

The Misunderstood Relationship Between Declining Mortality and Increasing Racial and Social Disparities in Mortality Rates

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Proportions of Blacks and Whites Falling Below Various Ratios of the Poverty Line in 1990 With Ratio of Black Rate of Falling Below Each Level to White Rate

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Income Level	Total Below	Black Below	Black % of Total Below	% Black Below	% White Below	Black/White Ratio
200	77,142	17,030	22.1%	55.3%	28.8%	1.9
175	66,025	15,481	23.5%	50.3%	24.2%	2.1
150	54,054	13,780	25.5%	44.7%	19.3%	2.3
125	42,923	12,023	28.0%	39.0%	14.8%	2.6
100	32,163	9,837	30.6%	31.9%	10.7%	3.0
50	12,395	4,434	35.8%	14.4%	3.8%	3.8

Table I

Implications of a Decline in Poverty That Allows Everyone With Income Between Poverty Line and 50% of Poverty Line to Escape Poverty – Part 1 (Focus on Failure)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Income Level	Total Poor	Black Poor	Black % of Total Poor	Black Pov Rate	White Pov Rate	Black/White Ratio
100	32,163	9,837	30.6%	31.9%	10.7%	3.0
50	12,395	4,434	36.8%	14.4%	3.8%	3.8

- Blacks comprise larger proportion of poor; proportion rises from 30.6% to 35.8%
- Whites experience larger proportionate decline in poverty rates
 - ➔ White rate declines 65% (from 10.7 to 3.8)
 - ➔ Black rate declines 55% (from 31.9 to 14.4)
- Black-white ratio rises from 3.0 to 3.8

Table II

Implications of a Decline in Poverty That Allows Everyone With Income Between Poverty Line and 50% of Poverty Line to Escape Poverty – Part 2 (Focus on Success)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Income Level	Total Non-Poor	Black Non-Poor	Black % of Non-Poor	Black Non-Pov Rate	White Non-Pov Rate	Black/White Non-Pov Ratio
100	207,254	20,969	10.1%	68.1%	89.3%	0.76
50	227,022	26,372	11.6%	85.6%	96.2%	0.89

- Blacks comprise larger proportion of non-poor; proportion rises from 10.1% to 11.6%
- Blacks experience larger proportionate increase in poverty avoidance rates
 - ➔ Black rate increases 26% (from 68.1 to 85.6)
 - ➔ White rate increases 8% (from 89.3 to 96.2)
- Black-white poverty avoidance ratio rises from 76% to 89% of white rate

Table III

Picture Before Any Change

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	Income Level	Black Pov Rate	White Pov Rate	Black/White Pov Ratio	Black Non-Pov Rate	White Non-Pov Rate	Black/White Non-Pov Ratio	Black %Poor	Black %of Non-Poor
	100	31.9%	10.7%	3.0	68.1%	89.3%	0.76	30.6%	10.1%
All Blacks and Whites Between Poverty Line and 50% of Poverty Line Escape Poverty (Blacks Do Better)									
B	50	14.4%	3.8%	3.8	85.6%	96.1%	0.89	35.8%	11.6%
All Blacks But Only 90% of Whites Between Poverty Line and 50% of Poverty Line Escape Poverty (Blacks Do Better)									
C	W90/B100	14.4%	4.5%	3.2	85.6%	95.5%	0.90	32.1%	11.7%
All Whites But Only 90% of Blacks Between Poverty Line and 50% of Poverty Line Escape Poverty (Whites Do Better)									
D	W100/B90	16.1%	3.8%	4.2	83.9%	96.2%	0.87	38.5%	11.4%

Table IV

Recapitulation

(1)	(2)	(3)
Income Level	Black/White Pov Ratio	Black/White Non-Pov Ratio
100	3.0	0.76
50	3.8	0.89
W90/B100	3.2	0.90
W100/B90	4.2	0.87

Table V

Implications and Issues

- The rarer an outcome or condition (level of condition, cause of mortality), the greater the disparity in experiencing it and the smaller the disparity in avoiding it
- The more progress in eliminating the outcome or condition, the greater the disparity in experiencing it and the smaller the disparity in avoiding it
- When an outcome or condition increases, it increases more among less-susceptible groups

Implications and Issues

- We will observe the greatest mortality differences among the least susceptible subgroups:
 - Racial and socioeconomic differences in experiencing cardiovascular disease will be greater among women (though differences in avoiding cardiovascular disease will be smaller among women)
 - Racial and socioeconomic differences in most forms of mortality will be greater among the young (though disparities in avoiding these outcomes will be smaller among the young)
 - Racial disparities in failure, however measured, will tend to be greater among higher socioeconomic groups, while disparities in success will be smaller among those groups
 - Socioeconomic disparities in failure will tend to be greater among whites than among blacks, while the disparities in success will be greater among blacks than among whites

Implications and Issues

- Locations (state, region, nation) with better health will tend to have greater disparities in adverse outcomes (though smaller disparities in avoiding those outcomes)
 - Greater similarity among groups in the locations with better health may or may not be sufficient to outweigh the former tendency; it will enhance the latter tendency
- Things measured in terms of success rather than failure will show declining demographic differences during periods of improvements in the delivery of things beneficial (though increasing disparities in failing to receive those things)
 - Prenatal care
 - Immunization
 - Procedures

Implications and Issues

- Ameliorative interventions will have a greater effect in reducing adverse outcomes among groups least susceptible to the outcome, but will have a greater effect in increasing the rates of avoiding the outcome among the more susceptible groups
- Exacerbating factors will have a greater effect in increasing adverse outcomes among the least susceptible groups, but a greater effect in reducing the rates of avoiding of the outcome among the more susceptible group

Implications and Issues

- Exacerbating factors will increase rates of adverse outcome more for rarer diseases (but will reduce rates of avoiding the disease more for common diseases)
 - Smoking and stomach cancer versus smoking and lung cancer
 - The greater the progress in eliminating disease the greater will be the proportion of those continuing to experience disease comprised of disadvantaged groups

Implications and Issues

- Interpreting larger and smaller disparities
- Targeting
- Possible Measures
 - Odds Ratios
 - Absolute Differences
 - Longevity
- The confounding role of irreducible minimums
- What is a big disparity?
- Is the health gap widening?