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POLICY-MAKING, TRUST AND THE DEMAND FOR PUBLIC SERVICES: EVIDENCE FROM A MASS STERILIZATIONS CAMPAIGN

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Policy-Making, Trust and the Demand for Public Services:

Evidence from a Mass Sterilizations Campaign[*]

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Abstract

We study a mass sterilization campaign in which more than 300,000 Peruvian women were sterilized. Many of these are alleged to have been performed without appropriate or informed consent. The subsequent disclosure of the alleged illegal sterilizations caused a reduction in the usage of contraceptive methods, prenatal and birth delivery services, and –more generally– the demand for medical services in affected areas. As a result, child health also worsened. The results persist for at least 17 years after the information disclosure and are driven by disappointed supporters of the regime. Learning about the government's malpractices undermined trust in institutions.

JEL Codes: O10, I14, I18, N36

Keywords: Trust, public policy, reproductive health

1   Introduction

State legitimacy and trust in government institutions are at the core of the effective delivery of public services in democratic societies. To ensure the success of public policies, it is crucial to have high state capacity to provide public goods and services, as well as a corresponding demand for these services. Trust in the government and its institutions is a key ingredient needed to generate such demand.[1] Failure in the implementation of policies – either due to poor execution or malpractices in the processes – undermines citizen trust, and this effect may be more pronounced among those who constitute the main building block of its legitimacy, the government's supporters. While a large body of literature studies different ways in which governments can strengthen state capacity (e.g. Besley and Persson (2011); Khemani (2019)), much less is known about how government actions affect trust and the demand for public services.

In this paper, we study a large-scale family planning campaign in which human rights violations were alleged to have taken place, and its short- and long-term consequences on child and maternal health service utilization, child health, and trust in institutions. Between 1996 and 2000, the Peruvian government launched an anti-poverty strategy, which featured family planning as a central component. During the implementation of this policy, more than 300,000 women were sterilized. Following the fall of the government that implemented this policy, reports surfaced recounting how a large number of women were forced or pressured into undergoing the procedure. Many of them suffered from procedure-related health complications, including extreme cases that resulted in death. Thousands of women lost their ability to have children through procedures conducted without their consent, and were often unaware that the procedure was irreversible (Defensoría del Pueblo, 1999).

Comparing affected and unaffected municipalities, before and after the disclosure of these alleged human rights violations, we show that the sterilization campaign led to long-lasting reductions in the usage of contraceptive methods, prenatal and birth delivery services, and worse child health outcomes, and – more generally – lower demand for health services in public facilities. The effects can be observed up to 17 years after the administration responsible for this policy left office. The results show that the effects are entirely driven by municipalities where the baseline support for the government was strong. Additional evidence shows that

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[1]The case of the United States and its COVID-19 vaccination campaign makes for a good recent illustration of this point. On the one hand, substantial state capacity ensured funds were readily available for the development of new vaccines, and once developed, rapid and effective distribution of the medicines. On the other hand, for a relatively long period, vaccination rates were significantly lower than in other developed nations. The low demand for this public good is largely explained by low levels of trust in specific institutions among certain groups of citizens.

the mechanism underlying these effects is one in which voters who supported the government, upon learning about the abuses committed during the implementation of the policies, became disappointed, thus eroding their trust in institutions in charge of public goods provision in affected municipalities.

Demand for public health care remains low in many developing countries despite the growing availability of public health services and effective treatments of common diseases (Dupas and Miguel, 2017). Mistrust towards health care providers and skepticism about treatments can be important drivers of this low demand (Alsan and Wanamaker, 2018; Lowes and Montero, 2021; Martinez-Bravo and Stegmann, 2022). To study how government policies can bolster or undermine trust in institutions responsible for delivering health services, and its effects on the demand for such services, we investigate a historical event in Perú in which widespread medical malpractice occurred and a large number of women allegedly were sterilized without providing their consent. These sterilizations were conducted under a democratically elected government that took an authoritarian turn. The national policy imposed very ambitious monthly targets for the number of sterilizations that should be conducted in each region and year, while also waiving the right of practitioners to object to carrying out certain treatments and procedures. These targets put significant pressure on physicians and senior staff, since high-level officials had to report the progress of the campaign directly to the President.

During the first years of the campaign, several NGOs and the Ombudsman's Office received complaints about the way the sterilization program was being conducted, claiming that in many parts of the country health service providers were not following the protocols for obtaining consent to perform the sterilization procedures. For example, there were reports that women were lied to, not informed about the irreversible nature of the procedure, or threatened with having public benefits withheld if they did not agree to the surgery.

The government of president Alberto Fujimori – which conducted the family planning campaign – has been shown to have had tight control of the press and other public institutions, including the Congress and the judiciary (Mcmillan and Zoido, 2004). Journalistic and legal investigations of alleged human rights violations occurring during the campaign were not brought to light, suppressed, or quickly dismissed. Public discussion of these atrocities did not take place to any significant degree until the Fujimori regime fell and a new democratically elected government took power. This government started formal investigations into these cases, which began to be widely reported in the press. We take advantage of the change in the information environment to estimate the causal effects of the disclosure of the alleged violations on the usage of public health services and child health outcomes. We implement

a difference-in-difference strategy, which compares outcomes in municipalities with different intensities of alleged human rights violations, before and after the change in the information environment.

A key challenge in the estimation of the effects of the public disclosure of the abuses committed during the campaign is measuring its incidence. We collect new data from a registry created in 2015 by the Ministry of Justice to track the number of alleged victims of forced sterilizations. Inclusion in the registry is voluntary. Women who registered gained priority access to legal counseling, psychological support and medical assistance covered by the government, but no monetary compensation was offered. Overall, 6,794 cases were listed in the registry at the time we obtained the data. Each case was validated by the Ministry by means of a medical examination and by cross-checking the information against the medical records maintained by the regional office of the Ministry of Health (when available), which documented that the person went through a sterilization procedure during the period when the program was active.

Given the number of women who signed up in the registry, it is very likely that it represents a lower bound of the true number of women sterilized without consent during the family planning campaign in each municipality. To validate whether the variation in this registry captures the relative intensity of the alleged illegal sterilizations across municipalities, we compare its time and cross-sectional variation with that of sterilizations in public health facilities reported in the Peruvian Demographic and Health Survey (DHS). Not only do we document that the correlation between these two datasets is high, both in the time-series and the cross-section, but also that the individual characteristics of women who report having been sterilized during that period match quite well those in the registry. This provides confidence that the registry is a fairly accurate representation of the actual relative incidence of the sterilizations performed during the implementation of the family planning program.

Our main findings are as follows. First, we find that, after the disclosure, women in municipalities with a higher number of reported cases of forced sterilizations are less likely to use contraceptives, to use prenatal health services, and seek professional care during birth. In these locations, after the information disclosure about these cases, a 10% increase in the number of reported cases leads to a 0.7% lower usage of contraceptives and a 4.1% lower delivery and prenatal care services.

Second, we show that children in treatment areas, after 2001, are more likely to be sick and show higher levels of malnutrition. A 10% increase in the number of reported cases of illegal sterilizations caused child health to deteriorate by 4.5%. We also find that, in these areas,

after the disclosure of the way sterilizations were conducted, women were less likely to seek professional health care in public health facilities when their children were sick. While some people compensated by visiting private health facilities more often, the net effect on health service usage is negative.[2]

We validate our identification assumption by showing that there are no differential trends in any of our main outcome variables in the period preceding the fall of the Fujimori government and the subsequent disclosure of the abuses committed during the campaign. Further, in an event study framework, we also show that the results on contraceptive usage, prenatal and delivery health service usage, and child health persist until our last period of available data, in 2017. Our main results are robust to using an alternative dataset to measure the incidence of the campaign and to using an instrumental variable strategy that mitigates potential measurement errors in the main independent variable.

Our main results could also be explained by differential trends in healthcare usage and child health in municipalities targeted by the program. Our baseline specification includes municipality and time fixed effects, as well as province-specific time trends. We also show that the core results are robust to the inclusion of interactions between baseline municipality characteristics and time trends, and the results are unchanged if we use the number of reports as a proportion of the population instead of the raw levels. Additionally, consistent with our hypothesis that the results are driven by women who became aware of the campaign, we show that the main effects are not only present among women who were old enough to have been directly affected by the policy, but rather the effect is equally strong for women who were too young to have been sterilized between 1996 and 2000. This implies that some information was transmitted to women who were not directly affected. We also show that our results cannot be explained by changes in the supply of government health services in the affected municipalities after the information disclosure.

What mechanisms underlie the reduction in demand for public health services among women in municipalities with higher incidences of alleged forced sterilizations? Previous literature has argued that declines in the demand for health services in the aftermath of medical malpractice events may stem from social learning induced by individual or political identification

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[2]Previous studies have examined the direct effects of this campaign on health outcomes. Byker and Gutierrez (2021) find that children of sterilized women show improvements in educational attainment and health outcomes. Battaglia and Pallarés (2020) document reduced infant mortality in provinces where the campaign took place earlier, but the reductions are only present among non-indigenous mothers. Unlike these studies, we focus on the effects of the disclosure of allegedly illegal governmental actions on the behavior of women living in affected areas *after* the campaign had ended. Additionally, our study exploits new and arguably more accurate data on the relative incidence of campaign exposure across municipalities.

(Alsan and Wanamaker, 2018; Martinez-Bravo and Stegmann, 2022). We argue, instead, that these effects are explained by political supporters of the regime who, after learning about the human rights violations during the policy implementation, lose trust in institutions in charge of health service provision and are hence less likely to seek out medical care from the public sector. Consistent with this hypothesis, we show that our main effects are entirely accounted for by women in municipalities where voter support for Fujimori's party was high at baseline. Further, the political disappointment is also reflected in voter support for Fujimori's party, which drops significantly after 2001 in locations more affected by the sterilization campaign.[3] We also find no indication that the drop in demand was linked to social learning by individual or political identification. The main effects are not driven by women who share characteristics with those directly affected by the policy, namely, those from rural areas, Quechua speakers, or the less educated.

Finally, we document that mistrust in those institutions charged with executing the sterilization campaign and those who failed to take action against responsible parties (i.e., the government, the public administration and the judiciary) significantly increases after the information disclosure, while mistrust in other institutions and generalized trust remain unchanged.

This paper contributes to the literature studying state capacity, the legitimacy of policy making, and trust in government (Besley and Persson, 2011; Khemani, 2019). A small group of studies shows that effective policy making can lead to increases in trust in the government and its legitimacy (Acemoglu et al., 2020; Fair et al., 2017). A smaller group of studies (e.g., Gonzalez-Torres and Esposito (2022)) show that trust in the government is an important mediator for the effectiveness of public policies. We contribute to this literature by showing that failures in policy making can undermine trust, not only because of not achieving relevant policy goals but also due to the specific means through which they are implemented. We show that deliberately misleading citizens in order to achieve a policy objective erodes trust in government institutions, reducing their legitimacy and decreasing the demand for public services lastingly.

Our work also speaks to the body of literature seeking to identify the determinants of the demand for health in developing countries (for a good review of this literature, see Dupas and Miguel (2017)). Trust in medical personnel, in the treatments themselves, and, more broadly, in the institutions providing medical services has long been hypothesized to be among

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[3]Our results resonate with the findings of Ferraz and Finan (2008) who document that voters punish incumbents at the polls if previous audits reveal that they committed many corrupt violations while in office (similarly, see Larreguy, Marshall, and Snyder Jr (2020)).

the leading factors affecting willingness to seek health services; at the same time, empirical evidence supporting this hypothesis has been scarce until relatively recently. Three recent studies identify the causal effects of medical malpractices on trust in medicine and show that these events have important consequences on the demand for health services (Alsan and Wanamaker, 2018; Lowes and Montero, 2021; Martinez-Bravo and Stegmann, 2022).[4] Unlike these studies – which focus on actions taken by a foreign or non-state actor – our setting is one in which a democratically elected government executed a large-scale domestic policy in which abuses were committed. These actions, in turn, undermined trust and the legitimacy of the state itself, particularly among the supporters of the government (the source of their legitimacy), thus leading to a sustained decrease in the demand for public services.

Finally, our work contributes to the understanding of the long-lasting impacts of historical events in which forced or mass sterilization campaigns have been conducted by domestic policymakers, which, unfortunately, have been common.[5]

2 Background and Study Setting

2.1 Political Regime and the Family Planning Campaign

In 1990, amid a severe economic situation, as well as political, and security crises, Alberto Fujimori was elected as president of Perú. His government quickly took an authoritarian turn with the dissolution of Congress in 1992, later exerting control over large parts of the judiciary, the newly elected congress, the National Board of Elections, and the media (Mcmillan and Zoido, 2004). Levitsky and Way (2002) argue that Perú under Fujimori is best described as a regime of competitive authoritarianism, where elections are the means to obtain political power, but incumbents attack democratic rules to an extent that the minimum standards for democracy are not met.

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[4]In a similar vein, Archibong and Annan (2021) show that the revelation of news on unethical medical trials of a new drug among children in Nigeria led to a decrease in vaccination rates. Conversely, Christensen et al. (2021) show that interventions that increase trust in the health sector personnel in non-crisis times improve their effectiveness in the response to emergencies.

[5]Forced sterilization policies have been carried out by the Indian government during the "state of emergency" years in the 1970s (BBC, 2014), by the Chinese government, which targeted Uighurs and Tibetan women, by the Uzbek government under President Islam Karimov, in former Czechoslovakia, Roma women were targeted, in Canada and USA women from indigenous communities were victims (Pegoraro, 2015). Additionally, in four Latin American countries (El Salvador, Honduras, Mexico and Nicaragua), women living with HIV were targeted (Kendall and Albert, 2015), while in Australia, adolescents with disabilities were victimized (Elliot, 2017), in Finland mentally ill women were targetted in the 1940s (Seeman, 2007) (see Zampas and Lamackova (2011) for other cases in Europe). In 1998 the International Criminal Court recognized systematic forced sterilizations as a crime against humanity (Rome Statute of the International Criminal Court).

Throughout his term in office, Fujimori's domestic program was centered around poverty reduction. He argued that one of the main ways to achieve this goal was by diminishing fertility rates, and as such, in 1992, he declared the start of the "Decade of Family Planning". INEI (1992) documents that at that time, sixty percent of Peruvian women with stable partners used traditional contraception methods (i.e. "natural" family planning methods or withdrawal), while access to modern contraceptives was not only low but also unequal across socioeconomic groups, translating into stark differences in fertility rates. For instance, women with a college education had on average 1.9 children, whereas those with no formal education had 7.1 children (Aramburú, 2002). Similarly, women in urban areas had an average of 2.8 children, while women living in rural areas had 6.2 children. Maternal and child mortality rates were extremely high, at 234 deaths per 100,000 live births (INEI, 2002) and 74 deaths per 1,000 live births (United Nations, 2020), respectively, with similar inequalities between education categories and rurality.[6]

After winning his first re-election in 1995, Fujimori launched a family planning program to fight poverty by reducing fertility: the National Program of Reproductive Health and Family Planning (*Programa Nacional de Salud Reproductiva y Planificación Familiar*, Ministerial Resolution N. 071-96-SA/DM, MINSA (1996)). The program was well-funded and became a top priority for the administration (Aramburú, 2002). The prominence of the program became evident when Fujimori proclaimed that "Perú is not only fighting poverty and exclusion but also against the lack of information so citizens can plan their families with absolute freedom" (MINSA, 1996). Similarly, the Prime Minister stated that "the government cannot reduce poverty efficiently if poor families keep having seven children on average" (Diario Gestión, as quoted in Aramburú (2002)). The program primarily targeted areas where fertility was high, which mostly corresponded to rural areas in the highlands and the Amazon, as well as urban areas with extremely poor populations. There was no explicit targeting of the campaign to any ethnic or educational group.

Three significant legal reforms were at the core of the implementation strategy of the program. First, public health facilities were authorized to perform male and female sterilizations at no charge as a contraceptive method. Second, the General Health Law removed the possibility of objection to treatment for public health professionals, effectively mandating them to perform any type of prescribed contraceptive intervention. Third, women were provided

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[6]INEI (2002) reports that child mortality was significantly higher in rural areas (90 deaths per 100,000 live births) than in urban areas (48 deaths per 100,000 live births). According to the same source, there were also important differences in child mortality across educational levels of the mother. For instance, the child mortality rate for mothers without education was 102, whereas the rate for mothers with a college education was 21.

with other modern contraceptives in public health facilities for free, including birth control pills, intrauterine devices, and condoms.

The sterilization campaign was named Voluntary Surgical Contraception (AQV, for its acronym in Spanish). The AQV campaign established ambitious monthly targets on the number of sterilizations, which put significant pressure on physicians and senior staff. In addition, given the key role of the campaign in the government's policy agenda, compliance with these targets was monitored at the highest levels of power through direct reports to the President.[7] The tight schedule to meet these targets and the inability of medical professionals to refuse to perform procedures may have led to violations of medical guidelines. Various NGOs and the Ombudsman's office indicate that the national policy focused almost exclusively on tubal ligations (and to a lesser extent on vasectomies) and that targets were established determining that a particular number of women must use certain contraceptive methods. These reports collected testimonies from several witnesses alleging that women were sterilized without consent, were provided with limited information on the irreversible nature of this procedure, were threatened with withholding public services, or were not provided sufficient time to think about the procedure's consequences (as established in medical guidelines) (Defensoría del Pueblo, 2002).[8]

The implementation of the AQV campaign in rural areas was done through mobile clinics, which were set up at a central place in each municipality. Around these mobile clinics, health personnel organized 'health festivals', which were widely advertised by frontline health workers to people in the surrounding communities by providing information about the services that would be offered during the event. The information campaigns, including their announcement and advertisement, made the festivals very salient to everyone in the municipality, including those who did not end up attending to them.

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[7]For example, Mariano Costa Bauer, Minister of Health in 1997, had to submit monthly reports to President Fujimori detailing whether the targets had been met and if not, providing explanations for any delay (MINSA, 2020). Over 1997, the monthly target was sterilizing 12,000 women (i.e., 144,000 for the year). Figure A.1 shows one of the few leaked reports sent by the Minister in August 1997.

[8]From June 1997 to January 1998, the Ombudsman's Office received reports of women who had been sterilized without proper consent and of alleged irregularities in the application of voluntary surgical contraception. These irregularities mainly consisted of a lack of safeguards to free choice. Additionally, some testimonies show a lack of proper follow-up after surgery and a precise application of the program (Defensoría del Pueblo, 1998; Zauzich, 2000; CLADEM, 1999; Congreso de la República del Perú, 2002). These reports received very poor coverage by the press, as we document in the next section.

2.2 Media Environment and Information Availability

Government officials systematically dismissed complaints about alleged human rights violations associated with the AQV campaign. For example, the Deputy Minister of Health, Alejandro Aguinaga, stated that "The Ministry of Health has clarified endlessly that it is not part of its policy to establish goals in the family planning program" after being questioned about the sterilizations quotas in the family planning program (El Comercio, January 12, 1998).[9] Additionally, these complaints were seldom reported in newspapers or TV, a fact explained by the regime's influence on the media (Mcmillan and Zoido, 2004; Levitsky and Ziblatt, 2018).[10] Figure 1 shows the total number of news articles in international media outlets that contain the words "forced sterilizations + peru" in the Factiva database.[11] The number of articles remains minimal over the period in which Fujimori was in power. Consistent with the government's control of the news, only after 2001 we observe a sharp spike in the number of articles talking about the alleged human rights violations during the family planning campaign.

After illegally winning his third election in 2000, Fujimori faced well-founded claims of widespread corruption. The resulting protests ended up forcing his resignation from the presidency in September 2000. During the transition government, isolated complaints about the sterilization campaign surfaced in the press but were framed as unrelated incidents. It was not until September 2001 – when the new democratically-elected government took power – that the new Minister of Health, Luis Solari, announced an investigation on the AQV campaign would soon begin.[12] Following the executive's actions, Congress established a commission to investigate the way in which the campaign had been rolled out. In August 2002, after months of research, the appointed director of the committee, Hector Chávez Chuchón, filed a constitutional indictment against Fujimori and three of his Ministers of Health, for the role they played in AQV campaign (Burneo, 2008).[13] This constitutional indictment was widely

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[9]As shown in Figure A.1, this statement is false. Similarly, an investigation of these cases was quickly archived in Congress by the government's political allies in 1998 (Congreso de la República del Perú, 2002).

[10]Mcmillan and Zoido (2004) analyze bribe receipts from Vladimiro Montesinos, the head of Perú's intelligence services. The authors show that bribes to the media (newspapers and television channels) were much larger than those to politicians from opposition parties or judges, revealing how much power and control they had on the press. Levitsky and Ziblatt (2018) states that the Fujimori government was "masterful at buying out its critics, particularly those in the media". For example, the government was able to get specific journalists dismissed from the leading TV channels and it has been shown that it had influence on news programming.

[11]Unfortunately, there is no systematic digital record of newspaper articles circulated in Perú for the relevant period of study.

[12]This announcement was reported by the BBC (Sánchez, 2001), one of the first major international media outlets to report on the campaign and the alleged human rights violations that had taken place.

[13]Chávez, trained as a doctor, worked for public hospitals during Fujimori's regime and lost his job because

reported in national and international media outlets, and thus, we treat this event as the one triggering the nationwide disclosure of the violations committed during the AQV campaign. Moreover, the salience of this indictment has only continued to grow over the years, as it set the legal precedent for the public trial of Fujimori and his Ministers of Health (the trial began on March 2021 and is still ongoing). Finally, this indictment, along with other charges, prepared the legal background for the creation of the registry of victims that we use in the empirical analysis (detailed in the next section). We summarize the events leading up to the disclosure of the alleged human rights violations occurring during the AQV campaign in Figure A.2.

Overall, the evidence indicates that the AQV campaign was a salient event in the municipalities where it took place. However, the government played a large role in suppressing the information about the abuses that happened during the campaign, and this information was only publicized after the regime had fallen, in 2001.

3   Data and Descriptive Statistics

For our empirical analysis, we draw from multiple sources of data.

Demographic and Health Surveys 1991-2017.   For our main outcome variables, we use the Peruvian Demographic and Health Survey (DHS), which is available from 1991 until 2017. The DHS waves used here are nationally representative cross-sectional surveys conducted before the campaign disclosures (1991, 1992, 1996, 2000) and after (yearly, between 2004-2017). We have information on our main outcomes of interest for 329,630 women aged 15-49 and their children under five years of age. Importantly, these surveys include information on the municipalities where the respondents live, which allows us to link them to the number of forced sterilizations reported during the campaign.

Exposure to information about human rights violations during the family planning campaign may have affected women's willingness to seek medical advice on family planning, to seek prenatal care and medical assistance during birth, and more generally, to seek medical care for their children (if needed). Our main outcome variables in the analysis are thus the usage of contraceptive methods, usage of prenatal care and delivery services, child health outcomes, and usage of health facilities.

Contraceptive usage is relatively low in our sample, with only 55% of the women of child-

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he refused to participate in the AQV campaign.

bearing age currently using a contraceptive method. Outcome variables related to the use of prenatal care and delivery services, and child health are presented using two indices. We first construct an index of prenatal care and delivery, which includes survey responses on whether the woman received any prenatal care during her pregnancy, whether she gave birth at home (as opposed to institutional deliveries), and whether any qualified personnel assisted the birth. 9% of the women in the sample received no prenatal care at all and 22% delivered their children at home (see Panel A in Table A.1). Responses are standardized with respect to baseline year (2000) and then averaged, hence lower values of the index imply lower usage of these services.

Our child health index employs survey questions asking whether the child is moderately or severely stunted (height-for-age z-score below two standard deviations), moderately or severely underweight (weight-for-age z-score below two standard deviations), and whether the child was recently sick with fever, cough, or diarrhea. On average, 46% of them report having been sick with fever, cough, or diarrhea in the past four weeks. Again, these variables are standardized with respect to the baseline year (2000) and averaged. Lower values of the index indicate worse child health outcomes.

Finally, among the sub-sample of children who reported having been sick in the preceding four weeks, the survey asks if they were taken to a health facility and whether it was a private or public center. 42% of sick children were not treated in any health institution. 23% of sick children were treated in private institutions and 37% in public institutions. The summary statistics of relevant variables are shown in Panel A in Table A.1.

Latinobarómetro 1996-2018. We measure trust in different governmental institutions and people in charge of public offices using the Peruvian waves of Latinobarómetro between 1996-2018. Overall, we have 23,392 respondents in our dataset, with survey responses before (1996-2000) and after (2001-2018) the disclosure of the alleged cases of forced sterilizations. We present summary statistics of relevant variables in Panel A in Table A.2.

Electoral Outcomes 1998-2018. To estimate the heterogeneity of our main effects by baseline support for the ruling party, as well as the effects on later voting outcomes, we collected information on municipal mayoral elections between 1998 to 2018, which we obtained from the National Electoral Commission (JNE, for its acronym in Spanish). Panel B in Table A.2 shows the corresponding summary statistics.

Forced Sterilization Victims. Data on the incidence of allegedly illegal sterilizations during the government's AQV campaign were obtained from the Registry of Victims of Forced Sterilizations (REVIESFO, for its acronym in Spanish). This registry was created in December 2015 by the Ministry of Justice. The main objective of the registry was to provide victims with free priority access to legal counseling, psychological support, and medical assistance for potential sequels associated with an alleged forced sterilization. Even though women have not been offered monetary compensation, anecdotal reports from REVIESFO's senior officials suggest that some victims are hoping to receive reparations in the future if the perpetrators are found guilty in court.

In 2016, the Ministry of Justice organized multidisciplinary groups of professional workers (health personnel, lawyers, psychologists, and translators) to collect data on the victims in three waves.[14] The data we use includes all victims registered until August 2021, when we obtained these data.

The information on each alleged victim of illegal sterilization was carefully verified. Women interested in adding their names to the registry were required to complete a questionnaire and document their claims with lawyers, psychologists, and translators. At the verification stage, each alleged victim had to be checked by a medical specialist, who, after determining whether or not the person had been sterilized at some point in time, would then send a detailed report to the regional office of the Ministry of Justice. Furthermore, each case was checked against the medical records of the victim in the corresponding regional office of the Ministry of Health, when available. An investigation for each case may take up to 30 days, during which officials would determine where and when the sterilization took place. Once all the information had been verified, the victim was included in the registry. There are a total of 6,794 women registered with REVIESFO, with cases reported in 378 of 1,874 municipalities (20.2%, see Panel B of Table A.1). Figure A.3 shows the geographical distribution of registered cases included in REVIESFO. In the next sub-section, we perform a series of empirical exercises to validate the representativeness and coverage of these data.

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[14]In the first wave, between January and March 2016, officials went to five regions with previous reports of cases: Cusco, Cajamarca, Piura, Huancavelica, and Eastern Lima. In the second wave, during July 2016, officials went to four additional regions: Ayacucho, Center of Lima, South of Lima, and San Martin. In the third wave, in the remaining months of 2016, officials went again to the same regions and La Libertad, Huanuco, Junin, and Moquegua. Thereafter, women were allowed to register at their municipalities or at regional offices at any time.

3.1 Validation of REVIESFO

Despite extensive efforts made by officials in REVIESFO, the actual number of victims is likely higher than the number of recorded cases. Some NGOs estimate that only about 10% of the more than 300,000 women sterilized during the campaign provided consent and had sufficient information about the procedure (Tamayo, 1998). In addition to under-reporting the actual number of victims, registered cases in the dataset may be biased towards specific locations, types of victims, or time of occurrence.

To validate the information in REVIESFO, we use data from the DHS. In particular, we use the responses to a question asking if the respondent had undergone a sterilization procedure, when the procedure took place, and whether it was performed at a public or private health facility. Figure 2 shows the number of women who reported having been sterilized in a public health facility, by year, in any of the DHS waves between 1991-2017. Although there is no data on whether any of these sterilizations were performed as part of the campaign, recall that prior to 1996 the procedure was not provided for free in public health facilities, thus the total number of sterilizations in public health establishments was low. Consistent with the timing of the program, Figure 2 shows a sharp spike in the number of sterilized women in 1996. This number decreases to roughly its pre-program levels in 2001 (see also Byker and Gutierrez (2021)).

Figure 3a plots the number of cases of sterilizations in the REVIESFO along with the sterilizations in public health facilities reported in the DHS, by year. The time profiles of sterilization cases in both datasets match quite closely.[15] Even though the registry does not cover the universe of alleged victims, the figure shows that the time variation in the data provides meaningful information about the evolution of sterilizations performed by public services in the country.

From the DHS, we can identify the municipality where each respondent lives, and thus, we can compare the time and cross-sectional variation in sterilizations in the DHS and REVIESFO. Figure 3b shows the correlation between our two main sources of data, after partialling out municipality and year fixed effects, as well as province-specific linear time trends (all of which will be included in our main specification). The correlation between the residuals in these datasets is 0.625 (p-value<0.01), showing that these variables are also highly correlated in the cross-section. The fact that the variation in both variables is similar indicates that female

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[15]Note that the numbers coming from the DHS are counts of the number of respondents that report having been through a sterilization in any given year, and thus we should not interpret much from the levels. Instead, the time profile shown in the Figure is representative of the time trend of sterilizations in the country.

sterilizations with and without adequate consent mostly coincided, both in the moment and location where they were performed.

We can go a step further in using the data in the DHS to validate REVIESFO by comparing the few observable characteristics of women in the registry with those who report having been sterilized during the years of the AQV campaign. These comparisons are displayed in Table A.3, where we show the averages and standard deviations. Sterilized women in both the registry and the DHS look remarkably similar in terms of their number of children at the time of the sterilization (4), their age at sterilization (31), and whether they live in an agricultural or rural location (35-37%). The only clear deviation we observe between the reports in the two datasets is a higher share of Quechua-speaking women in the victim registry, compared to the DHS (48% vs. 10%).[16]

To gain a better understanding of how the campaign was implemented geographically and to bolster the argument that the correlation between the DHS and REVIESFO is not led by spurious factors, we investigate which municipality baseline characteristics (from the 1993 census) determine the intensity of sterilizations. In Table A.4, we run a prediction exercise in which the dependent variables are either the number of reports of sterilizations in REVIESFO (columns 1 and 3) or in the DHS (columns 2 and 4), and the predictors are population, gender ratios, indigenous population, education, fertility, and the supply of public health services. We use both OLS and LASSO to do these predictions.[17] As one would expect, the family planning campaign was targeted towards municipalities with higher fertility rates (as proxied by the number of children born in the last five years), which are also the most rural locations, those with a higher share of Quechua-speaking people, and with lower levels of education. Reassuringly, we observe that similar characteristics are simultaneously predictive of the DHS and REVIESFO sterilization counts, both in the OLS and LASSO specifications.

Finally, one may worry that the selection of sites chosen to collect the data was politically motivated, e.g., some locations where the support for Fujimori's party was particularly high may have been targeted in order to sway voters. We rule out this possibility in Panel B of Table A.4, where we show that the probability that a municipality appears in the registry and the number of alleged victims are uncorrelated with the support for Fujimori's party in the 1998 municipal elections.

Overall, the data reveals a significant correlation between the reports of alleged illegal ster-

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[16]The share of indigenous and Spanish-speaking women surveyed in the DHS are similar to the shares found in the 1993 census. The classification of whether someone is a Quechua speaker is very sensitive to the way the question was asked. We do not have the details on the specific question asked in REVIESFO.

[17]To pick predictors of the sterilization count, we apply a penalty parameter that minimizes the BIC.

ilizations contained in REVIESFO and the female sterilizations reported in the DHS. Importantly, this correlation holds in both the temporal and cross-sectional dimensions. Furthermore, individual characteristics of sterilized women in the DHS and the registry are very similar, and the municipality-level intensity of sterilizations in both data sets are very much aligned. Based on these empirical exercises, we conclude that the variation in the REVIESFO data can plausibly be interpreted as a meaningful representation of the distribution of sterilization cases that took place during the AQV campaign.

4 Empirical Strategy

To identify the causal effect of the disclosure of information on the forced sterilization campaign on a range of relevant outcomes, we use a difference-in-differences (DiD) strategy. We compare individuals living in municipalities that were exposed to the AQV campaign (and its intensity) or not exposed, before and after the campaign started to be publicly debated (i.e., before and after the fall of the Fujimori regime). Thus, survey year and the municipality of residence jointly determine the exposure to the shock induced by the campaign disclosure. We test our main hypotheses by estimating the following regression equation:

$$Y_{ijt} = \beta Post_t \times FS_j + \zeta X_{ijt} + \gamma_j + \delta_t + \nu_{p(t)} + \varepsilon_{ijt} \tag{1}$$

where Y_{ijt} is the outcome of interest for individual i, in municipality j, in survey year t. $Post_t$ takes value 1 if the survey took place after the disclosure in 2001. FS_j, denotes our treatment variable in municipality j as reported in REVIESFO. This variable can be either the number of women illegally sterilized in municipality j during the campaign period (1995-2000) or a dummy for whether any women reported being illegally sterilized in municipality j between 1995-2000. Given the skewed distribution of the intensity of the program and the large number of zeroes, we apply the inverse hyperbolic sine transformation (IHS) (Johnson, 1949; Friedline, Masa, and Chowa, 2015).

To account for other potential determinants of the demand for health care and child health outcomes, we add to the main specification a vector of individual-level time-varying covariates X_{ijt}, which include the ethnicity of the respondent, her highest educational attainment, age, an index of household wealth,[18] source of drinking water, whether the respondent lives in a

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[18]The wealth index ranges from 1 to 5, with 5 indicating the asset-richest households. The DHS uses survey answers on ownership of selected assets (e.g., TVs, bicycles, sanitation, housing materials, etc.) and applies a principal component analysis to construct the index.

rural area, and the birth-order of the child (for child health regressions). Finally, we account for any municipality-specific, time-invariant factors through the inclusion of municipality fixed effects (γ_j), as well as any time-specific shocks through survey year fixed effects (δ_t). The aggregate time profile of our main outcome variables is controlled for by including province-specific linear trends in the regressions ($\nu_{p(t)}$). Standard errors are clustered at the treatment unit level, the municipality (j).

We are interested in the coefficient β, which is estimated using variation in the intensity (presence) of the AQV campaign across municipalities within the same province trend, before and after the campaign disclosure. In the next section, we extend this DiD specification to study the persistence of the effects over time and show the validity of the parallel trends assumption.

5 Forced Sterilizations, Health Outcomes and Service Utilization

5.1 Main Results

The start of public discussions around the way in which female sterilizations were conducted during the AQV campaign may have led to a reduction in the usage of health services by women in the municipalities where the campaign took place. This should be especially relevant for outcomes related to the usage of family planning methods, and professional health services for both women and their children. Table 1 tests this hypothesis and displays the main results following Equation 1. We use two different specifications. In Panel A, we exploit all the variation in the data, and the main independent variable is the total number of victims registered in REVIESFO (using the IHS transformation, our preferred specification). In Panel B, our treatment is defined as a dummy taking the value of one if any victim was registered in the municipality.[19]

After 2001, women in municipalities with a 10% higher incidence of reports of illegal sterilizations are 0.7% less likely to use contraceptive methods in the years after the release of information about the campaign (column 1).[20,21] We obtain a similar result if we use the

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[19]The difference in the number of observations across columns is due to missing values in the dependent variable.

[20]Contraceptive methods include birth-control pills, IUDs, injections, foam/jelly, condoms, periodic abstinence/withdrawal, Norplant, emergency contraception, and sterilization.

[21]We follow the recommendation by Bellemare and Wichman (2020) to calculate the elasticities in a linear-arcsinh specification. The elasticities are evaluated at the sample means of y and x, using the following

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dummy specification in Panel B, where we show that exposure to any alleged illegal sterilizations during the AQV program leads to a 4 percentage points (6%) drop in the usage of contraceptive methods. Modern contraceptive methods delivered through public health facilities represented 79% of the country's total in 2001, and hence a reduction in the usage of these methods may reflect the fact that women are less likely to seek family planning services in these facilities. We return to this point later in this section.[22]

Municipalities with 10% more reported cases of illegal female sterilizations, after 2001, show a 4.1% lower utilization of prenatal care and professional help when giving birth. Child health in these municipalities is also 4.5% significantly worse (columns 2 and 3 in Panel A, respectively). These results are consistent with the idea that in places with a higher incidence of reported illegal sterilizations, women learning about the alleged human rights violations were more likely to distrust health service providers, leading to lower maternal health service usage and deterioration of child health. Panel B (columns 2 and 3) shows that exposure to the alleged illegal sterilizations caused a decrease in our maternal health service usage index of 0.11σ (29.7%) and the child health index is reduced by 0.05σ (35.5%) in the years after the fall of the Fujimori regime.

The results on prenatal care and delivery service usage or child health are not caused by the standardization or aggregation of the variables. Figures A.4a and A.4b show the regression results on each of the variables included in these indices. Women are less likely to receive prenatal care, more likely to give birth at home, and less likely to receive qualified birth assistance (other than from a relative). Children in affected areas tend to be shorter and have lower body weight after the campaign disclosure and are more likely to report being sick in the four weeks preceding the survey (Figure A.4b).

The results on our main outcome variables are qualitatively the same if instead of using the absolute number of sterilizations in REVIESFO as the main independent variable, we use the per capita number of reported sterilizations (multiplied by 1,000 for exposition purposes). These results are shown in Table A.5. Our results are not driven by the inclusion of individual-level covariates and are virtually unchanged if these covariates are omitted (see Panel B of A.5).

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formula: $\hat{\xi}_{yx} = \frac{\hat{\beta}}{y} \frac{x}{\sqrt{x^2+1}}$.

[22]The overall reduction in contraceptive usage is driven by reductions of modern contraceptives, which are the ones typically recommended by health professionals (see Figure A.5). We don't see a differential change in the usage of folkloric methods. Following the lower usage of contraceptives, we also document that fertility rates (as measured by the total number of children and the number of children born in the past three years) increases after the disclosure of the alleged abuses during the campaign.

The effects of the disclosure of information about the AQV campaign on child health are partially explained by the fact that, after 2001, mothers in affected areas were less likely to seek professional healthcare services when their children are sick. To investigate this, we use data from the DHS, where women are asked whether each of their children under 5 had been sick within the past four weeks and whether they took the child to a professional health service provider. Table 2 shows that in areas where the number of reported cases of illegal sterilizations is 10% higher, women are 0.6% less likely to seek professional health care for their sick children (Panel A, column 1). The reduction in professional health care is even more pronounced in public health facilities, where women are 1.6% less likely to seek care (column 2) if the incidence of illegal sterilizations was 10% higher. Instead, the same increase in the incidence of the campaign generates an increase of 1.1% in the proportion of women women seeking professional health services from private providers (column 3). The increase in the usage of private health facilities is not enough to compensate for the large drop in the usage of public health services.[23] The results using an indicator for exposure to the campaign instead of the intensity are shown in Panel B for completeness.[24]

5.2 Identification Assumption and Time Profile of the Effects

The identification assumption of the causal effects of exposure to the campaign disclosure is that, absent the campaign, after controlling for the relevant fixed effects, trends, and observable characteristics, the outcomes of interest would have behaved similarly in municipalities experiencing different levels of intensity in the implementation of the sterilization campaign. To empirically assess the validity of our identification assumption, we check whether there are any discernible differences in our main outcomes before the campaign disclosure. We execute the analysis laid out in Equation 1, and using our preferred specification in an event study regression, where we interact the treatment with an indicator variable for the pre-disclosure period (1991-1996). We also use this specification to study the persistence of the effects by including interactions with indicators for several post-disclosure periods (2004-06, 2007-11, and 2012-17).

The results for our main outcomes of interest, namely, whether the respondent uses any type

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[23]We do not observe that the usage of informal or traditional health providers changes systematically between areas more and less affected by the campaign after the disclosure. These results are available upon request.

[24]Note that the question of whether mothers seek professional care for their children is only asked if the child reports having been sick. To avoid using a potentially endogenously selected sample, we impute a zero for children who do not report a recent event of sickness. Table A.7 shows the results of the regressions in the restricted sample of children who had reported a recent sickness, and the results are qualitatively similar, with larger magnitudes.

of contraceptive methods, the index for prenatal and delivery services, and a child health index, are shown in Table A.6 and graphically in Figure 4. The omitted category in the analysis is the survey year in which the campaign ended (2000). There are no statistically significant differences in our three main outcome variables in the pre-disclosure period, supporting the identification assumption.

Table A.6 and Figure 4 also show the time profile of the effects. Remarkably, the negative effects of the campaign disclosure in municipalities affected by the AQV campaign hold – and in some cases are magnified – until our last year of data, 17 years after the campaign had ended. In the next sections, we study the underlying mechanisms for these effects and their persistence.

5.3 Robustness Checks

One concern about the validity of our results is the reliability of the data on our main measure of campaign exposure. Section 3.1 shows that the reports contained in the REVIESFO registry correlate well, both in the time and cross-sectional dimensions, with reports of female sterilizations conducted in public health facilities, as reported in the DHS. We perform two additional analyses to show that our results depend neither on the source of data used for our main independent variable nor that REVIESFO may be capturing spurious variation.

First, we repeat the analysis shown in Table 1, but using the reports from the DHS on the number sterilizations in a public health facility carried out between 1995 and 2000 as the main independent variable (using the IHS transformation). As mentioned before, this measure includes campaign sterilizations, plus others that took place independently, and thus the variation partially represents the one created by the AQV campaign. The results are shown in columns (2), (5), and (8) in Table 3. For reference, columns (1), (4), and (7) display our baseline results. Across the board, we find quantitatively similar results, though the result for the child health index is imprecisely estimated.

Second, both measures of the incidence of sterilizations may contain measurement error. For example, the DHS count of sterilizations may have measurement error in the location or time of the procedure reported by the respondent. Similarly, the REVIESFO reports may be capturing slight differences in the effort put by different teams to get alleged victims women to register. To the extent that both of datasets reflect part of the true variation in the program intensity, we can use an instrumental variable strategy to parse out the noise from the signal. Columns (3), (6), and (9) in Table 3 show the results of a set of regressions in which we use the REVIESFO sterilization count to instrument for the DHS sterilization

count. The results of the first stage regressions are depicted in the second to last row in Table 3. As expected, there is a positive and robust association between our two measures of program intensity, delivering partial F-values ranging between 171.1-201.6 (reported at the bottom of the table.) The second stage results are qualitatively similar to our main results for the three main outcomes.[25] Measurement error in the independent variable causes attenuation bias, and consistent with this, we find that the magnitude of our coefficients in the IV specification is larger for all three main outcomes. We conclude that any potential measurement error in our main treatment variable is unlikely to cause any systematic biases in the estimation of our treatment effects.

If municipalities targeted by the campaign systematically differ from those not targeted, and they follow different time trends in healthcare use and child health measures, our main estimates may be biased. As reported in section 3.1, the AQV campaign was conducted with higher intensity in municipalities where fertility rates were higher, more rural locations, and those with a higher proportion of Quechua-speaking population at baseline. To alleviate the concern of a potential differential trend in outcomes, we include in our main specification interactions between a linear trend and baseline measures of variables that may determine health outcomes at the municipality level (taken from the 1993 census), namely fertility, the share of the indigenous population, and labor market participation. Table A.8 shows that the coefficients are similar to our baseline specification, albeit slightly smaller for the first two outcomes.

We interpret our results as being driven by women who have been exposed to public discussions about the alleged crimes committed during the campaign. However, given the scale of the sterilization program, it could be the case that women directly affected by the campaign are the ones who are less likely to trust public health services and reduce their usage, leading to worse child health outcomes. We present three pieces of evidence that rule out this possibility. First, the effects are only detectable after 2001. If it was the case that women directly affected by the campaign are driving the results, then we should see effects for the years after the sterilization and during the period 1996-2000. Second, we run the heterogeneity of the main results by the age of the respondent. Women under the age of 14 by the end of the campaign could not have been sterilized as part of the program. Panel A of Table A.9 shows that the magnitude of the treatment effects is the same for women who were old enough to have potentially been directly affected as for younger women. This implies that

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[25]Note that this IV strategy is used to correct for potential measurement error, rather than to reinforce the causal interpretation of the results (which is warranted by the parallel trends in our difference in differences specification).

some information was transmitted to women who were not directly affected by the campaign. Third, in Panel B of Table A.9, we replicate our baseline specification and exclude all women who report having ever been sterilized and the results are identical in this sub-sample, which reassures us that our findings are not only driven by women directly affected by the campaign or that the results are mechanical (i.e., driven by the fact that sterilized women do not need to use contraceptives or need pre-natal and delivery care).

One additional concern may be that municipalities targeted by the campaign also observed a decrease in the supply of health services in the years after the fall of the Fujimori regime. If that were the case, our results would be driven by changes in the supply side, rather than the demand, as we argue. We rule out this possibility in Table A.10, where we show that after 2001, municipalities more affected by the campaign did not have fewer public health facilities or health professionals (doctors or nurses) per 1,000 inhabitants, compared to municipalities with lower or no incidence of the campaign.

Finally, our treatment period starts in 2001, when the Fujimori regime ended. During his government, there were several other human rights violations (e.g., during the internal conflict or against political opponents), and the government was plagued with corruption scandals. The news about these other events were also more present in the public discussion after 2001. If these events affected the population's trust in the government, they could explain the reduction in the demand for public services. However, note that for this to be the main driver of our results, we need to explain why these other events may have differentially affected people in municipalities where the sterilizations campaign took place.

6   What Explains the Effects of Campaign Exposure?

The results in previous sections show significant effects of exposure to cases of alleged human rights violations during the implementation of the AQV campaign on the usage of contraceptive methods, usage of prenatal and delivery services, and child health. What mechanisms are primarily responsible for driving these effects? In previous research, Alsan and Wanamaker (2018) show that the revelation of an experiment in Tuskegee (US) in which black citizens with syphilis were monitored but not treated (despite the availability of effective medicines) led to reduced trust in health service providers and higher mortality rates. These results were driven by individuals with similar characteristics to the experimental subjects, i.e. older black men living closer to the experimental site who learned about a potential threat through social identification with the victims, and responded accordingly. Martinez-Bravo and Stegmann (2022) show that the use of vaccination teams for strategic military

purposes in Pakistan led to lower trust in vaccines and lower vaccination rates, and the results were driven by areas where the support for Islamist groups was high. Instead of social learning through individual identification, the evidence shows that the main mechanism is one of learning through political and religious identification.

Both of these mechanisms could be at play in our setting. First, while the campaign targeted areas in the country where fertility rates were high, these areas were also more rural and had a higher concentration of indigenous and lower educational levels. The mechanism of learning through social identification would imply that we should observe that rural, indigenous, and low-educated women are the ones driving the results. Second, the diffusion of information about the alleged human rights violations in the AQV campaign may have been spearheaded by opinion leaders who opposed the Fujimori regimen. The hypothesis of learning through political identification would thus imply that we should observe a larger response in areas with lower support for Fujimori at baseline.

A hypothesized alternative mechanism that may explain our results is the disappointment of political supporters of the government in charge of the execution of the policy upon learning about the alleged human rights violations. During Fujimori's term as President, the political and economic crisis of the 1980s was greatly alleviated, and the government's social policies led to a drastic reduction in poverty and increased access to public services, especially for poor and underserved communities. As a consequence, his party had broad support, leading to a landslide victory in his first reelection run in 1995 and winning many municipal governments in the 1998 local elections. Learning that some of the social policies carried out during Fujimori's term may have been executed by means of abuses and violations of basic human rights may have led to deep disappointment among his supporters. The revelation of abuses committed by a democratically elected government could have caused the government's supporters not only to reduce their trust in the government itself, but more broadly in government institutions.

In the following subsections, we empirically test the relevance of each of these potential mechanisms, starting with the latter.

6.1   Political Disappointment and Health Service Usage

If supporters of the Fujimori government felt disappointed by learning about the abuses committed during the implementation of the AQV campaign, we should observe that people in affected municipalities where the support for the government was larger responded stronger to the disclosure of information about the alleged forced sterilizations.

In Panel A of Table 4 we test this hypothesis by presenting the results of a specification that extends that on Equation 1 by including a heterogeneity term that interacts the intensity of alleged illegal sterilizations, the indicator for post-2001, and a dummy variable for whether voters in the municipality were strong supporters of Fujimori's party. More precisely, we split the sample between municipalities where the vote share for Fujimori's party in the 1998 municipal elections was above or below the median (25.85%).[26]

The results in Panel A of Table 4 show that the negative effects of the disclosure of the human rights violations occurring during the AQV campaign on contraceptive usage, usage of maternal health services, and child health are entirely driven by municipalities where the baseline support for Fujimori's party was high. In all cases, the treatment effects for those municipalities with below-the-median vote share for Fujimori's party are very close to zero and statistically insignificant. This is consistent with the interpretation that learning about the specifics of the campaign led to greater disgruntlement among former Fujimori supporters, who then reduced their demand for public health services, leading to worse child health outcomes. Note that this result rules out the hypothesis that the main mechanism underlying our main results is learning by political identification, as in Martinez-Bravo and Stegmann (2022), since this hypothesis implies that the results should be driven by opposition strongholds.

If disappointment with the government among its supporters is the main driver of our core results, we should observe that municipalities with a higher incidence of alleged illegal sterilization also reduced their support for Fujimori's party *after* the disclosure of information about the abuses. We test this in Panel B in Table 4, where we evaluate the treatment effects on a variety of relevant political outcomes. We include in the analysis all municipal elections between 1998 and 2018. Column 1 shows that voters in municipalities affected by the campaign turn out to vote as often as those in unaffected municipalities. Turning to outcomes that reflect the support for Fujimori's party, the result in column 2 shows that after 2001, the vote share of Fujimori's party was 0.6% lower in municipalities with 10% more registered victims. Consequently, the party ranked higher in the election, i.e., farther from the first position (column 3), but the effects are not large enough to affect the probability that they would win (column 4).[27]

Overall, we see that the effect of the disclosure of the alleged forced sterilizations is entirely

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[26]The 1998 local elections were the last elections in which Fujimori's party participated before the disclosure of the information on the potential abuses committed during the AQV campaign. In 2000, Fujimori run for reelection, but there are credible claims that the results were manipulated.

[27]The probability of the party running for election is unrelated to the number of registered victims.

driven by municipalities where the baseline support for the party in power was high, which is consistent with the idea that the main mechanism behind these effects is the disappointment of former political supporters.

6.2 Alternative Mechanisms

Table 5 presents a horse race between several alternative mechanisms that could explain our results. We test the hypothesis that our results may be due to learning through individual identification by including in the main specification from Equation 1 interactions between the difference-in-difference term and indicators for whether the respondent is a Quechua speaker, lives in a rural locality, or has completed more than secondary schooling. To test whether information diffusion through traditional media explains our results, we also include an interaction with the strength of radio signal in 2001 (normalized with have mean zero).[28] Finally, we also include the interaction term that tests for our political disappointment mechanism, namely, the interaction with whether the support for Fujimori's party was above or below the median.

Our results show that Quechua speakers, women in rural localities, and less educated women in affected municipalities are equally likely to respond to the disclosure of information about the abuses of the campaign as the average women in our sample in their usage of contraceptive methods or the usage of maternal health services. Similarly, their children show comparable health status as those of Spanish-speaking women, those in urban areas, and highly educated women. In fact, the triple interaction terms are very close to zero, demonstrating that social learning through identification cannot explain our results.[29] Municipalities with better radio signal intensity are also discarded as the main drivers of the result. While surprising, this result may reflect the fact that the information about the alleged human rights violations

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[28]We use the location and power of all radio transmitting antennas in 2001 to calculate the maximum signal strength in all municipalities at the time of the information disclosure about the AQV campaign. Information on the radio antennas was provided by the Ministry of Transportation and Communication (MTC). We apply the Irregular Terrain Model (Hufford, 2002) (ITM) to calculate the signal loss induced by the distance between the transmitting and receiving antennas and the topography of the municipalities. We follow a similar approach to Olken (2009); DellaVigna et al. (2014); Durante, Pinotti, and Tesei (2019) and use the ITM algorithm to calculate (i) the predicted signal loss given the topography of the municipality, and (ii) the predicted signal loss assuming no obstacles (free space signal loss). We subtract the signal loss from the radio station's transmission power to obtain the predicted signal power in decibels (dB). We keep the highest predicted signal power per municipality for the (i) predicted signal power, and (ii) the free space signal power. In all specifications using the signal power, we control for the predicted free-space signal strength, allowing us to use variation in signal strength caused by topographical characteristics only.

[29]Table A.11 shows the results of regressions where we include the triple interactions in the main specification independently. Given the high correlation between these variables, these results are hard to interpret independently.

spread through different mechanisms, including newspapers and public discussions.

Finally, the one interaction coefficient that survives the horse race is the one with baseline support for Fujimori's party. Not only does the interaction maintain its statistical significance (except in the case of contraceptive usage), but the magnitude of the estimates is also barely reduced, supporting our interpretation that the mechanism explaining our results is the disappointment among Fujimori's political supporters.[30]

6.3   Forced Sterilizations and Trust in Institutions

Usage of public health services and child health significantly decreased in municipalities where the alleged medical malpractices took place during the AQV campaign, after the fall of the Fujimori government, when information about these malpractices started to be publicly discussed. We argue that learning about these abuses undermined trust in government institutions, which in turn caused the reduction in healthcare utilization and worsened child health.

We obtain data on trust in public institutions and government offices from the Latino-barómetro survey, which has been collected yearly between 1996 and 2018. We use questions reflecting trust in institutions directly involved in either the implementation of the campaign or its investigation or on individuals in key government posts. As a placebo check, we also use questions related to trust in institutions that were unrelated to the implementation of the campaign. The results are shown in Table 6. Citizens in municipalities where the intensity of the campaign was higher show higher levels of mistrust in the government, in the public administration, and in the judiciary after 2001 (Panel A, columns 1-3). Instead, mistrust in specific individuals in charge of the institutions, like the President, Congress or political parties (Panel A, columns 4-6) remains unchanged in localities with a higher vs. lower or null incidence of forced sterilizations. The same is true for trust in institutions that were not related to the implementation of the AQV campaign, as the church, the police, or the armed forces (columns 1-3 in Panel B), which we take as a placebo exercise. Finally, we also do not observe any significant effects on generalized trust (column 4 in Panel B).

The results show that the increased mistrust is directed at government institutions, rather than specific people or political parties in charge of the administration of these institutions. This explains why we see that the reduced usage of public health services and the consequent

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[30]It is important to note that the samples we are considering here – women of child-bearing age and women with children – could be exactly the individuals most likely to identify with the victims directly. However, even *within* this social group, the effects are only relevant for women living in municipalities where political support for Fujimori's party was high.

worsening of child health status persist even 17 years after the disclosure of information about the alleged atrocities committed during the AQV campaign, a period in which multiple authorities from different political parties were in charge of these institutions. This backlash is consistent with the idea that the implementation of public policies through means that go beyond what is acceptable in a democratic society can undermine the legitimacy and trust in public sector institutions, leading to lower demand for public services.

7   Conclusions

Trust in the government and public institutions is a key determinant of the demand for public services. In turn, the way public policies are executed and communicated to citizens influences trust and the legitimacy of the state.

We study how policy making shapes citizen trust by examining the effects of the disclosure of information on alleged human rights violations committed during the execution of a large-scale family planning campaign in the 1990s in Perú. The central government initiated this campaign to reduce fertility and poverty rates. Thousands of women were allegedly forced or pressured into undergoing tubal ligations (sterilizations) or given insufficient information or time to consider its consequences. Several accounts have documented the existence of ambitious sterilization quotas, which put significant pressure on health workers to perform a large number of sterilizations. Many women suffered from procedure-related health complications, some of which resulted in death. The sterilization campaign infringed the reproductive rights of thousands of women who were unfamiliar with the irreversible nature of tubal ligations or the appropriate way to proceed in such medical circumstances. Importantly, widespread information about the human rights violations alleged to have occurred during the campaign was not available until a new democratically elected government took office in 2001.

We find that the disclosure of the alleged abuses that took place during the sterilizations campaign caused a long-lasting reduction in the utilization of contraceptive methods, the usage of prenatal and birth delivery services, and more generally, public health services, ultimately leading to worsened child health. Our results are entirely driven by affected municipalities where the support for the government responsible for the sterilizations campaign was stronger at baseline. This suggests that the main mechanism driving the results is the disappointment of political supporters of the regime. In a democracy, these political supporters constitute the main building block of the government's legitimacy, our results thus show a new political economy mechanism through which a specific government's actions can undermine the legitimacy of state institutions.

Our results highlight how a government's strategy to achieve its policy objectives shapes citizen trust in institutions and their long-lasting effects on demand for public services. We observe that the effects survive up to 17 years after the disclosure of information about the alleged human rights violations. This means that citizens who lose trust in a given administration are unlikely to regain confidence in public institutions after that administration leaves office, which translates into a permanent decrease in the demand for public services. These results show the risks of objective-driven policy making, which, in the absence of proper accountability mechanisms (as is the case in authoritarian regimes), can put those in charge of executing the policies on the brink of breaking the law.[31]

Understanding the drivers of mistrust and under-utilization of public goods is crucial to improving the design of public policy interventions. Furthermore, our results have important implications for the way in which public policies are communicated to citizens. Transparency and accountability could play an important role in fostering trust in institutions and enhancing the demand for public services (Christensen et al., 2021). A question that is left for future research is how can governments can restore citizens trust.

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[31]Another example of how the demand for achieving specific goals in high-stakes contexts can lead to extremely negative effects can be found in the Great Famine caused by the great leap forward in China.

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Table 1: Forced Sterilizations, Health Care Usage, and Child Health (DHS)

	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
Panel A			
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	-0.013*** (0.002)	-0.044*** (0.006)	-0.019*** (0.004)
Panel B			
Any Forced Sterilization Reported (1=Yes)×*Post* 2001	-0.040*** (0.008)	-0.106*** (0.021)	-0.049*** (0.016)
Mean Dep. Var.	0.663	0.356	0.138
Observations	253562	152775	160926
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: In column (1), the regression is at the woman level. In columns (2) and (3) the regressions are at the child level. The prenatal and delivery index is composed by: 1) no prenatal care received 2) birth at home 3) birth assistance (other than relative). The child health index is composed by: 1) child was sick recently (diarrhea, fever, cough) 2) child is underweight 3) child is stunted. Dependent variables in columns 2 and 3 are standardized (with mean 0 and standard deviation 1) with respect to baseline year 2000. Lower values indicate worse outcomes. HH characteristics: ethnicity of respondent, highest educational attainment, household wealth index, drinking water source, lives in rural area, and birth order of child (for columns 2 and 3). Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table 2: Forced Sterilizations and Health Seeking Behavior (DHS)

	(1) Sick child received any health care	(2) Sick child received private health care	(3) Sick child received public health care
Panel A			
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	-0.005* (0.002)	0.003** (0.002)	-0.008*** (0.002)
Panel B			
Any Forced Sterilization Reported (1=Yes)×*Post* 2001	-0.010 (0.010)	0.011** (0.006)	-0.022** (0.009)
Mean Dep. Var.	0.266	0.105	0.170
Observations	172608	172213	172132
Adj. R-squared	0.021	0.038	0.028
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: Dependent variables take the value of 1 if the condition is true, and zero otherwise. See the note of Table 1 for the list of household characteristics. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table 3: Health Care Usage and Child Health (DHS): OLS and 2SLS Regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Currently using contraceptives			Prenatal care and delivery index			Child health index		
IHS (Num. of Forced Sterilizations Reported) $\times Post$ 2001	-0.013*** (0.002)			-0.044*** (0.006)			-0.019*** (0.004)		
IHS (Num. of Reported Sterilizations DHS) $\times Post$ 2001		-0.020*** (0.003)	-0.030*** (0.006)		-0.067*** (0.008)	-0.098*** (0.014)		-0.010 (0.008)	-0.043*** (0.009)
Mean Dep. Var.	0.663	0.663	0.663	0.356	0.356	0.356	0.138	0.138	0.138
Observations	253562	253562	253562	152775	152775	152775	160926	160926	160926
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1st stage Wald F-stat			171.052			194.765			201.592
$\beta^{1stStage}$			0.436*** (0.033)			0.447*** (0.032)			0.450*** (0.032)
Method	OLS	OLS	2SLS	OLS	OLS	2SLS	OLS	OLS	2SLS

Notes: See the note of Table 1 for the definition of the dependent variables and the list of household characteristics used as controls. Sterilizations according to DHS are all women sterilized between 1995 and 2000 in a public health facility. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table 4: Forced Sterilizations and Political Support for Fujimori's Party

Panel A: Main Effects, by Baseline Support for Fujimori's Party

	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	-0.002 (0.005)	-0.006 (0.013)	-0.009 (0.009)
High Support × IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	-0.012 (0.008)	-0.054*** (0.019)	-0.025* (0.013)
Mean Dep. Var.	0.660	0.317	0.119
Observations	155125	94341	100204
Adj. R-squared	0.088	0.550	0.118

Panel B: Support for Fujimori's Party in Municipal Elections

	(1) Turnout	(2) Votes shares	(3) Party rank	(4) Won
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	0.001 (0.003)	-1.272** (0.521)	0.346*** (0.100)	0.003 (0.019)
Mean Dep. Var.	0.803	18.036	3.965	0.197
Observations	3241	3241	3241	3241
Adj. R-squared	0.614	0.434	0.391	0.178
Year F.E.	Yes	Yes	Yes	Yes
District F.E.	Yes	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes	Yes

Notes: See the note of Table 1 for the definition of the dependent variables and the list of household characteristics used as controls in Panel A. In Panel B, the regressions are at the municipality level and the dependent variables are: 1) turnout (from zero to one); 2) votes shares (percentage of votes); 3) party rank (ranking according to votes); 4) indicator of winning the election. In both panels, the variable High Support is equal to one if votes share is above the median in the 1998 municipality election results. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017, REVIESFO, JNE municipal vote share and turnout data (1998-2018).

Table 5: Horse Race - Alternative Mechanisms (DHS)

|	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
IHS (Num. of Forced Sterilizations Reported)× *Post* 2001	-0.00759 (0.006)	-0.01636 (0.014)	-0.00047 (0.011)
Quechua Speaker × IHS (Num. of Forced Sterilizations Reported ×*Post* 2001	0.00380 (0.009)	-0.00207 (0.025)	-0.00590 (0.017)
Rural × IHS (Num. of Forced Sterilizations Reported ×*Post* 2001	0.01066 (0.010)	0.03417 (0.021)	-0.02353* (0.014)
Secondary education or more × IHS (Num. of Forced Sterilizations Reported ×*Post* 2001	0.00891 (0.006)	0.01764 (0.011)	0.00756 (0.010)
Signal strength × IHS (Num. of Forced Sterilizations Reported ×*Post* 2001	0.00058 (0.004)	0.00673 (0.012)	0.00073 (0.010)
Support for Fujimori × IHS (Num. of Forced Sterilizations Reported ×*Post* 2001	-0.00858 (0.007)	-0.03828** (0.017)	-0.02411* (0.014)
Mean Dep. Var.	0.660	0.317	0.119
Observations	155123	94341	100204
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: See the note of Table 1 for the definition of the dependent variables and the list of household characteristics used as controls. See footnote 28 in the main text for details on the construction of the signal strength variable. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017, REVIESFO, and the Ministry of Transportation and Communications (MTC).

Table 6: Forced Sterilizations and Trust in Institutions (Latinobarómetro)

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Forced Sterilizations and Trust in Political Institutions						
	Mistrust government	Mistrust public administration	Mistrust judiciary	Mistrust president	Mistrust congress	Mistrust political parties
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	0.025*	0.045***	0.030*	0.019	0.015	0.018
	(0.014)	(0.014)	(0.017)	(0.017)	(0.017)	(0.017)
Mean Dep. Var.	0.384	0.306	0.441	0.400	0.435	0.473
Observations	17581	8825	21323	10986	21345	21304
Adj. R-squared	0.092	0.060	0.034	0.133	0.041	0.037

|	(1)	(2)	(3)	(4)		
Panel B: Forced Sterilizations and Trust in Other Institutions						
	Mistrust church	Mistrust police	Mistrust armed forces	Mistrust people		
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	-0.004	-0.000	0.009	0.011		
	(0.005)	(0.012)	(0.014)	(0.009)		
Mean Dep. Var.	0.095	0.307	0.221	0.846		
Observations	21573	21528	21474	20892		
Adj. R-squared	0.017	0.023	0.043	0.020		
HH characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Dependent variables are equal to 1 if the individual reports having mistrust in the institution, and zero otherwise. Individual characteristics include gender, educational level, household assets (computer and phone), and socioeconomic perception. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: Latinobarómetro (1996-2018) and REVIESFO.

Figure 1: Number of News Articles Including "Forced Sterilizations + Peru", by Year
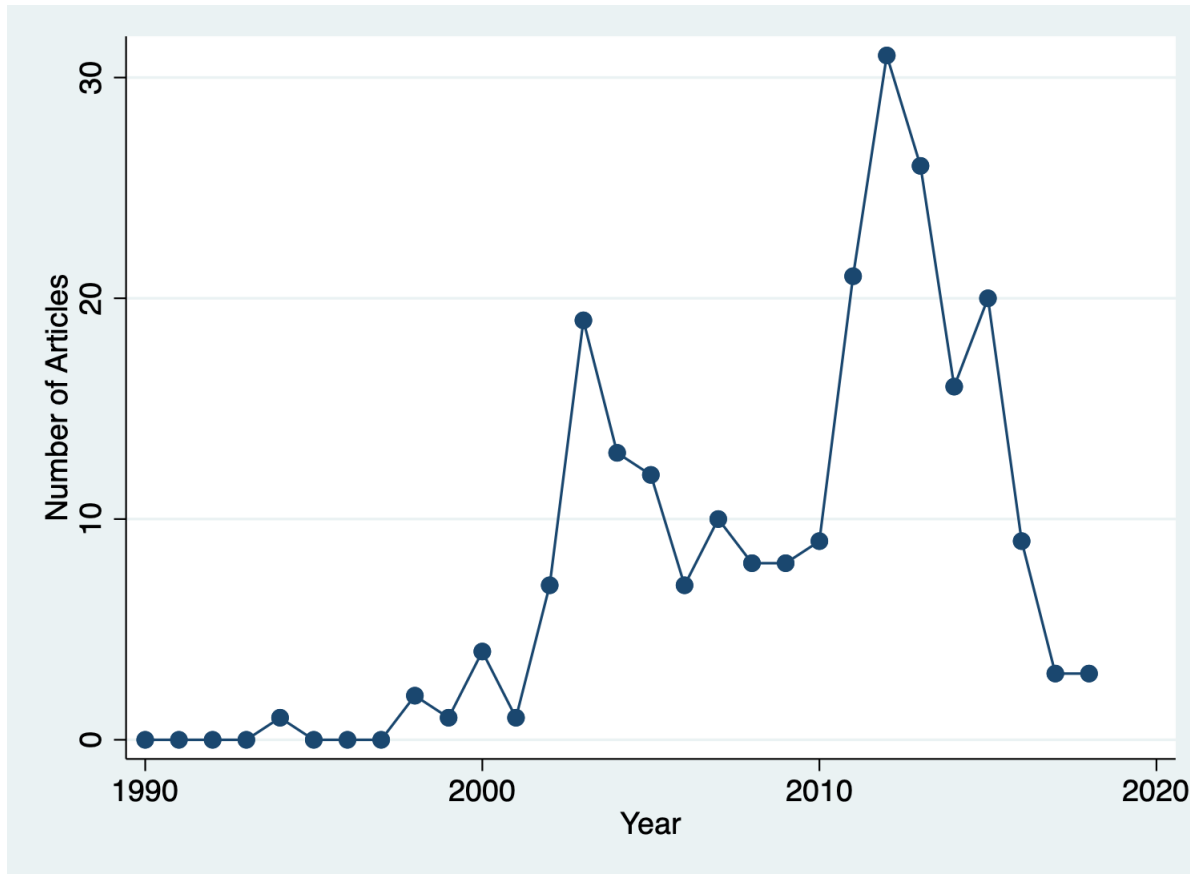
Notes: The figure shows the total number of news articles containing the words "forced sterilizations + peru" in the Factiva database.
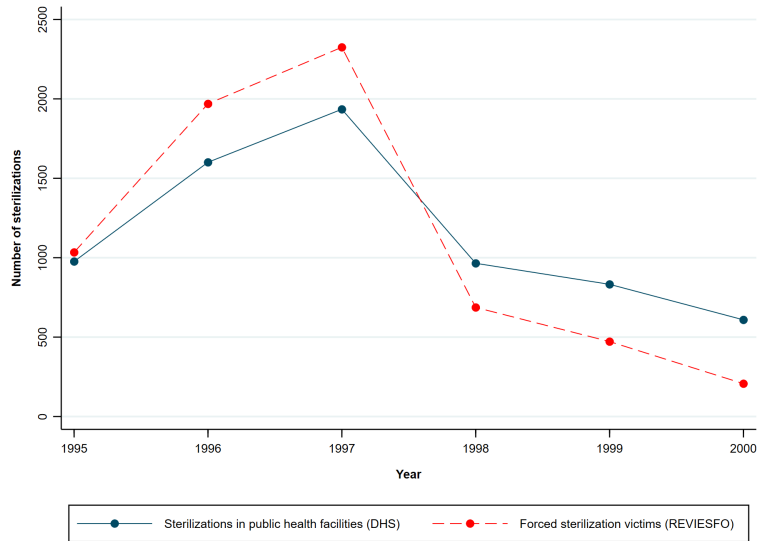
Figure 2: Total Number of Reported Sterilizations in Public Health Facilities by Year (DHS 1991-2017)
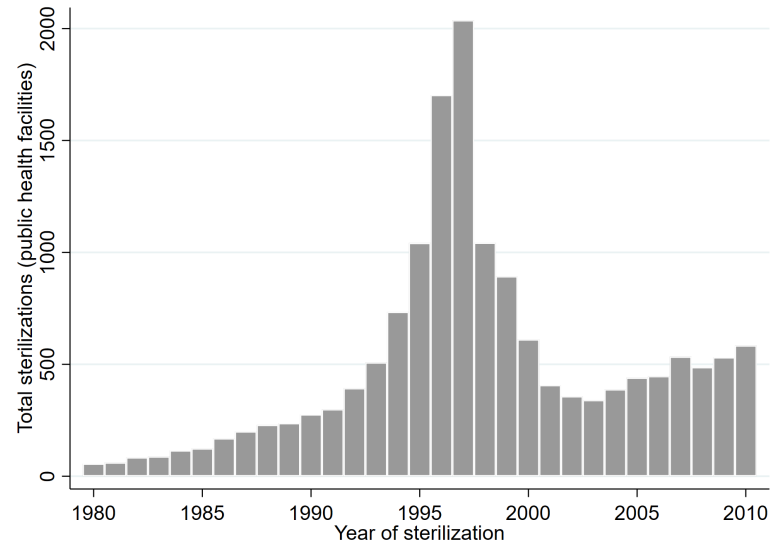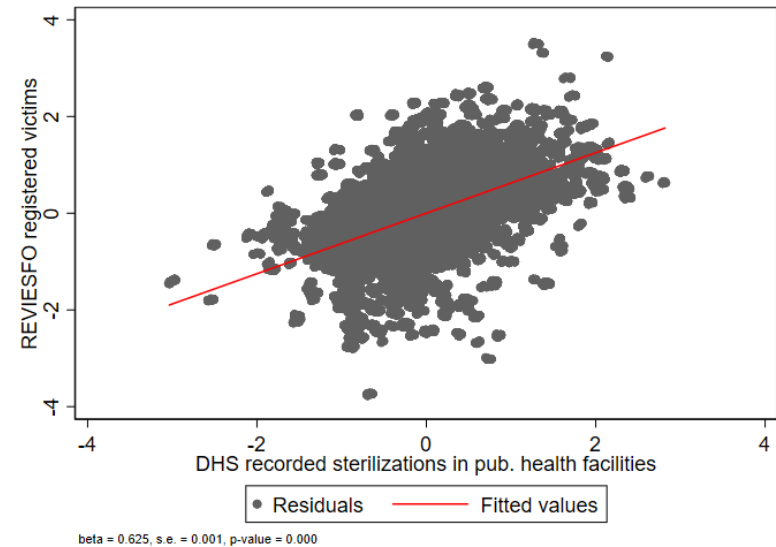

(a) All DHS Waves

Notes: Panel (a) shows the total number of sterilizations in public health facilities by year, registered in the DHS 1991-2017 waves. DHS observations are weighted. The reported number of sterilizations is based on the following questions: *"Have you ever used a female sterilization method (tubal ligation)? (Some women can have an operation to avoid having more children)"* and *"In what month and year did you (they) operate (you) - Female sterilization?"*. Public health facilities include: Campaign/fair/jornada. MINSA hospital, MINSA health center, MINSA health post, MINSA health worker, ESSALUD hospital, ESSALUD post, army/police hospital, local government hospital.

Figure 3: Cross-Sectional and Time Variation in REVIESFO and DHS

(a) Total number of reported sterilizations by year (DHS and REVIESFO)

beta = 0.625, s.e. = 0.001, p-value = 0.000

(b) Correlation between total sterilizations registered in REVIESFO and DHS

Notes: Panel (a) shows the aggregated number of reported sterilizations in public health facilities by year in the DHS 1991-2017 waves (blue line) and REVIESFO (red line) (DHS observations weighted). The DHS data is available for 1992, 1996, 2000, 2004, and yearly for the following years. Panel (b) shows the correlation between total sterilizations registered in REVIESFO and all sterilizations registered in DHS waves (1991-2017) that took place in public health facilities between 1995-2000. Both measures in this panel are residualized using province-specific linear time trend, year and municipality fixed effects. Sources: DHS waves 1991-2017 and REVIESFO.

Figure 4: Pre-trends and Long-term Effects for DHS Outcomes
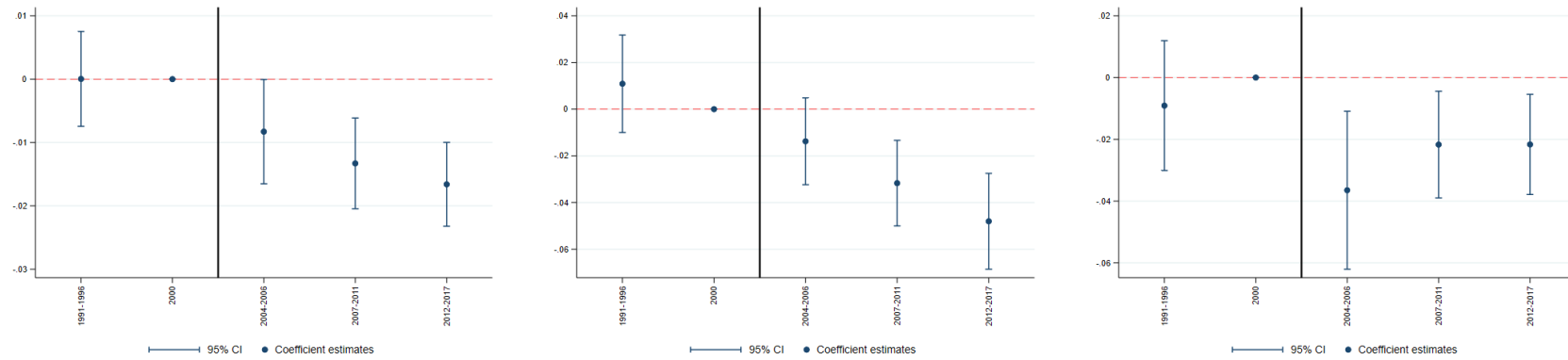
(a) Any contraceptive use

(b) Prenatal and delivery index

(c) Child health index

Notes: Coefficients in the above figures represent regression results of Equation 1, replacing the post-dummy with 5-year dummies. Additionally, we include a dummy for the pre-period. The regression results underlying the coefficients displayed are shown in Table A.6. The y-axis shows the coefficient estimates and x-axis the survey waves. The omitted category is year 2000.

Appendix Tables and Figures

Table A.1: Summary Statistics - DHS and Sterilization Counts

	(1) Observations	(2) Mean	(3) Std. Dev.
Panel A: DHS 1991-2017			
Prenatal Care and Delivery Index			
Prenatal care: none	153634	0.09	0.29
Child birth at home	171897	0.22	0.41
Birth attendant not only relative	175644	0.91	0.29
Currently using contraceptives	253562	0.66	0.47
Child Health			
Child sick	172490	0.46	0.50
Weight to height (sd)	160966	-0.98	1.15
Weight to age (sd)	160966	-0.41	1.18
Sick never treated	78520	0.42	0.49
Sick treated in private health institution	78126	0.23	0.42
Sick treated in public health institution	78045	0.37	0.48
Mistrust health personnel (any disease)	34056	0.11	0.31
Household Characteristics			
Has radio	253445	0.81	0.39
Has television	253427	0.78	0.42
Wealth index (quintiles group)	253562	2.69	1.32
No education	253562	0.05	0.21
Primary education	253562	0.33	0.47
Secondary education	253562	0.40	0.49
Higher education	253562	0.23	0.42
Speaks indigenous language	253562	0.11	0.31
Rural	253562	0.36	0.48
Panel B: Sterilizations at the District-Level 1995-2000			
REVIESFO			
Sterilizations (total)	1874	4.02	21.91
Sterilizations (IHS)	1874	0.48	1.16
Sterilizations (1=Yes)	1874	0.21	0.41
DHS			
Sterilizations (total)	1483	4.24	11.28
Sterilizations (IHS)	1483	1.32	1.18
Sterilizations (1=Yes)	1483	0.69	0.46

Table A.2: Summary Statistics - Latinobarómetro, and Municipal Elections

	(1) Observations	(2) Mean	(3) Std. Dev.
Panel A: Latinobarómetro 1996-2018			
Mistrust			
Mistrust congress	22839	0.44	0.50
Mistrust government	18937	0.39	0.49
Mistrust judiciary	22807	0.44	0.50
Mistrust president	11176	0.40	0.49
Mistrust public administration	8944	0.31	0.46
Mistrust political parties	22801	0.48	0.50
Household Characteristics			
Socioeconomic level perception	23392	3.02	0.86
Respondent education	22135	4.56	1.74
Female	23392	0.50	0.50
Panel B: Municipal Elections 1998-2018			
Turnout	3241	0.80	0.09
Votes shares	3241	18.04	15.06
Party rank	3241	3.96	2.70
Won	3241	0.20	0.40

Table A.3: Summary Statistics of Women registered in REVIESFO and Sterilized Women in Public Health Facilities in DHS

	(1)	(2)	(3)	(4)	(5)	(6)
		REVIESFO			DHS	
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev
Number of children	6794	4	2.6	7329	3.96	1.58
Age at sterilization	6794	31	5.6	7329	30.82	4.58
% Quechua speakers	6794	0.48	0.22	7329	0.10	0.30
% agricultural or native community^a	6794	0.35	0.15	7329	0.37	0.48

Notes: Summary statistics of victims registered in REVIESFO and all sterilizations in public health facilities recorded in the DHS waves 1991-2017 between 1995 and 2000. ^{a}: "live in rural community" in DHS. Sources: DHS waves 1991-2017 and REVIESFO.

Table A.4: Campaign Victim Predictions

	(1)	(2)	(3)	(4)
		Panel A: Campaign Predictors		
	REVIESFO	DHS	REVIESFO	DHS
	(model)	(model)	(Lasso)	(Lasso)
Log population	0.466***	0.791***	0.445***	0.787***
	(0.028)	(0.025)	(0.025)	(0.024)
% men 1993	0.022**	0.035***	0.025***	0.035***
	(0.009)	(0.008)	(0.009)	(0.008)
% Quechua speaking 1993	0.004***	0.003***	0.003***	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
% Aymara speaking 1993	-0.004	-0.002	-0.004	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)
% Oth. indigenous speaking 1993	-0.007	-0.007*	-0.008*	-0.008**
	(0.005)	(0.004)	(0.004)	(0.004)
% people rural 1993	-0.005***	-0.009***	-0.004***	-0.009***
	(0.001)	(0.001)	(0.001)	(0.001)
% Educ = Primary 1993	0.005	0.003		
	(0.006)	(0.005)		
% Educ = Secondary 1993	-0.019***	0.007	-0.023***	0.007
	(0.005)	(0.004)	(0.004)	(0.004)
% Educ = Higher 1993	-0.006	-0.024***		-0.026***
	(0.008)	(0.007)		(0.006)
Births pc	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Pub health centers 1996 pc	0.163***	0.312***	0.159***	0.313***
	(0.038)	(0.035)	(0.038)	(0.035)
Pub nurses 1996 pc	0.013	0.073**		0.055**
	(0.041)	(0.037)		(0.022)
Pub doctors 1996 pc	0.052	-0.024	0.054**	
	(0.045)	(0.040)	(0.026)	
Constant	-4.549***	-7.280***	-4.249***	-7.100***
	(0.598)	(0.540)	(0.492)	(0.444)
Mean Dep. Var.	0.341	0.555	0.341	0.555
Observations	1793	1793	1793	1793
Adj. R-squared	0.197	0.491	0.197	0.491

Panel B:
Correlation: Fujimori Support and Reported Sterilizations (REVIESFO)

	Fujimori Vote Share 1998
Any Forced Sterilization Reported (1=Yes)	-0.0189
	(0.452)
IHS(Num. of Forced Sterilizations Reported)	-0.0327
	(0.192)
Any Sterilization Reported DHS (1=Yes)	0.0310
	(0.140)
IHS(Num. of Reported Sterilizations DHS)	0.00707
	(0.098)

Notes: Dependent variables in Panel A: total number of sterilizations (REVIESFO, DHS). Column (3) and column (4) show linear regression results following a Lasso analysis for model selection. A penalty parameter was chosen that minimizes BIC. Panel B depicts Pearson correlation coefficients between victim measures and Fujimori support in 1998. Sterilizations reported in DHS are the ones that took place during campaign years in public health facilities. p-values in parentheses in Panel B. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table A.5: Robustness Checks

	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
Panel A: Using number of victims per capita			
Victims per capita $\times Post$ 2001	-0.001	-0.012*	-0.012***
	(0.003)	(0.006)	(0.003)
Panel B: Results without controls			
IHS (Num. of Forced Sterilizations Reported)$\times Post$	-0.015***	-0.047***	-0.021***
	(0.003)	(0.007)	(0.004)
Mean Dep. Var.	0.663	0.356	0.138
Observations	253562	152775	160926
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: See footnote of Table 1 for the definition of dependent variables and the list of household characteristics for Panel A. In Panel A, the independent variable is the sterilization count divided by 1,000 inhabitants. Panel B depicts the baseline regression result omitting the inclusion of household covariates. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table A.6: Forced Sterilizations, Health Care Usage, and Child Health (DHS): Pre-trends and Long-term Effects

	(1)	(2)	(3)
	Currently using contraceptives	Prenatal care and delivery index	Child health index
Panel A: Pre-period			
1991-1996	0.0000413	0.0109	-0.00908
	(0.00382)	(0.0106)	(0.0107)
Panel B: Post-period			
2004-2006	-0.00828**	-0.0138	-0.0365***
	(0.00420)	(0.00948)	(0.0130)
2007-2011	-0.0133***	-0.0317***	-0.0217**
	(0.00365)	(0.00935)	(0.00881)
2012-2017	-0.0166***	-0.0480***	-0.0216***
	(0.00337)	(0.0105)	(0.00827)
Mean Dep. Var.	0.663	0.356	0.138
Observations	253562	152775	160926
Adj. R-squared	0.084	0.529	0.114
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: See footnote of Table 1 for the definition of dependent variables and the list of household characteristics.Coefficients represent regression results of Equation 1, replacing the post-dummy with 5-year dummies. To check for pre-trends, we group together the observations in the pre-disclosure period. Omitted category is year 2000. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table A.7: Forced Sterilizations and Health Seeking Behavior (DHS), Restricted Sample

	(1) Sick child received any health care	(2) Sick child received public health care	(3) Sick child received private health care
Panel A			
IHS (Num. of Forced Sterilizations Reported)×$Post$ 2001	-0.012*** (0.003)	-0.021*** (0.003)	0.009*** (0.004)
Panel B			
Any Forced Sterilization Reported (1=Yes)×$Post$ 2001	-0.029** (0.012)	-0.060*** (0.010)	0.029*** (0.015)
Mean Dep. Var.	0.581	0.372	0.231
Observations	79022	78546	78627
Adj. R-squared	0.060	0.062	0.103
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: The sample is restricted to children who were recently sick with diarrhea or a cough. See footnote of Table 1 for the definition of dependent variables and the list of household characteristics. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table A.8: Health Care Use and Child Health with Baseline Covariates Interacted with Time Trends (DHS)

	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
Panel A			
IHS (Num. of Forced Sterilizations Reported)×*Post* 2001	-0.007*** (0.003)	-0.021*** (0.006)	-0.017*** (0.004)
Panel B			
Any Forced Sterilization Reported (1=Yes)×*Post* 2001	-0.021*** (0.008)	-0.041** (0.020)	-0.042** (0.017)
Mean Dep. Var.	0.663	0.356	0.138
Observations	253562	152775	160926
Adj. R-squared	0.084	0.530	0.114
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes
Baseline CovXTime	Yes	Yes	Yes

Notes: See the note of Table 1 for the definition of the dependent variables and the list of household characteristics used as controls. Baseline covariates include: share of indigenous population 1993, fertility rate 1993, employment share 1993. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017, REVIESFO and the population census of 1993.

Table A.9: Heterogeneous Effects by Cohorts

	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
Panel A: Heterogeneity by mother's age			
IHS (Num. of Forced Sterilizations Reported)$\times Post$ 2001	-0.013*** (0.002)	-0.042*** (0.006)	-0.019*** (0.004)
$Young \times$ IHS (Num. of Forced Sterilizations Reported)$\times Post$ 2001	-0.047 (0.163)	-0.014 (0.170)	0.152 (0.199)
Mean Dep. Var.	0.547	0.356	0.138
Observations	329629	152817	160965
Panel B: Sterilized women excluded			
IHS (Num. of Forced Sterilizations Reported)$\times Post$ 2001	-0.013*** (0.003)	-0.044*** (0.006)	-0.019*** (0.004)
Mean Dep. Var.	0.630	0.352	0.136
Observations	230956	150075	157944
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
District F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: Respondents in Panel A) are classified as too young to be directly targeted if they were born after 1985. Respondents are excluded from regressions in Panel B) if they have ever been sterilized. See the note of Table 1 for the definition of the dependent variables and the list of household characteristics used as controls. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017 and REVIESFO.

Table A.10: Forced Sterilizations and Health Care Supply

	Num. of Health Facilities			Num. of Health Specialists		
	All	Public	Private	All	Doctors	Nurses
Panel A						
IHS (Num. of Forced Sterilizations Reported) $\times Post$ 2001	-0.001 (0.002)	-0.002 (0.002)	0.001* (0.000)	-0.014 (0.012)	-0.002 (0.006)	-0.012 (0.008)
Panel B						
Any Forced Sterilization Reported (1=Yes)$\times Post$ 2001	-0.006 (0.006)	-0.006 (0.006)	-0.001 (0.002)	-0.013 (0.034)	0.006 (0.017)	-0.020 (0.022)
Mean Dep. Var.	0.478	0.472	0.006	1.085	0.459	0.625
Observations	33027	33027	33027	21069	21069	21069
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Health facilities and personnel per 1,000 inhabitants. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: MINSA (1996-2017), INEI 1993, and REVIESFO.

Table A.11: Heterogeneity of the Main Results

	(1) Currently using contraceptives	(2) Prenatal care and delivery index	(3) Child health index
Panel A: Rural			
IHS (Num. of Forced Sterilizations Reported)×	-0.008***	-0.029***	-0.019***
Post 2001	(0.003)	(0.007)	(0.005)
Rural × IHS (Num. of Forced Sterilizations	0.010**	0.036***	0.005
Reported ×*Post* 2001	(0.004)	(0.010)	(0.008)
Panel B: Indigenous			
IHS (Num. of Forced Sterilizations Reported)×	-0.013***	-0.043***	-0.018***
Post 2001	(0.002)	(0.006)	(0.004)
Quechua Speaker × IHS (Num. of Forced	0.020***	0.042***	-0.007
Sterilizations Reported ×*Post* 2001	(0.005)	(0.014)	(0.009)
Panel C: Less than secondary schooling			
IHS (Num. of Forced Sterilizations Reported)×	-0.013***	-0.039***	-0.016***
Post 2001	(0.003)	(0.007)	(0.005)
Secondary education or more × IHS (Num. of	0.008**	0.018**	-0.001
Forced Sterilizations Reported ×*Post* 2001	(0.003)	(0.009)	(0.006)
Panel D: Radio signal strength 2001			
IHS (Num. of Forced Sterilizations Reported)×	-0.012***	-0.034***	-0.020***
Post 2001	(0.003)	(0.007)	(0.005)
Signal strength × IHS (Num. of Forced	0.001	-0.004	0.001
Sterilizations Reported ×*Post* 2001	(0.003)	(0.007)	(0.005)
Mean Dep. Var.	0.663	0.356	0.138
Observations	253562	152775	160926
HH characteristics	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes
Municipality F.E.	Yes	Yes	Yes
ProvinceXTime	Yes	Yes	Yes

Notes: See the note of Table 1 for the definition of the dependent variables and the list of household characteristics used as controls. See footnote 28 in the main text for details on the construction of the signal strength variable. Standard errors clustered at the municipality level are included in parentheses. Asterisks denote statistical significance at the 1(***), 5(**) or 10(*) percent level. Sources: DHS waves 1991-2017, REVIESFO, and the Ministry of Transportation and Communications (MTC).

Figure A.1: Letter from the Minister of Health to President Alberto Fujimori, August 6th, 1997

(a) Part 1   (b) Part 2

Notes: English translation: Your Excellency, Mr. President: I hereby inform you about the total Family Planning Program figures at the end of July. As you can see, we reached 64,831 voluntary contraception surgeries (AQVs) in the first seven months of this year, which places us at 43% of the final goal set at 150,000 for 1997. In July, just the AQVs amounted to 12,635, which is slightly lower than the total of June, when we reached a figure of 13,485. This decrease is mainly explained by the week of National Holidays in which no campaigns were carried out. However, it is noteworthy that in the month of July there was a significant increase in the number of vasectomies, which doubles the average from the previous months, reaching a total of 5,196 this year. The objective of this program is to continue working on AQVs for males, as the cost-benefit ratio is much higher. We hope to maintain the increasing trend in AQV services and other planning methods in the coming months to end the year as close as possible to the set goal. Without further ado, I take the opportunity to reiterate my highest consideration. Source: MINSA, Oficina de Transparencia y Anticorrupción, 2020.
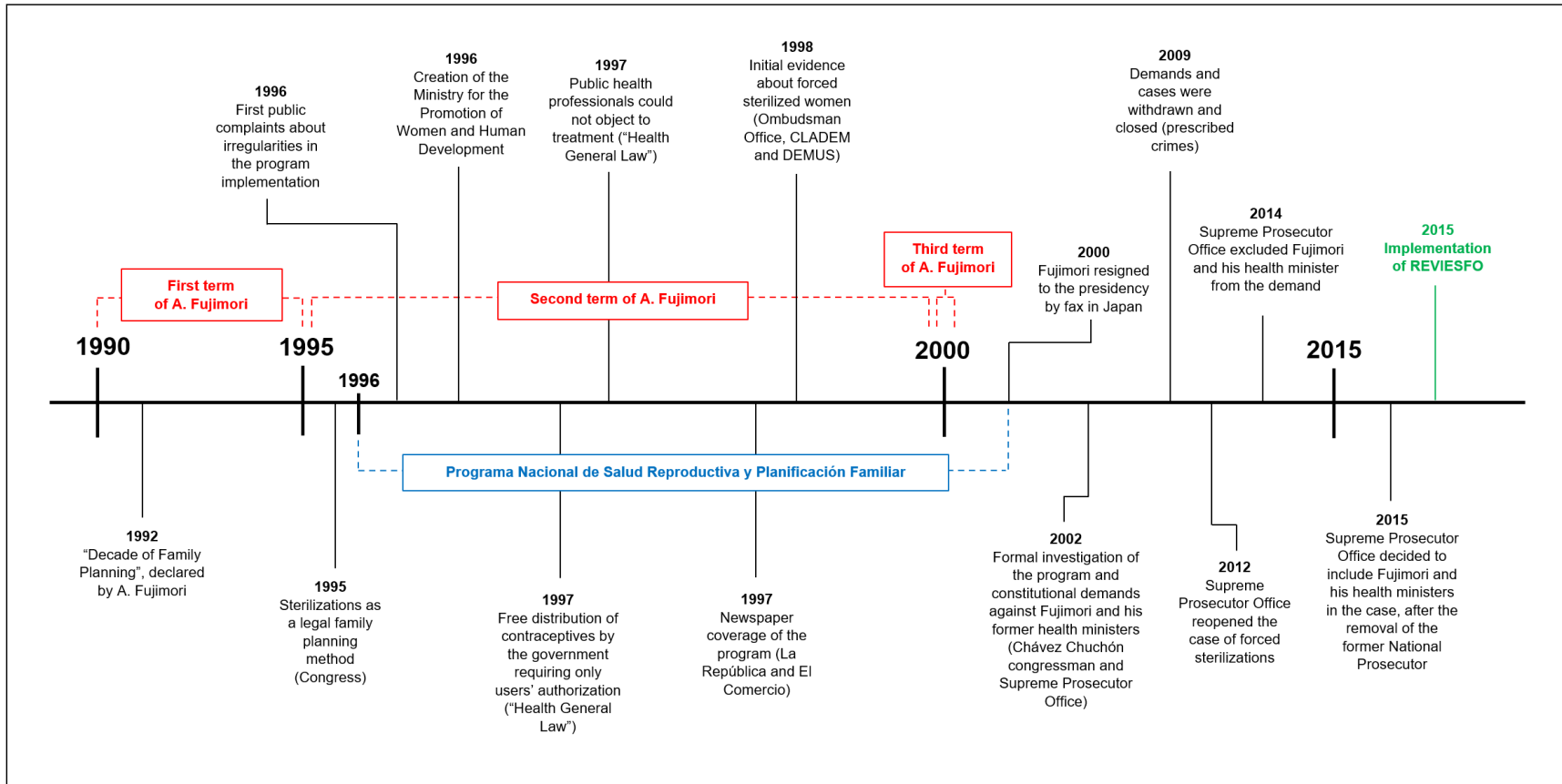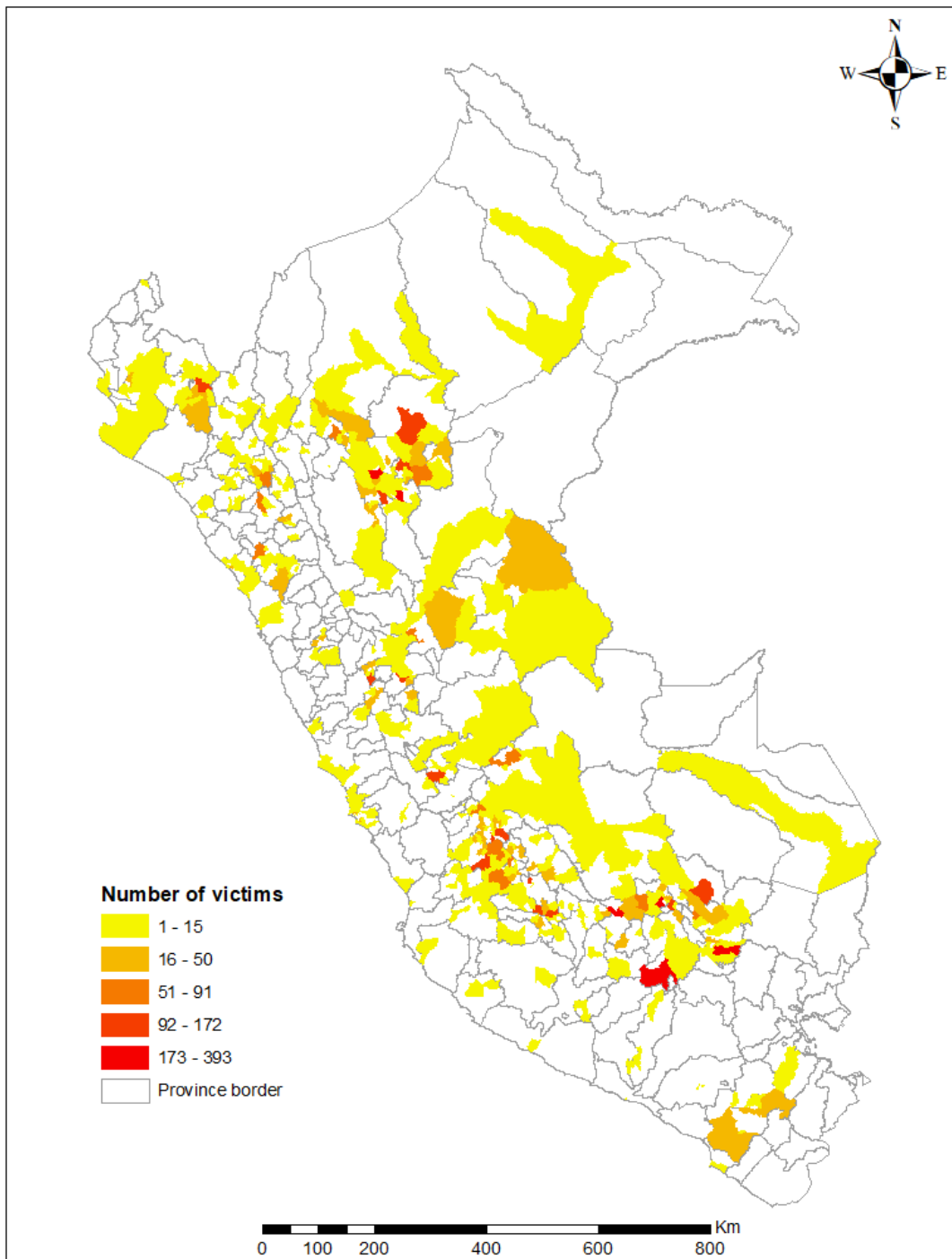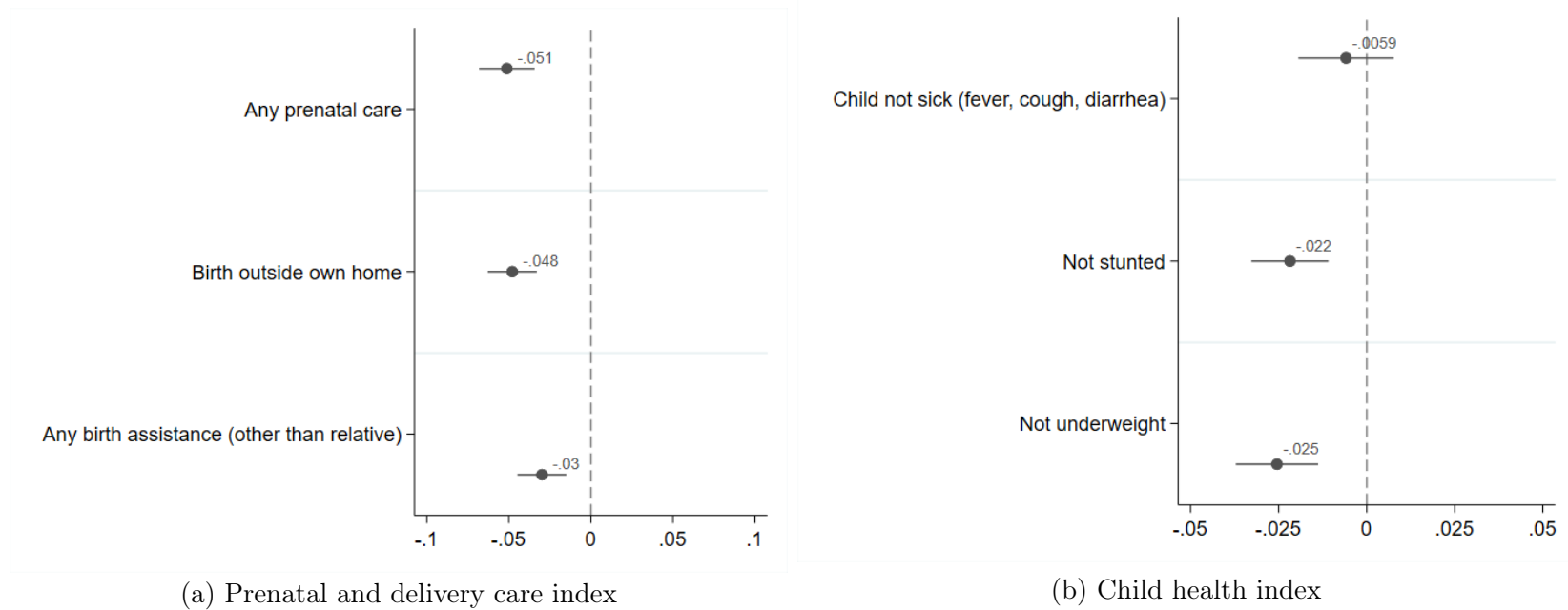
Figure A.2: Program Timeline

Figure A.3: Victims Reported in REVIESFO by Municipality

Notes: The Figure shows the municipality distribution of registered forced sterilizations in REVIESFO (1995-2000).

Figure A.4: Splitting Indices in Main Analysis Into Their Three Components

(a) Prenatal and delivery care index

(b) Child health index

Notes: Coefficients in the above figures represent regression results of Equation 1 and splitting the indices into their three components. Sources: DHS waves 1991-2017 and REVIESFO.

Figure A.5: Forced Sterilizations and Fertility (DHS)
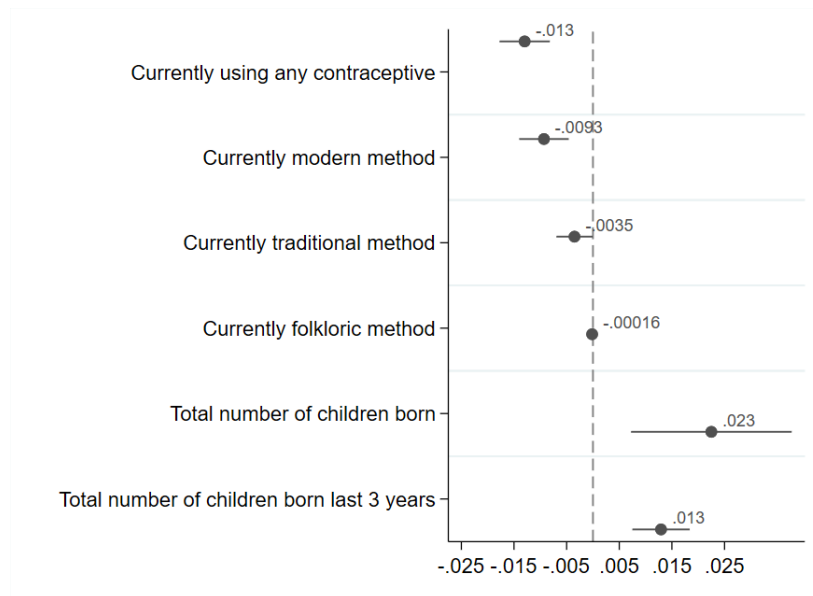
Notes: The above depicted coefficients represent regression results of Equation 1. We show the point estimates and the corresponding 95% confidence intervals. Sources: DHS waves 1991-2017 and REVIESFO.