Social Science & Medicine 190 (2017) 237–246

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

The impact of democracy and media freedom on under-5 mortality, 1961–2011

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ARTICLE INFO

Article history:
Received 16 March 2017
Received in revised form
3 August 2017
Accepted 21 August 2017
Available online 24 August 2017

Keywords:
Democracy
Media freedom
Under-5 mortality
Panel data analysis
Country fixed effects

ABSTRACT

Do democracies produce better health outcomes for children than autocracies? We argue that (1) democratic governments have an incentive to reduce child mortality among low-income families and (2) that media freedom enhances their ability to deliver mortality-reducing resources to the poorest. A panel of 167 countries for the years 1961–2011 is used to test those two theoretical claims. We find that level of democracy is negatively associated with under-5 mortality, and that that negative association is greater in the presence of media freedom. These results are robust to the inclusion of country and year fixed effects, time-varying control variables, and the multiple imputation of missing values.

1. Introduction

Child mortality primarily occurs among the poorest members of society in developed countries and especially developing countries (de Looper and Lafortune, 2009; Yazbeck, 2009). Moreover, it is often due to illnesses that are easy to prevent or treat (via, for example, vaccination, peri- and neonatal care, access to clean water, antibiotics, oral rehydration solutions, etc.). Infectious diseases accounted for 51.8% of global deaths in children younger than five years in 2013. The largest share of those deaths were due to pneumonia (14.9%), diarrhea (9.2%) and malaria (7.2%) (Liu et al., 2015). Effective interventions exist for all three diseases (Jones et al., 2003). In addition, approximately 45% of all child deaths were linked to undernutrition in 2011 (Black et al., 2013). This suggests that child mortality rates among the poor could be responsive to public policy-making.

A key determinant of public policy is regime type. Democratic leaders must win the support of a larger share of the population than their autocratic counterparts in order to stay in power. Thus, they have an incentive to provide welfare-promoting resources to a larger proportion of the population. In support of that theoretical claim there are a growing number of cross-national studies that find that that democracies produce healthier, more educated and better nourished populations than autocracies (see, for example, Besley and Kudamatsu, 2006; Blaydes and Kayser, 2011; Brown, 1999; Gerring et al., 2012; Mackenbach et al., 2013; Patterson and Veenstra, 2016; Wigley and Akkoyunlu, 2011). It is not immediately obvious, however, that democracies are better at promoting the well-being of the *poorest* members of society. It remains possible that democratic governments will not target welfare transfers and public goods to low-income citizens because their votes are not required in order to secure a winning majority. Thus, democratic leaders may be no better at reducing child mortality among the poor than autocratic leaders (Ross, 2006).

In response to that challenge we argue, in what follows, that democratic leaders have a greater incentive to reduce child mortality, even in those cases when they do not require the electoral support of low-income voters (section 2.1). This is because of the economic benefits – economies of scale, positive externalities and enhanced productivity - associated with improved child health. In addition, we argue that democracies are better equipped to reduce child mortality because the greater protection they afford to free speech, and especially media freedom, enhances government responsiveness (section 2.2).

In order to test those two theoretical claims we employ a panel of 167 countries (all countries with populations greater than

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http://dx.doi.org/10.1016/j.socscimed.2017.08.023
0277-9536/

250,000) for the years 1961–2011 (sections 3–5). We include country fixed effects in order to control for those unchanging factors, such as climate and colonial history, which might be simultaneously determining regime type and child health. We also employ a measure of democracy that takes into account the two central ingredients of democratic rule, political competition and political participation. Previous studies on the link between democracy and well-being outcomes, have tended to focus on the extent to which there are regular and genuinely competitive elections. As a consequence, they have not taken into account the degree to which citizens actually participate in those elections, or even whether there is universal suffrage. Our measure of democracy, therefore, provides a more complete picture of each country's democratic status.

2. Theoretical framework

In this section we develop our two theoretical claims. Namely, that democratic leaders have a greater incentive and capability to reduce child mortality than autocratic leaders. Subsequent sections present empirical evidence in support of those two claims.

2.1. Democracy and public goods

The survival of political leaders typically depends on their ability to deliver benefits to their support base. This may take the form of benefits targeted to specific individuals or groups, such as direct payments or government contracts. Alternatively, this may take the form of public goods such as infrastructure, health care and education. Autocratic leaders will typically prefer to provide targeted private goods in order to win the support of their narrow support base. That is because it is less costly to enrich the few than to use public goods in order to benefit everyone. However, as the required number of backers expands it becomes increasingly more cost-effective for political leaders to maintain support by producing public goods. Thus, as suffrage is extended private goods represent an increasingly smaller proportion of the benefits doled out by the government. In other words, a transition from autocratic to democratic rule generates a trend away from targeted private benefits and towards public goods (Besley and Kudamatsu, 2006; Bueno de Mesquita et al., 2005; McGuire, 2013).

Fig. 1 provides some evidence in support of that claim based on the 39 states that underwent an unambiguous transition from autocratic rule to democratic rule between 1960 and 2000. We use the binary democracy variable constructed by Cheibub and colleagues (2010) to identify those countries that have transitioned to democratic rule. The bars represent the average emphasis on public goods for each of the 39 states, for each of the 10 years before and after transition. Our measure of the extent to which governments prioritize public goods over targeted goods is taken from the Varieties of Democracy Project (Coppedge et al., 2016) and is based on the responses of multiple country experts. That project uses cross-rater disagreement to estimate, and thereby correct for, measurement error. As we can see there was a noticeable increase in the extent to which those governments prioritized public goods over targeted goods immediately after the transition year. In addition, there is a clear increase in public goods emphasis in the years leading up to the unambiguous transition. This is consistent with a move towards public goods as the regime in each of those countries began to take on more democratic characteristics.

The question is whether the increase in the production of public goods that follows from a democratic transition will also benefit the poor. The kind of publicly provided resources that would be of most value to the worst-off (e.g. access to health practitioners, pharmaceuticals and teachers) may be targeted towards some voters and not others. Thus, it remains possible that low-income voters will be denied sufficient access to social services because they are not required in order to win the election (Ross, 2006). Thus, it is not immediately obvious that the greater emphasis that democracies place on public goods will entail that they are more pro-poor than autocracies. By extension, democratic leaders may lack an electoral incentive to improve child health among the poorest members of society.

We contend that democratic governments have reason to reduce child mortality irrespective of whether they require the support of the poorest citizens. Public goods such as health care and education generate economies of scale, produce positive externalities and enhance worker productivity. Those three factors mean that middle and upper-income voters have a vested interest in extending access to low-income voters. Firstly, the public provisioning of health and educational resources with high fixed costs, such as hospital and school buildings, means that access can be extended to additional citizens at low marginal cost. Secondly, middle and upper-income voters may receive spillover benefits from improvements in the health and education of the poorest. For example, health interventions such as vaccinations will help to prevent the spread of contagious diseases. Equally, providing health care and schooling to the low-income group may help to reduce the possibility of social unrest. Thirdly, and more importantly, middle and upper-income voters may benefit from the effect of human capital formation on economic growth (Lindert, 2004; North et al., 2009, pp. 142–143, 266). Health care provisioning increases the stock of human capital because healthier workers are more productive, disease-free children tend to learn more and the incentive to privately invest in education increases as survival rates improve (Baird et al., 2016; Bleakley, 2007; Soares, 2005).

In a similar vein Lizzeri and Persico (2004) argue that the industrial elite in nineteenth century Britain supported spending on preventative health measures and public education so as to minimize their exposure to disease and to create a more educated labor force. They go on to argue that it was in the self-interest of the majority of the elite to extend the franchise during the 1800's because it increased the likelihood of policy-making orientated towards those kinds of public goods, rather than targeted spending.

Autocratic leaders may also wish to take advantage of the economic benefits associated with health and education. A regime without access to free resources (i.e. natural resource rents and foreign aid) must rely on economic growth in order to increase the tax revenue to be divided amongst its narrow support base (Besley and Kudamatsu, 2008). At the same time, however, they will be averse to investing in human capital for fear of creating a new economic class that may ultimately threaten their grip on power (Ansell, 2010, pp. 6–7, 9–10; Lindert, 2004, chap. 5). Autocratic leaders without access to non-tax revenues must balance the cost of not enabling economic growth against the risk of empowering the low-income group. We assume, therefore, that they will typically invest less in the health and education of the low-income group than democracies.

The upshot of this is that democratic leaders have a greater incentive to reduce child mortality even if it turns out that they do not require the support of the poorest in order to achieve a winning majority. That is because their ability to obtain sufficient support among non-poor voters may depend on their ability to deliver mortality-averting resources to the poorest. The main implication of this theoretical account is,

Hypothesis 1. *An increase in the level of democracy will reduce the level of under-5 mortality.*

Fig. 2 presents preliminary evidence in support of this hypothesis by examining the association between democratization and