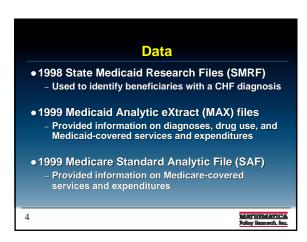
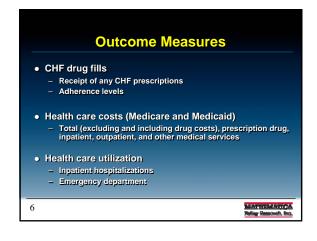
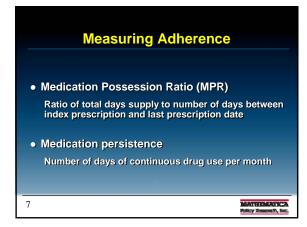


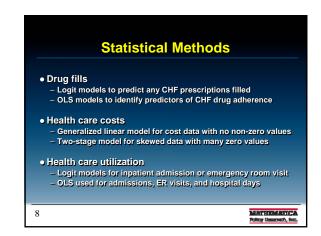
Research Objectives Determine the proportion of Medicaid beneficiaries with CHF drug fills Estimate CHF medication adherence rates among beneficiaries with at least one fill Examine association of CHF drug adherence with utilization and total health care costs



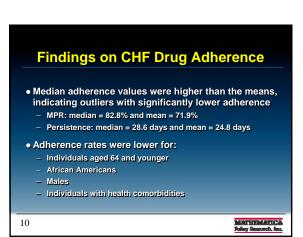
Inclusion/Exclusion Criteria 45,572 beneficiaries in four states: AR, CA, IN, and NJ Continuously enrolled in Medicaid fee-for-service 1998-1999 or until death Diagnosed with CHF in either: One inpatient stay, or Two or more ambulatory care visits Excludes beneficiaries with any nursing home stays







Findings on CHF Drug Fills • 85% of patients had at least one CHF drug claim • Those with at least one prescription filled, on average, 1.4 prescriptions per month • Likelihood of filling a prescription was lower for: - Individuals aged 64 and younger - African Americans - Males - Individuals with health comorbidities



Non-Adherent Patients Had Higher Levels of Health Care Utilization in the Year **Utilization Measures** Non-Adherent Adherent Difference (* p < 0.01) Any Hospitalization 47.9% 47.5% 0.4* Number of Hospitalizations 1.6 1.4 0.2* Number of Inpatient Days 8.0 5.9 2.1* Any ER Visit 45.1% 43.7% 1.4* Number of ER Visits 4.0 3.6 0.4* 11

Cost Measures	Non-Adherent	Adherent	Difference (* p < 0.01)
Total: Including Drugs	\$25,312	\$19,402	\$5,910*
Total: Excluding Drugs	\$23,101	\$16,338	\$6,763*
Drugs	\$2,322	\$3,516	-\$1,194*
Inpatient	\$10,686	\$7,809	\$2,877*
Outpatient	\$9,267	\$7,766	\$1,501*
Other	\$1,347	\$1,313	\$34

Health Care Costs Have a Graded Association with Drug Adherence

Adherence Level	Total Costs	Total Costs (excluding drugs)
99% or more (comparison group)	\$16,989	\$13,691
95% to 99%	\$18,141*	\$14,733*
80% to 95%	\$20,730*	\$17,675*
50% to 80%	\$24,350*	\$21,768*
Less than 50%	\$36,486*	\$24,349*

13 * Predicted costs are significantly larger than the predicted costs of the group with adherence of 99% or more at p < 0.01 using a two-tailed t-test.

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Conclusions and Policy Implications

- The association of adherence to health care utilization was small but significant
- CHF drug adherence is associated with lower health care costs among Medicaid beneficiaries
- Even small changes in the level of adherence could significantly affect health care spending
- State Medicaid agencies and Medicare prescription drug plans should consider developing targeted interventions to improve adherence with CHF drugs

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