

Does Managed Health Care Reduce Unfair Differences in Health Care Use Between Minorities and Whites

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Abstract

In this paper we investigate whether managed care ameliorates or aggravates ethnic and racial health care disparities. First, we analyze the choice of type of insurance made by Medicare enrollees. If the Medicare managed care (MMC) plan, compared to Medicare fee-for-service (FFS) plan, provides more benefits for minorities than for Whites, then minorities should be more likely to choose it versus Medicare FFS. Second, we study the differential effect of managed care (vs. FFS) on disparities using several measures of access and use of services. Third, we implement Institute of Medicine (IOM) definition of disparity using two independent data sets, the Medicare Current Beneficiary Survey and the National Health Interview Survey. Our conclusion is robust: managed care reduces unfair differences in use between minorities and Whites.

Purpose of Study

- Aim 1. Assess whether managed care at present is playing a positive, neutral or negative role in combating racial/ethnic disparities. Test whether disparities between racial/ethnic minorities and whites are aggravated or ameliorated by managed care by studying choice of MC vs. FFS across ethnic/racial groups: if MC aggravates disparities, minorities would be less likely to choose it vs. FFS.
- Aim 2. Examine the managed care effect on racial disparity by studying differences in access/use measures across racial/ethnic groups and types of plans
- Aim 3. Implement IOM definition of “differences, disparities and discrimination” in health care use by measuring disparities: describe differences in likelihood of using/accessing services controlling for health needs, and measuring the residual difference after controlling for health care market characteristics and SES.

Method

Aim 1: Empirical HMO Choice Model-Logit Regression

•Dependent Variables: Choice of Managed Care Plans

•Independent Variables: Race, Health Status, Control variables (age, gender, managed care penetration and other geographic characteristics, Socio-economic Status (SES)), year and geography fixed-effects.

Method (Continued)

Aim 2: Access/Use Model-Propensity Score Method

- Step 1. Logit regression of MMC enrollment on age, gender, health status, managed care penetration, geography and year fixed effects. Construct a propensity score using the predicted probability of joining MMC.
- Step 2. We then proceed to compute our “treatment output” variable: minority-white disparities in access to care or use of health services (Y).
 - a) We run regression of Y on health status, race, MMC enrollment, interaction term between race and MMC, and predict, for blacks and Hispanics, the respective health care racial disparity.
 - b) We extract a group of control cases from the sample whose propensity scores match with those of the treatment group, and compute the “average treatment effects on the treated” (ATT). That is, we estimate the differential effect of managed care (our “treatment”) on racial disparities in use of services and access to care and test for the significance of the ATT.

Aim 3: Implement IOM Definition of Disparity

After estimating the choice model, we simulate the racial difference in choice of MMC by predicting the probability of an individual with same average characteristics choosing the MMC in each racial/ethnic group.

Data

- National Health Interview Survey (NHIS), 1997-2001
A cross-sectional household interview survey; Only people living in metropolitan areas with population 1,000,000+ are included in the sub-sample, with 11430 observations in total.
- Medicare Current Beneficiary Survey (MCBS), 1996-2001
Access to Care File for year 2001. Cost and Use Files for years 1996-2000;
We include 40360 observations in the sample.

Results

Aim 1. Choice of MMC versus FFS

	(1) MCBS Race only	(2) MCBS Race, demog., health status	(3) MCBS Race, demog., health status and SES	(4) NHIS Race only	(5) NHIS Race, demog. and health status	(6) NHIS Race, demog., health status and SES
Hispanic	0.799 (4.03)**	0.738 (3.88)**	0.555 (2.70)**	0.542 (2.87)**	0.404 (2.50)*	0.348 (1.86)
Black	0.612 (6.14)**	0.497 (4.99)**	0.332 (3.26)**	0.393 (2.90)**	0.270 (1.94)	0.225 (1.52)
Other	0.428 (2.35)*	0.307 (1.63)	0.182 (0.91)	-0.363 (1.26)	-0.455 (1.40)	-0.522 (1.47)
White (ref.)	0	0	0	0	0	0

Results (Continued)

Aim 2. Average effect of MMC on disparities in access to care using propensity score matching method

Got care without delay due to cost	Treat	ATT	Std. Err.	t
NHIS				
white	3468	0.002	0.001	1.285
hispanic	3468	0.002	0.001	1.295
black	3468	0.002	0.002	1.267
hispanic-white	3468	0.000	0.000	-1.200
black-white	3468	0.000	0.000	1.171
MCBS				
white	2316	0.006	0.003	1.857*
hispanic	2316	0.010	0.005	1.835*
black	2316	0.010	0.005	2.191**
hispanic-white	2316	0.004	0.002	1.685*
black-white	2316	0.004	0.001	2.919***

Aim 3. Decomposition of the differences in MMC choice across racial groups: Simulations for an individual with average characteristics in each subpopulation, or same characteristics as Whites

MCBS				
Predicted likelihood of choosing MC...	White	Black	Hispanic	Other
...for average individual in each subpopulation	0.141	0.289	0.515	0.408
...when geography is same as Whites'	0.141	0.237	0.277	0.190
...when geography and health status are same as Whites'	0.141	0.225	0.271	0.182
...when geography, health status and SES are same as Whites'	0.141	0.190	0.230	0.174
NHIS				
Predicted likelihood of choosing MC...	White	Black	Hispanic	Other
...for average individual in each subpopulation	0.257	0.300	0.580	0.340
...when geography is same as Whites'	0.257	0.348	0.376	0.179
...when geography and health status are same as Whites'	0.257	0.324	0.354	0.173
...when geography, health status and SES are same as Whites'	0.257	0.302	0.328	0.170

Conclusions

No evidence that minorities are worse off in managed care.

Aim 1. Choice of MMC versus FFS

- a) In Medicare, minorities are more likely to choose managed care than fee for service, suggesting that minorities prefer the former type of health plan to the latter.
- b) Hispanics are the group with the highest likelihood of choosing managed care, followed by Blacks, other racial groups and Whites.

Aim 2. Access to care

Minority-White disparities are ameliorated by managed care in some access to care indicators, such as got care without delay in the past 12 months.

Aim 3. Simulation of disparity

The likelihoods that blacks and Hispanics choose MMC are higher than whites for an individual with average characteristics, or same characteristics as whites.