The Emergency Lives on? How a political event affected sterilization rates in India over three decades*

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Introduction

In November 2014, a surgeon in the Indian state of Chhattisgarh performed 83 sterilization surgeries in a period of six hours, leaving 10 women dead and another 69 hospitalized in critical condition. The surgeries were part of a government-led effort that provides women with cash incentives for undergoing this permanent measure of birth-control.¹ This event highlights India’s heavy reliance on female sterilization in its family-planning policies. According to estimates from the most recent publicly available national dataset, the District Level Household Survey, more than one-third of all married women are sterilized and among older women, almost half of all married women are sterilized (Table 1). Only 1 percent of men undergo vasectomies (Table 1).

Behind these numbers is a complicated history of population policies, i.e. state-led policies that aim to reduce birth rates. In 1951, India was the first country in the world to implement a formal population policy. In its early days, the program largely focused on promoting awareness and education. In the 1960s the government established clinics that provided male and female sterilization as options. By 1966, official sterilization quotas were declared by the government, and a year later individuals were provided incentives to undergo the procedure. In the 1970s, prime-minister Indira Gandhi’s son, Sanjay Gandhi, intensified the program through coercive practices and targeted towards men. During a two-year span, 8.3 million sterilizations took place, most of which were on men. Much research now documents the significant violations of human rights both during the period of the Emergency and afterward (Vicziany, 1982a and 1982b; Philliber and Philliber, 1986; Basu, 1985; Jeffrey, Jeffrey and Lyon, 1989). The backlash is widely believed to have contributed to the fall of the Gandhi administration in 1981. It also provided an impetus for the government to shift the focus of subsequent population programs to women (Basu, 1996). India officially abolished national method-specific quotas in 1996. All decisions (and targets) regarding family-planning policy were decentralized though the basic architecture of the system remains largely intact (Qadeer, 1998).

This paper examines the long-term implications of the historically significant events on broader measures of maternal and child health in India today. It argues that the politicization of family-planning in the build-up to the Emergency had repercussions long-after the event. Backlash against the politics of the Emergency have impacts on patterns of contraceptive use more than 25 years later. Several sources of data are used: India’s district-level demographic characteristics, historical political boundaries and constituency-level electoral outcomes. I find that the percentage of sterilizations in a district in 2002-04 is inversely correlated with the historical margin of victory of the congress party during the period of intense scale-up of the programs in the 1970s. This suggests that history continues to matter: where the congress party had a strong presence 40 years ago, sterilization rates remain lower in subsequent years.

¹ In this particular case, women were to have received Rs. 600/- for the procedure.
The Historical Context

After World War II, India was the first country in the world to adopt a family-planning program. The first five year plan allocated 6.5 million rupees for doing studies, spreading awareness on natural methods and promoting technologies for fertility limitation in cases where the woman’s health was at stake (Planning Commission, 1951). The second five year plan doubled the funding and established more than 4000 centers to distribute modern family-planning supplies. By 1961, more than four thousand clinics were publically providing free family planning services (Harkavay and Roy, 2007). During the mid-1960s, the National Family Planning Program set official goals for contraceptive “acceptance” by method, which was then pursued by grassroots workers on a local level (Visaria, Jejeebhoy, and Merrick, 1999).

In these early years, the program was largely apolitical. The term “family planning” or “population” are largely absent from the speeches of the first Prime Minister, Jawaharlal Nehru who served between 1947 and 1964. It was also absent from the speeches of the second Prime Minister, Lal Bahadur Shastri who served between 1964 and 1966. Many key Indian leaders of the time, particularly the Health minister Dr. Sushila Nayar and Prime Minister Morarji Desai, in fact publicly expressed skepticism of the policies because they went against Gandhian principles. In the first years of being Prime Minister, Indira Gandhi barely mentioned the issue.

The Election of 1971

The politicization of family planning began in 1971. After winning the parliamentary election in a landslide, Mrs. Indira Gandhi delegated the task of overseeing family planning programs to her son Sanjay Gandhi, who firmly believed in the need to curb India’s population growth. Impressed by the results of two successful vasectomy camps in the state of Kerala, he heavily promoted surgical sterilization methods. Targets for sterilization were set to ambitious levels. A

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2 According to the annual reports of the Ministry of Health and Family Welfare, the staff members of the ministry worked with the Planning Commission to calculate targets for the number of new contraceptive acceptors by method (sterilization, IUD, condoms) based on considerations such as the percentage of rural population, the percentage of population below the poverty line, the female literacy rate, the health infrastructure, etc. The targets were then allocated across districts. Grassroots workers, many of whom were not formally associated with the family welfare program, were responsible for achieving these targets.

3 The official

4 Even after the launch of the first programs, Nehru argued that India’s rate of population growth was below that of many European countries, and that the country’s biggest challenges were accelerating economic growth, promoting agrarian land reform and promoting industrial development (Ghose, 1993).

5 When asked “You’re said to be against the use of contraceptives in family planning. Isn’t celibacy an impractical alternative?” Morarji Desai responded as follows: “Celibacy is not only my view, but also that of several others’, including the Roman Catholic Church. I don’t say that this can be prescribed to the people. Here again, people say that I am imposing my will on them. I am not alone, Mahatma Gandhi was also against all artificial methods of family planning. He felt strongly about it. He said that by using it, you’re turning women into prostitutes. He used such hard language. But, I know that the government doesn’t run on individual opinions. Celibacy depends on self-will. Only one in a million people can do it. It’s necessary to have family planning. But, it doesn’t lead to mental strength.” (Morarji Desai, 1980, Interview with Binoy Thomas, republished in Society magazine on July 2nd, 2013.

6 The pilot project was developed by the District Collector of Ernakulam (Kerala), Mr. S. Krishnakumar. He launched a massive publicity campaign to promote family planning, set up a temporary field hospital staffed by temporary staff, and offered generous incentives to those who were willing to undergo the procedure. The program
high intensity mobile camp system was created to achieve them. The model featured large mobile field hospitals staffed by temporary physicians and paramedics from primary health centers. Large publicity campaigns together with strong monetary incentives were used to spur demand (Vicziani, 1982a and 1982b; Harkavay and Roy, 2007). Between 1971 and 1973, nearly 5 million sterilizations were performed in India, just under half of those performed worldwide during this period. Monetary incentives were key to the program’s success. In 1974 demand almost entirely collapsed due to a lack of financial resources to fund the program. It increased only after the incentives were restored through an unprecedented large grant from the UNFPA in the amount of $40 million (Figure 2).  

The Emergency
In 1975, Mrs. Gandhi declared a national emergency and gained the right to rule by decree. This expanded the power of the central government, and empowered Sanjay Gandhi to intensify the focus on family-planning. The first ‘Statement of National Population Policy’ was announced in 1976. Though this was never fully implemented, it listed sixteen specific measures to curb population growth, which included a rise in the age of marriage, increased spending on family planning programs, increased compensation/incentives for motivating and accepting surgical sterilization, a massive public communications campaign on the benefits of smaller families, the adoption of the 2-child family as the norm for government employees, increased investment in female literacy, the transfer of funds from the center to the states was contingent on family planning performance and the authorization for states to implement legislation requiring sterilization requirements for public positions (Government of India, 1976).

The extent to which these policies were actually implemented at the level of states dependent heavily on center-state relations. In the elections of 1971, several chief ministers who had dominated the state party machinery for decades were removed and replaced by younger leaders more personally loyal to the prime minister Indira Gandhi (Weiner, 1978). As a result, India's once loosely connected INC became more centralized, and able to transmit commands down the line of state governments. As a result of this, it is quite likely that states with chief ministers who were allied with the INC pursued the agenda aggressively. 

Targets received from the Central government were received by the chief ministers, who then passed them down to district collectors. A memo from this era, written in the state of Maharashtra, illustrates this quite precisely:

“I wish to inform you that Shri Sanjay Gandhi is visiting Maharashtra state about October 28 1976, and the Chief Minister desires that before the visit of Shri Sanjay Gandhi, Maharashtra state must have completed 5 lakh sterilizations. You will

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7 Times of India, 21 August 1974
8 http://content.time.com/time/magazine/article/0,9171,947859,00.html
appreciate the seriousness with which the C.M. has issued instructions, and therefore, though the task is stupendous, we shall achieve this objective.” (Government of India, 1978, Commission of Inquiry Into the Misuse of Power During Emergency, Shah Commission, Volume III, page 164).9

The pressure on government machinery is best captured in the following wireless message, broadcast to all district magistrates and commissioners in the state of Uttar Pradesh on July 7, 1976:

“GOVERNMENT ATTACH HIGHEST IMPORTANCE TO ACHIEVEMENT OF FAMILY PLANNING TARGETS (. ) PRESUME YOU HAVE ALREADY FIXED TARGETS FOR EACH DISTRICT AND DIVISIONAL LEVEL OFFICER (. ) INFORM EVERYBODY THAT FAILURE TO ACHIEVE MONTHLY TARGETS WILL NOT ONLY RESULT IN STOPPAGE OF SALARY BUT ALSO SUSPENSION AND SEVEREST PENALTIES (. ) GALVANIZE ENTIRE ADMINISTRATIVE MACHINERY INTO ACTION,. , REPORT DAILY PROGRESS BY CRASH WIRELESS TO ME AND SECRETARY TO CHIEF MINISTER….” (Government of India, 1978, Commission of Inquiry Into the Misuse of Power During Emergency, Shah Commission, Volume III, page 165).10

There was a great deal of variation in policies across states. In some cases, sterilization certificates were required to get public-sector salaries (Haryana, Bihar, Andhra Pradesh, Uttar Pradesh), access to subsidized food (Bihar), government loans (Orissa) and employment opportunities in the public sector (Rajasthan). In some cases, policies were targeted towards communities. For example, in Madhya Pradesh, village irrigation subsidies were contingent on meeting sterilization targets. In an extreme case, Maharashtra passed legislation for the compulsory sterilization of couples with three or more children, though the Emergency was over by the time these could be fully enforced.11 Where state government had independent bases of power, such as in Kerala, Kashmir and Tamil Nadu, they were able to resist the pressure from New Delhi. This variation is best summarized by Figure 1. Note that the sterilization targets achieved after the Emergency vastly exceed the targets achieved beforehand. The only exceptions are the non-Congress states of Goa (GO), Tamil Nadu (TN), Kerala (KE), Jammu and Kashmir (JK) and some north-eastern states such as Assam (AS).

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The Post-Emergency Era

By 1977 the policy was so unpopular that it contributed to the collapse of the Indian government (Gwatkin, 1979; Kocher, 1980; Visaria and Visaria, 1981; Connelly, 2006; Harkavay and Roy, 2007). The new officials of the newly elected Janata Party had largely opposed to the programs pursued during the emergency and so established the new title “family welfare” program and claimed to promote family planning as one part of comprehensive health care. They stressed the voluntary nature of the programs. In 1980 however, Indira Gandhi’s Congress party was voted back into power. Under this regime, the central government once again developed a targeted method, this time concentrating on the sterilization of women. Gandhi had learned from her party’s mistakes, and realized that coercively sterilizing women did not pose the same political threat as sterilizing men (Visaria, 2000).

By the mid-1980s, India was forced to consider the top-down approach to family-planning. In both academic and policy circles, real questions were emerging about the effectiveness of coercive programs (Tsui, 2001; Sinding, 2007). At the International Conference on Population in Mexico City in 1984, there was a recognition of the neutral role of population growth on economic growth (Tsui, 2001; Sinding, 2007).12

Over the subsequent years, there was also a growing movement by feminists to stop targeting women. The pressure on India came from both national and international sources. This was most visible at the International Conference on Population and Development in Cairo in 1994. India supported the move to drop demographic and family planning program targets in favor of a broader policy agenda that included a range of reproductive and sexual health measures. Family-planning thus became embedded into a broader set of policy-goals. India abolished its method-specific quotas on the national level in 1996. This was replaced with the “Target-Free Approach”, which devolved the decisions about family-planning to the local level (Ministry of Health and Family Welfare, 1996; Sangwan and Maru, 1999; Donaldson 2002).

The target-free approach however, quickly renamed the ‘community needs assessment approach’ within a year. According to the manual that was handed out to states, targets were no longer the "driving force behind the program." Instead, planning was to be decentralized and responsibilities were to reside at the level of the primary health centers. Grassroots workers, auxiliary nurse midwives (ANM) and health workers were expected to consult families and local communities in the beginning of every year in order to assess their needs and preferences and then work out their requirements for the coming year. Human rights advocates have reported that targets continue to be set without adequate consultation with local women. Recent reports suggest that healthcare workers are routinely threatened with salary reductions or loss of their jobs if they don’t meet their sterilization targets, leading workers to provide women with inadequate information in order to convince them to have the procedure (Human Rights Watch,

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12 This is largely attributed to the influence of Julian L. Simon (1981) who served on the Reagan Administration and was unsupportive of family planning.
In some states, governments use incentives like prize raffles to promote sterilization. Bloomberg reported last year that in many states, sterilizations are crammed into the beginning of the year to reach local targets before the fiscal year ends on March 31, a period sometimes called “sterilization season”.

Data
Three sources of data are used for the analysis in this paper. First, I use the Reproductive and Child Health Surveys, also known as the District Level Household Surveys of India. These surveys were part of the Reproductive and Child Health (RCH) program that was shifted the government’s focus away from population issues and towards strengthening the delivery of maternal and child health in India (Donaldson, 2002). The surveys are nationally representative and contain information on reproductive health, fertility, mortality, and demographic characteristics all across India. The first round was split into two phases, which collected data from different regions between 1998 and 1999. The second was collected between 2002 and 2004, while the third round was collected between 2007 and 2008. Together, the rounds of the survey form a repeated cross section. This paper uses data from Rounds 2 and 3.

The RCH2 interviewed 507,622 currently married women aged 15--44. Several questions were asked about contraception: awareness of specific methods of contraception, including both male and female sterilization options, their current method of contraception, duration of usage and location of receiving services (government hospitals, private clinics, camps, etc.). For those who were sterilized, women were asked whether they were presented with the full range of options before the surgery was conducted, and the provision of post-operative support, such as management of side-effects. Women were also asked if they had ever been encouraged to adopt contraception.

The RCH3 interviewed 604,804 currently married women aged 15--49. In addition to questions about knowledge of contraception methods, the survey asked about whether sterilizations were conducted immediately after the birth of a child, and whether the respondent or partner received financial compensation. The responded was also asked to rate follow-up services and provide an assessment of their satisfaction.

Both rounds of the survey confirm that female sterilization is the most widely known method of all contraceptive methods in India, followed by male sterilization and oral contraceptive pills. In the RCH2, 95 percent of currently married women were aware of female sterilization and 75 percent knew about male sterilization. In the RCH3, these numbers were 98 percent and 81 percent respectively.

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Survey data is supplemented with data on electoral outcomes at the constituency level. This data, publicly available through the Election Commission of India, was digitized for all past elections. A challenge in using this data is that elections are contested in “constituencies” (voting districts), which do not always coincide with actual districts. Merging this data with the DLHS/RCH surveys required us to construct a mapping between districts and constituencies, which we constructed by examining the GIS maps and census data from 2001. As a result of this exercise, we are able to construct electoral histories for the final sample of 1,151,859 women (507,622 from the RCH2 and 643,945 from the RCH3).

Results, Part 1: Politics and Sterilization

This paper argues that India’s internal politics affected the rollout of its sterilization program and this continues to have implications for contraceptive prevalence rates today. The main hypothesis, based on the historical overview, is that districts of India where the INC was politically dominant in 1971 are likely to have lower levels of sterilization, and also lower levels of health-care utilization, at the present time, mainly as a result of backlash towards these policies.

An obvious concern with this hypothesis is the issue of unobserved confounding factors: it is possible that districts where the INC secured a victory back in 1971 had characteristics that are likely to have affected health-care utilization in the long-run. For example, if socially excluded groups are more likely to vote for the INC over India’s post-independence period, and also have

14 I am grateful for the research assistance of Anirvan Choudhary for this section of this research project. The mapping was done as follows. Using ArcGIS Desktop 10.1, we overlapped layers of constituency boundaries with district and village boundaries. To the district level layer, we further added census population data at the village and town level. The two layers of maps were linked through the spatial join feature of to obtain a single map and a corresponding dataset that matches villages/towns to both PCs and districts. Finally, we create population weights as follows:

\[
\text{Population weight of } PC_j \text{ in District}_i = \pi_{ij} = \frac{P_{ij}}{P_i}
\]

where, \( P_i = \text{Total population of District}_i \)

\( P_j = \text{Total population of } PC_j \)

\( P_{ij} = \text{Population of District}_i \text{ lying within } PC_j \)

The central methodological challenge here is the precision of mapping systems. Imperfections in placement of villages or towns – which are represented as points rather than polygons – on a shape file may lead to some points being ascribed to an incorrect PC. Since the state is the lowest level at which we can test this, we aggregate the state level population data from the population weighted constituencies and compare them with 2001 census data as a check for robustness. We find very few discrepancies for most states, with the exception of Manipur and Nagaland. Discrepancies for the seven Union Territories (UTs) are much higher; so we simply omit these from our analysis.
lower levels of health-care utilization due to their isolation or disadvantaged status, we may observe a spurious causal relationship between historical political outcomes and current health-care outcomes. I address this by defining a threshold margin of victory for the INC in the 1971 election: where the INC victory margin exceeds the defined threshold, we should see higher levels of historical sterilization than other areas. The margin of victory being above or below the threshold is likely to be a relatively random event, making it possible to compare outcomes just about and below the threshold to assess the impact of the event.

To determine the appropriate threshold, I examine some dependent variables of interest – the sterilization rate, vaccination rate, etc. – as a function of the INC’s margin in the 1971 election. Results are presented in Figure 2. Note that the relationships between the dependent variable and the margin of victory are quite weak at low margins, and strengthen only after the margin exceeds about 40 percent. I choose a margin of 25 percent based on the sterilization graph.

A simple regression is used on the sample of men and women (separately) from the RCH2 and RCH3 samples:

\[Sterilized_{ihvdst} = \beta_0[INC \text{ win in 1971}] \times [Margin > 25]_d + \beta_1[INC \text{ win in 1971}]_d + \beta_2[Margin > 25]_d + \alpha_0 A_{lt} + \alpha_1 X_{ht} + \alpha_2 C_{vt} + \mu_s + \epsilon_{ihvdst} \quad (1)\]

\(Sterilized_{ihvdt}\) is a dummy variable that takes value 1 if an individual is sterilized and 0 otherwise. [INC win in 1971] is a dummy that measures whether the INC won in the constituencies within the district in the 1971 election. [Margin > 25] is the margin of victory in the 1971 election. I define the margin of victory as the number of votes received by the winning party less the number of votes received by the runner-up, expressed as a percentage of the number of votes received by the winning party. This variable is then interacted with a dummy variable that takes value 1 if the winning party is the Indian National Congress (INC), which the party that implemented the early controversial sterilization program, and 0 otherwise.\(A_{lt}\) is a vector of individual attributes: age cohort dummies, a dummy variable indicating whether the individual has received any schooling, interactions of the age cohort dummies and education dummy, dummy indicators for being a scheduled caste, scheduled tribe and being muslim. \(X_{ht}\) is a vector of household characteristics: a dummy variable for a pucca housing structure and dummy variable for a rural location. \(C_{vt}\) is a vector of community characteristics, as reported by the individual survey: it includes a household’s reported distances to government hospitals, primary health centers, primary health sub-centers, and child-welfare centers as well as private clinics. \(P_d\) is a vector of district-level variables. It includes district characteristics that include latitude, longitude, elevation, coastal area, irrigated land, poverty levels, literacy levels, and the number of primary health centers. \(\mu_s\) is a state-level fixed effect. \(\epsilon_{ihvdt}\) is an error term.

Equation (1) is estimated separately for the male and female sample. To examine sterilization rates by age, we examine the estimates on the age-dummies, as well as their interaction with the variable “No schooling”. The omitted category in the regression is the youngest age-group, aged
15 to 20. The estimates are presented in Figure 2. Several results are noteworthy in this graph. First, note that as predicted, the rates of sterilization increase significantly with age for males as well as females. The rate of increase however, is higher for females aged 25 to 40. These women were between the ages of 0 and 15 at the time of the 1977 emergency. They began to be targeted by female-centered sterilization programs only after the fall of the Congress government in 1981. This is consistent with the historical story: the sterilization campaigns began with a focus on men, but after the backlash during the emergency, the focus shifted to women.

A second interesting observation in Figure 2 is the gulf between sterilization rates for the least educated men and women in all sections of the age-distribution. Uneducated men are three times as likely to be sterilized at the present time, particularly at younger age-groups. But we do not see any statistically significant impact of being uneducated on sterilization probabilities in the older age-groups. This result may largely be driven by the targeting of vasectomies not only towards the poor, but also towards government officials, school teachers and other individuals associated with the state.

Finally, we examine the political variables (Table 3). The regression results are presented with control variables added sequentially, separately for male and female samples. An F-test of the joint significance of all three political variables confirms that they are generally statistically significant at the 5% level in the female sample and the 10% level in the male sample. Note that the variable “INC victory in 1971” has a negative effect on both male and female sterilization, but the coefficient is not statistically significant. Similarly, the margin of victory of the INC party has no statistically significant effect on the dependent variable. The margin of victory of the winning party, does however, have a negative and statistically significant effect. A 1 percent increase in the margin of victory of the leading party is associated with a 10 percentage point increase in female sterilization and a 7 percentage point increase in male sterilization. Given that this variable is a rough measure of the level of electoral competition in a district, this suggests that sterilization has been more aggressively promoted (or adopted) in districts that were politically safe in 1971, not necessarily even where the INC was the ruling party. Political competition in 1971 has lowered the levels of sterilization. Interpretation of this effect is however, complicated by the fact that the dependent variable captures sterilizations over a 27 year period – it includes the sterilizations that occurred during the emergency as well as those that occurred afterward.

Results, Part II: Politics and Long-term Health Outcomes

To test the second hypothesis – about the long-term impact of health care utilization on present-day outcomes – another reduced form specification is used:

\[ Y_{ihv} = \beta_0[INC\ won\ in\ 1971] \times [Margin > 25]_d + \beta_1[INC\ won\ in\ 1971]_d + \beta_2[Margin > 25]_d + \alpha_0 A_i + \alpha_1 X_{ht} + \alpha_2 C_{vt} + \mu_i + \varepsilon_{ihv} \]  

(2)
$Y_{thvdt}$ is a measure of health-care utilization. Six separate indicators are used. The first is the fraction of a woman’s births, over a lifetime, that resulted in a child death (at any age). This is intended to be a very broad measure of access to health care. The second is the fraction of a woman’s birth, over a lifetime, that resulted in a child dying before the age of 1. This is intended to be a measure of access to maternal and early-childhood health. The remaining indicators are measures of preventive health. The sample is restricted to women who had any births after 2001. Dummy variables take value 1 if a woman reports receiving a tetanus inoculation herself during her pregnancy (and 0 otherwise), the last child born received BCG, DPT and Polio vaccinations respectively (and 0 otherwise). All other variables are as defined for Equation (1).

If the politics of the Emergency had a long-term impact on the delivery of health-care services, we would expect child mortality as well as the use of preventive health inputs to be affected in the long-run. Based on the historical overview earlier, we could expect adverse effects on these variables in districts where the INC was using its infrastructure to intensify family-planning services. On the other hand, if this infrastructure could eventually be harnessed for goals that were broader than sterilization, and aimed to improve maternal and child health through greater supply of health services, it is possible to even find a positive effect.

The results of estimating Equation (2) are presented in Table 4. Note that the politics variables are neither individually not jointly significant for five of the six variables we considered. The only variable that appears to be impacted in the long-run is the woman’s tetanus inoculation during pregnancy. The coefficient of this variable is negative, and the impact is statistically significant at the 5 percent level. We infer from this that the states which were heavily dominated by the INC during the years of the emergency were less able to deliver this particular health input to women. There is however, no evidence of a long-term impact of politics on variables affecting children’s well-being, i.e. mortality and vaccinations.

The absence of a strong result here could be for several reasons. First, the investments in health, particularly, maternal and child health, are affected by a wide variety of factors and so the political channel linking the Emergency to recent outcomes may simply be too weak. Second, access to alternate channels of health services -- NGOs, private clinics, etc. – has expanded rapidly in the past three decades, making individuals less reliant on the government for access to essential health services, even in rural areas. Third, the expansion of policies in recent years, such as the National Rural Health Mission, as well as the expansion of education and awareness of the importance of preventive health services may have been more targeted to selective areas, particularly those with high sterilization rates, since there is greater demand for investments in child-quality in smaller families.

**Conclusion**

This paper has shown that the politicization of family planning in the early 1970s had long-term effects on India’s patterns of sterilization. Male sterilization was heavily promoted by the Indian
National Congress party, led by Indira Gandhi’s son Sanjay Gandhi. The effort reached its peak during the political Emergency of 1977, when India sterilized 8 million men – mostly poor and uneducated – within a span of a single year. Severe backlash against these policies resulted in the fall of the INC government. Subsequent efforts to promote family planning focused on mainly on women. This paper combines political and demographic data to illustrate that even while female sterilization increased everywhere after the Emergency, the backlash persisted. Areas where the INC government had secured a large majority in 1971 – at the beginning of the politicization of family planning – featured lower levels of female sterilization than the rest of India. This pattern can be largely attributed to the backlash towards the INC following the period of weak electoral competition. Where the INC was a significant majority, it was able to harness the entire apparatus of the state to pursue its goals of sterilizing large numbers of poor people. In the long-run, this undermined the government’s efforts to promote the practice. The estimates suggest that a 1 percent increase in the margin of victory of the INC is associated with a 5 percentage point increase in female sterilization. There is however, no evidence of a long-term impact on the health of women and children.

While there is a modest effect of the 1971 election on women’s tetanus inoculations during pregnancy, there is no evidence of any effect on children’s mortality or vaccinations. The absence of a strong result here could be explained by subsequent policies such as the National Rural Health Mission, or the growing competition in the provision of health services.

The results of this paper suggest that historical political events continue to have very real implications for some of the most important choices faced by women in India today. The episode on Chhatisgarh, described earlier in this article, was not an isolated episode of negligence. The doctor conducting the sterilizations that killed 63 women was once lauded for performing 50,000 tubal ligations. As he battles the legal system in the case of homicide, a rethink of India’s approach to population policies may be in order.

REFERENCES


Tables and Figures

Figure 1: The percentage sterilization targets achieved during the emergency years, versus the percentage of seats in the 1971 election that were held by the INC. Sources: (i) Government of India, Department of Family Welfare, Ministry of Health and Family Welfare, Year Book, 1977-78; (ii) Statistical report on General Elections, 1971, Volume 1, Election Commission of India.
Figure 2: Health outcomes (sterilization of all women, sterilization of women older than 45, vaccination rates and mortality rates) versus margin of victory in the 1971 election.
<table>
<thead>
<tr>
<th>Age group</th>
<th>Women sample</th>
<th>Men sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RCH 2</td>
<td>RCH 2</td>
</tr>
<tr>
<td>Under 25</td>
<td>101,288</td>
<td>43,022</td>
</tr>
<tr>
<td>25 to 30</td>
<td>98,973</td>
<td>53,609</td>
</tr>
<tr>
<td>30 to 35</td>
<td>93,519</td>
<td>63,717</td>
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<tr>
<td>35 to 40</td>
<td>83,117</td>
<td>68,067</td>
</tr>
<tr>
<td>40 to 45</td>
<td>67,558</td>
<td>56,663</td>
</tr>
<tr>
<td>Over 45</td>
<td>NA</td>
<td>60,634</td>
</tr>
<tr>
<td>Aggregate</td>
<td>444,455</td>
<td>330,819</td>
</tr>
</tbody>
</table>

**Table 1:** The prevalence of sterilization across different age categories.

<table>
<thead>
<tr>
<th></th>
<th>RCH2</th>
<th>RCH3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterilized in a camp</td>
<td>12.19%</td>
<td>12.82%</td>
</tr>
<tr>
<td>Sterilized in a hospital</td>
<td>52.98%</td>
<td>38.00%</td>
</tr>
<tr>
<td>Sterilized at the time of birth</td>
<td>NA</td>
<td>48.08%</td>
</tr>
<tr>
<td>Advised about side-effects</td>
<td>13.15%</td>
<td>16.50%</td>
</tr>
<tr>
<td>Advised on all options (including temporary methods)</td>
<td>5.08%</td>
<td>NA</td>
</tr>
<tr>
<td>Received compensation</td>
<td>NA</td>
<td>62%</td>
</tr>
</tbody>
</table>

**Table 2:** Location of sterilization surgeries and knowledge of other methods at the time of the surgery.
Figure 3: Total number of sterilizations in India.


Figure 4: Regression coefficients of the determinants of male and female sterilization, across cohorts, by age and education