Acknowledgments

Table of Contents

HCUPnet can be found at

- **Fosters real quality improvement.** The indicator should be robust to possible provider manipulation of the system. In other words, the indicator should be

Construct validity. Construct validity analyses provided information regarding the relatedness or independence of the indicators. If quality indicators do indeed measure quality,

[6]Billings J, Zeitel L, Lukomnik J, et al. Impact of socioeconomic status on hospital use in New

[8]Weissman JS, Gatsonis C, Epstein AM. Rates of avoidable hospitalization by insurance status in Massachusetts and Maryland. JAMA 1992;268(17)2388-94.

Detailed Evidence for Prevention Quality Indicators

This section provides an abbreviated presentation of the details of the literature review and the empirical evaluation for each PQI, including:

- The relationship between the indicator and quality of health care services
-

A full report on the literature review and empirical evaluation can be found in *Refinement of the HCUP Quality Indicators*

shown to be 45% effective in pr ı˝/Zct codes.   Household 8ncomiv

patients.[28] Based on empirical evidence, this

Construct validity: Does the indicator perform

Low Birth Weight Rate

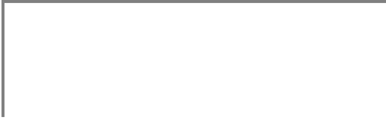
Infants may be low birth weight because of inadequate interuterine growth or premature birth. Risk factors include sociodemographic and behavioral characteristics, such as low income and tobacco use during pregnancy.

Relationship to Quality	Proper preventive care may reduce incidence of low birth weight, and lower rates represent better quality care.

low birth weight and other complications in high-risk populations.

differences in the rate of low birth weight births across geographic areas.

Precision: Is there a substantial amount of



Pediatric Asthma Admission Rate

Asthma is the most common chronic disease in childhood and is one of the most frequent admitting diagnoses in children's hospitals. Most published studies combine admission rates for

Chronic Obstructive Pulmonary Disease Admission Rate

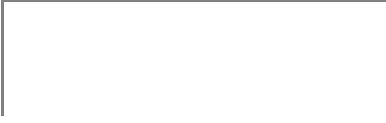
Chronic obstructive pulmonary disease (COPD) comprises three primary diseases that cause

last decade.[72] With appropriate outpatient

cluster level. Millman et al. found that low-

Uncontrolled Diabetes Admission Rate

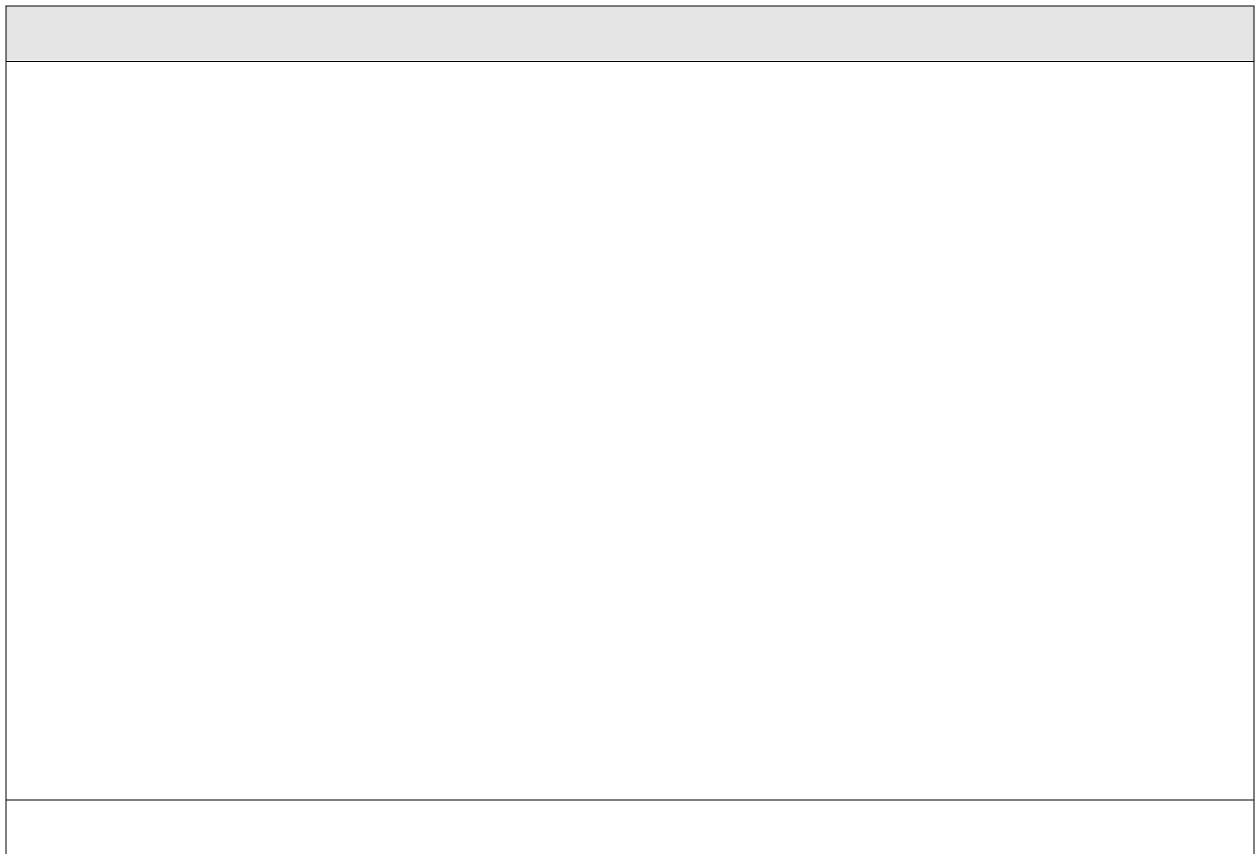
Uncontrolled diabetes should be used in conjunction with short-term complications of diabetes,



and Type 2 diabetes.[86] Given that appropriate adherence to therapy and consistent monitoring

Hispanic and Native American populations. The duration of diabetes is positively associated

Feinleib M, Rosenberg HM, Collins JG, et al. Trends in COPD morbidity and mortality in the United



Hypertension Admission Rate
Numerator:

right magnitude and in the right direction”). Criterion validity was viewed as an assessment of

The impact of chance on apparent provider or community health system performance must be considered. Unobserved patient and environmental factors may result in substantial differences in performance among providers in the absence of true quality differences.

Mortality Following Stroke

4. Empirical performance: discrimination. A critical aspect of the performance of a risk-adjustment model is the extent to which the model predicts a higher probability of an event for patients who actually experience the event. The statistical test of discrimination is generally expressed as a C-statistic or R^2 (how much of the variation

Of course, it is possible that a linear probability model is not the correct functional form.

Empirical Methods

Analysis Approach

Data sources. The data sources used in the empirical evaluation were the 1995-97 Nationwide Inpatient Sample (NIS), which has been used for previous HCUP QI development,

67. Thomas JW, Hofer TP. Research evidence on the validity of risk-adjusted mortality rate as

118. Hibbard JH, Jewett JJ, Engelmann S, et al. Can Medicare beneficiaries make informed choices? Health Aff (Millwood) 1998;17(6):181-93.

119. Schneider EC, Epstein AM. Use of public performance reports: a survey of patients undergoing cardiac surgery. JAMA 1998;279(20):1638-42.

151. Hannan EL, Siu AL, Kumar D, et al. Assessment of coronary artery bypass graft surgery performance in New York. Is there a bias against taking high-risk patients? Med Care 1997;35(1):49-56.