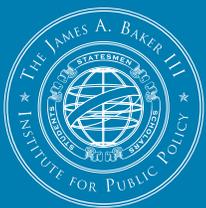


V<sup>o</sup>.5  
Issue 2

JUNE 2010  
IN THIS ISSUE

The article “Improving benchmarking by using an explicit framework for the development of composite indicators: An example using pediatric quality of care” by Jochen Profit, M.D., M.P.H.; Katri V. Typpo, M.D., M.P.H.; Sylvia J. Hysong, Ph.D.; LeChauncy D. Woodard, M.D., M.P.H.; Michael A. Kallen, Ph.D., M.P.H.; and Laura A. Petersen, M.D., M.P.H., appeared in the Feb. 9, 2010, edition of *Implementation Science*. Profit is an assistant professor of pediatrics at Baylor College of Medicine and Texas Children’s Hospital in Houston, Texas. He is also affiliated with the Section of Health Services Research at Baylor College of Medicine, as well as the Health Policy and Quality Program of the Houston VA Health Services Research and Development Center of Excellence at the Michael E. DeBakey VA Medical Center in Houston.



BCM  
Baylor College of Medicine

## HEALTH POLICY research

James A. Baker III Institute for Public Policy-Baylor College of Medicine  
Joint Program in Health Policy Research

### Are composite measures of quality useful for profiling pediatric health care providers?

Yes, says Jochen Profit, M.D., M.P.H., assistant professor of pediatrics at Baylor College of Medicine. Indeed, he argues that a comprehensive measurement of quality is essential to promoting comprehensive improvements in quality of care. It is crucial, however, that developers of composite scores use rigorous, explicit and transparent methods to ensure a result that accurately reflects a provider’s performance.

In recent years, there has been an increasing interest in evaluating the performance of health care providers with regard to the quality of care they deliver. Current approaches to improving individual aspects of care quality often do not change the underlying system of care, Profit says. “As a consequence, gains in care quality have tended to be modest and transient.” Composite measures of quality can have a broader impact because improvements on multiple aspects of quality will be necessary to significantly affect the composite score. “In other words, they incentivize providers to try to kill two birds with one stone,” he says.

Unfortunately, many composites are being deployed without having been thoroughly tested. The development of a composite score requires methodological choices that can be challenged by critics. Such choices include the selection of measures for inclusion in the composite, their relative weights and the method of their aggregation. Because these choices may influence provider performance, it is essential that developers of composites carefully select the methods used and that they test the effect of their choices on provider performance. Ideally, performance does not change significantly when methods are slightly altered; otherwise, there is a high risk that providers are falsely classified as excellent or poor.

Profit and his colleagues have developed a framework for composite measure development that combines a theoretical model for measuring quality with a highly explicit, transparent and evaluative approach. The proposed methods promote internal and external statistical and methodological consistency, and allow developers to tailor methods to the specific task at hand. If applied, this framework would improve the validity and fairness of quality measurements, which are of utmost importance to providers and to the entire quality improvement enterprise.

Without valid performance evaluations, we do not know whether improvements in quality measures actually represent improvements in care. Without a composite measurement of quality, we are unlikely to see breakthrough improvements in quality because the underlying system of care delivery usually remains unchanged. The application of Profit’s framework for the development of valid composite measures of care quality increases the likelihood that composite measures are valid and robust, and that providers will apply system-based quality improvement strategies that will result in substantive improvements in quality of care.

*Implementation Science* 2010, 5:13.

**HEALTH POLICY** research presents a summary of findings on current health policy issues. It is provided by the James A. Baker III Institute for Public Policy's Health Economics Program in collaboration with the Baylor College of Medicine's Section of Health Services Research in the Department of Medicine.

This publication is provided to make research results accessible to regional and national health policymakers. The views expressed herein are those of the study authors and do not necessarily represent those of the Baker Institute or of the Baylor College of Medicine.

The Baker Institute and the Baylor College of Medicine's Section of Health Services Research work with scholars from across Rice University and the Baylor College of Medicine to address issues of health care — access, financing, organization, delivery and outcomes. Special emphasis is given to issues of health care quality and cost.

Rice University  
James A. Baker III Institute for Public Policy MS-40  
Program in Health Economics  
P.O. Box 1892  
Houston, Texas 77251-1892

For further information about the program, please contact:

**Vivian Ho, Ph.D.**

James A. Baker III Institute Chair in Health Economics  
James A. Baker III Institute for Public Policy  
Rice University MS-40  
P.O. Box 1892  
Houston, Texas 77251-1892  
phone: 713.348.2195  
e-mail: [vho@rice.edu](mailto:vho@rice.edu)

**Laura Petersen, M.D., M.P.H.**

Chief, Section of Health Services Research  
Department of Medicine  
Baylor College of Medicine  
Michael E. DeBakey VA Medical Center (152)  
2002 Holcombe Boulevard  
Houston, Texas 77030  
phone: 713.794.8623  
e-mail: [laurap@bcm.edu](mailto:laurap@bcm.edu)

ACCESS

FINANCING

ORGANIZATION

DELIVERY

OUTCOMES



# HEALTH POLICY **research**

James A. Baker III Institute for Public Policy-Baylor College of Medicine  
Joint Program in Health Policy Research

<http://healthpolicy.rice.edu>

Volume 5, Issue 2, June 2010

**BCM**  
Baylor College of Medicine

