

SESSION III – Discussant:

Richard Bavier: [revised by the author on November 5, 2003]

It's a pleasure to be here today to share some thoughts about medical needs and the measure of poverty. I work in the Office of Management and Budget, but not in the Statistical Policy office that Katherine Wallman supervises and that has the lead within OMB in considering proposals for improvements in the measure of poverty. And, of course, I don't speak for OMB on these matters.

However I've contributed several working papers to the Census experimental poverty measures project. Most of the papers have addressed the National Research Council's (NRC) proposals for handling medical needs. I was an early advocate of including in the Census experimental poverty data series a variation that included medical needs in the poverty thresholds, along with other basic needs.

Most of my comments will summarize points from those working papers scrutinizing the NRC proposal to subtract *medical out-of-pocket spending, or MOOP* from income before it is tested against the poverty thresholds. It appears that Canada's Market Basket Measure (MBM) accounts for medical needs in a similar way.

I'll start with an acknowledgement that there is no perfect option for reflecting medical needs when we measure poverty. All the options have serious problems. On balance, in my view, including amounts for MOOP in the poverty thresholds is the better approach. But I wouldn't want to leave the impression that I think that including medical needs in the thresholds has no drawbacks.

I'm going to mention a theoretical issue with the NRC proposal, and then two practical issues, which are nonetheless serious, and make it harder to resolve the theoretical issue. The theoretical issue is whether it is appropriate to measure medical needs *differently* than other needs.

The NRC proposes to measure needs for food, clothing, shelter, and "a little more" in *combination* and by *family-type*. In other words, the NRC poverty threshold is the same for all families with the same number of adults and children living in a given

geographic area. By contrast, medical needs are to be measured *family-specific*, by subtracting each individual family's *actual* medical spending from income. For the NRC, medical need does not *equal* actual spending, because families may not be able to afford to spend what they need. But all actual spending is to be considered *necessary*.

So I want to stress that the real difference between the two approaches is not whether medical needs are included in the thresholds or subtracted from income, or even whether needs are measured *ex ante* or *ex post*. (In theory, an *ex post* measure of actual *family-specific* spending could be included in poverty thresholds.) The important difference is whether medical needs are measured *family-specific* or by *family-type*.

Now needs for food, clothing, and shelter also vary for families with the same numbers of adults and children in the same locality. In other words, other needs also vary in ways not accommodated in the NRC thresholds. For example, feeding and clothing teenage children costs more than feeding and clothing infants. Housing need, which is the largest component of most families' budgets, varies as well. The Department of Housing and Urban Development would say that a couple with two teenaged boys would qualify for a two bedroom apartment, but a couple with a teenaged boy and a teenaged girl needs three bedrooms. Further, housing choices are constrained by supply. From time-to-time, HUD estimates how much demand for housing by low-income families exceeds the affordable supply. Consequently, some families must pay more than the *family-type* amounts for housing implicit in the NRC thresholds because more affordable housing is unavailable, and not because they choose to substitute more housing for more satisfaction of other needs.

The NRC panel concluded that housing could be measured by *family-type* while medical needs must be *family-specific*. As evidence, their report presented data to show the wide variation in medical spending. In a working paper several years ago, I suggested that this wasn't the appropriate measure. To assess whether it's sensible to make *family-specific* measures of medical needs but *family-type* measures of housing needs, the appropriate measure is how much *error* the *family-specific* variation in each type of need would introduce into the *family-type* measure of *combined* needs represented by a poverty threshold.

Let me try to explain what I mean. If *family-type* medical needs were included in the poverty thresholds that would indeed introduce the kind of error the NRC panel was concerned about. The actual medical needs of practically all families would be different from the amount implicit in their thresholds. Some would be higher, some lower. Similarly, the amounts families actually must spend on housing will nearly always be different from the amounts implicit in their poverty thresholds. In each case, *family-type* measures arguably *introduce error* into the measure of poverty. Some families with incomes sufficient to meet their lower-than-typical *family-specific* needs would be classified as poor and some with incomes insufficient to meet their higher-than-typical *family-specific* needs would be classified as not poor.

So we have an empirical question. We can't answer it conclusively, but we can make some progress. The empirical question is, would *family-type* measures of medical needs introduce more error into the measure of poverty than *family-type* measures of housing needs? The extent of error introduced into the poverty measure by not measuring *every* need on a *family-specific* basis depends on two factors:

1. The variation of a *family-specific* need relative to the *family-type* measure, which can be conceived as a *coefficient of variation*.
2. The share of the total bundle of basic needs represented by the individual need.

In a working paper several years ago that looked at spending by families with incomes below twice their poverty thresholds, I found that, indeed, MOOP spending had a higher coefficient of variation than spending on housing. However, because housing typically represents nearly half a low-income family's budget and MOOP represents less than one-tenth, the standard deviation of housing dollars was much greater than the standard deviation of MOOP dollars. If we assumed that *all* actual MOOP variation represented variation in need (and none of it represented, for example, variation in tolerance of risk), and that even *half* the variation in housing spending by low income families reflected differences in need (due to un-accommodated variation in family structure and local variation in affordable housing supply) then the error in poverty measurement due to including housing in the thresholds would still be comparable to the error due to including MOOP.

The analysis I did earlier ought to be redone now that we have improved *family-specific* and *family-type* MOOP estimates. However, I think both kinds of improvement would tend to strengthen my case. The panel's belief that including MOOP in the thresholds would introduce more error than including other needs, particularly housing needs, doesn't appear to be supported by convincing evidence. (If, in Canada, there are fewer extremes of medical out-of-pocket expenses due to differences in the health care system, I think that would tend to reduce the error introduced by including MOOP in the poverty thresholds.)

Now I'll briefly mention two practical problems with the NRC panel's proposal for handling MOOP. Both result in overestimates of what the NRC proposes to subtract from income – that is, necessary medical spending that reduces the income available for food, clothing, shelter, and a little more.

When the NRC panel subtracts *family-specific* amounts of MOOP from *family-specific* amounts of income, two assumptions are involved, but there has been more attention to the first than the second. First, it is assumed that actual *family-specific* MOOP is all necessary spending. This assumption was famously challenged in John Cogan's dissent from the panel's proposal. I won't have anything to add here. Second, the NRC assumes that all actual MOOP spending is funded out of *current income*. However, none of our sources of data tells us whether family health spending comes out of current income (although the Consumer Expenditure Survey comes close). It is reasonable to suppose that the *higher* the medical costs facing a family in relation to current income, the *greater the likelihood* is that some will be funded by drawing down assets or borrowing. So, the *greater* the likelihood that subtraction of medical costs from income would push a family below the NRC poverty threshold, the *more likely* that the costs would not be funded completely out of current income and the greater the likelihood of error from treating the total spending as if it came from current income.

This problem arises because the NRC chose not to include assets in its resource definition. There were good reasons for this choice, but it means that error is introduced when we assume that all medical out-of-pocket spending reduces current income available for food, shelter, clothing, and a little more.

Personally, I think it very unlikely that we will ever be able to distinguish *necessary, family-specific* health spending from *unnecessary*, and MOOP funding out of *current income* from MOOP funded from *dissaving and borrowing*. How much error do these measurement problems introduce into the NRC measure of poverty? This has not been determined.

Finally, I want to suggest a theoretical construct I find useful in thinking about variation in medical needs (or other needs) in the *statistical* measure of poverty. Variation in medical out-of-pocket spending can be understood as having two components – a *between-family-type* variation component and a *within-family-type* variation component. The latter is generally greater. But, to the extent that more relevant factors are incorporated into the *MOOP equivalence scales* used in varying poverty thresholds, the share of variation measured *between-family-types* will grow and the unmeasured share *within-family-types* will shrink. At some point, remaining *within-family-type* variation will be essentially random or accidental. As residual *within-family-type* variation grows more random, the analytic and policy relevance of this variation shrinks. We want our means-tested assistance programs to accommodate even random variation in need, and some do with adjustments to income for actual expenditures for housing and medical care. However, statistically, random variation of need adds little to our ability to understand poverty and what to do about it.

Addendum by the Author:

I would add just a mention of two practical consequences of the NRC proposal. The Census Bureau has worked hard at improving the modeling of *family-specific* MOOP, yet this experience illustrates how difficult it is. A wide variety of surveys and administrative datasets focused on other subjects nonetheless try to determine the poverty status of their families to provide a distributional profile and to facilitate economic analysis. The NRC poverty proposal will require them all to collect more data and employ a larger array of thresholds. But arguably the greatest additional burden will be subtracting *family-specific* MOOP from income. As a consequence, fewer datasets may be able to make poverty determinations, and the utility of the poverty measure for these other purposes may suffer.

Finally, I would mention an issue of transparency and public credibility. As our poverty resource measure becomes more complex, it depends more on calculations made by Census staff and researchers, and less on data reported by sample families. Already, *calculated family-specific* income amounts are attributed for food stamps, school meal subsidies, rental assistance, and net direct taxes. To these the NRC proposal would add child care, work expenses, and MOOP. It's easy to imagine cases in which the sum of calculated income will exceed reported income. That already happens, and it will happen more frequently however medical needs are reflected. However, because of the NRC's stated goal of reflecting the *complete variation* of medical spending, in some cases, large amounts of MOOP will be subtracted from current income. This is particularly apt to draw skepticism and controversy. As an illustration, in the Census Bureau's experimental estimates of 2001 poverty subtracting MOOP from income, it looks like about 7 percent of persons classified as poor had estimated *family-specific* MOOP that was greater than total family current income before MOOP was subtracted (including pre-tax money income, near-cash transfers, and net direct taxes, minus work expenses and child care). The public is liable to conclude that this is not a very believable measure of poverty.