TRANSPERS Program on Quantifying the Value of Precision Medicine

A major focus of the TRANSPERS Center is quantifying the value of precision medicine-related technologies and the implications of adoption. An evidence-based economic evaluation can help decision-makers develop coverage policies, program designs, and quality initiatives focused on optimizing health given available treatment options.

Most recently, our cost-effectiveness research has extended to incorporate health disparities to better understand the potential impact of novel technologies on inequities in health outcomes. Distributional cost-effectiveness analysis can help decision-makers prepare for efficient and equitable use with the ultimate goal of improving both population health and reducing health outcome inequities.

Our applied research focuses on health technologies related to screening, diagnosis, and treatment in a variety of diseases. Methods we use include:

- Evidence synthesis
- Observational data analysis
- Distributional cost-effectiveness analysis
- Stakeholder engagement

Informed by the challenges in applied research projects, we also contribute to methods development to improve approaches to quantify value.

TRANSPERS

Launched in 2008, the Center for Translational and Policy Research on Precision Medicine (TRANSPERS) at the University of California, San Francisco is a first-of-its-kind research center dedicated to developing evidence-based information for patients, providers, industry, researchers, and policymakers to objectively assess how precision medicine can be most beneficial and efficient in improving health outcomes. The TRANSPERS Center has been funded by grants from the National Institutes of Health (NIH) and several foundations.

Accomplishments

Our publications include studies on health economic simulation modeling and decision analysis, health equity impact evaluation of new treatments, value assessment and decision-making, and value and affordability in Precision Medicine. Our work has been widely cited and used by researchers, payers, industry, organizations, and clinicians. We are continuing to work on quantifying the value of novel genomic technologies as they emerge. Our 2022 publication in Pharmacoeconomics suggests that value assessments of new interventions should include health equity impact. For more information: https://pharm.ucsf.edu/transpers/grants-programs/quantifying-value