The Impact of a Rural Clinic Expansion on the Fertility of Young Rural Women in Mexico*

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Abstract

We estimate the effects of a rural health clinic expansion for the uninsured, which started in 1980 in Mexico, on the fertility of young rural women in 1987. Our results show that access to rural clinics decreased young women's fertility, particularly for the youngest in our sample. We find that clinics have positive and significant impacts on contraceptive knowledge and use, supporting the link between the decrease in fertility and the family planning services provided by the clinics. Finally, we find evidence suggesting that the delay in fertility for these women allowed them to increase their schooling.

1 Introduction

During the 1970s, Mexico adopted an active family planning policy, along with other developing countries, with the aim of reducing fertility rates, particularly in rural areas. At the time, these areas suffered from a lack of health infrastructure, because most of the public health care in Mexico targeted urban areas and workers in selected industries.

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As part of a broader anti-poverty strategy, named Coplamar, in 1979 the Mexican government started the IMSS-Coplamar (IC) program to provide health infrastructure and services to small, poor, rural localities. As a result, between 1980 and 1982, 2,715 rural health clinics were built in localities not previously served by any other public health provider. These clinics were administered and staffed by the Mexican Social Security Institute (IMSS), and they provided primary health care to the uninsured, rural population. Due to the policy relevance given to family planning at the time, these rural clinics were also key in providing this type of services to rural women. In this paper, we estimate the effects of this health clinic expansion on the fertility, contraceptive knowledge and use, education and other economic outcomes of young rural women a few years after the intervention.

Given that a decline in fertility can potentially improve the health and human capital outcomes of women and their children, promote women's attachment to the labor market, and have positive impacts on savings and other family lifetime outcomes, family planning policies are often part of a broader development agenda. Although some studies for low and middle income countries find that family planning programs lead to modest reductions in completed fertility (see Schultz (2007) and Miller and Singer Babiarz (2016) for detailed surveys of this literature), others find larger effects for young women and emphasize the importance of the impact of changes in the timing of births, particularly of the first birth, on long term outcomes (Miller, 2010; Pörtner et al., 2011).

For these reasons, in this paper we estimate the effect of the exposure to family planning services, caused by the IC health clinic expansion, on the fertility outcomes of women aged 15 to 28 in 1987, 8 years after the intervention. The IC health clinic expansion can potentially affect women's fertility outcomes by several mechanisms: by subsidizing the diffusion of knowledge and adoption of contraceptives, by decreasing the monetary and time cost of continuing contraceptive use, and by providing access to safe and low cost male and female sterilization procedures (Schultz, 2007). In addition, it could also affect fertility by simply providing primary health care that reduces child mortality.

We use individual-level data from the 1987 Mexican Fertility and Health Survey (*Encuesta Nacional de Fertilidad y Salud*, ENFES) matched with IMSS historical records on the number of IC clinics built per 10,000 rural inhabitants in each Mexican

municipality in 1982, at the end of the expansion. We also use the 1980 Mexican Census data to control for potential determinants of the placement of IC clinics at the municipality level in the estimation. We estimate effects for women aged 15 to 21, the youngest group in our sample, because these women were between 8 and 14 years old when the intervention started, and thus had not yet started their fertility. Specifically, we compare the outcomes of the youngest women in this group, those aged 15 to 21, to those aged 22 to 28 years old in 1987, in municipalities with different treatment intensities. We expect to find larger impacts for the youngest group, given the previous evidence that family planning impacts are larger for younger women (Angeles et al., 1998; Miller, 2010; Pörtner et al., 2011).

Our results show that access to IC rural clinics decreased the fertility of young women, particularly of the youngest in our sample. An additional IC clinic per 10,000 rural inhabitants in the municipality decreases the number of children ever born of women aged 15 to 21 by 0.23 children, and increases the age at first birth, at first marriage and at first intercourse by about a quarter of a year. We find no impacts of IC clinics on the probability of being childless in 1987 for these women, which is consistent with the IC expansion allowing young women to delay their first birth.

Given that IC rural clinics provided primary health and family planning services simultaneously from the start, we do not have the variation to separate the fertility impacts of these two different components. However, we show that IC clinics have positive and significant impacts on contraceptive knowledge and use, which are larger for the youngest women. These women are able to name between 0.25 and 0.42 more contraceptive methods per additional IC clinic in their municipality, and they have a 29 percent higher probability of having ever used contraception. IC clinics also have positive and significant impacts in the probability of undertaking permanent male or female sterilization. Thus, these estimates suggest that part of the decrease in fertility associated with IC clinics can be attributed to the family planning services provided by them. In addition, similar studies find that fertility impacts are indeed due to family planning, and not to other health services provided by health facilities (Portner, Beegle and Christiansen, 2011; Hashemi et al, 2013).

Our main findings on fertility outcomes and contraception are robust to controlling for other types of public health clinics in the municipality. They are also robust to dropping women who migrated to their locality after the IC intervention from the

estimation, to avoid concerns about selective migration caused by the policy. To further check for any change in the composition of women caused by IC clinics, we estimate impacts for 26 to 39 year old women in 1987. For these older women, we find no significant effects of IC clinics on their age at first birth, at first marriage and at first intercourse, which is reassuring because these women had already started their fertility at the time of the IC expansion, so these particular outcomes were already determined. As a final exercise, we explore whether the decentralization of the health services for the uninsured that took place in 1984 lead to heterogeneous impacts of the IC clinics. We find that the impacts of an additional IC clinic per 10,000 inhabitants on the fertility of women aged 15 to 21 have the same sign, similar magnitude and significance compared to those in our main estimations. If anything, there seems to be an additional negative effect for the youngest women in decentralized states, but it does no seem to be associated with higher contraceptive knowledge and use.

For the youngest women in our sample, the ability to delay their first birth seems to have had positive impacts on their schooling. We find that for women aged 15 to 21, an additional IC clinic increases the probability of having completed primary education by 23 percentage points, and the probability of having some secondary education by 18 percentage points. Admittedly, these relatively large effects on education could be due to an interaction of the family planning and health care services provided by IC clinics. For 22 to 28 year old women, we find no significant effects on the probability of completing primary education and a negative effect in that of having some secondary education. This is expected because these women were already past the age for these investments, and also relatively disadvantaged, when the intervention took place. We cannot rule out either that our results on education are due to the interaction of increased access to education and health services in the localities targeted by Coplamar.

Regarding other medium-term socioeconomic outcomes, we find that an additional IC clinic has a negative effect on the probability of having ever worked, a positive effect on the schooling years of their husbands and a positive effect on the probability of being married at the time of the survey for all women aged 15 to 28. These effects are all statistically significant at 1 percent and similar in magnitude for both groups (women aged 15 to 21, and women aged 22 to 28), so we find no differential effect of IC clinics on these outcomes for the youngest women.

Our paper is most closely related to studies that use geographical variation in the allocation of family planning services to identify impacts, in particular, services provided in health facilities. For instance, Miller (2010) exploits the rollout of (mostly urban) Profamilia clinics, a non-profit organization which was the dominant family planning provider in Colombia in the 1970s, to measure the impact of contraceptive supply on fertility. He finds that women who had access to a Profamilia clinic postponed their first birth and had approximately 5% less children during their lifetime. Even though this fertility reduction explains a small part of the overall fertility decline in Colombia during 1964-1993, the author finds that the program increased the schooling and probability of working in the formal sector for women who had access to family planning as teenagers. Pörtner et al. (2011) find that access to a health facility that provides family planning services decreases the number of children ever born of uneducated women in Ethiopia by roughly one child, four years after the intervention. This reduction is mostly observed for the youngest and oldest women in their sample, suggesting that family planning delays the start and hastens the completion of women's fertility. They also find that the reduction in fertility acts through the provision of family planning and not other health services. Salehi-Isfahani et al. (2010) and Hashemi and Salehi-Isfahani (2013) estimate the effects of a rural clinic expansion in Iran on fertility outcomes. Focusing on the child-woman ratio at the village level, Salehi-Isfahani et al. (2010) show that the construction of these rural clinics decreased fertility between 4 and 20 percent during 1986–1996. Given that the Iranian rural clinic expansion took place a few years before the clinics actually started providing family planning services, Hashemi and Salehi-Isfahani (2013) are able to separate the effects of merely providing health services from those of family planning services on the fertility of rural women, and confirm that the decrease in fertility is due to the latter. However, a difference with our results is that they do not find effects for the timing of first birth, but only modest ones for the second birth and beyond.

Our paper contributes to fill the gap in this literature, as noted by Schultz (2007), in which few studies provide evidence on the effects of population policies on fertility for rural communities in developing countries. Specifically, we contribute by estimating the effects of an expansion in health infrastructure on fertility and other outcomes, for rural communities not previously served by public health institutions. Our results confirm that access to family planning services, through rural clinics, decreases fertility and allows young women to postpone their first birth. These effects are larger the younger

women are when exposed to this type of services. Miller (2010) argues that most of the development literature, by focusing on completed lifetime fertility and child quantity, overlooks the lifecycle timing of births, which is critical for developing countries. We find evidence supporting this argument: for young women in our sample, the ability to delay their first birth has a positive effect on their education and, as such, has the potential to positively affect other long-term outcomes.

2 Background

Before 1970, the population policy of the Mexican government favored high fertility rates. Accordingly, the Mexican Sanitary Code prohibited the advertising and sales of products to regulate women's fertility, and family planning services and education were activities carried out in limited scope by private institutions only. This changed during the 1970s, when the Mexican government adopted the objective of reducing the population growth rate as part of a broader economic development agenda. After a peak annual population growth rate of 3.4% between 1960 and 1970 and having reached 50 million inhabitants at the beginning of the 1970s, the goal of the population policy that had been held up until the 1970s was considered achieved. Namely, there was a sufficient amount of labor force available to take advantage of the country's natural resources and maintain Mexico's sovereignty (Potter et al., 1987).

Thus, in 1974, the aforementioned restrictions on contraceptives were removed from the Mexican Sanitary Code, and a new Population Law allowed Mexican public institutions to fully engage in family planning policies. In 1977, the first National Family Planning Plan explicitly included the objective of reducing the annual population growth rate from 3.2 percent in 1976 to 2.5 percent by 1982 in Mexico. This plan considered a priority to extend family planning education and services to the rural population by integrating them within the primary health care infrastructure (Martinez Manautou, 1982).

However, until 1970, publicly provided health care in Mexico targeted mostly the urban population, workers in certain industries and government employees, which posed an initial difficulty to reach the rural population. At the time, three public institutions were the main public providers of health services in Mexico: the Ministry of Health (*Secretara de Salubridad y Asistencia*, SSA) for the uninsured population, the Mexican

Institute of Social Security (*Instituto Mexicano del Seguro Social*, IMSS) for registered, private-sector employees in the formal sector, and the Institute of Social Security and Services for Government Employees for federal employees (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*, ISSSTE).

At first, given its focus on providing health services to the uninsured, the SSA attempted to increase the use of contraceptives in rural localities by recruiting community health workers. SSA trained, supplied and supervised these community workers at the health center closest to the locality, without expanding physical infrastructure significantly (Potter et al., 1987). IMSS, created in 1943, did not originally serve the rural, open population. Nevertheless, in May 1979, the federal government and IMSS signed an agreement to create the IMSS-Coplamar (IC hereafter) program and expand the number of rural clinics for the poor, uninsured population in localities with less than 2,500 inhabitants that had no other public health provider. This particular health program was part of Coplamar, a broader anti-poverty strategy of the federal government aimed at improving the education, health, infrastructure and housing of the poorest rural communities.[1] Between 1979 and 1981, 2,715 clinics and 29 hospitals were built in rural localities. By the end of 1981 the IMSS-Coplamar system had 3,025 rural clinics and 60 rural hospitals.[2] According to program records, each rural clinic provided services to the population residing in its own locality, and in other close localities, covering about 30,000 localities and an average of 5,000 people per clinic. By 1981, the IC program provided health services to 19 million people in these rural facilities.[3] The services provided in these clinics included medical consultations, preventive care, maternal and infant basic care, family planning, hygiene education, and vaccines. No fees were charged for services, but the patient had to participate in community work, or health and sanitation activities.

[1]The Coplamar strategy (*Coordinacion General del Plan Nacional de Zonas Deprimidas y Grupos Marginados*) started in 1977. Several public institutions were in charge of implementing the different components of the program. For example, as mentioned, IMSS was in charge of the provision of health services, whereas the Ministry of Education was in charge of the provision of education.

[2]A smaller rural clinic expansion took place in 1973, when a health reform allowed IMSS to extend the health services to the uninsured population, particularly in rural areas. In that year, 310 public barns were refurbished as primary-level health clinics, where medical services were provided to the rural population in exchange of their participation in health-promoting activities within the community.

[3]The figures on the number of localities and people served by the IC program come from a 1981 program report prepared by the Mexican Presidential Office, refer to Coordinación General del Plan Nacional de Zonas Deprimidas y Grupos Marginados (1981)

In 1984, a new Health Law set the stage for the decentralization of health services. In that year, a presidential decree attempted to integrate both IC and SSA clinics for the uninsured, and to transfer them to state governments. However, by 1987 only 14 out of 32 states had chosen to decentralize their health services. Broadly speaking, these 14 decentralized states were relative rich at the time and had a relatively small number of IC clinics (Homedes and Ugalde, 2006).[4] In 1987, IMSS still operated 2,367 IC rural clinics and 47 rural hospitals in 1,044 municipalities in the country. In addition, little authority in terms of financing, management and decision-making was actually transferred to the states during this period (Gonzalez-Block et al., 1989; Gershberg, 1998). Nevertheless, given that our data are from 1987, we estimate the effect of IC clinics separately by decentralization status as an additional empirical exercise.

We expect the IC health clinic expansion to have an impact on the fertility outcomes and contraceptive use of young, rural women for two reasons. First, the provision of family planning education, services and supplies was a key component of the program. As a consequence, IC clinics had adequate supplies of modern contraceptives, which were distributed at no cost. In addition, the medical staff at the clinics had, and were aware of, the specific targets for the number of contraceptive users they had to achieve for their performance evaluations (Potter et al., 1987). These policy efforts seem to have had some impact: between 1979 and 1982, the average live births per woman aged 15 to 49 in the rural sector decreased by 8.6 percent, whereas for women in urban areas they decreased by only 3.8 percent.[5] Second, as mentioned before, the rural localities targeted by IC clinics had no SSA or other public health care facilities. According to Urbina et al. (1984), between 1979 and 1982, precisely the years of the IC intervention, the percentage of contraceptive users served by IMSS increased from 27.9 to 32.3 percent, whereas the percentage served by SSA, the other public health institution with rural presence, stayed roughly constant at 14.7-14.5 percent. Even though many of these rural localities probably had traditional midwives, it is unlikely that the availability of this type of services

[4]The decentralized states are Aguascalientes, Baja California, Colima, Guanajuato, Guerrero, Jalisco, Estado de Mexico, Morelos, Nuevo Leon, Quintana Roo, Queretaro, Sonora, Tabasco and Tlaxcala.

[5]García (1980) reports that the average number of births per woman aged 15 to 49 years in 1979 were 3.5 in rural areas and 2.6 in urban areas. For 1982, Urbina et al. (1984) report the averages to be 3.2 births for rural areas and 2.5 for urban areas. These studies use different nationally representative surveys of Mexican women, and they both define rural localities as those with less than 20,000 inhabitants, and urban localities those with population exceeding that threshold.

expanded at the same time as the IC intervention.

3 Data and Empirical Specification

For our outcomes of interest, we use individual-level data from the 1987 Mexican Fertility and Health Survey (*Encuesta Nacional de Fertilidad y Salud*, ENFES), which is a nationally representative, cross section dataset with detailed information on the fertility outcomes, contraceptive knowledge, access and use, and other health measures for Mexican women aged 15 to 45. [6] Our sample consists of 15 to 28 year old women in rural localities, i.e. those with less than 2,500 inhabitants, the IC program target population. Among rural women, we focus on the youngest group in the data, those who 15 to 28 years old, because they were either about to start their fertility or in a very early fertility stage at the time of the IC expansion, so we expect larger impacts for them. In addition, younger women might be more open to new information and to change their ideas about contraceptive use and fertility, compared to more mature women.

It is important to note that the ENFES data have information on the municipality where the woman resides and the size of her locality, but not on the specific locality of residence. As a result, we link the the ENFES individual data with the data on IC clinics built at the municipality level.

The data on the number of IC rural clinics built in each municipality between 1980 and 1982 come from printed records in the IMSS historical archives. To get a sense of the expansion, Figure 1 shows the average number of IC clinics per 10,000 rural inhabitants per municipality per year in that period. This average was calculated using all the Mexican municipalities at the time, even those without any IC clinics. In 1980, the first year of the expansion, Mexican municipalities had on average almost half a clinic per 10,000 rural inhabitants. One year later, they had 1.8 clinics on average, and the same by the end of the intervention in 1982.

To provide indirect evidence on the territorial coverage of the program, Figure 2 shows the fraction of Mexican municipalities that had at least one IC clinic in each year. It is important to note that municipalities might have other types of clinics, like those

[6] We obtained the data from the Demographic Health Survey (DHS) Program website, http://www.dhsprogram.com/

serving primarily their urban areas, but not those specifically targeting small, rural localities. Figure 2 shows that the fraction of municipalities with IC clinics increased drastically from 0.20 in 1980 to over 0.55 in 1982.

In summary, Figures 1 and 2 show that the IC program was a large expansion in the primary health services available to the rural, uninsured population.

Our empirical strategy links the fertility outcomes and contraceptive knowledge and use, of women aged 15 to 28 in rural localities in 1987 to the number of IC clinics per 10,000 rural inhabitants in their municipality in 1982, at the end of the expansion. Thus, our treatment variable is continuous. In addition, we compare the outcomes of the youngest women in this group, those aged 15 to 21, to those aged 22 to 28 years old in 1987, in municipalities with different treatment intensities. Women in the youngest group were between 8 and 14 years old in 1979, right before the expansion. In our data, the peak ages for first intercourse and first birth are 16 and 18 years old, respectively. Thus, we expect the effects of IC clinics on fertility and contraceptive outcomes to be stronger among the youngest group, compared to women aged 22 to 28 in 1987, because the former had not yet started their fertility when the intervention took place.

This strategy raises two potential concerns. The first one is that clinics might not have been allocated randomly across municipalities. The second concern, as mentioned in Miller (2010), is selective migration of women, caused precisely by their desire to have access to health care and contraceptive information and supplies.

Regarding the first concern about non-random placement of clinics, the historical documents from the IMSS archives have some narrative on how the treatment localities were selected. The intervention targeted rural localities between 500 and 2,500 inhabitants that were particularly marginalized. Therefore, we use the 1980 Mexican Census, matched to the ENFES data, to control for socioeconomic characteristics at the municipality level that might have been correlated with the number of clinics built in each of them. The 1980 census was conducted during the first year of the IC clinic expansion, thus, the municipality characteristics we use are unlikely to have been affected by the intervention. In the appendix, we compare the mean characteristics of women and municipalities with and without IC clinics using the variables in both the census and the ENFES data (Tables A1-A3). IC municipalities indeed seem more disadvantaged than those without the program according to various sociodemographic characteristics like school enrollment, literacy,

and share of dwellings without basic sanitation and other services, among others. In addition, young women in municipalities with IC clinics are less educated, more likely to be married and to live in a dwelling lacking basic services, than women in municipalities without these clinics. On average, treated women have higher fertility, compared to control women, and lower use and knowledge of contraceptives.

To summarize the information of the sociodemographic characteristics of the municipality from the 1980 census, we follow a principal components approach to construct a "marginality index".[7] The higher the value of this marginality index, the more disadvantaged the municipality is. In Table A4 in the appendix, we show the results of OLS regressions on the determinants of treatment at the municipality level for the full sample and for the ENFES matched sample. The determinants we consider are the marginality index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. These OLS results confirm that IC clinics were placed in relatively disadvantaged areas.

Regarding the second concern about the selective migration of women into areas with more IC clinics, the great majority (79 percent) of the young women in our ENFES sample had been living 8 years or more in the same locality of the survey, so they were already living there before the intervention.[8] Nevertheless, in the robustness checks section, we show that our main results remain unchanged when we exclude women who migrated to the locality after the intervention (21 percent) from the estimation sample.

For our main results on the effect of the number of IC clinics per 10,000 rural inhabitants on the fertility and contraceptive outcomes of young, rural women we estimate equations of the following form by ordinary least squares (OLS):

[7]The variables included in the index are the shares of the population aged 6 to 14 not enrolled in primary, of the population age 10 and older without any secondary education, and of the population age 15 and older who are illiterate; the number children born per woman age 12 and older, the child mortality rate; the share of the population age 5 and older who speaks indigenous language, and the share of those who do not speak Spanish; the share of the labor force in agriculture; and the shares of dwellings in the municipality without electricity, water, drainage, with dirt floor, with precarious roof and walls, which use the kitchen as a bedroom and which cook with wood. We follow the approach used by Filmer and Pritchett (2001), but we use municipalities instead of households. Thus, we take the first component of all these variables.

[8]It is worth noting that the ENFES data only indicates the number of years that a woman has been living in the locality where she resides at the time of the survey, whereas our IC clinic data is at the municipality level. Thus, some women might have migrated between localities within the same municipality and, consequently, have the same IC clinic access.

$$Y_{ims} = \alpha + \gamma_1 C_{ms} * Age15-21_{ims} + \gamma_2 Age15-21_{ims} + \gamma_3 C_{ms} + \delta Z_{ms} + \lambda_s + u_{ims}$$

where Y_{ims} is the outcome of interest of woman i in municipality m in state s in 1987; C_{ms} is the number of IC clinics per 10,000 rural inhabitants in municipality m in state s in 1982, when the expansion ended; $Age15-21ims$ is a dummy equal to 1 if the woman is in that age range in 1987, and zero otherwise (the reference group are women 22 to 28 years old); Z_{ms} includes the municipality level controls that might have influenced the placement of the clinics in that municipality, namely, the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size; λ_s is a state fixed effect.

As mentioned before, we focus on the intensity of treatment as measured by the number of IC clinics per 10,000 inhabitants in the municipality, and we let the effect of these clinics on fertility and contraceptive outcomes to be different for the youngest group (age 15-21). Thus, the coefficient γ_3 captures the effect of an additional IC clinic per 10,000 rural inhabitants on the outcome variable for women age 22 to 28; $\gamma_1 + \gamma_3$ captures the same effect for women age 15 to 21, so that γ_1 is the differential effect of an additional clinic for the younger group, relative to the older group. In all regressions, standard errors are clustered at the municipality level.

Note that, in our main specification, we exclude the characteristics of the woman's dwelling and her education because these variables are reported in 1987, thus, they could have been affected by the Coplamar intervention. Instead, we will estimate the effects of IC clinics on education to see whether the change in fertility affected the human capital accumulation of young, rural women.

Also note that we do not control for the number of clinics from other public health providers in the municipality in 1982 either. Including these controls would decrease our sample size and could bias our sample to states that have better record keeping and more state capacity, since such information is not available at the municipality level for all states. In addition, as explained in the background section, in the early 1980s other public health clinics served mostly the population in urban areas. The exception were the SSA clinics, which did serve the rural population, but they did not expand during the same years of the IC intervention (1979-1982). Nevertheless, as

an additional exercise in the robustness checks section, we include other public health clinics as controls in an estimation using only the subsample of states for which we have this information.

4 Results

Tables 1 and 2 show our main estimation results on young women's fertility outcomes, and contraception knowledge and use, respectively. As mentioned in the previous section, in these tables we do not control for the existence of other public health clinics, different from IC clinics, at the municipality level.

The first row of Table 1 shows the estimate for our key interaction of the number of IC clinics per 10,000 rural inhabitants in the municipality in 1982 with the dummy equal to one if the woman is 15 to 21 years old in 1987. Recall that the reference group are women 22 to 28 years old in that same year. Across columns, these estimates show that IC clinics had some significant impacts on the fertility outcomes of women aged 15 to 21, compared to those in the older group. For instance, in the first column, an additional IC clinic per 10,000 rural inhabitants in the municipality significantly decreased the total children ever born for these women by 0.23 children. This effect represents a 15 percent reduction with respect to the overall sample mean of 1.48 children, shown at the bottom of the table. This reduction in fertility is not due to a corresponding increase on the probability of not having children (column 2), but rather to a delay in the first birth (column 3). In column 2 the estimate for our key interaction is close to zero and not significant, whereas in column 3 an additional IC clinic per 10,000 rural inhabitants seems to have increased the age at first birth by a quarter of a year.

The estimated reduction in fertility in the first column does not seem to be associated with a significant change in preferences, at least measured as the ideal number of children reported by women. Column 4 shows that the impact of an additional IC clinic per 10,000 rural inhabitants on this variable for the youngest women is negative, but small and not statistically significant. First-row estimates in columns 5 and 6 of Table 1 confirm these findings: IC clinics have no significant effect on the probability of having no births in the last 5 years, but a negative and significant effect in the number of births in the last 5 years. Column 7 shows a positive and statistically significant effect of these clinics on the age at first marriage

of 0.28 years for them. Column 8 shows that these clinics had no significant effect on the probability of having had sexual intercourse, but they seem to increase the age at first intercourse by 0.36 of a year.

It is worth noting that in Table 1, the estimates for the dummy for being 15 to 21 years old alone in the second row are mostly consistent with the fact that these women are younger than the reference group. For instance, women age 15 to 21 have 1.94 fewer children and 58 percentage points higher probability of having no children, compared to the older group. On the other hand, in the third row, the number of IC clinics per 10,000 rural inhabitants in the municipality by itself is associated with higher fertility, reflecting the fact that the program specifically targeted poor, rural localities with lower access to health care services.

Table 2 shows our results for the knowledge and use of contraceptives, and confirms that the effects of IC clinics on the fertility of the younger group are associated with the family planning services provided in these clinics. In the first row, our key interaction is positive and statistically significant in the first two columns, implying that an additional IC clinic per 10,000 rural inhabitants in the municipality increases the number of contraceptive methods named by women age 15 to 21, both spontaneously and after suggestions from the interviewer. The effects range from 0.25 to 0.42 more methods named and known per additional IC clinic.

Regarding contraceptive use, columns 3 and 4 in Table 2 show that our key interaction is positive for the probability that a woman aged 15 to 21 has ever used contraception and is currently using contraception, but it is only statistically significant for the first variable. This could be the result of higher contraceptive use among these younger women only before they start their fertility, but not once they already started. The increase in the probability of having used contraception ever per additional IC clinic (6.9 percentage points) represents 29 percent of the sample mean at the bottom of the table. In column 5, the positive and significant estimate for the probability of permanent male or female sterilization is a bit unexpected given the young age of these women, but it is consistent with the fact that IC clinics are able to provide safe procedures of this kind.

Finally, the first row in columns 6 and 7 show that IC clinics have positive, but not statistically significant impacts on the intention of women age 15 to 21 to use contraceptives in general, and modern contraceptives in particular, in the next 12

months. In the ENFES survey, these intention questions are only asked to women who report that they are not currently using any contraception, be it modern or traditional.

The estimates for the age 15 to 21 dummy alone in the second row of Table 2 show that women aged 15 to 21 have lower contraceptive knowledge and use, compared to the older group, which is expected given that older women are more likely to be already married and having children. The number of IC clinics by itself in the third row is associated with higher contraceptive knowledge and use among young women.

In sum, our results show that an additional IC health clinic per 10,000 rural inhabitants reduced the realized fertility of women age 15 to 21, the youngest in our sample. These younger women were between 8 and 14 years old in 1979, right before the IC expansion, so many of them probably had not yet started their fertility. Although we cannot disentangle the effect of the general health services provided by IC clinics on fertility, from the family planning ones, we show that the number of IC clinics increased the contraceptive knowledge and use of women aged 15 to 28, and these positive effects are even larger for women aged 15 to 21, the youngest group. Thus, our results suggest that the family planning services provided by the IC clinics allowed these rural, younger women to delay their first birth, along with their first marriage and intercourse. In principle, the availability of family planning services could increase the age at first birth without necessarily changing the age at first intercourse and marriage. However, some correlation between these three variables is expected if some out-of-wedlock pregnancies in adolescence result in marriage. In addition, part of the family planning services provided by IC clinics might have a sexual education component, making younger women more aware of the potential risks of (unprotected) intercourse.

To get a sense of the magnitude of our estimates in Table 1, an increase of one standard deviation in the number of IC clinics per 10,000 rural inhabitants in the municipality (4.16 clinics) would be associated with a decrease of 0.95 children born and an increase of one year in the age at first birth for women age 15 to 21.[9] Thus, the IC intervention could have indeed impacted the human capital accumulation of these young women, as we show later. As argued by Miller (2010), even if family planning services have modest effects on completed lifetime fertility, their effect on the timing of

[9]This standard deviation is calculated using the whole sample of Mexican municipalities.

births at an age that is key to human capital accumulation, could generate substantial gains for young women.

5 Robustness checks

In this section, we examine the robustness of our main results. First, we add the number of clinics from other public health providers as additional controls to our estimations, using the subsample of states for which we have this information. Second, we repeat our main estimations on the subsample of non-migrant women, that is, those who did not move to their survey locality after the IC clinic expansion, but were already living there. Third, we estimate regressions similar to our main ones using a subsample of women of ages 26 to 39, who were older at the time of the intervention. Finally, we explore whether the 1984 decentralization of health services lead to heterogeneous effects of the IC clinic expansion on the fertility outcomes of women as of 1987.

5.1 Controlling for other public health providers

As mentioned before, the information on clinics from other public health providers at the municipality level was reported differently by each state in the 1980s. As a consequence, we do not have data on these clinics at the municipality level for all Mexican states and the ones with available data do not always include information for all types of non-IC clinics. Thus, including these other health clinics results in a much smaller sample of women from the ENFES survey, which could be biased toward states with better reporting and more state capacity.

In Tables 3 and 4 we report the results from estimating our main equation on this reduced sample. We include separately as controls the number of primary care clinics per 10,000 rural inhabitants in the municipality administered by (i) SSA, (ii) ISSSTE, and (iii) IMSS. The first group of clinics target the uninsured population, particularly in rural areas, and are administered by the federal government through the SSA. The second group are clinics administered by ISSSTE, which provide medical services only to registered federal employees. Finally, the third group are regular, non-IC IMSS clinics that provide services to registered salaried workers in the private sector, mostly in urban localities.

The first row of Table 3 and 4 confirm our main results for both fertility, and contraceptive knowledge and use. In Table 3 the estimates of our key interaction have the same sign and are similar in magnitude to those reported in Table 1, but they are not statistically significant, probably because of the considerably smaller sample size. The first row of Table 4 shows that results for contraceptive use are also consistent in sign and magnitude with those in Table 2. In particular, the positive effect of the number of IC clinics per 10,000 rural inhabitants on the number of contraceptive methods named spontaneously remains significant at 5 percent, whereas the corresponding positive effect for the total number of methods named remains significant at 10 percent. In addition, the positive effect of these clinics on permanent female or male sterilization also remains significant at 5 percent in column 5. Given that the sample in these tables is roughly half of the sample in Tables 1 and 2, it is reassuring that the sign and magnitude of the key estimates remains after such a loss of observations.

In Tables 3 and 4, clinics from other public health providers have statistically significant effects, some of them in the same direction of reducing fertility and increasing contraceptive knowledge and use. However, given that these clinics are in the same municipality, but are not necessarily located on rural localities or serve the rural, open population, we regard them as additional controls for other characteristics of the municipality, which do not affect our main findings.

5.2 Estimation on a subsample of non-migrant women

The placement of an IC clinic in a given rural locality could have attracted women who were particularly interested in having access to health care and family planning services to that locality. This selective migration could potentially cause an upward bias in our estimated impacts. As mentioned in our data section, the majority of young women in our ENFES sample (79 percent) had been living at least for 8 years in the same locality of the survey, since before the intervention. Nevertheless, in Tables 5 and 6, we exclude the remaining 21 percent of women from our main estimations, that is, those who migrated to the locality after the intervention. The estimates in the first row of these two tables are remarkably similar in sign, magnitude and statistical significance, to those in our main tables, with few exceptions. For instance, the positive effect of IC clinics on the probability of having no births in the last five years for the youngest group is now significant at 10 percent; the effect on the age at first intercourse remains positive

and statistically significant, but is smaller in size; and the positive effect on female or male sterilization is very similar in magnitude, but losses statistical significance. Apart from these selected cases, the rest of the estimates are practically identical to our main results, thus confirming that the latter are not driven by the selective migration of women who desire access to health and family planning services.

5.3 Estimation for women aged 26 to 39

To verify that the IC clinic expansion had no impact on outcomes that were predetermined by the time it took place, we estimate regression similar to our main ones on a sample of women aged 26 to 39, who were between 18 and 31 years old in 1979. Given that the peak in the distribution of age at first birth in our sample is 18, these women most probably had already started their fertility when the intervention started. To be clear, IC clinics could still have impacts on some of their fertility outcomes, but we would expect to see no significant impact on the age at first birth, at first marriage and at first intercourse. Finding an effect on these outcomes could indicate a change in the composition of women in localities with higher treatment intensity, caused by the IC intervention. In addition, if the impact of family planning services is greater for adolescent women, as we find, we would expect no differential impact for the youngest group in this subsample (those age 26 to 32).

Tables 7 and 8 show the results for this exercise, for which we divide the sample in women aged 26 to 32 and those aged 33 to 39. The first row of Table 7 shows that none of the differential effects of IC clinics for women in the youngest group are statistically significant. In particular, note the lack of statistical significance for age at first birth, at first marriage and at first intercourse, which is as expected. In the third row, the number of IC clinics per 10,000 inhabitants in the municipality alone is associated with a lower age at first birth, first intercourse and first marriage, which confirms that the intervention targeted places that were relatively disadvantaged. In that same row, columns 5 and 6 show that, for all women aged 26 to 39, an additional IC clinic has a positive effect on the probability of having no births in the 5 years prior to the survey and a negative effect on the number of births in the last 5 years. As mentioned, the family planning services provided by the IC clinics could still impact women in this age group, but there are no differential effects those in the youngest group. In Table 8, we show that there also no differential effect of IC clinics on contraceptive knowledge and

use for women in the youngest group, but positive and significant effects of each IC clinic for all women age 26 to 39, which could explain some of the fertility impact in the previous table.

5.4 Heterogeneous effects of the 1984 decentralization of health services

As mentioned in the background section, in 1984, the Mexican federal government attempted to decentralize health services for the uninsured. Consequently, in some states, IC clinics were briefly transferred to state governments for administration and provision of services. In this subsection, we capture the potential heterogeneous effects due to this decentralization process by adding the triple interaction of the number of IC clinics with the dummy for being age 15 to 21 in 1987 and a dummy for whether the state had already decentralized by 1987. We also include all the relevant double interactions in our estimation, in particular our key interaction from Tables 1 and 2.

In Tables 9 and 10, the first row shows the estimates of the triple interaction capturing the heterogeneous effects of the decentralization, whereas the second row shows the effects for the same double interaction of interest in our main tables. Thus, the first row shows the additional effect of being a decentralized state for the youngest women.

The second row of Table 9 shows that the effects of IC clinics on the fertility outcomes of younger women in all states are very similar in magnitude to those estimated in Table 1. In particular, the negative effect on children ever born and the number of births in the last 5 years, and the positive effect on age at first marriage and at first intercourse are of similar magnitude and retain their statistical significance.

The first row of Table 9 shows that IC clinics had additional significant effects on selected fertility outcomes of younger women in decentralized states. For instance, in column 1, the effect of clinics on the number of children ever born for women aged 15 to 21 is also negative and significant at 1 percent for decentralized states, implying a larger reduction in this variable per additional IC clinic per 10,000 rural inhabitants in those states. The same is observed in column 6 for the number of births in the last

5 years. For other outcomes, the number of clinics seems to have a significant effect only for younger women in decentralized states. Accordingly, an additional clinic in a decentralized state seems to increase the probability of being childless by 6.4 percentage points and to reduce the number of ideal children by 0.59, whereas we find no significant effect in the second row of this table or in Table 1. Finally, the effect on age at first birth in the second row is positive, smaller than in Table 1, and not statistically significant, whereas the effect for decentralized states is positive, larger (0.79 years), but significant at 10 percent only.

The first row of Table 10 suggests that these differentiated effects on some fertility outcomes cannot be attributed to more knowledge and higher contraceptive use associated with IC clinics in decentralized states, because the estimates in the first four columns are negative, even though some of them are not statistically significant. The only exception are the effects of IC clinics on the intention to use any contraceptive method in the 12 months following the survey, which are positive and significant at 5 percent for decentralized states. Conversely, in the second row of the table, the estimated impacts of an additional IC clinic for the youngest women are remarkably similar in sign, magnitude and significance to those in Table 2. These estimates imply that, as shown in our main results, these clinics increased the knowledge and use of contraceptives of women age 15 to 21 in all states.

6 Effects of IC clinics on education and other outcomes

The youngest women in our sample were between 8 and 14 years old when the IC expansion took place. As shown in our main results, this expansion decreased their fertility, presumably through the delaying of their first intercourse, marriage and birth, at an age that is key to human capital accumulation. Thus, in Table 11 we analyze whether the expansion had any impact on their schooling and other outcomes related to their well-being. We estimate the effect of the number of IC clinics per 10,000 rural inhabitants with separate regressions for women aged 15 and 21 and for women aged 22 to 28 to allow the estimates of all controls to be different between these two groups. Given this separate estimation, the coefficient of interest is that of the number of IC clinics per 10,000 rural inhabitants in the municipality and we control for the age of

the respondent in years, the municipality characteristics correlated with treatment and state fixed effects as before.

Panel A in Table 11 shows that, for the youngest group of women, an additional clinic increased the probability of completing their primary education by 0.23 percentage points, and it also increased the probability of having some secondary education by 0.18 percentage points. Panel B shows that the corresponding effects for the women aged 22 to 28 in our sample are very different: the number of clinics has no significant impact on the probability of completing primary education, and has a negative and significant effect on the probability of having some secondary education. These relatively older women were 15 to 21 years old when the intervention took place, so the lack of significant effect on primary education, which is generally completed at 12 years old in Mexico, is expected. Given that children are usually 15 years old in the last year of secondary schooling, the intervention also has very limited scope to influence the secondary schooling of this older group, so the negative effect on secondary education might be due to the correlation of relatively worse socioeconomic outcomes with the placement of IC clinics.

Column 3 shows that an additional IC clinic has a negative and statistically significant effect on the probability that a woman aged 15 to 21 has ever worked; a positive effect of 1.6 years on their husband's education for those who are married; and a positive and significant effect on the probability of being married. However, these effects in column 3 to 5 for younger women are also present for women aged 22 to 28 in Panel B, and they are all statistically significant and of a similar magnitude as those in Panel A. Thus, we find no evidence of differentiated effects for these groups for other outcomes. However, the different effects we do find for schooling are consistent with those found on their fertility and contraceptive outcomes in Tables 1 and 2.

As mentioned in the background section, the Coplamar anti-poverty strategy included an education component called SEP-Coplamar. According to official records, the SEP-Coplamar program started in 1980 and consisted in building 35 school-homes (casas-escuela) in localities that already had a primary school to provide food and shelter to children from remote localities without school infrastructure.[10] Thus, the placement of these school-homes was determined by the existence of a primary school

[10]See Secretaría de Educación Pública (1982)

in the locality and the existence of sufficient school-aged children in the nearby isolated localities, not necessarily by the size of the locality, as the IC health component was. Even if both components were correlated at the locality level, the construction of 35 school-homes is small compared to the 2,715 IC clinics built, and thus many IC localities might not have had any of these school-homes.

Outside of the Coplamar strategy, between 1979 and 1982 the Ministry of Education (SEP) did expand the school infrastructure, particularly for the primary and secondary levels. In this period, the number of primary schools increased by 10,036 schools (15 percent) and that of secondary schools increased by 4,805 schools (95 percent). However, we have no information about the placement of these schools, which were built outside of the Coplamar strategy, so we do not know whether they also targeted IC localities in particular. Only the school-homes are mentioned as the educational component of the Coplamar strategy in official documents. Nevertheless, we cannot rule out that this school expansion might have interacted with the effects of IC clinics to increase the schooling of the youngest women in our sample.

7 Conclusions

We show that the expansion of rural health infrastructure that took place in the late 1970s in Mexico, when family planning policy was one of the priorities for the Mexican government, reduced the fertility of young women, measured 7 years after the intervention. Specifically, our results suggest that the IC clinic expansion reduced the number of children born of rural women aged 15 to 21, possibly through a delay in their first intercourse, marriage and birth. The increase in the knowledge and use of contraceptives among these women, associated with the number of IC clinics built in their municipality, confirms that, indeed, the family planning services provided by these clinics contributed to the decrease in their fertility. We also find that the number of IC clinics in the municipality increased the probability of completing primary education and that of acquiring some secondary education for these women, who were between 8 and 14 years old when the clinic expansion began.

Access to well-supplied and staffed primary health clinics possibly decreased the cost of adopting and sticking to the use of contraception among young, rural women, thus impacting the timing of their fertility and their human capital accumulation. Our

findings also confirm that interventions that reach women shortly before or at the beginning of their adolescence might have larger impacts, particularly on the starting time of their fertility, as shown in other studies. Thus, as argued by Miller (2010), completed fertility is important, but the timing could be even more so for young women, who are still in an age of accumulating human capital. Both impacts could lead to long term improvements in the health and standard of living of these women and their children. Due to the limitations imposed by the characteristics of available data, in this paper, we measured only the medium term effects. However, the estimation of a long-term effect would entail valuable information that is left for future work.

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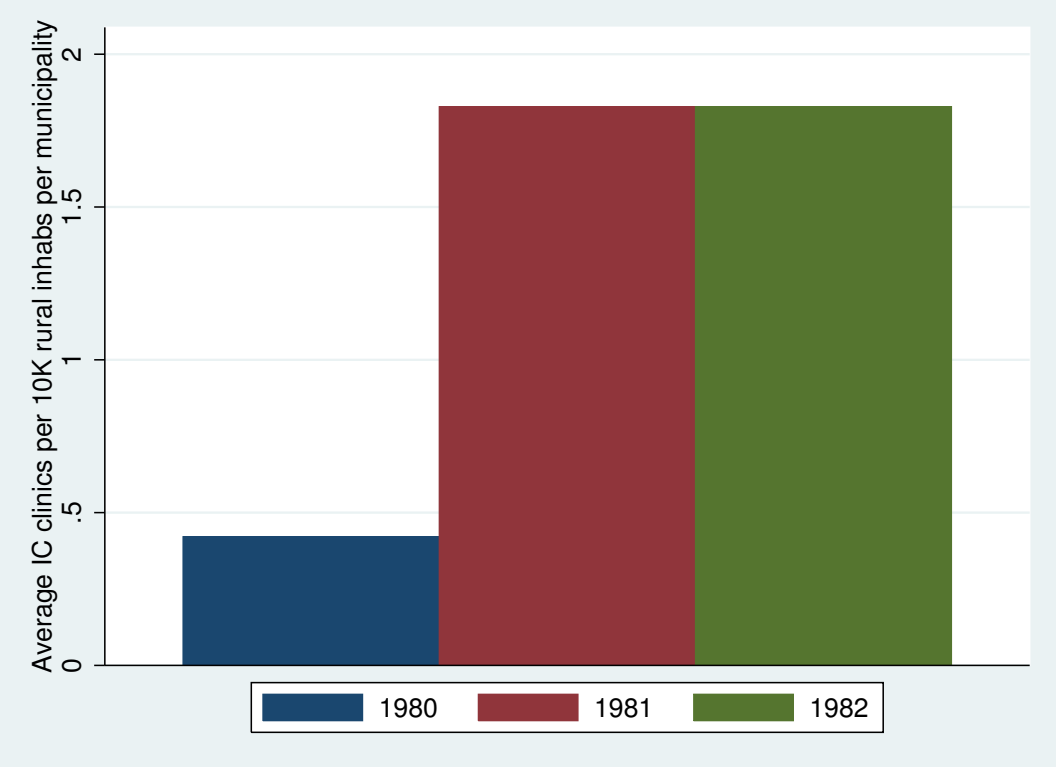
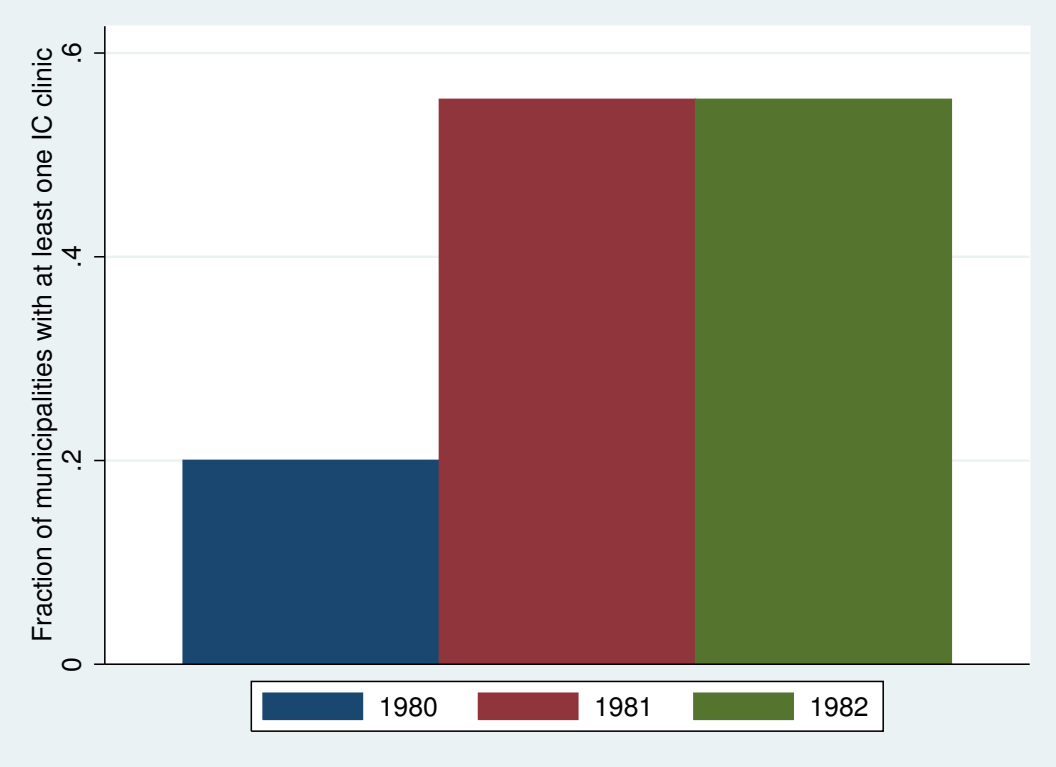
8 Tables and Figures

Figure 1: IC clinics per 10K rural inhabitants per municipality



Note: Data processed by authors from IMSS historical archives. Two outlier municipalities, which had a disproportionate number of clinics per 10k rural inhabitants, are removed from the sample. All other mexican municipalities, including those without IC clinics, are used to calculate the average. Rural inhabitants are those in localities with less than 2,500 inhabitants.

Figure 2: Fraction of municipalities with at least one IC clinic



Note: Data processed by authors from IMSS historical archives. Two outlier municipalities, which had a disproportionate number of clinics per 10k rural inhabitants, are removed from the sample. All other mexican municipalities, including those without IC clinics, are used to calculate the average. Rural inhabitants are those in localities with less than 2,500 inhabitants.

Table 1: Effects of IC clinics in fertility outcomes for women aged 15-28

	(1) Children ever born	(2) No children	(3) Age at first birth	(4) Ideal # of children	(5) No births 5y	(6) # births in 5y	(7) Age 1st marriage	(8) Has had intercourse	(9) Age 1st intercourse
IC clinics/10k rural inhab	-0.226***	0.007	0.245**	-0.079	0.017	-0.098***	0.279***	0.013	0.361***
* Age 15 to 21	[0.055]	[0.017]	[0.112]	[0.087]	[0.015]	[0.027]	[0.078]	[0.014]	[0.067]
Age 15 to 21 dummy	-1.936***	0.584***	-2.002***	-0.444**	0.511***	-0.914***	-1.625***	-0.534***	-1.906***
	[0.154]	[0.048]	[0.271]	[0.198]	[0.044]	[0.086]	[0.195]	[0.046]	[0.167]
IC clinics/10k rural inhab	0.292***	-0.043***	0.120**	-0.391***	-0.133***	0.204***	0.906***	0.146***	0.803***
	[0.025]	[0.007]	[0.054]	[0.038]	[0.007]	[0.013]	[0.036]	[0.006]	[0.048]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1094	1094	580	993	1094	1094	648	1094	670
R^2	0.430	0.377	0.145	0.145	0.309	0.294	0.121	0.297	0.150
Mean for women age 15-28	1.484	0.470	18.064	3.297	0.498	0.887	16.937	0.600	17.001
Mean for women age 15-21	0.411	0.747	16.777	3.021	0.748	0.387	16.039	0.363 16.037	

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 22-28. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Effects of IC clinics on contraceptive knowledge and used for women aged 15-28

	(1) Number of contraceptive methods known (spontaneously)	(2) Number of contraceptive methods known (spontaneously and probed)	(3) Has ever used contraception	(4) Is currently using contraception	(5) Permanent female or male sterilization	(6) Intends to use contraception in next 12 months	(7) Intends to use a modern method in next 12 months
IC clinics/10k rural inhab	0.253***	0.415**	0.069**	0.034	0.024**	0.024	0.033*
* Age 15 to 21	[0.073]	[0.194]	[0.027]	[0.024]	[0.010]	[0.019]	[0.016]
Age 15 to 21 dummy	-1.276***	-2.855***	-0.468***	-0.271***	-0.106***	-0.260***	-0.219***
	[0.183]	[0.483]	[0.076]	[0.067]	[0.022]	[0.052]	[0.049]
IC clinics/10k rural inhab	0.269***	1.282***	0.136***	0.101***	0.015***	0.085***	0.119***
	[0.031]	[0.083]	[0.010]	[0.009]	[0.005]	[0.009]	[0.008]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1094	1094	1094	1094	1094	906	906
R^2	0.279	0.438	0.270	0.162	0.068	0.108	0.094
Mean for women age 15-28	1.878	6.713	0.239	0.146	0.034	0.237	0.206
Mean for women age 15-21	1.509	5.764	0.079	0.050	0.003	0.158	0.151

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 22-28. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Robustness controlling for other health providers. Fertility outcomes for women aged 15-28

	(1) Children ever born	(2) No children	(3) Age at first birth	(4) Ideal # of children	(5) No births 5y	(6) # births in 5y	(7) Age 1st marriage	(8) Has had intercourse	(9) Age 1st intercourse
IC clinics/10k rural inhab	-0.148	-0.018	0.439	-0.182	-0.004	-0.090	0.437	0.023	0.422
*Age 15 to 21 dummy	[0.144]	[0.032]	[0.389]	[0.147]	[0.031]	[0.062]	[0.309]	[0.025]	[0.299]
Age 15 to 21 dummy	-2.019***	0.598***	-2.107***	-0.375	0.513***	-0.896***	-1.799***	-0.519***	-2.031***
	[0.192]	[0.067]	[0.326]	[0.284]	[0.059]	[0.106]	[0.197]	[0.060]	[0.161]
IC clinics/10k rural inhab	0.177*	0.007	0.129	0.364**	-0.009	0.125***	0.360**	0.014	0.304
	[0.086]	[0.014]	[0.222]	[0.110]	[0.019]	[0.031]	[0.137]	[0.012]	[0.211]
SSA clinics/10k rural inhab	-0.087***	0.032***	0.233**	-0.138***	0.030***	-0.040***	0.175***	-0.030***	0.305***
	[0.013]	[0.003]	[0.079]	[0.033]	[0.002]	[0.004]	[0.026]	[0.004]	[0.074]
ISSSTE clinics/10k rural inhab	-0.179***	-0.011*	0.324**	-0.288***	0.004	-0.074***	0.082	-0.014	0.087
	[0.026]	[0.005]	[0.125]	[0.057]	[0.004]	[0.007]	[0.050]	[0.008]	[0.119]
Other IMSS clinics/10k rural inhab	-0.028	-0.024***	0.133	-0.106	-0.014***	0.006	-0.024	0.026**	-0.057
	[0.031]	[0.006]	[0.156]	[0.074]	[0.003]	[0.010]	[0.061]	[0.010]	[0.141]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	561	561	297	538	561	561	328	561	342
R^2	0.410	0.349	0.154	0.130	0.271	0.267	0.123	0.269	0.161

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 22-28. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. The number of primary care clinics per 10,000 rural inhabitants in the municipality administered by (i) SSA, (ii) ISSSTE, and (iii) IMSS are included as separate controls. SSA clinics target the uninsured population, particularly in rural areas, and are administered by the federal government. ISSSTE clinics provide medical services only to registered federal employees. Other IMSS clinics are non-IC IMSS clinics that provide services to registered salaried workers in the private sector, mostly in relatively urbanized localities, and not to the uninsured population. Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Robustness controlling for other health providers. Contraceptive knowledge and use for women aged 15-28

	(1) Number of contraceptive methods known (spontaneously)	(2) Number of contraceptive methods known (spontaneously and probed)	(3) Has ever used contraception	(4) Is currently using contraception	(5) Permanent female or male sterilization	(6) Intends to use contraception in next 12 months	(7) Intends to use a modern method in next 12 months
IC clinics/10k rural inhab	0.410**	0.731*	0.059	0.035	0.040**	0.049	0.062*
* Age 15 to 21	[0.128]	[0.346]	[0.051]	[0.051]	[0.015]	[0.027]	[0.032]
Age 15 to 21 dummy	-1.374***	-3.167***	-0.504***	-0.312**	-0.131***	-0.304***	-0.263***
	[0.269]	[0.673]	[0.109]	[0.094]	[0.027]	[0.064]	[0.062]
IC clinics/10k rural inhab	-0.008	-0.141	-0.057**	-0.030	-0.029*	-0.052	-0.066*
	[0.077]	[0.216]	[0.024]	[0.026]	[0.013]	[0.034]	[0.032]
SSA clinics/ 10k rural inhab	0.050*	0.293***	-0.034***	-0.022***	-0.009***	0.021	0.015
	[0.025]	[0.063]	[0.010]	[0.001]	[0.002]	[0.015]	[0.015]
ISSSTE clinics/10k rural inhab	-0.071	0.177	0.054**	0.037***	0.000	0.037	0.050
	[0.046]	[0.118]	[0.018]	[0.004]	[0.004]	[0.027]	[0.028]
Other IMSS clinics/10k rural inhab	-0.060	-0.169	0.072**	0.060***	-0.001	0.087**	0.086**
	[0.055]	[0.136]	[0.022]	[0.003]	[0.005]	[0.031]	[0.031]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	561	561	561	561	561	438	438
R^2	0.112	0.140	0.288	0.176	0.083	0.091	0.072

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 22-28. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. The number of primary care clinics per 10,000 rural inhabitants in the municipality administered by (i) SSA, (ii) ISSSTE, and (iii) IMSS are included as separate controls. SSA clinics target the uninsured population, particularly in rural areas, and are administered by the federal government. ISSSTE clinics provide medical services only to registered federal employees. Other IMSS clinics are non-IC IMSS clinics that provide services to registered salaried workers in the private sector, mostly in relatively urbanized localities, and not to the uninsured population. Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Robustness excluding migrant women. Fertility outcomes for women aged 15-28

	(1) Children ever born	(2) No children	(3) Age at first birth	(4) Ideal # of children	(5) No births 5y	(6) # births in 5y	(7) Age 1st marriage	(8) Has had intercourse	(9) Age 1st intercourse
IC clinics/10k rural inhab	-0.225***	0.021	0.256*	-0.077	0.038*	-0.144***	0.265***	-0.002	0.379***
*Age 15 to 21	[0.075]	[0.021]	[0.147]	[0.096]	[0.019]	[0.033]	[0.078]	[0.016]	[0.120]
Age 15 to 21 dummy	-2.095***	0.596***	-1.714***	-0.419*	0.495***	-0.835***	-1.114***	-0.552***	-1.554***
	[0.218]	[0.058]	[0.371]	[0.230]	[0.055]	[0.100]	[0.217]	[0.054]	[0.322]
IC clinics/10k rural inhab	0.334***	-0.083***	-0.090	-0.405***	-0.173***	0.311***	0.782***	0.156***	0.726***
	[0.031]	[0.007]	[0.055]	[0.046]	[0.007]	[0.014]	[0.050]	[0.007]	[0.056]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	863	863	415	780	863	863	455	863	477
R^2	0.462	0.430	0.124	0.129	0.346	0.327	0.106	0.333	0.138

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey, excluding those that reported having resided in their current locality for less than 8 years. The reference category consists of women aged 22-28 who have resided in their current locality for 8 or more years. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size . Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Robustness excuding migrant women. Contraceptive knowledge and use for women aged 15-28

	(1) Number of contraceptive methods known (spontaneously)	(2) Number of contraceptive methods known (spontaneously and probed)	(3) Has ever used contraception	(4) Is currently using contraception	(5) Permanent female or male sterilization	(6) Intends to use contraception in next 12 months	(7) Intends to use a modern method in next 12 months
IC clinics/10k rural inhab	0.248**	0.403*	0.076**	0.038	0.023	0.016	0.025*
*Age 15 to 21	[0.089]	[0.212]	[0.029]	[0.027]	[0.015]	[0.017]	[0.014]
Age 15 to 21 dummy	-1.217***	-2.820***	-0.479***	-0.277***	-0.092**	-0.259***	-0.227***
	[0.196]	[0.468]	[0.082]	[0.074]	[0.034]	[0.051]	[0.047]
IC clinics/10k rural inhab	0.446***	1.675***	0.129***	0.091***	0.022***	0.085***	0.140***
	[0.042]	[0.104]	[0.010]	[0.010]	[0.006]	[0.009]	[0.007]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	863	863	863	863	863	737	737
R^2	0.263	0.418	0.275	0.165	0.078	0.108	0.099

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey, excluding those that reported having resided in their current locality for less than 8 years. The reference category consists of women aged 22-28 who have resided in their current locality for 8 or more years. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size . Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Robustness for older women. Fertility outcomes for women aged 26-39

	(1) Children ever born	(2) No children	(3) Age at first birth	(4) Ideal # of children	(5) No births 5y	(6) # births in 5y	(7) Age 1st marriage	(8) Has had intercourse	(9) Age 1st intercourse
IC clinics/10k rural inhab	-0.149	-0.018	0.068	-0.013	0.018	0.006	-0.015	0.010	0.035
*Age 26 to 32	[0.119]	[0.011]	[0.271]	[0.152]	[0.019]	[0.045]	[0.241]	[0.014]	[0.220]
Age 26 to 32	-1.693***	0.053*	-0.972*	-0.412	-0.149***	0.309***	-0.991*	-0.032	-0.664
	[0.350]	[0.029]	[0.496]	[0.268]	[0.031]	[0.087]	[0.530]	[0.036]	[0.553]
IC clinics/10k rural inhab	0.751***	0.001	-1.567***	-0.531***	0.061***	-0.211***	-0.957***	0.077***	-1.105***
	[0.071]	[0.006]	[0.135]	[0.070]	[0.009]	[0.022]	[0.127]	[0.008]	[0.120]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	771	771	718	683	771	771	725	771	735
R^2	0.196	0.055	0.083	0.105	0.084	0.104	0.078	0.047	0.092

Note: The sample consists of women aged 26-39 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 33-39. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Robustness for older women. Contraceptive knowledge and use for women aged 26-39

	(1) Number of contraceptive methods known (spontaneously)	(2) Number of contraceptive methods known (spontaneously and probed)	(3) Has ever used contraception	(4) Is currently using contraception	(5) Permanent female or male sterilization	(6) Intends to use contraception in next 12 months	(7) Intends to use a modern method in next 12 months
IC clinics/10k rural inhab	-0.052	0.036	0.002	0.019	0.015	-0.032	-0.010
*Age 26 to 32	[0.092]	[0.194]	[0.019]	[0.020]	[0.020]	[0.023]	[0.018]
Age 26 to 32	0.050	0.007	-0.096*	-0.128***	-0.112**	0.133**	0.092*
	[0.156]	[0.344]	[0.048]	[0.044]	[0.051]	[0.055]	[0.050]
IC clinics/10k rural inhab	0.559***	1.560***	0.230***	0.168***	0.121***	0.073***	0.123***
	[0.043]	[0.094]	[0.011]	[0.010]	[0.011]	[0.009]	[0.007]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	771	771	771	771	771	488	488
R^2	0.317	0.457	0.242	0.236	0.226	0.083	0.103

Note: The sample consists of women aged 26-39 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 33-39. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size. Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Heterogeneous effects by decentralization status. Fertility outcomes for women aged 15-28

	(1) Children ever born	(2) No children	(3) Age at first birth	(4) Ideal # of children	(5) No births 5y	(6) # births in 5y	(7) Age 1st marriage	(8) Has had intercourse	(9) Age 1st intercourse
IC clinics/10k rural inhab	-0.374***	0.064***	0.797*	-0.590***	0.051*	-0.198***	0.363	-0.071***	0.557
*Age 15 to 21*Decentralized	[0.076]	[0.020]	[0.424]	[0.080]	[0.026]	[0.057]	[0.370]	[0.021]	[0.0338]
IC clinics/10k rural inhab * Age 15 to 21	-0.173**	0.002	0.134	0.016	0.013	-0.070***	0.233***	0.021*	0.270***
	[0.060]	[0.011]	[0.125]	[0.050]	[0.011]	[0.021]	[0.067]	[0.010]	[0.064]
Age 15 to 21*Decentralized	0.740***	-0.208***	-1.294*	0.899***	-0.176***	0.425***	-0.478	0.173**	-1.130*
	[0.188]	[0.050]	[0.706]	[0.215]	[0.052]	[0.130]	[0.639]	[0.061]	[0.543]
IC clinics/10k rural inhab*Decentralized	0.401***	-0.081***	-0.778***	0.879***	-0.068***	0.204***	-0.499***	0.085***	-0.751***
	[0.072]	[0.016]	[0.207]	[0.122]	[0.017]	[0.035]	[0.172]	[0.017]	[0.155]
Age 15 to 21 dummy	-2.035***	0.624***	-1.967***	-0.537***	0.546***	-0.981***	-1.687***	-0.559***	-1.821***
	[0.164]	[0.047]	[0.323]	[0.178]	[0.048]	[0.091]	[0.239]	[0.051]	[0.018]
IC clinics/10k rural inhab	0.099	0.019	0.411***	0.025	0.002	0.067**	0.526***	-0.031	0.450***
	[0.068]	[0.020]	[0.106]	[0.112]	[0.019]	[0.031]	[0.057]	[0.021]	[0.082]
Decentralized dummy	-0.742***	0.215***	1.705***	-1.082***	0.176***	-0.362***	1.054***	-0.169***	1.704***
	[0.123]	[0.052]	[0.326]	[0.269]	[0.045]	[0.060]	[0.331]	[0.051]	[0.0234]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1094	1094	580	993	1094	1094	648	1094	656
R^2	0.423	0.367	0.134	0.102	0.300	0.289	0.112	0.279	0.142

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 22-28. An additional interaction with a Decentralized dummy is included. The dummy is equal to one for states in which IC clinics had been transferred to state governments for administration and provision of services by 1987. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size . Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Heterogeneous effects by decentralization status. Contraceptive knowledge and use for women aged 15-28

	(1) Number of contraceptive methods known (spontaneously)	(2) Number of contraceptive methods known (spontaneously and probed)	(3) Has ever used contraception	(4) Is currently using contraception	(5) Permanent female or male sterilization	(6) Intends to use contraception in next 12 months	(7) Intends to use a modern method in next 12 months
IC clinics/10k rural inhab	-0.189	-0.444*	-0.079**	-0.026	0.002	0.063**	0.044***
*Age 15 to 21*Descentralized	[0.111]	[0.235]	[0.030]	[0.029]	[0.014]	[0.028]	[0.014]
IC clinics/10k rural inhab * Age 15 to 21	0.287***	0.510***	0.077***	0.032	0.021**	0.017	0.027**
	[0.074]	[0.169]	[0.026]	[0.024]	[0.009]	[0.012]	[0.013]
Age 15 to 21*Descentralized	0.483*	1.648***	0.172*	0.111	0.009	-0.039	-0.011
	[0.238]	[0.552]	[0.095]	[0.086]	[0.030]	[0.079]	[0.069]
IC clinics/10k rural inhab*Descentralized	0.336***	0.691*	0.063*	0.010	-0.000	-0.086*	-0.069**
	[0.083]	[0.391]	[0.032]	[0.027]	[0.012]	[0.043]	[0.031]
Age 15 to 21 dummy	-1.405***	-3.452***	-0.491***	-0.291***	-0.107***	-0.279***	-0.233***
	[0.198]	[0.534]	[0.089]	[0.081]	[0.026]	[0.060]	[0.061]
IC clinics/10k rural inhab	-0.161	-0.278	-0.035	0.001	-0.012	-0.016	-0.024
	[0.098]	[0.420]	[0.025]	[0.026]	[0.009]	[0.016]	[0.018]
Descentralized dummy	-0.301	-0.531	-0.152	-0.070	-0.013	0.105	0.077
	[0.227]	[0.832]	[0.088]	[0.079]	[0.023]	[0.074]	[0.065]
Municipality level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1094	1094	1094	1094	1094	906	906
R^2	0.244	0.357	0.239	0.133	0.058	0.086	0.065

Note: The sample consists of women aged 15-28 in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. The reference category consists of women aged 22-28. An additional interaction with a Decentralized dummy is included. The dummy is equal to one for states in which IC clinics had been transferred to state governments for administration and provision of services by 1987. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size . Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 11: Effects of IC clinics on education and other outcomes for women aged 15-28

	(1) Complete primary education	(2) Some secondary education	(3) Has ever worked	(4) Husband's education in years	(5) Married
Panel A: 15 to 21 year old women					
IC clinics/10k rural inhab	0.230***	0.197***	-0.217***	1.577***	0.091***
	[0.001]	[0.001]	[0.001]	[0.038]	[0.001]
Current age (respondent)	-0.032**	-0.006	0.046***	0.011	0.103***
	[0.012]	[0.010]	[0.010]	[0.182]	[0.009]
Municipality level controls	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	584	582	582	201	584
R^2	0.241	0.129	0.129	0.226	0.255
Panel B: 22 to 28 year old women					
IC clinics/10k rural inhab	0.000	-0.016***	-0.196***	1.325***	0.129***
	[0.003]	[0.003]	[0.002]	[0.030]	[0.002]
Current age (respondent)	-0.029***	-0.027**	-0.026**	-0.318***	0.019**
	[0.009]	[0.009]	[0.012]	[0.081]	[0.008]
Municipality level controls	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	510	510	508	436	510
R^2	0.250	0.184	0.146	0.240	0.089

Note: Separate estimations were made for each age group. All age groups consist of women in localities $< 2,500$ inhabitants from the 1987 ENFES Survey. Municipality level controls are: the marginalization index, the fraction of the population in localities 1-2,499 inhabitants and the average population per locality of that size . Standard errors, clustered at the municipality level, in brackets ; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Appendix: Placement of IC clinics

In this section, we match 1980 Mexican Census and the ENFES data at the municipality level, to compare the characteristics of the municipalities with and without IC clinics. In addition, we present the results of OLS regressions on the determinants of treatment, defined as the number of IC clinics per 10,000 rural inhabitants, at the municipality level.

Table A1 shows differences in means for selected characteristics from the 1980 Mexican Census for the treated and control municipalities in our ENFES sample. For ease of comparison, in this table, treated municipalities are those that have at least one IC clinic and control municipalities are those that have none in 1982. Municipalities with IC clinics have a much larger number of localities between 1 and 2,499 inhabitants, and also have a higher fraction of their population living in those smaller localities, compared to control municipalities. In addition, IC municipalities indeed seem more disadvantaged than those without the program according to various sociodemographic characteristics. They have a higher share of their population age 10 and older without secondary education and of their population age 6 to 14 not enrolled in primary school, and a lower literacy rate. They also have a higher share of indigenous population, of indigenous population that do not speak Spanish, and of their labor force in agriculture. Regarding dwelling characteristics, IC municipalities have a higher share of dwellings without basic sanitation and other services. Treated and control municipalities do not differ in the labor force participation rate or in their unemployment rate. Finally, regarding the fertility measures from the census, IC municipalities have an average of 2.9 children born per woman age 12 and older, whereas in control municipalities the average is slightly lower (2.6 children). The share of born children who did not survive is slightly higher in treated municipalities (18% versus 16% in control municipalities). Table A2 shows that these differences remain when using the whole sample of Mexican municipalities from the 1980 Census, but they are less stark.

As mentioned in the text, we summarize the information about these sociodemographic characteristics at the municipality level, many of which might have influenced the placement of IC clinics, with a "marginality index". The last row of Table A1 shows that, as expected, the value of the marginality index is higher for municipalities with IC clinics than for those without them, confirming that treated municipalities are relatively more disadvantaged.

Table A3 shows the differences in means for individual characteristics for rural women aged 15 to 28 in our ENFES sample. Consistent with the placement of clinics in relatively disadvantaged municipalities, young women in municipalities with IC clinics are less educated, more likely to be married and to live in a dwelling lacking basic services, than women in municipalities without these clinics. On average, treated women have higher fertility, compared to control women and lower use and knowledge of contraceptives. Young women have 1.56 children ever born in treated municipalities, and 1.25 children in control municipalities. Only 46 percent of treated women have no children, compared to 51 percent of control women. The ideal number of children for women in IC municipalities is higher (3.45) than the ideal for women in municipalities with no such clinics (2.87). Regarding contraceptive knowledge, 78 percent of young women in treated municipalities report knowing about modern contraceptive methods, compared to 96 percent of young women in control municipalities. Treated women also report knowing between 0.77 and 2.27 fewer contraceptives methods than control women. Regarding contraceptive use, 20 percent of women report having used, compared to 36 percent of control women; and 12 percent report to be currently using contraception, compared to 23 percent of control women. The same pattern holds for intention to use contraceptives among women who are not currently using any. Finally, the probability of having ever worked is similar for both groups of women, but a higher share of treated women report to be currently working.

Table A4 shows the results of an OLS regression on the determinants of treatment at the municipality level for two treatment variables: (i) a dummy variable equal to 1 if the municipality had any IC clinics in 1982 and zero otherwise; and (ii) the number of IC clinics per 10,000 rural inhabitants in the municipality. The determinants of treatment are the marginality index described above, the share of the municipality population that lives in localities between 1 and 2,499 inhabitants and the average population per locality of that size.[11] We report results for both the full sample of Mexican municipalities in the 1980 Census, and the subsample of municipalities in the ENFES data.

The first two columns of Table A4 show that, for the whole sample of Mexican

[11]We also estimated similar regressions using all the municipality characteristics included in our marginality index as separate controls. Most of them are not statistically significant when taken separately. These results are not shown, but available upon request.

municipalities, the marginality index has a positive correlation with the probability of having at least one IC clinic, and also with the number of these clinics per 10,000 rural inhabitants. Both estimates are significant at 1 percent, confirming the narrative of the intervention being targeted toward the most marginalized municipalities. For our ENFES sample, the estimates in columns 3 and 4 are also positive, but they lose significance, probably due to a much smaller number of observations. For the full sample, the fraction of the municipality population who lives in the smallest localities has no significant effect on the probability of having any IC clinics, and a negative and statistically significant effect on the number of these clinics in the municipality. The estimates for our sample are instead positive, but also statistically insignificant. Finally, in all columns, the average population in the smallest localities has a negative and statistically significant effect on the treatment variables, which confirms the focus of the intervention in municipalities with relatively small, rural localities. As mentioned in the text, in our main OLS regressions using the ENFES sample, we control for these three determinants of the number of IC clinics per 10,000 rural inhabitants in the municipality, our chosen treatment variable, to account for the factors that might have driven the placement of these clinics.

Table A1: Mean Characteristics of Municipalities With and Without IC Clinics (ENFES 1987 sample)

	Without IC	With IC	Difference	p-value
Number of loc 1-2499 inhab	46.81081	179.3333	-132.5225	.0006881***
Pop in loc 1-2499	10812.7	29399.1	-18586.39	.0017187**
Fraction of mun pop in loc 1-2499	.1118024	.4634362	-.3516338	.0004062***
Average pop in loc 1-2499	366.388	250.4837	115.9043	.1060089
Men to women ratio in localities <2,500 inhabitants	1.052009	1.042905	.0091037	.4842798
Fraction of pop 10+ without any secondary education	.5846798	.6586457	-.0739659	.0082229**
Fraction of pop 6-14 not enrolled in primary	.3809057	.3963342	-.0154285	.1349497
Fraction of pop 15+ who are illiterate	.1103388	.2159814	-.1056426	.0208257*
Children born alive per woman age 12+	2.595454	2.924292	-.3288387	.0037304**
Fraction of children born alive that did not survive	.1566879	.1841987	-.0275108	.001035**
Fraction of surviving children per woman age 12+	2.18357	2.378384	-.1948148	.0137667*
Fraction of pop age 5+ who speaks indigenous lang	.0583805	.1230538	-.0646732	.1950119
Fraction of pop age 5+ who only speaks indigenous lang	.0107355	.0401336	-.0293981	.1181558
Fraction of population that prev resided in other state	.1656526	.0962621	.0693905	.0010897**
Labor force participation rate	.506689	.5136878	-.0069987	.5735291
Fraction of the labor force in agriculture	.1261986	.3072931	-.1810945	.0081298**
Unemployment rate	.006158	.0052281	.0009299	.1116266
Fraction of dwellings with no electricity	.1189929	.3525813	-.2335883	.0016687**
Fraction of dwellings with no water	.164383	.3748628	-.2104798	.0027899**
Fraction of dwellings with no drainage	.3519063	.5926926	-.2407864	.0037344**
Fraction of dwellings with dirt floor	.1312665	.3486091	-.2173426	.0041876**
Fraction of dwellings with precarious roof	.4343441	.6052646	-.1709205	.0333349*
Fraction of dwellings with precarious walls	.2719664	.6304222	-.3584558	2.10e-06***
Fraction of dwellings with no water in bath	.4781984	.6578673	-.1796689	.0070348**
Fraction of dwellings with kitchen as bedroom	.0796983	.0926249	-.0129266	.3295106
Fraction of dwellings cooking with wood	.0921939	.4095528	-.3173588	.0007407***
Marginality index without pop in loc<2500	-5.119911	-2.320471	-2.79944	.0022571**
Observations	37	21		

Note: Data from 1980 Mexican Census, IC Clinics from IMSS historical archives. The sample consists of municipalities that are included in the 1987 ENFES survey. Municipalities with at least one IC clinic are compared to those without IC clinics. Variables used for comparison are from the 1980 census.

Table A2: Mean Characteristics of Municipalities With and Without IC Clinics (Full Sample)

	Without IC	With IC	Difference	p-value
Number of loc 1-2499 inhab	31.99624	67.18312	-35.18688	1.38e-28***
Pop in loc 1-2499	5540.738	12552.56	-7011.825	2.47e-51***
Fraction of mun pop in loc 1-2499	.6560615	.7478578	-.0917963	7.32e-11***
Average pop in loc 1-2499	438.3712	360.7341	77.63708	8.66e-07***
Men to women ratio in localities <2,500 inhabitants	1.028114	1.030438	-.0023238	.5568178
Fraction of pop 10+ without any secondary education	.73787	.7583622	-.0204922	.0000118***
Fraction of pop 6-14 not enrolled in primary	.3894187	.4061625	-.0167437	9.07e-07***
Fraction of pop 15+ who are illiterate	.2559323	.3271968	-.0712646	2.23e-26 ***
Children born alive per woman age 12+	3.039797	3.12225	-.0824535	8.18e-06***
Fraction of children born alive that did not survive	.1901787	.1952111	-.0050323	.0209924*
Fraction of surviving children per woman age 12+	2.449713	2.506797	-.0570839	.0000383***
Fraction of pop age 5+ who speaks indigenous lang	.2215255	.2608841	-.0393586	.0051843**
Fraction of pop age 5+ who only speaks indigenous lang	.0569205	.0886076	-.0316871	2.05e-08***
Fraction of population that prev resided in other state	.0661199	.0573524	.0087675	.0002542***
Labor force participation rate	.524188	.5336902	-.0095022	.005574**
Fraction of the labor force in agriculture	.4833258	.5483474	-.0650216	1.05e-14***
Unemployment rate	.0047983	.0047678	.0000305	.9065941
Fraction of dwellings with no electricity	.3737207	.5342967	-.160576	5.96e-50***
Fraction of dwellings with no water	.4508645	.5442049	-.0933405	3.74e-17***
Fraction of dwellings with no drainage	.8041691	.8624326	-.0582636	8.40e-13***
Fraction of dwellings with dirt floor	.4862702	.5681251	-.0818549	.0000704***
Fraction of dwellings with precarious roof	.7705983	.8217956	-.0511973	.0000317***
Fraction of dwellings with precarious walls	.6642297	.7627746	-.0985449	2.17e-09***
Fraction of dwellings with no water in bath	.8210841	.8772719	-.0561878	1.76e-17***
Fraction of dwellings with kitchen as bedroom	.0979068	.1046627	-.0067559	.0352035*
Fraction of dwellings cooking with wood	.5908078	.6924785	-.1016707	6.32e-17***
Marginality index without pop in loc<2500	-.6704189	.5293099	-1.199729	1.08e-27***
Observations	1063	1327		

Note: Data from the 1980 Mexican Census, IC Clinics from IMSS historical archives. The sample consists of all municipalities from the census. Municipalities with at least one IC clinic are compared to those without IC clinics. Variables used for comparison are from the 1980 census.

Table A3: Mean Characteristics of Women in Municipalities With and Without IC clinics

	Without IC	With IC	Difference	p-value
Current age (respondent)	20.62182	21.16117	-.539354	.0698016
Married	.5090909	.5848596	-.0757687	.029821*
Marginality index without pop in loc<2500	-2.399758	.6029563	-3.002714	9.6e-115***
Fraction of mun pop in loc 500-2500	.238005	.3786455	-.1406405	2.16e-37***
Average pop in loc 500-2500	924.0327	924.4559	-.4232217	.979453
Total children ever born	1.247273	1.564103	-.3168298	.0076762**
Has no children	.5127273	.4554335	.0572938	.1009122
Age of respondent at first birth	18.11194	18.04933	.0626129	.8306738
Ideal number of children	2.867925	3.453297	-.5853722	9.25e-09***
No births in the last 5 years	.5490909	.4810745	.0680164	.0510181
Number of births in the last 5 years	.7418182	.9352869	-.1934688	.0052711**
Age at first marriage	16.92715	16.93964	-.0124855	.9631679
Has had intercourse	.5672727	.6105006	-.0432279	.2101413
Age at first intercourse	17.01923	16.99611	.0231218	.9266468
Number of contraceptive methods known (spontaneously)	2.454545	1.684982	.7695638	1.14e-09***
Number of contraceptive methods known (spontaneously and probed)	8.414545	6.141636	2.272909	2.96e-14***
Has ever used contraception	.3563636	.2002442	.1561194	1.69e-06***
Is currently using contraception	.2290909	.1184371	.1106538	.0000816***
Permanent female or male sterilization	.0654545	.023199	.0422555	.0080051**
Intends to use contraception in next 12 months	.302439	.2182596	.0841794	.0191626*
Intends to use a modern contraceptive method in next 12 months	.2829268	.1840228	.098904	.0047574**
Complete primary education	.6581818	.4383394	.2198424	1.35e-10***
Some secondary education	.3963636	.1746032	.2217605	2.96e-11***
Has ever worked	.5018182	.5226994	-.0208812	.5500609
Husband's education in years	5.342282	3.72541	1.616872	1.06e-06***
Married	.5090909	.5848596	-.0757687	.029821*
Observations	275	817		

Note: Data from ENFES 1987 survey, IC Clinics from IMSS historical archives. Individual level characteristics of women aged 15-28 in our regression sample. Women in municipalities with at least one IC clinic are compared to those in municipalities without IC clinics. Variables used for comparison are from the 1987 ENFES Survey.

Table A4: Determinants of treatment at the municipality level

VARIABLES	(1) IC dummy	(2) IC clinics / 10k rural inhabitants	(3) IC dummy	(4) IC clinics / 10k rural inhabitants
Marginality index without pop in loc<2500	0.0437***	0.6306***	0.0039	0.1772
	(0.0049)	(0.2017)	(0.0574)	(0.1260)
Fraction of mun pop in loc 1-2499	-0.0099	-5.6211**	0.5871	0.0547
	(0.0422)	(2.6612)	(0.5474)	(0.9472)
Average pop in loc 1-2499	-0.0002***	-0.0014**	-0.0004*	-0.0013**
	(0.0000)	(0.0006)	(0.0002)	(0.0005)
Constant	0.6465***	6.7187***	0.4420	1.7874**
	(0.0327)	(2.3596)	(0.3854)	(0.8353)
Observations	2,282	2,282	44	42
R-squared	0.060	0.016	0.226	0.396

Note: Columns (1) and (2) include all municipalities in the 1980 census while columns (3) and (4) include municipalities from the 1987 ENFES survey. The dependent variable for columns (1) and (3) is a dummy equal to one if there is at least one IC clinic in the municipality, zero otherwise. The dependent variable for columns (2) and (4) is constructed as the number of IC clinics per 10,000 rural inhabitants in the municipality. The marginality index is constructed with principal component analysis and it consists of the first component of socioeconomic variables (detailed in section 3). Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1