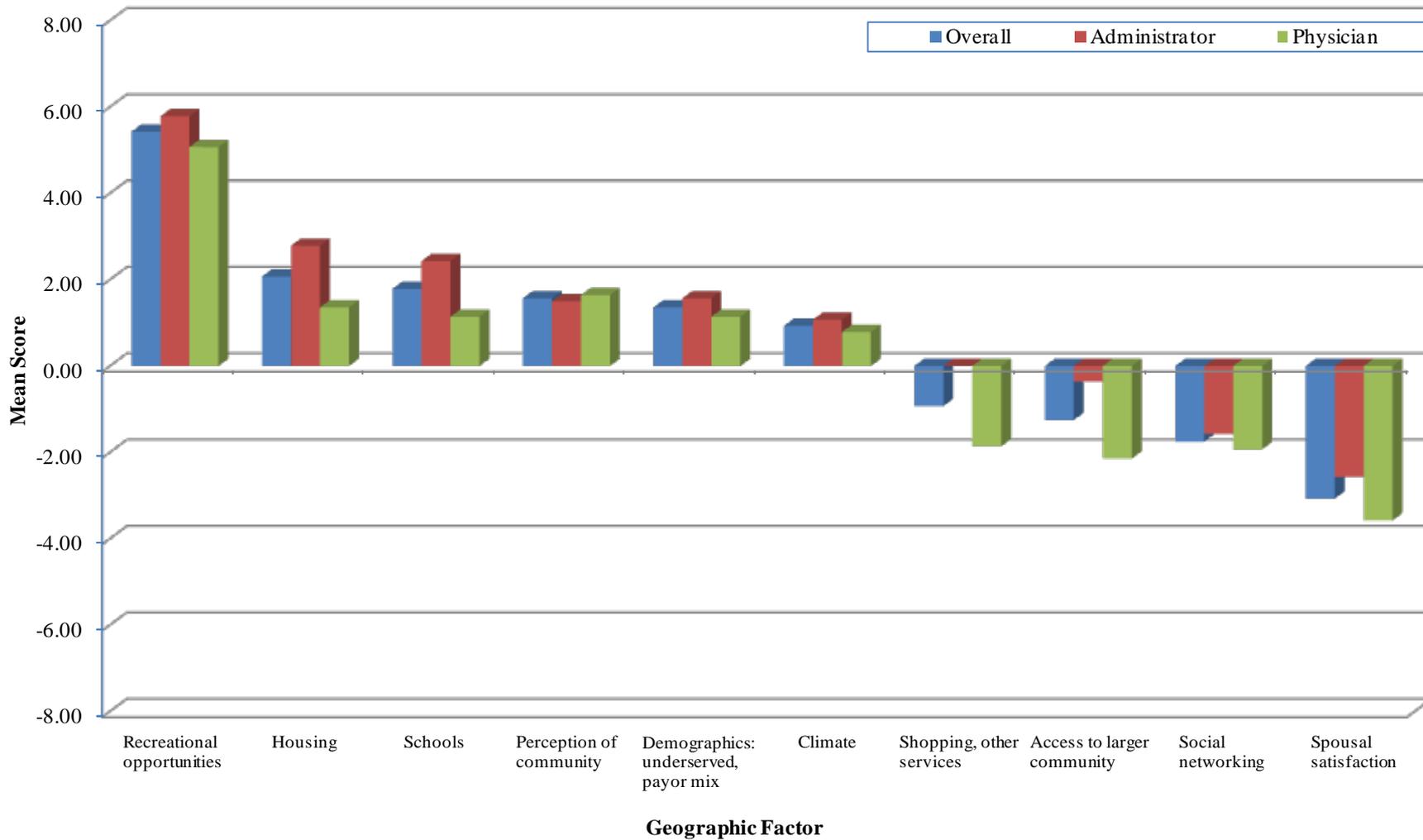


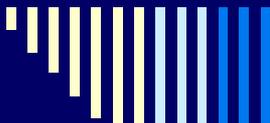
Summary Class CHC Community Apgar Mean Score



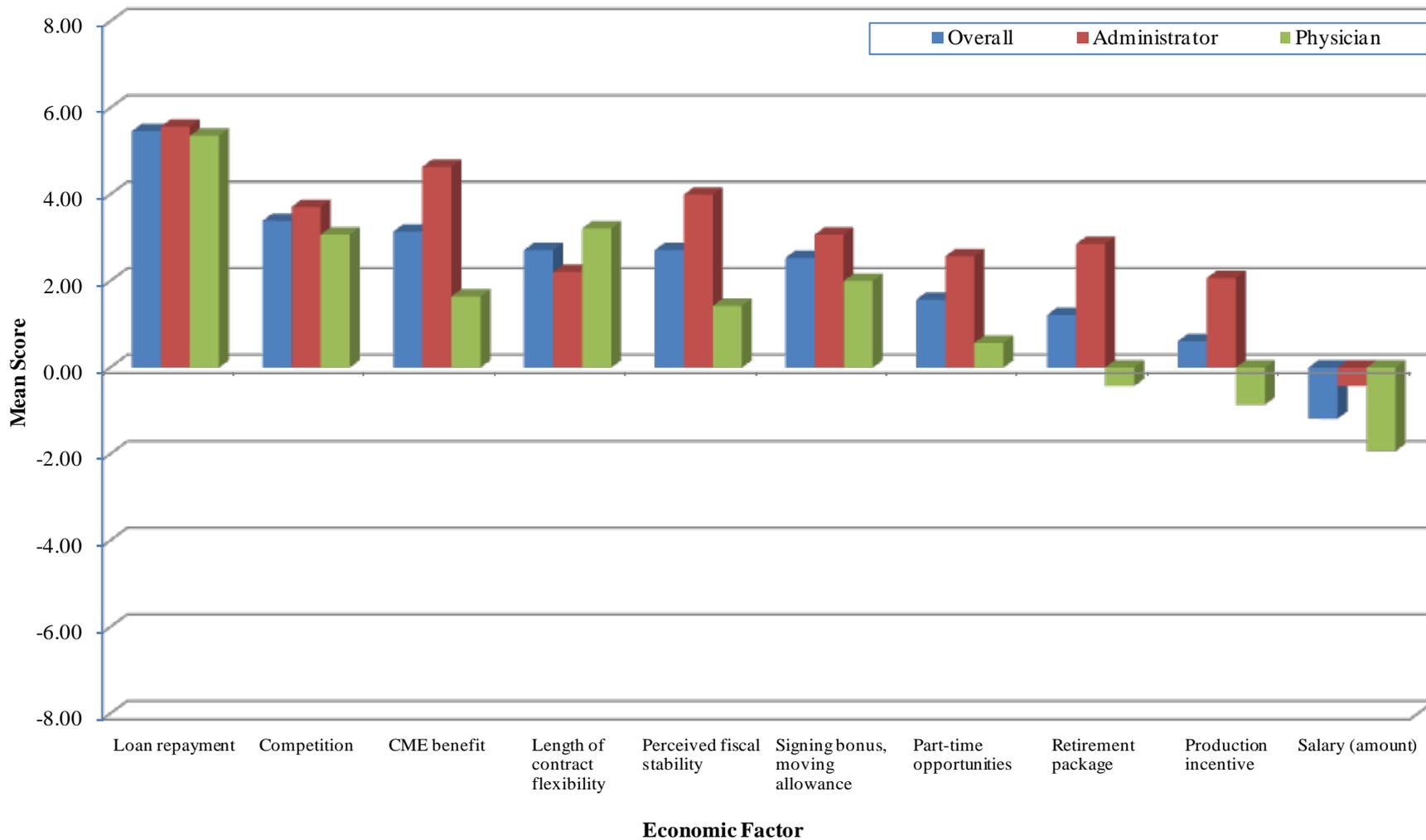


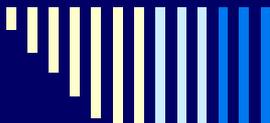
Geographic Class CHC Community Apgar Mean Score



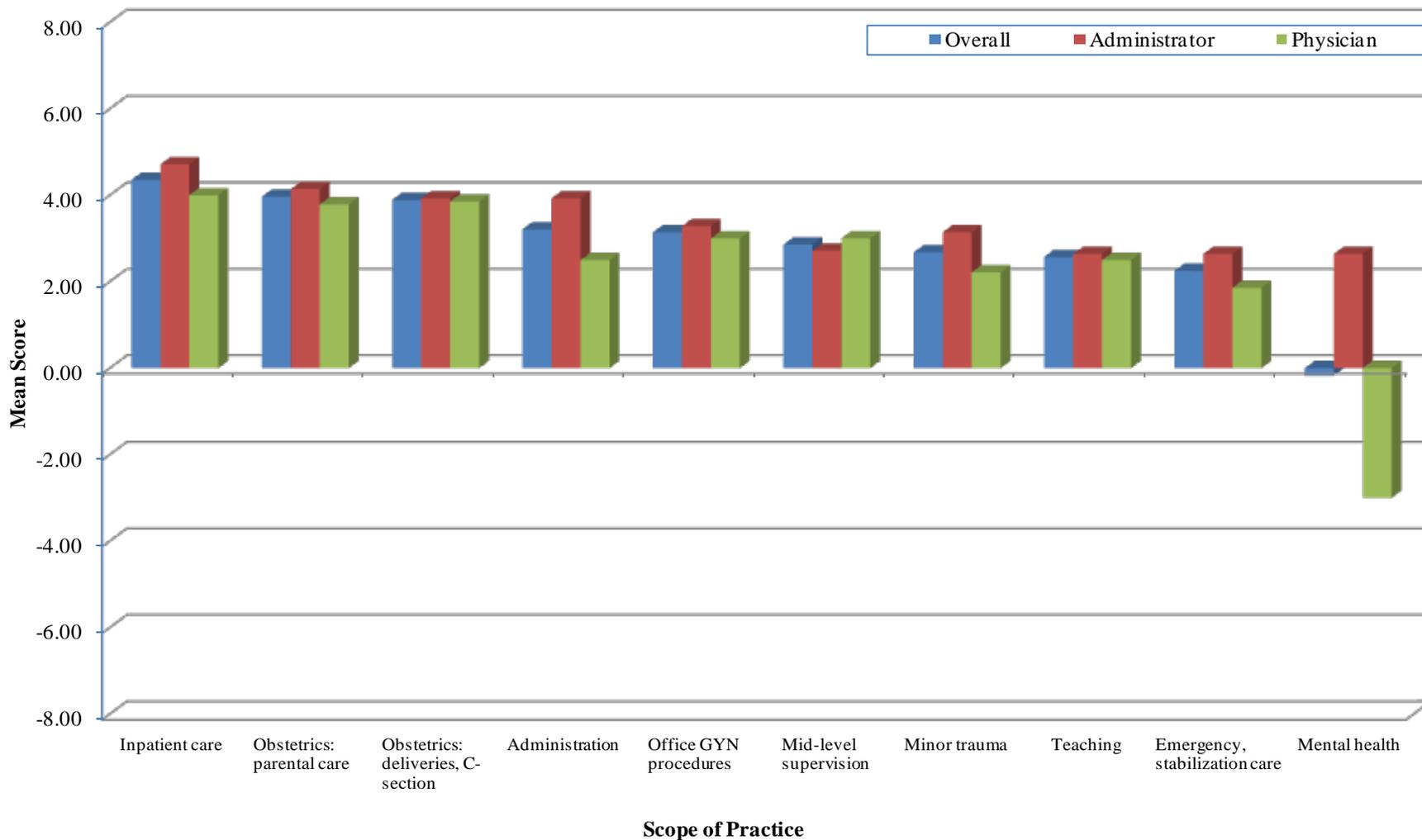


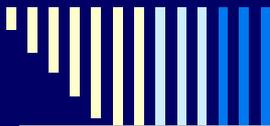
Economic Class CHC Community Apgar Mean Score



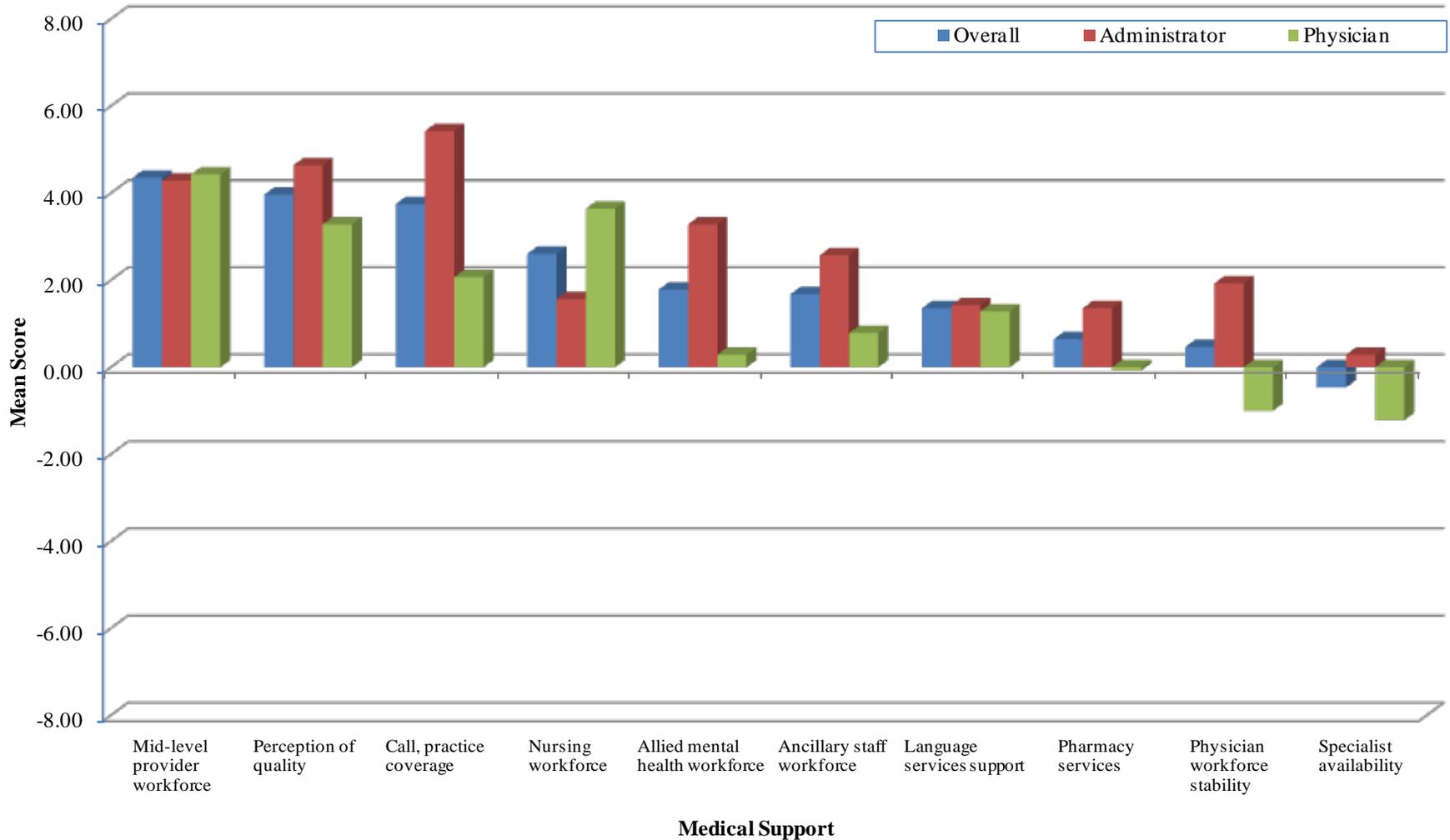


Scope of Practice Class CHC Community Apgar Mean Score

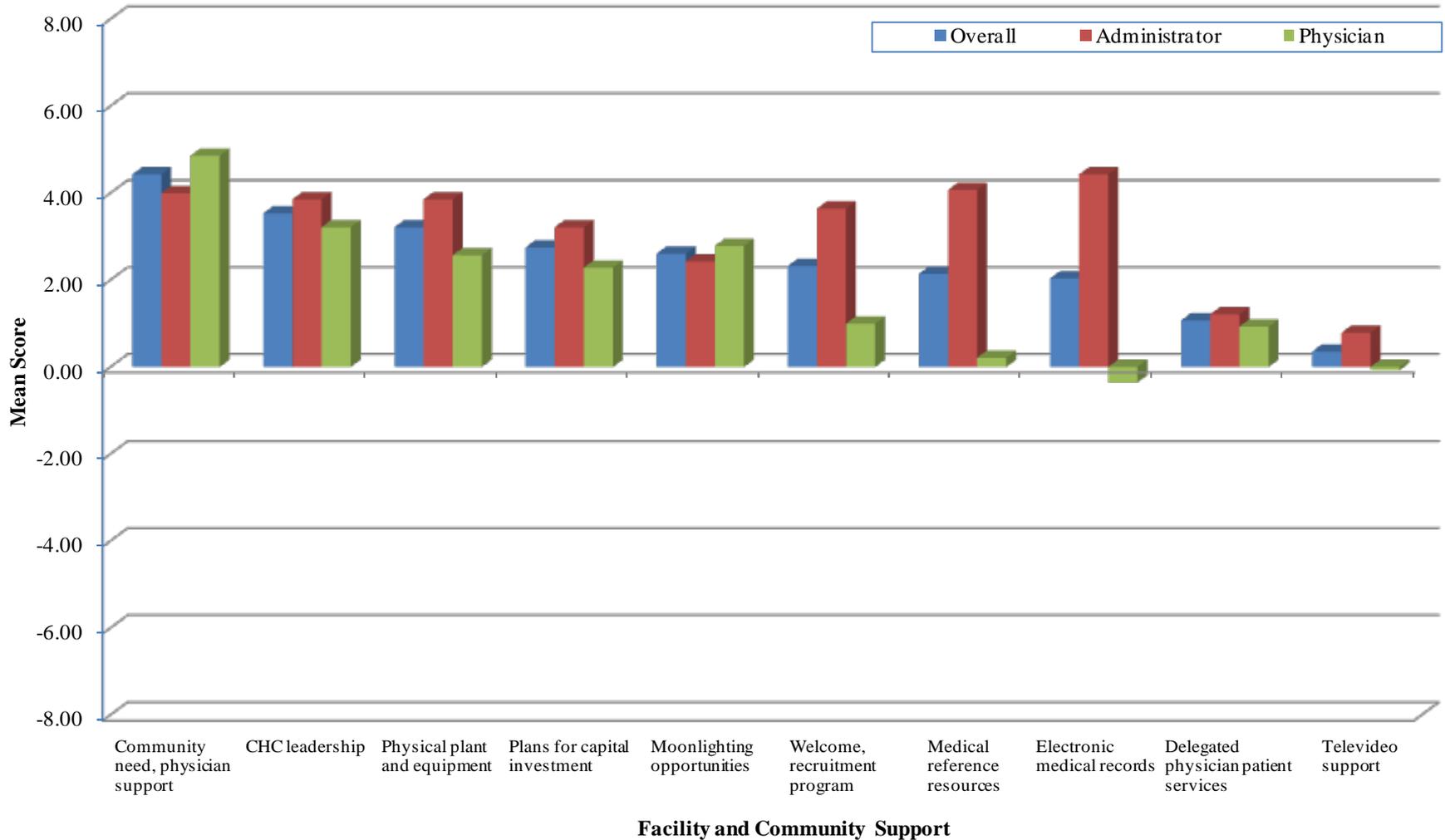


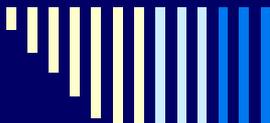


Medical Support Class CHC Community Apgar Mean Score

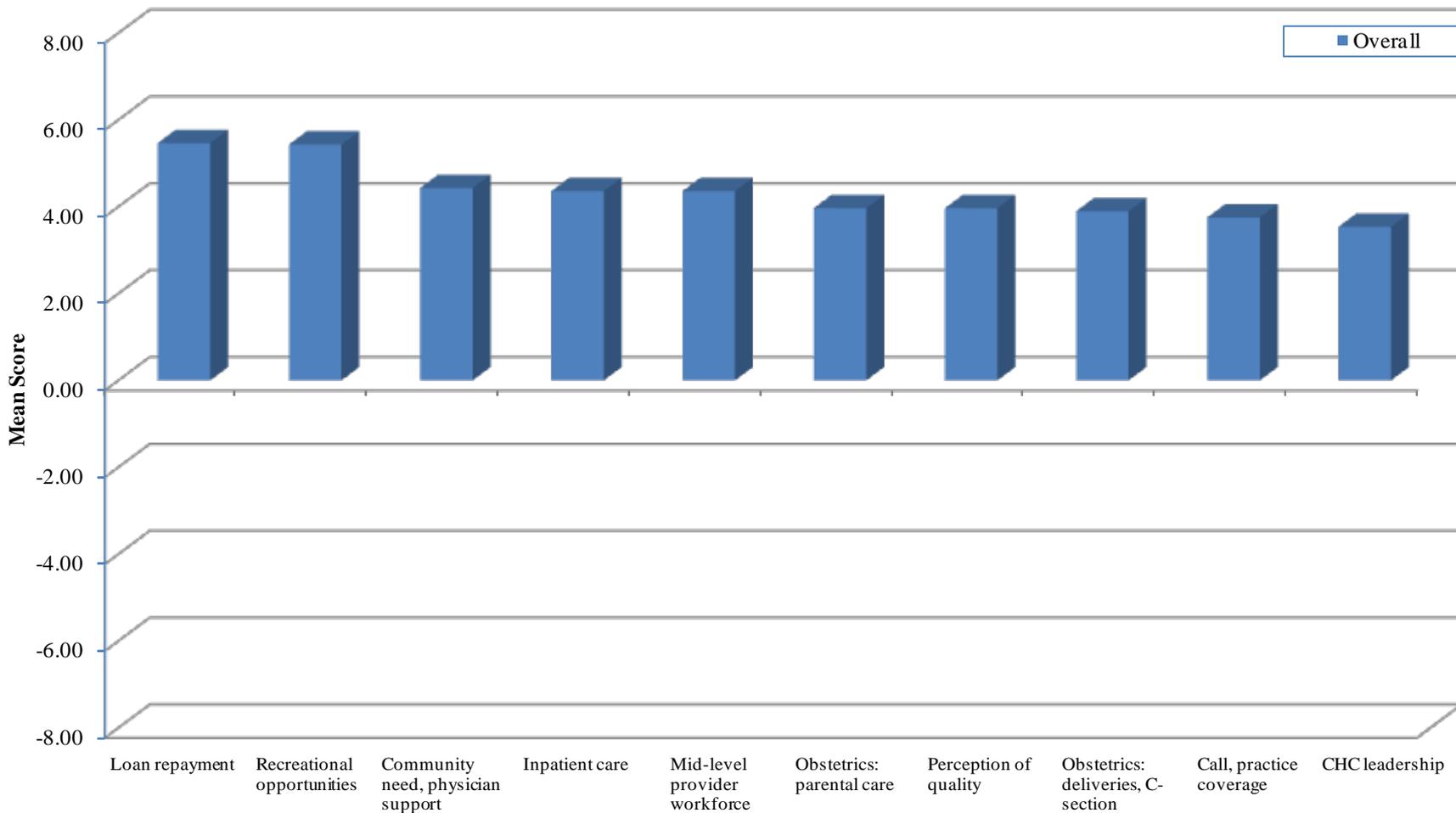


Facility and Community Support Class CHC Community Apgar Mean Score

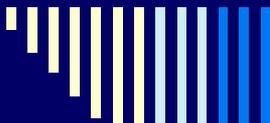




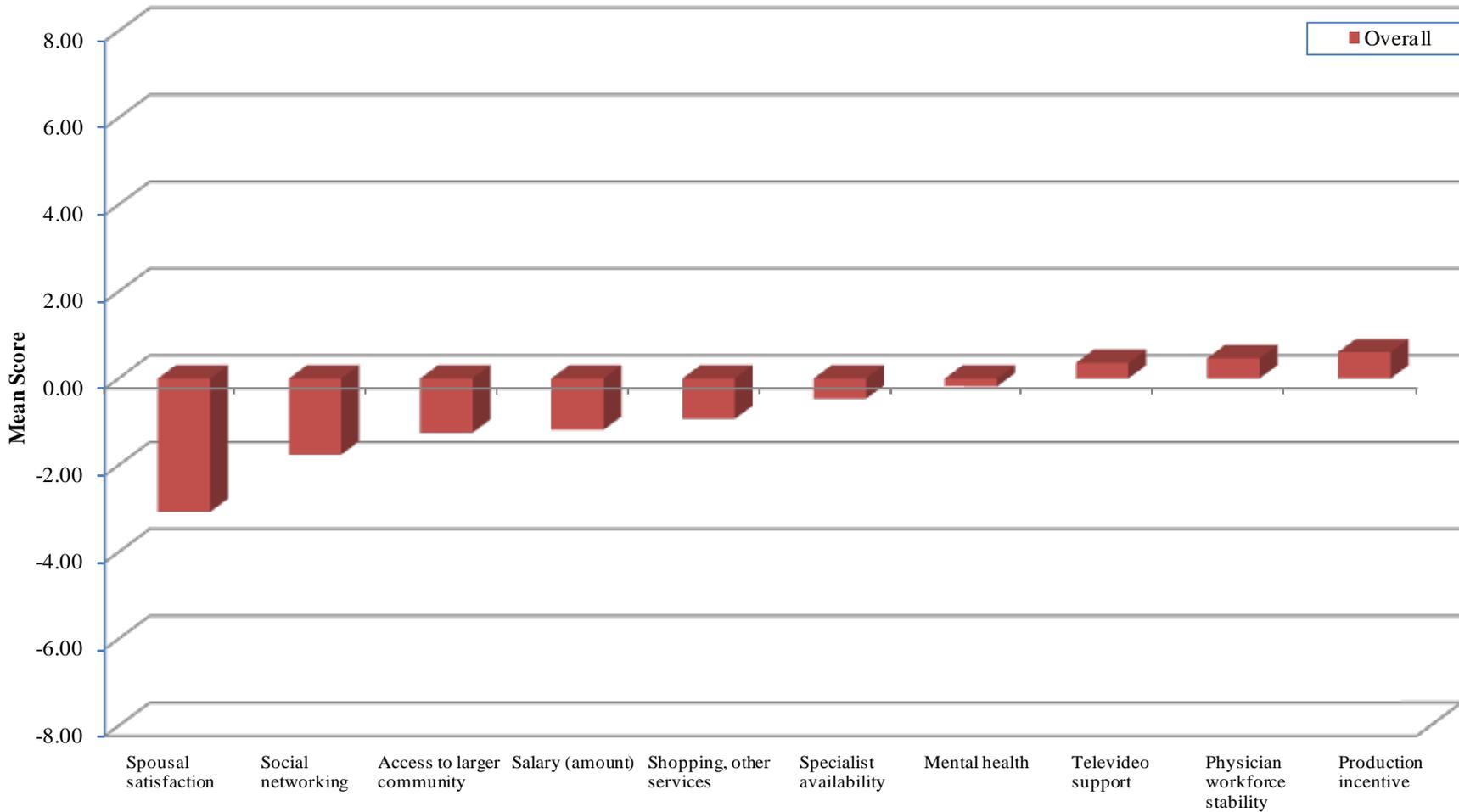
Top 10 CHC Community Apgar Mean Score



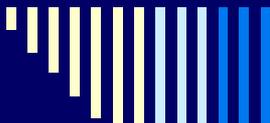
Top 10 Factors- Apgar



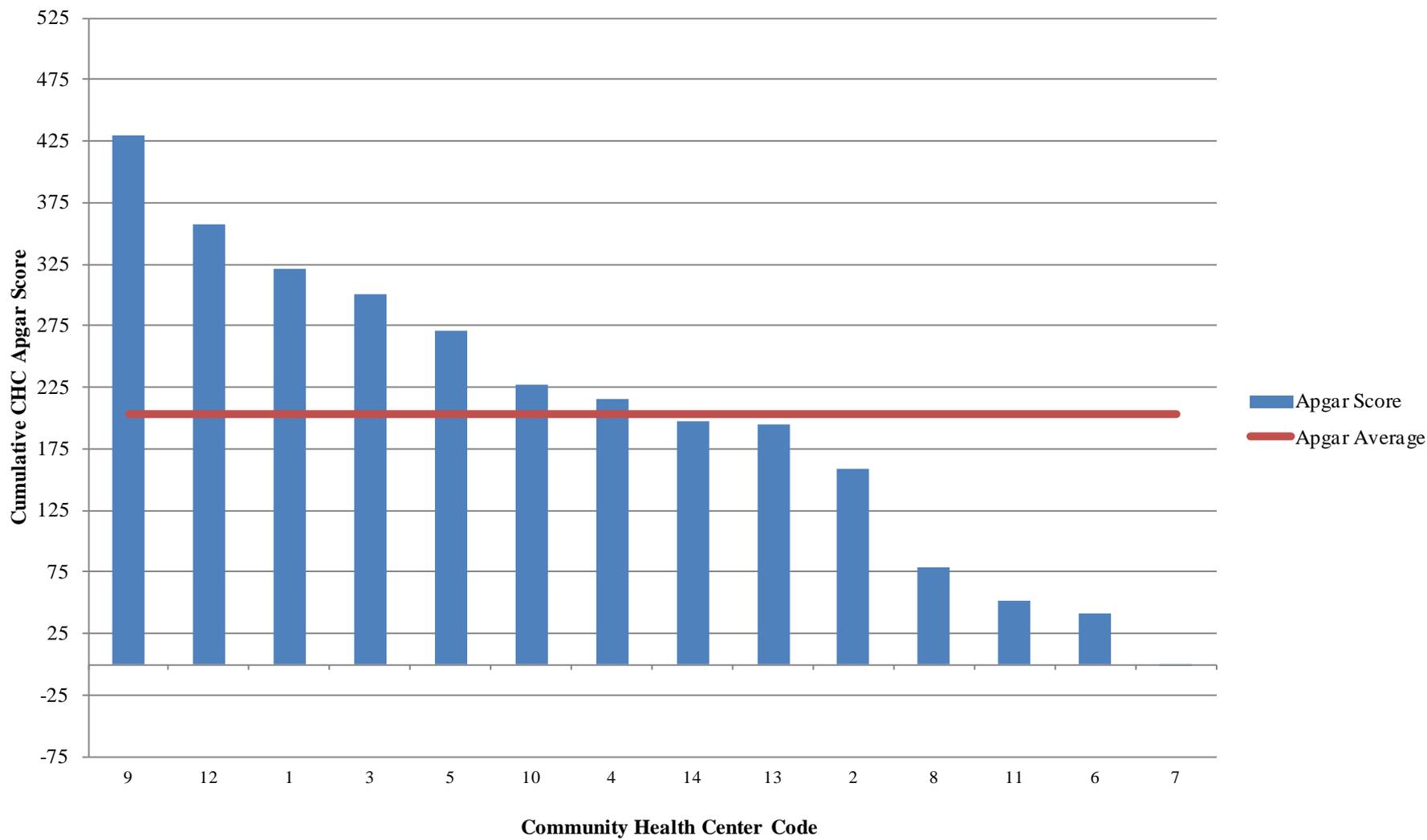
Bottom 10 CHC Community Apgar Mean Score

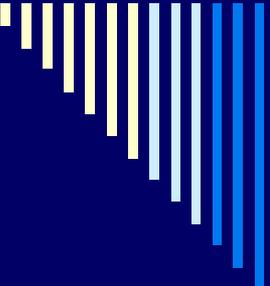


Bottom 10 Factors- Apgar



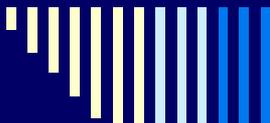
Cumulative CHC Community Apgar Score – Maine Facilities



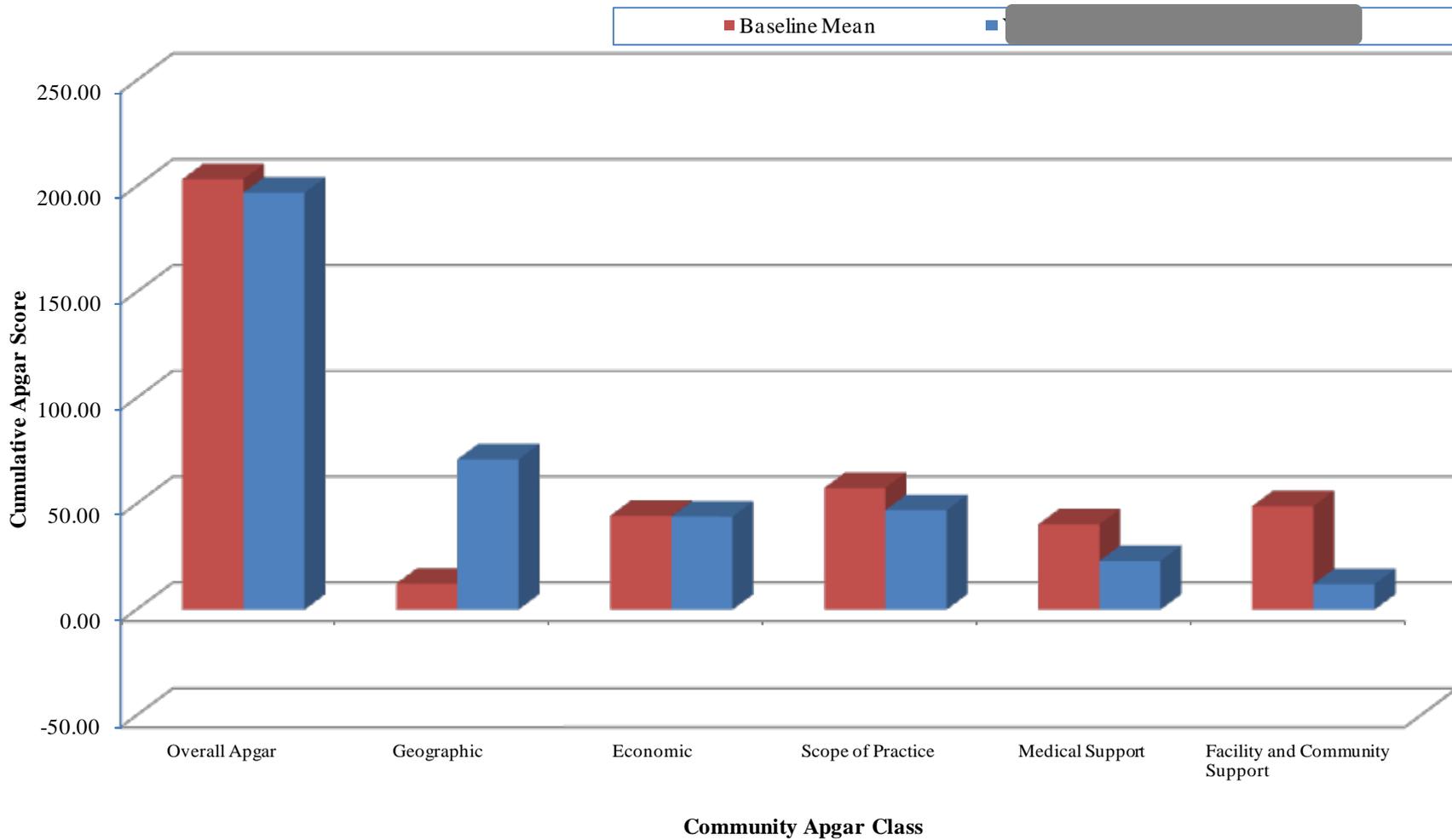


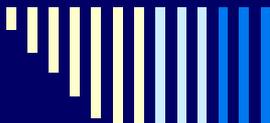
Examples from Facility Level Reports



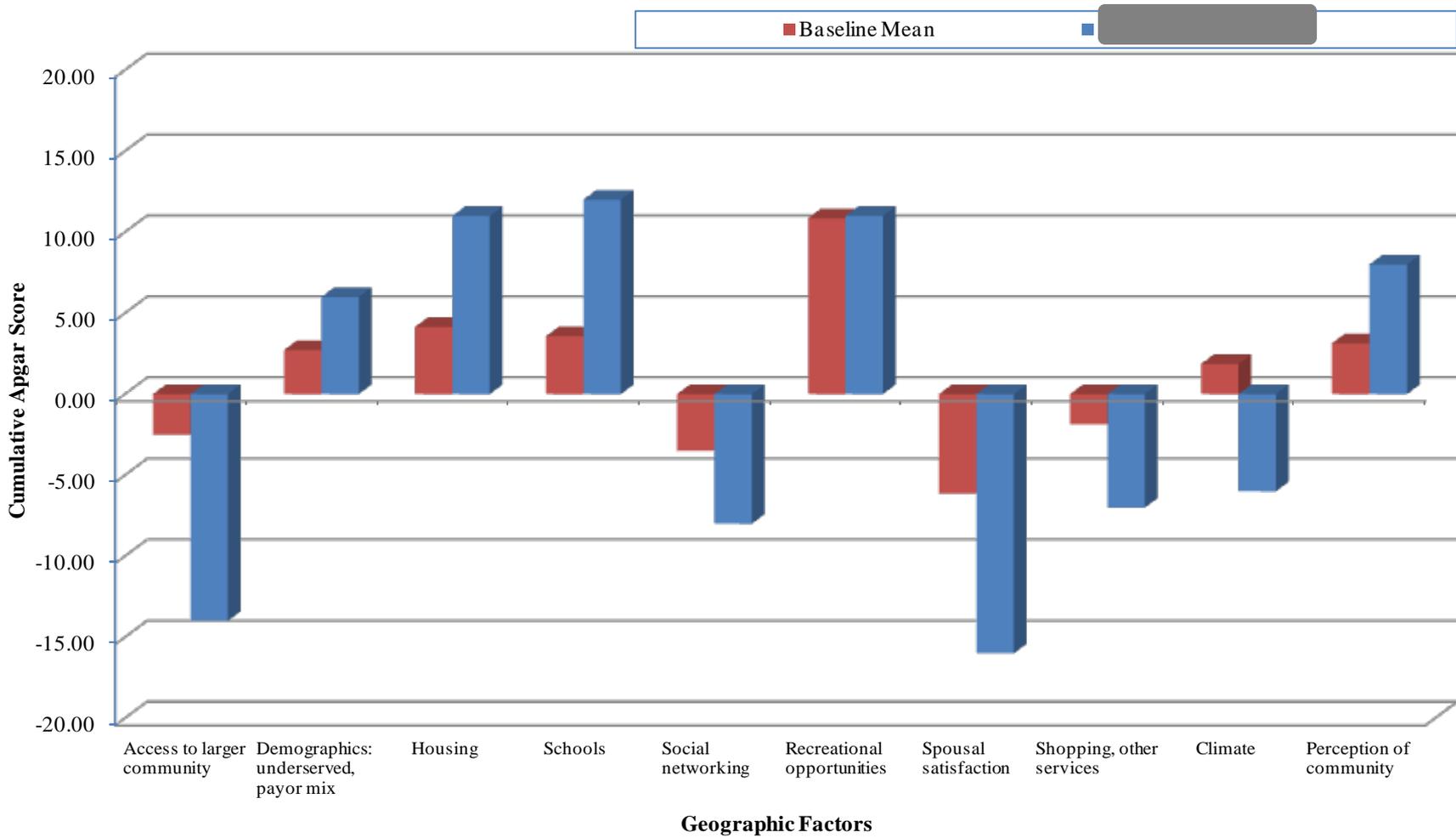


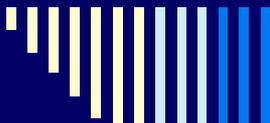
Facility X Comparative Cumulative Apgar Score



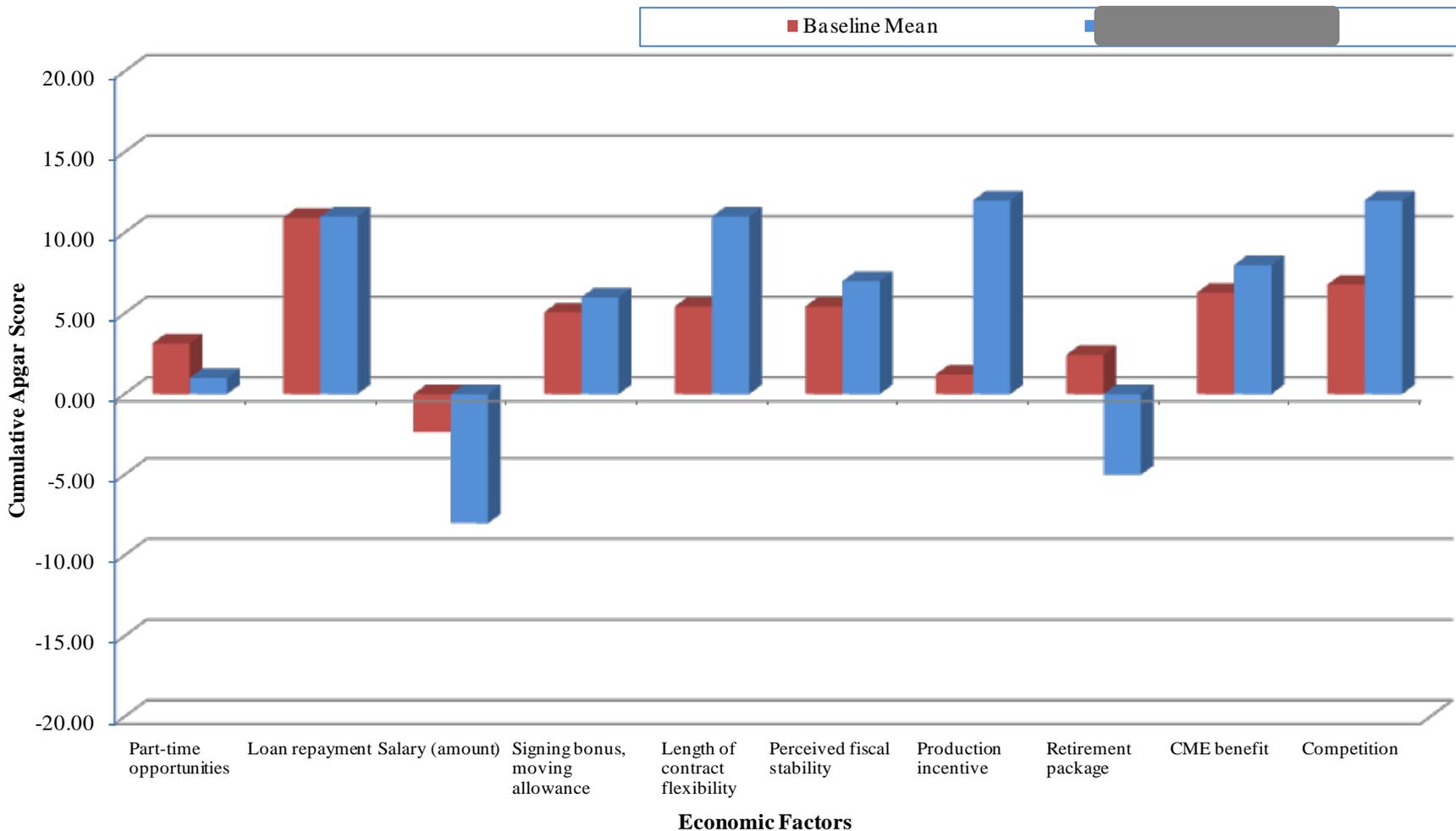


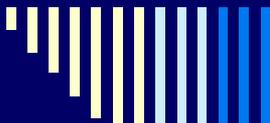
Facility X Comparative Cumulative Apgar Score for Geographic Class





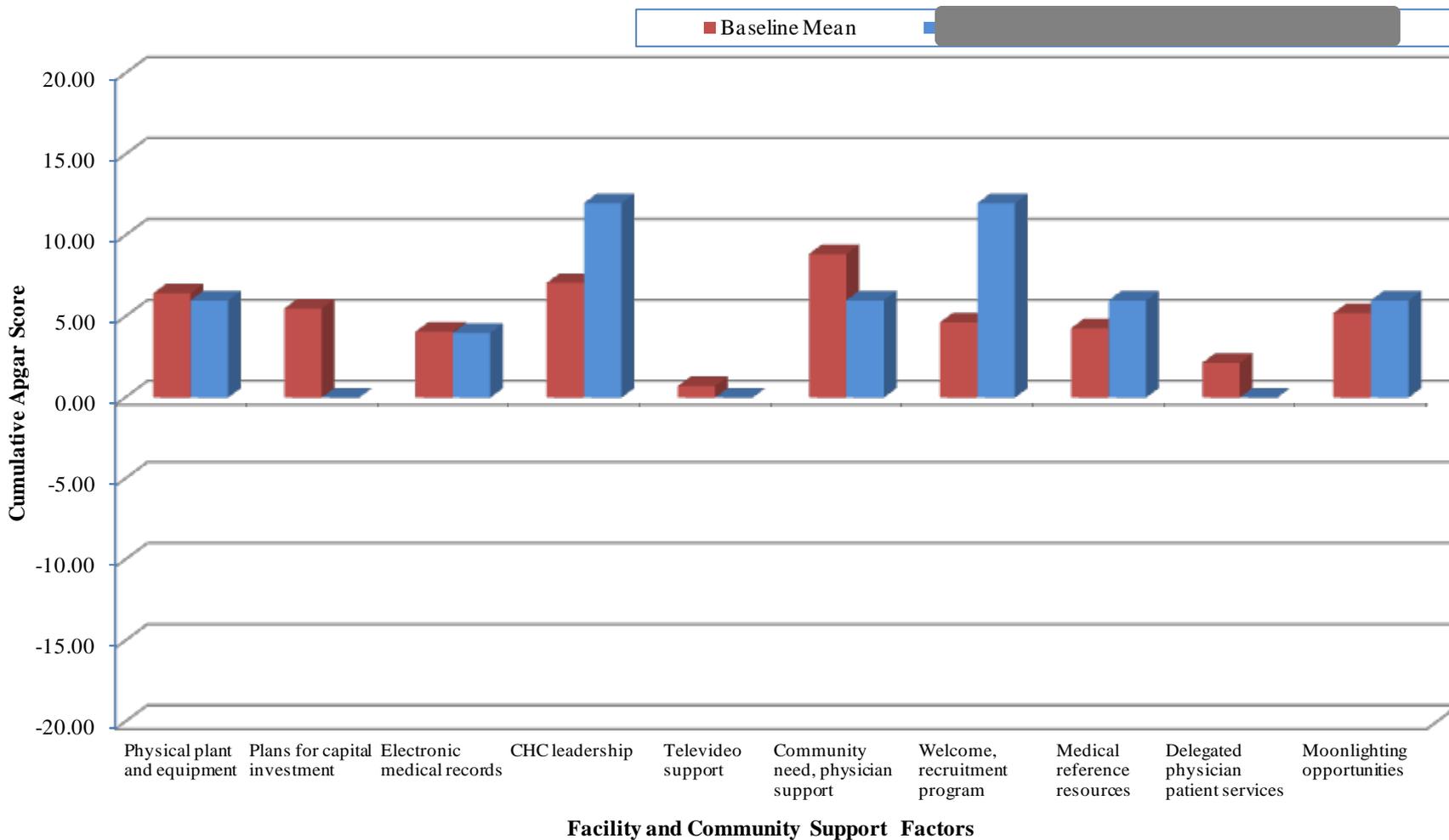
Facility X Comparative Cumulative Apgar Score for Economic Class

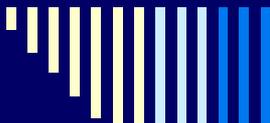




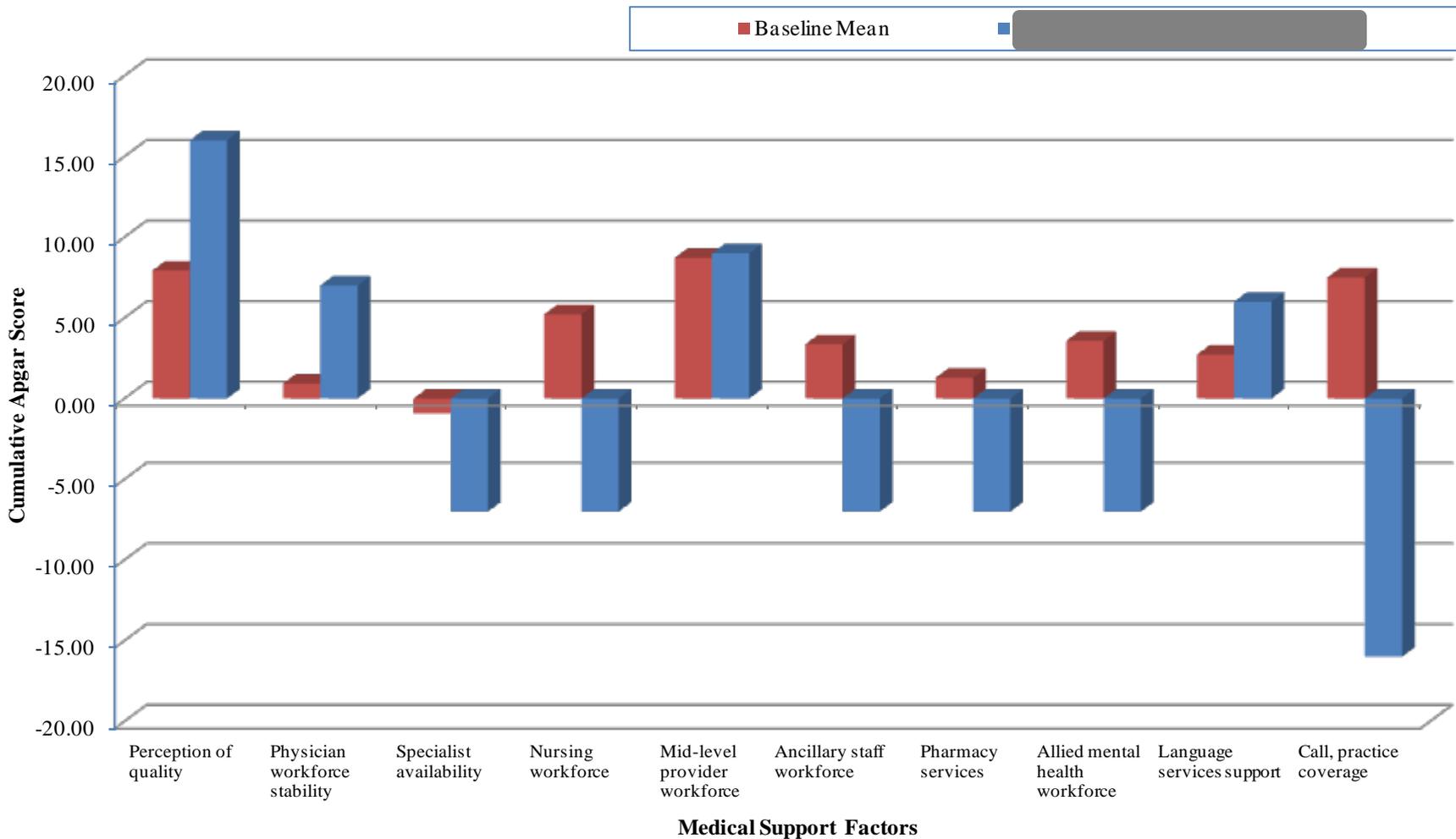
Facility X

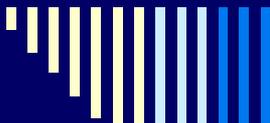
Comparative Cumulative Apgar Score for Facility and Community Support





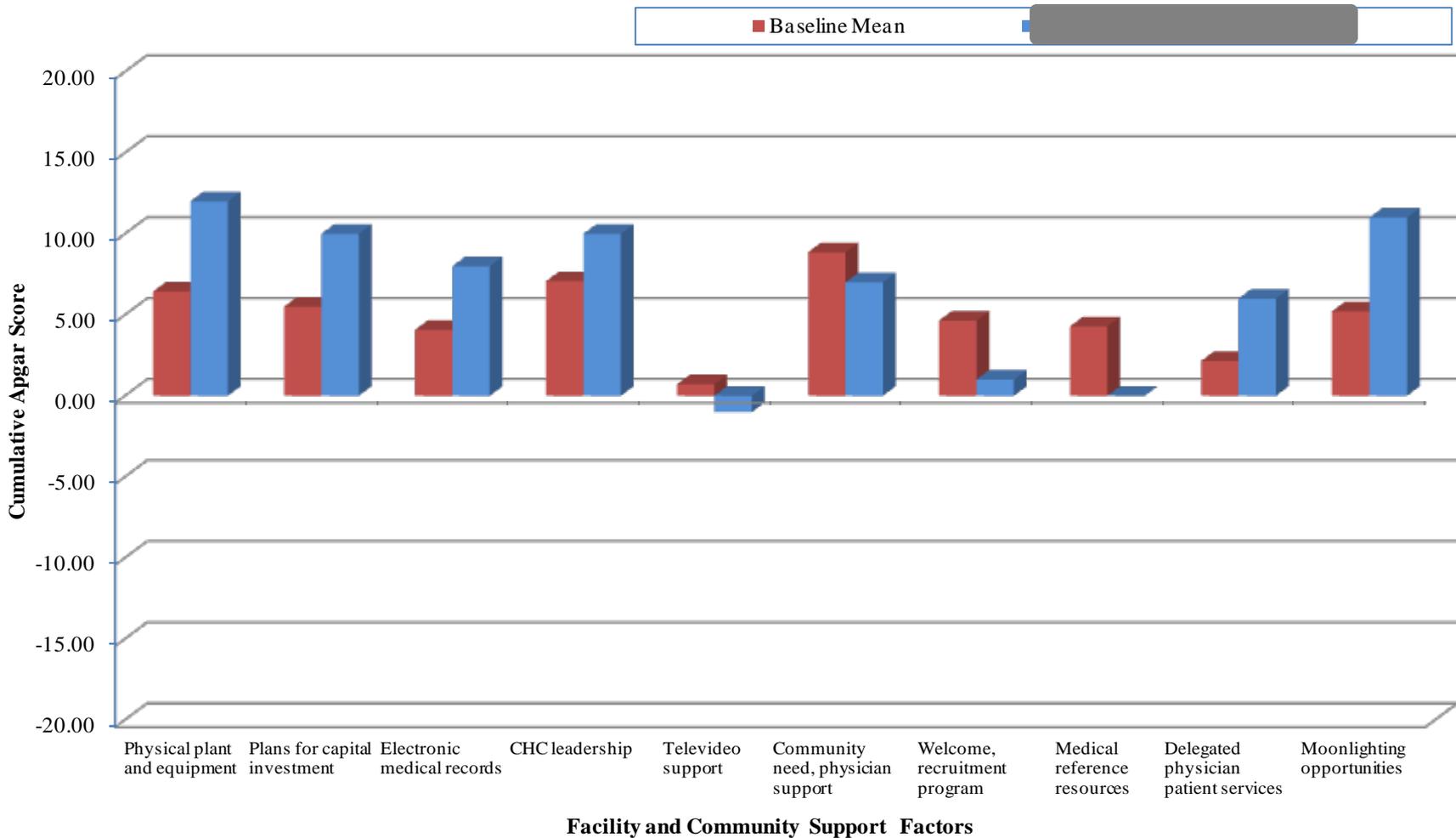
Facility X Comparative Cumulative Apgar Score for Medical Support

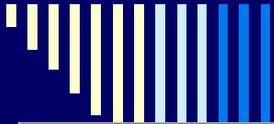




Facility X

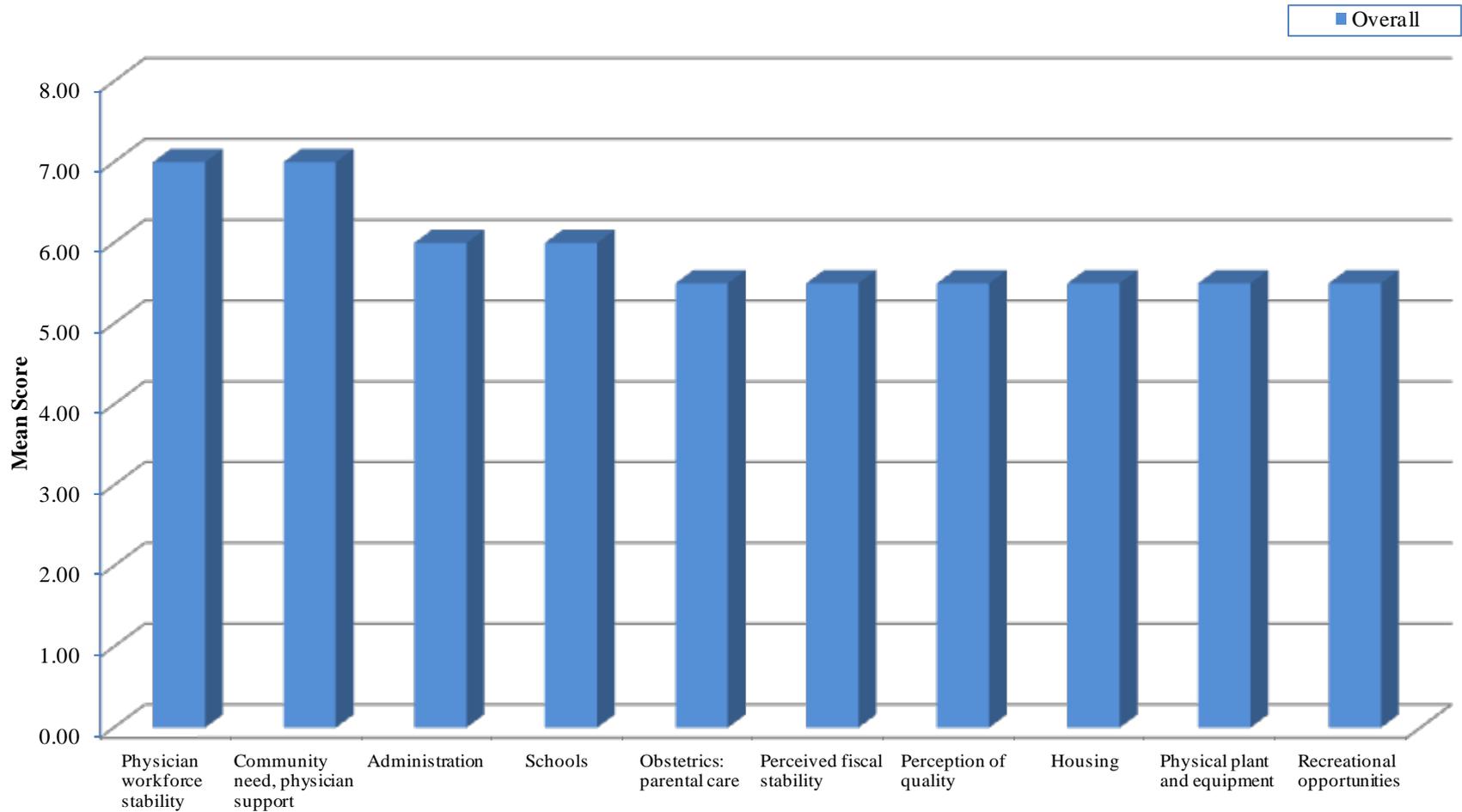
Comparative Cumulative Apgar Score for Facility and Community Support



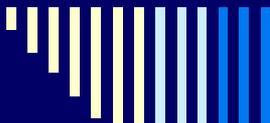


Facility X

Top 10 Apgar Factors across All 50 Factors

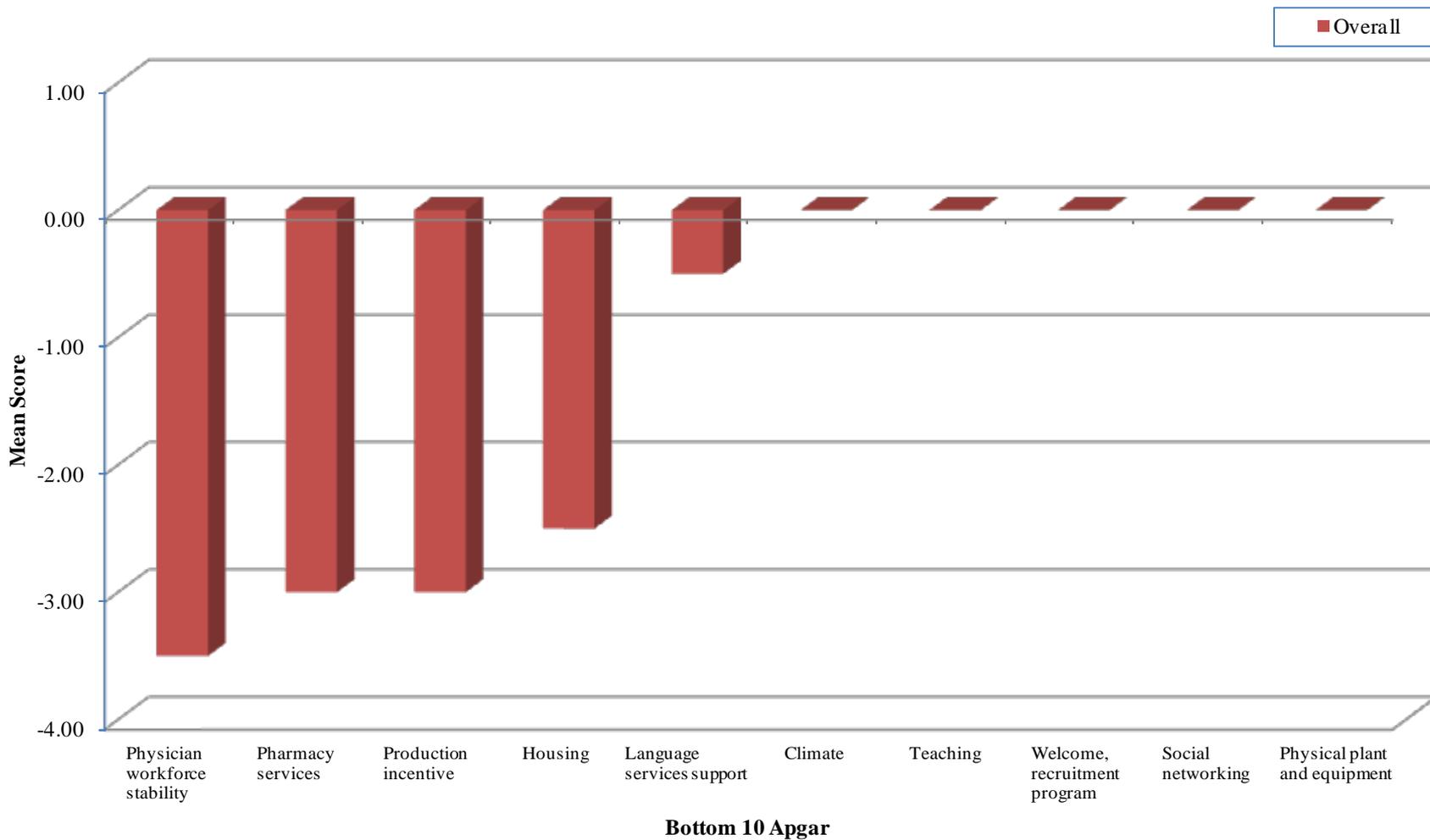


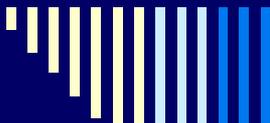
Top 10 Apgar



Facility X

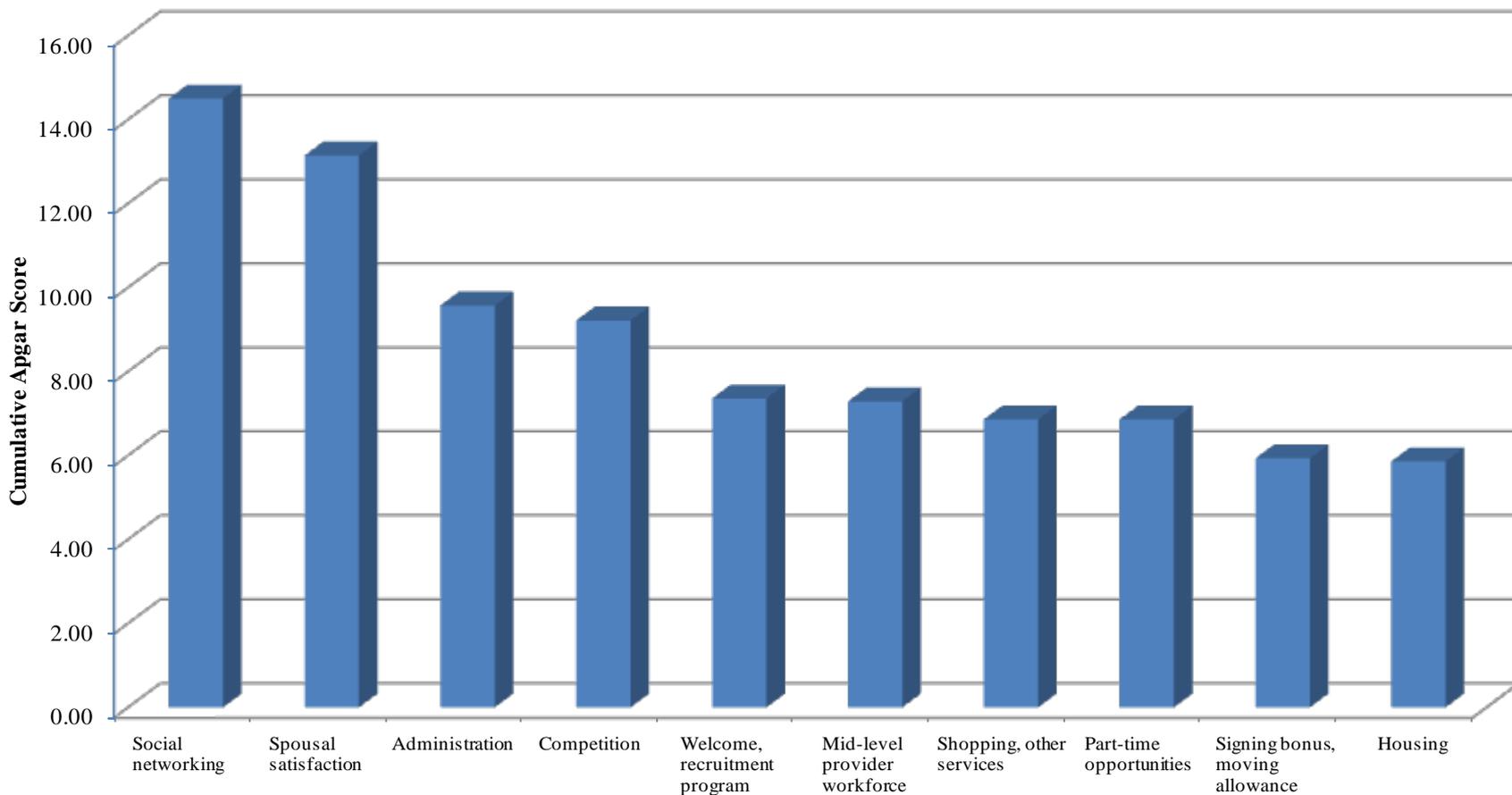
Bottom 10 Apgar Factors across All 50 Factors



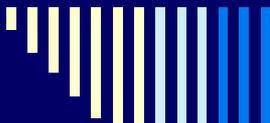


Facility X

Top 10 Cumulative Apgar Variance Factors across All 50 Factors

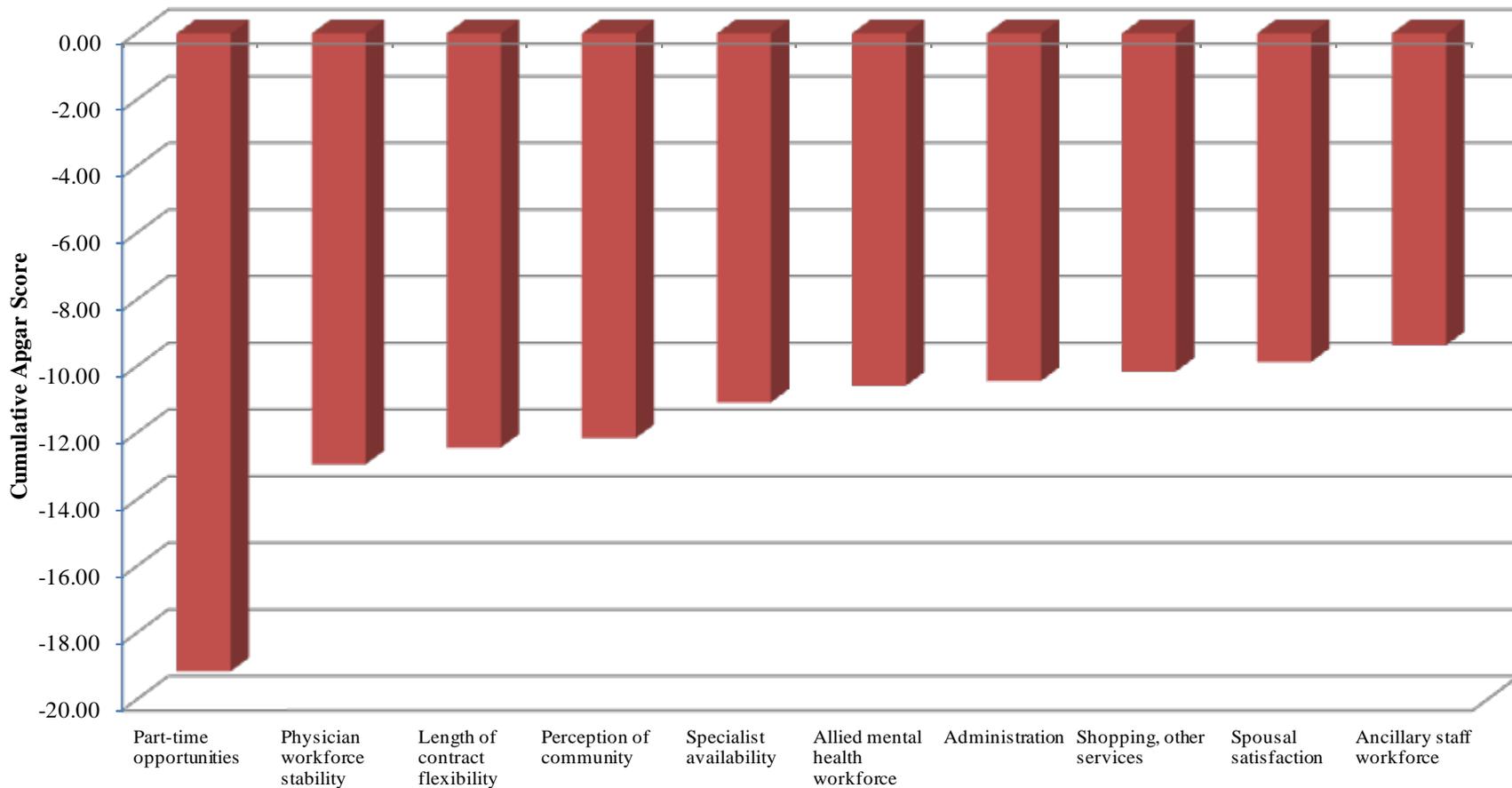


Top 10 Apgar Variance Factors

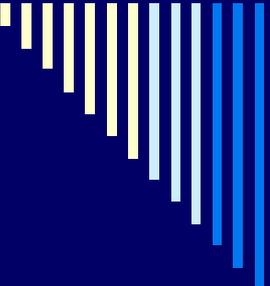


Facility X

Bottom 10 Cumulative Apgar Variance Factors across All 50 Factors



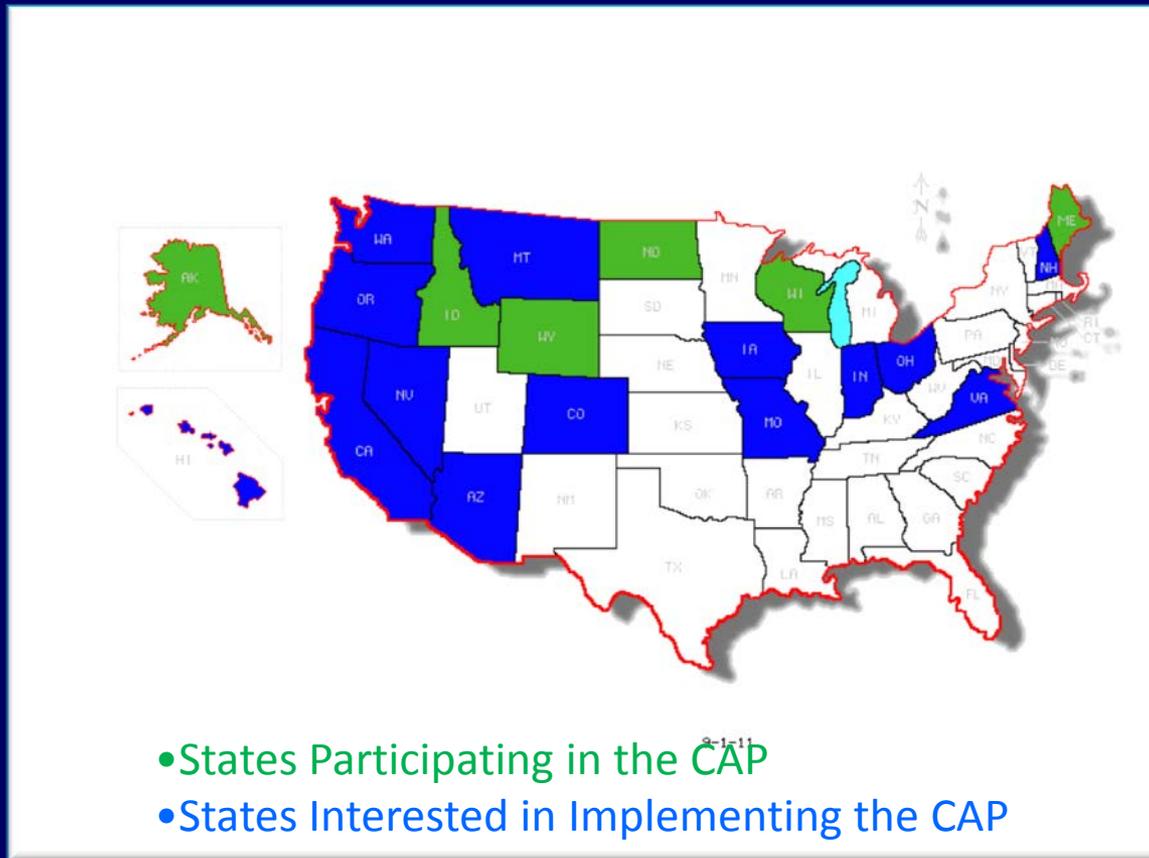
Bottom 10 Apgar Variance Factors

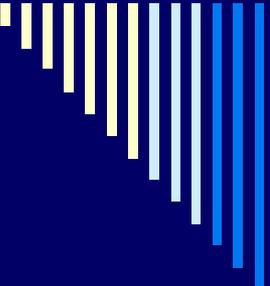


Next Steps

- Return in Fall 2012 to re-assess using CHC CAQ at original 14 CHCs
 - Develop Year 2 Maine state comparative database
 - Develop reports for 14 individual CHCs using updated Year 2 Maine comparative database
 - Present individual reports to 14 CHCs highlighting progress towards action plan goals
-

Findings from the National Apgar Database





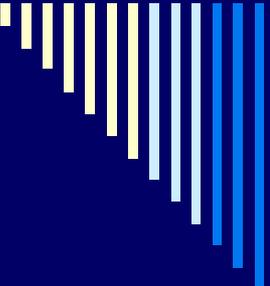
Top 10 Advantages - CHC

Idaho (2010)

- Recreational opportunities
- Loan repayment
- Retirement package
- Perception of quality
- Mid-level provider workforce
- Perceived fiscal stability
- CME benefit
- Minor trauma (casting/suturing)
- Community need/physician support
- Schools (tie for 10th)
- Teaching (tie for 10th)
- Ancillary staff workforce (tie for 10th)

Maine (2012)

- Recreational opportunities
- Loan repayment
- Community need/physician support
- Inpatient care
- Obstetrics: deliveries, C-section
- Obstetrics: prenatal care
- Mid-level provider workforce
- CHC leadership
- Perception of quality
- Call/practice coverage (tie for 10th)
- Physical plant and equipment (tie for 10th)
- Office GYN procedures (tie for 10th)



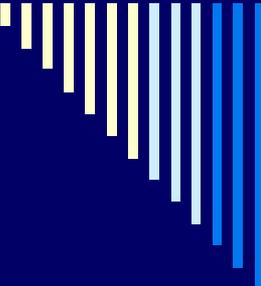
Top 10 Challenges - CHC

Idaho (2010)

- Televideo support
- Mental health
- Spousal satisfaction
- Production incentive
- Perception of community
- Salary (amount)
- Nursing workforce
- Demographic: underserved/payor mix (tie for 7th)
- Obstetrics: parental care (tie for 7th)
- Specialist availability (tie for 7th)

Maine (2012)

- Spousal satisfaction
- Social networking
- Access to larger community
- Salary (amount)
- Shopping/other services
- Specialist availability
- Mental health
- Televideo support
- Production incentive
- Physician workforce stability



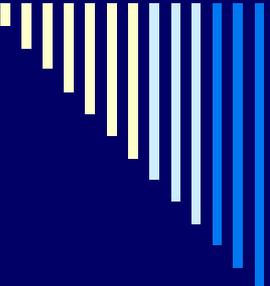
Top 10 Importance - CHC

Idaho (2010)

- Call/practice coverage
- Salary (amount)
- Spousal satisfaction
- Obstetrics: deliveries/C-section
- Recreational opportunities
- Obstetrics: prenatal care
- Loan repayment
- Competition
- Allied mental health workforce
- Schools (tie for 10th)
- Perception of quality (tie for 10th)
- Physician workforce stability (tie for 10th)

Maine (2012)

- Call/practice coverage
- Administration
- Loan repayment
- Spousal satisfaction
- Perception of quality
- Schools
- Competition
- Nursing workforce (tie for 8th)
- Salary (amount) (tie for 8th)
- Electronic medical records (tie for 8th)
- Physician workforce stability (tie for 8th)



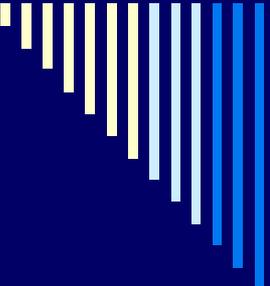
Top 10 Apgar Factors - CHC

Idaho (2010)

- Recreational opportunities
- Loan repayment
- Perception of quality
- Schools
- Retirement package
- CME benefits
- Community need/physician support
- Mid-level provider workforce
- Minor trauma (casting/surturing) (tie for 9th)
- Call/practice coverage (tie for 9th)

Maine (2012)

- Loan repayment
- Recreational opportunities
- Community need/physician support
- Inpatient care
- Mid-level provider workforce
- Obstetrics: prenatal care
- Perception of quality
- Obstetrics: deliveries/C-section
- Call/practice coverage
- CHC leadership



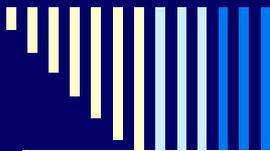
Bottom 10 Apgar Factors - CHC

Idaho
(2010)

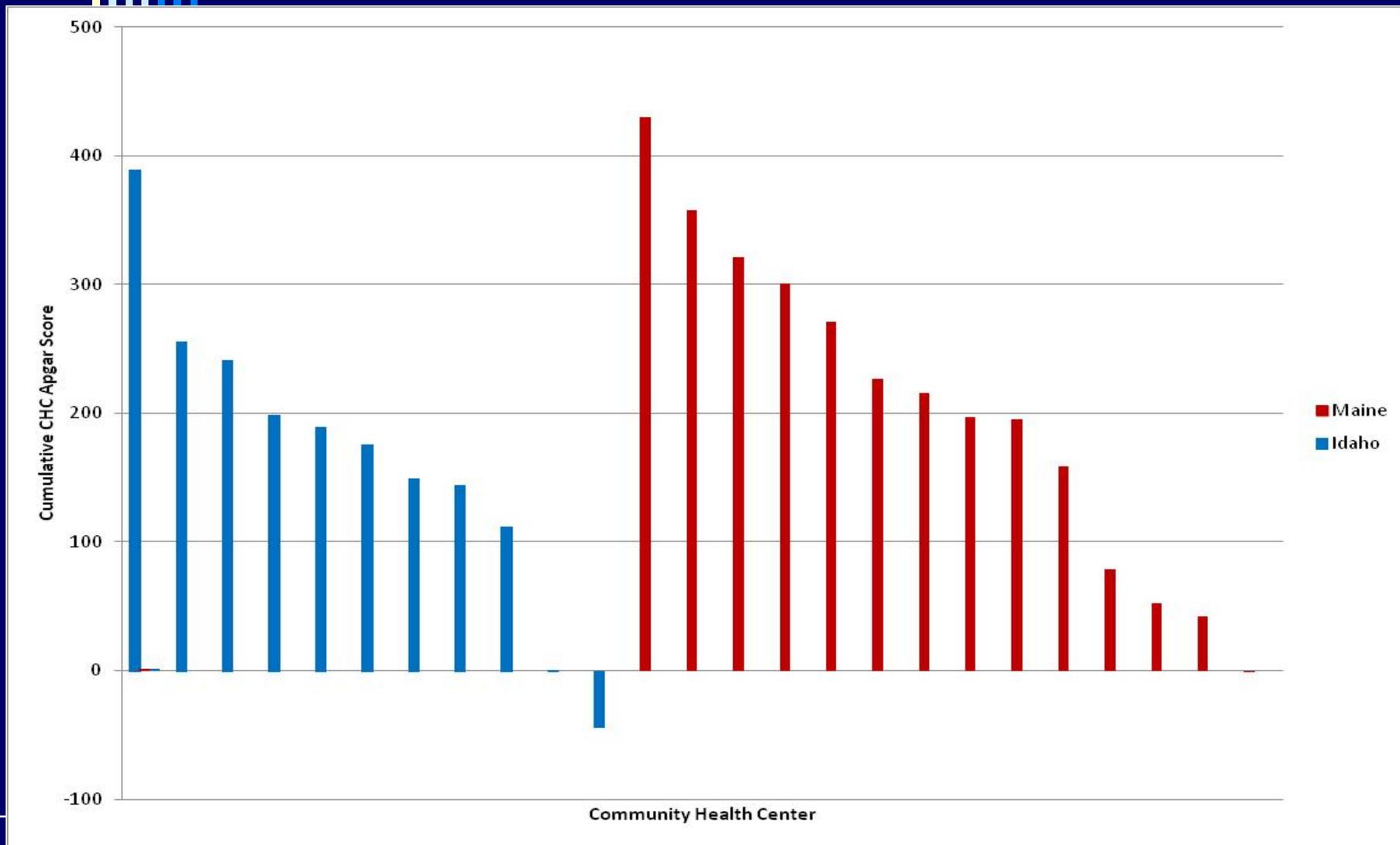
- Mental Health
- Televideo support
- Spousal satisfaction
- Perception of community
- Salary (amount)
- Production incentive
- Nursing workforce
- Demographic: underserved/payor mix
- Obstetrics: parental care (tied for 9th)
- Administration (tied for 9th)
- Specialist availability(tied for 9th)
- Welcome/recruitment program (tied for 9th)

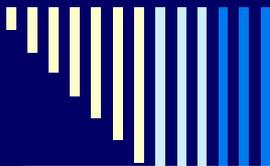
Maine
(2012)

- Spousal satisfaction
- Social networking
- Access to larger community
- Salary (amount)
- Shopping/other services
- Specialist availability
- Mental health
- Televideo support
- Physician workforce stability
- Production incentive

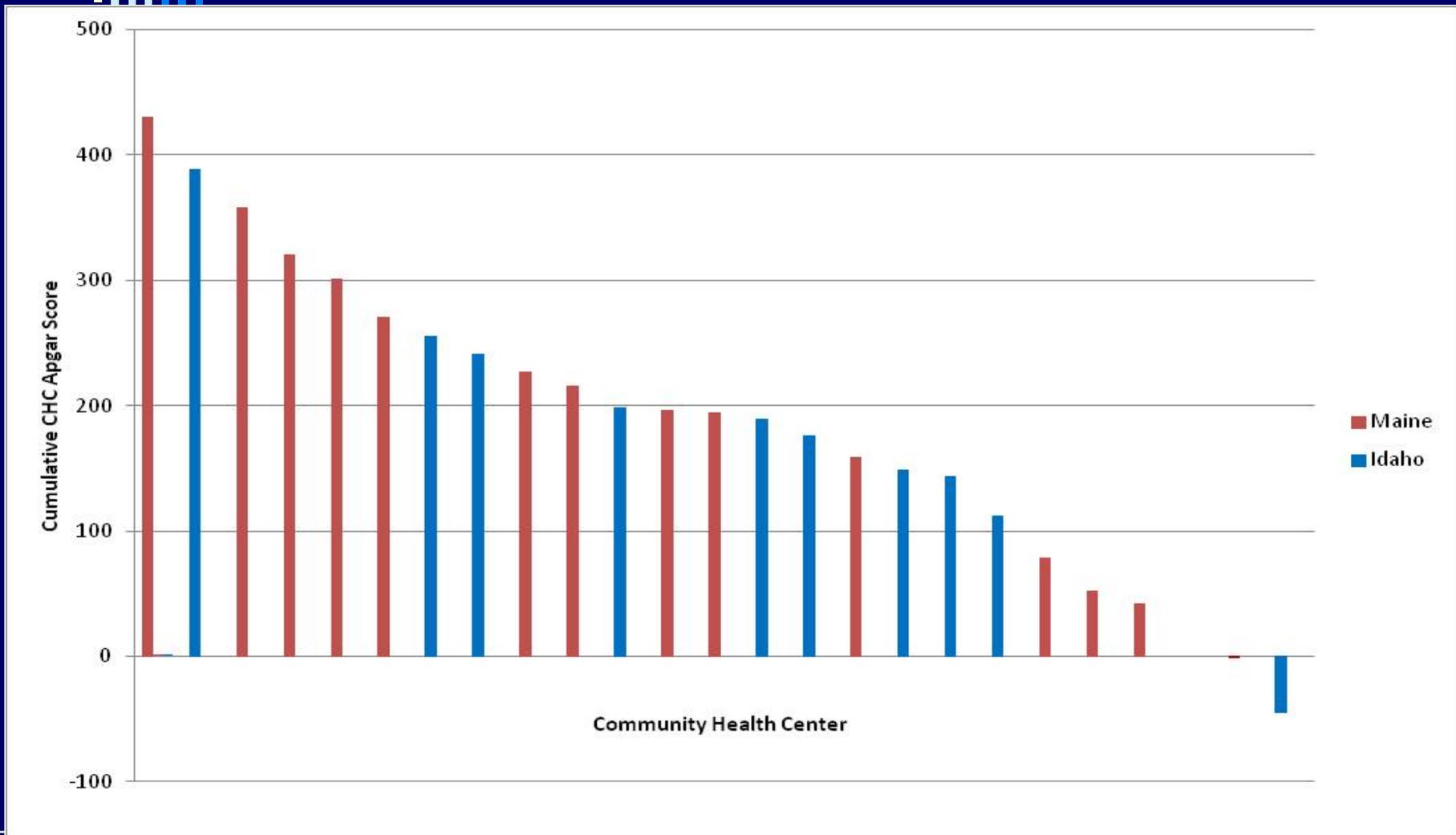


Cumulative CHC Community Apgar Score by Facility – Across Two States





Cumulative CHC Community Apgar Score by Facility – Across Two States



Top 10 Challenges - CAH

Idaho (2012)	Wyoming (2011)	North Dakota (2011)	Wisconsin (2012)	Alaska (2012)
<ul style="list-style-type: none"> • Shopping/other services • Spousal satisfaction • Mental health • Schools • Access to larger community • Allied mental health workforce • C-section • Electronic medical records • Obstetrics • Religious/cultural opportunities 	<ul style="list-style-type: none"> • Spousal satisfaction • Shopping/other services • Access to larger community • Mental health • Social networking • Allied mental health workforce • Climate • Religious/cultural opportunities • Electronic medical records • Nursing home 	<ul style="list-style-type: none"> • Climate • Spousal satisfaction • Shopping/other services • Mental health • Access to larger community • Allied mental health workforce • Emergency room coverage • Social networking • Demographic/patient mix • Call/practice coverage (tie for 10th) • Electronic medical records (tie for 10th) 	<ul style="list-style-type: none"> • Spousal satisfaction • Televideo support • Inpatient care • Shopping/other services • Social networking • Electronic medical records • Mental health • Climate • C-section • Obstetrics 	<ul style="list-style-type: none"> • Spousal satisfaction • Shopping/other services • Climate • C-section • Access to larger community • Part-time opportunities • Endoscopy, surgery • Employment status • Electronic medical records • Social networking

Top 10 Importance - CAH

Idaho (2012)	Wyoming (2011)	North Dakota (2011)	Wisconsin (2012)	Alaska (2012)
<ul style="list-style-type: none"> • Spousal satisfaction • Loan repayment • Income guarantee • Call/practice coverage • Recreational opportunities • Revenue flow • Schools • Perception of quality • C-section • Obstetrics 	<ul style="list-style-type: none"> • Revenue flow • Spousal satisfaction • Competition • Income guarantee • Physician workforce stability • Call/practice coverage • Perception of quality • C-section • Employment status • Loan repayment (tie for 10th) • Obstetrics (tie for 10th) 	<ul style="list-style-type: none"> • Spousal satisfaction • Perception of quality • Call/practice coverage • Physician workforce stability • Loan repayment • Physical plant/equipment • Transfer arrangement • Emergency room coverage • Employment status • Income guarantee 	<ul style="list-style-type: none"> • Schools • Employment status • Perception of quality • Physical plant/equipment • Spousal satisfaction • Revenue flow • Physician workforce stability • Obstetrics • Emergency room coverage • Call/practice coverage 	<ul style="list-style-type: none"> • Spousal satisfaction • Physician workforce stability • Call/practice coverage • Schools • Perception of quality • Loan repayment • Moving allowance • Recreational opportunities • Nursing workforce • Income guarantee

Top 10 Advantages - CAH

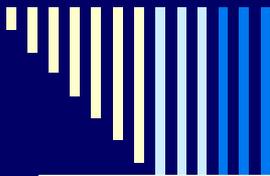
Idaho (2012)	Wyoming (2011)	North Dakota (2011)	Wisconsin (2012)	Alaska (2012)
<ul style="list-style-type: none"> • Recreational opportunities • Internet access • Community need/physician support • Loan repayment • Community volunteer opportunities • Income guarantee • Perception of quality • Competition • Ancillary staff workforce • Employment status 	<ul style="list-style-type: none"> • Employment status • Community need/physician support • Loan repayment • Recreational opportunities • Income guarantee • Ancillary staff workforce • Revenue flow • Transfer arrangements • Start-up/marketing costs • Moving allowance 	<ul style="list-style-type: none"> • Internet access • Perception of quality • Transfer arrangements • Income guarantee • Loan repayment • Community need/physician support • Ancillary staff workforce • Hospital leadership • Schools • Start-up/marketing costs (tie for 10th) • Recreational opportunities (tie for 10th) • Part-time opportunities (tie for 10th) • Moving allowance (tie for 10th) 	<ul style="list-style-type: none"> • Recreational opportunities • Employment status • Income guarantee • Nursing workforce • Religious/cultural opportunities • Community volunteer opportunities • Ancillary staff workforce • Perception of quality • Transfer arrangements • Mid-level provider workforce • Community need/physician support (tie for 10th) 	<ul style="list-style-type: none"> • Moving allowance • Income guarantee • Emergency medical services • Recreational opportunities • Inpatient care • Community volunteer opportunities • Community need/physician support • Payor mix • Perception of quality • Perception of community

Top 10 Apgar Factors - CAH

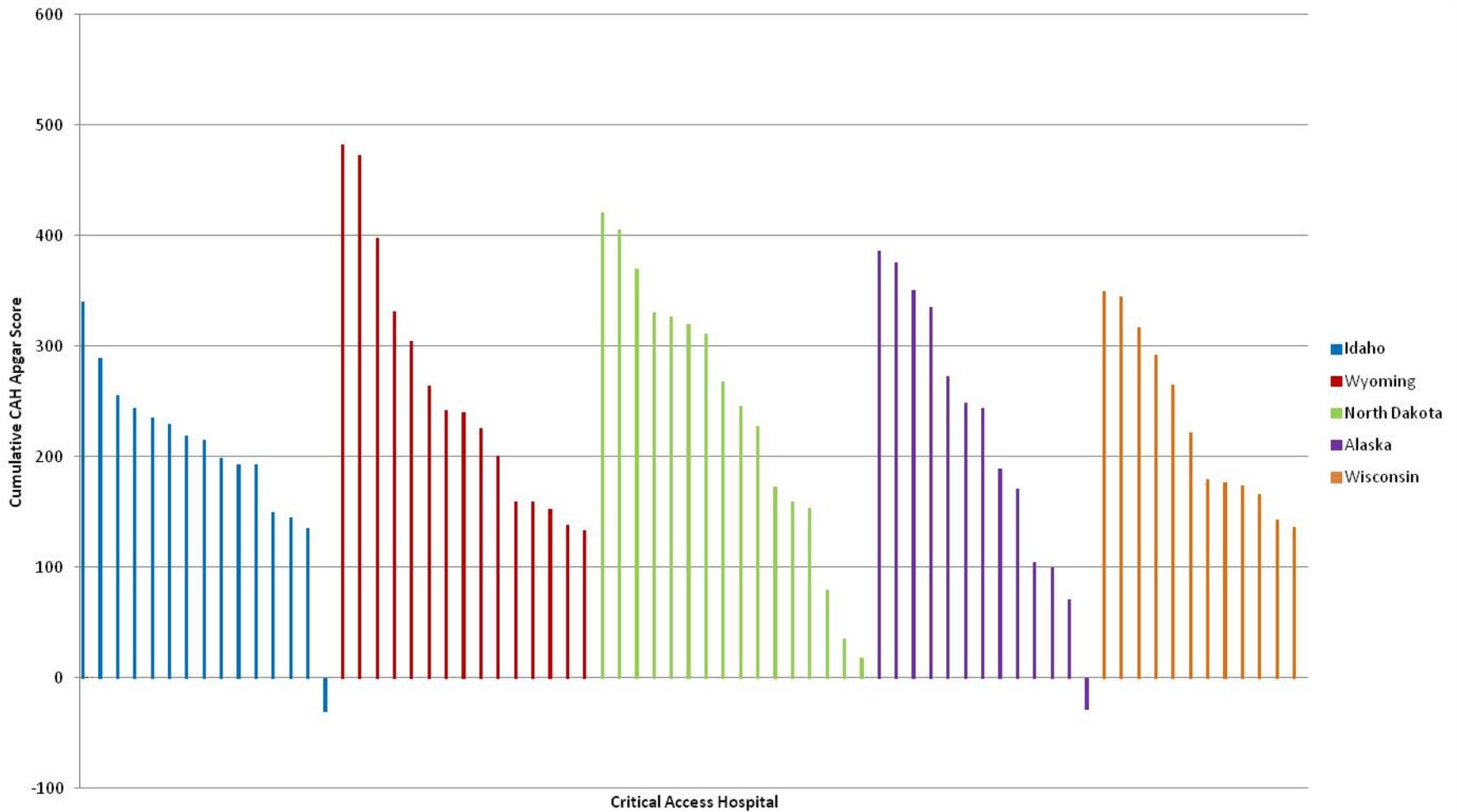
Idaho (2012)	Wyoming (2011)	North Dakota (2011)	Wisconsin (2012)	Alaska (2012)
<ul style="list-style-type: none"> • <i>Recreational opportunities</i> • Internet access • <i>Community need/physician support</i> • Loan repayment • Income guarantee • <i>Perception of quality</i> • Competition • Stability of physician workforce • <i>Employment status</i> • Call/ practice coverage 	<ul style="list-style-type: none"> • <i>Employment status</i> • Loan repayment • Income guarantee • <i>Community need/physician support</i> • <i>Recreational opportunities</i> • Revenue flow • Competition • Ancillary staff workforce • Transfer arrangements • Moving allowance 	<ul style="list-style-type: none"> • <i>Perception of Quality</i> • Transfer arrangements • Internet access • Loan repayment • Income guarantee • <i>Community need/physician support</i> • Ancillary staff workforce • <i>Employment status</i> • Moving allowance • Schools 	<ul style="list-style-type: none"> • <i>Employment status</i> • <i>Recreational opportunities</i> • <i>Perception of quality</i> • Income guarantee • Nursing workforce • Religious/cultural opportunities • Physician workforce stability • Transfer arrangement • Ancillary staff workforce • Community volunteer opportunities (tie for 10th) • Revenue flow (tie for 10th) 	<ul style="list-style-type: none"> • Moving allowance • <i>Recreational opportunities</i> • Income guarantee • Emergency medical services • Inpatient care • <i>Community need/physician support</i> • <i>Perception of quality</i> • Community volunteer opportunities • Physical plant and equipment • Welcome and recruitment (tie for 10th) • Perception of community (tie for 10th)

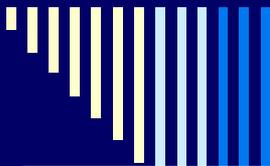
Bottom 10 Apgar Factors - CAH

Idaho (2012)	Wyoming (2011)	North Dakota (2011)	Wisconsin (2012)	Alaska (2012)
<ul style="list-style-type: none"> • Spousal satisfaction • Shopping/other services • Schools • Mental health • Allied mental health workforce • C-section • Access to larger community • Electronic medical records • Obstetrics • Religious/ Cultural opportunities 	<ul style="list-style-type: none"> • Spousal satisfaction • Shopping/other services • Access to larger community • Mental health • Social networking • Allied mental health workforce • Religious/cultural opportunities • Climate • Electronic medical records • Nursing home 	<ul style="list-style-type: none"> • Climate • Spousal satisfaction • Shopping/other services • Mental health • Access to larger community • Emergency room coverage • Demographic/patient mix • Social networking • Allied mental health workforce • Electronic medical records 	<ul style="list-style-type: none"> • Spousal satisfaction • Televideo support • Inpatient care • Shopping/other services • Mental health • Social networking • Climate • Electronic medical records • Perception of community • Mid-level supervision 	<ul style="list-style-type: none"> • Spousal satisfaction • Shopping/other services • Climate • Access to larger community • Part-time opportunities • C-section • Endoscopy, surgery • Employment status • Electronic medical records • Social networking

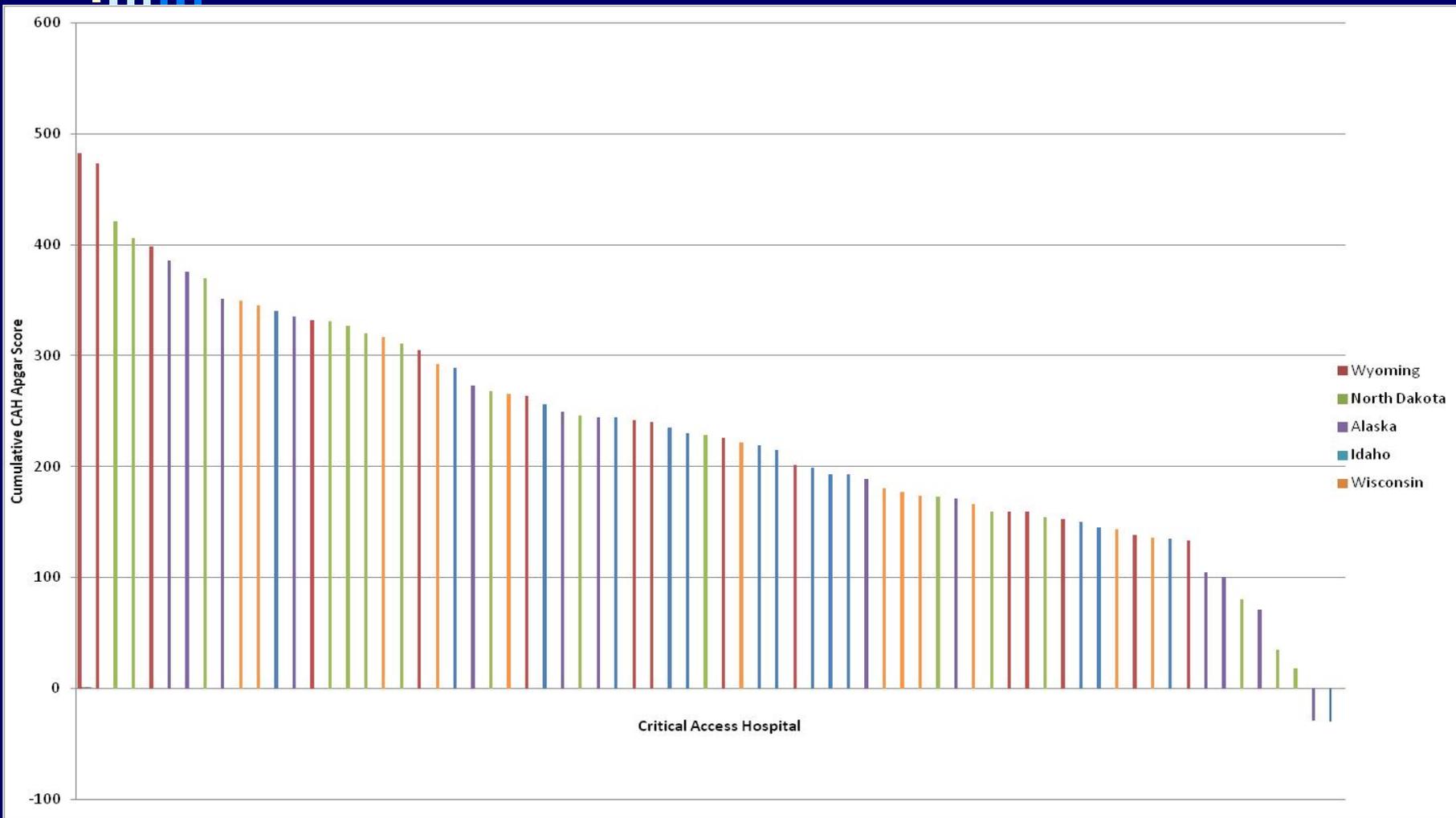


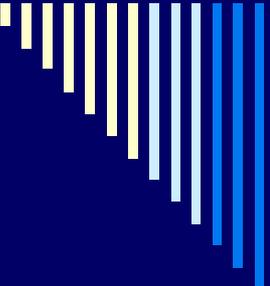
Cumulative CAH Community Apgar Score by Hospital – Across Five States





Cumulative CAH Community Apgar Score by Hospital - Across Five States





Questions/Comments for Discussion

