MAP Rural Health Technical Expert Panel: Addressing the Low Case-Volume Challenge

CSAC Informational Update

April 23-24, 2019

Overview of Presentation

- Background on MAP Rural Health Work

- MAP Rural Health Technical Expert Panel (TEP)
  - *Members, Objectives, Activities*

- TEP Recommendations

- Next Steps

- Discussion

Background: MAP Rural Health Workgroup

Key Activities for 2017-2018

- Assemble MAP Rural Health Workgroup

- Identify a core set of the best available rural-relevant measures

- Identify gaps in measurement and provide recommendations on alignment and coordination of measurement efforts

- Make recommendations regarding measuring and improving access to care for the rural population

Background: MAP Rural Health Workgroup

Key Activities for 2018-2019

- Share with, and invite feedback from, the MAP Hospital, Clinician, and PAC/LTC Workgroups on the August 2018 report and recommendations

- Provide feedback on clinician-specific measures included on the 2018 Measures Under Consideration (MUC) list

- Convene a Technical Expert Panel (TEP) to provide feedback and recommendations to address the low case-volume (LCV) challenge faced by many rural providers

TEP Members

- Mariel Finucane, PhD
  - *Senior Statistician, Mathematica Policy Research, Inc.*

- Jeffrey Geppert, EdM, JD
  - *Senior Research Leader, Battelle Memorial Institute*

- Shuangge (Steven) Ma, PhD
  - *Professor of Biostatistics, Yale University*

- Jessica Schumacher, PhD
  - *Director of Data Management and Analytics for the Surgical Collaborative of Wisconsin, University of Wisconsin - Madison, Surgical Collaborative of Wisconsin*

- Alan Zaslavsky, PhD
  - *Professor, Harvard Medical School*

TEP Objectives

- Develop recommendations on approaches for calculating healthcare performance measures when case-volume is low

    - *Consider exemptions for reporting requirements in various CMS programs*

    - *Consider heterogeneity of residents and providers in rural areas*

    - *Recommendations should include approaches that are actionable for measure developers*

- Assist NQF in drafting a report that describes the TEP's discussion and recommendations

TEP Activities
(September 2018 – March 2019)

- Participate in four 3-hour conference calls

- Consider previously recommended solutions to the LCV challenge

- Provide recommendations on how to address the LCV challenge faced by rural healthcare providers

- Assist in drafting a report summarizing their recommendations

- Assist in reviewing/responding to public comments, finalizing recommendations, and revising draft report
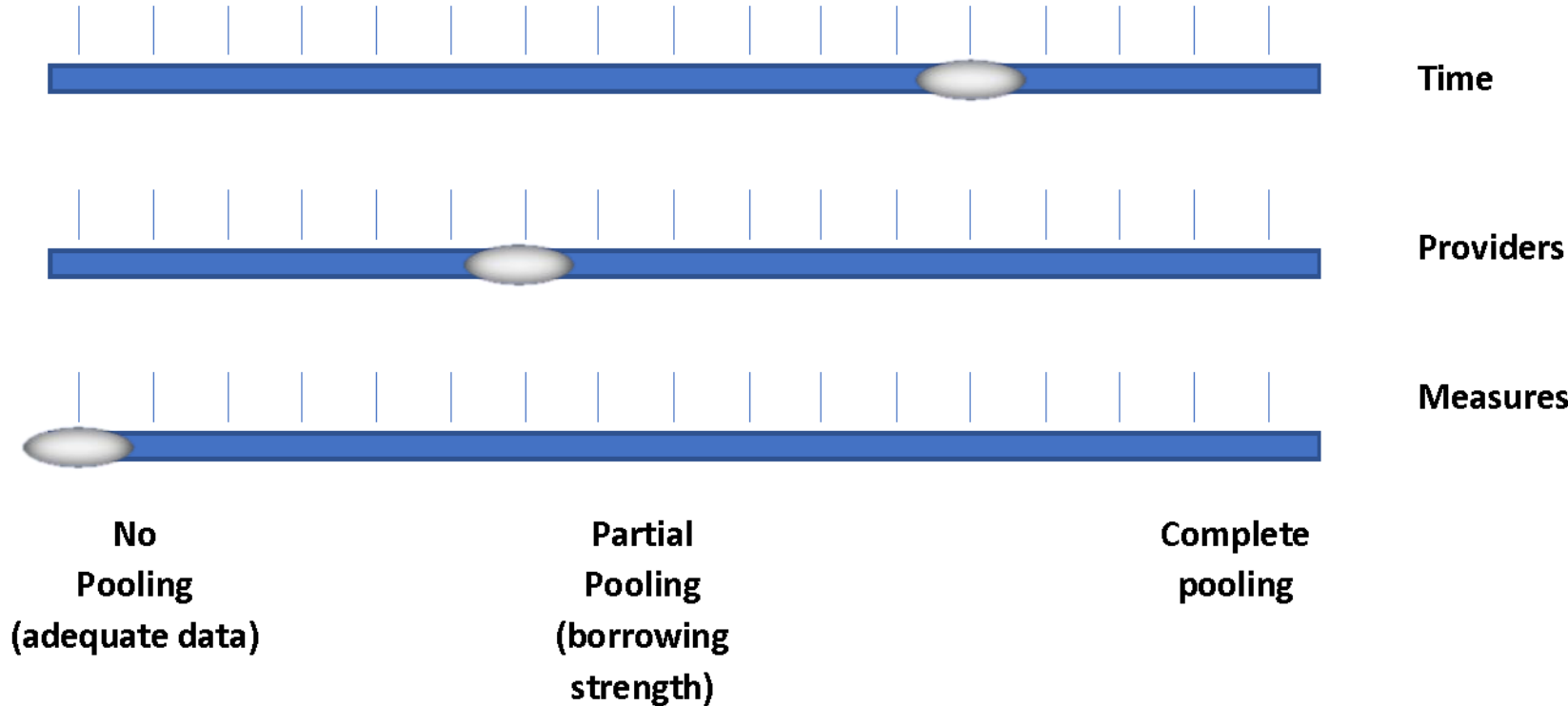
TEP Recommendations on Addressing the Low Case-volume Issue

- Borrow strength to the extent possible

- Recognize the need for robust statistical expertise and computational power

- Report exceedance probabilities

- Recognize potential for downstream unintended consequences

NQF released the [final report](#) on March 29, as well as a [press release](#) on April 2

Borrow Strength to the Extent Possible

Time

Providers

Measures

| No Pooling (adequate data) | Partial Pooling (borrowing strength) | Complete pooling |

Recognize the Need for Robust Statistical Expertise and Computational Power

- Requires the professional expertise of PhD-level statisticians
  - *Develop the statistical models for borrowing strength*
  - *Write the programming code to implement measures that use this approach*

- Requires robust computational resources
  - *Computers with sufficient power to store, manage, and compute statistical models for very large datasets*

Report Exceedance Probabilities

- Underlying recommendation: Reflect the uncertainty of measure results
  - *Alternative to confidence intervals*
  - *Example:* **We can be 84 percent sure that hospital A is performing above the mean on this particular measure**

- Particularly useful if the goal of measurement is to help consumers (or others) maximize their chances of choosing a provider that would be most likely to provide a good outcome

- Still uncommon, so need education and field testing to ensure that healthcare consumers know how to interpret performance results

Recognize Potential for Downstream Unintended Consequences

- Using a measure in an incentive program without realizing that it does not work well for rural providers
  - *Potential for misappropriation of incentive payments*
  - *Potential to encourage activities that are counter-productive in rural environments*

- Using measurement results to drive large-scale policy decisions that affect rural residents and providers, but without proper consideration of potential downstream effects

- Vigilance required, as is a willingness to change course if needed
  - *Formal feedback loops should be established to facilitate this vigilance*

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Some Additional Recommendations

Research

- Simulation studies

- Challenge grants

- Explore which structural characteristics might be appropriate in defining shrinkage targets for performance measurement of rural providers

- Pull together experts from other disciplines who also face the LCV problem

Policy

- Explore the implications of lack of service delivery

- Revisit/refine the core set of rural measures identified by the MAP Rural Health Workgroup

Next Steps

- Expect continued funding for MAP Rural Health Workgroup
    - *Scope of work not yet defined*

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Discussion Questions

- One of the TEP members said early on, regarding LCV, "there is no magic bullet."
  - *Does this surprise you?*
  - *What is your general reaction to the recommendation to "borrow strength"?*

- Have you ever heard of, seen, or used exceedance probabilities?
  - *What do you think of the recommendation?*

- What is your reaction to this TEP's recommendation regarding the potential for unintended consequences?
  - *Can you think of others besides those verbalized by the TEP?*