Measuring Government Inclusiveness: An Application to Health Policy

AJAY TANDON

Abstract. This paper examines the issue of government inclusiveness—i.e., the extent to which a government can be characterized as "pro-poor"—within the context of inequalities in the health sector. The paper discusses different ways of measuring government inclusiveness and argues that benefit incidence analysis comes closest to measuring the extent to which a government can be characterized as pro-poor. Using this perspective, the paper examines broad determinants of government inclusiveness, especially the role of democracy. Analysis of data indicates a positive relationship between democratization and government inclusiveness, even after controlling for additional determinants of "pro-poorness." Ethnic heterogeneity, on the other hand, has a negative effect on government inclusiveness. Overall, the analysis suggests the importance of political freedoms for ensuring that the poor benefit from government programs. In countries with high levels of ethnic diversity, special provisions may need to be made to ensure that elite capture of government expenditure does not occur.

I. INTRODUCTION

In almost all developing countries, health attainment indicators for the poor tend to be worse than the national average. However, the extent to which such health inequalities exist also varies significantly across countries. Recent empirical evidence suggests that health inequalities have been persistent over time and, in many cases, have been growing (ADB 2006). Some argue that the existence and persistence of large health inequalities is indicative of a lack of resources. The rich can bypass government finance and provision of health in favor of the private sector. The poor are more reliant on the public sector, and governments often do not have enough resources to spend on pro-poor health programs and interventions. Sachs (2004) is a key proponent of this perspective, calling for a massive scaling up of government programs in order to attain health-related Millennium Development Goals.

Others argue that the problem is more of lack of prioritization among governments with regard to the choice and implementation of health policies that

Ajay Tandon is currently Senior Economist with the Health, Nutrition, and Population Hub Unit at the World Bank. This paper was written when the author was Economist in the Development Indicators and Policy Research Division, Economics and Research Department, Asian Development Bank. The author thanks Ifzal Ali and Rana Hasan for comments and discussion.

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are beneficial for the poor. Proponents of this perspective adduce the fact that in many low-income countries, the rich disproportionately capture the benefits of government expenditure on health. This suggests the fundamental problem is not necessarily one of tight resources—although this could be a concern—but a deeper one, more reflective of fundamental political or institutional weaknesses in a country. Hence, addressing the former without addressing the latter would not lead to sustainable solutions.

Given this backdrop, this paper examines the issue of government inclusiveness—i.e., the extent to which a government can be characterized as "pro-poor"—within the context of inequalities in the health sector.[1] In recent years, the notion of growth inclusiveness has attracted a great deal of attention from policymakers and academics. The debate has focused, in particular, on issues related to measurement of pro-poor growth, as well as on policy options that could potentially enhance the inclusiveness of growth (Ravallion 2004). More recently, this concept of inclusiveness has been extended to measure and analyze pro-poor governance as well, i.e., whether or not a government is pro-poor as evidenced from its public expenditure allocation priorities. One strand of this literature focuses on the issue of aid effectiveness. Government inclusiveness is measured from the perspective that foreign aid is likely to be more effective in countries with more pro-poor governments (Mosley et al. 2004). Others, such as Kakwani and Son (2006), have examined this issue from more of a targeting efficiency perspective, i.e., in terms of assessing how well a government is doing in reaching the poor with regard to welfare-enhancing policy interventions. This latter framework tends to be more specific, much more suited toward analyzing the pro-poor focus of clearly defined projects. The former tends to be more general, focusing more on evaluating a government's overall orientation toward enhancing the welfare of the poor.

This paper examines two primary questions related to government inclusiveness in health.[2] Firstly, how can we measure whether or not a government is pro-poor with regard to health policy? What are the alternatives? What sort of data is needed for measurement? Do the measures make sense? Secondly, the paper examines what makes some governments more pro-poor than others. What factors, if any, are associated with greater government inclusiveness? Are there any lessons that can be gleaned from a policy perspective?

The remainder of the paper is organized as follows. Section II discusses issues and debates surrounding measurement of government inclusiveness in health. Section III reviews the literature with regard to determinants of

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[1]The terms "inclusive" and "pro-poor" are used interchangeably throughout the paper.

[2]For an application to education, see Addison and Rahman (2001).

government inclusiveness. Section IV examines the issue of democracy and pro-poor orientation in more detail.

II. MEASURING GOVERNMENT INCLUSIVENESS IN HEALTH

There are several different approaches for measuring government inclusiveness with regard to health policy. These can be classified under three broad categories: (i) the final outcomes approach, (ii) the benefit incidence approach, and (iii) the health financing approach. These are briefly discussed in turn.

A. Final Outcomes Approach

This is the most general and broad of the three approaches. In this perspective, inequalities in final health outcomes are considered as indicators of the extent of pro-poor stewardship on the part of governments. Large levels of health inequalities existing within a country—and holding governments accountable for population health outcomes—logically imply that the very existence of such inequalities indicates that governments are not inclusive. The implication being that, if governments were indeed pro-poor, sustained health inequalities would not be tolerated.[3]

Such an outcomes approach may be useful in situations where health indicators in question are clearly linked with government efforts, e.g., in the case of inequalities in indicators such as immunization rates, which are often government-administered or mandated. For other health indicators, e.g., for levels of infant and child mortality or life expectancy, the role of the government in influencing outcomes becomes much less obvious. Such outcomes are, arguably, the result of a variety of factors that could include things such as housing, income, food, and nutrition, which are not directly controllable by the state. However, proponents of this approach push the accountability angle to the extent that if nonhealth-system-related factors are responsible for health inequalities, it still is the responsibility of the government as a steward to ensure that such inequalities be minimized. This is explicit, for instance, in the World Health Organization's conceptualization of the performance of health systems: health inequalities are considered to be one prominent indicator for which governments are to be held accountable (World Health Organization 2000).

[3]It is important to note that a focus on outcome inequalities—and holding governments accountable for them—does not necessarily assume that the governments are direct providers of health services in the country. Even if provision is primarily private, the governments can still be held accountable in the sense of making sure that bypassed individuals get care as needed using alternate policy instruments such as insurance provision or subsidized care, for example.

Others argue that indicators such as infant and child mortality rates are reflective of the health outcomes of the poor even if one looks at national averages, since most infant and child deaths tend to be concentrated at the bottom end of the income distribution (Ross 2006). Although this may be true for some countries, this has to be contrasted with the fact that there is also the danger that declines in average infant and child mortality rates can occur without much movement at the bottom end of the income distribution. As Gwatkin (2005) argues, it is often easiest to realize infant and child mortality declines among the better-off segments of the population given that they are the easiest to cover and generally require the least amount of effort and resources to do so. If there is political pressure to attain overall declines in mortality rates within a given time frame, then such pressures may distort preferences for project and government administrators and remove incentives for enhancing inclusiveness.

One disadvantage of the outcomes perspective is that it discounts information on what the governments may actually be doing (or not doing) and, therefore, this bypasses what may be a critical intermediary step that could help guide corrective policy making. Governments may very well be pro-poor—and doing their best—yet outcomes may remain unequal due to a variety of environmental, cultural, or institutional factors that governments may not have the ability to influence directly. In such situations, focusing on final health outcomes without taking into account government attempts would be disingenuous, and presumptive of a level of omnipotence that governments simply may not possess. This is akin to making the argument that the poverty rate in a country is in of itself indicative of whether or not a government is pro-poor.

On the flip side, inequalities in certain health indicators (such as immunization rates) may be low but this may reflect nothing more than the priorities and preferences of donor agencies and, hence, ought not to be attributed to the stance of governments (Becker et al. 2006). Hence, in order to assess government inclusiveness, it may be important to look at government actions and not just at final outcomes.

B. Benefit Incidence Approach

The benefit incidence approach is the most widely utilized approach for measuring whether or not government health policy is inclusive. The basic idea is simple: the focus here is on measuring either the extent to which government services reach the poor, either in terms of service units, or in terms of expenditure allocations. This entails matching information on expenditure allocation from government budgets with information on user characteristics and utilization available from survey data in order to assess the proportion of government expenditure that is actually reaching the poor. More specifically, a typical application entails measurement of unit costs, i.e., the average unit cost of

providing public health services. Given the usage rates of the poor versus the nonpoor—or for different income or consumption quintiles—an estimate can be made as to the extent to which the expenditure that the government allocates is utilized by the different population subgroups.[4] An allocation is typically deemed pro-poor if, say, the bottom 20 percent of the population receives at least a 20 percent or higher share of total government expenditure spent on health. This is the simplest characterization of pro-poorness. Other measures can also be calculated: e.g., some may argue that since the poor have greater health needs they should get a greater share of the government budget than their share of the population.

Benefit incidence, if measured correctly, can be a very informative diagnostic. At the very least, it can indicate the extent to which governments are making an effort to reach the poor. And if government expenditure is not reaching the poor, it can trigger examinations of where the problems lie, e.g., is there a leakage or targeting problem? Or is there a political economy concern resulting in elite capture?

Benefit incidence, however, does not quite capture benefits completely. If the goal of government expenditure is to improve the health of the poor, benefit incidence only measures a part of the process. If services provided are not enough, or are of poor quality, then a pro-poor government may look good on paper but may not be delivering outcomes in practice. Hence, ideally, a combinatorial approach is needed where health outcomes as well as benefit incidence are used in any analyses of health inequalities. If large health inequalities exist in the presence of an obvious pro-poor stance, it suggests that there may be other factors that are more important for improving health outcomes that would need to be looked into. In addition, in several countries, governments are not direct providers of health services, and hence such an incidence analysis would not be particularly informative.

There are variants of the public expenditure approach that can be used to assess government inclusiveness. One alternative would be to look at the extent to which government spends on the diseases of the poor, although such detailed disaggregated data are unlikely to be available for more than a handful of low-income countries. Another alternative would be to assess the extent to which government spends on primary health care versus urban tertiary care, the latter being less likely to be utilized by the poor. Availability of basic health care services and immunization coverage rates can also give an indication of the extent to which the government is pro-poor. A consultation report by the Center for Global Development on measuring government commitment to health, for instance, suggests that the share of 1-year-olds immunized with the third dose of diphtheria, tetanus toxoid, and pertussis (DPT3) vaccine; as well the proportion

[4]See Davoodi et al. (2003) for additional details.

of government health expenditure devoted to public health functions and services (i.e., on core basic health functions), should be used as indicators of governments' commitment to health (Becker et al. 2006).

Another related example is that of Mosley et al. (2004). They construct a pro-poor public expenditure index within the context of measuring the effectiveness of aid in terms of poverty reduction. Their index is based on the rationale that aid is likely to be more effective in reducing poverty in countries where the composition of public expenditure is more pro-poor. A pro-poor stance is identified by the proportion of expenditure allocated to basic needs and areas that have a direct impact on the welfare of the poor, namely, education, health, water and sanitation, agricultural research and extension, and rural roads. The index is a weighted average of government spending in these areas, with the weights derived from a regression of $1-a-day poverty rates on the proportion of government spending in these areas.

Kakwani and Son's (2006) pro-poor policy index is also related to the benefit incidence perspective on measuring government inclusiveness. In their framework, a government policy or program is considered pro-poor if it benefits the poor more than the nonpoor. In other terms, a pro-poor policy is one where the benefits to the poor are greater than the benefits that would have accrued to the poor had everyone in the country received exactly the same benefits. They highlight an application of their methodology to programs in Russia, Thailand, Viet Nam, as well as 15 African countries. They find the implementation of recent welfare reforms in Thailand and Russia, for instance, to be quite pro-poor.

C. Health Financing Approach

One additional perspective on whether or not a government is inclusive looks at the issue from a purely financing perspective. Do users of health services spend in accordance with their ability to pay? In other words, is the health system geared toward protecting the poor or near-poor from catastrophic health-related expenses? Are out-of-pocket payments a significant proportion of health financing? Typically, implementing this approach entails creation of an index that measures the extent to which the health system is "fair" in terms of the means by which it is financed.[5]

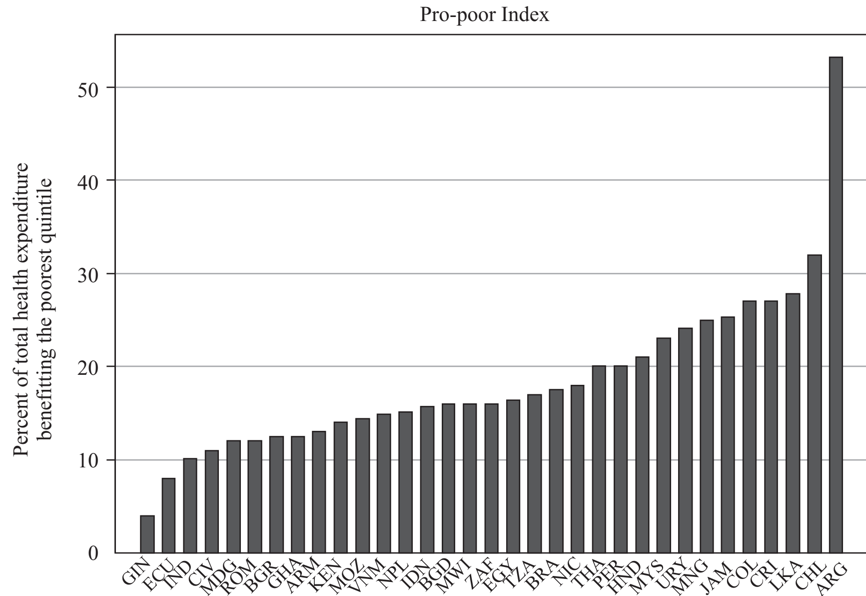
A health financing approach for measuring the extent to which governments are pro-poor is important given its focus on the poverty impact of health-related shocks. However, it discounts the final health impact of health policies (or, at the very least, takes it as given). Also, there is an implicit assumption under this approach that users do not respond to prices and expenditure. This is not realistic: the poor and near-poor are likely to adjust their

[5]Xu et al. (2003) is an example measuring fairness in financing across countries.

health-seeking behavior such that if health care is relatively expensive, they may choose to forego care, or choose poorer quality care, instead of risking impoverishment. In the most extreme case, a health system can appear to be extremely "fair" if the poor and near-poor are completely deterred from utilizing expensive health services.

Each of three above-mentioned approaches on its own tends to be an incomplete characterization of the extent to which a government may be characterized as inclusive and—for a broader situational perspective—elements of all three would need to be taken into account. Of the three, the benefit incidence approach comes closest to measuring government inclusiveness as it focuses on the actions of the government. For the remainder of this paper, the benefit incidence perspective is used in analyzing determinants of government inclusiveness. In particular, the share of total government health expenditure benefiting the bottom 20 percent of the population is used as a measure of government inclusiveness: the higher this share, the more pro-poor and inclusive is the government. This measure was compiled from various published sources of benefit incidence studies for developing countries conducted using data for the 1990s. Figure 1 shows a plot of these data. As can be seen, Argentina, Chile, and Sri Lanka are highly pro-poor. Argentina, in particular, appears to be an outlier, with more than 50 percent of government health expenditure benefiting the bottom 20 percent of the population. Guinea, Ecuador, and India, on the other hand, are at the opposite end of the spectrum.

Figure 1. **Pro-poor Index for Selected Countries in the 1990s**



GIN: Guinea; ECU: Ecuador; IND: India; CIV: Cote d'Ivoire; MDG: Madagascar; ROM: Romania; BGR: Bulgaria; GHA: Ghana; ARM: Armenia; KEN: Kenya; MOZ: Mozambique; VNM: Viet Nam; NPL: Nepal; IDN: Indonesia; BGD: Bangladesh; MWI: Malawi; ZAF: South Africa; EGY: Egypt; TZA: Tanzania; BRA: Brazil; NIC: Nicaragua; THA: Thailand; PER: Peru; HND: Honduras; MYS: Malaysia; URY: Uruguay; MNG: Mongolia; JAM: Jamaica; COL: Colombia; CRI: Costa Rica; LKA: Sri Lanka; CHL: Chile; ARG: Argentina.

III. WHY ARE SOME GOVERNMENTS MORE PRO-POOR THAN OTHERS?

Theoretical research on the determinants of government inclusiveness has tended to emphasize the role of political economy factors.[6] Democratization, in particular, has been posited as being good for the poor as it should (at least in principle) empower the poor to demand greater responsiveness and public good provision from their governments. In addition, democratization is associated with press freedoms, which should allow for better flows of information from the electorate to the state and vice-versa, making it difficult to ignore the poor if they are a significant proportion of the populace (Ross 2006). In a seminal paper on this issue, Meltzer and Richard (1981) argue that, in a well-functioning representative democracy, the priorities of public spending will reflect the preferences of the median voter. If income distribution is skewed such that the median voter is relatively poor—this being the likely situation in most low-income countries—then their model suggests that this should translate into an

[6]See Addison and Rahman (2001) for an application to education.

emphasis by democratically elected governments on ensuring the delivery of basic social services for the poor.

Several variants of the political economy model of pro-poorness have been tested empirically. Using infant mortality as an indicator, Gerring and Thacker (2001) find democracy to have a beneficial effect on government pro-poorness even after controlling for other significant determinants. Lake and Baum (2001), McGuire (2002), and Tsai (2006) reach similar conclusions using a host of pro-poor indicators that include access to basic health services as well as child and infant mortality rates.

In a sense, the link between political freedom and government inclusiveness can also be found in empirical studies that have looked at the relationship between government responsiveness to the needs of citizens (more generally, or not just related to health), and the extent to which the electorate is well-informed and politically active. In the Indian context, Sen (1984) has argued that, post-independence, the existence of a vibrant free press has played an important role in preventing famines in the country. Using data from India, Besley and Burgess (2002) find that states with higher levels of political activism and mass media were also more responsive in implementing public food distribution programs and calamity relief expenditure.

On the other hand, a dissenting view on the link between political freedom and health outcomes can be found in Keefer and Khemani (2005) who argue that political market distortions block the translation of voter preferences to outcomes, pointing to the abysmal levels of social services in low-income democracies such as India. They argue that lack of information among voters regarding performance of politicians, ethnic fragmentation, and lack of credibility of political promises are primary explanations of why such a low priority is given to social services for the poor even in low-income countries that are democratic.

In a similar vein, Ross (2006) makes a slightly different counter argument: his point is that there is reliable evidence to suggest that democracies are indeed more likely to spend more on public services, but the problem is that this spending does not reach the poor and, hence, does not translate into better health outcomes such as lower infant and child mortality rates. In his empirical model, he finds democracy to have no significant impact on child mortality rates. This is in contrast with the beneficial impact of democracy that has been found by previous studies on this issue. Ross argues that his empirical analysis accounts for several problems with previous analyses. One of these problems is that previous studies were conducted on a selected sample of countries, and that—for a variety of reasons related to data availability—these samples tended to systematically exclude countries that were high-performing but not democratic. Furthermore, previous work ignored the impact of country-specific heterogeneity and did not account for secular trends in health. With regard to the latter, he argues that the availability of low-cost health interventions has been increasing globally over

time. This has also coincided with unrelated trends in the rise in democratization. The empirical association between population health outcomes and democracy could therefore be spurious: his empirical evidence suggests that the relationship disappears once this issue has been accounted for. Ross does not directly test his elite-capture explanation of why democracies do not have a beneficial effect on child and infant mortality.

In addition to political freedom and democracy, there are several other factors that have been postulated as being important determinants of government inclusiveness in health. Prominent among these is ethno-linguistic heterogeneity within a country: the greater this heterogeneity, the less pro-poor the government is expected to be. Keefer and Khemani (2005) highlight the importance of social divisions in explaining political failures in government health provision. Another example is Banerjee and Somanathan (2001) who find evidence of a negative link between ethnic heterogeneity and public good provision. The basic reason why social fractionalization may impact the extent of inclusiveness of governments comes from an extrapolation of what psychologists have found in the context of experiments on altruism, wherein individuals have a tendency to help and support those with whom they can identify, i.e., people tend to help those who are most like them (McCarty 1993). Aggregating this yields the prediction that countries that are more socially, ethnically, or religiously diverse might be expected to have governments that are less pro-poor, especially if there are powerful population subgroups who are reluctant to spend on broad-based public goods such as health. Miguel (2006) discusses other reasons for expecting inimical effects of social diversity on pro-poorness. Different social groups in diverse countries may have different preferences, for instance, and this may make it difficult to reach common ground with regard to policy making. Localized community-based pressure for public good provision may be nonexistent or ineffective in ethnically diverse countries.

More generally, Easterly (2002) argues that social polarization is key to understanding policy choices: countries that have a high degree of social polarization—and those that have not developed the institutions to offset the negative effects of this lack of social cohesion—are more likely not to choose policies that benefit the poor. Collier (2001) calls for a more nuanced approach to this issue. He argues that it is not that ethnic *fragmentation* leads to bad policy choices and therefore to poor development outcomes, but rather it is ethnic *dominance* that is the problem. One definition of ethnic dominance would pertain to the situation whereby the dominant group constitutes 45 to 60 percent of the population. He argues that ethnic dominance is more problematic for development outcomes regardless of whether or not a country is democratic. Ethnic fragmentation, he argues, should not to be inimical in a democratic setting as ethnic preferences would tend to get replaced by other cross-cutting concerns. It is not clear, however, how useful such a nuanced approach would be to

understanding the determinants of development outcomes. If one considers a longer-term perspective, and recognizing that conflicts are costly, one could also argue that a dominant ethnic group ought to be more likely to invest in development in order to reduce political instability and economic uncertainty (Annet 2001).

Finally, one other major factor that is often discussed in relation to being a determinant of government inclusiveness is income inequality. Arguably, high levels of income inequality may serve as a proxy for the power that elite groups may have to skew policies in their favor and, hence, be negatively correlated with the extent of government inclusiveness. This is the sense in which Ghobarah et al. (2004) interpret their finding that high levels of income inequality—serving as a measure of the degree of political inequality in a country—depressed the amount a government spent on health care. Income inequality could also increase socio-political instability, leading to lower investment rates and lower growth, and making it fiscally difficult for governments to finance or provide social services (Alesina and Perotti 1993).

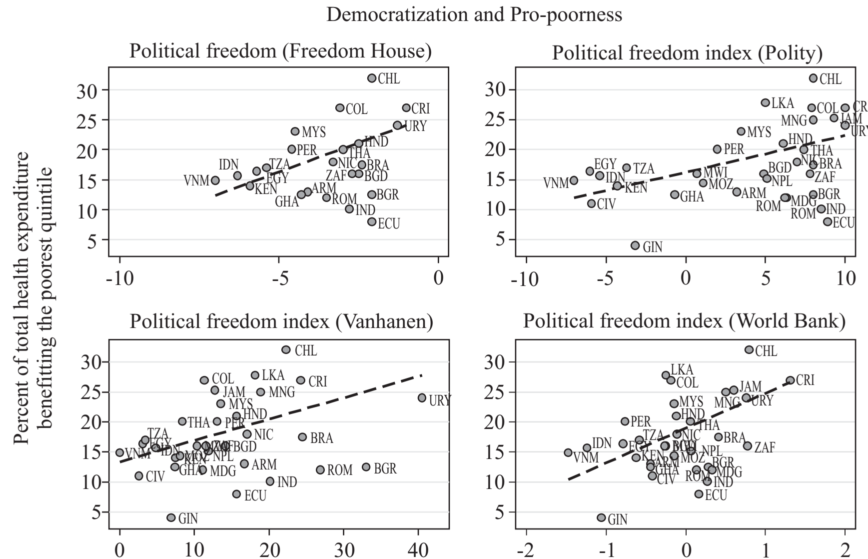
Rajan and Zingales (2006) extend this argument back in time, arguing that an understanding of poor development outcomes in general needs to be grounded in a better understanding and analysis of initial differences in factor endowments, which encourage the formation of "self-perpetuating constituencies", i.e., of powerful political interest groups who prefer (and benefit from) the status quo and oppose institutional development. As a result, in their framework, democracies with high levels of initial income or asset inequality would not necessarily be more inclusive.

IV. REVISITING DEMOCRACY AND GOVERNMENT INCLUSIVENESS

This section revisits the issue of whether democracies are more pro-poor than nondemocracies. Unlike previous studies on this issue, this paper uses the proportion of government health expenditure benefiting the bottom quintile of the population, which is a more direct measure of government inclusiveness. If the arguments in Ross (2006) and Keefer and Khemani (2005) are correct and political inequality and elite capture comprise the primary problem, then there should be no observed relationship between democratization and government inclusiveness. Figure 2 shows the association between indicators of democracy and political freedom (the graph shows four widely used measures) and government inclusiveness in health. As can be seen, at least in terms of raw associations for the sample of low-income countries, greater levels of political freedom do appear to be correlated with a higher degree of government inclusiveness, contrary to priors based on Ross (2006) and Keefer and Khemani (2005). However, it needs to be noted that there is also a large amount of

variation around this average, indicating the importance of other factors and of country-specific heterogeneity.

Figure 2. **Democratization versus Government Inclusiveness in Health, 1990s**



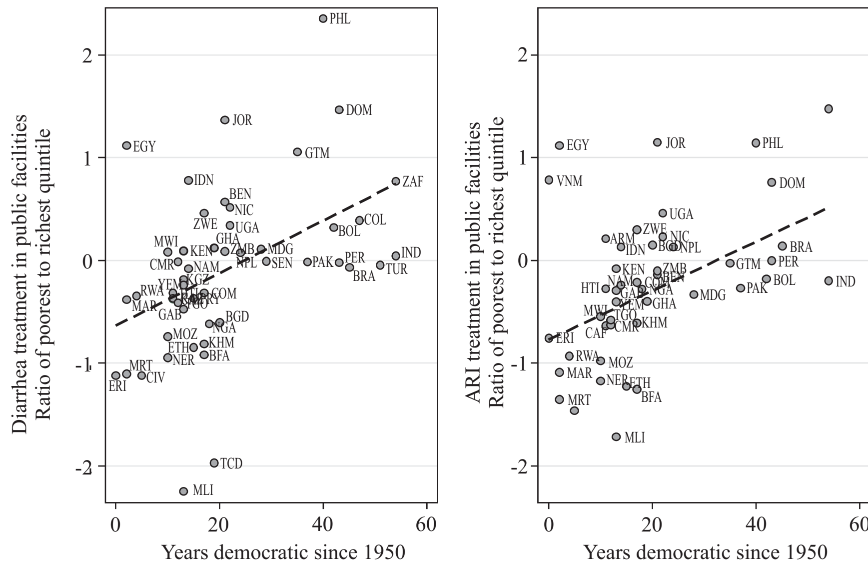
Note: Higher values of index imply greater political freedom.
Data are for the 1990s.
Sources: Freedom House (2006), Polity IV (Center for International Development and Conflict Management 2006), Vanhanen (2000), and World Bank (2006).

In addition to the proportion of government expenditure reaching the bottom quintile of the population, two alternative measures of government inclusiveness in health are also used: the ratio between the poorest versus richest quintile for the proportion of children treated at public facilities for diarrhea, as well as for acute respiratory infections (ARI). These are utilization-based measures of government inclusiveness estimated from the Demographic and Health Survey data estimated by Gwatkin et al (2006). Sahn and Younger (1999) argue that these simple binary indicators of public utilization rates by economic status are highly correlated with those derived from more complex benefit incidence calculations (for the small sample of overlapping countries, the Spearman's correlation was of the order 0.4).

Arguably, in a cross section, it is not the presence of democracy in a given year that ought to be associated with pro-poorness, rather, the number of years a country has been democratic should be a stronger determinant. Figure 3 shows the two alternative measures of governance based on public utilization for diarrhea and ARI among the poor relative to the rich versus the number of years a

country has been democratic since 1950. A country such as India is a clear outlier: democratic for most of the years since 1950 but with a lower than average utilization of public services by the poor. The Philippines, on the other hand, is more of a positive outlier: having a higher than average public utilization by the poor than the sample average. On average though, there is a positive association between government inclusiveness as measured by public utilization by the poor and number of years a country has been democratic since 1950.

Figure 3. **Utilization of Public Health Services versus Number of Years of Democracy**



Note: y-axis variable in log.
Sources: Gwatkin et al. (2006) and Polity IV (Center for International Development and Conflict Management 2006).

Table 1 reports the results of several simple regression models on the determinants of government inclusive. In particular, it examines whether the link between democracy and inclusiveness is robust to inclusion of various other determinants. As can be seen, models I, II, and III differ in terms of the dependent variables used. The column labeled (1) in all three models shows the results when the number of years a country has been democratic since 1950 is the sole independent variable. The coefficient is significant and positive indicating that the length of time a country is democratic has a positive influence on government inclusiveness.

Table 1. **Determinants of Government Inclusiveness**

Independent Variables	**MODEL I Dependent Variable: Share of Government Expenditure Benefiting the Poorest Quintile**			**MODEL II Dependent Variable: Ratio of Utilization at Public Facility for Poorest versus Richest Quintile (diarrhea)**			**MODEL III Dependent Variable: Ratio of Utilization at Public Facility for Poorest versus Richest Quintile (ARI)**		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Number of years democratic since 1950	0.17** (0.06)	0.19** (0.05)	0.11* (0.06)	0.03** (0.01)	0.03** (0.01)	0.02** (0.01)	0.02** (0.01)	0.03** (0.01)	0.02** (0.01)
Index of ethnic heterogeneity		–0.09** (0.02)	–0.08** (0.03)		–0.01** (0.003)	–0.01** (0.003)		–0.02** (0.01)	–0.01** (0.003)
Adult literacy in 1970			0.02 (0.04)			0.01** (0.004)			0.02** (0.01)
Gini coefficient			15.61 (12.04)			–1.50 (1.28)			–0.43 (1.31)
Adjusted R-squared	0.24	0.49	0.42	0.21	0.32	0.37	0.13	0.44	0.51
N	32	32	31	50	50	48	46	46	45

* denotes statistical significance at 10% level
** denotes statistical significance at 5% level
Note: Dependent variable in logs for models I and II; robust standard errors in parentheses; constant not reported.

Column (2) shows the model with both democratic experience as well as index of ethnic heterogeneity for each country.[7] The coefficient on democratic experience remains significant and the coefficient on index of ethnic heterogeneity is negative and significant. This suggests that ethnic heterogeneity has a strong, independent impact on government inclusiveness: regardless of a country's democratic experience, greater levels of ethnic heterogeneity are associated with lower government inclusiveness.

Column (3) reports the model that includes adult literacy rates in 1970 and a country's level of income inequality as measured by the Gini coefficient, in addition to democratic experience and ethnic heterogeneity. Initial literacy rates were used instead of contemporaneous ones in order to account for possible endogeneity problems: countries that are pro-poor with regard to health are also likely to invest in education, therefore current literacy could arguably be an

[7]The index of ethnic heterogeneity is from Vanhanen (1999) and includes components of racial, linguistic, national, tribal, and religious differences.

outcome variable rather than a explanatory variable. As can be seen, higher literacy rates in 1970 do appear to be associated with greater government inclusiveness, suggesting the importance of demand-side factors. Surprisingly, the Gini coefficient is not significantly associated with lower government inclusiveness for the countries in the sample. This latter result is at odds with the literature and merits further investigation especially in terms of assessing sensitivity to other measures of inequality.

V. CONCLUSIONS

This paper has examined the issue of measuring government inclusiveness using the health sector as an example. There are several different approaches to measuring government inclusiveness. Of these, the benefit incidence approach comes closest to assessing the actions of governments with regard to their intent and ability to reach the poor. Using this perspective for measurement, the paper looks at different determinants of government inclusiveness.

Democracy is often hypothesized as being a critical factor in making governments more responsive to the poor. In a sample of low-income countries—and using the share of government spending reaching poor, the share of public utilization for diarrhea treatment by the poor, and the share of public utilization for ARI treatment by the poor as indicators of inclusiveness—the paper finds that democratic experience does indeed have a positive impact on inclusiveness. Ethnic heterogeneity, on the other hand, has a negative impact on inclusiveness. This negative effect exists despite controlling for democratic experience, suggesting that democracy alone may not be sufficient for making governments inclusive if there is large ethnic diversity in the population. In this regard, India's experience is particularly relevant: despite having robust democratic credentials, the government has tended not to be pro-poor. Basic health and education for the poor have been neglected in favor of elite universities and urban hospitals.

The analysis also indicates the positive relationship between initial levels of adult literacy and government inclusiveness. Regardless of democratic experience and ethnic diversity, countries that had high levels of literacy in 1970 were more likely to be pro-poor in the 1990s, suggesting the importance of demand-side factors for eliciting government responsiveness. The level of income inequality, on the other hand, does not appear to influence government inclusiveness, a surprising result, and one that is at odds with previous work on this issue. One explanation could be that—for the sample used for this analysis—levels of income inequality were highly correlated with ethnic diversity and democratic experience and, once these factors are controlled for, there is no independent impact of income inequality on government inclusiveness.

Overall, the analysis suggests the importance of political freedoms for ensuring that the poor benefit from government programs. In countries with high

levels of ethnic diversity, special provisions may need to be made to ensure that elite capture of government expenditure does not occur.

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