

## Does the Equivalence Scale Matter? Equivalence and Out-of-Pocket Payments

By Steve Koch

When examining the degree of financial risk protection afforded by the health care sector, one measure often used is the proportion of health expenditure shares that exceed a pre-determined threshold. This measure is referred to as catastrophic health care payments, and the pre-determined threshold, although arbitrary, is often set at 10%, 20% and 40%. Allowing for a range of thresholds offers the policymaker a lens through which to examine healthcare finance. The process underpinning the calculation of catastrophic health care payments is predicated on an approach outlined by the World Health Organization. That approach assumes household economies of scale to follow a constant elasticity formulation with a value of 0.56, i.e., a 10% increase in household size yields a 5.6% increase in household food expenditure.

This research questions that estimate, since it was based, in part, on South African data collected in 1993, and because household economies of scale might be better formulated over food shares, rather than food expenditure. Our research finds that the economies of scale parameter used in this methodology has been overstated by 35%, at least for South Africa. Even though that means that the South African-specific poverty line has also been understated by this literature, and, therefore, poverty lines in the country deserve more attention, that understatement does not impact catastrophic health care payments in the country.

Our research points to the importance of adult equivalence on poverty lines, and, therefore, suggests additional attention be paid to the estimation of equivalence scales and poverty lines. Our research also implies that financial risk protection in health care delivery in South Africa is not a monotonic function of the poverty line. Proportionately as many poor as rich people are subject to such catastrophe. In other words, the current health care system, wherein the private sector provides for the rich via third-party payment is as inept in financial risk protection as the public sector's provision of health care for the poor.