

Haas and Goldman Respond

We believe the findings and conclusions presented in our recent article on differences in trauma-related care and mortality by insurance status are methodologically sound and should stimulate further research into the differences in the quality of care provided to patients based on their insurance status. Some of the issues raised by Dr Dulisse apply to all studies that examine variation in resource use and outcomes using administrative data and were addressed in our study’s design, analyses, and discussion. Other issues, which are more specific to our study, were also well known to us and either were addressed in our article or appear to have no impact on our conclusions. We address each of these issues below.

We agree with Dr Dulisse that administrative data do not provide sufficient clinical detail to make decisions for an individual patient. Administrative data can be used, however, to identify patterns of care that may indicate systematic problems in quality. Our study adds to a growing literature that suggests that, compared with the insured, the uninsured are less likely to receive certain health services and have worse health outcomes. Although Dr Dulisse suggests that the “inconsistency” of our findings for the use of intensive care units and surgical procedures indicates that there is no association between insurance status and differences in resource use, we disagree. The three measures of trauma-related care that we examined are not interchangeable; they represent three different types of interventions. For this reason, we also believe that the models presented are valid.

Controlling for confounders is a methodological issue for all studies, particularly those using administrative data. We chose the Injury Severity Score to control for severity of injury because it is the most widely accepted severity measure that has been validated using discharge diagnoses, and it has been shown to be associated with mortality from trauma. The Injury Severity Score does not contain any physiological data, however, and we acknowledge in the paper that unmeasured differences in injury severity may explain the observed differences in trauma-related care and mortality. The similarity of our findings in all the subgroups we examined, however, suggests that our findings are robust.

To address the concern that our findings are related to excluding patients who had been transferred from another acute care facility, we repeated the analyses including these patients (n = 713). Contrary to Dr Dulisse’s assumption, we found that the uninsured were significantly less likely to be transferred than were patients with insurance (2.9% vs 5.3%, P < .001). The magnitude and significance of the associations between insurance status and our measures of trauma-related care and mortality were similar when these patients were included in the analyses.

Finally, our study does not conclude that there is a causal relationship between the observed differences in trauma-related care and mortality by insurance status. Further investigation should examine whether the increased in-hospital mortality from trauma experienced by the uninsured is related to the underuse of appropriate medical care.

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References


Monitoring Community Health Workers’ Performance through Lot Quality-Assurance Sampling

During the period 1987 to 1990, the Ministry of Health of Costa Rica conducted a comprehensive assessment of the nation’s primary health care system. Among the investigations carried out were some that focused on community health workers’ techniques, using an observation checklist that was detailed enough to help supervisors rate the workers’ performance (J. J. Valadez, L. Diprete Brown, W. V. Vargas, and D. Morley, unpublished material, 1995). In all cases, lot quality-assurance sampling was used to evaluate problems in community health workers’ performance. This type of sampling requires samples ranging in number from 6 to 28 patients and can yield conclusions with sensitivity and specificity greater than 95%. This report demonstrates how lot quality-assurance sampling, when used regularly for supervision of community health workers, can improve vaccination service by identifying specific errors and correcting them.

In brief, lot quality-assurance sampling uses binomials to determine whether a performance threshold has been reached or whether a minimal threshold has not been reached. The decision rule selected for our study required observing each community health worker vaccinate six children in six different households during routine visits. One error per given task was permitted. This 6:1 decision rule was 97% specific with 95% confidence for identifying adequate performers. Figure 1 shows that with multiple use of lot quality-assurance sampling over time, the sensitivity continues to increase for community health workers with varying levels of performance.
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Three community health workers from health posts in each of Costa Rica's then-six health regions were randomly selected for the assessment (n = 18). At three 6-month intervals between 1988 and 1990, the community health workers' performance was monitored by their supervisors, and remedial training was provided each time. Five categories of tasks were used for judging the vaccination quality over the three time points: (1) identification of children requiring vaccination; (2) preparation of the syringe and a sterile work area in the household; (3) education of mothers on the need to vaccinate children and the potential side effects of vaccination; (4) application of the vaccination and clean-up; and (5) maintenance of the cold chain.

The results are consistent across the three time points. The number of community health workers exhibiting substandard performance decreased markedly in 30 of the 38 activities. The 30 activities included 21 in which the number of substandard community health workers decreased to 0, 5 in which the number decreased to 1, and 4 in which the number decreased by more than 80%. There were 2 categories of tasks in which no performance problems were recorded and 1 category in which a community health workers did not improve. Performance in 3 categories improved by about 25% but declined slightly in 2 categories.

These results demonstrate that the technical quality of vaccination service improved over approximately 1 year after the introduction of a local supervision system that used lot quality-assurance sampling.

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References


The Nursing Profession and Physicians in Authority Roles

J. Scott Osberg's October Public Health Policy Forum piece on changes in physicians' authority roles makes an interesting contribution to current discussions of the roles of health professionals and others in the care of patients and communities, and in the development of policy and strategy, as it explores the perception that leadership positions are less concentrated in a single profession than they once were.

Unfortunately, one measure used by Dr Scott—the presidency of the American Nurses Association—shows limited awareness of the profession of nursing. The authority of physicians cannot be measured by their election to the presidency of another discipline's major professional association. Although it is certainly true that the relationships between nursing and medicine historically have not been those of professional equals, nursing has long been "a separate field with its own clearly demarcated lines of authority."1(p1274)

I do applaud another measure Osberg uses. It seems to me that understanding shifts in physicians' authority or leadership in interdisciplinary settings, as evidenced by a look at the American Public Health Association presidency and executive board membership, can expand our understanding of how physicians and other health professionals are changing their relationships in a changing world. And I suggest that another such measure would be the proportion of state and local