

**Abstract for paper to be presented at the 2013 Research Conference of the Federal
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Measuring Health and Healthcare Disparities

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Researchers employ a number of methods to measure health (including healthcare) disparities. The most common of these are relative differences in either a favorable outcome or the corresponding adverse outcome, absolute differences between rates, and odds ratio. Research relying on these measure has been problematic, however, because of a failure to recognize the way each measure tends to be affected by the prevalence of an outcome. The rarer an outcome the greater tends to be the relative difference in experiencing it and the smaller tends to be the relative difference in avoiding it. Thus, as mortality generally declines relative differences in mortality tend to increase while relative differences in survival tend to decrease; as rates of appropriate healthcare generally increase, relative differences in rates of failing to receive appropriate care tend to increase while relative differences in receipt of appropriate care tend to decrease. Absolute differences and odds ratios tend also to be affected by the prevalence of an outcome though in a more complicated way than the two relative differences. Broadly, as uncommon outcomes become more common absolute differences tend to increase; as already common outcome outcomes become even more common absolute differences tend to decrease. Further, as the prevalence of an outcome changes, absolute differences tend to change in the same direction as the smaller relative difference. Differences measured by odds ratios tend to change in the opposite direction of absolute differences. Although these patterns are apparent in a wide range of data, they are little known among persons attempting to determine whether health disparities are increasing or decreasing. This presentation will illustrate these patterns and describe a method of appraising differences in the circumstances of two group reflected by a pair of outcome rates that is unaffected by the prevalence of an outcome.