

Optimal and Equitable Care: Medicaid Data Research Infrastructure

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Infrastructure Description

This project established a database of all Medicaid enrollees for 14 southern States, enabling new research to understand and address widespread racial-ethnic disparities in health care and outcomes for this population. Medicaid patients are characterized by clinical and social complexity—the very characteristics that often exclude them from clinical trials and yet drive health disparities. This data set supported new research focusing on the intersection between health disparities research and comparative effectiveness research (CER) in clinically and socially complex patient populations. Use of the database was enhanced by physical infrastructure and mechanism improvements and through an investigator training program for minority researchers.

Specific Aims

1. Create a dataset that links Medicaid claims data with socio-economic, contextual, and healthcare and pharmacy utilization data and geospatial analytic information.
2. Create an efficient process to support collaboration with external researchers, including the development of protocols and analytic files.
3. Train and support emerging minority investigators—especially at historically black colleges and universities and other minority-serving institutions—as independently-funded health services researchers.
4. Cultivate sophisticated comparative effectiveness and disparities research in collaboration with experts in mathematics, complexity science, simulation modeling, and interactive computing.

Infrastructure Goal

Build a robust comparative effectiveness research infrastructure of Medicaid patients in the South and promote research and collaborative partnerships focused on eliminating health disparities for this population.

Data Sources

2004–2007 Medicaid Analytic Extract claims data files for 14 southern States

Medicare-linked claims data for dual-eligible beneficiaries

Health Resources and Services Administration Area Resource File (ARF)

National Drug Classification therapeutic class codes and key ingredients

Data Access

Data are stored on Morehouse School of Medicine encrypted servers, and may be used only for projects covered within aims of the original research protocol and CMS-approved data agreement.

Strategies Addressed from the HHS Strategic Framework on Multiple Chronic Conditions

- 3.A. Identify best practices and tools
- 4.C. Increase clinical research
- 4.D. Address disparities

Optimal and Equitable Care: Medicaid Data Research Infrastructure (Continued)

Pilot Study

This pilot study used the multi-state Medicaid claims data set to study people with co-occurring schizophrenia and diabetes. These diseases are difficult to treat as well as costly for the health system.

Data from this extensive database showed that for patients with diabetes and schizophrenia as a baseline, emergency department (ED) visits went up dramatically with the number of additional comorbid diseases. The number of ED visits per 1000 persons per year is 1,552.8 for those with a comorbidity index score of 0–1 compared to 10,352.7 for those with a comorbidity index score of 9 or higher.

Publications (as of September 2013)

Mack D, Rust G, Baltrus P, Moore B, Sow C, Patel V, Thomas D. Using appendiceal perforation rates to measure impact of a disaster on healthcare system effectiveness. *Southern Medical Journal*. 2013 Jan; 106(1): 82-88. doi: 10.1097/SMJ.0b013e31827c5a0c

Zhang S, Cardarelli K, Shim R, Ye J, Booker KL, Rust G. Racial disparities in economic and clinical outcomes of pregnancy among Medicaid recipients. *Matern Child Health J*. 2012 Oct 13. [Epub ahead of print].

Druss BG, Zhao L, Cummings JR, Shim RS, Rust GS, Marcus SC. Mental comorbidity and quality of diabetes care under Medicaid: a 50-state analysis. *Med Care*. 2012 May;50(5):428-33.

Rust G, Levine RS, Fry-Johnson Y, Baltrus P, Ye J, Mack D. Paths to success: Optimal and equitable health outcomes for all. *J Health Care Poor Underserved*. 2012 May;23(2 Suppl):7-19.

Shim RS, Ye J, Baltrus P, Fry-Johnson Y, Daniels E, Rust G. Racial/ethnic disparities, social support, and depression: Examining a social determinant of mental health. *Ethn Dis*. 2012 Winter;22(1):15-20.

Wilkins TL, Rust GS, Sambamoorthi U. Changing BMI categories and healthcare expenditures among elderly Medicare beneficiaries. *Obesity*. 2012 Jun;20(6):1240-8.

(Additional papers in preparation).

Posters and Presentations

Rust G. Clinical and social complexity as drivers of racial-ethnic disparities in the Medicaid population. Paper presented at: Leveraging Knowledge and Action to Improve Health Care Quality. 6th Annual Conference of the Agency for Healthcare Research and Quality; 2012 Sept 9–12; Bethesda, MD.

