

Community Apgar

International comparison of community capabilities to recruit and retain physicians

Dr David Schmitz^{1,3}, Dr Daniel Terry², Lisa MacKenzie³, and Prof Ed Baker³

¹ Department of Family and Community Medicine, School of Medicine and Health Sciences, University of North Dakota, USA

²Department of Rural Health, The University of Melbourne, Australia

³Center for Health Policy, Boise State University, USA



Background

- How did we get here – Why research?
 - Boise State University: Ed Baker, PhD
 - University of North Dakota: 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”
 - 3RNet
 - NOSORH

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**pppearance, **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 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 [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*]
- Community Apgar Program (CAP) for Community Health Centers in Idaho
- Community Apgar Solutions Pilot Project

Years 5-11 (2011-2017)

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

Year 9-11 (2015-2017)

- Expansion of the Community Apgar Program and Nursing Community Apgar (CAP) to Australia.

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

- The CAH 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 family physicians in rural areas
 - Three open-ended questions



CAH 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

- Emergency Care
- Mental Health
- Obstetrics
- Administration Duties

Medical support

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

Hospital and Community Support

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

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

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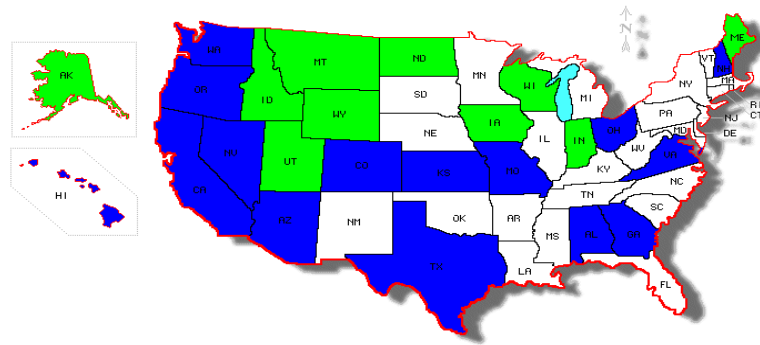
The CAQ Value Proposition

- 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

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.

Findings from International Apgar comparison



Source: dipmap.net (c)

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

Methods

- Data collected from Administrator and Physicians
- 2 USA sites, 1 Australian site
- Face-to-face structured interview, 45–60 minutes
- Data scored by assigning values to the four-point scale of community advantage/challenge for each factor then weighting factors according to perceived importance on a four-point scale
- An algorithm created a community asset and capability

Community advantage/challenge score X Community importance score) = CAQ score

- Scores then added to provide a cumulative CAQ score.

Results

- Participants

Sites	Physicians	Administrators	Total
Site 1, USA	22	22	44
Site 2, USA	22	22	44
Site 3, Australia	14	14	28
Total	58	58	116

What factor makes it easy to recruit rural?

- A. Loan Repayment
- B. Salary
- C. Community need/physician support
- D. Schools
- E. Competition

Selected Results – Top 10 Apgar Factors

Site 1 USA (2016)	Site 2 USA (2016)	Site 3 Australia (2016)	Overall
<ul style="list-style-type: none">•Transfer arrangements•Ancillary staff workforce•Competition•Income guarantee•Community need/ support of physician (Tie)•C-section (Tie)•Emergency medical services•Obstetrics•Perception of quality•Schools (Tie)•Mid-level provider workforce (Tie)•Hospital leadership	<ul style="list-style-type: none">•Community need/ support of physician•Employment status•Income guarantee•Perception of quality•Transfer arrangements•Schools•Recreational opportunities•Competition•Internet access•Hospital sponsored CME•Ancillary staff workforce	<ul style="list-style-type: none">•Nursing workforce•Perception of quality•Ancillary staff workforce•Hospital leadership•Part-time opportunities•Physical plant and equipment•Transfer arrangements•Specialist availability•Stability of physician workforce•Community need/ support of physician	<ul style="list-style-type: none">•Community need/ support of physician•Transfer arrangements•Perception of quality•Ancillary staff workforce•Income guarantee•Competition•Hospital leadership•Internet access•Emergency medical services•Mid-level provider workforce

- Key similarities and international factors to consider
- Universal factors?

What factor makes it hard to recruit rural?

- A. Climate
- B. Spousal satisfaction
- C. Mental Health
- D. Perception of community
- E. Part-time opportunities

Selected Results – Bottom 10 Apgar Factors

Site 1 USA (2016)	Site 2 USA (2016)	Site 3 Australia (2016)	Overall
<ul style="list-style-type: none">•Spousal satisfaction•Mental health•Electronic medical records (EMR)•Shopping and other services•Access to larger community•Allied mental health workforce•Climate•Emergency room coverage•Specialist availability•Payer mix	<ul style="list-style-type: none">•Spousal satisfaction•Allied mental health workforce•Mental health•Nursing workforce•Access to larger community•Shopping and other services•Climate•Electronic medical records (EMR)•Social networking•Administration	<ul style="list-style-type: none">•Spousal satisfaction•Schools•Religious/cultural opportunities•Shopping and other services•Social networking•Call/practice coverage•C-section•Perception of community•Obstetrics•Emergency room coverage	<ul style="list-style-type: none">•Spousal satisfaction•Mental health•Allied mental health workforce•Shopping and other services•Electronic medical records (EMR)•Access to larger community•Social networking•Climate•Emergency room coverage•Payer mix

- What can be learned from other's strengths to address the bottom 10 factors?

Community Apgar Program Innovations in Iowa

- Recruitment through internet communications in partnership with Iowa Hospital Association
 - Previous in-person visits by Drs. Schmitz and Baker to educate Iowa Hospital Association members
- Consent obtained electronically
- Data collected using Qualtrics
- Apgar survey directions through 3RNet online educational material

Community Apgar Program Innovations in Iowa

- Iowa Community Apgar Advantages
 - Recruitment, consent and survey data
 - 3RNet online educational materials accessed (accessed over 140 times during project period)
 - Both individual facility and overall state results presentations
 - Costs lower (20-25%)
- Iowa Community Apgar Challenges
 - Incorporation of trustee/board member data with physician and administrator data
 - No Iowa expert
 - CAQ interpretation

What other Apgar program would be most beneficial in Australia?

- A. Nurse
- B. Nurse Practitioner
- C. Physician Assistant
- D. Aboriginal Health Worker
- E. CEO/hospital administrator
- F. Other....

Next Steps in USA

- Next Steps
 - Finalize CEO/Administrator Apgar in spring 2017
 - Nurse Practitioner Apgar
 - Physician Assistant Apgar
 - Allied Health Apgar
 - Expansion and further development of Apgar Solutions
 - Additional use of technology

Next Steps in Australia

- Many health facilities indicated the real issue was recruiting and retaining nursing and allied health staff.
- Piloted 'online' Nursing Community Apgar 2016
- Develop and pilot an Allied Health Community Apgar 2017-2018
- Work with Rural Doctors Network NSW and other organisations 2017-2018



Questions?

- David Schmitz - david.f.schmitz@med.und.edu
- Edward Baker - ebaker@boisestate.edu
- Daniel Terry - d.terry@unimelb.edu.au