Comment on Skinner and Zhou, The Measurement and Evolution of Health Inequality

Julian Le Grand

I welcome this paper. It is a significant contribution to the examination of the incidence of public expenditure, a body of work that Eugene Smolenksy pioneered (Reynolds and Smolensky, 1977). It is a measure of the importance of that work that still, almost thirty years later, we are still refining and developing it.

One of the problems of the earlier work was that it examined only the incidence of government expenditures and did not look at the incidence of the benefits from those expenditures. There was an implied presumption that the two distributions would parallel one another: that, if, for instance, the analyses of expenditure incidence revealed that the poor received more government spending than the better off, then it was reasonable to assume that the poor were getting more benefit from that spending than the rich.

This assumption was always problematic for services that have public good or significant externality characteristics, such as those promoting law and order. Police resources, for instance, often tend to be concentrated in poorer areas, but that does not necessarily imply that the only (or even the principal) beneficiaries from those services are the poor. Examining the incidence of government spending on health services that have obvious externalities associated with them such as those concerned with infectious diseases encounters similar problems. But one might presume that, for most other types of health services, the assumption that expenditure and benefit incidence were the same would hold.

However, Skinner and Zhou's paper shows that this assumption would not be safe. In particular, they demonstrate that, while the incidence of Medicare expenditure became steadily more pro-poor in terms of expenditure incidence from 1987 to 2001, this was not

reflected in health outcomes, with life expectancy for the higher income deciles increasing significantly faster than that for the lower ones. This difference they attribute in part to the fact that the increase in Medicare spending went on ineffective care - especially on home health care, where studies suggest that at least 40% of the money was wasted. They show, too, that the utilisation of procedures that are known to be effective, such as mammography screening for women aged 65-69, beta-blockers, smoking cessation advice and reperfusion, is not pro-poor: in fact, it is often actually pro-rich.

These results parallel some of the work we have been doing in the United Kingdom. In a review of the literature, we found that, while some recent studies of the incidence of aggregate public expenditure on health care appear to show a pro-poor distribution, more micro-studies of particular procedures yielded quite different conclusions (Dixon et al 2003). So, for instance, intervention rates for coronary artery bypass grafts or angiography following a heart attack were 30% lower in the lowest socio-economic group than the highest, while hip replacements were 20% lower among lower socio-economic groups despite a 30% higher need.

This suggests a further lesson from this paper: that properly to examine the incidence of benefits from government expenditure it is desirable to disaggregate that expenditure, and, so far as possible, to look at the utilisation of the different services that the expenditure is funding. And the results that the paper presents in this regard are intriguing. The authors are perhaps a little over-enthusiastic in their interpretation of the results as basically pro-rich. In fact their Table 4 suggests there are no significant differences at the 95% level in the use of ace inhibitors or the giving of smoking advice between the top and the bottom deciles, and some of the distributions observed do not always show smooth gradients (with decile 8, for

instance, showing exactly the same utilisation rates as decile 10 for all the procedures in Table 4). Nonetheless, there is a significant pro-rich distribution in other areas, notably for mammography screening, for beta-blockers and reperfusion, and, we are told (though no results are given) for eye examinations among diabetics.

As with the similar results for the UK, this raises the question of why. Why, when the relevant health care is free or largely free as in the cases of Medicare in the US and the National Health Service in the UK, do poorer income groups appear to use key services less relative to their needs than wealthier ones?

As the authors note, the procedures concerned include those whose efficacy is widely accepted; hence it seems unlikely that many of the differences in utilization observed are the result of differences in fully informed preferences. So they must be consequence of differences in the constraints face by the different groups or differences in their information.

Sadly, in the UK at least, there has been little research into the question of causation (I suspect there is a not a great deal more in the US). However, such work as has been done in the UK suggests that there are three principal causes of the differential use of health services by the poor and the rich: differences in costs, differences in beliefs about health states and about the effectiveness of the medical system, and differences in the ability to manipulate the system.

With respect to costs, the poor have to rely more heavily upon public transport when going to a medical facility than the better off do: a fact which raises their financial costs, their time costs and their inconvenience costs. In addition, poorer workers, often paid by the hour, lose money if they take time off work to go the doctor, whereas better-off salaried workers do not. With respect to beliefs, the poor also often regard themselves as less ill than the better

off, even when objectively they have similar symptoms; and, even when they do feel ill, they have less faith in the ability of medicine to help them. All of these tend to militate against the poor going to the doctor in the first place; but there are problems even when they arrive at the surgery. The well off, being more confident and more articulate, are better placed to demand more services, and generally to manipulate the system in their favour.

It would very interesting to see if similar factors are at work in the US, or whether the differences in, for instance car availability or the medical systems lead to quite different explanations for pro-rich distributions of health services. Perhaps Skinner and Zhou could take this on as their next challenge.

REFERENCES

Dixon, A., Le Grand, J., Henderson, J., Murray, R., and Poteliakhoff, E. (forthcoming) 'Is the NHS equitable? A review of the evidence' *Journal of Health Services Research and Policy*.

Reynolds, M., and Smolensky, E. (1977) *Public Expenditure, Taxes, and the Distribution of Income: the United States, 1950, 1961, 1970*. New York: Academic Press.