Implications of Performance Measurement for Provider Credentialing, Licensing, and Certification

Mark W. Friedberg, MD, MPP
Natural Scientist
RAND

Presentation to the Standing Committee on Credentialing Research in Nursing / Institute of Medicine
June 12, 2013

RAND HEALTH

Salient features of provider credentialing, certification, and licensing

- Applies to the provider as an individual
- Focuses on provider's personal history
  - Education completed
  - Test scores
  - Rare but severe events that may indicate the quality of care the provider will deliver
    - Disciplinary actions, professional liability payments
    - Substance abuse, criminal activity
- Allows provider to give certain types of patient care
  - "Scope of practice" generally quite broad
- Repeated infrequently (thousands of patients treated between renewals, in many cases)

Key questions about credentialing, certification, and licensing

- What effects do provider credentialing, certification, and licensing have on patient care?
  - If there are effects on some dimensions of patient care, do these effects extend to other dimensions?
  - How many “dimensions of care” can we reasonably expect a single credential to affect?
    - For which dimensions of care does being licensed as a physician vs. a nurse practitioner (or PCP vs. specialist) make a difference?

- How can credentialing, certification, and licensing be improved, leading to improved patient care?

*Credentialing is a structural measure**

Structure	• Characteristics of individual providers (e.g., credentials) and provider organizations
Process	• Care services delivered to patients • Example: doing an evidence-based screening test
Outcomes	• Impact on patient health (and patient experience and costs of care) • Example: mortality rates

*In the classic Donabedian framework

Donabedian A. Milbank Q 1966;44(3):166-203

RAND HEALTH

Structural measures of quality are valid only if they lead to better outcomes

Structure

- Characteristics of providers and organizations

?

Process

- Care services delivered to patients
- Example: doing an evidence-based screening test

?

Outcomes

- Impact on patient health (and patient experience and costs of care)
- Example: mortality rates

How well do credentials perform as structural measures?

There is a wide range of process performance among licensed physicians

- We examined the quality of care delivered by 10,408 Massachusetts physicians on 124 measures of process quality*
  - Wide range of overall performance: 48%-75% (for 5th-95th %ile)
  - Board certification was associated with 3.3% better performance
  - No association between process performance and malpractice payments
  - Overall, very little observed variation explained by any observable physician characteristic maintained by the Massachusetts Board of Registration in Medicine

- Limitation: we could not observe physicians without a license, so we cannot comment on a licensing-free counterfactual

*Reid et al. Arch Intern Med 2010;170:1442-9.

***Average* performance differences between license and credential types are modest**

- A trial randomizing patients to physicians or nurse practitioners found that at one year, there were only modest differences on mean diastolic blood pressure and patient satisfaction*
  - The number of providers was small: 7 NPs and 11 physicians
  - The range of provider performance within each license type was not reported; only the averages were reported

- Comparisons of primary care and specialty physicians have shown modest differences in some studies**
  - These studies have reported differences in mean performance; not the ranges

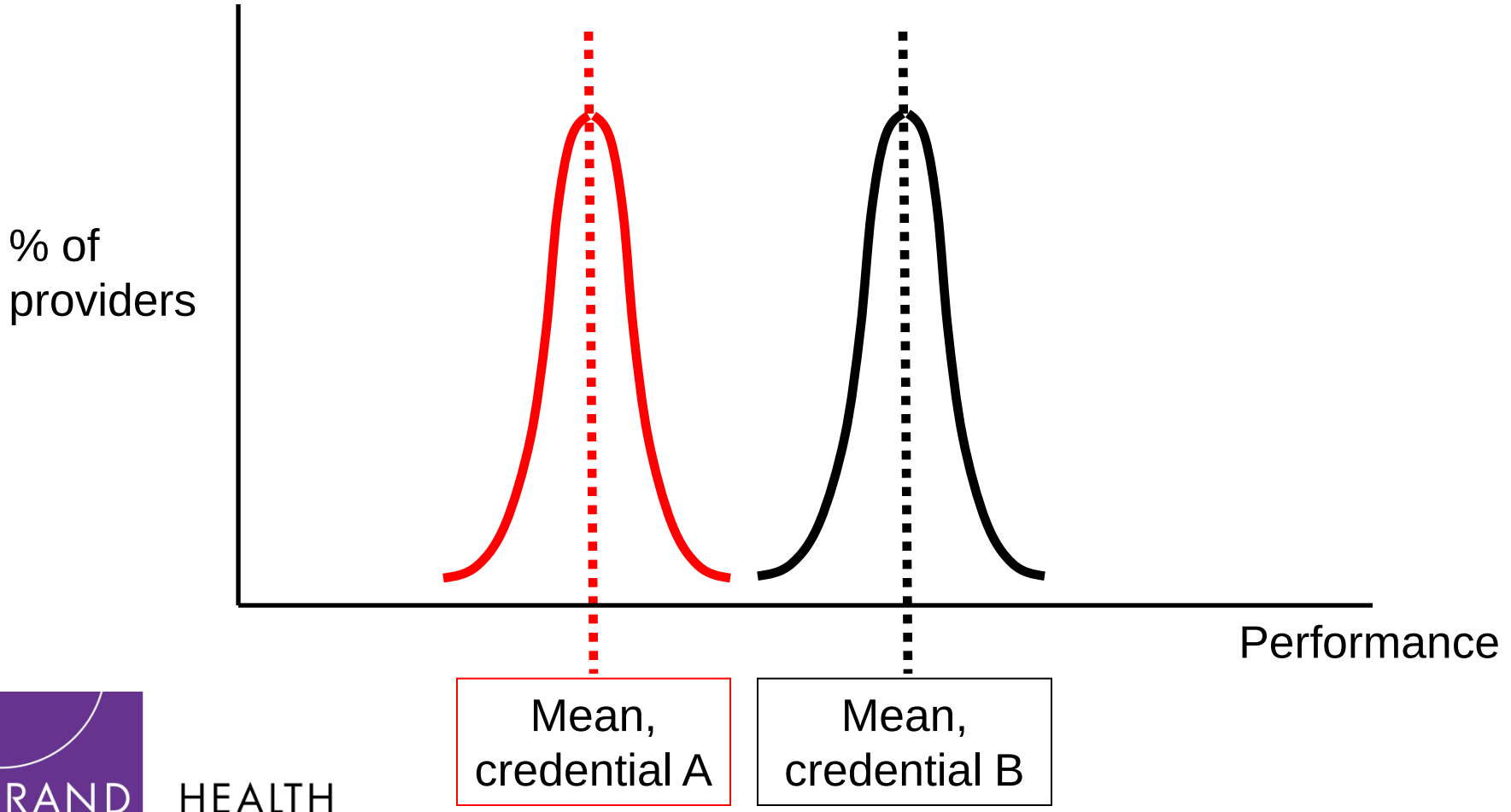
*Mundinger et al. JAMA 2000;283(1):59-68.
**Smetana et al. Arch Intern Med 2007;167(1):10-20.

***Average* performance differences associated with board certification are modest**

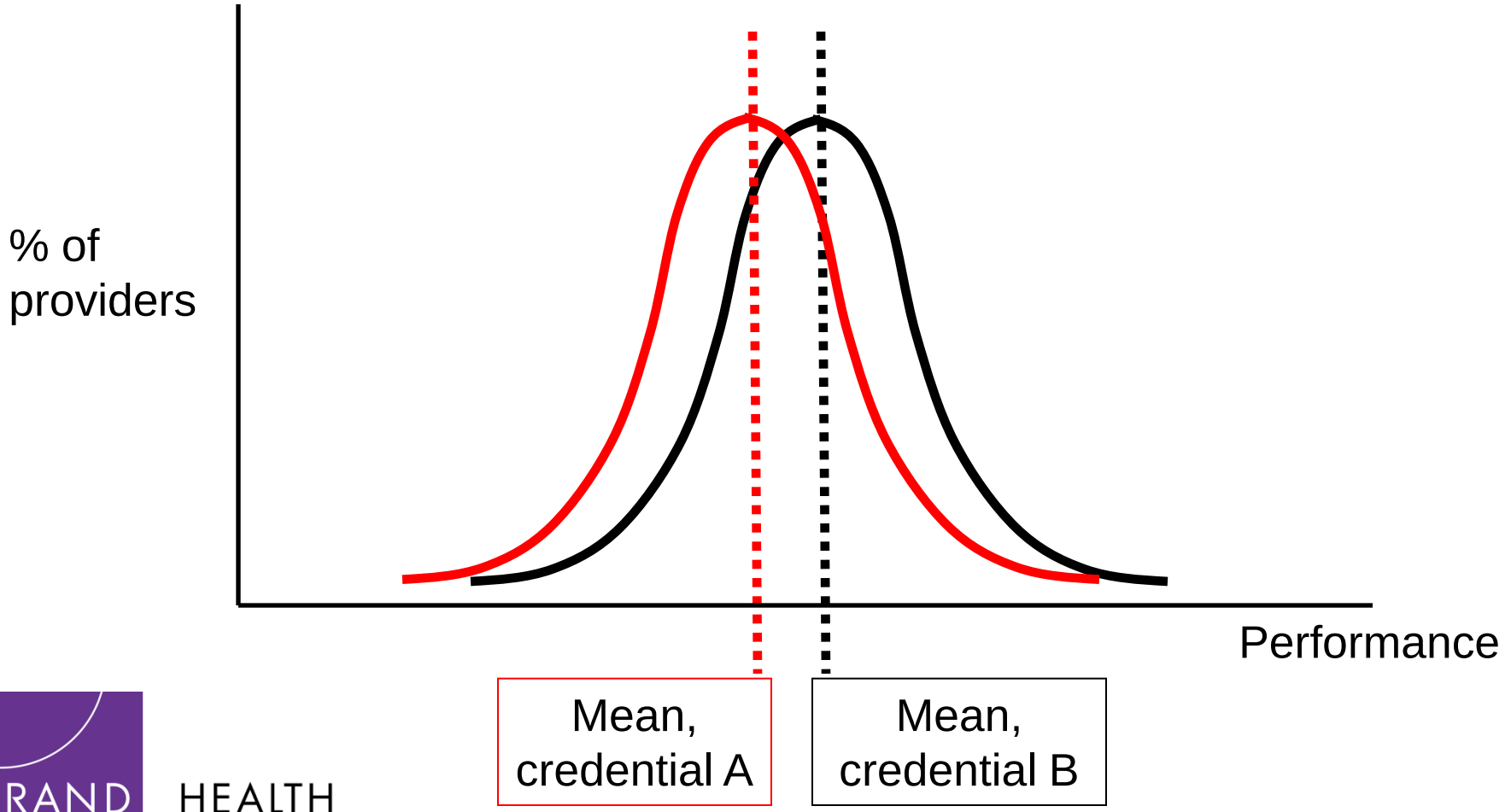
- Higher internal medicine maintenance of certification (MOC) scores were associated with modestly higher average performance on diabetes and breast cancer screening*
  - Average performance differences between highest and lowest MOC ranged 2-10 percentage points
  - Ranges of performance not reported

*Holmboe et al. Arch Intern Med 2008;168(13):1396-1403.

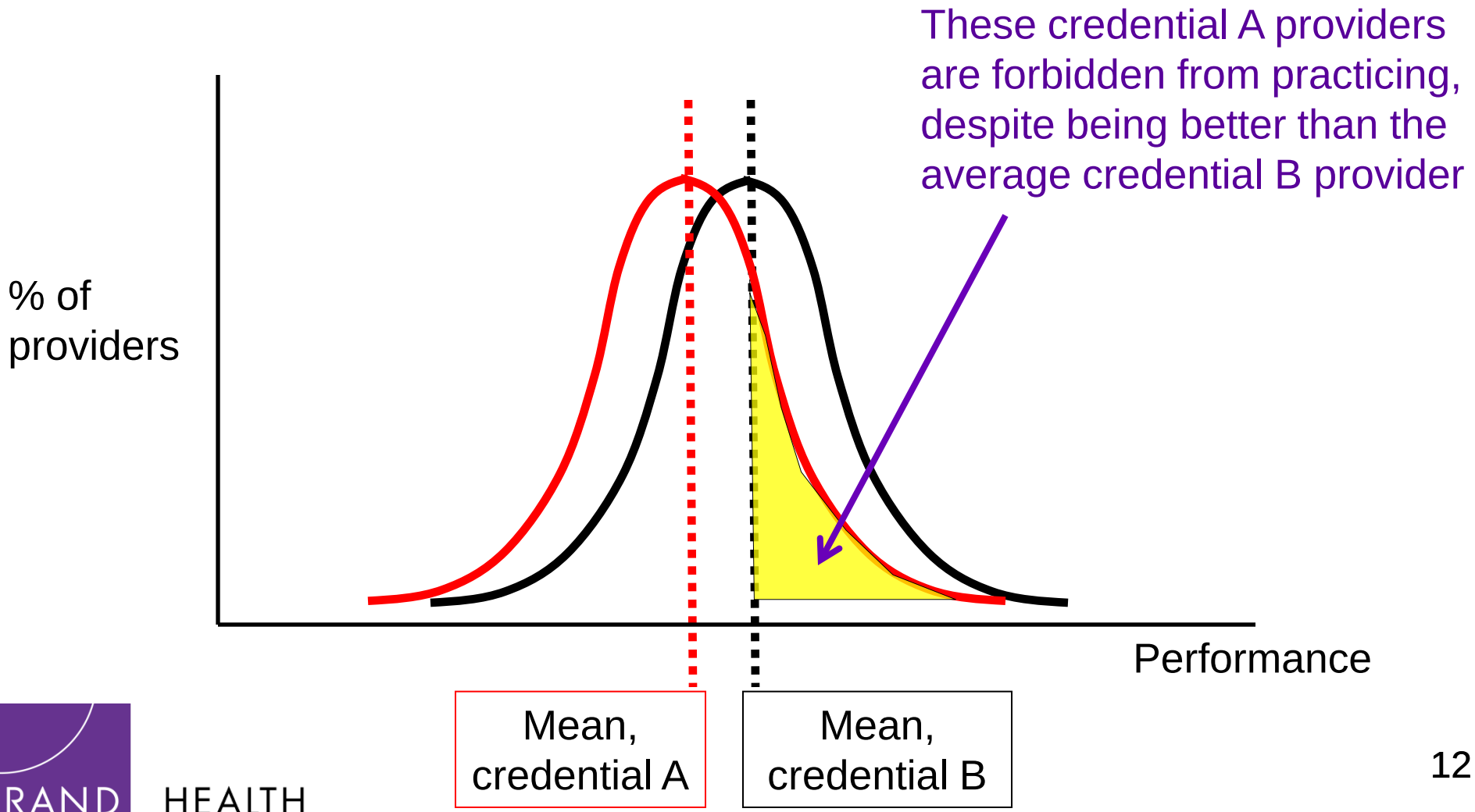
The mean is a good indicator of performance when within-credential ranges are narrow and between-credential differences are large



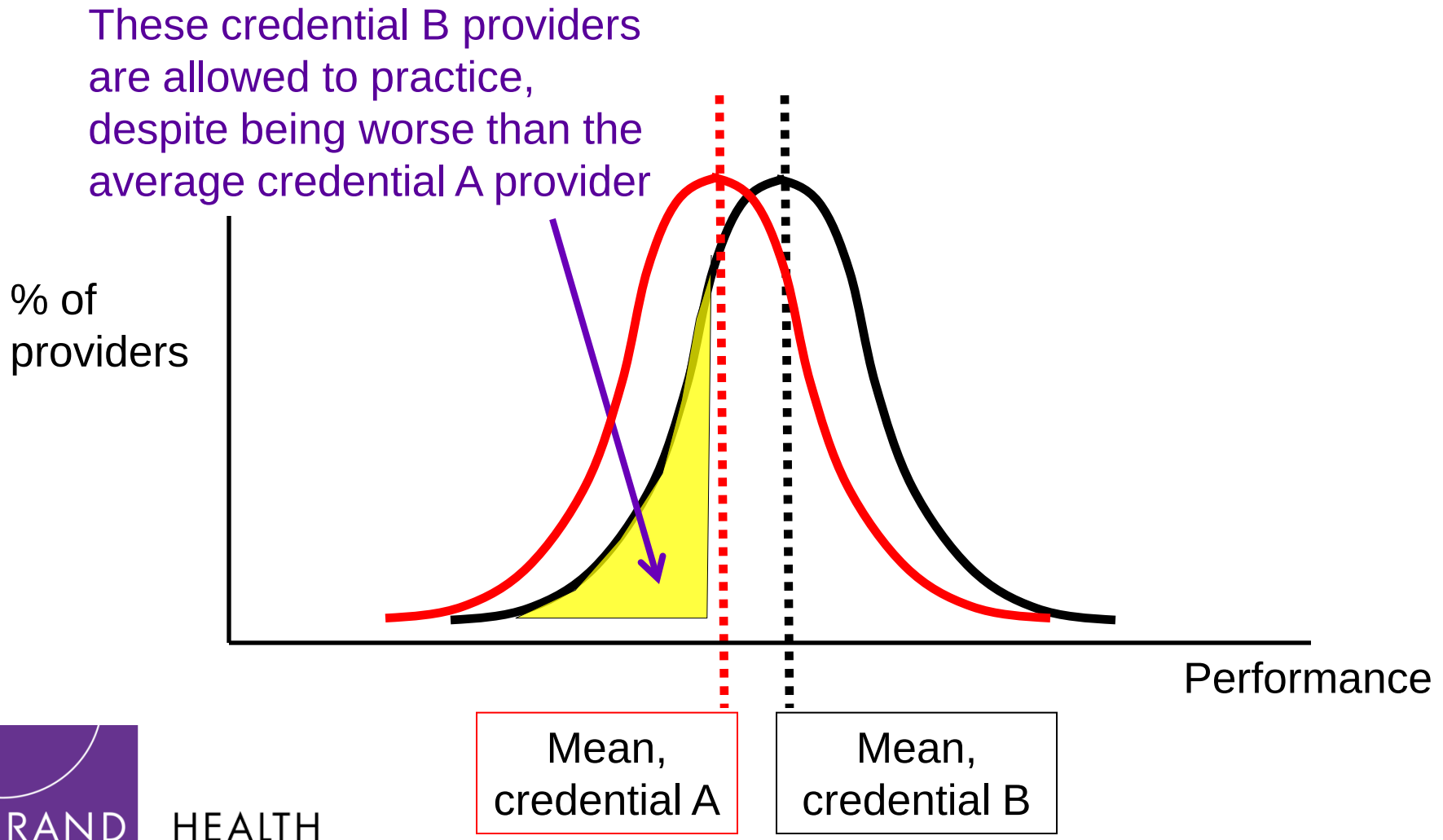
For many dimensions of performance within-credential ranges may be wide, and between-credential differences may be narrow



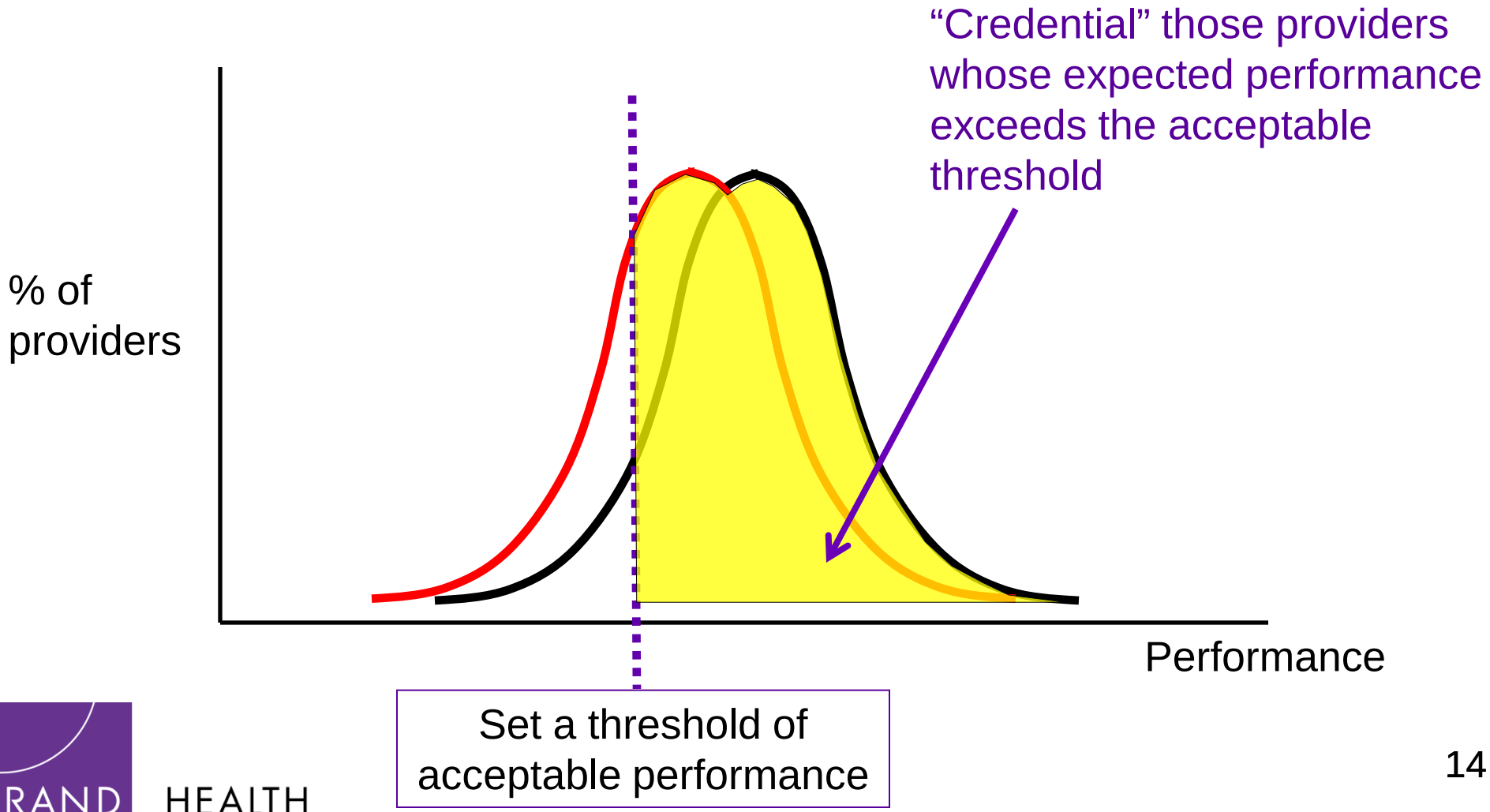
What if we only allow credential B providers to provide the service measured here?



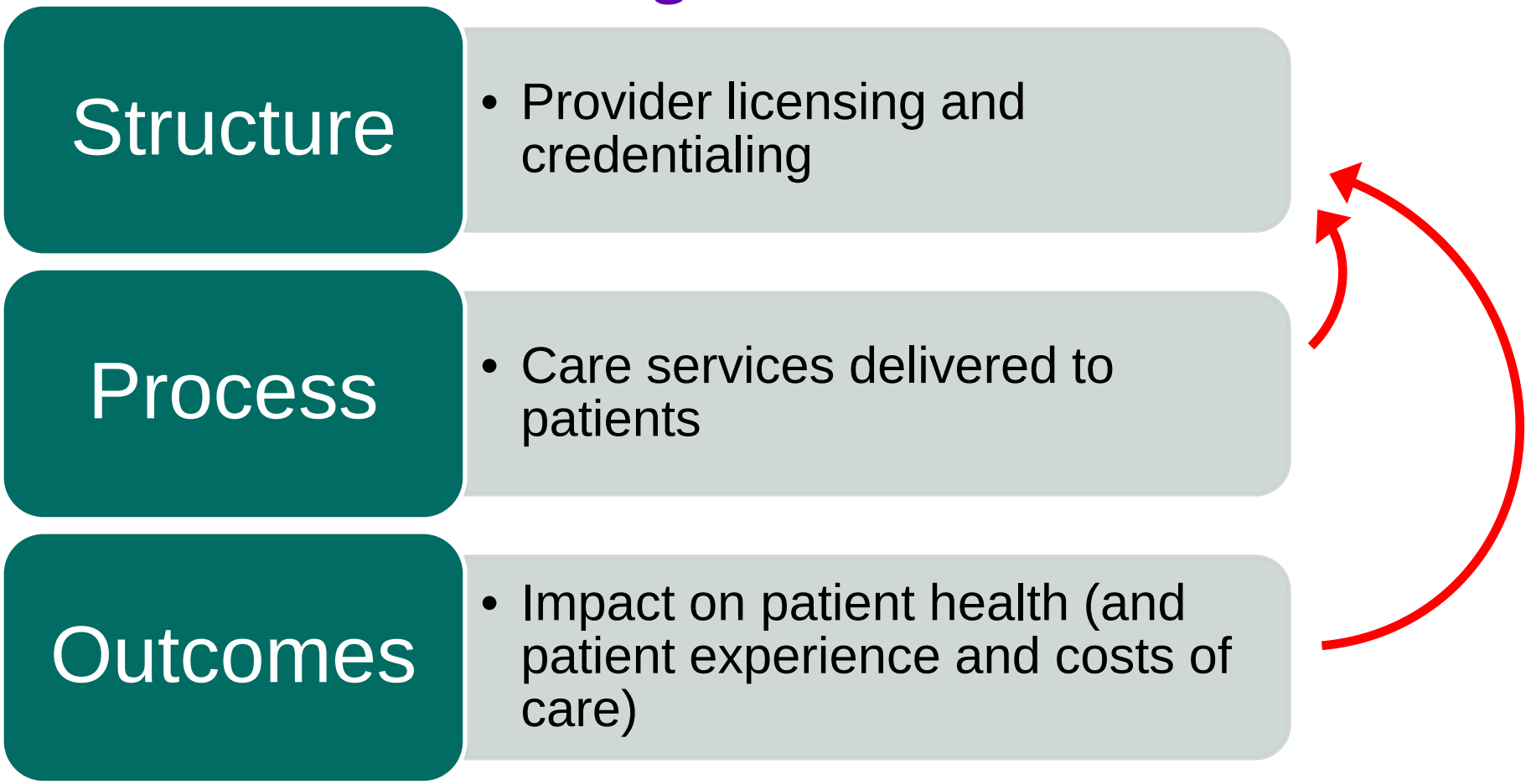
What if we only allow Credential B providers to provide the service measured here?



A performance-based approach to credentialing…



*In a sense, performance-based credentialing can "guarantee" validity of credentialing by reversing the arrows**



***Assuming valid and reliable measures of process and outcomes are used.**

Potential implications of performance-based credentialing

- A “high-stakes” use of performance data, be cautious!
- Valid and reliable measures of future predicted performance are necessary
  - Past performance isn’t the only potential predictor of future performance, but it’s a key ingredient in good predictions
- Individual providers may have different strengths and weaknesses:
  - To accommodate this natural variation, each provider might assemble a different set of narrowly bounded credentials
- Individual provider performance could vary over time
  - Accommodate by adjusting frequency of credential renewal

Performance-based credentialing may require a change of focus

- Individual providers are nested within systems of care, and measured performance is driven by interactions between providers and these systems
  - If “remote” measurement cannot distinguish individual provider performance from system performance, maybe systems—not providers—should be the focus of performance-based credentialing
  - A credentialed delivery system could then look internally, in an intensive way, to improve its performance by training or selecting individual providers
    - Systems could be allowed wide internal leeway in structuring teams and scopes of work

Thank you

Mark Friedberg, MD, MPP
mfriedbe@rand.org