

The Data Mine: Tufts University Study Highlights Failure of Cost Effectiveness Analysis to Account for Variability Among Patients

3/6/2018



Researchers from a leading university have released a [study](#) confirming some of stakeholders' most significant concerns about the utilization of cost-effectiveness research; namely, the failure of cost-effective analyses (CEA) to account for important, meaningful differences among patients.

A recently published study conducted at Tufts Medical Center offers valuable insights on the disconnect between cost effectiveness analysis and individualized, patient-physician decision making. The authors examined a random sample of 200 studies to determine how well existing cost-effectiveness research reflects the characteristics of individual patients – factors such as age, gender, race, history of disease and others.

Results show that less than one quarter of the cost effectiveness studies reviewed (38 of the 200, or 19%) included the type of analysis that would recognize differences in even the most basic patient characteristics, such as age. Even among the subgroup of studies that *did* examine more specific patient groups, the level of analysis falls far short of what is optimal for helping patients make decisions about their treatment. Most of the 38 studies focused on only one difference among patient subgroups – age. Yet we know that gender, race, baseline risk, and numerous other factors influence treatment outcomes.

Furthermore, the researchers at Tufts found that over half of the reported subgroup results could have led to different “value-based” decisions for at least some of the patients. To put this in terms of the impact on patients, by relying on research that treats everyone as an “average patient,” clinicians are unable to target treatment and interventions to individual patients. Digging deeper into the differences among patients will invariably lead to different decisions for some patients.

Our health care system is changing and evolving, but cost effectiveness analysis is not. Researchers need to continue to develop methods for incorporating patient-specific factors in CEA and value assessment more broadly.

In the meantime, we urge payers and public health care programs — including Medicare, Medicaid, and the Department of Veterans Affairs among others – to avoid relying on one-size-fits-all

judgements of value that overlook what makes each individual unique, thereby preventing patients from accessing treatment they truly value.