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Health Costs of a "Healthy Democracy": The Impact of Peaceful Political Protests on Healthcare Utilization

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Abstract

Peaceful protests are one of the most common and effective forms of political action worldwide. But they may have negative spillovers on health-seeking behavior. Using an instrumental variable approach that leverage variations in national sporting events and combining data on politically disruptive events from the Armed Conflict Location & Event Data (ACLED) project with information on healthcare utilization from the Bangladesh Demographic and Health Surveys (DHS), we show that peaceful protests reduce healthcare utilization among mothers with young children. Prenatal and postnatal care, vaccination rates, the likelihood of visiting a hospital facility if a child is unwell, and hospital deliveries all decrease in response to protests, while home deliveries increase. The effect is stronger for more elastic demands, like facility visits for minor illnesses and timely vaccinations. Security concerns and traffic congestion, which increases the time and costs of accessing health facilities, appear to be two potential mechanisms. The findings are not a criticism of peaceful protests, which we consider both an essential tenet and a by-product of a strong democracy, but instead seek to draw attention to an often ignored cost associated with it.

Keywords: health-seeking; political violence; protests; non-violence; cricket; Bangladesh *JEL Classifications:* D74, H11, I12, I18, I31, P16 *Declarations of interest:* None.

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"What difference does it make to the dead, the orphans and the homeless, whether the mad destruction is wrought under the name of totalitarianism or the holy name of liberty or democracy?"

- Mahatma Gandhi (1940).

1 Introduction

'Protesting peacefully', a constitutional right in most strong and flawed democracies around the world, is a quintessential way to highlight one's dissatisfaction with the status quo (Madestam et al., 2013; Gehlbach et al., 2016; Passarelli and Tabellini, 2017; Sangnier and Zylberberg, 2017; Cantoni et al., 2019; El-Mallakh, 2020; CHR, 2021). From the 1913 Woman Suffrage Procession in Washington D.C. (USA), the 1930 Salt March in Gujarat (India), the 1955 Montgomery bus boycott and 1963 March on Washington in the US, to the Estonian Singing Revolution in 1988, history is littered with examples of how such protests have incited significant political and economic changes.¹ But the health costs such protests may impose on the society, both in the short and the long run, have not received enough attention. On one hand, such protests may improve representation, competition for public offices, and accountability of leaders ensuring greater attention to health issues (Acemoglu and Robinson, 2006; Besley and Kudamatsu, 2006; Fujiwara, 2015). On the other hand, the freedom of expression and assembly, which are both essential tenets and by-products of democracy, could allow people to spread misinformation or engage in activities that can be detrimental to their individual and collective health (Kata, 2012; Venkatraman et al., 2015; The Telegraph, 2018; Bangkok Post, 2018; Puri et al., 2020; Cecco, 2020; Wilson and Wiysonge, 2020).²

There are at least two ways in which peaceful protests may negatively affect population health.³ First, there is often no telling if or when a peaceful protest can turn violent. This fear might prevent people in need of health care from visiting healthcare providers, even when the threat does not materialize.⁴ Health professionals too might choose to not work on protest days, which might further impact

¹See Sharp (2005) for a fascinating account of non-violent protests in the twentieth century. Political protests can emerge, among many other reasons, as emotional reactions to unfair treatments from the state (Passarelli and Tabellini, 2017), as a mode to update trust and send signals to the public about incumbent institutions (Sangnier and Zylberberg, 2017), or as an individual's strategic decision making process in complementary (Gehlbach et al., 2016) or substitutable (Cantoni et al., 2019) collective action. More often than not, the purpose is to influence policy preferences and incite political change (Madestam et al., 2013; El-Mallakh, 2020).

²On a related note, while it would seem reasonable to propose that democracy, a political system where citizens wield the power to make political choices and hold elected representatives accountable, promotes population health, the relationship has proven difficult to establish or refute empirically (Ross, 2006; Gerring et al., 2012; Acemoglu et al., 2015). There is no dearth of studies that document the association between democracy and health. However, as Besley and Kudamatsu (2006) points out, many hard-to-measure economic, social, and cultural changes may improve health and democracy simultaneously. Mulligan et al. (2004) finds little difference between the public policies in democracies and autocracies.

³We use the terms 'peaceful' and 'non-violent' interchangeably to describe protests or demonstrations where there were no deaths, injuries, or destruction of property. Peaceful protests can be viewed as strategic reactions to coercive apparatuses of the state by unarmed people using collective action to achieve political change.

⁴For example, the perceived risks of experiencing sexual or physical violence affect women's choice of colleges in India and decision to work in Mexico (Velásquez, 2020; Borker et al., 2021). Fear can also generate psychological stress. Stress, especially during pregnancy, can be detrimental to *in utero* child's long-term health and development. Bharati (2022) shows that children born to military families in India around the time of the Kargil War had worse educational outcomes ten years later even when the families did not experience any loss of life or income during the War. See also Black et al. (2016) and

people's propensity to seek health care on such days.⁵ Second, protests may delay and obstruct traffic, impacting the time and monetary costs of health care provision and utilization (Boss, 2015; Keith, 2021; Layton, 2021; NZ Herald, 2022). With a general rise in all forms of protests worldwide, including peaceful demonstrations, it is crucial that we better understand the price we pay to strengthen our democracies and protect our fundamental rights (Carothers and Youngs, 2015; Chenoweth, 2020; CHR, 2021).

We attempt to fill this gap with evidence from Bangladesh. In the past two decades, Bangladesh has made great strides in addressing many public health issues. But much remains to be achieved (Chowdhury et al., 2013). For example, Bangladesh is yet to achieve its maternal mortality target of 50 out of 100,000 live births by 2024. As of 2017, the ratio remained at 173 maternal deaths (World Bank, 2019). Most mothers still deliver at home without a skilled attendant and Pal (2015) shows that mortality risks can be more than halved from 14% to about 6.6% among adolescent women only if they choose to deliver at a health facility. The political turmoil in the country has also deepened, causing rapid fluctuations in the frequency of protests (Feldman, 2015). The extent to which these political disruptions, like peaceful protests, have limited health-seeking is, therefore, an important question.⁶

For our analysis, we combine daily data on political disruptions in Bangladesh over 2010-2018 from the Armed Conflict Location and Event Data (ACLED) Project (Raleigh et al., 2010) with maternal and child health data from 2011, 2014, and 2017-18 waves of the Bangladesh Demographic and Health Survey (DHS) using the date and sub-district of the interviews. The fine temporal and spatial match we achieve allows us to include a host of fixed effects. Since the location and timing of peaceful and non-peaceful protests are likely to be correlated with other location-specific time-varying factors that may also affect healthcare utilization, we use an instrumental variable technique to infer causal effects of the different types of political disruptions. The instrument we construct leverages two contextual pieces of information about Bangladesh. First, political disruptions of different types, in particular peaceful and non-peaceful protests, tend to be temporally correlated within locations in Bangladesh. Second, cricket is an extremely popular sport in Bangladesh, and political disruptions are significantly less likely on game days. We use the interaction of the number of game days during a period and the number of disruptions in the *lagged* period to predict the number of disruptions during the period. We do this separately for different types of disruption events, including peaceful protests. Detailed cricket match data comes from Cricsheet.⁷ Game days crowd out a higher number of disruptions in regions that had witnessed a higher number of disruptions in the immediate past.

Persson and Rossin-Slater (2018).

⁵The problem may be worse in regions with already fewer medical workers, where health professional absenteeism is high, and where health professionals may themselves be out protesting.

⁶We define political disruption as any political man-made event that hampers the functioning of daily activities, which may or may not be violent in nature. Since peaceful protests may endogenously evolve into a violent event, we also control for all other forms of political disruptions in our specifications.

⁷*Cricsheet* publicly provides high-quality structured data for cricket games, including ball-by-ball data on all international and different T20 League games and identifier (register) mapping of people involved in cricket.

Using the method, we first establish that political disruptions have a significant negative effect on hospital facility use in the two weeks prior to the survey, hospital delivery, prenatal and postnatal care, and timely and complete vaccinations. Home deliveries increase. More importantly, these effects are driven by protests and, in many cases, by peaceful protests. The effects of peaceful protests are stronger for health requirements that appear to be more elastic, like vaccinations and health facility visits if the child was sick.⁸ An increase in peaceful protests by one standard deviation decreases visits to the hospitals by around four percentage points and decreases the likelihood of having completed all required first-year vaccinations by around seven percentage points. It also causes the likelihood of home deliveries to increase by around five percentage points. Consistent with the well-documented gender gap in health investments in South Asia, we find indications that the negative effect of protests might have been larger for investment in female children (Asfaw et al., 2010; Bhalotra et al., 2010; Jayachandran and Kuziemko, 2011; Barcellos et al., 2014; Kabeer et al., 2014; Fakir and Khan, 2015; Jayachandran and Pande, 2017; Asadullah et al., 2021).

We conduct a range of heterogeneity checks to shed light on the potential pathways through which peaceful protests affect healthcare utilization. Public health care facilities do not stop operating during peaceful protests, which suggests supply-side disruptions are unlikely to be dominant mechanisms. If the results are driven by demand-side mechanisms, they are likely to be stronger for mothers (or households) who perceive higher risks from traveling to a health facility during peaceful protests. Nearness to the health facility and information about the peacefulness of the protests are two of the many factors that might influence the estimate of the risk associated with traveling to a health facility on a protest day. Consistent with the demand channel, we find that the usage of health care, especially for inelastic demands like the place of delivery, tend to respond more to peaceful protests for mothers who lived further from a health facility, in regions where there were fewer medical workers per capita and travel speed was slower, and among women with lower frequency of television use (the most important source of updated information). These patterns are robust to controlling for the distance to the nearest health facility and the mobile phone usage rate of health professionals in the community, suggesting they do not capture the supply-side disruptions. The suggestive evidence in favor of demand-side mechanisms is also consistent with the findings from Berman et al. (2016) and Molina (2020).

Next, we zoom in on the transportation barriers during peaceful protests. Previous studies have documented a decline in health-seeking behavior due to transportation barriers (Schaller et al., 2019; Gage, 2007; Stekelenburg et al., 2004; Valdivia, 2002). Peaceful protests can affect local transportation facilities in two ways. First, the fear of a peaceful protest turning violent may cause transportation sector workers to take their privately-run ride-sharing vehicles off the roads on protest days. Second, protests, especially in busy urban regions, can increase local traffic congestion, thereby increasing the

⁸This is consistent with Velásquez (2020) who finds that those with relatively elastic labor supply respond more to drug-related violence in Mexico.

travel time and monetary costs of accessing healthcare facilities. It is a particularly important consideration when deciding where to deliver the baby once pregnant women start experiencing uterine contractions. Consistent with the second hypothesis, we show that travel time increases significantly on protests days, including during peaceful protests, leading to a decline in health-seeking behavior in these regions.⁹

Our analysis and findings contribute to several strands of literature. First, we contribute to the broad literature exploring the determinants of health-seeking behavior and healthcare utilization (Thompson et al., 2003; Ahmed et al., 2006; Gamlin, 2013; Corno, 2014; Schaller et al., 2019; Manang and Yamauchi, 2020). Second, in documenting the effect of political disruptions, violent and non-violent, we add to the large literature on the impact of politically-motivated conflict on health and health-seeking behavior (Bundervoet et al., 2009; Akresh et al., 2011; Chamarbagwala and Morán, 2011; Mansour and Rees, 2012; Duque, 2017; Molina, 2020; Shemyakina, 2021). But, to the best of our knowledge, we are the first to provide empirical evidence that even peaceful protests can have unintended adverse impacts on health-seeking behavior. Unlike in the case of the effect of violent events on health where is it almost impossible to distinguish between the different economic, political, physical, and psychological mechanisms, we also make headway in understanding the mechanisms through which political disruptions, especially peaceful protests, affect health-seeking behavior.

Finally, the correlation between cricket games and political disruptions that we document for our instrumental variable relates to the nascent literature on the far-reaching effects of sporting events (Bertoli, 2017; Depetris-Chauvin et al., 2020). Sports have been shown to divert attention from domestic turmoil (Amarasinghe, 2022) and influence tipping behavior (Ge, 2018), family violence (Card and Dahl, 2011), student performance (Metcalfe et al., 2019), and stock returns (Edmans et al., 2007). While most previous studies use football matches, we show that cricket, by far the most popular sport in the Indian subcontinent, can similarly influence country-level outcomes.

2 Background

Historically, peaceful protests have maintained a strong presence in South Asia. From the mass migration in 1665-66 (during the region of Mughal Emperor Aurangazeb) by the merchants of Surat in protest against oppression by a local *qazi* (judicial officer) (Hardiman, 2003, p.41) to the 1873 protest by peasants against the oppression of the *zamindars* (landowners) in Pabna (Sengupta, 1974, p.57), the use of peaceful protests as a strategic political tool remain unabated in South Asia.¹⁰ Protests, noncooperation and nonviolent interventions also played a critical role in the formation of Bangladesh's nationalistic sentiment during the Bangla language movement of 1948–1952 (Kabir, 1987), and the preamble to the liberation war through a non-violent civil disobedience movement between March

⁹Admittedly, this can also increase the time it takes health care professionals to reach the facility. However, as we show in the top panel of Appendix figure A6, health care professionals interviewed in the survey tend to live closer to health facilities on average. The impact of traffic congestion is likely to be smaller for them.

¹⁰See Hardiman (2013) for a brief history of peaceful protests in South Asia.

1–25, 1971 (Karunakaran, 1971; Hossain, 2013). Post-independence, peaceful protests remained a strong component of political disruptions in the country. To better comprehend the impact protests, even peaceful ones, can have on the implicit risk assessment of individuals, it is important to understand contextual background for the decade in question.¹¹ The high-level contributing factors to protests, both violent and peaceful, during 2010-18 can be broadly summarized into the following three categories:

- 1. Electoral politics: Bangladesh's political arena can be broadly characterized as a two-party system dominated by Awami League (AL), leading a 14-party alliance, and Bangladesh Nationalist Party (BNP), leading an 18-party alliance. However, between 2010 and 2018, despite impressive economic progress, Bangladesh came to be identified as an "open anocratic¹² state with a highly polarized electorate" (Sáez, 2018, p.127), with some identifying Bangladesh as an electoral authoritarianism (Riaz, 2021). After winning the 2008 elections, AL stifled the opposition using arrests and repression of BNP activists under various grounds, using the court system politically to push forward corruption cases against opposition leaders. This incited political disruptions throughout the country (D'costa, 2012). AL initiated two notable political processes. First, the commencement of the International Crimes Tribunal to prosecute suspects for atrocities committed during the liberation war by local collaborators. Several opposition leaders from BNP and Jamaat-e-Islami (JI), the largest Islamist political party in allegiance with BNP, were arrested as war criminals. The life-sentence verdict of one of the JI leaders led to waves of protests throughout the country with BNP and JI terming it as political vendetta but many young students and activists demanding capital punishment (Sabur, 2013; Huq, 2018). Second, by taking advantage of their absolute majority in the parliament, AL abolished the caretaker government¹³ system in Bangladesh. This led to BNP boycotting parliamentary sessions with regular strikes and calls for factory, school, and road closures, and refusal to participate in the next elections. This was further fueled by a supreme court ruling that banned JI from national politics. With an abysmal 22% voter turnout, AL won the elections again in 2014 with 232 out of 300 seats under criticisms of a rigged election (Riaz and Parvez, 2021). The year since is identified as the most disruptive with BNP continuing their riots and protests demanding a second election under a neutral caretaker government (Feldman, 2016).
- 2. Labor rights: Although the ready-made garments (RMG) sector has created many opportunities for Bangladesh, employing over 4 million workers and contributing to over 81% of export earnings (Shonchoy, 2017), the industry also triggered a "deformed development" process embedded in exploitative low wages, poor worker safety regulations, and labor rights (Rahman, 2013). Much of 2010-18 has seen fluctuating levels of riots and protests led by RMG workers in their demands for just compensation, further propagated by recurring factory fires and collapses resulting in the death of hundreds of laborers. In particular, the Rana Plaza factory collapse in

¹¹We do not discuss events that only contributed to violence, such as terrorist attacks and activities by militancy groups. ¹²Anocracy refers to governments that are neither fully democratic nor fully autocratic but, rather, combine an often

incoherent mix of democratic and autocratic traits and practices (Marshall and Cole, 2014, p.21).

¹³A temporary but neutral *ad hoc* government established to oversee elections and ensure a smooth transfer of authority.

2013 initiated a national journey towards redemption through increases in wages and efforts towards unionization that, albeit some progress, continue to face significant opposition from factory owners (Bair et al., 2020). This has created a perpetual pendulum of labor strikes and protests throughout the country.

3. **Civil rights & state governance:** The decade in question was also rife with civil rights protests against repressive and poor state governance. The reasons are multi-faceted and involve various actors ranging from human rights activists, journalists, students, and teachers. Of particular note is the draconian Section 57 of the Information and Communication Technology Act (later the Digital Security Act) that pushed forward a culture of fear and intolerance by stifling freedom of expression among writers and journalists speaking out against the government (Riaz, 2019; Bari and Dey, 2019; Azad, 2021). Its enactment triggered numerous arrests and "disappearances" inciting a continuous stream of protests from journalists and human rights activities (Feldman, 2015; Islam, 2022). The protests peaked after brutal murders of secularist bloggers by religious extremists for advocating the separation of religion and state. Student-led protest movements also sparked following an attempt to tax education (Anjalin, 2020), for reform to civil service quotas, and for improved road safety (Jackman, 2021). Protests stemming from this sub-group of actors were mostly peaceful in nature.

3 Data

3.1 Health-seeking behavior

Information on healthcare utilization comes from 2011, 2014, and 2017-18 waves of the Bangladesh Demographic and Health Survey (DHS). In each wave, the DHS collects detailed data on maternal and child health from a stratified random sample of households representative at the national and divisional levels. The survey collects detailed fertility and birth history information for 15 to 49 year-old women. For children below the age of 60 months, the exact date of birth information is also available. Mothers are asked questions about the place of delivery and vaccination coverage, including the date of vaccination received, for all their children born in the three years prior to the interview. Details about prenatal and postnatal care received for the most recent pregnancy is also recorded. Further, mothers were also asked whether their children were sick in the last two weeks and if so, whether they were taken to a health facility for consultation or treatment.

For our analysis, we construct the following indicators of health-seeking behavior that we use as our main outcome variables: hospital facility utilization in past two weeks if the child was ill, place of delivery of the child (home/hospital/other), at least one prenatal hospital care visit during pregnancy, at least one postnatal care checkup of the child within 2 months since birth, full vaccination coverage of the child within 1 year since birth, and timely vaccination coverage of the child within governmentmandated periods. For hospital facility utilization, the data is merged with political disruptions and cricket game data on the survey interview date, while the other outcomes are merged on the birth date of the child. DHS provides the centroid of each enumeration cluster which we utilize to identify households at a sub-district level. Our final merged sample contains about 17,000 children with varying degrees of missing data for each of the indicators depending on the age of the child at the time of the survey. The DHS survey is also rich in detailed respondent-level and household demographic information that we use as controls listed in section **4**. Panel A of Appendix table A2 provides the summary statistics for our sample.

3.2 Political disruptions & peaceful protests

We use daily political disruption events data, between 2010 and 2018, from the Armed Conflict Location and Event Data (ACLED) Project (Raleigh et al., 2010). ACLED collates daily articles from national and regional newspapers available online to identify political disruption events.¹⁴ ACLED provides the exact date and geo-coded origin location of the event and includes an extract from the newspaper article about the recorded disruptive event. The date and location information allows us to match the event with the birth date of children (or survey date) and the location of households at the sub-district level in the DHS dataset. The newspaper article helps us to further confirm the violent or non-violent nature of events. For each recorded event, ACLED categories them into 6 event types as follows: Battles, explosions/remote violence, protests, riots, violence against civilians, and strategic developments (ACLED, 2019).¹⁵ From the protests are identified as events where "demonstrators are engaged in a protest while not engaging in violence or other forms of rioting behaviour and are not faced with any sort of force or engagement (ACLED, 2019, p.13)."¹⁶

ACLED contains a total of 15,125 political disruption events, spatially distributed across Bangladesh between 2010 and 2018. The large count of disruption events is admonitory of the chaotic political turmoil of the period, outlined in section 2.¹⁷ Among them, there were 3,520 protests (23.27%) of which 2,945 were peaceful in nature (19.47%). Exploring the actors/groups behind the peaceful protests is perhaps more interesting for better understanding the dynamics of the prevailing political

¹⁴The sources with the highest prevalence are from United News of Bangladesh (36.61%), The Daily Star (29.48%), New Nation (9.58%), Financial Express (8.42%), South Asia Terrorism Portal (6.39%), and Bangladesh Government News (2.70%). Note that ACLED does not collate data from newspapers in the local language, Bengali. Thus, any event that was reported only in Bengali newspapers would not be captured with ACLED. However, important disruptive events are likely to be reported in both Bengali and English newspapers. Thus, we believe any under-reporting would be minimal.

¹⁵Strategic developments form only 1.49% (n = 226) of the reported events in our sample. This category captures "contextually important information regarding the activities of violent groups that is not itself recorded as political violence, yet may trigger future events or contribute to political dynamics within and across states. The inclusion of such events is limited, as its purpose is to capture pivotal events within campaigns of political violence" (ACLED, 2019, p.14). As such, the events listed in this category may or may not be disruptive in nature. Exclusion of this category does not affect our results.

¹⁶It is important to note that ACLED does not 'double count' events, and provides priority to violent events over nonviolent ones in their coding. If two events between the same actors in the same location are reported, they are typically noted as a single aggregate event. For example, if "demonstrators stage peaceful protests but also engage in clashes with the security forces, only a single riot event is recorded" (ACLED, 2019, p.16). While this is helpful to us to identify days and locations with only peaceful protests, this also limits our analysis of the intensive margin using the dataset.

¹⁷Appendix figure A1 plots the temporal distribution and Appendix figure A2 shows the spatial distribution of political disruptions and the share of peaceful protests in all political disruptions in Bangladesh. There is significant temporal and spatial variance in the events.

climate. Appendix table A1 breaks down the initiating actors of the number of peaceful protests and political disruptions by major political parties and civil groups. Expectantly, major political parties and their student wings participate in up to 56% of violent political disruptions, while about 25% of peaceful protests. Civil groups take part in the majority of the peaceful protests, up to 55%, with students not associated with any political parties taking up about 27% of the share. On the other hand, civil groups are not as active in violent political disruptions with a share of about 24%, where students contribute to almost 20%. This is expected given the active role of student politics in Bangladesh.¹⁸ It is important to note that health workers rarely participate in political disruptions. This makes the potential mechanism that healthcare provision is impaired due to the direct participation of health workers in political disruption events very unlikely. Panel B of Appendix table A2 further provides the summary statistics for our merged sample with DHS.

3.3 Cricket

Detailed cricket game data is obtained from Cricsheet which is an open project that provides ball-byball game data for men's and women's test games, one-day internationals (ODI), T20 internationals, and Bangladesh premier league games, among others. The date and location of the game including the stadium, team composition, and the result of the game are also available. The birth district of each player of the Bangladesh cricket team is obtained from the Bangladesh Cricket Board. We identify all the games in which the Bangladesh cricket team had participated between 2010 and 2018 that we use in our analysis. There were a total of 475 game days during this period (255 test, 148 ODI, and 72 T20 game days) with an overall winning percentage of 32.85%. About 57% of the games were played in Bangladesh and a total of 110 different male and female players from 37 (out of 64) districts participated in the 475 games, distributed over games and time.¹⁹

3.4 Other data

The DHS surveys provide information on whether the mother watches TV and the distance to the nearest health facility which we use in our heterogeneity analysis to explore mechanisms. DHS also contains detailed service provision assessment (SPA) surveys for Bangladesh which we utilize to obtain the number of available medical workers in each enumeration cluster. Sub-district-level projected population data is obtained from AidData GeoQuery²⁰ to then estimate medical workers per capita. This is also matched at the sub-district level and used in our heterogeneity analysis. Daily transportation time (by car) is scraped from Google Maps Platform²¹ at the sub-district level for a 5 km route

¹⁸See Nasrin et al. (2019) for a history of student politics in Bangladesh, and Hossain et al. (2014) for a qualitative study of its changing scenario.

¹⁹Admittedly, women's cricket games are not as popular as men's cricket games in Bangladesh (Karim, 2018). While we show the results with both men's and women's games combined, our results still hold if we use only men's cricket games. Women's cricket game days constitute < 10% of all game days.

²⁰Housed at William & Mary University's Global Research Institute, *AidData* provides granular data for development research.

²¹Google uses data from moving GPS sensors installed in (android) smartphones utilizing mobile crowdsensing techniques combined with historical averages to estimate traffic trajectories (Nagy and Simon, 2018). This requires enough smartphone users with location-tracking enabled. As such, the transportation time data should be treated only as proxies.

from 2010 to 2018. Routes from each sub-district were selected such that the road passes through city centers/towns/villages in the sub-district and new roads/expressways/bridges/flyovers that were built since 2010 were avoided to maintain consistency. Since we do not know the exact timing of the political disruptions, we scrapped data for starting times of 12 PM and 5 PM, and the average minutes/km was noted.

Finally, we use daily nighttime lights data from NASA-VIIRS VNP46A2, aggregated at the subdistrict level, as a proxy of economic activity (Beyer et al., 2018). This helps us better understand the economic effects of political disruptions and cricket games. NASA-VIIRS VNP46A2 is a part of NASA's Black Marble product suite produced daily from January 19, 2012, at 500m resolution using a Day-Night Band (DNB) sensor. Nighttime lights are bidirectional reflectance distribution function (BRDF)adjusted and corrected for atmospheric, and seasonal effects, that result in larger noise reduction levels compared to top-of-atmosphere data (Román et al., 2018). Appendix figure A3 shows that nightlight intensity is lower on days with protests, suggesting disruptions to economic activity on protest days.

4 Empirical Strategy

Using the data described above, we examine the effect of political disruptions on the health outcomes, h_{isdmy} , of child *i* living in sub-district *s* born on day *d* of month *m* and year *y*. We estimate:

$$\text{Health}_{isdmy} = \alpha + \sum_{k \in K} \beta_1^k \underbrace{\text{Disruptions}_{sdmy}^k}_{spatial \times temp.} + \beta_2 \mathbf{X}_{ismy} + \beta_3 \mathbf{D}_{ismy} + \underbrace{\gamma_{sy} + \phi_m + \mu_d}_{FE} + \varepsilon_{isdmy} \tag{1}$$

where,

$$ext{Disruptions}_{sdmy}^k = \sum_{ au=d-l}^d \# ext{ disruptions}_{s au my}^k$$

The # disruptions^k_{stmy} is a standardized value of the count of the number of political disruptions of type k in sub-district s summed from l days prior to day d of month m in year y. Here, k represents mutually exclusive and collectively exhaustive grouping of the following disruption events: all political disruptions, all protests, all other political disruptions, peaceful protests, all violent political disruptions.²² l depends on the outcome of interest. For example, l = 14 days when calculating the total number of disruptions that are likely to affect hospital facility utilization in the fortnight prior to the survey. Similarly, l is equal to prior 1-month, prior 9-months, post 2-months, and post 1-year, when the outcome variable is the place of delivery, prenatal care, postnatal care, and vaccination, respectively. The day, month, and year are child *i*'s date of birth when the outcome variable is the place of delivery, prenatal care, postnatal care, or child vaccination measures. For specifications where the outcome variable is the use of hospital facility utilization for illnesses in the fourteen days prior to the

 $^{^{22}}$ Such that, all protests + all other political disruptions = all political disruptions, and peaceful protests + all violent political disruptions = all political disruptions.

date of interview, the day, month and year used denote survey interview date.

We include sub-district-year fixed effects (γ_{zy}) to control for time-varying differences across subdistricts, like weather conditions or topography, that might be correlated with the dependent and the independent variables. We also include the month of the year (ϕ_m) and day of the month (μ_d) fixed effects to further control for confounding factors like seasons and paydays. \mathbf{X}_{ismy} is a vector of respondent-level controls that includes a child's gender, child's age in months (quadratic), mother's level of education (category fixed effects), mother's age (quadratic), and whether the mother is a Muslim. Similarly, \mathbf{D}_{ismy} is a vector of demographic controls that contains household wealth score quintile (category fixed effects), type of residence (rural/urban), whether the household head is female, age of the household head in years, household size, number of women aged between 15 and 49 years in the household, number of children aged under 60 months in the household, and the number of surviving children that the mother has. For all estimations, standard errors are clustered at the sub-district level. We have 430 out of 492 sub-districts of Bangladesh in our sample.

A key issue in trying to identify the impact of disruptive events is that these events, like other forms of violence, is likely not exogenous. There may be common factors, like income growth, that may influence both health-seeking behavior (Health_{isdmy}) and the frequency and intensity of disruptions (Disruptions_{sdmy}) in an area. The estimate β_1 , in such cases, will not reflect the causal effect of disruptions on health-seeking behavior. There are a few things we do to address this concern. First, it is useful to note that many of the health outcomes we examine are dependent on the exact date of birth within a year. Since the timing of conception could not have responded to future disruptive events (and their locations), exposure intensity is likely to be exogenous within sub-districts. With sub-district-year fixed effects included in the specification, we identify the effects from the variation in exposure to disruptions within a sub-district and year.

Second, we use an instrumental variable (IV) approach to rule out potential confounders. To construct an instrument for political disruptions, we leverage two contextual details about Bangladesh. First, political disruptions in Bangladesh tend to be temporally correlated. Appendix figure A4 reports the association between political disruptions in adjacent months within sub-districts. There is a strong positive association between disruptive events across time. Second, cricket, a sport played mostly in Commonwealth countries, is extremely popular in Bangladesh. Non-essential facilities are sometimes shut down on game days (Paul, 2014). For example, Ahmed (2011) reports that "Business came to a standstill in the port city of Chittagong on Monday after a public holiday was declared to allow Bangladeshi fans to follow their team's World Cup match against the Netherlands. Instead of the usual hustle and bustle seen on the streets, roads were left virtually deserted as fans sat transfixed in front of their televisions and cheered on." In fact, some have argued that the fascination with the sport has distracted the country from pursuing more important goals like mitigating chronic poverty (Mir, 2019). Figure 1 and Appendix figure A5 shows that the cricket craze also impacts the timing of political disruptions. Such events are significantly lower on game days.²³

Combining these two observations, we instrument for political disruptions during a period of interest using the interaction of the number of cricket game days during the period and the number of political disruptions in the sub-district in the *lagged* period. This is based on the conjecture that the opportunity cost of organizing disruptive events is likely to be higher on days with cricket games. Since the demand (and supply) of health care could be different on game days or during a period following heavy political disruptions for reasons other than the contemporary level of political disruptions, we control for these two variables separately in both stages. The instrument leverages a combination of two sources of variation. First, conditional on the level of political disruptions in the lagged period in a sub-district, a period with a higher number of game days is likely to witness fewer political disruptions than a period with fewer game days. We show this in Figure 2 where the level of contemporary political disruptions decreases with more game days for each level of lagged political disruptions. Second, cricket games are likely to crowd out more disruptions in regions with high levels of disruptions. This means the strong correlation between contemporary and lagged levels of disruptions we present in Appendix figure A4 should be weaker during periods with a higher number of cricket game days.²⁴ Figure 2 shows this to be the case. During periods with around ten game days, the contemporary level of political disruptions does not change with the lagged level of political disruptions. In comparison, for periods with a small number of game days, the contemporary levels of disruptions change rapidly with changes in lagged levels of disruptions.

We estimate:

1st stage: Disruptions^k_{sdmy} =
$$a + b_1$$
Disruptions^k_{s(d-l-1)my} × Games_{dmy} + b_2 Disruptions^k_{s(d-l-1)my}
+ b_3 Games_{dmy} + b_4 W_{ismy} + b_5 E_{ismy} + ω_{sy} + ψ_m + ν_d + ϵ_{sdmy}
(2)

where

Disruptions^k_{s(d-l-1)my} =
$$\sum_{\tau=(d-2l-1)}^{(d-l)} \#$$
 disruptions^k_{s\taummamy}

and

$$\operatorname{Games}_{dmy} = \sum_{\tau=d-l}^{d} \mathbb{1}(\operatorname{Game}_{\tau my})$$

In other words, we use the interaction of the number of protests in the lagged period and the number of game days in the current period to predict the number of protests in the current period. Conditional on the number of game days during a period and the lagged level of political disruptions,

²³Bangladesh is not alone in this. For example, Berger et al. (2016) mention that widespread violence in Côte d'Ivoire was generally low when the national football team was competing in the Africa Cup of Nations.

²⁴The intuition is akin to a shift-share instrument, where the national level 'shift' (cricket game days) are likely to disrupt activities (political disruptions) in proportion with existing 'shares' of that activity in different regions (past intensity of political disruptions across regions).

the interaction of these two variables is unlikely to affect health care demand or supply through channels other than impacting the number of political disruptions during the current period. In other words, the instrument is likely to satisfy the exclusion restriction. We then use the predicted number of disruptions in the current period in the following second stage:

2nd stage: Health_{isdmy} =
$$\alpha + \sum_{k \in K} \beta_1^k \widehat{\text{Disruptions}}_{sdmy}^k + \beta_2 \widehat{\text{Disruptions}}_{s(d-l-1)my}^k + \beta_3 \widehat{\text{Games}}_{dmy} + \beta_4 \mathbf{X}_{ismy} + \beta_5 \mathbf{D}_{ismy} + \gamma_{sy} + \phi_m + \mu_d + \varepsilon_{isdmy}$$

(3)

We also present results from an alternative IV specification in section 7 where we use the interaction of game days with whether a player born in the district played in the game or whether the game was played in the district to instrument for political disruptions in the district. In this alternative setting, we cannot carry out the analysis at the sub-district level because the birth sub-district of the cricket players is not always available. We estimate:

1st stage alt: Disruptions^k_{gdmy} =
$$a + b_1 \text{Games}_{dmy} \times \text{Local}_{gdmy} + b_2 \text{Games}_{dmy} + b_3 \text{Local}_{gdmy} + b_4 \mathbf{W}_{ismy} + b_5 \mathbf{D}_{ismy} + \omega_{gy} + \psi_m + \nu_d + \epsilon_{gdmy}$$
 (4)

where Local_{gdmy} denotes whether a game was played in district g on day d of month m in year y or whether a player from the district played the game. These alternative instruments use the observation that games in the district or in which a locally born player plays usually attract a larger audience from the district.

5 Results

5.1 Hospital care utilization

Table 1 reports the relationship between political disruptions and hospital care utilization around the time of the survey interviews. In all specifications, the dependent variable is whether a child was taken to a hospital if the child was unwell in the two weeks prior to the survey. We begin by examining the association between political disruptions and hospital care utilization in Column (1). In Column (2), we split all disruptions into protests and all other forms of political disruptions. The reason for this categorization is that all protests are meant to be peaceful but some, unfortunately, evolve into violent events. In Column (3), we re-categorize the events into peaceful protests and all other forms of political disruptions. Here, the latter category also includes protests that were meant to be peaceful but led to violence against people or the destruction of property. In all our specifications, in this table and the ones that follow, the types of events included are mutually exclusive and collectively exhaustive. We find that hospital care utilization is negatively associated with all disruptions, all protests, and all peaceful protests in Columns (1), (2), and (3), respectively. One standard deviation (SD) increase in all political disruptions decreases hospital care utilization by around three percentage points. As

expected, much of the effect is driven by violent disruptions. But protests and, in particular, peaceful protests too have a significant negative effect on hospital care utilization.

The location and timing of political disruptions are not random. For example, these disruptions could be more common during periods and in regions where people are unsatisfied with the public health infrastructure. The OLS coefficients, as a result, could be biased estimates of the *effect* these disruptions have on hospital care utilization. To address this potential issue, we move to the instrumental variable approach described in Section 4. To reiterate, we predict the number of different types of disruptions in a sub-district during a relevant period (here, in the two weeks prior to the interview) using the interaction of the number of cricket game days in the period and the number of similar disruptions in the lagged period (here, the third and the fourth weeks prior to the interview). The instrument is based on the observations that disruptions tend to be temporally correlated within sub-districts and there are far fewer disruptions on game days (see Appendix figure A4 and Figure 1).²⁵ Appendix table A3 presents the corresponding first-stage. The instruments we construct for the different types of disruptions perform well at predicting the frequency of those disruptions.

Returning back to Table 1, Columns (4) to (6) present the results from the instrumental variable approach. We find a strong negative effect of political disruptions on hospital care utilization. An increase in political disruptions by one SD decreases hospital care utilization by around 11 percentage points. Protests have a somewhat stronger effect than other forms of political disruptions. Unsurprisingly, violent protests have a stronger effect than peaceful disruptions. An increase in violent disruptions by one SD decreases hospital care utilization by around seven percentage points. This is consistent with Molina (2020) who finds around a five percentage point decrease in hospital care utilization due to a one-SD increase in conflict in the Philippines. More interesting from our perspective is the significant negative effect of peaceful protests. A one-SD increase in peaceful protests decreases hospital care utilization by around four percentage points. To the best of our knowledge, we are first to document that peaceful protests can also decrease healthcare utilization.

We must point out that the demand for hospital care utilization in Bangladesh, especially for ailments like diarrhea for which home remedies are readily available and purchase of over the counter prescription drugs are quite common, is relatively elastic in the short run.²⁶ As a result, the strong, significant effects of political disruptions, that increase the cost of accessing hospitals, on hospital care utilization are not surprising. Smaller family welfare clinics or pharmacies tend to be at shorter distances than bigger hospitals with qualified doctors (see Appendix figure A6). In Appendix table A4, we show that disruptions cause weak increases in the use of these smaller health facilities that are close by. Taken together, the results suggest that during political disruptions, households prefer to take their unwell children to smaller clinics or pharmacies and not hospitals. We verify this further by

²⁵Figure 3a further shows that the travel time per kilometer in the sub-districts in our sample is significantly lower on days with cricket games that Bangladesh teams participate in. This is likely because there are fewer people and vehicles on the roads.

²⁶As evident from the mean of the dependent variable in Table 1, the average level of hospital care utilization is low.

examining the effect of political disruptions on hospital utilization for different types of illnesses with varying levels of elasticity of demand for hospital care.

Bangladesh was home to one of the world's most successful oral rehydration therapy (ORT) programs in the 1980s.²⁷ According to Mushtaque et al. (1993), the program made ORT a part of Bangladeshi culture - the knowledge was transmitted across generations like folk medicines or cultural values. With the knowledge and resources required to treat diarrhea available in almost every house, it has ceased to become a serious threat. The demand for hospital care for diarrhea, as a result, has become more elastic over time. In comparison, severe cough and especially fever are difficult to treat at home and could be symptoms of more serious conditions that require proper inspection and diagnosis. As a result, the demand for health care for fever and cough are perhaps now relatively more inelastic.

In Appendix table A5, we find results that are consistent with the above understanding of the elasticity of demand for hospital care. We find large, significant effects on the use of hospital care for diarrhea. The effects on cough are smaller and those for fever are the smallest. Moreover, while there is a corresponding increase in the use of other facilities, like smaller private clinics, for cough and, to a lesser extent, fever, we do not find a significant corresponding increase for diarrhea. These findings, considered alongside the results in Table 1, indicate that the large effects of political disruptions on hospital care utilization are in part a result of the high elasticity of demand for hospital care.²⁸ The substitution towards smaller clinics and pharmacies may not necessarily dilute the negative effects of these political disruptions. These clinics and pharmacies tend to be more expensive and are often less effective than larger facilities (Borghi et al., 2006). Pneumonia and respiratory infections are the top two causes of the relatively high under-five mortality in Bangladesh (Halder et al., 2009; Rahman et al., 2021). The downstream effects of lower use of hospital care may still be substantial despite the substitution.

In the top panel of Appendix figure A7, we show that the effect we estimate is not driven by serial correlations in political disruptions. Here, we re-estimate the specification used in Column (6) of Table 1 but with monthly disruption measures. We include disruptions in the five months before and after the interview month. Including the political disruptions in the months after the interview month serve as a nice placebo check as events that had not materialized should not have mattered when deciding whether to take the child to a hospital. Consistent with this, we find that only events in the interview month affect the likelihood of hospital care utilization.

²⁷BRAC, the largest non-governmental development organisation in the world today, earned international recognition for visiting households in 95 percent of the country's villages to instruct mothers how to prepare ORT with home ingredients (Chowdhury and Bhuiya, 2004).

²⁸These results are also consistent with Velásquez (2020) who finds that the fear of drug-related violence in Mexico has the largest effect on the labor force participation of the group with the most elastic labor supply.

5.2 Place of delivery

Next, we examine a more inelastic dimension of health care demand. Table 2 reports the effect of political disruptions on the choice of the place where mothers give birth to their children. In Bangladesh, it is almost impossible to postpone the time of birth. But parents can choose whether the child is birthed at a hospital, smaller private facilities, or at home. Political disruptions induce a movement away from hospital delivery to home deliveries. Although not always statistically significant, looking at the magnitudes, it is clear that much of the effects are driven by protests and, in particular, peaceful protests. As per the 2SLS estimates in Columns (2) and (3) of Panel B, a one-SD increase in political disruptions increases home deliveries by around five to six percentage points. We also find corresponding decreases in hospital delivery in Columns (5) and (6). In the second panel of Appendix figure A7, we show that the effect is not driven by serial correlations in political disruptions. We find that only events in the month before the interview affect the likelihood of home delivery.

The estimate magnitudes from Table 2 are also informative. The effects that protests have on hospital and home delivery are much smaller than their effect on hospital facility utilization in Table 1.²⁹ This is expected. As mentioned before, the demand for hospital care during delivery is relatively inelastic compared to the demand for hospital care for a minor illness like cough or fever.³⁰ However, the small insignificant effects of violent disruptions are puzzling. We do not find a consistent pattern in the effect of violent events even when we break them down into finer categories in Appendix table A6. Based on available qualitative literature and anecdotal experiences, we can speculate about the reasons. First, violent disruptions are often short-lived. Acts of vandalism and violence provide the police with a legitimate reason to intervene and disperse the protesters. Peaceful protests, in comparison, tend to continue for longer without police intervention (Prodip et al., 2015; Roy Chowdhury and Abid, 2019). The ACLED data shows police intervention in almost one-third of all violent events while almost none in case of peaceful protests. This is also in agreement with Suykens and Islam (2015). Peaceful protests, as a collective action, are also more likely to happen in more public spaces to maximize visibility (Springer, 2011). As a result, peaceful protests might affect transportation services for a longer time. Further, in the event violent protesters stop a vehicle, it is easy to observe pregnancies and the urgent need for medical care. They too make way for the vehicles in such emergencies. This might not be the case if someone headed to the health facility utilization for minor illnesses or vaccinations is stopped. The protesters might not be persuaded to give way due to the non-urgent nature of the demand. Unfortunately, data constraints limit our ability to provide empirical evidence in support of these conjectures.

How do the estimated effect sizes stack up against other studies? Molina (2020) finds that a one-SD increase in violence in the Philippines increases home deliveries by four percentage points and

 $^{^{29}}$ Please note that the sample size we have for the analysis in Table 2 is much larger than that in Table 1. This is because the outcome variable in Table 1 is defined only if a child had been unwell in the two weeks prior to the interview.

³⁰Unlike in Table 1, we also find little difference in the OLS and IV estimates in Table 2. This indicates that the sample of compliers do not look very different from the others when it comes to the demand for delivering the child at home or at a hospital (Angrist and Imbens, 1995; Masten and Poirier, 2021).

increases hospital deliveries by almost the same amount. Our estimates, especially that for peaceful protests, are almost identical. The relevance of the estimates is best understood when viewed against the role of healthcare utilization in reducing maternal and child mortality in Bangladesh. Between 1990 and 2020, the maternal mortality rate (MMR) in Bangladesh fell from 569 per 100,000 live births to 176 (WHO, 2015). El Arifeen et al. (2014) find that around 25% of the reduction in maternal mortality rate in Bangladesh between 2001 and 2010 could be attributed to increased healthcare utilization. Despite the impressive progress, Bangladesh fell short of meeting Millennium Development Goals of cutting down MMR by 75% (WHO, 2015). The improvement since then has also been slow. A five percent increase in home deliveries could, therefore, have contributed to around five additional preventable maternal deaths per 100,000 live births.³¹ Similarly, Pal (2015) reports that hospital delivery during the 2002-2007 period reduced under-five mortality by around two percent. Using the under-five mortality of 65 per 1,000 live births for Bangladesh in 2005, the estimates we find would have contributed to 6.5 additional deaths per 100,000 live births (5% of 2% of 65 deaths per thousand live births) (WDI, 2020). These are not small costs by any means.

5.3 Prenatal hospital visits, postnatal check-ups, and vaccination

We present the effect of protests on prenatal and postnatal care in Panel B of Table 3.³² Political disruptions have a negative effect on the likelihood that the mother visited a hospital for prenatal care. Much of the effect, as before, is contributed by protests. A one-SD increase in protests decreases the likelihood of visiting the hospital for prenatal care by around ten percentage points. The coefficients are statistically insignificant when we categorize the disruptions by the level of violence but the direction of the estimated effects have consistent signs.

The estimated effects on postnatal checkups are relatively smaller and less significant but follow a similar pattern. One potential reason for this is that postnatal checkups in Bangladesh, especially in villages and small towns, are usually performed by NGO- or government-appointed health workers who visit the households to check on the mothers and their newborns (Rahman et al., 2016). These workers are often from the community and do not have to travel far to make the checks. Many have their own conveyance in the form of motorcycles or bicycles. The protests possibly do not hinder their activities as much as they deter mothers from traveling to the hospital on a day when transportation services are likely to be adversely affected.³³ We provide supporting evidence in Appendix figure A8 and panel A of Appendix table A12. Peaceful protests have a significant negative effect on postnatal care only in urban areas.³⁴

 $^{^{31}}$ The estimate of five additional maternal deaths per 100,000 live births is calculated based on 5% of 25% of (569 – 176). 32 The sample size differs across outcomes because the information is not available for all children. Please see Table A2

for details.

³³Anecdotally, we know that rural health workers are often well recognised and respected in the community. Protesters generally do not obstruct them. This is not the case for public and private vehicles on the road on a protest day.

³⁴We also find that increases in home deliveries in response to the protests are also coming from the urban sample. This is expected because, as clear from the mean of dependent variables reported in Columns (1) and (5) of panel A of Appendix table A12, giving birth at home is still the norm in rural areas and the marginal increase in the cost of accessing a health facility due to protests is likely to be higher in urban areas.

Finally, Table 4 presents the effect of protests on two measures of vaccination outcomes. 'Full Vaccination' indicates whether a child of twelve months or older had received all of the following vaccines: Bacillus Calmette–Guérin (BCG) vaccine; Diphtheria, Pertussis and Tetanus vaccine dose 1 (DPT1); DPT2; DPT3; Oral Poliovirus vaccine dose 1 (OPV1); OPV2; OPV3; Measles vaccine. 'Timely Vaccination' takes a value of '1' if a child received all the vaccinations at the correct age. The notes to the table describe how we define the correct age for different vaccinations. We find that protests and, in particular, peaceful protests had a negative effect on exposed children receiving full or timely vaccinations. A one-SD increase in peaceful protest in the first year of a child's life caused around a seven percentage points decrease in the likelihood that a child had received all eight vaccination. A one-SD increase in peaceful protests in the first year of a child's life caused. A one-SD increase in peaceful protests in the first year of a child's life caused. A one-SD increase in peaceful protests in the first year of a child's life caused. A one-SD increase in peaceful protests in the first year of a child's life caused. Households are likely to be more willing to postpone vaccinations on time.³⁵ This too is expected. Households are likely to be more willing to postpone vaccinations of their children in response to protests than to completely forgo them. In other words, the demand for timely vaccination is likely to be more elastic than the demand for vaccination itself.

To understand the relevance of these estimates, it is important to note that prenatal care is a crucial determinant of facility delivery that, as we discussed above, reduces maternal and infant mortality rate (Pervin et al., 2012; Rahman et al., 2017; Huda et al., 2019). For example, Hong and Ruiz-Beltran (2007) find that in Bangladesh children born to mothers who receive no prenatal care are twice as likely to die during infancy than mothers who receive some prenatal care. Using 193 surveys from 69 low-income and middle-income countries, Kuhnt and Vollmer (2017) report a 1.04% points lower neonatal mortality and a 1.07% points lower infant mortality among children born to mothers who had at least one prenatal visit. Using the conservative estimate and the IMR of 25 per 1,000 in Bangladesh in 2020, the decline in hospital prenatal due to a one-SD increase in peaceful protests might have increased infant mortality by around 1.8 per 100,000 live births (7.5% of 1% of 25 per thousand). Ijdi et al. (2022) report that newborns in Bangladesh who receive any postnatal care are 68% less likely to die in the early neonatal period than those who did not. The overall neonatal mortality in their sample is 15 per 1000 live births and around 40% of the children do not receive any postnatal care. Combining this information with the estimated effect of peaceful protests on postnatal care from Column (6) of Table 3, a one-SD increase in peaceful protests might have contributed to around 0.6 extra neonatal deaths per million live births. The life-saving role of vaccinations is well documented (Li et al., 2021). For Bangladesh, Breiman et al. (2004) evaluate the impact of BCG, DPT, and Measles vaccine on mortality in the first year of life. They find that the vaccines reduced the mortality rate by around 24%. Using the average mortality rate of 25 per 1,000 in their data, the estimated effect of peaceful protests on completed vaccinations we find in Column (3) of Table 4 amounts to one extra death per thousand children.

³⁵In Appendix table A7, we show that the results are being driven by delays in BCG, DPT1, OPV1, and OPV2.

It is also important to understand whether this avoidance in health-seeking behavior leads to nontrivial costs in child health outcomes. Given the previous discussions that emphasize positive returns to preventive care and the importance of institutional deliveries as pathways to better health, in-utero exposure to such political disruptions have can lasting impacts on health and human capital. Following Mansour and Rees (2012), while exploring the impacts on birth weight would have been ideal, the Bangladesh DHS does not provide such information. In its absence, we estimate the downstream effects of in-utero exposure on underweight and stunting of the child, using weight-for-age and heightfor-age z-scores, respectively. Appendix table A8 presents the results. As per the 2SLS estimates in Columns (1) and (5), a one-SD increase in political disruptions during pregnancy lead to 0.049 and 0.058 standard deviations lower weight-for-age and height-for-age z-scores, respectively. Protests statistically significantly lower height-for-age z-scores of children by 0.115 standard deviations, while peaceful protests statistically insignificantly lower height-for-age z-scores of children by 0.102 standard deviations. The estimates on weight-for-age z-scores, although also negative, are statistically insignificant.

For comparison, Akresh et al. (2011) reports Rwandan children exposed to crop failure to have 0.173 standard deviations lower height-for-age z-scores while Shemyakina (2021) reports 0.215 standard deviations lower height-for-age z-scores among Zimbabwean children who experienced a spike in electoral violence in 2000. Our estimates are expectantly smaller in magnitude but overall comparable. Breaking down the z-scores to identify underweight and stunting in Columns (2)-(4) and Columns (6)-(8), although we find mostly insignificant estimates, the signs are in the expected direction. Nonetheless, the results provide some suggestive evidence that avoidance of health-seeking behavior due to political disruptions may negatively affect child health.

6 Heterogeneity

6.1 Gender bias

Numerous studies report a gender gap in health investments that favor the male child and a general preference for sons in South Asia. (Jayachandran and Pande, 2017; Barcellos et al., 2014; Jayachandran and Kuziemko, 2011; Asfaw et al., 2010; Bhalotra et al., 2010; Choi and Lee, 2006; Bhan et al., 2005). Bangladesh is no different. Studies have shown that households strategically invest more in the health of male children (Pitt et al., 1990, 2012). While the economic development of Bangladesh and the significant role women have played in it has reduced the discrimination against girl children, it is far from over (Kabeer et al., 2014; Asadullah et al., 2021). The strong strategic want to invest in the health of male children implies that the demand for health care for female children may be more elastic in comparison to that for male children. If so, we expect to find a larger impact of political disruptions on female children.

Figure 4 and Appendix table A9 presents the impact of different types of political disruptions on health-seeking behavior separately for male and female children. The effects of political disruptions on

healthcare utilization are being driven by the sample of female children.³⁶ We find a larger negative effect of peaceful protests on home delivery, postnatal care, and full vaccination if the child is a female. Since the gaps in the estimated effects are not statistically significant between female and male children, we do not wish to emphasize too much on this set of results. However, this suggests the possibility that the health costs of peaceful protests may be higher for female children.

6.2 Mechanisms

While the tragedy of violence is apparent to all, the results we present draw attention to the need for policies to minimize the negative effect of peaceful protests on healthcare utilization. To devise effective policies, we require a better understanding of the mechanisms through which peaceful protests affect healthcare utilization. In the following, we conduct a number of heterogeneity checks to explore the potential pathways through which peaceful protests may affect health-seeking behavior. First, peaceful protests in Bangladesh do not target healthcare facilities. We confirm this by manually examining the news reports for each of the peaceful protests in our sample. Second, as shown in Appendix table A1, healthcare workers rarely participate in the protests themselves. This makes supply-side mechanisms unlikely. If demand-side mechanisms are driving the results, we expect them to be stronger for mothers (or households) who find it riskier to avail health care on a day of peaceful protests. Nearness to the health facility and information about the peacefulness of the protests are two main factors that will influence one's perception of the risk associated with traveling to a health facility on a protest day.

In Figure 5, we present the heterogeneity in the effect of peaceful protests along four dimensions that are likely to influence a mother's perception of the risk associated with traveling to a health facility on a protest day. For brevity, we relegate the full set of results to Appendix tables A10 and A11. For the analyses presented in Panel A, we split the sample at the median distance between the household's community and the nearest health facility and then re-estimate the effect of peaceful protests on four main outcome variables by sub-sample. The figure plots the coefficients from these estimations. The results suggest that the effect of peaceful protests on home delivery are larger when the nearest health facility is further away. This is consistent with the view that mothers may associate a higher level of risk with traveling further, which may affect their *demand* for delivering their child at a hospital. Traveling longer distances also increases the possibility of meeting a congested road, increasing the transportation cost and potentially further deterring people from availing health care. Panel B presents additional supportive evidence. The effect of peaceful protests on home deliveries, hospital deliveries, postnatal care, and completed vaccinations is driven mostly by the sub-districts with fewer health workers than the median. Sub-districts with fewer health workers would require the mothers to travel further to find qualified health professionals to assist them in delivering their babies. Again, mothers may associate higher risks from security fears or higher costs with traveling further.

³⁶Not reported here, we do not find a significant difference in prenatal care. Although there are no rules against fetal sex determination in Bangladesh, sex-determination technology may not be as available in rural areas. As a result, discriminatory investments start only once the gender is revealed.

Travel speed is also likely to influence the risk associated with traveling to avail health care. The presence of traffic congestion due to disruptions or protests will reduce the travel speed affecting the decision to avail health care. This is especially important in the case of deliveries, where the mother might have started experiencing uterine contractions. In Panel C, we present the heterogeneity by travel time per kilometer. Again, we find the largest effect for home deliveries. In regions with faster travel speeds, home deliveries are significantly lower. Note from Figure **3b** that political disruptions of all kinds, including protests, decrease the travel speed in the sub-districts. It is, therefore, no surprise that they cause an increase in home deliveries and a decrease in hospital deliveries.³⁷ Distance to the health facilities and travel speed can also impact the ability of health professionals to reach the health facilities on time. This might disrupt the supply of health care. However, as we show in the top panel of Appendix figure **A6**, health care professionals interviewed in the survey tend to live closer to health facilities. The impact of these factors are likely to be smaller for them.

Finally, in Panel D, we examine the difference in the effect of peaceful protests for mothers who do or do not watch television. We find that the mothers who do not watch TV and, as a result, are unaware of the peacefulness of the protests are significantly more likely to deliver at home in response to peaceful protests than mothers who watch TV. Consistent with this, and in agreement with Molina (2020), we also see a significant decrease in hospital deliveries in response to violent political disruptions among mothers who watch TV (see Appendix table A11). This too indicates that our findings, especially for the place of delivery, are driven by a decrease in the demand for formal health care.³⁸ Further, this points towards the potential for accurate information dissemination regarding peaceful protests to, perhaps, alleviate associated security fears among mothers.

7 Robustness checks

In addition to the placebo checks discussed in Sections 5.1 and 5.2 (reported in Appendix figure A7) showing that our results are not driven by serial correlations, we conduct several other robustness checks. In Appendix table A13, we check the robustness to alternative sets of fixed effects and report the 'strictest' specification that controls for sub-district trends, day of the month, sub-district-year and sub-district-month fixed effects. This controls for any monthly- and yearly differences across sub-districts that may be correlated with the dependent and the independent variables. Our results remain quantitatively similar, although with slightly smaller magnitudes and some loss in statistical significance. This is expected given the smaller residual variance in the dependent and independent variables with the fixed effects applied. Reassuringly, all estimates remain consistent in their direction.

³⁷We find results consistent with this mechanism when we explore heterogeneity by rural or urban residence status in the top panel of Appendix figure A8. We find larger effects in urban areas where a decrease in travel speed due to congestion is more common.

³⁸These results are robust to controlling for the distance to the nearest health facility and the mobile phone usage rate of health professionals in the community, suggesting they do not capture the supply-side disruptions.

In Appendix table A14, we present results from the alternative IV specification described in Equation 4 of Section 4. Here, instead of relying on lagged values of disruption events, we use the interaction of game days with whether a player born in the district played in the game or whether the game was played in the district. This 'local player sentiment' leverages the observation that people from a district are more interested in watching a cricket game if a local player from the district is playing. Similarly, games played in a district interest more people from that district. Unfortunately, because the birth sub-district of the cricket players is not always available, we repeat the analysis at the district level. Although we lose statistical significance for some of the estimates, once again, we find qualitatively consistent results.

8 Limitations

A number of data limitations constrain a more nuanced and complete treatment of the question. First, without a measure of the scale of the disruptions and the number of protesters involved, we are unable to explore the impact of the intensity of the disruptions. A large protest may have more significant effects than smaller protests. While mortality or injury counts can serve as crude indicators for the intensity of violent disruptions, they are often misreported and are not an option in the case of peace-ful protests. A possible measure could be the coverage intensity of such protests in national and local newspapers. These explorations require data on news articles from a comprehensive set of outlets, traditional and online. We leave this as a future exercise. Second, the ACLED data itself may not be comprehensive. Although ACLED sources its data from a vast number of news outlets, they require an online presence. Events from rural regions may be systematically under-represented in such news outlets. Third, we do not have daily attendance data for health professionals at respective health facilities, which limits our ability to segregate demand-side impacts from supply-side mechanisms. Availability of such data would permit a better understanding of whether protests distort health service provision, either through increased security fears or travel time, similar to that on health-seeking behavior of mothers.

While DHS provides a comprehensive set of health-seeking behavior indicators, the Bangladesh DHS does not provide the birth weight of children, which limits our exploration of child health outcomes.³⁹ Unfortunately, we also do not have mental health indicators in DHS. The suggestive evidence we find for demand-side impacts through increased security fear of the mother could have implications for mental health which remain to be explored. Further, in exploring the mechanisms, while we conceptually underpin increased security fear as one of the likely pathways, we do not have questions that directly ask the mothers why certain health facilities were or were not availed. Exploring such exposition questions in addition to qualitative evidence would be a much-appreciated addition to a complete treatment of the question. Finally, the study could have also greatly benefited from a panel data structure. In particular, with a sufficiently long panel, downstream effects on adolescent health

³⁹For example, Mansour and Rees (2012) find that in-utero exposure to the al-Aqsa Intifada was associated with an increase in the probability of a child weighing less than 2500 grams using the 2004 Palestinian DHS.

of avoiding health-seeking behavior would be an interesting addition to the literature.

9 Conclusion

Although a consensus appears to be building around the positive long-term effects of democracy on health, there is little research into the short-run costs and benefits of democratic processes and changes (Acemoglu et al., 2015). It is possible, that the long-run positive effects of strengthening a democracy come at some costs. In this study, we attempt to document the short-run costs protests, especially those peaceful in nature, impose on societies by discouraging health-seeking behavior. We do this by combining daily political disruption data from ACLED with health care utilization data of mothers with young children from DHS.

By exploiting the variation in different types of politically disruptive events within sub-districts of Bangladesh between 2010 and 2018, we examine the effect they have on visits to the hospital conditional on having an unwell child, place of delivery, prenatal and postnatal care, and timely and complete vaccination. We utilize an instrument variable approach that takes advantage of the impact of cricket games on the timing of political disruptions to rule out potential endogeneity concerns. Consistent with earlier studies on the topic, we find that violent political disruptions negatively affect hospital care utilization. Perhaps what is more revealing but not entirely surprising is that peaceful protests also have significant negative effects on hospital care utilization. Protests also decrease the likelihood of mothers delivering their children under hospital care and increases the likelihood of home deliveries. Prenatal and postnatal care and vaccination also decrease. The effects of peaceful protests, the object of interest for us in this study, are also significant for many of the outcomes and larger for more elastic health care demands. Furthermore, increased in-utero exposure to such events negatively impacts health, indicating that the avoidance of health-seeking behavior may be a contributing factor.

We use heterogeneity checks to explore the mechanisms driving these results. We find suggestive evidence that peaceful protests cause a decrease in the demand for formal health care, perhaps by increasing security fears, in particular for delivering under hospital care. Distance to the nearest health facility, number of health professionals in the sub-district, travel speed within the sub-district, and mothers' likelihood of watching TV - factors that are likely to influence the risk mothers associate with accessing formal health care on days with peaceful protests and, therefore their demand for formal health care - affect the extent to which peaceful protests impact healthcare utilization.

It is important to re-emphasize that our results do not suggest that peaceful protests are futile or harmful. In our constant attempt to make positive changes to the world around us, they are one of our most powerful and thoughtful instruments. But they must be wielded with care and consideration so that their unintended negative consequences are minimized.

References

- Acemoglu, D., Naidu, S., Restrepo, P., and Robinson, J. A. (2015). Chapter 21 Democracy, Redistribution, and Inequality. In Atkinson, A. B. and Bourguignon, F., editors, *Handbook of Income Distribution*, volume 2 of *Handbook of Income Distribution*, pages 1885–1966. Elsevier.
- Acemoglu, D. and Robinson, J. A. (2006). *Economic origins of dictatorship and democracy*. Cambridge University Press.
- ACLED (2019). Armed Conflict Location and Event Data Project (ACLED) Codebook. RUL: https://www.acleddata.com/wp-content/uploads/dlm_uploads/2017/10/ACLED_Codebook_ 2019FINAL_pbl.pdf. [Retrieved: 2022-03-09].
- Ahmed, N. (2011). Public holiday declared for Bangladesh's World Cup match. Reuters. URL: https: //www.reuters.com/article/cricket-world-bangladesh-holiday-idINLDE72D01P20110314. [Retrieved: 2022-03-20].
- Ahmed, S. M., Petzold, M., Kabir, Z. N., and Tomson, G. (2006). Targeted intervention for the ultra poor in rural Bangladesh: Does it make any difference in their health-seeking behaviour? *Social Science & Medicine*, 63(11):2899–2911.
- Akresh, R., Verwimp, P., and Bundervoet, T. (2011). Civil war, crop failure, and child stunting in Rwanda. *Economic Development and Cultural Change*, 59(4):777–810.
- Amarasinghe, A. (2022). Diverting domestic turmoil. Journal of Public Economics, 208:104608.
- Angrist, J. and Imbens, G. (1995). Identification and estimation of local average treatment effects. National Bureau of Economic Research. URL: https://www.nber.org/system/files/working_papers/ t0118/t0118.pdf. [Retrieved: 2022-03-11].
- Anjalin, U. (2020). Portrayals of Hashtag Activism in Southeast Asia: A Case Study of #NOVATONE-DUCATION Citizen Movement in Bangladesh (Unpublished doctoral dissertation). PhD thesis, The University of Tennessee, Knoxville.
- Asadullah, M. N., Mansoor, N., Randazzo, T., and Wahhaj, Z. (2021). Is son preference disappearing from Bangladesh? *World Development*, 140:105353.
- Asfaw, A., Lamanna, F., and Klasen, S. (2010). Gender gap in parents' financing strategy for hospitalization of their children: Evidence from India. *Health Economics*, 19(3):265–279.
- Azad, A. (2021). Digital Security Act in Bangladesh: The Death of Dissent and of Freedom of Expression (Unpublished doctoral dissertation). PhD thesis, Central European University.
- Bair, J., Anner, M., and Blasi, J. (2020). The political economy of private and public regulation in post-Rana Plaza Bangladesh. *ILR Review*, 73(4):969–994.

- Bangkok Post (2018). Bangladesh shuts down mobile internet to tackle teen protests. Bangkok Post. URL: https://www.bangkokpost.com/world/1516262/bangladesh-shuts-down-mobile-internet-to-tackle-teen-protests. [Retrieved: 2022-03-12].
- Barcellos, S. H., Carvalho, L. S., and Lleras-Muney, A. (2014). Child gender and parental investments in India: Are boys and girls treated differently? *American Economic Journal: Applied Economics*, 6(1):157–89.
- Bari, M. E. and Dey, P. (2019). The enactment of digital security laws in Bangladesh: No place for dissent. *Geo. Wash. Int'l L. Rev.*, 51:595.
- Berger, D., Kalyanaraman, S., and Linardi, S. (2016). You will hear of skirmishes and rumors of skirmishes: Mobile communication surrounding political violence. Unpublished manuscript. URL: https://www.aeaweb.org/conference/2016/retrieve.php?pdfid=13681&tk=tnyAKNah. [Retrieved: 2022-03-12].
- Berman, E., Downey, M., and Felter, J. (2016). Expanding governance as development: Evidence on child nutrition in the Philippines. National Bureau of Economic Research. URL: https://www.nber.org/system/files/working_papers/w21849/w21849.pdf?sy=849. [Retrieved: 2022-03-11].
- Bertoli, A. D. (2017). Nationalism and conflict: Lessons from international sports. *International Studies Quarterly*, 61(4):835–849.
- Besley, T. and Kudamatsu, M. (2006). Health and democracy. *American Economic Review*, 96(2):313–318.
- Beyer, R., Chhabra, E., Galdo, V., and Rama, M. (2018). Measuring districts' monthly economic activity from outer space. World Bank Policy Research Working Paper. URL: https://documents1.worldbank.org/curated/en/835491531401292135/pdf/WPS8523.pdf. [Retrieved: 2022-03-09].
- Bhalotra, S., Valente, C., and Van Soest, A. (2010). The puzzle of Muslim advantage in child survival in India. *Journal of Health Economics*, 29(2):191–204.
- Bhan, G., Bhandari, N., Taneja, S., Mazumder, S., Bahl, R., Group, Z. S., et al. (2005). The effect of maternal education on gender bias in care-seeking for common childhood illnesses. *Social Science* & *Medicine*, 60(4):715–724.
- Bharati, T. (2022). The long shadow of the Kargil War: The effect of early-life stress on education. *Economics & Human Biology*, 44:101097.
- Black, S. E., Devereux, P. J., and Salvanes, K. G. (2016). Does grief transfer across generations? Bereavements during pregnancy and child outcomes. *American Economic Journal: Applied Economics*, 8(1):193–223.
- Borghi, J., Sabina, N., Blum, L. S., Hoque, M. E., and Ronsmans, C. (2006). Household costs of healthcare during pregnancy, delivery, and the postpartum period: A case study from Matlab, Bangladesh. *Journal of Health, Population, and Nutrition*, 24(4):446.

- Borker, G. et al. (2021). Safety first: Perceived risk of street harassment and educational choices of women. World Bank. URL: https://data2x.org/wp-content/uploads/2019/11/ PerceivedRiskStreetHarassmentandEdChoicesofWomen_Borker.pdf. [Retrieved: 2022-03-11].
- Boss, О. (2015). Protests delay Mass. ambulance; patient's daughter 'livid'. Boston Herald. URL: https://www.ems1.com/ems-products/ambulances/articles/ protests-delay-mass-ambulance-patients-daughter-livid-23hi5P2RMSViwClT/. [Retrieved: 2022-03-11].
- Breiman, R. F., Streatfield, P. K., Phelan, M., Shifa, N., Rashid, M., and Yunus, M. (2004). Effect of infant immunisation on childhood mortality in rural Bangladesh: Analysis of health and demographic surveillance data. *The Lancet*, 364(9452):2204–2211.
- Bundervoet, T., Verwimp, P., and Akresh, R. (2009). Health and civil war in rural Burundi. *Journal of Human Resources*, 44(2):536–563.
- Cantoni, D., Yang, D. Y., Yuchtman, N., and Zhang, Y. J. (2019). Protests as strategic games: Experimental evidence from Hong Kong's anti-authoritarian movement. *The Quarterly Journal of Economics*, 134(2):1021–1077.
- Card, D. and Dahl, G. B. (2011). Family violence and football: The effect of unexpected emotional cues on violent behavior. *The Quarterly Journal of Economics*, 126(1):103–143.
- Carothers, T. and Youngs, R. (2015). *The complexities of global protests (Vol. 8)*. Washington, DC: Carnegie Endowment for International Peace.
- Cecco, L. (2020). Canada: thousands of travelers affected as Indigenous-led rail blockade continues. The Guardian. URL: https://www.theguardian.com/world/2020/feb/12/ canada-protests-indigenous-rail-blockade. [Retrieved: 2022-03-11].
- Chamarbagwala, R. and Morán, H. E. (2011). The human capital consequences of civil war: Evidence from Guatemala. *Journal of Development Economics*, 94(1):41–61.
- Chenoweth, E. (2020). The future of nonviolent resistance. Journal of Democracy, 31(3):69-84.
- Choi, J. Y. and Lee, S.-H. (2006). Does prenatal care increase access to child immunization? Gender bias among children in India. *Social Science & Medicine*, 63(1):107–117.
- Chowdhury, A. M. R. and Bhuiya, A. (2004). The wider impacts of BRAC poverty alleviation programme in Bangladesh. *Journal of International Development*, 16(3):369–386.
- Chowdhury, A. M. R., Bhuiya, A., Chowdhury, M. E., Rasheed, S., Hussain, Z., and Chen, L. C. (2013). The Bangladesh paradox: Exceptional health achievement despite economic poverty. *The Lancet*, 382(9906):1734–1745.
- CHR (2021). Laws on the right of peaceful assembly worldwide. Centre for Human Rights, University of Pretoria. URL: https://www.rightofassembly.info/. [Retrieved: 2022-03-11].

- Corno, L. (2014). Learning (or not) in health-seeking behavior: Evidence from rural Tanzania. *Economic Development and Cultural Change*, 63(1):27–72.
- D'costa, B. (2012). Bangladesh in 2011: Weak state-building and diffident foreign policy. *Asian Survey*, 52(1):147–156.
- Depetris-Chauvin, E., Durante, R., and Campante, F. (2020). Building nations through shared experiences: Evidence from African football. *American Economic Review*, 110(5):1572–1602.
- Duque, V. (2017). Early-life conditions and child development: Evidence from a violent conflict. *SSM-Population Health*, 3:121–131.
- Edmans, A., Garcia, D., and Norli, Ø. (2007). Sports sentiment and stock returns. *The Journal of Finance*, 62(4):1967–1998.
- El Arifeen, S., Hill, K., Ahsan, K. Z., Jamil, K., Nahar, Q., and Streatfield, P. K. (2014). Maternal mortality in Bangladesh: A countdown to 2015 country case study. *The Lancet*, 384(9951):1366–1374.
- El-Mallakh, N. (2020). How do protests affect electoral choices? Evidence from Egypt. *Journal of Economic Behavior & Organization*, 179:299–322.
- Fakir, A. and Khan, M. (2015). Determinants of malnutrition among urban slum children in Bangladesh. *Health Economics Review*, 5(1):1–11.
- Feldman, S. (2015). Bangladesh in 2014: Illusive democracy. Asian Survey, 55(1):67-74.
- Feldman, S. (2016). Bangladesh in 2015: Crises, chaos, and unrest. Asian Survey, 56(1):204–209.
- Fujiwara, T. (2015). Voting technology, political responsiveness, and infant health: Evidence from Brazil. *Econometrica*, 83(2):423–464.
- Gage, A. J. (2007). Barriers to the utilization of maternal health care in rural Mali. *Social Science & Medicine*, 65(8):1666–1682.
- Gamlin, J. B. (2013). Shame as a barrier to health seeking among indigenous Huichol migrant labourers: An interpretive approach of the "violence continuum" and "authoritative knowledge". *Social Science & Medicine*, 97:75–81.
- Gandhi, M. K. (1940). *My non-violence*. Prabhat Prakashan. URL: https://www.mkgandhi.org/ mynonviolence/my_nonviolence.htm.
- Ge, Q. (2018). Sports sentiment and tipping behavior. *Journal of Economic Behavior & Organization*, 145:95–113.
- Gehlbach, S., Sonin, K., and Svolik, M. W. (2016). Formal models of nondemocratic politics. *Annual Review of Political Science*, 19:565–584.

- Gerring, J., Thacker, S. C., and Alfaro, R. (2012). Democracy and human development. *The Journal of Politics*, 74(1):1–17.
- Halder, A. K., Gurley, E. S., Naheed, A., Saha, S. K., Brooks, W. A., Arifeen, S. E., Sazzad, H. M., Kenah, E., and Luby, S. P. (2009). Causes of early childhood deaths in urban Dhaka, Bangladesh. *PLoS One*, 4(12):e8145.
- Hardiman, D. (2003). *Gandhi in his time and ours: The global legacy of his ideas*. Columbia University Press.
- Hardiman, D. (2013). Towards a history of non-violent resistance. *Economic and Political Weekly*, pages 41–48.
- Hong, R. and Ruiz-Beltran, M. (2007). Impact of prenatal care on infant survival in Bangladesh. *Maternal and Child Health Journal*, 11(2):199–206.
- Hossain, I. (2013). Bangladesh: Civil resistance in the struggle for independence, 1948–1971. In *Recovering Nonviolent History: Civil Resistance in Liberation Struggles*, pages 199–216. International Center on Nonviolent Conflict.
- Hossain, M., Alam, M., Shahriar, S., et al. (2014). Students' perceptions study on 'student politics' in Bangladesh. *International Journal of Economics and Empirical Research*, 2(1):1–6.
- Huda, T. M., Chowdhury, M., El Arifeen, S., and Dibley, M. J. (2019). Individual and community level factors associated with health facility delivery: A cross sectional multilevel analysis in Bangladesh. *PloS One*, 14(2):e0211113.
- Huq, S. (2018). Tolerance in Bangladesh: Discourses of state and society. *Tolerance, Secularization and Democratic Politics in South Asia*, pages 134–156.
- Ijdi, R.-E., Tumlinson, K., and Curtis, S. L. (2022). Exploring association between place of delivery and newborn care with early-neonatal mortality in Bangladesh. *PloS One*, 17(1):e0262408.
- Islam, Z. (2022). Where do the 'disappeared' disappear to? The Daily Star. URL: https://www. thedailystar.net/where-do-the-disappeared-disappear-3106341. [Retrieved: 2022-09-02].
- Jackman, D. (2021). Students, movements, and the threat to authoritarianism in Bangladesh. *Contemporary South Asia*, 29(2):181–197.
- Jayachandran, S. and Kuziemko, I. (2011). Why do mothers breastfeed girls less than boys? Evidence and implications for child health in India. *The Quarterly Journal of Economics*, 126(3):1485–1538.
- Jayachandran, S. and Pande, R. (2017). Why are Indian children so short? The role of birth order and son preference. *American Economic Review*, 107(9):2600–2629.
- Kabeer, N., Huq, L., and Mahmud, S. (2014). Diverging stories of "missing women" in South Asia: Is son preference weakening in Bangladesh? *Feminist economics*, 20(4):138–163.

- Kabir, M. (1987). Religion, language and nationalism in Bangladesh. *Journal of Contemporary Asia*, 17(4):473–487.
- Karim. N. (2018). We cannot continue to neglect Bangladesh women's The cricket. Daily Star. URL: https://www.thedailystar.net/opinion/perspective/ we-cannot-continue-neglect-bangladesh-womens-cricket-1593991. [Retrieved: 2022-03-09].
- Karunakaran, K. (1971). East Pakistan's non-violent struggle. *Economic and Political Weekly*, pages 659–660.
- Kata, A. (2012). Anti-vaccine activists, Web 2.0, and the postmodern paradigm–An overview of tactics and tropes used online by the anti-vaccination movement. *Vaccine*, 30(25):3778–3789.
- Keith, M. (2021). Anti-vaxxers in Vancouver delayed an ambulance carrying someone bleeding out from getting to the hospital. Business Insider. URL: https://www.businessinsider.com.au/ anti-vaxxers-delayed-an-ambulance-2021-9?r=US&IR=T. [Retrieved: 2022-03-11].
- Kuhnt, J. and Vollmer, S. (2017). Antenatal care services and its implications for vital and health outcomes of children: Evidence from 193 surveys in 69 low-income and middle-income countries. *BMJ open*, 7(11):e017122.
- Layton, J. (2021).Paramedic calls out Insulate Britain 'idiots' blocking am-999 calls. URL: bulances on Metro. https://metro.co.uk/2021/10/27/ paramedic-calls-out-insulate-britain-idiots-blocking-ambulances-15496963/. [Retrieved: 2022-03-11].
- Li, X., Mukandavire, C., Cucunubá, Z. M., Londono, S. E., Abbas, K., Clapham, H. E., Jit, M., Johnson, H. L., Papadopoulos, T., Vynnycky, E., et al. (2021). Estimating the health impact of vaccination against ten pathogens in 98 low-income and middle-income countries from 2000 to 2030: A modelling study. *The Lancet*, 397(10272):398–408.
- Madestam, A., Shoag, D., Veuger, S., and Yanagizawa-Drott, D. (2013). Do political protests matter? evidence from the tea party movement. *The Quarterly Journal of Economics*, 128(4):1633–1685.
- Manang, F. and Yamauchi, C. (2020). The impact of access to health facilities on maternal care use, travel patterns, and health status: Evidence from longitudinal data from Uganda. *Economic Development and Cultural Change*, 69(1):405–451.
- Mansour, H. and Rees, D. I. (2012). Armed conflict and birth weight: Evidence from the al-Aqsa Intifada. *Journal of Development Economics*, 99(1):190–199.
- Marshall, M. and Cole, B. R. (2014). Global report 2014: Conflict, governance, and state fragility.
- Masten, M. A. and Poirier, A. (2021). Salvaging falsified instrumental variable models. *Econometrica*, 89(3):1449–1469.

- Metcalfe, R., Burgess, S., and Proud, S. (2019). Students' effort and educational achievement: Using the timing of the World Cup to vary the value of leisure. *Journal of Public Economics*, 172:111–126.
- Mir, M. (2019). Cricket may be one of our biggest strengths. Reuters. URL: https://archive. dhakatribune.com/opinion/op-ed/2019/11/29/cricket-may-be-one-of-our-biggest-strengths. [Retrieved: 2022-02-23].
- Molina, T. (2020). Health seeking amid violence: Evidence from the Philippines. *Economic Development and Cultural Change*, 69(1):173–212.
- Mulligan, C. B., Gil, R., and Sala-i Martin, X. (2004). Do democracies have different public policies than non-democracies? *Journal of Economic Perspectives*, 18(1):51–74.
- Mushtaque, A., Chowdhury, R., and Cash, R. (1993). Cultural incorporation of the ORT message. *The Lancet*, 341(8860):1591.
- Nagy, A. M. and Simon, V. (2018). Survey on traffic prediction in smart cities. *Pervasive and Mobile Computing*, 50:148–163.
- Nasrin, S., Rahman, M. M., et al. (2019). Politicization of student politics in Bangladesh: Historical experiences and contemporary trends. *Journal of Social Science Studies*, 6(2):17–42.
- NZ Herald (2022).'Difficult environment': Protests block ambulance from reaching patient. URL: https://www.newstalkzb.co.nz/news/national/ cardiac covid-19-omicron-outbreak-protests-delay-paramedic-response-to-heart-attack-victim/. [Retrieved: 2022-03-11].
- Pal, S. (2015). Impact of hospital delivery on child mortality: An analysis of adolescent mothers in Bangladesh. *Social Science & Medicine*, 143:194–203.
- Passarelli, F. and Tabellini, G. (2017). Emotions and political unrest. *Journal of Political Economy*, 125(3):903–946.
- Paul, R. (2014). Bangladesh shopping malls to close early for World T20. Reuters. URL: https: //www.reuters.com/article/cricket-world-t20-bangladesh-power-idINDEEA2J0A320140320. [Retrieved: 2022-02-23].
- Persson, P. and Rossin-Slater, M. (2018). Family ruptures, stress, and the mental health of the next generation. *American Economic Review*, 108(4-5):1214–52.
- Pervin, J., Moran, A., Rahman, M., Razzaque, A., Sibley, L., Streatfield, P. K., Reichenbach, L. J., Koblinsky, M., Hruschka, D., and Rahman, A. (2012). Association of antenatal care with facility delivery and perinatal survival–A population-based study in Bangladesh. *BMC Pregnancy and Childbirth*, 12(1):1–12.

- Pitt, M. M., Rosenzweig, M. R., and Hassan, M. N. (1990). Productivity, health, and inequality in the intrahousehold distribution of food in low-income countries. *American Economic Review*, pages 1139–1156.
- Pitt, M. M., Rosenzweig, M. R., and Hassan, M. N. (2012). Human capital investment and the gender division of labor in a brawn-based economy. *American Economic Review*, 102(7):3531–60.
- Prodip, M. M. A., Hasan, A. K., and Hossen, M. L. (2015). Road march: Searching a better alternative way of hartal culture in Bangladesh. *International Journal of Scientific research & technologies*, 4.
- Puri, N., Coomes, E. A., Haghbayan, H., and Gunaratne, K. (2020). Social media and vaccine hesitancy: New updates for the era of COVID-19 and globalized infectious diseases. *Human Vaccines & Immunotherapeutics*, 16(11):2586–2593.
- Rahman, A. E., Hossain, A. T., Siddique, A. B., Jabeen, S., Chisti, M. J., Dockrell, D. H., Nair, H., Jamil, K., Campbell, H., and El Arifeen, S. (2021). Child mortality in Bangladesh–why, when, where and how? A national survey-based analysis. *Journal of Global Health*, 11.
- Rahman, M., Yunus, F. M., Shah, R., Jhohura, F. T., Mistry, S. K., Quayyum, T., Aktar, B., and Afsana, K. (2016). A controlled before-and-after perspective on the improving maternal, neonatal, and child survival program in rural Bangladesh: An impact analysis. *PLoS One*, 11(9):e0161647.
- Rahman, S. (2013). Broken promises of globalization: The case of the Bangladesh garment industry. Lexington Books.
- Rahman, S., Choudhury, A. A., Khanam, R., Moin, S. M. I., Ahmed, S., Begum, N., Shoma, N. N., Quaiyum, M. A., Baqui, A. H., and in Bangladesh, P. S. G. (2017). Effect of a package of integrated demand-and supply-side interventions on facility delivery rates in rural Bangladesh: Implications for large-scale programs. *PLoS One*, 12(10):e0186182.
- Raleigh, C., Linke, A., Hegre, H., and Karlsen, J. (2010). Introducing ACLED-Armed Conflict Location and Event Data. *Journal of Peace Research*, 47(5):651–660.
- Riaz, A. (2019). Manufacturing a climate of fear. In Voting in a Hybrid Regime, pages 33-42. Springer.
- Riaz, A. (2021). The pathway of democratic backsliding in Bangladesh. *Democratization*, 28(1):179–197.
- Riaz, A. and Parvez, S. (2021). Anatomy of a rigged election in a hybrid regime: The lessons from Bangladesh. *Democratization*, 28(4):801–820.
- Román, M. O., Wang, Z., Sun, Q., Kalb, V., Miller, S. D., Molthan, A., Schultz, L., Bell, J., Stokes, E. C., Pandey, B., et al. (2018). Nasa's black marble nighttime lights product suite. *Remote Sensing of Environment*, 210:113–143.
- Ross, M. (2006). Is democracy good for the poor? *American Journal of Political Science*, 50(4):860–874.

- Roy Chowdhury, A. and Abid, A. (2019). Emergent protest publics in india and Bangladesh: A comparative study of anti-corruption and Shahbag protests. In *Protest Publics*, pages 49–66. Springer.
- Sabur, S. (2013). Post card from Shahabag. In ISA e-Symposium for Sociology, pages 1–18.
- Sáez, L. (2018). Bangladesh in 2017: Bloggers, floods, and refugees. Asian Survey, 58(1):127-133.
- Sangnier, M. and Zylberberg, Y. (2017). Protests and trust in the state: Evidence from African countries. *Journal of Public Economics*, 152:55–67.
- Schaller, J., Schulkind, L., and Shapiro, T. (2019). Disease outbreaks, healthcare utilization, and on-time immunization in the first year of life. *Journal of Health Economics*, 67:102212.
- Sengupta, K. K. (1974). *Pabna disturbances and the politics of rent, 1873-1885*. New Delhi: People's Publishing House.
- Sharp, G. (2005). Waging nonviolent struggle. Porter Sargent, Boston, 40.
- Sheikh, N., Sultana, M., Ali, N., Akram, R., Mahumud, R. A., Asaduzzaman, M., and Sarker, A. R. (2018). Coverage, timelines, and determinants of incomplete immunization in Bangladesh. *Tropical Medicine and Infectious Disease*, 3(3):72.
- Shemyakina, O. N. (2021). Political violence and child health: Results from Zimbabwe. *Economics & Human Biology*, 42:101010.
- Shonchoy, A. (2017). Barriers to labour migration in Bangladesh's garment sector. *International Growth Centre Blog*.
- Springer, S. (2011). Public space as emancipation: Meditations on anarchism, radical democracy, neoliberalism and violence. *Antipode*, 43(2):525–562.
- Stekelenburg, J., Kyanamina, S., Mukelabai, M., Wolffers, I., and Van Roosmalen, J. (2004). Waiting too long: low use of maternal health services in Kalabo, Zambia. *Tropical Medicine & International Health*, 9(3):390–398.
- Suykens, B. and Islam, M. A. (2015). The distribution of political violence in bangladesh (2002-2013).
- The Telegraph (2018). Students injured in Bangladesh as teen protests turn violent. The Telegraph. URL: https://www.telegraph.co.uk/news/2018/08/04/students-injured-clashes-bangladesh-teen-protests-turn-violent/. [Retrieved: 2022-03-12].
- Thompson, R., Miller, N., and Witter, S. (2003). Health-seeking behaviour and rural/urban variation in Kazakhstan. *Health Economics*, 12(7):553–564.
- Valdivia, M. (2002). Public health infrastructure and equity in the utilization of outpatient health care services in Peru. *Health Policy and Planning*, 17(suppl_1):12–19.

- Velásquez, A. (2020). The economic burden of crime evidence from Mexico. *Journal of Human Resources*, 55(4):1287–1318.
- Venkatraman, A., Garg, N., and Kumar, N. (2015). Greater freedom of speech on web 2.0 correlates with dominance of views linking vaccines to autism. *Vaccine*, 33(12):1422–1425.
- WDI (2020). World Development Indicators. The World Bank. URL: https://data.worldbank.org/ indicator/SH.DYN.MORT?locations=BD. [Retrieved: 2022-03-11].
- WHO (2015). Strategies towards ending preventable maternal mortality (EPMM). World Health Organization. URL: https://apps.who.int/iris/bitstream/handle/10665/153544/9789241508483_eng.pdf. [Retrieved: 2022-03-11].
- WHO (2015). Trends in maternal mortality, 1990-2015: Estimates from WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. World Health Organization. URL: https://apps.who.int/iris/bitstream/handle/10665/194254/9789241565141_eng.pdf. [Retrieved: 2022-03-11].
- Wilson, S. L. and Wiysonge, C. (2020). Social media and vaccine hesitancy. *BMJ Global Health*, 5(10):e004206.
- World Bank (2019). World development indicators. The World Bank. URL: https://data.worldbank. org/indicator/SH.STA.MMRT?locations=BD. [Retrieved: 2022-03-12].

Figures



Figure 1: Cricket games and political disruptions, 2010-2018

(b) Association between game days and political disruptions

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project & Cricsheet

Notes: The vertical axes reports the (a) the average number of political disruptions in Bangladesh on and around game days, and (b) the likelihood that a political disruption, a protest, or a peaceful protests happens on a cricket game day, over the 2010-2018 period. The shaded regions in (a) represent the 95% confidence intervals. The associations in (b) are based on month-year observations. Capped vertical lines in (b) depict 95% confidence bands.



Figure 2: Interaction effects of lagged political disruptions and game days on political disruptions

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project & Cricsheet *Notes*: The vertical and horizontal axes are sub-district month-level counts of lagged political disruptions and contemporaneous game days, respectively. The contours show the effect on contemporaneous political disruptions, following equation 2, at varying count intervals of lagged political disruptions and contemporaneous game days.



Figure 3: Cricket games, political disruptions, and transportation time, 2010-2018

(b) Travel time per kilometer on days with political disruptions

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project, Cricsheet, & Google Maps Platform. *Notes*: The vertical axes measure the change in travel time per kilometer on (a) cricket game days and (b) days with political disruptions relative to a day without games and disruptions, respectively. Capped vertical lines are 95% confidence bands.



Figure 4: Heterogeneity in the Impact of Peaceful Protests by Gender

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project, Demographic and Health Surveys (DHS), & Cricsheet. *Notes*: Coefficients are the impact of (standardized) peaceful protests on respective outcomes (in the *x*-axis) reported in Appendix table A9. Estimations are according to Equation 2. Capped vertical lines are 90% confidence intervals. "Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vaccination" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vaccination" regressions we restrict the sample to children at least 1 year of age at time of survey. "Peaceful Protests" are standardized values of 1-month summations prior to delivery date for "Home Delivery" and "Hospital Delivery" and "Hospital Delivery" and summations after delivery date for "Full Vaccination". Estimations utilize contemporaneous period summations of cricket matches × *lagged* corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.



Figure 5: Heterogeneity in the Impact of Peaceful Protests

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project, Demographic and Health Surveys (DHS), & Cricsheet. *Notes*: Coefficients are the impact of (standardized) peaceful protests on respective outcomes (in the *x*-axis) reported in Appendix tables A10 and A11. Estimations are according to Equation 2. Capped vertical lines are 90% confidence intervals. "Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vaccination" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vaccination" regressions we restrict the sample to children at least 1 year of age at time of survey. "Peaceful Protests" are standardized values of 1-month summations prior to delivery date for "Home Delivery" and "Hospital Delivery," 2-month summations after delivery date for "Child Postnatal," and 1-year summations after delivery date for "Full Vaccination". Estimations utilize contemporaneous period summations of cricket matches × *lagged* corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section **4** for the list of controls.

Tables

		l	Hospital Ca	are Utilizatio	on	
		OLS			2SLS	
	(1)	(2)	(3)	(4)	(5)	(6)
All Political Disruptions (std)	-0.031*** (0.012)			-0.105*** (0.035)		
All Protests (std)		-0.014**			-0.061***	
All Other Political Disruptions (std)		(0.006) -0.022* (0.011)			(0.016) -0.052** (0.026)	
Peaceful Protests (std)		(0.011)	-0.010*		(0.020)	-0.037**
All Violent Political Disruptions (std)			(0.006) -0.026** (0.011)			(0.015) -0.072*** (0.024)
Mean of DV Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	0.105	0.105	0.105	0.105 197.97	0.105 238.76 68.87	0.105 178.89 68.80
	6 0 0 0	6.000	6.000	6 0 0 0	6 0 0 0	6.000
Observations	6,209	6,209	6,209	6,209	6,209	6,209
Fixed-Effects	v	• Sul	o-district ×	• Year, Month,	Day	v

Table 1: The Impact of Political Disruptions on Hospital Care Utilization

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

The outcome variable is an indicator of whether a child who was unwell in the two weeks before the interview was taken to a medical college hospital, specialized government hospital, district hospital, maternal and child welfare center, upazila health complex, private hospital, or private medical college hospital. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of the number of such events in the two weeks before the interview. Estimations reported in columns (4)-(6) utilize contemporaneous fortnight summations of cricket matches × *lagged*-fortnight summations of respective events as instruments while controlling for independent terms separately. See section 4 for the list of controls.

	Но	ome Delive	ery	H	ospital Deliv	very	Ot	ther Deliv	ery
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: OLS									
All Political Disruptions (std)	0.027** (0.013)			-0.038** (0.016)			0.011 (0.011)		
All Protests (std)		0.018			-0.037***			0.019* (0.010)	
All Other Political Disruptions (std)		0.013			-0.008			-0.005	
Peaceful Protests (std)		(0.011)	0.014		(0.010)	-0.038***		(0.012)	0.024**
All Violent Political Disruptions (std)			(0.015) 0.017			(0.011) -0.013			(0.011) -0.004
			(0.011)			(0.017)			(0.012)
Panel B. 2SIS									
All Political Disruptions (std)	0.021			-0.039			0.018		
	(0.047)			(0.035)			(0.042)		
All Protests (std)		0.061*			-0.044**			-0.017	
All Other Political Disruptions (std)		0.001			0.016			-0.017	
-		(0.038)			(0.032)			(0.025)	
Peaceful Protests (std)			0.047*			-0.031			-0.017
All Violent Political Disruptions (std)			(0.025)			(0.019)			(0.024)
All violent Fontical Disruptions (std)			(0.026)			(0.033)			(0.022)
Sanderson-Windmeijer F-Stat 1	28.86	291.86	305.41	28.86	291.86	305.41	28.86	291.86	305.41
Sanderson-Windmeijer F-Stat 2		206.85	282.42		206.85	282.42		206.85	282.42
Observations	11,264	11,264	11,264	11,264	11,264	11,264	11,264	11,264	11,264
Mean of DV	0.576	0.576	0.576	0.170	0.170	0.170	0.254	0.254	0.254
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Fixed-Effects				Sub-dist	rict × Year, N	/Ionth, Day			

Table 2: The Impact of Political Disruptions on Delivery

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1. Standard errors clustered at the sub-district are reported in parentheses.

Outcomes are binaries indicating a positive response to respective delivery locations. "Other Delivery" includes all other possible delivery locations, including community/private/NGO clinics, family welfare centers, etc.. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of 1-month summations prior to delivery date. In Panel B, 2SLS estimations utilize contemporaneous 1-month summations of cricket matches \times lagged-1-month summations of respective events prior to delivery date, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

	Но	ospital Prena	atal	Ch	ild Postna	tal
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: OLSAll Political Disruptions (std)All Protests (std)All Other Political Disruptions (std)Peaceful Protests (std)All Violent Political Disruptions (std)	-0.003 (0.027)	-0.055*** (0.019) 0.029 (0.025)	-0.054** (0.023) 0.017	0.017 (0.021)	-0.003 (0.009) 0.023 (0.031)	-0.001 (0.009) 0.021
			(0.025)			(0.032)
 Panel B: 2SLS All Political Disruptions (std) All Protests (std) All Other Political Disruptions (std) Peaceful Protests (std) All Violent Political Disruptions (std) 	-0.122* (0.068)	-0.099* (0.055) -0.033 (0.080)	-0.075 (0.058) -0.050 (0.059)	-0.010 (0.058)	-0.057* (0.033) 0.078 (0.072)	-0.031 (0.022) 0.053 (0.083)
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	206.67	246.33 258.39	204.82 157.66	99.80	168.90 56.27	239.07 34.62
Observations Mean of DV Controls Fixed-Effects	8,692 0.301 √	8,692 0.301 √ Sub-di	8,692 0.301 \checkmark istrict × Yea	9,055 0.617 √ ar, Month,	9,055 0.617 √ Day	9,055 0.617 √

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

[&]quot;Hospital Prenatal," and "Child Postnatal" are binaries indicating at least one hospital prenatal visit during pregnancy and at least one postnatal checkup of the child within 2 months after birth, respectively. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of prior 9-month summations in columns (1)-(3) and post 2-month summations in columns (4)-(6) from delivery date. In Panel B, 2SLS estimations utilize contemporaneous period summations of cricket matches \times *lagged* corresponding period summations of respective events from delivery date, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

	F	ull Vaccinat	ion	Tim	ely Vaccinat	ion
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: OLS All Political Disruptions (std) All Protests (std)	0.039* (0.021)	-0.089***		-0.108 (0.126)	0.002	
All Other Political Disruptions (std)		(0.021) -0.058*** (0.013)			(0.134) -0.104 (0.131)	
Peaceful Protests (std)			-0.087*** (0.030)			0.039 (0.164)
All Violent Political Disruptions (std)			-0.050*** (0.014)			-0.115 (0.124)
Panel B: 2SLS All Political Disruptions (std) All Protests (std) All Other Political Disruptions (std) Peaceful Protests (std) All Violent Political Disruptions (std)	-0.092 (0.058)	-0.108** (0.051) -0.091*** (0.033)	-0.074* (0.040) -0.096*** (0.033)	-1.080** (0.501)	-2.993*** (0.958) -0.414 (0.710)	-1.761** (0.751) -0.444 (0.550)
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	17.33	220.08 87.08	208.32 154.31	12.29	278.00 293.18	251.34 206.08
Observations Mean of DV Controls Fixed-Effects	13,845 0.530 √	13,845 0.530 √ Sut	$ \begin{array}{c} 13,845\\ 0.530\\ \checkmark\\ \text{o-district}\times\text{Y} \end{array} $	6,783 3.222 √ ear, Month,	6,783 3.222 √ Day	6,783 3.222 √

Table 4: The Impact of Political Disruptions on Full and Timely Vaccinations

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

"Full Vaccination" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV3, and Measles. For the "Full Vaccination" regression we restrict the sample to children at least 1 year of age at time of survey. "Timely Vaccination" is an ordinal count of the number of vaccinations received by the child within government mandated time periods as follows: BCG ≤ 28 ; 38 > DPT1 < 71; 66 > DPT2 < 99; 94 > DPT3 < 127; 38 > OPV1 < 71; 66 > OPV2 < 99; 94 > OPV3 < 127; and 269 > Measles < 302 days (Sheikh et al., 2018). "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of post 1-year summations from delivery date. In Panel B, 2SLS estimations utilize contemporaneous 1-year summations of cricket matches \times lagged-1-year summations of respective events from delivery date, as instruments, while controlling for independent terms separately. See section **4** for the list of controls.

Appendix

Figures



Figure A1: Recorded political disruptions and peaceful protests over time, 2010-2018

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project. *Notes*: In the top panel, the vertical axis measures the number of recorded events of all political disruptions and peaceful protests recorded between 2010 and 2018 for Bangladesh. The data is plotted as monthly-summations with month-year on the horizontal axis. In the bottom panel, the figure plots the monthly shares of peaceful protests in all political disruptions in Bangladesh. Each data point is a month-year observation for the entire country. The red line is a local polynomial fit with the shaded region showing the 95% confidence intervals.



Figure A2: Recorded political disruptions and peaceful protests across Bangladesh, 2010-2018

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project. Notes: The heat maps show the spatial distribution of recorded political disruptions (left panel) and the share of peaceful protests in all political disruptions (right panel) across sub-districts of Bangladesh between 2010 and 2018.



Figure A3: Political disruptions and nightlight intensity, 2012-2018

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project, Cricsheet, & NASA-VIIRS VNP46A2 Nighttime Lights. *Notes*: The vertical axis measures the effect size of political disruptions, protests, or peaceful protests on the mean nightlight intensity between 2012 and 2018 for Bangladesh. The associations are based on daily sub-district observations. Capped vertical lines are 95% confidence intervals.

Figure A4: Correlation of lagged with current political disruptions, 2010-2018



*** p < 0.01, ** p < 0.05, * p < 0.1.

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project.

Notes: The vertical axis measures the number of respective events (winsorized at the top 95%) in month-year summations in month t - 1 between 2010 and 2018 for Bangladesh. The horizontal axis measures the same in month t.



Figure A5: Mean sub-district level disruptions on game days and non-game days

*** p<0.01, ** p<0.05, * p<0.1.
 Data Sources: The Armed Conflict Location and Event Data (ACLED) Project & Cricsheet.

Notes: The vertical axis measures the number of respective events (winsorized at the top 95%) in month-year summations in a subdistrict between 2010 and 2018 for Bangladesh. Capped vertical lines are 95% confidence intervals.



Figure A6: Mean distance to nearest health facility

Data Sources: Demographic and Health Surveys (DHS).

Notes: The vertical axis measures the distance in kilometers. Capped vertical lines are 95% confidence intervals. The top panel provides distance by DHS grouped occupations where "Professional Worker" includes doctors, lawyers, accountants, and teachers. DHS does not provide further segregated occupation groups. The bottom panel provides distance for the entire sample, including those unemployed.



Figure A7: The impact of peaceful protests in different periods on health facility utilization & home delivery

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project, Demographic and Health Surveys (DHS), & Cricsheet. *Notes*: The vertical axis plots the coefficients from 2SLS regressions of the effect of (standardized) peaceful protests on hospital facility utilization (top panel) and home deliveries (bottom panel). Month *t* are standardized values of monthly summations prior to interview date in top panel, and standardized values of monthly summations prior to child birth in bottom panel. Estimations follow Equation 2 detailed in section 4. Capped vertical lines are 95% confidence intervals.





Data Sources: The Armed Conflict Location and Event Data (ACLED) Project, Demographic and Health Surveys (DHS), & Cricsheet. *Notes*: Coefficients are the impact of (standardized) peaceful protests on respective outcomes (in the *x*-axis) reported in Appendix table A12. Estimations are according to Equation 2 detailed in section 4. Capped vertical lines are 90% confidence intervals. "Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vaccination" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vaccination" regressions we restrict the sample to children at least 1 year of age at time of survey. "Peaceful Protests" are standardized values of 1-month summations prior to delivery date for "Home Delivery" and "Hospital Delivery" 2-month summations after delivery date for "Child Postnatal," and 1-year summations after delivery date for "Full Vaccination". Estimations utilize contemporaneous period summations of cricket matches × *lagged* corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section **4** for the list of controls.

Tables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
		Peacef	ıl Protes	ts	All Vie	All Violent Political Disruptions				
	Lead	Actor	Any Par	ticipation	Lead	Actor	Any Participation			
Actor Name	%	п	%	п	%	п	%	п		
Major Political Parties and Student	Wings									
Awami League (AL)	4.28	126	4.45	131	6.04	736	9.50	1,157		
Bangladesh Chhatra League (BCL)	4.04	119	4.28	126	7.00	853	9.31	1,134		
Bangladesh Nationalist Party (BNP)	10.46	308	10.90	321	16.63	2,025	17.03	2,074		
Jatiotabadi Chatra Dal (JCD)	1.36	40	1.46	43	1.45	177	2.27	277		
Jamaat-e-Islami (JI)	2.00	59	2.34	69	7.04	857	8.90	1,084		
Islami Chhatra Shibir (ICS)	0.61	18	1.46	43	3.37	410	8.65	1,054		
Subtotal	22.75	670	24.89	733	41.53	5,058	55.66	6,780		
Civil Groups										
Students	19.29	568	27.20	801	5.03	613	19.68	2,397		
Labor Groups	10.73	316	11.61	342	3.44	419	3.57	435		
Journalists	6.55	193	6.79	200	0.02	3	0.29	35		
Teachers	4.75	140	8.46	249	0.13	16	0.25	31		
Health Workers	0.92	27	0.98	29	0.04	5	0.06	7		
Subtotal	42.24	1,244	55.04	1,621	8.66	1,056	23.86	2,905		
Militia/Armed Groups	0.00	0	0.31	9	18.05	2,199	18.08	2,202		
Others	35.01	1,031			31.76	3,867				
Total	100	2,945			100	12,180				

Table A1: Prevalence of peaceful protests and political disruptions by event initiating actors, 2010-18

Data Sources: The Armed Conflict Location and Event Data (ACLED) Project.

Notes: Each event can have multiple actors. "Lead Actor" identifies the primary event initiating actor, and "Any Participation" counts both primary and associated actor participation in the event initiation. Initiating actors refers to actors who initiated the event (in contrast to opposing actors). We report the number of events, *n*, and the percentage share of total events, %, for "Peaceful Protests" and "All Violent Political Disruptions." Note that since "Any Participation" counts all initiating actors of the event, the % will not sum to 100. BCL, JCD, and ICS are the student political wings of AL, BNP, and JI, respectively.

	Mean	SD	Min	Max	Ν
Panel A: DHS, Nighttime Lights, & Transport					
A.1 Outcome Variables					
Hospital Facility Utilization (prior fortnight)	0.110	0.313	0	1	7,024
Home Delivery	0.574	0.494	0	1	11,825
Hospital Delivery	0.171	0.376	0	1	11,825
Other Delivery	0.255	0.436	0	1	11,825
Hospital Prenatal	0.305	0.460	0	1	9,387
Child Postnatal	0.631	0.483	0	1	11,427
Full Vaccinations	0.516	0.500	0	1	17,041
Timely Vaccination	2.967	3.035	0	8	9,355
A.2 Control Variables					
Child's gender: Female	0.480	0.500	0	1	17,074
Child's age (months)	25.128	17.040	0	59	17,074
Mother's education: None	0.109	0.312	0	1	17,074
Mother's education: Incomplete Primary	0.166	0.372	0	1	17,074
Mother's education: Complete Primary	0.114	0.318	0	1	17,074
Mother's education: Incomplete Secondary	0.418	0.493	0	1	17,074
Mother's education: Complete Secondary	0.059	0.235	0	1	17,074
Mother's education: Higher	0.134	0.340	0	1	17,074
Mother's age (years)	25.262	5.695	13	49	17,074
Household wealth index	2.963	1.429	1	5	17,074
Household religion: Muslim	0.913	0.282	0	1	17.074
Household size	6.122	2.784	2	31	17.074
Number of children in HH (<60 months)	1.338	0.771	0	8	17.074
Number of women in HH	1.429	0.732	1	6	17.074
Household head: Male	0.895	0.307	0	1	17.074
Household head: Age (vears)	42.367	14.777	15	95	17.074
Number of living children in HH	2.130	1.228	1	11	17.074
Type of residence: Urban	0.311	0.463	0	1	17.074
A.3 Other Variables	01011	01100	0	-	1,,071
Mother watches TV	0.603	0.489	0	1	17.074
Mother has access to mobile phone	0.918	0 274	0	1	17 074
Distance to nearest health facility (kms)	0.979	1 679	0	34	17 074
Medical workers per capital (10 000 people)	4 735	3 072	0.328	25 596	17 023
Nighttime lights (500m nW/cm2/sr)	15 824	40.838	0.020	566	14 284
Transportation time (minutes/km)	2.770	0.886	0.980	8	15,184
Panel B: Political Disruptions & Cricket					
B.1 Political Disruptions					
All political disruptions (prior fortnight)	0 165	0 791	0	16	17 074
All protests (prior fortnight)	0.100	0.210	0	7	17 074
All other political disruptions (prior fortnight)	0.133	0.664	0	, 9	17.074
Peaceful protests (prior fortnight)	0.028	0.209	Ő	7	17.074
All violent political disruptions (prior fortnight)	0.136	0.690	0 0	, Q	17074
B.2 Cricket	0.100	0.070	5	/	±/,0/T
Game days (prior fortnight)	2,334	2 910	0	10	17 074
Local games (prior fortnight)	0.042	0 277	0	3	17 074
Local players (prior fortnight)	0.283	0.277	0	5	17 074
Local players (prior fortilight)	0.205	0.000	U	5	1/,0/4

Table A2: Summary Statistics

Data Sources: Demographic and Health Surveys (DHS), NASA-VIIRS VNP46A2 Nighttime Lights, Google Maps Platform, The Armed Conflict Location and Event Data (ACLED) Project, & Cricsheet.

Notes: In Panel A, "Hospital Facility Utilization" is conditional upon child being ill; descriptive statistics are shown for non-standardized variables; and "Nighttime lights" and "Transportation time" are averages in sub-districts. In Panel B, all variables are summations in sub-districts, except for "Local games" and "Local players" which are at a district-level. We show the descriptive statistics only for summations over prior fortnight for brevity.

	All Political Disruptions	All Protests	All Other Political Disruptions	Peaceful Protests	All Violent Political Disruptions
	(1)	(2)	(3)	(4)	(5)
All Political Disruptions (lag)	0.185** (0.077)				
All Political Disruptions (lag) \times Game Days	-0.027*** (0.002)				
All Protests (lag)		0.262** (0.109)	0.112 (0.126)		
All Other Political Disruptions (lag)		0.046 (0.041)	0.270** (0.113)		
All Protests (lag) \times Game Days		-0.091*** (0.030)	-0.087* (0.045)		
All Other Political Disruptions (lag) \times Game Days		-0.030* (0.016)	-0.023*** (0.008)		
Peaceful Protests (lag)				0.226* (0.119)	0.044 (0.043)
All Violent Political Disruptions (lag)				-0.020 (0.035)	0.272** (0.115)
Peaceful Protests (lag) \times Game Days				-0.065*** (0.022)	-0.079** (0.036)
All Violent Political Disruptions (lag) \times Game Days				-0.050** (0.022)	-0.019*** (0.005)
Game Days	-0.029* (0.014)	-0.057** (0.023)	-0.017* (0.010)	-0.048** (0.021)	-0.019* (0.011)
Observations	6,209	6,209	6,209	6,209	6,209
Mean of DV	0.185	0.036	0.149	0.032	0.153
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Fixed-Effects		Sub-dist	$\operatorname{rict} imes$ Year, Mo	nth, Day	

Table A3: Predicting political disruptions: First-stage Results

Notes: *** p < 0.01, ** p < 0.05, * p < 0.1. Standard errors clustered at the sub-district are reported in parentheses. Outcomes are in fortnight summations prior to survey date.

		Other	Health Fa	cility Utili	zation	
		OLS			2SLS	
	(1)	(2)	(3)	(4)	(5)	(6)
All Political Disruptions (std)	0.021 (0.017)			0.126** (0.064)		
All Protests (std)		0.006 (0.008)			0.033 (0.023)	
All Other Political Disruptions (std)		0.017 (0.016)			0.073 (0.053)	
Peaceful Protests (std)			0.008 (0.007)			0.020 (0.021)
All Violent Political Disruptions (std)			0.017 (0.016)			0.081* (0.043)
Mean of DV Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	0.708	0.708	0.708	0.708 197.97	0.708 238.76 68.87	0.708 178.89 68.80
Observations	6.209	6.209	6.209	6.209	6.209	6.209
Controls Fixed-Effects	√	√ Sub-c	$\sqrt[]{listrict \times Y}$	√ √ ∕ear, Month	√ , Day	√

Table A4: The Impact of Political Disruptions on Other Health Facility Utilization

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

The outcome variable is an indicator of whether a child who was unwell in the two weeks before the interview was taken to any health facility other than a medical college hospital, specialized government hospital, district hospital, maternal and child welfare center, upazila health complex, private hospital, or private medical college hospital. This includes family welfare clinics, community clinics, satellite clinics, private clinics, private pharmacies, private doctors, community health workers, NGO field workers, and others. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of the number of such events in the two weeks before the interview. Estimations reported in columns (4)-(6) utilize contemporaneous fortnight summations of cricket matches × *lagged*-fortnight summations of respective events as instruments while controlling for independent terms separately. See section **4** for the list of controls.

		Diarrhea	ı		Fever		Cough		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Panel A: H	Iospital Ca	re Utilizati	on		
All Political Disruptions (std)	-0.045			-0.095***			-0.121***		
All Protests (std)	(0.027)	-0.111** (0.044)		(0.002)	-0.035**		(0.002)	-0.070*** (0.014)	
All Other Political Disruptions (std)		-0.018			-0.047**			-0.050***	
Peaceful Protests (std)		(0.021)	-0.133*** (0.033)		(0.021)	-0.020 (0.014)		(0.017)	-0.046*** (0.012)
All Violent Political Disruptions (std)			-0.022 (0.022)			-0.059** (0.024)			-0.069*** (0.021)
Mean of DV Sanderson-Windmeijer F-Stat 1	0.101	0.101	0.101	0.106	0.106	0.106	0.117	0.117	0.117
Sanderson-Windmeijer F-Stat 2	175.55	54.86	57.89	131.54	57.78	64.41	105.55	88.01	69.45
			Ра	nel B: Othe	r Health Fa	cility Utiliz	zation		
All Political Disruptions (std)	0.050 (0.045)			0.128** (0.062)			0.133** (0.055)		
All Protests (std)	(,	0.089 (0.087)			0.001		(,	0.052** (0.024)	
All Other Political Disruptions (std)		0.040			0.075			0.094**	
Peaceful Protests (std)		()	0.103		(-0.001		(0.036
All Violent Political Disruptions (std)			0.052 (0.034)			0.076* (0.044)			0.109*** (0.036)
Mean of DV	0.729	0.729	0.729	0.733	0.733	0.733	0.723	0.723	0.723
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	195.33	33.88 54.86	56.65 57.89	131.54	249.59 57.78	150.42 64.41	165.33	203.30 88.01	69.45
Observations	414	414	414	5.328	5.328	5.328	4.464	4.464	4.464
Controls Fixed-Effects	√	√	√	√ Sub-disti	√ rict × Year	√ Month Day	,,. <u>-</u> , √	√	\checkmark

Table A5: The Impact of Political Disruptions on Health Facility Utilization by Type of Ailment

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

Outcomes are binaries indicating a positive response to respective ailment. Note that a child could have been reported to have more than one type of ailment. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of the number of such events in the two weeks before the interview. Estimations reported in columns (4)-(6) utilize contemporaneous fortnight summations of cricket matches \times *lagged*-fortnight summations of respective events as instruments while controlling for independent terms separately. See section 4 for the list of controls.

	Hospital Facility	Home Delivery	Hospital Delivery	Other Delivery	Hospital Prenatal	Child Postnatal	Full Vacc	Timely Vacc
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Battles (std)	-0.006	-0.004	-0.004	0.008	-0.005	0.015	-0.001	-0.014
	(0.005)	(0.009)	(0.005)	(0.006)	(0.012)	(0.012)	(0.008)	(0.031)
Riots (std)	-0.010	-0.004	0.011	-0.007	0.006	-0.003	0.008	0.030
	(0.012)	(0.005)	(0.009)	(0.008)	(0.009)	(0.011)	(0.008)	(0.037)
Strategic Developments (std)	0.011	0.014***	-0.011	-0.003	-0.004	-0.005*	-0.009***	-0.024
	(0.016)	(0.002)	(0.007)	(0.008)	(0.003)	(0.003)	(0.001)	(0.017)
Violence against Civilians (std)	-0.017***	-0.001	0.007	-0.006	0.002	0.018***	0.001	-0.000
	(0.004)	(0.006)	(0.005)	(0.006)	(0.011)	(0.007)	(0.011)	(0.067)
Protests (std)	-0.016***	0.015*	-0.003	0.012	-0.009*	-0.005	-0.015*	-0.048
	(0.006)	(0.009)	(0.007)	(0.008)	(0.005)	(0.012)	(0.009)	(0.080)
Observations	6,209	11,390	11,390	11,390	8,798	9,173	16,682	8,752
Mean of DV	0.105	0.576	0.170	0.254	0.302	0.616	0.307	0.306
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Fixed-Effects			Sub-	district \times Y	ear, Month,	Day		

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the district are reported in parentheses.

Coefficients are from OLS estimations. "Hospital Facility" asked the mother whether their child was taken to a hospital for consultation or treatment, conditional on the child being sick, in the fortnight prior to survey date. "Home Delivery," "Hospital Delivery," and "Other Delivery" are binaries indicating a positive response to respective delivery locations. "Hospital Prenatal," and "Child Postnatal" are binaries indicating at least one hospital prenatal visit during pregnancy and at least one postnatal checkup of the child after delivery, respectively. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "Timely Vacc" is an ordinal count of the number of vaccinations received by the child within government mandated time periods. "Battles," "Riots," "Strategic Developments," "Violence against Civilians," and "Peaceful Protests" are standardized values of fortnight summations prior to survey date in column (1), 1-month summations prior to delivery date in columns (2)-(4), 9-month summations prior to delivery date in column (5), 2-month summations post delivery date in column (6), and 1-year summations post delivery date in columns (7)-(8). See section **4** for the list of controls.

	BCG	DPT1	DPT2	DPT3	OPV1	OPV2	OPV3	MEA		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
			Panel A	A: All Poli	tical Disruj	otions				
All Political Disruptions (std)	-0.055 (0.098)	-0.160 (0.107)	0.026 (0.113)	0.112 (0.097)	-0.170 (0.108)	-0.065 (0.092)	0.088 (0.092)	-0.730* (0.392)		
Sanderson-Windmeijer F-Stat	21.05	17.65	31.29	27.99	19.02	28.33	28.88	31.18		
]	Panel B: A	ll Protests					
Peaceful Protests (std)	-0.165	-0.264** (0.113)	-0.237	-0.186 (0.168)	-0.240** (0.106)	-0.213	-0.080 (0.171)	0.022		
All Violent Political Disruptions (std)	-0.059 (0.136)	0.020 (0.080)	0.080 (0.155)	-0.149 (0.103)	0.001 (0.080)	-0.034 (0.119)	-0.091 (0.095)	-0.120 (0.178)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	200.74 242.31	289.27 232.93	246.46 160.12	296.85 184.28	214.96 217.63	296.01 193.05	209.83 205.21	257.00 161.62		
	Panel C: Peaceful Protests									
Peaceful Protests (std)	-0.209* (0.108)	-0.196** (0.092)	-0.158	-0.048	-0.186** (0.091)	-0.239 (0.151)	0.028	0.120		
All Violent Political Disruptions (std)	-0.033 (0.122)	-0.028 (0.083)	0.022 (0.146)	-0.124 (0.100)	-0.044 (0.085)	-0.062 (0.108)	-0.076 (0.091)	-0.205 (0.188)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	278.56 201.15	271.34 206.08	250.88 189.05	186.30 126.84	250.03 233.01	269.12 171.20	232.18 183.95	253.27 160.66		
Observations Mean of DV	6,986 0.254	6,893 0.728	6,092 0.546	6,105 0.479	6,855 0.726	6,492 0.601	6,078 0.474	4,795 0.686		
Fixed-Effects	V	V	√ Sub-d	\checkmark istrict \times Y	√ ear, Month,	√ Day	V	\checkmark		

Table A7: Impacts on Timely Vaccinations

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

Outcomes are binaries indicating timely receipt of the following 8 vaccinations by the child as per government mandated time periods as follows: $BCG \le 28$; 38 > DPT1 < 71; 66 > DPT2 < 99; 94 > DPT3 < 127; 38 > OPV1 < 71; 66 > OPV2 < 99; 94 > OPV3 < 127; and 269 > Measles < 302 days (Sheikh et al., 2018). "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of 1-year summations of respective outcomes after delivery date. Estimations utilize contemporaneous-1-year summations of cricket matches \times *lagged*-1-year summations of respective events, from delivery date, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

		Weight-fo	r-Age (WFA)		Height-for-Age (HFA)					
	z-score (1)	Severe (2)	Moderate (3)	Normal (4)	z-score (5)	Severe (6)	Moderate (7)	Normal (8)		
	Panel A: All Political Disruptions									
All Political Disruptions (std)	-0.049* (0.026)	0.007 (0.011)	0.002 (0.016)	-0.010 (0.015)	-0.058* (0.031)	0.007 (0.013)	0.022 (0.026)	-0.030 (0.026)		
Sanderson-Windmeijer F-Stat	129.31	129.31	129.31	129.31	133.01	133.01	133.01	133.01		
	Panel B: All Protests									
All Protests (std) All Other Political Disruptions (std)	-0.061 (0.072) -0.014 (0.040)	0.022** (0.010) 0.007 (0.011)	0.018 (0.023) 0.021 (0.022)	-0.041* (0.023) -0.025 (0.020)	-0.115* (0.063) -0.046* (0.026)	0.007 (0.014) 0.001 (0.016)	0.009 (0.030) 0.014 (0.023)	-0.016 (0.023) -0.024 (0.023)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	267.81 243.88	267.81 243.88	267.81 243.88	267.81 243.88	245.11 253.64	245.11 253.64	245.11 253.64	245.11 253.64		
			Par	nel C: Peac	eful Prote	ests				
Peaceful Protests (std) All Violent Political Disruptions (std)	-0.072 (0.058) -0.013 (0.030)	0.022* (0.012) 0.004 (0.011)	0.016 (0.027) 0.013 (0.019)	-0.038 (0.024) -0.015 (0.019)	-0.102 (0.081) -0.048* (0.028)	0.014 (0.014) 0.007 (0.016)	0.005 (0.025) 0.010 (0.016)	-0.018 (0.023) -0.018 (0.020)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	259.44 250.30	259.44 250.30	259.44 250.30	259.44 250.30	261.12 226.99	261.12 226.99	261.12 226.99	261.12 226.99		
Observations Mean of DV Controls Fixed-Effects	13,845 -1.304 √	13,845 0.065 √	13,845 0.200 ✓ Sub-c	$ \begin{array}{c} 13,845\\ 0.735\\ \checkmark\\ \text{listrict}\times\text{Ye}\\ \end{array} $	13,845 -1.423 √ ear, Month	13,845 0.108 √ a, Day	13,845 0.226 √	13,845 0.666 √		

Table A8: Impact of Political Disruptions on Child Health Outcomes

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

WFA z-scores and HFA z-scores in columns (1) and (5) are calculated using the WHO Anthro program. Children with respective z-scores < -3.0 standard deviations are identified as severely underweight or stunted in columns (2) and (6), -3.0 < z-scores < -2.0 are identified as moderately underweight or stunted in columns (3) and (7), and z-scores > -2.0 as normal in columns (4) and (8). "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of 9-month summations prior to delivery date. Estimations utilize contemporaneous-9-month summations of cricket matches \times *lagged*-9-month summations of respective events, from delivery date, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

	Female Child				Male Child					
	Home Delivery (1)	Hospital Delivery (2)	Child Postnatal (3)	Full Vacc (4)	Home Delivery (5)	Hospital Delivery (6)	Child Postnatal (7)	Full Vacc (8)		
	Panel A: All Political Disruptions									
All Political Disruptions (std)	0.004 (0.048)	-0.008 (0.032)	-0.045 (0.065)	-0.092** (0.041)	0.007 (0.050)	-0.049 (0.061)	-0.001 (0.061)	-0.145* (0.078)		
Sanderson-Windmeijer F-Stat	53.85	53.85	244.48	29.87	64.78	64.78	93.11	24.51		
	Panel B: All Protests									
All Protests (std)	0.025	0.029	-0.034**	-0.100* (0.052)	0.017	-0.006	-0.012	-0.036		
All Other Political Disruptions (std)	0.008 (0.014)	-0.017 (0.022)	0.039 (0.056)	-0.023 (0.026)	-0.003 (0.017)	-0.011 (0.017)	0.014 (0.052)	-0.053 (0.049)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	253.21 222.73	253.21 222.73	72.14 26.23	228.23 143.36	216.84 256.57	216.84 256.57	143.08 17.78	232.10 271.10		
			Pa	nel C: Peac	eful Protes	sts				
Peaceful Protests (std)	0.043*	0.010	-0.033***	-0.070**	0.031	-0.006	-0.008	0.004		
All Violent Political Disruptions (std)	(0.023) 0.023* (0.012)	(0.023) -0.012 (0.017)	(0.013) 0.086 (0.057)	-0.035 (0.025)	(0.023) 0.012 (0.014)	-0.002 (0.016)	(0.019) 0.014 (0.046)	(0.048) -0.052 (0.055)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	213.89 211.89	213.89 211.89	130.17 31.20	209.07 220.93	230.82 249.13	230.82 249.13	208.64 16.06	197.22 114.76		
Observations Mean of DV Controls	5,637 0.588	5,637 0.163	4,957 0.624	6,638 0.511	6,158 0.561	6,158 0.177	4,556 0.607	5,990 0.525		
Fixed-Effects	✓	√	✓ Sub-	$\sqrt[4]{district \times Y}$	✓ ear, Month,	√ Day	V	✓		

Table A9: Heterogeneity in the Impact of Political Disruptions by Gender

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

[&]quot;Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of 1-month summations prior to delivery date in columns (1)-(4), 2-month summations after delivery date in columns (5)-(6), and 1-year summations after delivery date in columns (7)-(8). Estimations utilize contemporaneous period summations of cricket matches \times *lagged* corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

Table A10: Heterogeneity by I	Distance to Health Facility an	nd Number of Health Professionals
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	Home Delivery	Hospital Delivery	Child Postnatal	Full Vacc	Home Delivery	Hospital Delivery	Child Postnatal	Full Vacc		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
	Panel A: Distance to nearest health facility (in kms)									
		Distance	> Median		$Distance \leq Median$					
Peaceful Protests (std)	0.069**	-0.005	-0.009 (0.016)	0.014 (0.022)	-0.036 (0.023)	0.058 (0.038)	0.001	0.004		
All Violent Political Disruptions (std)	-0.028 (0.021)	0.008 (0.014)	-0.119** (0.046)	-0.010 (0.019)	-0.013 (0.013)	-0.027 (0.018)	0.014 (0.068)	0.007 (0.042)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	255.20 230.24	255.20 230.24	228.74 91.49	140.04 93.15	121.62 98.85	121.62 98.85	220.34 39.55	294.90 237.48		
Observations Mean of DV	5,974 0.605	5,974 0.158	4,839 0.617	6,987 0.513	5,845 0.543	5,845 0.184	4,715 0.615	6,899 0.541		
	Panel B: Health professionals per capita (10,000 people)									
	H	Iealth work	ers > Media	n	Health workers \leq Median					
Peaceful Protests (std)	-0.076	0.030	0.051	0.046**	0.055^{**}	-0.041**	-0.048	-0.041*		
All Violent Political Disruptions (std)	-0.008 (0.021)	0.000 (0.021)	-0.003 (0.036)	-0.013 (0.015)	0.012 (0.035)	0.014 (0.033)	0.071 (0.073)	0.002 (0.020)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	255.43 235.39	255.43 235.39	184.72 104.64	200.10 56.80	269.12 231.17	269.12 231.17	261.76 154.25	297.54 71.57		
Observations Mean of DV	5,745 0.585	5,745 0.136	4,395 0.625	6,648 0.485	5,836 0.565	5,836 0.203	4,953 0.606	7,605 0.501		
Controls Fixed-Effects	\checkmark	\checkmark	√ Sub-c	\checkmark listrict × Y	√ ear, Month,	√ Day	\checkmark	\checkmark		

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses. "Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "Peaceful Protests" and "All Violent Political Disruptions" are standardized values of 1-month summations prior to delivery date in columns (1)-(4), 2-month summations after delivery date in columns (5)-(6), and 1-year summations after delivery date in columns (7)-(8). Estimations utilize contemporaneous period summations of cricket matches \times lagged corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

Table A11: Heterogeneity by Transportation Time and Use of Inform	mation
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	Home Delivery	Hospital Delivery	Child Postnatal	Full Vacc	Home Delivery	Hospital Delivery	Child Postnatal	Full Vacc			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
		Panel A: Transportation Time (minutes/km)									
		Time >	Median		Time \leq Median						
Peaceful Protests (std)	0.017 (0.025)	0.034 (0.021)	-0.022 (0.018)	-0.012	-0.162***	0.044	0.072 (0.058)	-0.020			
All Violent Political Disruptions (std)	0.001 (0.012)	-0.026** (0.013)	-0.167** (0.077)	-0.024 (0.068)	0.030 (0.027)	-0.019 (0.025)	0.043 (0.044)	-0.049 (0.062)			
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	232.07 179.64	232.07 179.64	395.13 328.84	194.01 137.38	212.42 200.27	212.42 200.27	263.44 342.36	272.47 218.83			
Observations Mean of DV	5,516 0.571	5,516 0.171	4,548 0.618	6,414 0.515	5,016 0.594	5,016 0.160	4,000 0.604	5,900 0.540			
	Panel B: Mother's TV Viewership										
		Mother w	atches TV		Mother does not watch TV						
Peaceful Protests (std)	0.005	0.013 (0.024)	-0.024** (0.012)	0.009	0.147*** (0.053)	-0.085** (0.037)	-0.049** (0.024)	0.013 (0.027)			
All Violent Political Disruptions (std)	0.002 (0.014)	-0.016* (0.009)	-0.032 (0.041)	-0.039 (0.028)	0.059** (0.028)	0.026 (0.021)	-0.098 (0.077)	-0.038 (0.032)			
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	273.11 214.63	273.11 214.63	226.93 58.75	242.46 466.91	282.03 136.10	282.03 136.10	70.75 12.22	191.74 190.38			
Observations Mean of DV	7,091 0.464	7,091 0.223	5,720 0.666	7,935 0.488	4,691 0.740	4,691 0.093	3,790 0.540	4,847 0.489			
Controls Fixed-Effects	\checkmark	\checkmark	√ Sub-o	\checkmark district \times Y	√ Year, Month,	√ Day	\checkmark	\checkmark			

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

"Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "Peaceful Protests" and "All Violent Political Disruptions" are standardized values of 1-month summations prior to delivery date in columns (1)-(4), 2-month summations after delivery date in columns (5)-(6), and 1-year summations after delivery date in columns (7)-(8). Estimations utilize contemporaneous period summations of cricket matches \times *lagged* corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

	Home Deliverv	Hospital Deliverv	Child Postnatal	Full Vacc	Home Deliverv	Hospital Delivery	Child Postnatal	Full Vacc		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
	Panel A: Location of Residence (Urban/Rural)									
		Ur	ban		Rural					
Peaceful Protests (std)	0.059***	0.002	-0.047***	-0.009	0.019	-0.036	-0.013	-0.064		
All Violent Political Disruptions (std)	(0.020)	(0.026) -0.011	(0.014) -0.046	(0.017) -0.038	(0.045)	(0.028) -0.003	(0.028)	(0.053)		
The violent ronated Disruptions (stu)	(0.010)	(0.013)	(0.038)	(0.037)	(0.026)	(0.018)	(0.083)	(0.020)		
Sanderson-Windmeijer F-Stat 1	314.24	314.24	220.34	260.30	270.09	270.09	16.84	316.67		
Sanderson-Windmeijer F-Stat 2	226.60	226.60	189.34	222.59	271.70	271.70	3.26	33.48		
Observations	3,611	3,611	2,833	4,182	8,079	8,079	6,601	9,197		
Mean of DV	0.409	0.253	0.710	0.513	0.647	0.134	0.577	0.527		
	Panel B: Nighttime Lights									
	Nightlight > Median				Nightlight \leq Median					
Peaceful Protests (std)	0.078	-0.025	-0.018	0.004	0.011	-0.045	-0.052	-0.014		
All Violent Political Disruptions (std)	(0.062) -0.034	(0.058)	(0.018)	(0.005)	(0.148)	(0.008)	(0.044)	(0.019)		
All violent rondeal Disruptions (stu)	(0.093)	(0.131)	(0.025)	(0.018)	(0.086)	(0.125)	(0.100)	(0.037		
Sanderson-Windmeijer F-Stat 1	225.51	200 16	29.93	285.84	268.44	140.42	22.95	24.54		
		200.10	= / . / -							
Sanderson-Windmeijer F-Stat 2	117.93	184.68	14.21	14.71	40.05	223.15	13.98	15.57		
Sanderson-Windmeijer F-Stat 2 Observations	117.93 4,149	184.68 4,149	14.21 3,966	14.71 6,931	40.05 4,150	223.15 4,201	13.98 4,257	15.57 6,920		
Sanderson-Windmeijer F-Stat 2 Observations Mean of DV	117.93 4,149 0.510	184.68 4,149 0.182	14.21 3,966 0.665	14.71 6,931 0.525	40.05 4,150 0.589	223.15 4,201 0.154	13.98 4,257 0.643	15.57 6,920 0.551		
Sanderson-Windmeijer F-Stat 2 Observations Mean of DV	117.93 4,149 0.510	184.68 4,149 0.182	14.21 3,966 0.665	14.71 6,931 0.525	40.05 4,150 0.589	223.15 4,201 0.154	13.98 4,257 0.643	15.57 6,920 0.551		

Table A12: Heterogeneity by Location of Residence & Nighttime Lights

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the sub-district are reported in parentheses.

"Home Delivery" and "Hospital Delivery" indicates a positive response to respective delivery locations. "Child Postnatal" indicates at least one postnatal checkup of the child within 2 months after delivery. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "Peaceful Protests" and "All Violent Political Disruptions," are standardized values of 1-month summations prior to delivery date in columns (1)-(4), 2-month summations after delivery date in columns (5)-(6), and 1-year summations after delivery date in columns (7)-(8). "Nightlight" median splits are done by the by same period summations in each column. Nighttime lights data is from 2012-2018. Estimations utilize contemporaneous period summations of cricket matches \times *lagged* corresponding period summations of respective events, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
	Hospital	Home	Hospital	Other	Hospital	Baby	Full	Timely		
	Facility	Delivery	Delivery	Delivery	Prenatal	Postnatal	Vacc	Vacc		
	Panel A: All Political Disruptions									
All Political Disruptions (std)	-0.083***	0.021	-0.017	-0.038	-0.017	0.004	-0.110**	-1.664**		
	(0.022)	(0.049)	(0.039)	(0.054)	(0.062)	(0.061)	(0.051)	(0.667)		
Sanderson-Windmeijer F-Stat	190.66	38.61	38.61	38.61	144.60	231.55	16.37	37.26		
	Panel B: All Protests									
All Protests (std)	-0.058***	0.047	-0.040*	-0.007	-0.059	-0.072* (0.043)	-0.092* (0.049)	-2.478* (1 295)		
All Other Political Disruptions (std)	-0.032*	0.018	0.027	-0.045	0.034	-0.084	-0.091***	-0.730		
	(0.018)	(0.046)	(0.034)	(0.040)	(0.086)	(0.052)	(0.035)	(0.802)		
Sanderson-Windmeijer F-Stat 1	91.02	236.69	236.69	236.69	235.78	286.73	252.26	294.76		
Sanderson-Windmeijer F-Stat 2	50.57	178.37	178.37	178.37	223.91	55.04	177.73	78.44		
			Pa	anel C: Pea	ceful Prote	sts				
Peaceful Protests (std)	-0.036***	0.037	-0.022	-0.016	-0.030	-0.063*	-0.059	-1.317		
	(0.013)	(0.031)	(0.027)	(0.025)	(0.065)	(0.034)	(0.041)	(0.881)		
All Violent Political Disruptions (std)	-0.047***	0.011	0.005	-0.016	0.032	-0.078	-0.091**	-1.146*		
	(0.017)	(0.027)	(0.038)	(0.031)	(0.070)	(0.059)	(0.036)	(0.686)		
Sanderson-Windmeijer F-Stat 1	146.06	264.10	264.10	264.10	309.89	251.47	273.45	205.49		
Sanderson-Windmeijer F-Stat 2	69.12	162.02	162.02	162.02	272.66	82.19	270.13	104.59		
Observations	4,210	9,501	9,501	9,501	6,722	7,327	12,277	4,861		
Mean of DV	0.106	0.578	0.168	0.254	0.299	0.620	0.524	3.165		
Controls	√	√	√	√	√	√	√	√		
Fixed-Effects		Sub-d	istrict, Sub-	district \times Ye	ear, Sub-dis	trict \times Mont	h, Day			

Table A13: Impacts on Health-seeking Behavior: Robustness to Using Stricter Fixed Effects

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the district are reported in parentheses.

"Hospital Facility" asked the mother whether their child was taken to a hospital for consultation or treatment, conditional on the child being sick, in the fortnight prior to survey date. "Home Delivery," "Hospital Delivery," and "Other Delivery" are binaries indicating a positive response to respective delivery locations. "Hospital Prenatal," and "Child Postnatal" are binaries indicating at least one hospital prenatal visit during pregnancy and at least one postnatal checkup of the child after delivery, respectively. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "Timely Vacc" is an ordinal count of the number of vaccinations received by the child within government mandated time periods. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of fortnight summations prior to delivery date in column (1), 1-month summations prior to delivery date in columns (2)-(4), 9-month summations prior to delivery date in column (5), 2-month summations post delivery date in column (6), and 1-year summations post delivery date in columns (7)-(8). Estimations utilize contemporaneous fortnight summations of cricket matches × *lagged*-fortnight summations of respective events as instruments while controlling for independent terms separately. See section 4 for the list of controls.

	(1) Hospital Facility	(2) Home Delivery	(3) Hospital Delivery	(4) Other Delivery	(5) Hospital Prenatal	(6) Baby Postnatal	(7) Full Vacc	(8) Timely Vacc		
	Panel A: All Political Disruptions									
All Political Disruptions (std)	-0.123** (0.061)	0.011 (0.031)	-0.018 (0.018)	-0.029 (0.020)	-0.004 (0.014)	-0.019 (0.029)	-0.158* (0.090)	-0.118* (0.065)		
Sanderson-Windmeijer F-Stat	133.53	180.07	180.07	180.07	119.94	154.92	108.55	117.62		
	Panel B: All Protests									
All Protests (std) All Other Political Disruptions (std)	-0.064* (0.035) -0.047 (0.103)	0.045 (0.028) 0.038 (0.025)	-0.057** (0.028) 0.008 (0.028)	0.013 (0.027) 0.030 (0.028)	-0.066 (0.055) -0.009 (0.057)	-0.119 (0.098) -0.186 (0.173)	-0.319*** (0.114) -0.269*** (0.096)	-0.288 (0.276) -0.297 (0.294)		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	243.50 197.38	202.96 136.65	202.96 136.65	202.96 136.65	72.91 26.10	57.92 67.12	78.34 45.74	80.31 74.73		
	Panel C: Peaceful Protests									
Peaceful Protests (std) All Violent Political Disruptions (std)	-0.055* (0.030) -0.025	0.055* (0.032) 0.042*	-0.058** (0.026) 0.004	0.003 (0.030) 0.038	-0.047 (0.053) -0.030	-0.113 (0.092) -0.232	-0.344*** (0.106) -0.240***	-0.221 (0.386) -0.198		
Sanderson-Windmeijer F-Stat 1 Sanderson-Windmeijer F-Stat 2	(0.100) 231.49 165.28	(0.025) 282.65 242.20	(0.022) 282.65 242.20	(0.026) 282.65 242.20	(0.051) 91.65 28.34	(0.189) 44.03 43.54	(0.086) 41.18 77.10	(0.315) 86.70 54.84		
Observations Mean of DV Controls Fixed-Effects	6,209 0.105 √	11,825 0.574 √	11,825 0.171 √ Di	$ \begin{array}{r} 11,825\\ 0.255\\ \checkmark\\ istrict \times Yea\end{array} $	9,383 0.305 √ ar, Month, D	9,560 0.616 √ Day	14,041 0.516 √	9,352 2.967 √		

Table A14: Impacts on Health-seeking Behavior: Alternative Instruments

Notes:

*** p < 0.01, ** p < 0.05, * p < 0.1.

Standard errors clustered at the district are reported in parentheses.

"Hospital Facility" asked the mother whether their child was taken to a hospital for consultation or treatment, conditional on the child being sick, in the fortnight prior to survey date. "Home Delivery," "Hospital Delivery," and "Other Delivery" are binaries indicating a positive response to respective delivery locations. "Hospital Prenatal," and "Child Postnatal" are binaries indicating at least one hospital prenatal visit during pregnancy and at least one postnatal checkup of the child after delivery, respectively. "Full Vacc" is a binary indicating receipt of the following 8 vaccinations by the child: BCG, DPT1, DPT2, DPT3, OPV1, OPV2, OPV2, and Measles. For the "Full Vacc" regressions we restrict the sample to children at least 1 year of age at time of survey. "Timely Vacc" is an ordinal count of the number of vaccinations received by the child within government mandated time periods. "All Political Disruptions," "All Protests," "All Other Political Disruptions," "Peaceful Protests," and "All Violent Political Disruptions" are standardized values of fortnight summations prior to delivery date in column (1), 1-month summations prior to delivery date in columns (2)-(4), 9-month summations prior to delivery date in column (5), 2-month summations post delivery date in column (6), and 1-year summations post delivery date in columns (7)-(8). Estimations utilize cricket matches \times number of district-level local players in cricket match, and cricket matches \times number of district-level local matches, summed over each corresponding period, as instruments, while controlling for independent terms separately. See section 4 for the list of controls.