Abstract

Arguably, albeit corruption is one of the most pervasive barriers to the sustainable political, economic and social development of every economy (OECD, 2016; Wang and You, 2012), it is more pronounced in Africa due to the widespread, weak governments regulations and checks on public officials (Bukari and Anaman, 2020; International, 2019; Pelizzo *et al.*, 2016; Collier, 2000). Studies on the distributional effect of corruption at the macro level abound (Dincer and Gunalp, 2008a; Aidt, 2003; Gupta, Davoodi and Tiongson, 2001a; Treisman, 2000; Mauro, 1995). However, while the effect of corruption on deprivation outcomes at the micro-level is still in its infancy (Olabiyi, 2021; Justesen and Bjørnskov, 2014; Mocan, 2008; Hunt, 2007), detailed cross-country evidence particularly in the context of sub-Saharan Africa (henceforth SSA) is nearly non-existent and insufficiently researched. The few studies (Justesen & Bjørnskov, 2014; Hunt, 2007) that examine this subject find that poor people are more likely than the rich to be victims of corruption. In this study, we extend the discussion to address an overarching question of whether and how being a victim of corruption have implications for the victim's deprivation outcomes with a focus on healthcare. We postulate that corruption, which in the context of this study, refers to 'paying a bribe in exchange for public services' not only exacerbate the healthcare cost of the poor but also prevents them from consuming such otherwise free public goods.

Globally, 3.9 billion people forming half of the world's population now lack access to healthcare (thereof health deprived) and over 100 million are pushed into extreme poverty[1] with an extra 150 million at the brink of poverty every year due to healthcare costs (World Health Organization (WHO), 2020, 2017). In the context of this study, unless otherwise stated, healthcare deprivation means an individual going without medical care when he/she needed it. People shouldn't spend more than 10% of their household budget paying for healthcare because exceeding that threshold will be catastrophic. Yet, the proportion of people with such catastrophic health spending due to corruption keeps rising since 2000 (i.e., from 9.7 percent of the world's population to 11.7 percent (WHO, 2019). Projections show that the world's population facing impoverishment solely due to healthcare spending reached one billion in 2020 (WHO, 2020). In terms of deaths, in developing countries, approximately four million people die every year from healthcare deprivation (Kruk, et. al, 2018). Further, 140,000 children die every year due to corruption in the health sector (Global Work Initiative, 2021; Transparency International, 2021a; García, 2019). Estimates show that by 2030, the economic loss of healthcare deprivation could stand at US$ 11.2 trillion (Kruk *et al.*, 2018). To the poor, corruption presents several harsh sets of trade-offs amidst survival. First, the poor constantly need to choose between paying bribes for healthcare and forgoing other necessities like food, rent, water, electricity, etc. At the same time, the poor need to allocate some monies for bribes in exchange for public goods in other sectors too (like the police, school authorities, identification authorities—ID cards, licenses/permits). This equally has two serious implications for the poor. First, it means this vulnerable group has to forgo basic needs of life

[1] As defined by the World Bank of living below $1.90 a day

to fulfil corruption obligations. Secondly, after losing monies to corruption, the poor are weakly positioned to access healthcare because they are financially constrained. Crucially, the overarching question is whether and how corruption worsens the deprivation situation of the poor? Therefore, drawing data on 132,165 individuals across 29 SSA countries from the last three waves of the Afrobarometer survey spanning the period 2011 to 2018, we provide robust empirical cross-country evidence on the corruption-healthcare deprivation nexus at the micro-level.

At the micro-level, there are two predominant theoretical views regarding the impact of corruption: greases the wheels of industry and sand wheels of commerce. Of course, behavioural approaches including the rational choice theory and social learning theory need to be seriously discussed to enhance our understanding of corruption at the micro-level.

Corruption is multifaceted and thus, defies a precise definition. In the context of this study, unless otherwise stated, corruption refers to public sector corruption and it is the act of using power or public office for private gains (Rose-Ackerman, 2007; Aidt, 2003; Jain, 2001). We focus on public sector corruption, specifically bribery— where the less privileged have to pay bribes to public officials to get what is legally and rightly theirs (Basu, 2011) (i.e., to obtain public services). Further, it is important to emphasize that even within bribes, there are several forms. However, for this study, we distinguish two types of bribes all of which are central to our study. First is a bribe to bureaucrats for free public services. The second form of bribe is when a public official charges a price higher than the formal charges for rendering a service. Our motivation for pursuing public sector corruption (in the form of bribes) in general and the health sector in particular stems from two main reasons. First, globally, US$2.6 trillion is lost to corruption annually and bribes alone account for over 67 percent (US$1.75 trillion) of the overall corruption cost (Transparency International, 2021b; Guterres, 2018).

Within the developing world, $1.26 trillion is lost every year owing to corruption (Fleming, 2019). In the context of poverty reduction, the $1.26 trillion is enough to move about 1.4 billion poor people above the poverty line of $1.25 per day and even sustain them for a minimum of six years (Fleming, 2019). Further, in developing countries, close to 30 percent of all development aids (including anti-poverty and health aids) are stolen through public sector corruption (OECD, 2016). Specific to the health sector, evidence regarding the impact of corruption is disturbing. Worldwide, out of the $7.5 trillion allocated to the health sector annually, $500 billion is lost to corruption and regrettably, this amount is more than enough to achieve universal health coverage for everyone by 2030 (Global Work Initiative, 2021; Transparency International, 2021a; García, 2019).

Using coarsened exact matching method, we implemented the Mahalanobis distance matching techniques in addition to instrumental ordered probit estimation, Lewbel (2012) two-stage least squares estimator and multilevel mixed-effect models. We find that bribe payment not only negatively affects healthcare deprivation but also the frequency matters most. Further, we find strong evidence of the spillover effect of corruption in other sectors on healthcare deprivation but regrettably, this effect is harmful.