

THE IMPACT OF INCOME AND COST SHARING ON HEALTH USE IN STATE SUBSIDIZED PLANS

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Research Questions

- Did state-sponsored “public plans” targeted to low-income working uninsured experience adverse risk selection and to what extent is enrollment risk affected by enrollee cost sharing?
- How does out-of-pocket cost sharing affect utilization among low and moderate income “public plan” enrollees?



Background

- Massachusetts, Maine and Vermont all implemented state-subsidized insurance plans targeted to low and moderate income uninsured between 2005 and 2007
- These plans offer alternative models of “public plans,” a state option under federal reform.

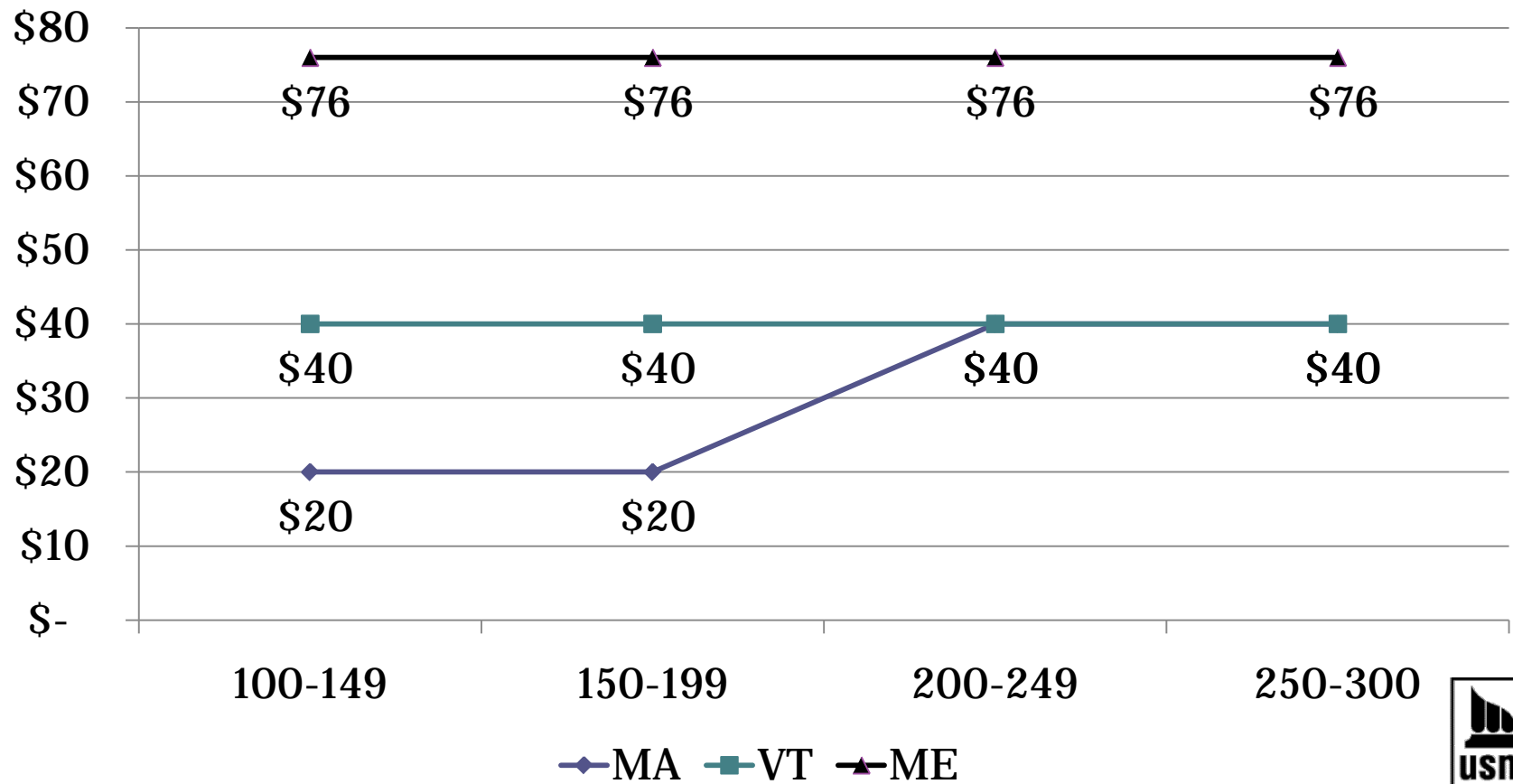


Plan Similarities and Differences

	COMMONWEALTH CARE Massachusetts	CATAMOUNT HEALTH Vermont	DIRIGO HEALTH Maine
IMPLEMENTATION	JANUARY 2007	OCTOBER 2007	JANUARY 2005
TARGET POPULATION	UNINSURED INDIVIDUALS 100 - 300% FPL	UNINSURED INDIVIDUALS 100 -300% FPL	SMALL BUSINESSES & SOME UNINSURED WORKERS
PREMIUM SUBSIDIES	\$0 PREMIUM FOR <150% FPL SLIDING SCALE PREMIUMS 150 - 300% FPL	ENROLLMENT AT FULL COST >300% FPL SLIDING SCALE PREMIUMS 100 - 300% FPL	ENROLLMENT AT FULL COST >300% FPL SLIDING SCALE PREMIUMS 100 - 300% FPL



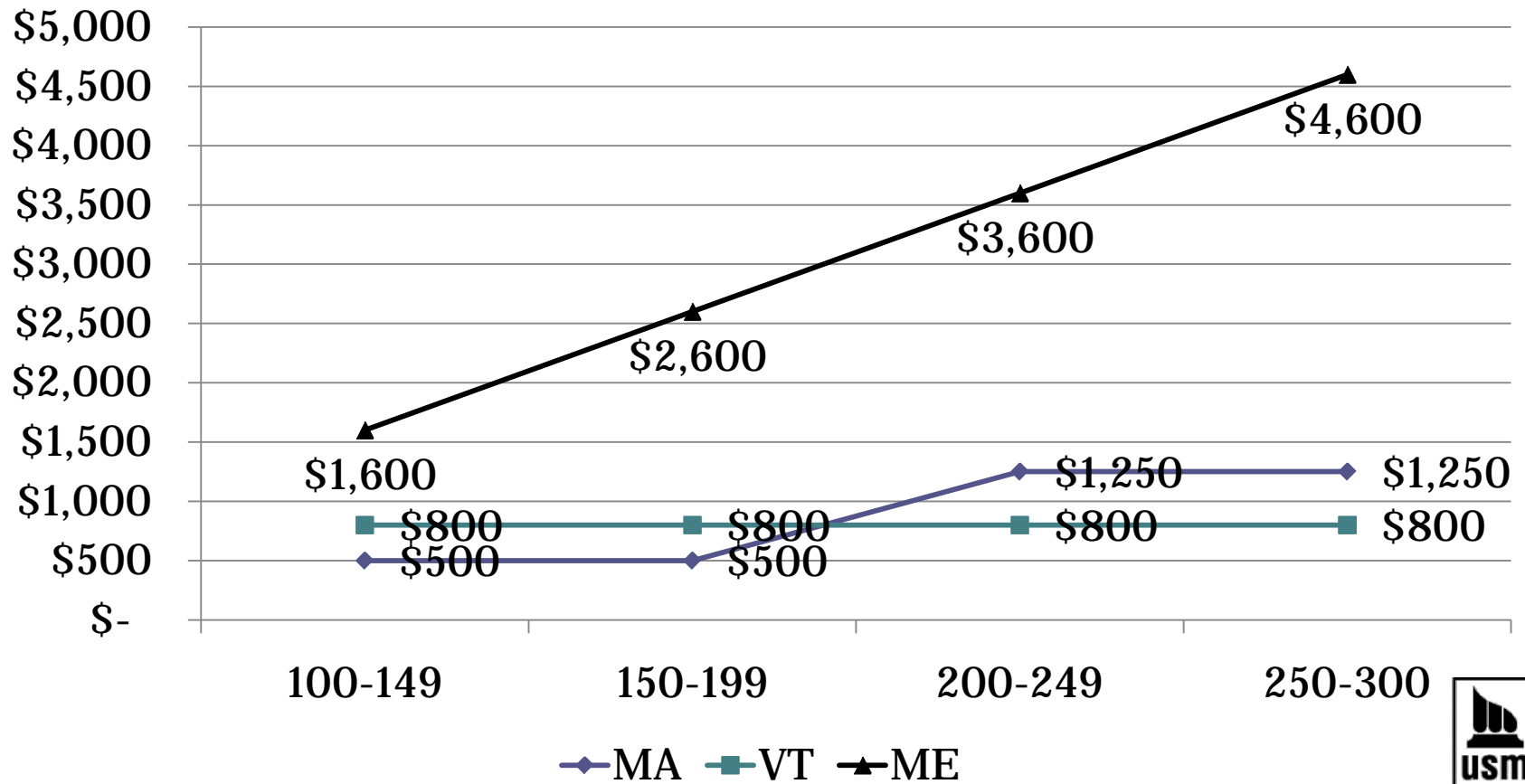
Comparison of Out-of-Pocket Costs: Moderate Spending Example



Includes 1 primary visit, 1 specialist visit, x-ray, 1 generic medication



Comparison of Out-of-Pocket Spending Limits



Study Data

- **Claims and administrative data**
From program implementation for minimum of two years.
- **Comparison Groups**
large, statewide, employer benefit plans with comprehensive benefits. Matched time periods.



Study Design

- Unit of analysis: person-year. Adults, 18-64, with minimum of 6 months continuous enrollment.
- In-state comparison groups used to analyze risk selection
- Cross-state study groups comparisons used to measure cost-sharing impact



Methods (cont.)

- **Dependent variables:** 1) any use vs. no use; 2) per member per month ambulatory care costs (using standardized costs across all groups)
- **Explanatory variables:** Health risk factors including chronic illness flags and 5 tier risk groupings, income, plan and state membership



Findings: Health Risk Factors in Study Populations

	Commonwealth Care	Dirigo Health	Catamount Health
Age Distribution*			
% 18 – 34	45.8	24.4	33.9
%50 - 64	24.5	45.7	37.6
% Female*	51.8	57.4	56.6
% Chronic Illness			
Diabetes*	7.5	10.4	6.8
Hyperlipidemia*	16.3	30.9	14.7
Heart Disease*	13.3	17.5	9.5
Depression*	16.4	22.8	15.9
% In High/Very* High Morbidity Group	16.0	17.3	12.0

* P < .001



Study Plan Use in Relation to State Comparison Group

	Commonwealth Care (MA)	Dirigo Health (ME)	Catamount Health (VT)
% No Use	19.4%	10.2%	22.1%
Difference with state comp. group	+8.9	+3.2	+7.3
% Prevent. Visit	10.7%	47.3%	29.2%
Contrast with state comp. group	-33.6	+3.4	-6.2
Odds Ratio of Any Use, Controlling for Age and Sex	51%	76%	53%



Study Plan Ambulatory Use in Relation to State Comparison Group

	Commonwealth Care (MA)	Dirigo Health (ME)	Catamount Health (VT)
Unadjusted pmpm	\$177.91	\$210.62	\$160.59
Contrast with state comparison group	-\$23.96	+\$21.76	+\$20.40
Contrasted pmpm, health status adjusted	-\$24.91	N.S	+\$19.66



Difference-in-Difference Models To Control for State Effect

	Commonwealth Care	Dirigo Health	Catamount Health
Likelihood of Any Use	Referent	+ 82%	-30%
Ambulatory pmpm no morbidity	\$12.00	\$26.00	\$28.00
Ambulatory pmpm moderate morbidity	\$135.00	\$140.00	\$128.00
Ambulatory pmpm High morbidity	\$450.00	\$456.00	\$355.00



Effect of Income

	Commonwealth Care	Dirigo Health	Catamount Health
Likelihood of Use			
< 100% FPL	-27%	N.S.	-78%
100-150 FPL	-34%	N.S.	N.S.
150+ FPL	N.S.	N.S.	N.S.
Intensity of Use			
< 100% FPL	-\$3.80	N.S.	N.S.
100-150 FPL	-\$9.87	N.S.	N.S.
150-200FPL	-\$4.88	N.S.	N.S.
200-250 FPL	-\$4.82	N.S.	N.S.

Referent group: income 250 – 300% FPL



Conclusions

- We found no consistent relationship between level of cost-sharing and use of health care.
- Lower income is associated with lower use rates in Massachusetts and Vermont programs, and less intense use in Massachusetts. No relation of use to income in Maine.
- Cross-plan utilization differences flatten out at higher morbidity levels.



Policy Implications

- An insurance mandate can strongly affect enrollment mix, reducing average costs.
- Voluntary programs with high cost sharing attract a high risk mix of enrollees willing to spend large amounts, even at low incomes. The impact of high cost sharing under a mandate has not been tested.
- States differ in age distributions and levels of morbidity, strongly affecting average health costs, complicating federal cost sharing under national reform.

