Ten Years of Intervention

External Evaluation of *Oportunidades* 2008

in Rural Areas (1997-2007)

Volume II

The Challenge of Services Quality:
Health and Nutrition Outcomes

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Chapter II

Living in Poverty: An Analysis of Health, Disease and Care Processes Among Rural Indigenous Households

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Executive Summary

Introduction

The purpose of the *Guaranteed Basic Healthcare Package* (*Paquete Básico Garantizado de Salud*) is to provide first-level healthcare to beneficiaries of the *Oportunidades* Program. Through education and the dissemination of information related to personal healthcare, and by promoting regular visits to first-level health clinics as a means of facilitating the prevention of diseases and encouraging the practice of "self-care",* the package aims to improve the health of its beneficiaries (and thus their fitness to work and study). The *Oportunidades* Program affects various aspects with regards to health and, accordingly, requires a variety of approaches when assessing its impact. By *impact* we mean "any modification in the living conditions of the beneficiary domestic groups who might be directly or indirectly associated with the program".[1] This document will analyze the impact that the Guaranteed Basic Healthcare Package has had on the development of preventative and self-care practices among the domestic groups in our study sample through the dissemination of relevant health information, and will describe the conditions and provision of primary healthcare and its influence on the health practices of the households in the study, using the healthcare trajectories‡ of said households as our main source of data.

The main objective of this analysis is to understand the way in which the quality of medical care received (as perceived and experienced by its users/patients) influences the general health of families, the lengths they have to go to find appropriate healthcare and finally, how it affects the development of their physical capabilities, aspects which, as a whole, allow us to evaluate the program's health component in terms of its objectives, determining its ideal operation. We will describe the impact of the processes associated with health, sickness, and healthcare on domestic economies and the financial strategies, known as *economic confrontation strategies*,§ employed to cope with these situations. These descriptions not only provide an overview of the way in which families deal with the aforementioned processes, but, more broadly speaking, offer an insight into the relationship between access to healthcare and the structure of opportunities, which affect a household's potential to improve its economic situation and thus provide individuals with the possibility of having access to healthcare, education services and work opportunities.[2] Moreover, they allow us to comprehend the limitations or efficiency of the Guaranteed Basic Healthcare Package.

Thus, this study has three main objectives:

a) To describe the conditions of first-level (primary) healthcare.
b) To determine if these conditions, in conjunction with the *Oportunidades* program, are having an effect on the general health of beneficiary households and the steps they take to access healthcare (*the where, when and how healthcare is sought*).

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* *Autocuidado* or "self-care" refers to the basic practices involved with looking after one's own health (and the health of the family): taking preventative measures, curing oneself of common maladies, and seeking (and following) medical advice in a timely manner.

‡ By "healthcare trajectory", we understand the following: "The sequence of decisions and strategies implemented by individuals to face a specific episode of illness. Such strategies include a series of social decisions and practices aimed at ending the illness, which involve all the institutions, medical services and healthcare models that are available to them, as well as, the individuals who take part in their operation, the sick/patients, therapists and other mediators, personnel in charge of providing patient care and of administering or stopping treatment, and who offer advice and provide solutions".[3] Throughout this document, healthcare trajectories and therapeutic itineraries are synonymous terms that we use to refer to the concept previously described by Osorio.[3]

§ E*conomic confrontation strategies* should be understood as the set of resources (non-monetary and monetary) and strategies (loans, sale of assets to cover transportation expenses, medicines, medical interventions) and social networks (family or community) households utilize to cover the expenses accrued from medical emergencies.

c) To identify the impact of the Guaranteed Basic Healthcare Package on the development of preventive and self-care practices in the studied households, comparing domestic groups who have been incorporated into the *Oportunidades* Program with non-beneficiary households, basing our analysis on the experiences of users/patients and their perceptions of quality.

Methodology

Twelve micro-regions were studied, three in each of the states of Oaxaca, Chiapas, Chihuahua and Sonora. The micro-regions were as follows: The Mazateca, Costa, and Mixe micro-regions in Oaxaca; Las Margaritas, Tumbalá and San Cristobal de las Casas micro-regions in Chiapas; Yepachi-Maycoba, Norogachi and Samachique micro-regions in Chihuahua; and Yaqui, Mayo and Guarijía micro-regions in Sonora. One of the main objectives was to discover what perceptions the medical teams had of the community in which they worked, the general state of health of the community's resident families, the working conditions of health service personnel, the quality of services offered, and their opinion regarding the *Oportunidades* Program and the co-responsibilities of the Guaranteed Basic Healthcare Package. We interviewed health service providers in charge of rural medical units and clinics in the communities of the studied households, including doctors (male and female), nurses (male and female) and rural healthcare assistants. Observations were made during community workshops, the medical consultations of families (a co-responsibility of the *Oportunidades* Program) and of the different types of healthcare provision (local health services).

An initial sample of 183 households with the following characteristics was chosen:

Table 1
Analytical household sample

OPORTUNIDADES STATUS	ETHNICITY	CHIAPAS	CHIHUAHUA	OAXACA	SONORA	TOTAL
Beneficiaries	Indigenous	24	12	11	13	60
Beneficiaries	Mestizo	8	12	10	14	44
Non-beneficiaries	Indigenous	7	12	14	11	44
Non-beneficiaries	Mestizo	6	12	7	10	35
TOTAL		45	48	42	48	183

Data compiled by Mercedes González de la Rocha (2008)[4]

According to the final composition of this analytical household sample* two databases were built, one based on the households' healthcare trajectory and another on their reproductive history. The healthcare trajectory database included the following variables: ethnicity; program exposure; community; sex; age; type of illness and an explanation of the illness or its cause, according to the family; what measures they took and the decisions they made to resolve the illness; cost of the treatment and of the search for medical attention; basic sanitation and opinions or perceptions regarding local healthcare services. In total, we documented 348 therapeutic itineraries: 98 in Oaxaca, 85 in Chiapas, 92 in Chihuahua and 73 in Sonora. The reproductive history database included the following variables: ethnicity; program exposure; community; gender; current age (2008); age at the birth of first child; age at the birth of last child; type of care received during pregnancy and childbirth; number of births (alive, deceased, abortions); type of birth control methods used by the interviewee throughout her life; pregnancies and access to birth control methods. In total, 299 reproductive histories were documented – 38 in Oaxaca, 44 in Chiapas, 92 in Chihuahua and 55 in Sonora.

* According to the analytical sample, reference will be made to *long exposure households* and to *recent exposure households* throughout the document. The former refer to those households that have been *Oportunidades* Program beneficiaries since 1998 and the latter to those that have been beneficiaries since 2007.

Results

The types of service providers who have the potential to become involved in the provision of everyday medical care are very diverse. Although this document only deals with the conditions under which healthcare services operate, the inhabitants of the studied micro-regions have access to four types of local healthcare service providers:

a) Public sector healthcare service providers.
b) Private sector healthcare service providers.*
c) Health service providers affiliated with religious organizations (exclusively in the case of the Samachique – Misión Tarahumara – and Norogachi – Clínica San Carlos – in the Chihuahua micro-regions)
d) Traditional healthcare service providers.‡

To understand the structure and condition of those services, we will now provide a brief description of the resources – material, medical and human – of the primary healthcare centers in the micro-regions, which implement the policies of the Guaranteed Basic Healthcare Package.

Oaxaca. The healthcare services offered in the studied micro-regions of Oaxaca show signs that the presence of community clinics and rural medical units does not guarantee good healthcare services for the local population. Given the poor medical and material resources, the quality of healthcare services in these areas (with a high concentration of indigenous inhabitants) is deficient and clinics face multiple obstacles in achieving the *Guaranteed Basic Healthcare Package*'s objectives.

Chiapas. Out of all the micro-regions in Chiapas, only the IMSS-*Oportunidades* Rural Medical Unit (RMU) in Saltillo, Las Margaritas has an on-duty medical intern, Monday through Friday. The rest operate under the responsibility of nurses and auxiliary nurses, which is a fundamental concern that explains why medical attention for the studied households is deficient in this southern state.

The presence of first-level healthcare centers in the visited communities is minimal, meaning that residents have to travel outside of their home communities to receive first-level medical attention. This is another element that explains why local residents, who cannot travel outside of their home communities in search of quality medical attention owing to lack of resources, have poor health. On this matter, it is important to point out that the existence of community clinics and RMUs does not mean that residents in the studied micro-regions actually receive this type of medical attention; the fact that many doctors have never delivered a child is clear evidence of the inefficiency of services at the local healthcare centers.

Chihuahua. The presence of private and religious healthcare institutions in the studied micro-regions in Chihuahua meant that we were able to compare the services they provided with that of the public institutions in the same areas. The comparisons illustrated the deficiencies of the state healthcare centers and RMUs in terms of human resources and materials, and proved how, despite the population's marginal conditions, the obstacles they endure because of their regional geography and because of the ethnic differences between the users of medical services and those delivering medical attention, healthcare and medical services can still be delivered in an efficient and coordinated manner.

Sonora. Although the high demand for healthcare is the main cause of poor medical attention in the Yaqui micro-region, long waiting times and insufficient resources is common, it is here, out of all the regions studied in this state,

* Local and regional drugstores used as 'healthcare' centers: for example, the "Farmacias Similares" (Dr. Simi).

‡ Mainly traditional or indigenous medicine, and, to a lesser extent, alternative or complementary medicine.

that has the broadest range of healthcare services. This characteristic is influenced by the great diversity of public institutions offering healthcare services, and by the fact that the region has better infrastructure and more professional medical teams in comparison to other micro-regions in Sonora.

Among the studied micro-regions in Sonora, the Guarijía region in general presented the greatest shortage of personnel and the worst infrastructure; however, the community that was visited had two first-level healthcare options, provision that was not found in other micro-regions where residents of the communities we visited were forced to travel to other communities to obtain medical attention. This scenario suggests that even though the Guarijía is the micro-region with the least number of healthcare service options in the state of Sonora, it actually enjoys better service delivery than any other micro-region in the rest of the states we visited during the investigation.

FINDINGS AND COMPARISONS BETWEEN STATES AND MICRO-REGIONS

The descriptions of the various healthcare scenarios that follow will allow us to identify the similarities and differences in terms of healthcare provision among states, and even within the micro-regions. In this section we shall briefly identify the characteristics that are common to the micro-regions within the different states under study and those that are peculiar to them, highlighting the heterogeneity of the scenarios. This data will be useful later in the analysis when we focus on the obstacles or advantages that households encountered when experiencing unresolved episodes of illness.

First of all, excessive demand for public healthcare services is a characteristic shared by all micro-regions in the study. After ten years of operation, *Oportunidades* has undoubtedly contributed to bringing its beneficiaries closer to the state-run medical system. However, despite efforts to provide RMUs with better infrastructure, human and material resources remain insufficient to meet the demand for medical attention. In general, we found that the Department for Health (SSA) healthcare centers offered the best conditions in terms of infrastructure and furnishings: waiting rooms and private consultation rooms furnished with cots for the examination of patients. Bedrooms and bathrooms were available for medical personnel.* Nevertheless, centers continue to exhibit limitations with respect to adequate waiting rooms and inappropriate spaces to carry out workshops.

Regarding medical equipment, most of the healthcare personnel interviewed, regardless of the type of health center where they worked, said they did not have an assigned basic set of medical examination instruments, including a stethoscope, lamp, vaginal mirror and ostoscope.‡ In general, local healthcare centers have a set of scales (not always in the best condition), a sphygmomanometer§ and tongue depressor. On the other hand, *casa de salud*s (small local health clinics/units) generally have to manage without a sphygmomanometer, complicating the regular monitoring of blood pressure for patients who have already shown evidence of, or who may be predisposed to, high blood pressure and who live far from community health centers where their blood pressure could be monitored every month. Inadequacies in terms of infrastructure, instruments and supplies make it very difficult for healthcare providers to fulfill the Guaranteed Basic Healthcare Package's commitment to preventative practices, practices such as the timely detection of high blood pressure, diabetes, metabolic syndrome and the performance of the Papanicolau test (Pap). We also observed that the irregular or complete absence of necessary items such as glucose test strips for dextrosis tests, sphygmomanometers and Pap test materials generate skepticism amongst patients or users, especially when the tests cannot be completed because of the shortage of adequate materials.# These deficiencies discourage users from being tested again.

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* With the exception of the IMSS *Oportunidades* RMU in the Mazateco micro-region where, even though RMU facilities were smaller in comparison to the SSA healthcare center facilities, the equipment was of better quality and they had radio communication technology and a computer on which to keep files for the new electronic filing system. In comparison, the SSA healthcare centers used the communication system of the municipal government, examination beds were not in the best of condition, and there was a shortage of bed linen, patient robes, and even uniforms for healthcare service personnel. In addition, there were shortages of medical supplies, medicines and fast HIV and dextrosis tests in addition to supplies for Papanicolau testing.

‡ Instrument that enables the observation of the auditive tract up to the eardrum.

§ A sphygmomanometer is an instrument that allows the measurement of blood pressure. Its use is of great importance in medical diagnosis, since it allows detection of any anomalies related to blood pressure and the heart. The sphygmomanometer is an essential instrument for the prevention of hypertension and the identification of cardiac risk.

\# This information was derived from the interviews performed in the households and from the observations of service providing centers carried out by field researchers.

At this point it is important to note that despite the shortage of resources required to operate public healthcare institutions being a reality in all of the micro-regions, the degree to which this occurs varies greatly. The most evident disparities were noted when comparing the situation of the micro-regions of Chiapas and those in Sonora. The most unfavorable conditions in terms of infrastructure, equipment and human resources were reported in Chiapas, mainly with respect to the supply of medicines for high blood pressure and diabetes. The supply of these medicines is relatively sufficient in the other states in the evaluation, especially in Sonora and Oaxaca.

A regular supply of medicines has a powerful effect on the demand for primary health services. It is clear that the decision of healthcare centers to function as dispensaries is worthwhile and highly beneficial to the local population, as in doing so they are able to monitor and control the treatment of patients, even though they continue to be deficient with regard to prevention and health advice. The supply of medication has also had a positive effect on the finances of households, and is an impact that is most evident among families recently enrolled in the program and that previously had to pay for those services. Similarly, it has had favorable consequences with respect to changing the perceptions of households with diabetic members regarding the efficiency of the services offered by first-level health centers.

In terms of human resources, we observed that in micro-regions with a greater number of indigenous households, such as Chiapas and the Sierra Tarahumara and Pima communities, it is common to find medical attention being provided by healthcare auxiliaries. For example, SSA healthcare centers in El Encanto, Chiapas and in Mayocoba in Chihuahua are under the supervision of one nurse and a health assistant; they also have the support of a medical intern, but his attendance is irregular in both areas. In contrast, the SSA healthcare centers in the Yaqui and Mayo micro-regions have plenty of medical equipment available, they have, on average, three full-time doctors, and at least one of those doctors is a qualified M.D., while the other two are interns. They also have between two to six nurses, as in the case of the Vicam unit, where there is even a dentist. However, these conditions do not extend to the Guarijía micro-region, which presents characteristics of marginalization similar to those found in the communities in the Sierra Tarahumara and Chiapas. In Burapaco, in the Guarijía micro-region in Sonora, the SSA healthcare center is under the supervision of one assistant nurse. In comparison, the average level of medical attention exhibited by the health centers of the micro-regions in Oaxaca is of an intermediate standard: medical personnel at the SSA healthcare centers usually consist of at least one qualified doctor and a nurse.

The most evident contrast occurs among the studied micro-regions in Sonora and Chiapas. While the IMSS-*Oportunidades* RMUs in Sonora, like the SSA health centers, have, on average, more than two qualified doctors and more than two certified nurses in charge, in Chiapas, out of the four first-level medical institutions studied, only one had a qualified doctor. The difference between the states of Sonora and Chiapas also becomes evident when comparing their degree of marginalization.* Sonora has been categorized as a state with a "low" level of marginalization, while the level of marginalization in Chiapas is considered to be "very high". Of the 72 municipalities in Sonora, only one has a "high" degree of marginalization, while, in Chiapas, only five out of 118 municipalities have a "low" degree of marginalization, and the remaining municipalities range from "medium" to "high" and "very high". This data, combined with the findings of the fieldwork, allows us to suggest that the areas with the highest degrees of marginalization are also those in which public healthcare services are the most deficient. Thus, the impact of the *Oportunidades* Program will be limited by the conditions of the environment in which it operates, preventing it from fulfilling its objective of improving the health and physical well-being of its beneficiaries, indigenous or non-indigenous. Consequently, it is essential that the Department for Health commits to an overhaul of its policies and organization as means of implementing strategies that will make its operation more efficient and effective.

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* The following data with respect to marginalization refers to the last report published by the National Survey on Occupation and Employment of the fourth quarter of 2005 (Encuesta Nacional de Ocupación y Empleo del IV). The data was adjusted in relation to the new population estimates resulting from the 2000-2005 Demographic Conciliation (Conciliación Demográfica 2000-2005), as well as the adjustments of the 2005 Second Count on Population and Households carried out by the INEGI (II Conteo de Población y Vivienda 2005), as a result of the consolidation of files and territorial integration of the communities, substituting the previous version of the marginalization indexes that was announced via this medium on October 4, 2006. Available at: http://www.conapo.gob.mx/publicaciones/indice2005.htm

As mentioned previously, the presence of private and religious healthcare institutions in the studied micro-regions in Chihuahua allowed us to compare the performance of public institutions with their private counterparts in the same areas, which highlighted the deficiencies in human resources and materials that exist in public healthcare centers and RMUs. It also proved that, in spite of the marginal conditions of the population, the geographic barriers and the ethnic differences between patients and the healthcare personnel, medical attention and healthcare can be offered in an efficient and coordinated manner.

PATTERNS IN HEALTHCARE PROVISION

While the *Oportunidades* Program has indeed increased the demand for primary healthcare services, mainly generated by the fulfillment of co-responsibilities, after ten years of operation the conditions and quality of services have not matched this demand. To a large degree, healthcare provision in the micro-regions in the study is determined by their infrastructure and access to services in general. These conditions were relatively better in the northern states than in the southern ones, and especially so in the Yaqui and Mayo micro-regions in Sonora, as a consequence of a more diversified public service network and because of its location within the jurisdiction of an urban *hinterland,** meaning better access to services. Services were also more accessible in the mountainous regions of the Tarahumara in Chihuahua (Samachique and Norogachi) because of the presence of religious medical institutions.

In communities where the standards of first-level medical attention and the successful treatment of ailments is inadequate there is a trend towards going to urban areas in search of better healthcare, which also means the under-use of local health services for the fulfillment of the program's co-responsibilities. The limited effectiveness of public rural clinics creates numerous obstacles to the access of households to quality medical attention and presents difficulties in developing the Guaranteed Basic Healthcare Package. As a consequence, rural and indigenous populations show little confidence regarding the attention they receive from local healthcare centers. This mistrust was observed mainly in households from the six micro-regions in Oaxaca and Chiapas, in Yepachi-Mayocoba and in the Guarijía micro-region in Sonora, and affects the general health and quality of life in these communities in many ways. When households have to leave their communities in order to resolve health issues because they mistrust their local health centers, it has serious consequences for the domestic economies of these families, most evidently for indigenous households.

Families living in the communities of the Norogachi and Samachique micro-regions — where the quality of services was higher owing to the presence of religious medical institutions and because of an IMSS-*Oportunidades* RMU that provides adequate family planning advice and antenatal care — serve as a example of how effective local healthcare tends to reduce the time needed to find and receive treatment, as well as its financial costs. On the other hand, the profound social inequalities experienced by Rarámuri households are unacceptable, especially with regard to those aspects that affect their health (water supplies, housing and transport) and are associated with their geographical marginalization. In the Yaqui and Mayo micro-regions in Sonora, the diversity of public medical services represents a wider range of options and determines the standard of healthcare practices amongst its inhabitants. Households in these micro-regions, even indigenous ones, attend local healthcare centers more frequently, and the costs of medical attention are generally less than those documented in indigenous households in the southern micro-regions. The poorest conditions, in terms of infrastructure and quality of services, were documented in the micro-regions in Chiapas, Oaxaca, in Yepachi-Maycoba, Chihuahua and in Guarijía, Sonora. In these communities, it was revealed that the studied households frequently attended private clinics and laboratories or public hospitals (often located far from their communities) when searching for treatment, incurring great transportation expenses.

* *Hinterland* means the territory or communities under the influence of a health center that are visited by health teams to perform tasks generally aimed at basic sanitation, vaccination, etc.

The cost of traveling great distances to attain quality healthcare often means that the potential to resolve health issues in the long term is diminished, as often these trips are cut short, because of economic limitations, before the patient has completed their course of treatment. What happens as a consequence is that unresolved health issues simply become part of everyday life and reduce the capacity of families to work and study, consequently accumulating disadvantages. Moreover, the members of households with unresolved illnesses tend to accumulate additional health problems, which also remain untreated and add a further challenge to the family's potential to generate economic resources that could improve their standards of living (and treatment of future ailments).

Unresolved episodes of illness frequently result in a change of domestic roles within a household – from economic provider to patient or carer, from student to child laborer – frequently because of economic difficulties brought about by the illness. This process was more evident in indigenous households where the quality of local healthcare services was poor. The most common occurrence was the premature entry of adolescents into the labor force at the expense of their schooling in order to help support their households owing to the illness of a key economic provider, or the abandonment of school because of the student's own ill health. This pattern in response to health crises was highly evident in the Tumbalá micro-region in Chiapas, where, even for former student beneficiaries, the viability of continuing their schooling careers was limited by their access to healthcare services. We believe that the implications of these kinds of scenarios, which are typical among domestic groups living in conditions of greater vulnerability, could make these students candidates for differential benefits, especially in the case of youths who live with chronic ailments or whose parents suffer from those ailments.

In communities that have limited healthcare provision and where residents are often forced to seek medical attention in other regions, consideration should be given to the implementation of an appropriate and widespread referral system, forming links between health institutions in rural areas with those in urban centers, that facilitates the monitoring of patients (in particular beneficiaries) and appropriate aftercare.

In spite of the aforementioned tendency to search outside of local communities for medical attention, the fieldwork provided plenty of ethnographic evidence that allowed us to confirm that there was still a real user demand for local services, especially with regard to households' access to medical advice, medicines and help in obtaining "referrals" or "recommendations" that might be useful in getting users to urban hospitals or access to other health centers further a field. In contrast to non-beneficiaries, who were less likely to visit their local health centers, there was evidence to suggest that beneficiaries recognized the benefits of attending the rural clinics when in need of treatment for generally chronic or minor ailments (as in the case of pre-natal care in Samachique). Commonly, these ailments are related to general aches and pains, diarrhea, respiratory infections, minor accidents and access to birth control methods and medicines for chronic-degenerative ailments (diabetes and high blood pressure in communities with a regular supply of these medicines).

The *Oportunidades* Program, in accordance with its commitment to the provision of primary healthcare, has had a clear impact on services in some areas. In cases such as that of the RMU in Samachique, where there is adequate antenatal care, family planning advice and access to methods of birth control, women, regardless of their ethnicity have access to these services. In addition, the regular medical check-ups of whole families, encouraged by the program's co-responsibilities, have proven to be extremely useful in the detection of high blood pressure patients in the micro-regions of Chihuahua and of diabetic patients in the micro-regions of Oaxaca, even when access to medicines and treatment was irregular. The care and treatment of diabetic indigenous beneficiaries was considerably better than that provided to non-beneficiaries, among whom a higher occurrence of emergency care was reported at second-level private clinics and public hospitals.

Despite the limitations of local healthcare centers in terms of medicine supplies, family check-ups are very useful for diagnosis purposes. In general, beneficiary households seemed to be more concerned about finding a cure or treatment for their illnesses. We believe that access to relevant health advice and information, supported by a regular income (cash transfers), encourages beneficiary households to take a different approach to their health problems. Even though not all of the health issues of beneficiaries are resolved in local care centers owing to the limitations of rural health services, this attitude becomes more evident when compared to the approach of non-beneficiary house-

holds. In general, beneficiary families exhibited a more heightened awareness of their own state of health and were more disposed to participate in preventive healthcare campaigns. However, although the *Oportunidades* Program has managed to increase the demand on local health services and the participation of beneficiaries in community healthcare campaigns, the capacity of these healthcare centers to treat patients effectively cannot meet these demands. Preventative health advice promoted in workshops and through community-wide campaigns loses all credibility if the supply of materials for diabetes detection and Papanaicolau testing is limited. Nevertheless, beneficiary families identify the program with a few resounding achievements – vaccination campaigns, access to treatment for chronic-degenerative patients, availability of pain killers and in some cases birth control methods, and access to treatment for ailments that can be resolved locally by centers. In the long term, these successes can go some way to changing the perception that families, particularly indigenous ones, have about healthcare services and the need to introduce preventative and self-care practices into their daily lives. We believe that these accomplishments must be sustained, guaranteeing full access to medicines and first-level healthcare.

In any case, in view of the unfavorable conditions under which first-level public services operate, the impact of the *Oportunidades* Program on the standards of healthcare is still minimal. The transition towards preventive medicine and the provision of effective first-level medical attention that can meet the demands of the local population remains a distant goal that will only be reached when rural clinics are guaranteed the resources and infrastructure necessary for its viable operation: medical supplies and the presence of professional medical teams. In order to meet these fundamental requirements, there needs to be an inter-institutional commitment to pursue common goals with respect to healthcare between the *Oportunidades* Program and other health and sanitary authorities.

SEXUAL AND REPRODUCTIVE HEALTH

Fertility and use of birth control - The hypothesis that indigenous women have slightly longer reproductive cycles than non-indigenous women is confirmed in all states. On average, indigenous women in the south have six children while in Sonora, in the north, they have five. Moreover, the age at which women (aged 19 or older) have their first child is generally older than the age at which their mothers first gave birth, which confirms that shorter reproductive cycles are more closely related to age or generational factors than to ethnicity.

In terms of the number of children born to the women in the study sample, mestizo women in the northern micro-regions presented the lowest average, three children in Sonora and four in Chihuahua. No increase was perceived in birth rate related to the presence of the *Oportunidades* Program. In general, where access to birth control methods existed, there were reports of their more frequent use among beneficiary mestizo women than among non-beneficiaries. There was also a better disposition towards family planning among indigenous women in Chihuahua and Sonora when they had access to birth control, and surgical methods once they had decided not to have any more children.

The use of birth control was affected by access to healthcare centers, contraceptive supply and the perception the patients have about them. Birth control methods were widely used in the Mayo micro-region in Sonora and in the micro-regions of Chihuahua, where few differences existed between indigenous and non-indigenous women. In the Yaqui micro-region, frequency of use was higher among mestizo women, but use among mestizo or indigenous women in the Guarijía micro-region, mainly owing to supply problems, occurred in only a few cases. In Chiapas, use of birth control methods by indigenous women was not reported and the data for Oaxaca demonstrated the preference for permanent birth control methods once a woman had decided not to have anymore children: there was a very evident tendency towards giving birth to one's last child in an organized medical setting so as to have the option of a salpingo-ovariectomy. Among indigenous women in the south, especially in Oaxaca, we witnessed fewer incidences of birth control use during a woman's active reproductive cycle, a practice that was closely related to the notion that they were harmful to reproductive health, and owing to the negative attitudes of women's sexual partners.

In addition, the patterns of birth control use are closely related to the combination of the generation factor and the establishment of healthcare institutions in these areas, which, in the rural context began around the mid-1990s.

That is, women between 20 and 40 years of age know about or have used birth control methods not only because they have had greater access to healthcare centers than their mothers but also because they had greater exposure to information regarding the use of birth control methods through general program campaigns and workshops.

The methods preferred by women in the sample during their reproductive lifetime (with the sample concentrated on beneficiary mestizo women) were the IUD and hormone injections, since they required little aftercare. Among indigenous women, the preferred method was the salpingo-ovariectomy.

We were not able to specify the impact of the *Oportunidades* Program in terms of family planning and the use of birth control, but we could say that proximity to healthcare centers and a regular supply of birth control methods strongly determined employment possibilities. Although the program has had a very positive effect regarding the promotion of birth control, mostly through talks and workshops, on mestizo women between the ages of 20 and 40, we believe indigenous women are not taking advantage of these resources to the same degree. After ten years, perceptions about the use of birth control had not changed very much in the households studied in Oaxaca and Chiapas, nor had male attitudes towards those methods. We believe that in indigenous communities more workshops should be offered, where both men and women are encouraged to attend, which emphasize the advantages and explain the risks of birth control methods. It is also important that workshops that aim to raise awareness of birth control methods and their implications be adapted to reflect the cultural sensibilities of indigenous women. It is necessary to train medical teams to give more insightful and interactive introductions to these subjects, since they usually deliver these topics solely through "talks" or "presentations". Only in this way will these workshops become a more engaging experience rather than a technical presentation of the birth control methods.

We were not able to determine the impact of family planning workshops on young female student beneficiaries with a senior high school education, but we could say that these young women seem better disposed to discuss these subjects and are better informed about them after the workshops.

Lastly, we also recommend that healthcare centers and medical teams offer sterilization to women, providing users with the opportunity to evaluate their interest in this procedure without incurring a major family expense, and most of all to guarantee a constant supply of materials to healthcare centers.

Antenatal care and maternity services - Evidence suggested that the attitudes of women, mainly mestizo, had changed with regards to their most recent childbirth. A generational shift towards an interest in medical care for their pregnancies — with a tendency towards obtaining antenatal care in medical centers — occurred, which, although largely influenced by the creation of healthcare centers (mid-1990s) was also related, for some women, to the stage of the domestic cycle. Women from households in the consolidation phase of the domestic household cycle* (most advanced stage) generally enjoyed greater economic stability and therefore better reproductive healthcare. Clearly, these changes in attitude towards antenatal healthcare also coincide with the periods of time during which women have been beneficiaries.

With the exception of Chiapas, we observed a greater frequency of antenatal care among younger women (older than 19 years of age), regardless of their ethnicity and program status, which we assume was related to the establishment of healthcare centers in their communities. In general, the changes in the demand for pre-natal medical care is related more to access to quality first-level healthcare services than to ethnic background. For indigenous women, ethnicity and customs play an important role in the birthing method they choose (midwife, unassisted childbirth or birth assisted by the husband or a female relative). However, this choice was largely determined by the previous treatment they received at medical centers and by the fear of medical malpractice or abuse (a common occurrence in Chiapas and Oaxaca). These women often preferred to receive maternity care during pregnancy and childbirth at home. Nevertheless, when indigenous women between 19 and 40 years of age had access to quality medical

* The consolidation phase is the stage in the domestic cycle associated with the end of the household's reproductive period and greater equilibrium. Theoretically, at this stage of the cycle, children are ready to take an active part in the domestic economy, not only as consumers but also by contributing income.

attention and user-friendly services, they choose medical centers, as exemplified by the cases studies in Samachique. There, all of the women in the study, whether indigenous or non-indigenous, received prenatal and postnatal care at their local clinic precisely because they received good maternity care; they were even provided with reproductive health advice at the IMSS-*Oportunidades* RMU.

Regarding maternity care, medical centers mainly focused their attention on women older than 40 years old and in their second round of childbirths and on younger women, those 19 and younger. The users of these services were generally mestizo beneficiaries, who live in locations with access to effective healthcare services. However, when comparing cases studies with respect to the type of medical attention they received, it was clear that in rural contexts, the delivery of babies continues to be provided by midwives. Only in the case of risky pregnancies or at the suggestion of midwives do these women turn to medical centers.

According to an analysis of the choices women make during pregnancy and childbirth with respect to the method of delivery and their antenatal care, it was obvious that choice was affected more by the availability of services than by a woman's ethnic background, which would customarily give preference to midwives rather than to medical centers (except in the above-mentioned cases). It was not a simple coincidence that women from Oaxaca, who throughout their reproductive lives had received a different type of healthcare, were precisely those whose life history was marked by patterns of migration. For example, from the city to the mountains in case of non-Mazateco women or from the mountains to the city in case of indigenous women born in the Mazateco region. Indigenous women preferred to deliver their children in domestic contexts, although we must consider that this preference was determined not only by the type of medical attention they received as indigenous women in organized medical contexts but by the intention of avoiding anything that prevented them from continuing with domestic work and from caring for their other children.

We believe that the predominance of midwives providing maternity care in rural contexts, both indigenous and non-indigenous, illustrates the difficulties associated with getting access to quality maternity services from the local medical centers and the mistrust (mainly on the part of indigenous women) of those services. Since the middle of the 1990s, there have been more healthcare centers, more information about the risks associated with pregnancy and increased support from the *Oportunidades* Program (under the name of PROGRESA in 1998). Nevertheless, these efforts have not been sufficient to guarantee effective antenatal and maternity care in indigenous and rural communities, mainly because the reproductive healthcare of women is not only a matter of budgets and access to healthcare services but also one of sensitivity.

Opportune detection of Cervical-uterine cancer. The *Oportunidades* Program has had a positive impact on increasing the numbers of beneficiary women who are tested for cervical-uterine cancer (Papanicolau or pap test). On the other hand, the evidence suggests that there were no cases of non-beneficiary women in the study who had undertaken this preventive practice, which reflects the difficulties of women who are not incorporated into the program in accessing the test. The program has also affected the willingness of indigenous women to take the test, a willingness that is greater in contexts where lab services are relatively efficient at communicating results. An effective service with a well-stocked supply of test materials and good communication between rural clinics and the laboratories that conduct the tests encourages other women, friends and relatives of the women who have already been examined, to have the test as well (Yaqui and Mayo micro-regions in Sonora).

The general perception among beneficiaries was that the Pap test was part of their program co-responsibilities, since examinations generally occurred at the end of the workshops; although, in cases where the supply of materials was irregular (Mazateco micro-region), the promotion of these preventive measures usually lost credibility and in the end discouraged women from taking the test. A common problem encountered was the late notification of results or non-notification of negative results; it is essential to communicate test results, explain how they are to be read and offer advice regarding their importance. For patients who live in contexts of marginalization and poverty and who have difficulties accessing healthcare the failure of the system are factors that discourage women, especially those over 40, from seeking this medical help.

Therefore, even though the *Oportunidades* Program has increased self-care practices and preventive measures in terms of reproductive health among women, especially with regard to the Pap test, these efforts should be complemented and reinforced by an effective healthcare service.

Conclusions and Recommendations

The socio-structural conditions in which rural and indigenous households live and the disadvantages posed by the typical failures of the healthcare system in general all affect a household's quality of life and generate the accumulation of disadvantages, which further influence their access to healthcare and their ability to maintain an ideal state of health that will enable them to continue to work or study. Given the structural etiology of these conditions, they can hardly be modified by any action of the *Oportunidades* Program.

Guaranteeing access to healthcare is of fundamental importance when trying to influence the intergenerational transmission of poverty, as becomes evident when we analyze the social consequences of ill health on the households in the study and the changes that occur in domestic roles as a result. When the quality of healthcare services is not guaranteed, confronting an episode of illness has a destabilizing effect on domestic economies and roles within a household. These consequences frequently imply partial or permanent loss of the productive capacity of economically active members of a domestic group (as patients, frequently accompanied by another member of the family, embark on the search for appropriate healthcare), compromising the capacity of these individuals to work or interrupting the schooling trajectories of children or young people. Illness also has a clear impact on school performance, whether because of the illness itself or because of the emotional suffering and other consequences and tensions caused by the changes in domestic roles that can result from the illness of another family member. These are integral factors that affect the potential these households have in real terms to improve their quality of life.

The infrastructure and resources of public healthcare services in rural and indigenous contexts restrict the full implementation of the *Oportunidades* Program's health component. The program would be highly effective if the infrastructure, medical supplies and professionalism of medical teams were adequate enough to meet the demands and expectations of the beneficiaries. Before that can be achieved, it is necessary and pertinent to integrate the objectives of the Guaranteed Basic Healthcare Package and State healthcare policies, in order to foster improved coordination between the *Oportunidades* Program and other government bodies responsible for health. For example, to implement an effective referral system and counter-referral system to monitor and deliver after-care to patients who have to resort to using urban or rural services in communities other than the ones where they reside. This could be achieved by strengthening inter-institutional relations (at a regional level), which will allow links between rural and urban health agencies to guarantee effective patient aftercare.

The quality of healthcare services (as perceived and experienced by users) has a definite impact on the health of families, their access to healthcare, the lengths to which families have to go to find appropriate medical attention, and their implementation of preventive and self-care practices. Therefore, we believe that the Guaranteed Basic Healthcare Package must be guided by a logic that incorporates the different cultural contexts of the communities where it operates, and that it must develop its links with other health institutions within those rural and indigenous communities. After a decade in operation, although the presence of the program has generated a positive impact on the studied communities encouraging basic health and hygiene practices, particularly amongst mestizo beneficiaries who live close to medical units, we believe that the program could have a more integrated impact on community health. This objective could be achieved through improved and well-coordinated inter-sector endeavors that promote sanitation practices and also encourage activities that guarantee full access to basic services such as running water, sewage and waste disposal, and garbage collection.

We believe that it should be a priority to fully activate the components of the Guaranteed Basic Healthcare Package, especially its gender component in rural and indigenous contexts, ensuring that the information disseminated regarding health, hygiene and family planning, while bringing about positive changes with respect to preventive and self-care practices, are sensitive to and take into consideration the experiences of the women and the customs of

the communities in which the program operates. Furthermore, effort should be made to ensure the integration of men into health workshops, especially those related to sexual and reproductive health.

The impact of the Guaranteed Basic Healthcare Package on the preventive and self-care practices of households varies greatly depending on a number of factors. The amount of time exposed to the program and ethnicity are certainly factors that affect its impact, but the quality of, access to and proximity of first-level healthcare services has an even greater impact on the health of beneficiaries. When healthcare services are of poor quality, the optimum effect of the package is weakened and its achievements are only relative, reflecting the limits of the resources and services available. Indeed, the transition towards preventive rather than palliative healthcare and the integration of self-care and preventive practices into the daily lives of households is linked to sociopolitical policies that can guarantee better-quality services. The effect of poverty on health is explained not in terms of cause and effect but in as much as the difficulties experienced in accessing quality healthcare and "bad health" are components of poverty, rather than a consequence or cause of it, highlighting the injustice and inequity of service provision, and perpetuating the intergenerational transmission of poverty.

SWOT Analysis

SUBJECT	STRENGTHS AND OPPORTUNITIES/ WEAKNESSES OR THREATS	RECOMMENDATION
	STRENGTHS AND OPPORTUNITIES	
Health Actions of the GBHP	**Strength.** In general, *Oportunidades* has a favorable impact on the health of beneficiary families, in as much as, through regular check-ups (when there is a doctor or health expert in attendance) and the self-care workshops, medical personnel attain a better knowledge of the general state of health of these families in comparison with that of non-beneficiary families.	We recommend the continuation of funding for health check-ups from the Department for Health and the *Oportunidades* Program.
Health Demands and expectations of first-level services	**Strength.** There is a real demand for local services from beneficiary households with long exposure to the program or from those who, regardless of their exposure to the program and their ethnicity, live close to health centers, expect to have access to medicines and health advice, and are in search of referrals or "recommendations" to enable them to attend urban hospitals.	Given the population's interest in high quality healthcare services and the growing expectations and need for health advice, we recommend that workshops and advice sessions that focus on second-level healthcare services should be held with the following agenda: the availability and procedures necessary to access second-level services within the region, its characteristics and costs, and potential to receive medical attention,
Health Demands and expectations	**Strength.** The program has brought about a positive impact amongst beneficiary households, thanks to the cash transfers, which are be particularly useful during episodes of illness.	This is particularly true of indigenous households, therefore differentiated support should be offered to indigenous households
Health Demands and expectations	**Strength.** Increase in service demand and expectations among indigenous and mestizo beneficiaries who live close to the health centers.	
Health Community participation	**Strength.** Greater participation of beneficiaries who live close to health centers (regardless of ethnic background) in vaccination campaigns (children and domestic animals) and other basic sanitation practices (not in operation in the Tarahumara and Chiapas micro-regions) and in community activities in general.	
Health User attitude	**Strength.** Better disposition of mestizo beneficiaries with long exposure to the program to turn to local healthcare centers for health advice (as well as referrals or recommendations for second-level attention).	
Health Social and communication networks	**Strength.** Program incorporation is an advantage when accessing channels of communication and social networks. Sometimes it even guarantees access to other State and Federal programs.	

Health Basic sanitation	**Strength.** After a decade in operation, the presence of program in the studied communities has generated a positive impact regarding the promotion of basic sanitation practices in beneficiary families, mainly through the building of latrines, decreasing open air defecation or in yards, plots or fields.	To implement well-coordinated inter-sector endeavors that promote sanitation practices, and which guarantee full access to basic services such as running water, sewage and waste control and disposal.
Health Basic sanitation	**Strength.** Better sanitation habits in households comprised of daughters of main beneficiaries, indigenous or non-indigenous who have relative access to healthcare services and live in less marginal rural contexts (municipal capitals and communities close to urban centers or located by roads or close to healthcare centers).	
Health Basic sanitation	**Strength.** There is an excellent disposition for waste control among beneficiaries, although through erratic methods such as burning plastic waste (promotion of correct waste disposal was not documented), which, though not directly promoted by the program, has been promoted by local agents (with the exception of the micro-regions in Chiapas).	To integrate into the agenda of the self-care training workshops the topic of adequate waste handling and disposal. It must be incorporated specifically into the agenda as "Adequate Waste Classifying and Handling".
Health Child population	**Strength.** *Oportunidades* has had a very positive impact on the early identification of risk factors, diagnosis and care of children who have grown up under the threshold of the program (mainly ADD[1], ARD[2] and dehydration). Among long exposure beneficiary households that live close to healthcare centers, first-level medical attention led to the diagnosis, regardless of their ethnicity and in the case of indigenous female beneficiaries, timely detection only occurred when it coincided with routine check-ups.	
Health Medicines and chronic-degenerative patients	**Strength.** Long exposure beneficiaries living with diabetes or high blood pressure, in contexts with efficient healthcare services, show better treatment and control of their ailments (does not apply for micro-regions in Chiapas and the Mixe micro-region in Oaxaca)	The Department for Health and the *Oportunidades* Program authorities should guarantee the medicine supply of diabetic and high blood pressure patients in Chiapas.
Health Use of non-public service infrastructures	**Opportunity.** There are several places in the Tarahumara region that have hospitals and clinics that are funded by religious organizations that provide healthcare services with a respectful healthcare model adapted to the cultural conditions of the indigenous population.	The Department for Health and the *Oportunidades* Program authorities should come to an agreements with the religious hospitals and clinics that operate in the Tarahumara region to collaborate with public clinics for medical attention services and healthcare education of beneficiary families.
Health Sexual and Reproductive Health (SRH)	**Strength**. Jointly with other campaigns, the *Oportunidades* Program has helped to promote sexual and reproductive health as a public health issue and not only as a private female issue.	
Health (SRH)	**Strength.** Better disposition to **discuss** reproductive health matters (birth control methods and Papanicolau testing) in long exposure beneficiary households where first and second generation women live (the latter have been scholarship beneficiaries and are senior high school students)	
Health (SRH)	**Strength.** Better willingness to search for antenatal care among women between 19 and 40 years of age (indigenous and non-indigenous, long exposure beneficiaries living close to healthcare centers).	
Health (SRH)	**Opportunity.** Better willingness among indigenous women to accept the Pap test when laboratory service is relatively efficient regarding the waiting time for results (Yaqui and Mayo micro-regions in Sonora)	

Health Self-care workshops	**Opportunity**. The self-care training workshops are already established, recognized social spaces; in general, attendance is constant and punctual, but subject repetition becomes boring for beneficiary women (especially for those with long exposure to the Program). Usually, the better-known subjects or those that local service providers can handle better are repeated without consideration of the diversity of the subject matter on the *Oportunidades* subject agenda.	To coordinate the delivery of workshops according to the different age groups and their degree of program exposure (we observed that usually no consideration was given to this). To train health teams on matters related to domestic violence, substance abuse among male heads of households, gender violence and *machismo*, which, although considered in the agendas, are usually not promoted owing to lack of training. The need for training guides is urgent. They should include information on group dynamics and techniques for health service providers and rural assistants.
Health Self-care workshops	**Strength.** In general, the self-care training workshops are not delivered in an interactive manner but through 'talks' and presentations, owing to the limitations of time (excess workloads of health personnel and assistants), training, adequate spaces and availability of teaching materials.	To create thematic descriptive cards (flashcards) that will function as tools for health service providers and assistants.
Health Self-care workshops	**Strength.** Where they are fully implemented, self-care training workshops are potentially useful as an adult education component for those adults who did not finish their primary or secondary school cycle.	
Health Self-care workshops	**Strength.** Self-care training workshops have enjoyed a better reception when presenting the following subjects: use of nutritional supplements, parasitosis/parasite treatment cycle, basic sanitation for families, vaccines, diarrhea and VSO use, childcare of infants less than a year old and older than a year, and family planning (among beneficiaries).	To (at least) guarantee the supply of medicines and materials for the ailments that are discussed in the workshops, since we consider their success related to their regular supply (vaccines and oral electrolyte solutions), in addition to the willingness of the main beneficiaries to hear about childcare.
	THREATS OR WEAKNESSES	
Health Quality of first-level services	**Weakness.** Since first-level attention is the operational basis of the Guaranteed Basic Healthcare Package, the structural disadvantages of the healthcare system imply a **weakness** in its operation (the most serious, no doubt)	
Health Quality of first-level services	**Weakness.** In the communities where healthcare provision and treatment (first-level services) were generally ineffective, we observed the tendency of inhabitants to look to other areas (particularly urban areas) in search of better healthcare, which meant that rural clinics became underused (particularly for the fulfillment of the program's health co-responsibilities).	
Health Coverage	**Weakness.** Many indigenous families living in geographic isolation have limited access to public medical healthcare services; they constitute the sector of the population with the greatest shortage of healthcare facilities and the greatest occurrence of respiratory and mother/child illnesses, as well as, tuberculosis and malnutrition.	The Department for Health and the *Oportunidades* Program should make greater effort to coordinate the more frequent visits of mobile healthcare units and itinerant medical personnel.

Health Collaboration and reproductive health provision	**Weakness**. Migration patterns pose challenges to the effective provision of healthcare, particularly maternity care. For example, young migrant women at the start of their reproductive cycle who fall pregnant in territories far form their communities tend to return home during their last trimester to guarantee the company of their family and community during childbirth. This can present difficulties for rural medical centers when evaluating the medical needs and conditions of newly arrived pregnant women (no access to the medical/maternity history of the patients), and often leads to women being refused medical attention.	The Department for Health and the *Oportunidades* Program should encourage (and perhaps coordinate) communication between states in terms of maternity care, so that provision of medical attention is not interrupted when women moves to a different state.
Health Approach	**Weakness.** Owing to the unfavorable conditions under which first-level services operate, in general terms, the impact of the *Oportunidades* Program remains, and will continue to remain, minimal unless the approach to healthcare provision changes in favor of preventive medicines and the effective treatment of first-level demands.	The Department for Health and the *Oportunidades* Program should supply local healthcare centers with the necessary materials for taking samples of chronic degenerative ailments and ensure the supply of medicines (especially those which are known to cure common ailments).
Health Preventive and self-care practices	**Weakness.** The main limitations affecting households' implementation of preventive and self-care practices resides in the mistrust and lack of credibility of first-level healthcare centers owing to previous experiences of ineffective treatment, shortage of qualified doctors, healthcare personnel rotation, erratic diagnoses, service refusal, shortage of medicines and medical supplies and, in general, negative past experiences which are communicated down through the generations. Such is the perception of many indigenous families, regardless of their program status, who live far from healthcare centers.	The Department for Health and the *Oportunidades* Program should guarantee the supply of medical resources to ensure an effective service and employ qualified medical personnel. The local health representatives should also be individuals who are respected within the community and who can bridge the gap between the community and the health centers, helping to instill more confidence in local first-level services because they understand the needs of local inhabitants and because they too are native to the area.
Health (SRH)	**Threat.** Although the program has managed to increase the frequency of Papanicolau testing, the poor response to cases where results have tested positive, and the time taken to issue results, discourages women from employing this preventive practice. Positive results are rarely accompanied by counseling and, in general, negative results are not usually even communicated.	The Department for Health and the *Oportunidades* Program should improve the level of medical attention offered to cancer patients, including counseling and aftercare, and ensure the effective operation of Papanicolau testing: all test results should be communicated, whether positive or negative, and the time taken for those results to be issued should be improved.
Health Medical attention and migration	**Threat.** Owing to the limited efficacy of first-level healthcare provision, beneficiaries (indigenous and non-indigenous) frequently leave their communities in search of appropriate medical attention in other regions, often urban areas, which means that rural clinics become underused (particularly for the fulfillment of the program's health co-responsibilities) and non-beneficiaries stop attending altogether. Consequently, it is difficult for the *Oportunidades* Program to effectuate a significant impact on the practices of households that generally look for palliative resources rather than preventive. Rather than decreasing, the demand for second-level medical services has increased.	The Department for Health and the *Oportunidades* Program should implement an appropriate and widespread referral system, forming links between health institutions in rural areas with those in urban centers, which facilitates the monitoring of patients (in particular beneficiaries) and appropriate aftercare.

Health Perceptions, quality and service effectiveness	**Threat.** One of the main reasons why inhabitants, especially indigenous (even those who live close by), do not attend their local clinics is based on their perceptions and ineffectiveness of the services offered.	Closer collaboration between traditional services and medical institutions will help to build a more integral health service, building confidence and better links with the community at large. The Guaranteed Basic Healthcare Package should, taking into account the local customs and the perception of rural inhabitants, acknowledge the value of more traditional methods of treatment and healthcare (healers, shamans, midwives, and so on), and allocate the role of the *Oportunidades* health representative to a respected member of the local community who can help promote the advantages of the package.
Health Self-care workshops and gender	**Weakness.** Even given that it is the women of a community who are the most frequent attendees of the workshops (they constitute the majority of the audience), the subjects that enjoy a better reception are those concerning the care of others, mainly childcare, and not about women's issues.	Although health-related gender issues do already feature on the agenda of topics to be covered by the workshops (albeit in a rather general manner), owing to lack of training, they are rarely broached or not dealt with effectively. The topics of the agenda must be made more specific.
Health Self-care workshops	**Threat.** Self-care workshops run the risk of underestimating or negating the value of local wisdom and indigenous or traditional medicine.	The workshops must recognize and value the cultural heritage of the communities in which they operate, particularly with regards to the treatment of ailments. The training and sensitivity of healthcare personnel are essential.
Health Health rights	**Threat.** The violation of human rights with respect to healthcare provision and racially motivated discrimination stop many potential uses of healthcare services from attending local clinics or expose them to situations of abuse of power. Therefore, often, even when access to healthcare does exist, attendance is low.	To promote workshops for service providers as well as for service users on human rights and racial equality, as a means of strengthening and boosting the social abilities of households to broaden their range of options for reaching better levels of well-being.

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Living in Poverty: An Analysis of Health, Disease and Care Processes Among Rural Indigenous Households

I. Introduction

The purpose of the Guaranteed Basic Healthcare Package is to provide first-level healthcare services to beneficiaries of the *Oportunidades* Program. Through education and the dissemination of information related to personal healthcare, and by promoting regular visits to first-level health clinics as a means of facilitating the prevention of diseases and encouraging the practice of self-care, the package aims to improve the health of its beneficiaries (and thus their fitness to work and study). The *Oportunidades* Program affects various aspects with regards to health and, accordingly, requires a variety of approaches when assessing its impact. *Impact* should be understood here as "any modification in the living conditions of beneficiary domestic groups that may be directly or indirectly associated with the program".[1]

On the one hand, the intention of this document is to analyze the impact that measures associated with the Guaranteed Basic Healthcare Package have had on the development of preventive and self-care practices among the domestic groups in our study sample, measures such as the dissemination of relevant healthcare information. On the other hand, we aim to describe the conditions and provision of primary healthcare and its influence on the health practices of the households in the study, using their healthcare trajectories as the basis for our analysis.

The main objective of this analysis is to understand the way in which the quality of medical attention received (as perceived and experienced by its users) influences the general health conditions of the family units in the study, the lengths they have to go to find appropriate healthcare, and how it affects the development of their physical, social and economic capabilities, aspects which, as a whole, allow us to evaluate the program's health component in terms of its objectives, determining its ideal operation.

We will describe the impact of the processes associated with health, sickness, and healthcare (HSH) on domestic economies and the financial strategies, known as *economic confrontation strategies*,* employed to cope with these situations. These descriptions not

* E*conomic confrontation strategies* should be understood as the set of resources (non-monetary and monetary) and strategies (loans, sale of assets to cover transportation expenses, medicines, medical interventions) and social networks (family or community) households utilize to cover the expenses accrued from medical emergencies.

only provide an overview of the way in which families deal with the aforementioned processes, but, more broadly speaking, offer an insight into the relationship between access to healthcare and the structure of opportunities, which affect a household's potential to improve its economic situation and thus provide individuals with the possibility of having access to healthcare, education services and work opportunities.[2] Moreover, they allow us to comprehend the limitations or efficiency of the Guaranteed Basic Healthcare Package.

This type of analysis requires that we not only take into account the conditions and quality of local healthcare services but also the perceptions of the rural population (indigenous and non-indigenous, beneficiary and non-beneficiary) regarding the different healthcare institutions in their communities. Indeed, being aware of the perceptions of the local inhabitants (based on the perceived quality of services according to users or taking into consideration the opinion of some non-beneficiaries that community health is exclusively for beneficiaries) is fundamental to forming a better understanding of the potential impact of the *Oportunidades* Program's health component within specific contexts, which are determined by socio-economic, cultural and historic processes. Together, these factors allow us to determine if there is any correlation between the length of a household's exposure to the program and its access to healthcare services and the implementation of self-care and preventive practices (or to identify the external factors that condition or limit them), and if so, to what degree.

The analysis contained in this document is part of a broader research project that focused on the long-term impacts of the *Oportunidades* Program on rural communities in Oaxaca, Chiapas, Chihuahua and Sonora. These external qualitative evaluations were conducted in collaboration with the program and the results can be found in the various regional analytical documents of the *Qualitative Evaluations of the Long-Term Impact of the Oportunidades Program on Rural Communities*[3-6] and the specified analysis focusing on the subjects of education and work coordinated by González de la Rocha[2] and Agudo Sanchíz.[3]

Three variables guided the investigation presented here: a) the quality of healthcare services and differential access to them, b) the ethnic identity of the studied households and c) time of exposure to the *Oportunidades* Program.

The analysis is focused on the operation of the Guaranteed Basic Healthcare Package* and how it interacts with the different scenarios and contexts presented by the households in the sample. Subsequently, recommendations will be offered regarding the improvements that could be made to the *Oportunidades* Program's health component, which are substantiated by rigorously gathered ethnographic data, and which form part of a methodological strategy that responds to the specific questions and hypotheses that are central to this research and its analysis. It is upon this analysis that we base our recommendations.

Taking into consideration the *spheres of interaction* model (Figure I), our approach prioritizes the opinions of the members of the studied households and the ethnographic observations of institutional, social and cultural interactions that occur at the point where the three spheres converge, which, in our opinion, constitute the operational context of the program.

The each of the spheres represents determinants that affect (to various degrees) the state of health of the inhabitants of the rural communities in our study; they combine biological, psychological and macro-social (social, economic and political) factors whose impact depends on the global, national, regional and local arenas in which they take place.

Therefore, we took the point at which these determinants converge (the actions of the *Oportunidades* Program's health component, the structural conditions of the existing healthcare services and the local socio-cultural conditions) as our starting point, in order to examine the impact of the program on inter-ethnic scenarios with respect to beneficiaries state of health. How, then, are we going to evaluate whether the program has had any impact on access to healthcare and changes in preventive and self-care practices? How can we ascertain if this impact has been differential with regard to ethnicity or the exposure of households to the benefits of the program?

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* *This analysis takes the general objectives of the Oportunidades Program (fiscal year 2008) and its rules of operation as its starting point. In our opinion, this should constitute the fundamental premise of every evaluation of a social program.*

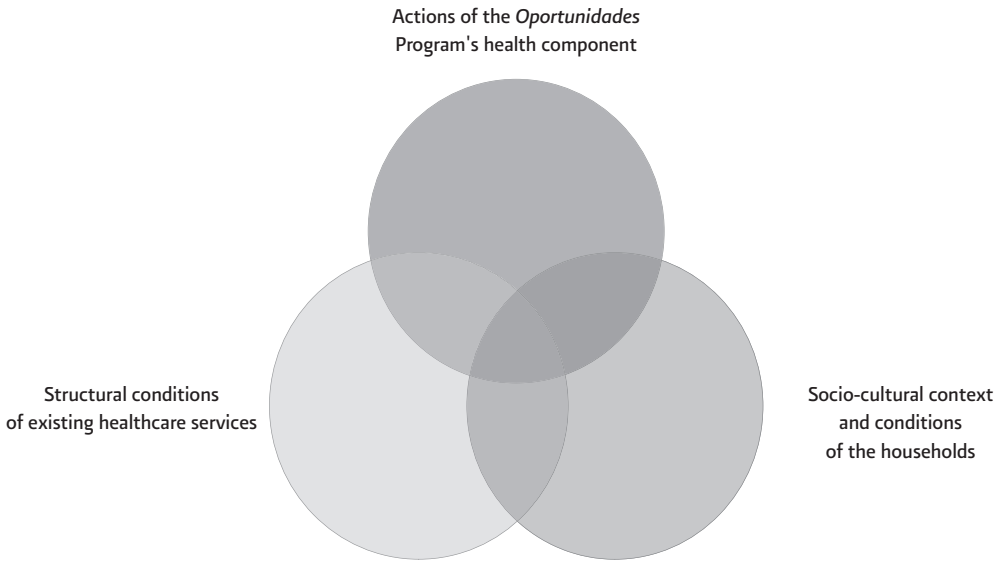

Figure 1
Spheres of Interaction: the Oportunidades Program

To this end, we have been guided by the hypotheses[1] that relate to the founding premise of this investigation, and the diagnosis made by Haro and his collaborators in 2007,[7] which were fundamental to our analysis. We were thus able to form clear notions regarding the impact of *Oportunidades* and ascertain if the main objectives of the program's health component were, in actual fact, being fulfilled in rural and indigenous contexts. We were able to identify the strengths and opportunities presented by the program's presence in a community, as well as, the weaknesses and threats to its effective execution.[1,7,8]

The following hypotheses form the basis of the findings presented throughout this document:

- Indigenous populations face disadvantages and exhibit the most unfavorable conditions in terms of access to healthcare services and appropriate medical treatment when faced with episodes of illness.
- Illiteracy and poor schooling, belief systems (which sometimes act as a factor that delays the search for medical attention), local opinions of the institutionalized and conventional healthcare centers (access to which is deemed to be difficult, or the centers are regarded as places renowned for ill-treatment), and the language barriers that often exist between healthcare personnel and indigenous users are all factors that help explain the unfavorable conditions experienced by indigenous populations in terms of access to healthcare and the differences in the epidemiological profiles of indigenous and mestizo rural inhabitants.
- There are significant differences between the various indigenous groups; that is to say, rather than exhibiting homogenous characteristics, these communities are highly heterogeneous.
- There are cultural influences (which, for instance, affect consumption practices – the popularity of junk food and sodas) that have an impact on health and the kinds of ailments found in conditions of poverty, which provoke new pathologies related to the new nutritional habits, such as diabetes and high blood pressure.
- Access to health services and the distance between homes and healthcare centers determine their use.
- Not only is the distance separating indigenous communities from the healthcare centers a determining factor, but there are also other factors that shape access to and use of health services: roads being in bad condition, limited means of communication and access, and the discrimination and racism that indigenous people often endure, particularly from the institutions providing health services themselves.
- The coverage of healthcare services for the rural mestizo population is broader than the coverage for the rural indigenous population.
- The assignment of interns, rather than qualified doctors, to the health centers that serve indigenous communities contributes greatly to the deficiency of the services offered by these institutions.

- The absence of medical personnel (especially qualified doctors) is much more frequent in indigenous communities. One of the main reasons why inhabitants mistrust the health services (when they do have access) is the constant rotation of doctors. Owing to the high turnover of personnel, medical staff are unable to efficiently monitor the conditions of the chronically ill and are inexperienced in the problems and afflictions specific to the community and its residents.
- The actors who serve as intermediaries between the different service-providing institutions (health representatives, rural assistants or health assistants) in communities with very poor municipal waste disposal services promote practices that are detrimental to the environment (highly polluting) and are harmful to the health of rural, indigenous and mestizo inhabitants in the short- and long-term.
- Practices encouraged by health centers to sanitize the homes of rural inhabitants (pens for fowl, pigs and other farm animals) come from an urban perspective that promotes a lifestyle that is totally alien to the rural communities, and work against the domestic economy of indigenous and mestizo beneficiaries of the *Oportunidades* Program.
- The reproductive cycle of indigenous women is significantly longer than that of non-indigenous women. In contexts where maternity care is poor and women give birth in their own homes, the occurrence of more serious mother/child health problems is more frequent.
- Regarding reproductive health, in households with long exposure to *Oportunidades* (nine or ten years), the program has contributed to a decline in teenage pregnancy and delayed the formation of early domestic unions or marriages by encouraging young people to continue with their schooling through *junior and senior high school* (especially when education centers beyond primary school level are located nearby or are easy to access[9]).

Therefore, this study has three main objectives:

d) To describe the conditions of first-level (primary) healthcare
e) To determine if these conditions, in conjunction with the *Oportunidades* program, are having an effect on the general health of beneficiary households and the steps they take to access healthcare (*the where, when and how healthcare is sought).*
f) To identify the impact of the Guaranteed Basic Healthcare Package on the development of preventive and self-care practices in the studied households, comparing domestic groups who have been incorporated into the *Oportunidades* Program with non-beneficiary households, basing our analysis on the experiences of users/patients and their perceptions of quality.

II. Methodology

This evaluation employed Haros's *Guide for Ethnographic Fieldwork* (2008),* which was useful in standardizing and annotating the data sources and our observations, providing guidelines with respect to the types of actors and individuals who should be interviewed and the thematic scripts whose topics should be covered during those interviews and with regard to the observations of the healthcare centers and the households.

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* The "Guide for Ethnographic Fieldwork" (*Guía para el trabajo etnográfico de campo*) is a synthesis written by Haro Encinas[5] of the questions and hypotheses included in the research proposal.[1,8] It contains an explanation of the analytic sample composed by the director of the qualitative evaluations (González de la Rocha) in collaboration with Escobar who is a member of the Consulting Group of Experts (CGE). It also includes a summary of the data-gathering instruments created by Escobar and González de la Rocha for the purpose of previous evaluations and redesigned by González de la Rocha and Agudo Sanchíz for the purpose of the fieldwork of this particular evaluation. In addition, it includes a tool for gathering data related to the subject of health designed by Haro. For the purpose of this analysis, only the contents relative to health have been retrieved (the original document includes all of the evaluated topics) to provide readers with a more complete perspective of the ethnographic support materials that were available to the field researchers. The guide is included at the end of the document as an appendix.

Twelve micro-regions were studied, three per state in the states of Oaxaca, Chiapas, Chihuahua and Sonora. *Table 1* provides details regarding each micro-region, including its name, municipalities and the communities that comprise it, the ethnic groups living there and the health centers located in the area.

When referring to the micro-regions, this document preserves the names used in the regional analytic documents, which were carried out with support of the *Oportunidades* Program.[3-6] Each researcher considered different criteria when selecting the micro-regions to be studied. Chihuahua's micro-regions were identified according to communities; Chiapas dealt with municipalities; Sonora, ethnic groups, while Oaxaca's evaluations were organized according to two criteria: firstly, region (Costa) and secondly ethnicity (Mazeteco and Mixe). In this document, we shall refer to each micro-region as follows: Oaxaca (Costa, Mixe, Mazateco), Chiapas (Tumbalá, San Cristóbal de las Casas and Las Margaritas), Chihuahua (Norogachi, Samachique and Yepachi-Maycoba), and Sonora (Yaqui, Mayo and Guarijía).

The following strategies were implemented to gather data:

A. Interview: The purpose of interviewing healthcare service providers was to find out the perceptions of the medical teams with respect to the community, the working conditions of the heath service personnel and the type of health service they provide, as well as their opinions of the *Oportunidades* Program and the co-responsibilities of the Guaranteed Basic Healthcare Package. The following service personnel were interviewed:

1) Doctors (male and female). We interviewed the directors or main person in charge of the health centers located in each community in the study. We did not interview doctors who worked in health centers other than those found in the communities in which the studied families lived, even though the healthcare trajectories of some households declared that they visited such centers.
   Interviewees belonged to a range of different medical institutions, mainly the IMSS-*Oportunidades* and the Department of Health (SSA).
2) Nurses (male and female). Given that the residencies of nurses in the studied communities were longer than those of doctors, the information they provided was very valuable and useful.
   The method employed was the same as that used in the case of the senior medical teams, considering that they had been working in the health centers located in the communities of the studied households. Priority was given to the information provided by those interviewees with longer experience of the communities; in some cases, these were nursing students.
3) Rural health assistants. At least 10 of the communities that were visited only had access to *casa de salud*s, small community 'clinics' that provide basic healthcare and where there is frequent distribution of analgesics (painkillers), hormonal contraceptives, oral electrolyte solutions and parasitic-treatment medicines (sometimes with basic medical supplies).
   In these communities, we interviewed the rural health assistants* in charge; they were generally women native to the community.

The interviews with health service personnel and the observations of the services provided were only carried out in public sector institutions,‡ with the exception of Chihuahua where two health service providers affiliated with religious organizations, both second-level hospitals, were included in the evaluations. Health service providers from the private sector (laboratories, clinics and pharmacies) and traditional health service providers were neither interviewed nor observed.

It is essential to emphasize that the number of doctors, nurses and rural assistants who were interviewed varied in each micro-region according to the quantity and type of health service providers in each visited community.

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* In this document, we refer to them as health assistants or health auxiliaries.

‡ In general, IMSS *Oportunidades* RMUs, SSA health centers and *casas de salud*, with the exception of Sonora, where the greatest diversity of public health units was registered, units such as IMSS UMFs and ISSSTE and CDI health centers.

Table 1
Description of micro-regions, according to lacation, ethnic groups and health services

STATE	MICRO-REGION	MUNICIPALITY	COMMUNITIES[3]	ETHNIC GROUPS	COMMUNITIES THAT HAVE HEALTH CENTERS
Oaxaca	Mazateca	Mazatlán Villa de Flores (MVF)	Mazatlán Villa de Flores, El Progreso, El Corral, San Simón and Almolonga	Mazateco	SSA health center (Mazatlán Villa de Flores) UMR-IMSS-*Oportunidades* (El Progreso), community clinics (El Corral, Almolonga and San Simón), Rural Hospital IMSS-*Oportunidades* No. 43 (Huautla de Jiménez, 30 km. from MVF)
	Mixe	San Juan Jaltepec de Candoyoc	San Juan Jaltepec de Candoyoc and Cerro Mojarra	Mixe / Mazateco	SSA health center (San Juan Jaltepec de Candoyoc), *casa de salud* [4] (Cerro Mojarra, although its inhabitants usually visit the SSA health center in San Felipe Zihualtepec), María Lombardo Hospital, SSA (25 km. from San Juan Jaltepec de Candoyoc and 15 km. from Cerro Mojarra)
	Costa	Santiago Jamiltepec	Santa Elena Comaltepec and El Charquito Nduayoo	Mixteco and afromestizos	*Casa de salud* (Santa Elena Comaltepec and El Charquito Nduayoo), Rural Hospital IMSS-*Oportunidades* No. 45. (5 km from Santa Elena Comaltepec and 23 km. from El Charquito Nduayoo.
Chiapas	Las Margaritas	Las Margaritas	Saltillo, La Libertad, Chacalá, El Encanto, Bello Paisaje	Tojolabal	SSA health center (El Encanto) and IMSS-*Oportunidades* RMU (visited by the inhabitants of Bello Paisaje, La Libertad and Chacalá).
	Tumbalá	Tumbalá	Álvaro Obregón Planada, Álvaro Obregón Loma, El Porvenir and Emiliano Zapata.	Chol	Two IMSS-Oportunidades RMUs located at El Porvenir (visited by the inhabitants of El Porvenir, Álvaro Obregón Planada and Álvaro Obregón Loma) and Emiliano Zapata.
	San Cristóbal de las Casas	San Cristóbal de las Casas	El Aguaje, Corazón de María, San Ysidro de las Huertas and El Pedernal	Tzotzil	SSA health center (El Aguaje), SSA health center (Corazón de María), SSA health center (El Pedernal) and IMSS-*Oportunidades* RMU (Yashintin).
Chihuahua	Yepachi-Maycoba[5]	Temósachic (Yepachi) and Yécora (Maycoba)	Yepachi, Yepachi-Piedras Azules and Maycoba	Pimas bajos (o'oba)	IMSS-*Oportunidades* RMU (Yepachi) and SSA health center (Maycoba)
	Samachique	Guachochi	Samachique	Rarámuri	IMSS-*Oportunidades* RMU and Misión Tarahumara Hospital
	Norogachi	Guachochi	Norogachi, Ciénega de Norogachi and Santa Cruz	Rarámuri	IMSS-*Oportunidades* RMU and Clinic in San Carlos (Norogachi)
Sonora	Yaqui	Guaymas	Huiviris, Estación Oroz, Rahum, and Las Guásimas	Yaqui	*Casa de salud* (Huíviris, Rahúm, Las Guásimas, Estación Oroz), rural health center, Family Medical Unit 11, ISSSTE Medical Unit (Vicam) SSA health center and Family Medical Unit 27 (Potam)
	Mayo	Etchojoa	La Bocana, Los Viejos and El Salitra and Huatabampo	Mayo	SSA health center (La Bocana), SSA health center and IMSS Clinic (Etchojoa)
	Guarijía	Álamos	San Bernardo	Guarijío	*Casa de salud* and CDI medical office (San Bernardo), SSA health center (Burapaco), *casa de salud* (Mesa Colorada and Guajaray)

[1] Acute Diarrheic Diseases
[2] Acute Respiratory Diseases
[3] The communities where the studied households are located only include the ones listed under "Community" in Table 1.
[4] Translated literally as 'health house', a *casa de salud* is a small clinic/unit, which offers basic services and dispenses painkillers, hormone contraceptive and oral electrolyte solutions etc.
[5] Maycoba is located in the state of Sonora in the Yécora municipality.

*B. Observations:**The data-gathering strategies we describe below were essential to reconstructing the conditions of healthcare provision in the different study scenarios. The following elements were the focus of our observations:

1. Community workshops
2. Medical check-ups for the whole family (co-responsibility required by the *Oportunidades* Program)
3. Local health services‡

Below, we describe in detail the types of existing healthcare facilities that were identified in the studied micro-regions during the fieldwork (that is, where physical observations and the interviews of the health personnel were conducted), according to state, type of service provider and level of medical attention:

Table 2
Health services according to state and level of attention

LEVEL OF CARE	TYPE OF HEALTHCARE PROVISION	SONORA	CHIHUAHUA	OAXACA	CHIAPAS	TOTAL
First- Level	Community clinics	6		6	3	15
	IMSS-*Oportunidades* Rural Medical Unit	1	4	1	4	10
	SSA health centers	6	1	3	1	11
	CDI medical office	1				1
	ISSSTE medical unit	1				1
	IMSS family medical unit	2				2
	IMSS-*Oportunidades* clinic	1				1
Second-Level[6]	IMSS-*Oportunidades* second-level hospitals	1 (with IMSS-*Oportunidades* module)		2		3
	SSA second-level hospitals			1		1
	Religious organizations second-level hospitals		2			2

[6] Even though interviews with medical staff and observations of second-level hospitals were not included in the initial design of the fieldwork analyzed here, the healthcare trajectories of some case studies made it necessary to interview the management or personnel of these medical services.

* The general characteristics of the workshops and family check-up consultations have been amply described in the fieldwork reports and the regional analytic documents realized with the support of the *Oportunidades* Program.[3-6] In this document we shall focus on examining the direct impact of the program's actions according to the analysis of beneficiary and non-beneficiary healthcare trajectories (which include the opinions of the beneficiaries about their co-responsibilities and their adoption of preventive and self-care practices).

‡ It is important to note that the healthcare trajectories of some case studies refer to hospitals in urban centers far from the studied micro-regions in Chihuahua, Oaxaca and Sonora; only four second-level hospitals, those nearby or in the studied micro-regions in Chihuahua and Oaxaca, were considered in this analysis.

*C. Healthcare trajectories (or therapeutic itineraries):** The data collected with respect to the healthcare trajectories of the rural inhabitants in the study allowed us to ascertain and describe the experiences of households when faced with any kind of ailment and the ways in which individuals and their domestic groups deal with episodes of illness. The intention of this tool was to gain insight into the following aspects from the perspective of the users of healthcare services:

a) Quality of medical attention received, how healthcare sevices are perceived in general,‡ and the way in which those experiences or perceptions influence families' general state of health and the strategies they employ to secure medical attention.
b) Impact of the processes associated with health, sickness and healthcare (HSH) on domestic economies and economic confrontation strategies.
c) Social consequences (change in domestic role) brought about by HSH processes in the studied households.
d) Influence of the *Oportunidades* Program regarding access to healthcare and implementation of self-care and prevention practices.

Mothers and grandmothers were our main source of data with respect to their households' healthcare trajectories, having been, more often than not, the members of the family who have taken care of other sick members, or accompanied members throughout their search for and implementation of treatment, not to mention, having firsthand knowledge of their own episodes of illness and reproductive history.

The healthcare trajectories form part of a wider research context that also takes into account aspects like family composition, housing conditions, and employment and schooling trajectories, in addition to characteristic such as the general state of a household's health, sickness episodes and the medical attention actually received. In order to satisfy the requirements of the research, an initial sample was compiled that comprised 183 households with the following characteristics:

Table 3
Population according to state and *oportunidades* status

OPORTUNIDADES STATUS	ETHNICITY	CHIAPAS	CHIHUAHUA	OAXACA	SONORA	TOTAL
Beneficiaries	Indigenous	24	12	11	13	60
Beneficiaries	Mestizo	8	12	10	14	44
Non-beneficiaries	Indigenous	7	12	14	11	44
Non-beneficiaries	Mestizo	6	12	7	10	35
TOTAL		45	48	42	48	183

Data compiled by: Mercedes Gonzáles de la Rocha (2008).[2]

According to the final composition of the analytic household sample,§ a database was built based on the healthcare trajectories gathered from all the studied households. The database included the following variables: ethnicity; program exposure; community; sex; age; type of ailment and an explanation of the illness or its cause, according to the family; what measures they took and the decisions they made to resolve the illness; basic sanitation conditions and opinions or perceptions of local health services.

Of the total studied households, 348 healthcare trajectories were documented: 98 in Oaxaca, 85 in Chiapas, 92 in Chihuahua and 73 in Sonora. These therapeutic itineraries featured a variety of different members of the domestic

* See footnote 2 for a definition of the term "healthcare trajectory".

‡ In other words, the perception of the indigenous and rural population regarding the different institutions linked to healthcare provision.

§ Throughout the document, reference will be made to *long exposure households and recent exposure households*. The former refer to those households that have been beneficiaries of the *Oportunidades* Program since 1998 and the latter to those that have been beneficiaries since 2007.

units, mainly parents and children, stepchildren and sometimes grandparents who were part of the household during the ethnographic present (2008). The last episode of illness of every household member was documented, although, according to the judgement of the researcher, additional alternative episodes were also chosen if they were deemed to provide valuable information.

The difference in the number of healthcare trajectories registered per household is owing to the fact that the number of sick individuals and illnesses in each household varied; thus, some households do not register any ailments, while others may have more than three. Moreover, episodes of illness are experienced and remembered in different ways, with a different degree of clarity depending on the degree to which individuals were exposed to the situation, considering that each family highlights those experiences that it considers to be the most significant or important, despite the researcher's guidance during the interviews. As we have already acknowledged, the documentation of these healthcare trajectories allowed us to analyze the studied households' patterns of healthcare and treatment, as well as, their general state of health, as a means of obtaining a better understanding of the different strategies employed by families to cope with health crises.

The topics that were to be covered and documented in order to reconstruct and record the therapeutic itineraries were as follows: last ailment or episode of illness; causes or reasons for having fallen ill; number of diagnoses and persons providing them; sequence of measures taken in order to get medical attention; problems and support during the process of obtaining access to appropriate healthcare; perceived quality of the different healthcare options and, finally, the economic and social consequences of the episode of sickness.

The characteristics of the healthcare trajectory sample were as follows:

Table 4
Attention trajectories according to micro-region

STATE	MICRO-REGION	TYPE OF HOUSEHOLD				
		INDIGENOUS BENEFICIARY	INDIGENOUS NON-BENEFICIARY	NON-INDIGENOUS BENEFICIARY	NON-INDIGENOUS, NON-BENEFICIARY	TOTAL BY MICRO-REGION
Oaxaca	Mazateca	10	7	13		30
	Mixe	11	17	3		31
	Costa	8	16	4	9	37
	Total by type of household	29	40	20	9	98
Chiapas	Las Margaritas	13	1	10	3	27
	Tumbalá	28				28
	San Cristóbal de las Casas	15	2	12	2	31
	Total by type of household	56	3	22	5	86
Chihuahua	Samachique	13	4	16	3	36
	Norogachi	3	6	7	9	25
	Yepachi-Maycoba	7	9	11	4	31
	Total by type of household	23	19	34	16	92
Sonora	Yaqui	16	2	9	3	30
	Mayo	4	5	5	4	18
	Guarijío	5	6	11	3	25
	Total by type of household	25	13	25	10	73

Furthermore, the ethnic composition of the households was different according to micro-region, so when we refer to "indigenous households," we are talking about a great diversity of ethnic groups. In Oaxaca, Mazateco, Mixe, Mixteco and Afro-mestizo households were documented; in Chiapas, Tojolabal, Chol and Tzotzil families were studied; in Chihuahua, work was carried out with Rarámuris and Pimas, while Yaquis, Mayos and Guarijíos were studied in Sonora. The results of these healthcare trajectories of indigenous households according to the state and micro-regions were are follows:

Table 5
Attention trajectories of indigenous households according to micro-regions

STATE	ETHNIC GROUP	BENEFICIARY HOUSEHOLD	NON BENEFICIARY HOUSEHOLD	TOTAL HEALTHCARE TRAJECTORIES DOCUMENTED BY ETHNIC GROUP
Oaxaca	Mazateco	10		10
	Mixe	11	17	28
	Mixteco	16	8	24
Chiapas	Tjolabal	13	1	14
	Chol	28		28
	Tzotzil	15	2	17
Chihuahua	Rarámuri	16	10	26
	Pima	7	9	16
Sonora	Yaqui	16	2	18
	Mayo	4	5	9
	Guarijío	5	6	11

D. Reproductive histories: The documentation of reproductive histories applied to all women aged between 15 and 55 years old living in the selected households. The objective was to obtain details about the reproductive histories of these women and to find out about the quality of the medical services provided with respect to antenatal and maternity care, childbirth and family planning. Accordingly, a database was built, taking the following aspects as its central themes: maternity care, infant mortality, access to and perceptions of the Papanicolau examination and birth control methods.

The database included the following variables: ethnicity, program exposure, community, sex, current age (2008), age at the birth of first child, age at the birth of last child, type of care received during pregnancy and childbirth, number of births (alive, deceased and abortions), type of birth control method used by interviewee throughout their lives, pregnancies and access to birth control methods.

In total, 229 reproductive histories were documented: 38 in Oaxaca, 44 in Chiapas, 92 in Chihuahua and 55 in Sonora. The final composition of the reproductive histories is specified in Table 6 according to state and micro-region:

The regional analytic documents associated with the ethnographic studies in Oaxaca, Chiapas, Chihuahua and Sonora,[3-6] were very useful in the generation of this document.

III. Results

DESCRIPTION OF HEALTH SERVICES IN THE STUDIED MICRO-REGIONS

Owing to the hetrogenity of healthcare needs and strategies employed to resolve episodes of ill health, the types of service providers who have the potential to become involved in the provision of everyday medical care are very

Table 6
Composition of the reproductive histories according to micro-region

STATE	MICRO-REGION	TYPE OF HOUSEHOLD				TOTAL BY MICRO-REGION
		INDIGENOUS BENEFICIARY	INDIGENOUS NON-BENEFICIARY	NON-INDIGENOUS BENEFICIARY	NON-INDIGENOUS NON-BENEFICIARY	
Oaxaca	Mazateco	8	3	4		15
	Mixe	3	2		3	8
	Costa	4	5	2	4	15
	Total by type of household	15	10	6	7	38
Chiapas	Las Margaritas	6	3	5	3	17
	Tumbalá	13				13
	San Cristóbal de las Casas	7	1	5	1	14
	Total by type of household	26	4	10	4	44
Chihuahua	Samachique	13	4	16	3	36
	Norogachi	3	6	7	9	25
	Yepachi-Ma-ycoba	7	9	11	4	31
	Total by type of household	23	19	34	16	92
Sonora	Yaqui	6	2	6	2	16
	Mayo	5	4	5	6	20
	Guarijía	4	6	4	5	19
	Total by type of household	15	12	15	13	55

diverse. Although this document will only deal with the conditions under which public health services operate, it is important to consider that the population in the studied micro-regions has access to four types of local health service providers:

a) Public sector healthcare service providers.
b) Private sector healthcare service providers.*
c) Service providers affiliated with religious organizations (exclusively in the case of the Samachique (Misión Tarahumara) and Norogachi (Clínica San Carlos) in Chihuahua) micro-regions.
d) Traditional health service providers.‡

To understand the structure and condition of those services, we will now provide a brief description of the resources – material, medical and human – available to first-level centers that implement the policies of the *Guaranteed Basic Healthcare Package*. Data was obtained through the observation of medical units and through interviews with health service providers. In addition, evidence from the users of the health facilities regarding the quality of services was of vital importance to understanding their interaction with public medical institutions from their point of view.

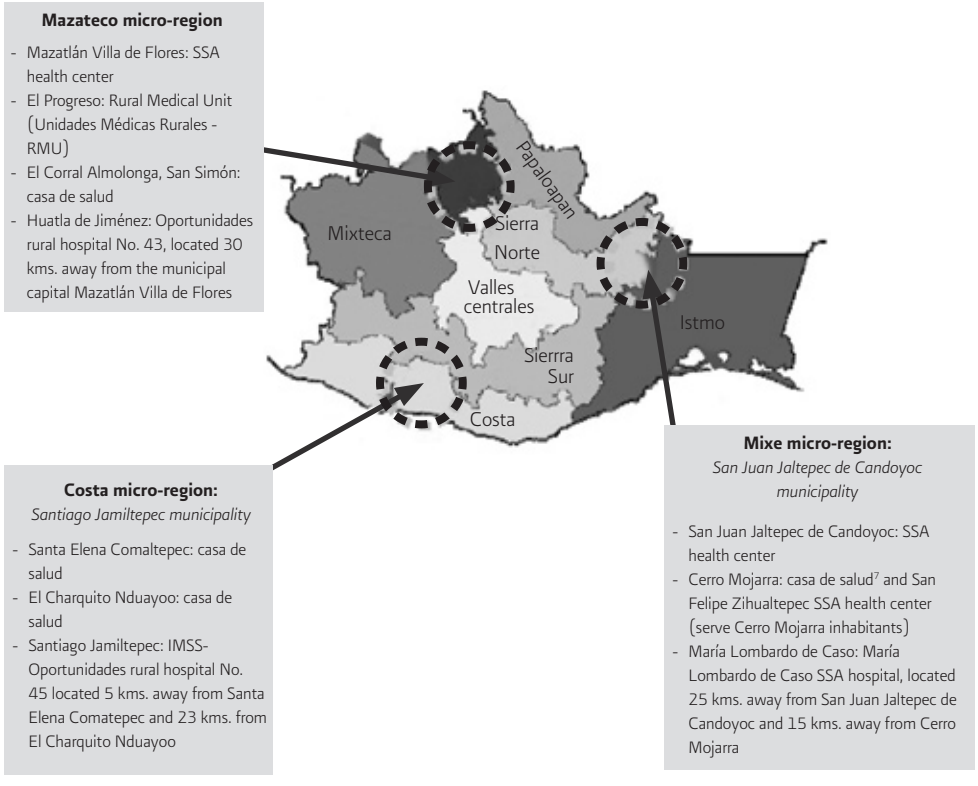
* Local and regional drugstores used as 'healthcare' centers, for example, "Farmacias Similares" (Dr. Simi).
‡ Mainly traditional or indigenous medicine and, to a lesser extent, alternative or complementary medicine.

OAXACA
(Figure 2)
Mazateco micro-region*

Two first-level healthcare options exist in this micro-region, an SSA health center in the municipal capital of Mazatlán Villa de Flores and an IMSS-*Oportunidades* Rural Medical Unit in El Progreso. The health center in Mazatlán was under the responsibility of a qualified doctor and a medical intern, as well as, a graduate nurse and a student nurse (with an assistant during weekends). It received the inhabitants from the communities of El Corral, El Trapiche, San Pedro, Agua Pajarito, Piedra Conejo, Piedra Alta, Loma Tepeguaje and Barrio Enrique. It had two consultation rooms, a waiting room, a bathroom, and bedrooms for the health service personnel. Unfortunately, they did not have adequate space to conduct the self-care and preventive healthcare training workshops. There was a refrigerator for vaccines, a sphygmomanometer, two deteriorated examination beds and a set of scales in bad shape; although they had an ambulance, there was not always money to buy gasoline. The doctors who were interviewed reported the absence of a stethoscope, vaginal mirror and lamp.

The short supply of basic medicines such as *Ambroxol*, penicillin and vitamins, and the *Oportunidades* nutritional supplements was reported, although, the supply of medicines for chronic-degenerative patients (high blood pressure and diabetes) was adequate. Nevertheless, they lacked general supplies such as sterile gloves, gauzes, condoms, IUDs, syringes, first aid supplies and quick tests for *dextrose* and HIV.

Figure 2
Micro-regions in Oaxaca



[7] A very small community clinic that provides basic healthcare and often dispenses analgesics (painkillers), hormonal contraceptives, oral electrolyte solutions and parasitic-treatment medicines (sometimes with basic medical supplies).

* Located in the Mazatlán Villa de Flores municipality. Visited communities: Mazatlán Villa de Flores, El Progreso, El Corral, San Simón and Almolonga. Ethnic group: Mazateco.

This center received between 35 and 40 patients every day. In the mornings, they only received program beneficiaries; in the afternoon, they saw patients from the rest of the population. The results of a Pap test performed at this unit can take anywhere from three to five months to be returned. Sometimes female users have to buy sterile gloves at the local drugstore in order for the test to be carried out, although they are not always in supply, in which case the test is not performed. There were no health representatives or committees* owing to the political conflicts dividing the community. Services were usually free, although fees that ranged from 10 to 300 pesos were charged for treatments and the delivery of babies, in which case, the women must pay to have the delivery room cleaned after the birth or bring a relative to do the job.

There was an IMSS-*Oportunidades* RMU in El Progreso, five kilometers away from the municipal capital of Mazatlán Villa de Flores. It was in the charge of a qualified doctor (female) and a senior nurse who has been living in the community for ten years and who, in spite of being able to speak and understand the Mazateco language, communicated with patients in Spanish. On weekends, the unit remained in the care of a nursing technician. The doctors who serve this clinic tend not to stay any longer than one month (these are medics with temporary contracts to cover vacancies).

The RMU in El Progreso had a special space in which to conduct talks or workshops, but there was no waiting room, so patients had to wait their turn outdoors in the front yard that did not have a roof to protect them from the sun or the rain; in addition, there were no places to sit. There was a small ward with two beds; a refrigerator for vaccines and medicines, scales, a sphygmomanometer and stethoscope, but there was no vaginal mirror or lamp. We documented a regular supply of medical supplies and medicines for patients with chronic-degenerative illnesses, birth control methods (condoms and IUDs), dextrose tests and quick HIV tests. Services were free, but the unit did not receive patients who came from communities other than those assigned to the RMU. Nurses were in charge of conducting the self-care and preventive practices workshops. In general, there was a good relationship between the community and the clinic and its personnel. The unit also worked together with a health committee that was established 20 years ago and that conduct basic sanitation and vaccination campaigns. As part of PREVENIMSS activities, a reading group has been established that takes place, on a rota basis, in the homes of its local members.

Both the clinic at the municipal capital and the RMU in El Progreso frequently referred patients to the rural *Oportunidades* hospital No. 43 at Huautla de Jiménez, where it was possible to get second-level attention. This hospital is 30 kilometers away from Mazatlán Villa de Flores and serves a population of 12,000 inhabitants, mostly indigenous, which is six times greater than that recommended by medical healthcare standards.

The hospital operated with three qualified general practitioners, a gynecologist, a surgeon, a clinical laboratory and a team of nurses (we did not have data about the specific number of nurses). It also had a community boarding house and six consultation rooms of which only three were being used. According to health personnel, the number of hospital beds was insufficient, and they recognized an excess of demand for gynecological services and surgical operations (the surgeon and gynecologist saw 80% of all hospital consultations). Services were free, even the community hostel.

According to the evidence provided by household members who were interviewed, their medical needs were not always resolved there. Laboratory, ultrasound and X-ray services were inadequate, causing the frequent use of private laboratories. Doctors took vacation leave without providing a substitute to cover their absences, in which case, patients sometimes had to wait in the hostel or come back months later to see the doctor (owing to such obstacles, many did not come back but sought medical attention in Mexico City or other large cities). Getting an appointment to see a doctor at the hospital could take three to six months.

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* The *Oportunidades* Program encourages the appointment of a committee of three or four elected female beneficiaries (*vocales*) who act as intermediaries between households and the programme. They are each in charge of education, health, nutrition and (variably) "control and surveillance", respectively.

Mixe micro-region*

Families in the Mixe micro-region had access to two SSA health centers, one in the community of San Juan Jaltepec de Candoyoc (with a mostly indigenous population) and the other one in San Felipe Zihualtepec. The health center in San Juan Zihualtepec only served families belonging to the community (close to 1,700 inhabitants). For 17 years, the center had been run by a qualified female doctor who was accused of malpractice by the community ten years ago. There was also a male nurse in charge of conducting the self-care and preventive practice workshops.

This unit documented a serious shortage of medicines for high blood pressure and diabetic patients, sterile gloves, gauze, condoms, syringes, first aid material and IUDs, as well as a deficient number of medical instruments. Between 35 and 40 patients were received every day. There was poor detection and diagnosis of chronic-degenerative illnesses, such as diabetes owing to the shortage of quick dextrose tests. Ever since the doctor in charge was accused of malpractice, she worked from 8am to 4pm and did not attend to births. When the doctor took vacations, the health center remained in the charge of the nurse.

The SSA health center in San Felipe Zihualtepec provided care to 1,500 inhabitants of the surrounding communities, including the Cerro Mojarra community. They had a qualified doctor with surgery experience (a year and a half in the post) and a nurse technician. The doctor's training in surgery allowed the deliver of babies and minor surgery to be performed. Facilities were adequate, although insufficient medical instruments were documented. Surgical materials and medicines were the responsibility of patients. According to the personnel, the supply of medicines as not in accordance with the needs of local epidemiology.

The population of Cerro Mojarra, the community where most of the studied households were located, did not visit the clinic frequently; in general, only high blood pressure patients and pregnant women made the journey. The only other patients from Cerro Mojarra were parents with children with diarrheic and respiratory ailments. According to the researcher who carried out the fieldwork in this community, priority is given to the treatment of beneficiaries of the *Seguro Popular* social program.

In addition to first-level health centers, the studied households in the Mixe micro-region frequently went to the María Lombardo de Caso SSA hospital, located 25 kilometers from San Juan and 15 kilometers from Cerro Mojarra. The hospital provided medical attention to Mixes, Chinantecos, Mazatecos and Zapotecos and had a medical intern (only during the mornings) and a female pediatrician (on maternity leave at the time of the fieldwork). There was only one general practitioner and no specialists on duty at night. In the afternoons, only two doctors were on duty: the director (a general practitioner) and a female doctor for emergencies. There were five consultation rooms, of which only two were used; there was also a hostel, which had not been used for years. According to health personnel, the number of hospital beds was insufficient. Regarding healthcare provisions and performance, like the SSA health center in San Felipe Zihualtepec, it was documented that priority is given to the treatment of beneficiaries of the *Seguro Popular* social program. There was no clinic for obesity or monitoring of high blood pressure and diabetic patients. No dialyses were performed, and there was a shortage of clinical studies such as X-rays, ultrasound, etc. All surgical operations had a cost.

In general, and ever more frequently, gynecological services were provided at the María Lombardo de Caso hospital, generating excessive demand there. The consequences of such a high demand have lead to inadequate provision of maternity care and childbirth services, which has serious economic implications for households in the micro-region. The cost of a delivery could range from 2,500 to 5,000 pesos, even with the *Seguro Popular.*

* Located in the San Juan Jaltepec de Candayoc municipality. Visited communities: San Juan Jamiltepec de Candayoc and Cerro Mojarra.

Costa micro-region*

Households studied in this micro-region only had access to basic first-level medical attention; in other words, they went to the *casa de salud*s established in El Charquito Nduayoo and Santa Elena Comaltepec. Members of the studied households often decided to go directly to the *Oportunidades* rural hospital No. 45 located at the municipal capital in Santiago Jamiltepec, five kilometers away from Santa Elena and 23 kilometers away from El Charquito. This hospital had three doctors, a surgeon, a gynecologist, a clinical laboratory technician and a team of nurses (how many is unknown). Although the facilities had five consultation rooms, in general, only three were used. According to the evidence gathered during the interviews of the studied households, a shortage of medicines forced inhabitants of this area to buy their own medication. Fortunately, hospital services were free. According to medical personnel, laboratory, ultrasound and X-ray services were insufficient, and so was the number of hospital beds.
In spite of the long waiting lists, the preferential treatment of mestizos living outside the municipal capital and the red tape that hampers the healthcare process in general, an excessive demand for services was documented.

When we consider the quality of the health services that were offered in the visited micro-regions in Oaxaca, it is clear that the presence of health centers and rural medical units in these areas (with a high indigenous presence) did not guarantee that the health of the population was well cared for. The scarcity of resources, medical as well as material, was evident and indicative of the poor quality of health services available; the Guaranteed Basic Healthcare Package faced many obstacles in its achievement of its objectives there.

CHIAPAS

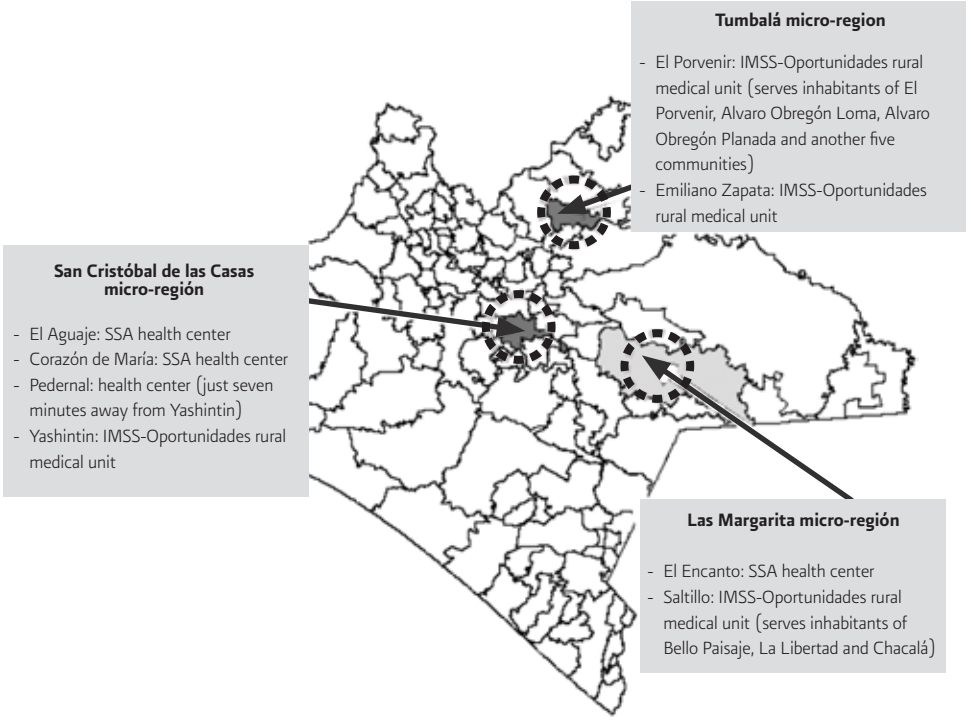

Figure 3
Micro-regions in Chiapas

‡ Located in the Santiago Jamiltepec municipality. Visited communities: Santa Elena Comaltepec and El Charquito Nduayoo. Ethnic group: Mixteco and Afromestizo.

Las Margaritas micro-region*

The studied households in this micro-region had at their disposal two first-level healthcare centers, located at El Encanto and Saltillo; the first was part of the SSA and the second was associated with the IMSS-*Oportunidades*. The SSA health center at El Encanto provided medical attention for the population living there and for the five surrounding communities. It operated under the direction of a nurse, an assistant nurse and a medical intern who worked on Saturdays monitoring undernourished children who were beneficiaries of a nutrition program. Visits from adults were rare; in general, the center only received patients with chronic-degenerative ailments. From Monday to Friday, the assistant nurse took responsibility for the center, since the senior nurse was frequently absent owing to her commitments to a child malnutrition program called "*Programa por una Vida Mejor*" (Program for a Better Life).

According to reports from the personnel in charge, the medicine supply had increased since the *Seguro Popular* center was established; however, they said that medicines for those individuals suffering from high blood pressure and diabetes remained insufficient.

Women at El Encanto preferred to go directly to the hospital at Las Margaritas or the one in Comitán in case of an emergency or ailments they consider to be serious. These hospitals provide obstetrical care, experience excessive demand, and do not have the infrastructure necessary to perform medical analyses, diagnoses or specialized surgery.

The IMSS-*Oportunidades* rural medical unit in Saltillo was under the care of a medical intern, a nurse and a nurse's assistant. The doctor attended to patients from Monday to Friday, while the nurses took charge of the RMU on weekends. Patients were dissatisfied with the services provided by this unit. The RMU was facing a great demand for services, especially from the families of *Oportunidades* beneficiaries. According to the health personnel, the budget for medicines, staffing and travel expenses was very small. Some doctors had never delivered a child during their period of service at the clinic, referring women to the hospital at Las Margaritas or Comitán.

Tumbalá micro-region‡

Households in this micro-region had access to two IMSS-*Oportunidades* centers; one of them is located in Emiliano Zapata and the other in El Porvenir. The RMU in Emiliano Zapata was in run by a male nurse assisted by a student nurse and an auxiliary. The unit had a waiting room and a consultation room with an examination table and a cabinet for medicines; there was a bathroom, but it was out of order. There were also two sets of scales, one for weighing babies and another one for adults. In addition, there was a small kitchen, a bathroom and a room occupied by the nurse during the times when he resides in the community.

Opening hours for the unit are Monday to Thursday from 8:00am to 3:00pm, and Fridays only from 8:00am to 10:00am. Consultations were offered in Chol and in Spanish, although, it is recorded that indigenous patients were mistrustful of the diagnoses and advice given by the nurses. According to the evidence, the fact that the senior nurse is male causes reluctance among women to be examined. The medical personnel point out that male nurses face serious difficulties when examining and diagnosing female patients, difficulties that, in the past, have caused conflicts that have ended in their expulsion from the community.

The rural medical unit in the community of El Porvenir operated under the administration of a nurse technician and an assistant nurse. The technician was in charge from Monday to Friday, and the assistant took over on weekends. The unit worked in coordination with the Cenobio Aguilar IMSS clinic, located in a neighboring municipality. It received patients from the communities of El Porvenir, Álvaro Obregón Planada, and five other communities, totaling 568 families or 3,077 people.

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* Located in the Las Margaritas municipality. Visisted communities: Saltillo, La Libertad, Chacalá, El Encanto, Bello Paisaje. Ethnic group: Tojolabal.

‡ Located in the Tumbalá municipality. Visited communities: Álvaro Obregón Planada, Álvaro Obregón Loma, El Porvenir and Emiliano Zapata. Ethnic group: Chol.

This unit started to operate in early 1980. Its regular hours of operation were fewer than the unit in Emiliano Zapata and many of the inhabitants of Obregón preferred to visit private doctors in the same community because they were not satisfied with the medical attention they received or the medicine supplied at the RMU in El Porvenir. They complained about the lack of means to meet their needs and said that all the personnel seemed to do was sign attendance certificates for *Oportunidades* beneficiaries who needed them.

San Cristobal de las Casas micro-region*

This micro-region had an IMSS-*Oportunidades* rural medical unit with first-level health service and three SSA community clinics in El Aguaje, Corazón de María and El Pedernal.

The RMU in Yashintin was under the responsibility of a medical intern (female). She dealt with patients on Mondays, Wednesdays and Fridays from 8:00 am to 13:00 pm. In case of an emergency, an ambulance could be called to pick up the patient at the IMSS clinic and take him/her to the municipal capital of San Cristóbal. The constant rotation and poor training of medical personnel constituted an important obstacle to the ideal operation of health services.

Of all the micro-regions in Chiapas, only the IMSS-*Oportunidades* RMU in Saltillo in the community of Las Margaritas benefited from the presence of a medical intern from Monday to Friday. The rest operated under the care of nurses and assistant nurses, a fundamental factor in understanding the poor medical attention to which the studied households have access in this southern state.

The presence of first-level healthcare centers in the communities was minimal, meaning that the inhabitants must travel outside their home communities to receive first-level medical attention, another factor that explained the poor health of these inhabitants, who did not have sufficient resources to travel outside their communities in search of quality medical attention.

However, even when first-level services are available, it is important to point out that the existence of community clinics and RMUs does not mean that residents in the studied micro-regions actually receive this type of medical attention; the fact that many doctors have never delivered a child is clear evidence of the inefficiency of services at the local healthcare centers.

CHIHUAHUA‡
(Figure 4)
Yepachi-Maycoba micro-region§

There was an IMSS-*Oportunidades* rural medical unit in Yepachi, run by a medical assistant, and an SSA health center in Maycoba, with two medical assistants, which served a population of 2,200 people each. Collectively, the three medical assistants, had given more than 30 years of service to these communities and had the help of an apprentice on the weekends. In the case of the IMSS-*Oportunidades* RMU in Yepachi, the presence of senior doctors was intermittent and their stay usually only lasted about a month, so the clinics remained under the supervision of the medical assistants most of the time. Every two years, a medical intern from Sonora or Sinaloa arrives to the Maycoba health center and remains in the community for 12 months. Since 2007 and up until the time of the fieldwork, the health center had operated without the presence of a doctor and was waiting for the SSA to hire one.

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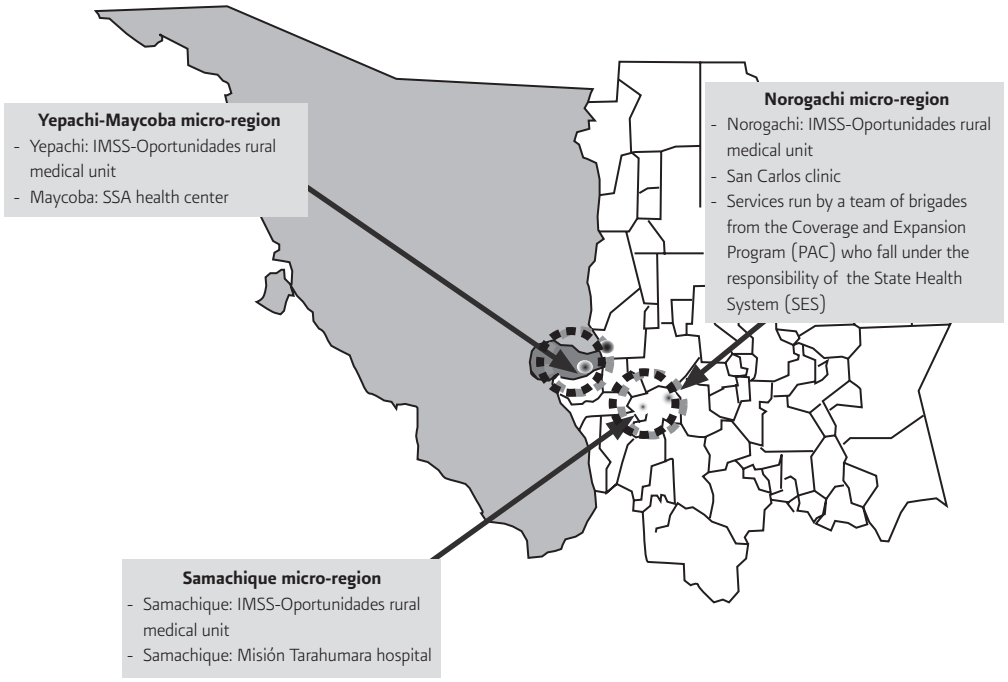
* Located in the Cristobal de las Casas municipality. Visited communities: El Aguaje, Corazón de María, San Ysidro de las Huertas and El Pedernal.

‡ In the Norogachi micro-region, there is one more IMSS-*Oportunidades* RMU that does not appear on the map, located at Ciénega de Norogachi.

§ Located in the Temosachic, Chihuahua and Yécora, Sonora municipalities. Communities visited: Yepachi in Temosachic, Chihuahua and Maycoba and Piedras Azules in Yécora, Sonora. Ethnic group: Low Pimas.

Figure 4
Micro-regions in Chihuahua



Users of the services and the personnel in charge at both healthcare centers reported deficiencies in the supply of medicines. Families expressed their mistrust of the effectiveness of treatments and the practices associated with the services, mostly because of the shortage of trained medical personnel. Families reported that they visit these institutions mainly to comply with their *Oportunidades* co-responsibilities and to obtain medicines to control chronic-degenerative illnesses, since the remoteness of the health centers and the poor quality of local services make self-care and traditional medicine more accessible practices.

Samachique micro-region*

The households inhabiting this micro-region, where only one community was visited, have two care options, the IMSS-*Oportunidades* rural medical unit and the Misión Tarahumara hospital. The RMU provided care for approximately 1,113 people, the population in Samachique and the surrounding villages in the Napuchis, Basigochi Grande and Basigochito. The personnel in charge of the unit included a medical intern, one rural medical assistant (female) and one substitute medical assistant for the weekends. Owing to the frequent absences of the medical intern in charge, the medical assistant took care of medical consultations.

According to the evidence, the supply of medicines was limited and the activity of the RMU was limited to vaccination campaigns and the distribution of medicines among patients with chronic-degenerative ailments. The foundation of the clinic dates back to 1979, at which time it was under the responsibility of the Instituto Nacional Indigenista (the National Indigenous Institute).

<?> Located in the Guachochi municipality. Visited community: Samachique. Ethnic group: Rarámuri.

The Misión Tarahumara hospital, founded in 1999, was run with American funds and offered first- and second-level healthcare. Medical attention at this institution was free of charge for the indigenous population that speaks any of the four languages of the Tarahumara region, Pima, Tarahumara, Guarijío and Tepehuano. The mestizo population, in contrast, must pay for medical consultations, so they preferred to attend the RMU in the community or other RMUs outside of the community that will provide free services. For a short period, the hospital received *Seguro Popular* patients, but the agreement with this institution was suspended because of the lack of financial government support. It is operated under a healthcare model that seeks to adapt to the cultural conditions of indigenous patients, as shown by the fact that they provide a translator and a midwife.*

The coverage area of the Misión Tarahumara hospital was very wide and comprised areas that were only reached by the PAC team. The hospital was frequently attended by members of the studied households. The personnel consisted of three general doctors, an orthopedist, a dentist, a chemist, a midwife, a Rarámuri language translator, an airplane pilot, several drivers, an administrator, and three general nurses, as well as several assistant nurses, cooks, receptionist and general assistants. It had a waiting room, three consultation rooms, three hospital wards, a maternity ward, X-ray and ultrasound service and three cabins for lodging families of patients, in addition to an air ambulance, several terrestrial ambulances and an all-terrain vehicle.

The hospital provided the following services: general medical consultation, dentistry, gynecology and obstetrics, general surgery, and clinical analyses, among others. In addition, every month major surgeries were programmed for harelip, knee, gastrointestinal and orthopedic problems, as well as plastic surgeries, endoscopies, caesareans and others. Medical personnel made frequent visits to the local communities with the purpose of providing general healthcare services and to monitor controlled clinical cases.

Norogachi micro-region‡

In this micro-region, the population has access to two IMSS-*Oportunidades* rural medical units in Norogachi and Ciénega of Norogachi, as well as to the San Carlos clinic (part of a religious organization). Households were also visited by the PAC's team of brigades whose services fall under the responsibility of the State Health System (SES).
The PAC brigades have existed for 10 years in the region; they are medical teams that travel to several communities who are located within a certain radius of their base clinic. They collaborate with health centers but do not work directly with them. The Norogachi route covers 54 communities, providing healthcare for approximately 1,810 people besides another 200 they call a floating population.

The team that covers the Norogachi route consists of one doctor and two assistants, one of whom is a nurse and the other a driver and health representative. The task of the brigades was to provide medical attention and take responsibility for the 193 *Oportunidades* beneficiary households in the region (680 people), ensuring families are able to comply with their co-responsibilities by attending family health check-ups and conducting the healthcare workshops. Although health service coverage is not optimal, mostly because of the irregularity of the visits, the presence of the PAC brigade guarantees access, albeit erratic, to health check-ups for the poorest households and inhabitants who are the most isolated from health centers.

In the two IMSS-*Oportunidades* RMUs, conditions were similar. Ciénega de Norogachi had a doctor, and Norogachi a medical intern. They had rural assistants with between 10 and 30 years of experience in providing health services in the community. Generally, the assistants conducted most of the medical consultations. No deliveries of babies were performed (regardless of their degree of difficulty), and only known-epidemiology cases were treated. In general, diabetes, high blood pressure and asthma patients attended, as well as *Oportunidades* beneficiaries, to

* The midwife assisted women who were reluctant to enter the delivery room or to be tended to by a male non-Rarámuri doctor. In these cases, the indigenous women themselves decide how to deliver their children. Some of them choose the way that is traditional among the Rarámuri: birth standing up with the assistance of a midwife or some relative.

‡ Located in the Guachochi municipality. Communities visited: Norogachi, Ciénega de Norogachi and Santa Cruz. Ethnic group: Rarámuri.

comply with their co-responsibilities. The studied households mentioned difficulties in accessing medications, a reason for which the RMUs usually referred their patients to the San Carlos clinic or, in the case of the Ciénega de Norogachi RMU, to the IMSS regional hospital in Guachochi. However, recently the San Carlos clinic had begun to refuse mestizo patients who are *Oportunidades* beneficiaries.

The San Carlos clinic was inaugurated 47 years ago and is run by the Catholic congregation of the Sisters of Mercy of San Carlos Borromeo. It is operated by two doctors (nuns), three nurses (nuns), a laboratory technician, an X-ray technician, an ambulance driver, a Rarámuri translator and a cleaning, cooking and maintenance team. The facilities included two consultation rooms, a pharmacy, three pediatric wards, an X-ray room, a laboratory, two delivery rooms and hospital wards.

Accident victims, patients requiring hospitalization and women in need of pre-natal and post-natal care were often referred to the clinic from the RMU or the PACs. Although the clinic provided good obstetric care, there was no promotion of birth control methods.

The clinic was free of charge, although contributions in kind were requested. The health personnel working at the clinic have a good understanding of and sensitivity to the social, cultural and economic characteristics of the population which they serve. Perseverance and participation in community life have earned them the trust and acceptance of the population.

The presence of private and religious healthcare institutions in the studied micro-regions in Chihuahua meant that we were able to compare the services they provided with that of the public institutions in the same areas. The comparisons illustrated the deficiencies of the state healthcare centers and RMUs in terms of human resources and materials, and proved how, despite the population's marginal conditions, the obstacles they endure because of their regional geography and because of the ethnic differences between the users of medical services and those delivering medical attention, healthcare and medical services can still be delivered in an efficient and coordinated manner.

SONORA
(Figure 5)
Yaqui micro-region*

All the communities visited in this micro-region had access to health services of some kind, usually a *casa de salud;* however, this type of establishment did not satisfy first-level healthcare needs. To receive appropriate first-level medical attention, the studied households had to go to clinics or health centers in nearby communities with larger populations.

In the communities of Pótam and Vícam (the closest ones to the studied communities), we found five first-level healthcare institutions: in Vícam, an SSA rural health center, the IMSS family medical unit No. 11 and an ISSSTE medical unit; and at Potam, the SSA CSPRD health clinic and the ISSSTE family medical unit No. 27. According to the household interviews, the medical institutions that were visited most frequently, and which are described below, are : the SSA health clinics (at both Vícam and Pótam) and the IMSS family medical unit No. 27 in Pótam.

The studied households in Huiviris, Rahum and Estación Oroz preferred to attend the SSA health center at Vícam. The mothers interviewed there mentioned that medication supply at this center was more constant than at other nearby centers and that even though waiting times were long because of excessive demand for services, patients were usually received owing to the efforts of the medical staff, who worked long hours.

This center had three full-time doctors, two medical interns, six nurses, a dentist, a receptionist, an ambulance driver and maintenance personnel. The place consisted of two buildings; one of them was used to take care of emergencies and births, and was also employed as the hospital ward, while the second one housed a waiting room, three consultation cubicles and an administrative area, along with a vaccination cubicle, an odontology office and

* Located in the Guaymas municipality. Visited communities: Huiviris, Estación Oroz Rahum and Las Guásimas. Ethnic group: Yaqui.

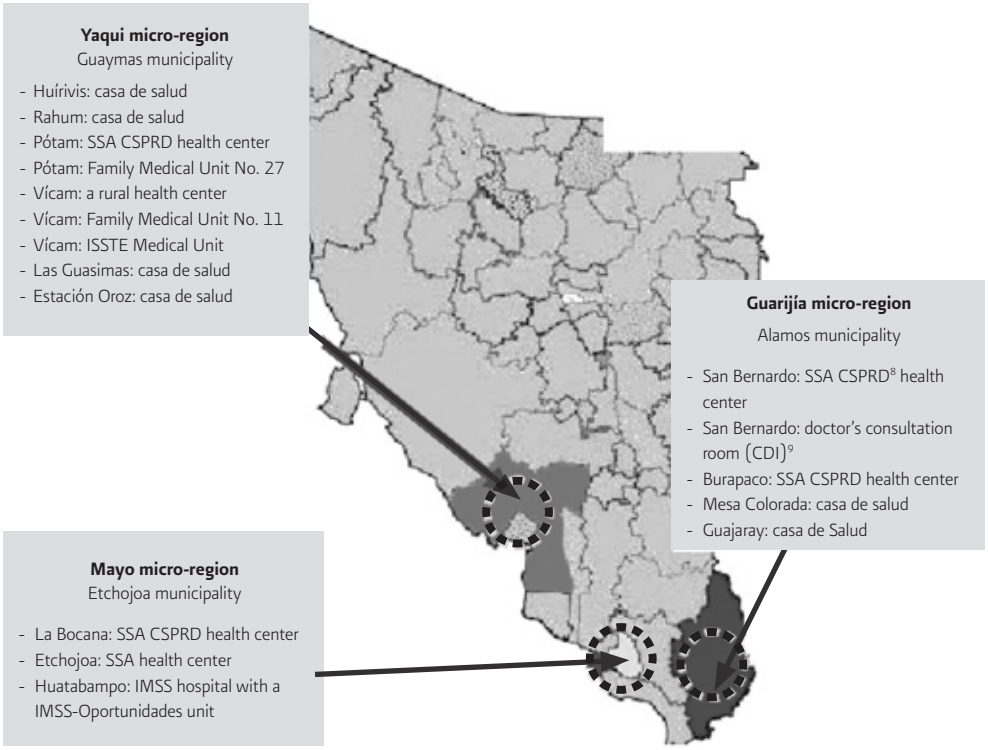


Figure 5
Micro-regions in Sonora

[8] *Centro de Salud para Población Rural Dispersa* (Health Center for Remote Rural Populations)
[9] *Comisión Nacional para el Desarrollo de los Pueblos Indígenas* (National Commission for the Development of Indigenous Peoples)

a cubicle used to attend to the *Oportunidades* beneficiary population. In spite of the human and material resources at the center, excessive demand caused poor service quality and long waiting times.

On the other hand, the infrastructure, medical equipment and supply of medicines at the SSA health center in Pótam (another one of the centers frequently attended by the studied households) were more limited. It was run by a senior doctor (female), a medical intern, two senior nurses, an assistant nurse, a receptionist and a janitor. The place consisted of two consultation rooms, a waiting room, two bathrooms, and a vaccination, examination and Pap test cubicle. They also had an ambulance service, but it had not run for three years.

Although the center had "fixed" working hours (from 8:00 am to 3:00 pm, and sometimes 24-hour service when the medical intern was available), service was perceived as irregular, so much so, that many users preferred to go directly to the SSA health center in Vícam or to the center at Ciudad Obregón.

The third medical institution preferred by interviewed households was the IMSS family medical unit No. 27 in Pótam. The main complaint regarding the services provided by this unit was the poor supply of medicines and the consultation fees (more than 20 pesos) for those who are not IMSS beneficiaries. Nevertheless, regarding the community activities promoted by the health centers, the performance of the IMSS family medical unit in Pótam had earned the recognition of its users. The studied households also considered medical personnel to be friendly and professional.

In summary, in the Yaqui micro-region, the quality of service depended not only on the type of provider (SSA or IMSS) but also on the level of commitment and professionalism of the medical teams in charge.

Mayo micro-region*

Interviewed households in the Mayo micro-region declared that they attended four different first-level medical institutions located in the Etchojoa municipality; two of them were situated in the municipal capital and the other ones in two of the visited communities (La Bocana and Huatabampo).

In Etchojoa (the municipal capital) there was an SSA health center and an IMSS clinic; the former had three full-time doctors, two medical interns and five nurses, along with three consultation offices, a waiting room, two bathrooms, a medicine storage room and an ambulance. According to the interviewed households, the supply of medicines was better at this center.

The IMSS clinic operated with four IMSS-*Oportunidades* doctors and two nurses; it had two consultation offices, a waiting room and medicine cabinet.

The La Bocana community also had an SSA health center. This center was run by a medical intern, a senior nurse and an assistant nurse. It had a consultation room, a waiting room, an emergency cubicle, an examination room, a bathroom and a medicine storage room. Interviewees mentioned that medical consultations cost between 20 and 30 pesos, which had caused problems with the nurses owing to lack of accountability. Because of the problems between the nurses and the population, women were refusing to take Pap tests.

The fourth of the medical institutions in the micro-region was in the community of Huatabampo: the IMSS hospital with the IMSS-*Oportunidades* unit. It operated with two full-time doctors and two nurses in charge of providing medical attention to *Oportunidades* Program beneficiaries. The IMSS-*Oportunidades* unit consisted of a consultation room with an examination table and a medicine cabinet. There was no X-ray equipment or laboratory.

Among the first-level care institutions in the micro-region, the IMSS *Oportunidades* unit at Huatabampo was the one with the least recognition among users, who complained about the special treatment received by *Oportunidades* beneficiaries in contrast to the treatment received by regular users.

Guarijía micro-region‡

Of the studied micro-regions in Sonora, this was the most vulnerable regarding access to basic healthcare services. The interviewed households reported attending three first-level healthcare institutions, two of them in San Bernardo and another one in the community of Burapaco.

The two first-level healthcare options in San Bernardo were an SSA health center and a consultation room at the National Commission for the Development of Indigenous Peoples (CDI). The SSA health center was run by a senior doctor and a nurse, accompanied by a janitor. The place consisted of a consultation room, a waiting room, a bathroom and a storage room for medicines. The interviewed community inhabitants stated that the doctor served patients from Tuesday to Thursday.

The center experienced high demand in spite of charging 20 to 30 pesos per consultation, in addition to charging 30 pesos per month to *Oportunidades*' female beneficiaries§ to cover medical equipment expenses. These women did not understand the purpose of the charge and there was mistrust about the destination of the money.

The CDI consultation room received only members of the indigenous population, but it also received inhabitants of communities from outside San Bernardo. It was under the supervision of a doctor with over 12 years of service experience in the region and a secretary. The consultation room was at the CDI offices, and working hours were during the mornings. The extended presence of the doctor had had a positive influence on the users' relationship with the center.

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* Located in the Etchojoa municipality. Visited communities: La Bocana, Los Viejos, El Salitral and Huatabampo. Ethnic group: Mayo.

‡ Located in the Álamos municipality. Visited community: San Bernardo. Ethnic group: Guarijío.

§ Called *titulares*, these women administer the *Oportunidades* benefits for their households and ensure that their families' program's co-responsibilities are met.

The third first-level healthcare option in the Gaurijía micro-region was the SSA health center at the community of Burapaco. The center was run by an assistant nurse; it consisted of a consultation room, an examination room and a room for patient hospitalization. Evident infrastructure, medication and equipment deficiencies were documented. Users told of frequent staff absences and maintain that they have requested the health authorities to hire a full-time doctor for several years.

Even though excessive demand for healthcare services in the Yaqui micro-region caused deficiencies in the quality of medical attention, failure to satisfy the high numbers of patients and long waiting times, it was here that the broadest array of services was found among all the studied areas in this state. Firstly, there was a greater diversity of public institutions that provide health services; in addition, the infrastructure of the Yaqui micro-region is more developed and wide-ranging and its medical teams are larger and more professional than those found in the other micro-regions in Sonora.

Among the studied micro-regions in Sonora, Guarijía presented the most deficiencies in terms of infrastructure and human resources. However, the visited community had two first-level healthcare options, a situation that did not occur in other micro-regions where inhabitants in the visited communities had to travel to other communities to get medical attention. This situation allowed us to determine that in spite of the fact that the Guarijía was the micro-region in Sonora least endowed with resources to tend to the health of its population, it actually enjoys a better service delivery than any other micro-region in the rest of the states we visited during the investigation.

CASA DE SALUD

We have decided to deal with the subject of *casa de salud* (literally translated as health houses, which refer to small rural community 'clinics') separately, since the characteristics and conditions under which they operated were quite similar in all the studied micro-regions that had this type of basic healthcare service. As a consequence we were able to make substantiated generalizations and to distinguish the elements that make some cases special, which are detailed below.

Our study documented the operation of 15 *casa de salud*s. Six of them were in Sonora: two in the Yaqui micro-region, two in Mayo and two more in Guarijía. There were six in Oaxaca: three in the Mazateco micro-region, two in the Costa and one in the Mixe regions. Finally, there were three in Chiapas: two in the San Cristóbal de Las Casa micro-region and one in Las Margaritas. No operating *casa de salud*s were documented in Chihuahua.

*Casa de salud*s are establishments through which the SSA provides the most basic healthcare in rural communities farthest from urban centers. One or more of the inhabitants from the same communities, who receive basic first-aid training by the SSA, usually run these centers. The role of *health auxiliary* or *rural health assistant* is a full time position and they are expect to stay in the 'health houses'; they are usually selected by the local community, and they do not receive a wage for the task, although they are officially "rewarded" with symbolic amounts that recognize the value of their work. One of the objectives of these 'clinics' is to receive, periodically, the team in charge of providing medical consultations and treatment, and who are responsible for disseminating basic healthcare information and news regarding vaccination campaigns or social programs such as *Oportunidades*.

The infrastructure of casa de saluds

The infrastructural conditions of these clinics were poor, with the exception of the Yaqui and Mayo micro-regions in Sonora, where a generally better infrastructure, less irregularity in the supply of materials and medicines, and some competence in providing health advice and making referrals was documented in comparison to that of the other micro-regions.* Nevertheless, on the whole, these establishments were not equipped with adequate medical fixtures

* These communities are covered by the benefits of the *Seguro Popular*.

and furnishings; sometimes they did not have items as essential as mattresses, bed sheets or a set of scales, or they were in very bad condition when they did have them. The same applies to basic medical instruments used to weigh patients and measure their height and blood pressure. In no instance was there a sphygmomanometer, making it impossible to detect the risk of, or to adequately treat, patients with high blood pressure.*

HEATH AUXILIARIES OR RURAL HEALTH ASSISTANTS

We found that personnel in charge of the *casa de salud*s had to face a series of obstacles that prevented them from fulfilling their responsibilities. In general, they were women with previous training, completed during the 1980s and early 1990s, and with years of experience in similar positions. However, the lack of training with respect to meeting the increasing demands of the communities is a common limitation expressed by the interviewed auxiliaries, who called for more training. Of the auxiliaries working in the 15 'health houses' documented in the fieldwork, less than one third had basic knowledge of the prescription of medication, applying stitches, treatment of injuries and bruises and, at least in one case, an auxiliary did not even know how to give an injection. On the other hand, the shortage of medical instruments at these local clinics prevented the application of the knowledge acquired in training courses.

In general, health auxiliaries did not receive a wage for their services, which is another negative circumstance affecting their performance, given that they must stay in the health houses and the social burden they bear. A case in Cerro Mojarra, a community in the Mixe micro-region in Oaxaca, exemplified the type of situations that can arise and, indeed, occur as a consequence of the dire economic needs of the personnel in charge of the community clinics. There, fees were being charged for services such as weighing and height measurement, and medicines provided free by the SSA were being sold. There is no doubt that these anomalies were related to the fact that health auxiliaries do not receive a salary as compensation for their services. Consequently, owing to these working conditions, inhabitants of the communities completely avoid taking part in this type of community service. Being elected as a health auxiliary was perceived more as a "punishment" that brings with it social demands and few opportunities for personal satisfaction, than as recognition or status. Assistants or auxiliaries received small bonuses that did not manage to cover their most basic needs and that, in the long run, cause the ensuing neglect of these centers or the charging of fees for their services. Nevertheless, there were also exceptional cases of auxiliaries whose personal initiative was reflected in the changes they made to the services being provided.

Having described the conditions under which *casa de salud*s operate, it is easy to understand that, in practical terms, they have become nothing more than booths for monitoring the co-responsibilities of *Oportunidades* beneficiaries. They were spaces, normally abandoned, which rural assistants used an "office" to fill out forms and reports, publish program announcements, keep appointments and hold meetings ("talks") with beneficiaries, when they do not receive the monthly or bi-monthly visit from health teams or vaccination campaigns.

In addition to the previously mentioned factors, these clinics were generally closed or had limited opening hours that commonly forced the population to fetch the assistants from their homes.

From the perspective of the households interviewed, the presence of a *casa de salud* in the community and the services they provide were useless; thus, they preferred to go directly to health centers or RMUs that provide first- and second-level attention in nearby communities, even though this implied transportation costs.

As an exception, in the Yaqui and Mayo micro-regions in Sonora, a relatively regular supply of medicines and treatment materials was observed (with the exception of anti-venom for scorpion stings). We also observed opening hours that, if not fixed, provided services for at least an average of five hours a day. In these regions, we also documented efficient practices for referring patients to other first- and second-level centers. We believe this is owing to the

* Beneficiary households that include members who suffer from high blood pressure and that are located far from health centers reported that the inability of their local services to monitor blood pressure is an obstacle to their implementation of self-care practices.

more urban configuration of the service hinterland,* where there was a greater flow of information and knowledge regarding healthcare options, and better transport. In the rest of the micro-regions, the practice of referring patients to other healthcare centers who would better meet their medical needs was clearly limited or non-existent.

Contributions and challenges of the casa de saluds

In the communities of the Yaqui and Mayo micro-regions, and to a lesser extent and less regularly in the Guarijía, Costa and Mixe micro-regions, this type of community clinic played an important role with respect to access to birth control methods. Some female health assistants had assumed the task of providing sexual and reproductive health advice, in addition to general health and hygiene guidance. Given that most of them were *Oportunidades* beneficiaries, we can safely assume that the health talks they attended and their direct contact with education materials related to health in general had been useful to them in being able to fulfill their roles; their position allowed them to disseminate and share health information in a more open and public way than any other beneficiary could.

Nevertheless, there was still a need for more teaching resources, mainly in the communities where illiteracy rates were high, since even though SSA health centers and RMUs had some tools for supporting health education (albeit insufficient), *casa de salud*s were not so lucky. Regardless of the training provided to auxiliaries, placing teaching resources at their disposal could provide them with greater knowledge of health issues and give them better resources with which to improve the presentation of health topics (especially reproductive health and the timely identification of dehydration and diarrhea in children less than 5 years of age) to women that come seeking informal health advice.

In summary, the optimal operation of the *casa de salud*s depends on a number of conditions that could improve their performance, of which a regular supply of medicines and resources necessary for the provision of first-level healthcare, feature. Furthermore, auxiliaries should be trained to provide basic reproductive health advice and to guide patients who are in need of second-level healthcare, making referrals where necessary. A regular and adequate supply of medicines appropriate to the level of care offered would give the clinics the capacity to, at the very least, act as dispensaries that provide medicines and basic medical treatment in places without health centers nearby. Under these circumstances, the *casa de salud*s would become a significant healthcare option for local inhabitants, even with lack of training, since access to medicines (or the referrals needed to obtain medicines, mainly basic ones) would alleviate the strain on domestic finances in communities where pharmacies and health centers are not accessible.

On the whole, we can conclude that, in view of their deficiencies, the *casa de salud*s were not considered by households to be a useful resource for healthcare or for medical advice (with the exception of access to birth control methods in those communities already mentioned, there were no reports of their use in the healthcare trajectories that were analyzed).

Taking into consideration all of the factors previously highlighted, it is possible to see how the current model and the perceptions of the community (that the local *casa de salud* is nothing more than an office to administer the co-responsibilities of *Oportunidades* beneficiaries) can be modified so that these small clinics become more socially-recognized as real options for the provision of basic health needs, such as access to methods of birth control, oral electrolyte solutions, and the treatment of simple wounds and bruises and poisonous animal bites and stings.

FINDINGS AND COMPARISON BETWEEN STATES AND MICRO-REGIONS

The descriptions of the conditions in which healthcare providers were operating allowed us to identify the similarities and differences that exist between the health services of the four states in our study, and even among the micro-regions. In this section we shall briefly identify the characteristics that are common to the micro-regions within the

* Area of influence of a larger health center or core, urban in this case.

different states and those that are peculiar to them, highlighting the heterogeneity of the scenarios. This data will be useful later in the analysis when we focus on the obstacles or advantages that households encountered when experiencing unresolved episodes of illness.

Firstly, we would like to point out that the excessive demand for public health services was a characteristic shared by all of the studied micro-regions. After ten years of operation, *Oportunidades* has, without a doubt, contributed to bringing its beneficiaries closer to the state-run medical system medical system. However, in spite of the efforts made to provide RMUs with better infrastructure, human and material resources remain insufficient to meet the demand for medical attention.

In general, we found that the SSA healthcare centers offered the best conditions in terms of infrastructure and furnishings: waiting rooms and private consultation rooms furnished with cots for the examination of patients. Bedrooms and bathrooms were available for medical personnel.* However, centers continued to experience limitations regarding adequate waiting rooms and appropriate spaces for workshops.

Regarding medical equipment, most of the healthcare personnel interviewed, regardless of the type of health center where they worked, revealed not having basic examination instruments such as stethoscopes, lamps, vaginal mirrors and osthoscopes. Local health centers usually had a set of scales (not always in good condition), a sphygmomanometer‡ and a tongue depressor. In general, *casa de salud*s did not have sphygmomanometers, thereby complicating the regular monitoring of blood pressure patients who have already shown evidence of, or who may be predisposed to, high blood pressure and who live far from community health centers where their blood pressure could be monitored every month.

Deficiencies regarding the infrastructure of health centers made the preventive practices promoted by the Guaranteed Basic Healthcare Package impossible — for example, the timely detection of high blood pressure, diabetes, metabolic syndrome and Papanicolau testing. We also observed that the irregular or complete absence of necessary items such as glucose test strips for dextrosis tests, sphygmomanometers and Pap test materials generate skepticism amongst patients or users, especially when the tests cannot be completed because of the shortage of adequate materials. These deficiencies discouraged users from taking tests again.

Even though the shortage of resources and poor infrastructure experienced by public health institutions was a reality that was evident in all the studied micro-regions, albeit to various degrees. The most evident disparities were found when comparing the situation of the micro-regions visited in Chiapas to those of the micro-regions in Sonora. The most unfavorable conditions in terms of infrastructure, equipment and human resources were reported in Chiapas, mainly with respect to the supply of medicines for high blood pressure and diabetes. The supply of these medicines is relatively sufficient in the other states in the evaluation, especially in Sonora and Oaxaca.

A regular supply of medicines has a powerful effect on the demand for primary health services. It is clear that the decision of healthcare centers to function as dispensaries is worthwhile and highly beneficial to the local population, as in doing so they are able to monitor and control the treatment of patients, even though they continue to be deficient with regard to prevention and health advice. The supply of medication has also had a positive effect on the finances of households, and is an impact that is most evident among families recently enrolled in the program and that previously had to pay for those services. Similarly, it has had favorable consequences with respect to changing the perceptions of households with diabetic members regarding the efficiency of the services offered by first-level health centers.

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* With the exception of the IMSS *Oportunidades* RMU in the Mazateco micro-region where, even though RMU facilities were smaller in comparison to the SSA healthcare center facilities, the equipment was of better quality and they had radio communication technology and a computer on which to keep files for the new electronic filing system. In comparison, the SSA healthcare centers used the communication system of the municipal government, examination beds were not in the best of condition, and there was a shortage of bed linen, patient robes, and even uniforms for healthcare service personnel. In addition, there were shortages of medical supplies, medicines and fast HIV and dextrosis tests in addition to supplies for Papanicolau testing.

‡ A sphygmomanometer is an instrument that allows the measurement of blood pressure. Its use is of great importance in medical diagnosis, since it allows detection of any anomalies related to blood pressure and the heart. The sphygmomanometer is an essential instrument for the prevention of hypertension and the identification of cardiac risk.

In terms of human resources, we observed that in micro-regions with a greater number of indigenous households, such as Chiapas and the Sierra Tarahumara and Pima communities, it is common to find medical attention being provided by healthcare auxiliaries. For example, SSA health centers at El Encanto, Chiapas and Maycoba in the Chihuahua mountains were under the supervision of a nurse and a health auxiliary; they also had the support of a medical intern whose presence was irregular in both cases. In contrast, SSA health centers in the Yaqui and Mayo micro-regions had plenty of medical equipment available to them, three full-time doctors (of which at least one was a qualified M.D., and two interns) and up to six nurses, as in the case of Vicam, where there was even a dentist. These conditions, however, did not extend to the Guarijía micro-region in Sonora, which presented characteristics of marginalization similar to those of the communities in the Sierra Tarahumara and Chiapas. In Burapaco, in the Guarijía micro-region in Sonora, the SSA health center was run by one auxiliary nurse. In comparison, the average level of medical attention exhibited by the health centers of the micro-regions in Oaxaca was of an intermediate standard: medical personnel at the SSA healthcare centers usually consisted of at least one qualified doctor and a nurse.

The most evident contrast occurred among the studied micro-regions in Sonora and Chiapas. While the IMSS-*Oportunidades* RMUs in Sonora, like the SSA health centers, had, on average, more than two qualified doctors and more than two certified nurses in charge, in Chiapas, out of the four first-level medical institutions studied, only one had a qualified doctor. The difference between the states of Sonora and Chiapas also became evident when comparing their degree of marginalization.* Sonora has been categorized as a state with a "low" level of marginalization, while the level of marginalization in Chiapas is considered to be "very high". Of the 72 municipalities in Sonora, only one has a "high" degree of marginalization, while, in Chiapas, only five out of 118 municipalities have a "low" degree of marginalization, and the remaining municipalities range from "medium" to "high" and "very high". This data, combined with the findings of the fieldwork, allows us to suggest that the areas with the highest degrees of marginalization are also those in which public healthcare services are the most deficient. Thus, the impact of the *Oportunidades* Program will be limited by the conditions of the environment in which it operates, preventing it from fulfilling its objective of improving the health and physical well-being of its beneficiaries, indigenous or non-indigenous. Consequently, it is essential that the Department for Health commits to an overhaul of its policies and organization as means of implementing strategies that will make its operation more efficient and effective.

The presence of private and religious health institutions in the studied micro-regions in Chihuahua meant that we were able to compare the services they provided with that of the public institutions in the same areas. The comparisons illustrated the deficiencies of the state healthcare centers and RMUs in terms of human resources and materials, and proved how, despite the population's marginal conditions, the obstacles they endure because of their regional geography and because of the ethnic differences between the users of medical services and those delivering medical attention, healthcare and medical services can still be delivered in an efficient and coordinated manner.

ANALYSIS OF HEALTHCARE TRAJECTORIES

The concept of *therapeutic itineraries* or *healthcare trajectories* as coined by Osorio (2001) refers to:

> The sequence of decisions and strategies implemented by individuals to face a specific episode of illness. Such strategies include a series of social decisions and practices aimed at ending the illness, which involve all the institutions, medical services and healthcare models that are available to them, as well as, the individuals who take part in their operation, the sick/patients, therapists and other mediators, personnel in charge of providing patient care and of administering or stopping treatment, and who offer advice and provide solutions.

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* The following data with respect to marginalization refers to the last report published by the National Survey on Occupation and Employment of the fourth quarter of 2005 (Encuesta Nacional de Ocupación y Empleo del IV). The data was adjusted in relation to the new population estimates resulting from the 2000-2005 Demographic Conciliation (Conciliación Demográfica 2000-2005), as well as the adjustments of the 2005 Second Count on Population and Households carried out by the INEGI (II Conteo de Población y Vivienda 2005), as a result of the consolidation of files and territorial integration of the communities, substituting the previous version of the marginalization indexes that was announced via this medium on October 4, 2006. Available at: http://www.conapo.gob.mx/publicaciones/indice2005.htm

The healthcare trajectories of the case studies gathered during the fieldwork were very important because they allowed us to identify the factors, or series of factors that come into play during an episode of illness, with the aim of distinguishing those factors that were common to the studied households. With these therapeutic itineraries, we could describe the 'experience' of different illnesses and the different strategies that individuals and families employ as a means of confronting them. Accordingly, the following four themes were the main focus of our analysis:

a. Quality of the healthcare care received (from the point of view of households).
b. Impact of episodes of illness on domestic finances.
c. Social consequences (like changes in domestic roles) brought about by these episodes of illness, and
d. Influence of the *Oportunidades* Program on access to public healthcare services and the implementation of self-care and preventive practices.

Mothers and grandmothers were our main source of data with respect to their households' healthcare trajectories, having been, more often than not, the members of the family who have taken care of other sick members, or accompanied members throughout their search for and implementation of treatment, not to mention, having firsthand knowledge of their own episodes of illness and reproductive history.

Taking the sample of 183 studied households as our starting point, a database was built that included the healthcare trajectories of each domestic unit. As expected, the number of ailments per household was variable; we found households in which, for example, none were reported, while in others more than three were documented.

Below is a table that presents an overview of the full sample of healthcare trajectories studied in the 12 microregions. This sample consists of 349 therapeutic itineraries and the table shows the number of healthcare trajectories that were studied according to the characteristics of the households that reported the ailments.

Table 7
Sample of care trajectories studied according to microregions

STATE	MICRO-REGION	TYPE OF HOUSEHOLD				
		INDIGENOUS BENEFICIARY	INDIGENOUS NON-BENEFICIARY	NON-INDIGENOUS BENEFICIARY	NON-INDIGENOUS NON-BENEFICIARY	TOTAL BY MICRO-REGION
Oaxaca	Mazateca	10	7	13		30
	Mixe	11	17	3		31
	Costa	8	16	4	9	37
	Total by type of household	29	40	20	9	98
Chiapas	Las Margaritas	13	1	10	3	27
	Tumbalá	28				28
	San Cristóbal de las Casas	15	2	12	2	31
	Total by type of household	56	3	22	5	86
Chihuahua	Samachique	13	4	16	3	36
	Norogachi	3	6	7	9	25
	Yepachi-Maycoba	7	9	11	4	31
	Total by type of household	23	19	34	16	92
Sonora	Yaqui	16	2	9	3	30
	Mayo	4	5	5	4	18
	Guarijío	5	6	11	3	25
	Total by type of household	25	13	25	10	73

HEALTHCARE PATTERNS OF INDIGENOUS BENEFICIARY HOUSEHOLDS IN THE STUDIED MICRO-REGIONS

OAXACA

Mazateco micro-region

Of the 10 documented healthcare trajectories in this area, only one of them was related to an individual who used the first-level health center in her community. According to the interviewee, doctors could not provide her with appropriate care owing to the nosology of her particular ailment, which she reported as a *scare*; she then decided to turn to traditional medicine in order to treat herself. The solution she found to her episode of illness had an impact on the social roles in her household as it kept her from completing domestic chores (which then had to be assumed by her daughters, both of school-age). The most relevant costs associated with the therapeutic itinerary of this interviewee were those associated with transportation.

The other two cases were diagnosed by private doctors in Mexico City and another one by a doctor in Huautla de Jiménez, without the families even having tried to get medical attention at clinics close to their communities; they argued that the health center "did not have medicines" or "was no good," or that "doctors did not know how to take care of patients."

A diabetic beneficiary was treated in Mexico City in a state of crisis. Once her daughters, who worked in the city, noticed her state of health, they sought private medical attention for their mother. Even though first-level healthcare services in this micro-region are quite efficient in terms of access to medication and the monitoring of hypertensive and diabetic patients, this strength does not extend to households located far from the health centers, such as the household in this case. After receiving medical attention in Mexico City, the woman remained in treatment for two months, but owing to economic limitations and the continuation of the ailment, she then opted for traditional medicine – the latter, from her point of view, seemed more accessible in her community, which was two-and-a-half hours away from the closest healthcare center. Although she did not find relief in traditional medicine either, the woman got a new explanation for her ailment and was convinced that "she didn't have diabetes" but was instead the victim of some malady caused by witchcraft.

The six remaining cases involved reports of minor ailments such as diarrhea, respiratory infections, domestic accidents and general aches and pains that were resolved through self-care with medicines obtained from first-level centers or from the local pharmacy, as well as with herbal medicine.

The cases reported by beneficiary indigenous households in this micro-region allow us to confirm that their relationship with public health services was limited to the fulfillment of *Oportunidades* co-responsibilities, save in very specific cases, i.e. when the patient was suffering from "pain" that she or he desires to resolve by requesting analgesics. For minor illnesses, these individuals preferred self-care and traditional medicine; only in grave cases did they seek medical care from other health centers, which were then usually private and situated in other communities, mainly Mexico City and Huautla de Jiménez.

Mixe micro-region

The most unfavorable conditions for accessing first- and second-level health services (public or private) among the indigenous households studied in Oaxaca were documented in this micro-region. This situation was mainly related to the high costs of public healthcare services provided by the SSA in the region — that, according to the household interviews were excessive and hamper the treatment of their ailments.

Of the 11 cases reported, 2 resulted in the death of the patient after emergency medical attention was given at the second-level SSA hospital (María Lombardo Toledano). Both patients arrived to the hospital in a critical condition after a long period without any medical attention. One patient was a baby girl less than one year old who, according

to her mother, was born with "stuck intestines"; the second one was a 40 year old man, household head, who was suffering from cirrhosis.

Of the 11 reported cases 7 showed similar patterns; the individuals in question sought medical attention once grave symptoms appeared, or in other words, once they were incapacitated and unable to work or perform their daily domestic activities. Of the seven cases, only one patient went directly to the second-level hospital closest to his home. This individual could not be treated, however, because there was no ophthalmologist; he finally resolved his situation with a homeopathic doctor and traditional medicine. To cure minor illnesses (aches, colds, diarrhea without complications), households in this micro-region turned to self-medication, buying medicines at the *Farmacias Similares* (a private pharmaceutical chain) in the municipal capital or using traditional medicinal remedies.

The average cost of private healthcare in this micro-region could range from 500 to 800 pesos; this expense includes the cost of the consultation, medicines and transportation. However, while the cost doubled if clinical studies or tests were needed, undoubtedly the most expensive aspect was medical attention. The cost of traditional care (with a *witch doctor* or *healer*) in this micro-region was also high.

The other two documented healthcare trajectories were cases of dengue fever where, even without direct access to a diagnosis and professional medical attention, the individuals managed to identify the symptoms correctly based on what they knew from community health workshops. Once the symptoms were recognized, they went to their local *casa de salud* to get analgesics and complemented the treatment with traditional herbal remedies. In both cases, the household's domestic economy suffered serious consequences, since effective treatment of the sickness meant that the patients had to rest for two weeks. This caused a significant decrease in the households' incomes, resulting in the use of family savings and the support of relatives and neighbors.

Overall, in the Mixe micro-region, households preferred to take serious cases to private doctors, which had very costly implications. In the case of minor ailments (colds, diarrheas, aches, domestic accidents), the use of traditional remedies was the favored method. Even after receiving formal medical attention (public or private), we observed that households in these micro-regions still used traditional medicine. Widespread mistrust was reported with regard to public health centers.

Costa micro-region

Since there was only one *casa de salud* in Santa Elena Comaltepec, and it offered a very poor service and a limited supply of medicines, households went to the hospital in Jamiltepec* to get medical attention. Of the eight documented therapeutic itineraries, only two went to the *casa de salud* looking for analgesics and anti-parasite medication for their children.

A patient in one of the documented cases visited the closest health center to get treatment for tuberculosis; his perception of the quality of the service was so negative that it influenced his decision not to return the following month for his medication or for the future appointments to monitor the condition. The rest of the cases reported minor ailments (headaches and a cold) and a case of alcoholism, all treated with traditional remedies in combination with the prescription of allopathic medication bought at pharmacies in the municipal capital.

Second-level attention at a public hospital was necessary in one case only; private specialist services were also needed. Although this case, on its own, is not enough to determine a pattern regarding the use of second-level healthcare services by households in this micro-region, the example is useful in showing the difficult that can arise in the case of an emergency. First, the patient (female) went to her closest hospital, an IMSS-*Oportunidades* hospital, but since it did not have an ophthalmologist, she was referred to Pinotepa without providing any further details about her ailment. The most significant economic investment was the money spent on the clinical tests that were necessary, as well as the cost of two consultations, medicines and transportation. This episode entailed an

* Municipal capital.

expense of 1,500 pesos, which constituted 40% of the household's total monthly income earned from working as day laborers. The expense was covered by the patient and her sister; both had to resort to using the cash from the *Oportunidades* grants awarded to their children.

In general, the studied indigenous households in the Costa micro-region believed that the resources assigned to the *casa de salud* were limited, although they went there looking for medicines or medical supplies that, based on their experience, they knew they can get there, such as anti-parasitic drugs, analgesics, oral electrolyte solutions and sometimes contraceptives. Their visits to the community clinic, except for the reasons described above, are exclusively to comply with their program co-responsibilities. However, perceptions and general opinions about the strategies used to promote community health, such as the construction of latrines and vaccination campaigns, were favorable in all cases.

Although we cannot be conclusive with regard to the medical attention and treatment of serious or urgent cases, since only one such case was documented in this micro-region, the strategy implemented in this case was not unlike those found in the other micro-regions in Oaxaca. The limited capacity of first- and second-level public health centers to resolve health issues and the widespread mistrust of these services caused patients to seek private attention, increasing the costs of the HSH processes.

CHIAPAS

Las Margaritas micro-region

Thirteen healthcare trajectories were documented in this municipality, five involving local first-level health centers, two of which involved individuals who arrived with intense abdominal pains; another arrived with gastritis; and one sufferer reported a "stomach tumor". Three of the cases stopped medical treatment owing to the lack of medication available at the clinic; only one of the patients, a girl whose diagnosis was ignored by her family, received medication, although the family said "it didn't do any good".

Only one case was urgently referred to the Las Margaritas hospital, and from there was transferred to the hospital at Comitán, as it was said that the patient could not be treated in the Las Margaritas hospital (for reasons never fully understood by the beneficiary). The costs accrued by the illness were relatively high in comparison to the economic potential of the household; nevertheless, the patient was hospitalized. Even though this was just one case, the healthcare pattern was useful in showing that the expenses that mount from receiving medical attention, even in public hospitals, has serious consequences for household finances. To cover the expenses related to the illness, the family had to resort to community loans (there are community loans that charge 10% monthly interest) that took them years to pay off by selling a share of their crops.

The other three cases went to see private doctors for skin problems, general aches and pains and stomach cramps, with healthcare costs ranging between 500 and 3,000 pesos. In such cases, the common decision was to stop the allopathic treatment because it was impossible to pay for the medication. One of these women, who had chronic pain in her hands and bones, summarized the motive of her decision in one phrase: "I haven't come back because I still haven't gotten the money together."

As we know, there was a shortage of medication for diabetes in all three micro-regions in Chiapas, even for beneficiary households. In addition to this situation, there was a deep mistrust of the efficacy of the nearest centers. A case that illustrates this mistrust is that of a male household head diagnosed with diabetes who was taken directly to the hospital at Comitán by his wife because of his grave condition and because in her experience "in Las Margaritas they would only waste time" (mistrust that incurred higher transportation costs). The decision brought about an expense of 5,000 pesos for hospitalization and medicines. In order to pay this amount, the patient's brothers started to gather the money from what they could earn working in the corn-fields (during the ethnographic present, they had managed to sell two sacks of corn at the Las Margaritas market place for 300 pesos each).

The patient's wife confessed to feeling very uncomfortable when she went to the hospital because the "doctors were angry with us" —besides, she said, she got nervous because she had to speak Spanish all the time and it is not her mother tongue. She preferred to be accompanied by one of her brothers-in-law and to have him do the administrative paperwork and talk to the doctors. The social implications of the illness on the household had repercussions for the work trajectory of the household head and also for the schooling trajectory of his 18-year-old daughter. She recalled how she left school because "my father was told he was very sick from diabetes and my mother needed help because we didn't have enough money to support all of us to study. My brothers and sisters were here in La Libertad and it was not too expensive. My sister was farther away [and there were more expenses related to her schooling]" (Field journal, Las Margaritas micro-region researcher).

Finally, the four remaining cases reported the implementation of similar strategies, combining self-care with allopathic medication (bought in drugstores) and visits to witch doctors, usually for indeterminate ailments or chronic pains that had never been accurately diagnosed.

In spite of such experiences, indigenous beneficiary families in general had a good opinion of the actions associated with the Guaranteed Basic Healthcare Package, mainly with regard to access to vaccinations. Their willingness to attend community workshops was also documented.

In summary, as in other micro-regions, beneficiary families here mainly attended first-level centers in compliance with their program co-responsibilities; in spite of service conditions, they still had some positive expectations, mainly regarding access to medicines. In general, the main obstacle to access to healthcare was rooted in the profound mistrust that indigenous households had regarding the public health services in their communities. This mistrust was based on previous unfortunate experiences, not only in relation to the shortage of medicines; it was more about the way in which they had been treated, a situation that led them to seek medical attention outside their communities and thus incremented the cost of their healthcare trajectories.

The search for healthcare outside the local community occurs when illnesses reach serious levels; minor ailments tend to be treated with traditional remedies and by employing self-care practices and taking allopathic medications. Finally, even when individuals receive medical attention at public health institutions, episodes of illness have serious implications for their domestic economies.

Tumbalá micro-region

All of the studied households in this micro-region are *Oportunidades* beneficiaries, and all of them belonged to the Chol ethnic group. Twenty-eight cases were documented, out of which 29% visited private doctors (principally the Chol households of Álvaro Obregón Planada and Emiliano Zapata, who went to the community of Yajalón to seek medical attention); 18% attended local health clinics; 14% went to a witch doctor, and 4% to a faith healer. The remaining 30% used a combination of self-care practices, traditional remedies and allopathic medication (bought in drugstores), while 5% reported accidents with serious incapacitating consequences.

The strategies employed by domestic groups in this micro-region to deal with their episodes of illness were generally more limited because the economic resources of these households were scarcer. Beneficiaries visited first-level health centers in their own communities more frequently. Only one of the cases that revealed having sought first-level services was referred by the IMSS-*Oportunidades* clinic at El Porvenir to the Yajalón hospital for surgery on a stomach hernia. Expenses amounted to approximately 5,000 pesos and included medicines, room (for a month), blood transfusion and board.

In general, these cases, although they were short-term episodes with poor resolution success, entailed general expenses for transportation, meals and medicines, even when the patients were visiting IMSS-*Oportunidades* RMUs (relatively close to their home communities) and were reporting non-serious ailments like gastritis, colitis and high blood pressure.

Two other cases were also documented, one related to high blood pressure and another one for diabetes, which were dealt with by private clinics based on the argument of the beneficiaries that public health centers "did not provide good healthcare" or that "there were no medicines" available at the state medical centers.

Exceptionally, this micro-region documented at least six cases of school-age youths who interrupted their studies because of illnesses afflicting them or members of their families. Four of these students were former beneficiary grant holders and two were not. One of them, a 20-year-old former female grant holder who had completed senior high school and was suffering from hemorrhoids, stopped her studies and decided to work to help her mother, who for ten years had been suffering from chronic gastritis and had not gone to work in the corn fields with her husband in all that time. She only took care of the house and tried to follow an appropriate diet that avoided exacerbating her constant stomach pain. In the same household, the girl's 19-year-old sister, who was also a former grant holder, having too finished senior high school, reported suffering from intense headaches, which she had from an early age and throughout her studies. She claimed the headaches were responsible for her poor academic progress and decided not to continue her education to a higher level for that reason.

On the other hand, two young brothers, 25 and 21 years old and living in the same household, reported the same symptoms; namely intense abdominal pains. Both were former grant holders who had attended school up to the ninth grade of junior high school and sixth grade of primary, respectively. The two had preferred to stay at home and help their father with the farming chores. The only outside attention they received with respect to their condition was a visit to the witch doctor, which partially resolved their ailment, although after their "recovery" they decided to drop out of school to start working.

The case of a 15-year-old boy (non-grant holder) who dropped out of school because of an accident, about which the family did not want to reveal any details, was documented. Ever since the event, the youth has usually stayed at home "running errands" and taking care of his siblings whenever it was required. Similarly, a 27-year-old young woman suffering from epilepsy never went to school because of "shame", since her condition was the cause of mockery and, to defend herself, she began attacking those who mocked her.

The cases studies that documented the early abandonment of school by school-age household members because of health reasons tended to be concentrated within households that had a generally bad state of health and whose access to medical care was evidently limited, especially during episodes of illness.

In this micro-region, opinions with respect to the *Oportunidades* Program were positive and coincided with those of indigenous households in the micro-regions described earlier, highlighting the benefits of having access to vaccination campaigns. In general, there was a good degree of willingness to take part in workshops and community activities, even though, on the whole, opinions about the quality of local health services are negative, mostly because of the medical teams' lack of professionalism and the poor treatment they provide.

Preventive and basic sanitation practices were limited by the conditions of the infrastructure in these communities, which had a shortage of drinking water and experienced economic difficulties in building latrines, which resulted in excreta being exposed to the air, a situation less evident in other micro-regions.

In summary, it was observed that Chol beneficiaries in the Tumbalá micro-region declared shorter healthcare trajectories and had less access to health services that could resolve their medical needs. However, in comparison, and in the context of their limited healthcare options, it was observed that they visited first-level services more often than indigenous households in other micro-regions (although their expectations were not met).

In general, these indigenous beneficiary households had evident difficulties in accessing medical attention, with dramatic consequences for the health and economy of these domestic groups. Given the marginalization and poverty in which they live and the poor efficacy and inefficiency of local health services, episodes of illness tended to generate consequences that clearly shaped and affected the quality of life of these individuals. Under these circumstances, belonging to the *Oportunidades* Program did not make a difference regarding their general health and access to services.

San Cristóbal de las Casas micro-region

Of the 13 cases reported in this micro-region, only 4 referred to individuals who resorted to first-level services for a reason other than compliance with their *Oportunidades* co-responsibilities. According to the interviewees, they were received at the health center "but there were no medicines." They mentioned that when there were medicines, the personnel at the health center used to announce it to the community.

Of the 11 remaining cases, two went to see private doctors and three went directly to a second-level institution owing to an emergency caused by acute pain; a fracture and an accident, respectively. Four more resolved their episodes of illness through self-care, three went to a drugstore (Dr. Simi), and one went to a witch doctor, while two reported chronic pain that went unattended. In general, cases where individuals resort to private services saw their episodes of illness partially addressed, but the ailments reappeared when they could not afford to continue to assume the cost of private care.

Of the 13 cases reported, a serious event requiring second-level care generated an unfavorable impact on the studies of school-age youths, again concentrated in one household economically disadvantaged because of ill health. The head of this family, who used to be a bricklayer, had an accident at work that left him in a wheelchair in 1992. The condition of the household head brought about many negative consequences for the household economy and his sons and daughters had to give up studying to start working. However, the burden and responsibility of caring for the household head had emotional and psychological consequences for the youngest daughter, who had almost completely given up socializing; according to her sisters, she did not like to go out or work outside because she would rather take care of her father.

One more case was that of a young boy who had a grenade explode in his hand. Ever since the accident, the boy has had no access to physical rehabilitation, and continues to have difficulty walking, which caused him limitations when attending school.

In summary, the healthcare patterns of other indigenous communities were repeated without major variations in Tzotzil households. First-level services had very little success in resolving the health issues of its users; families resorted to them generally only to comply with their co-responsibilities and to get access to analgesics, anti-parasitic drugs and oral electrolyte solutions. Treatments were short lived and limited to the services available in the area (generally first-level healthcare in communities other than those of the studied households and private doctors); the patients had difficulty accessing care from specialists, and many had to interrupted the course of their medical treatments (usually for economic reasons).

CHIHUAHUA

Samachique micro region

The presence of a second-level hospital with religious affiliations (Misión Tarahumara) in this micro-region had a positive impact on the quality of medical attention provided and the access of indigenous households living in the area to healthcare. This favorable impact became most evident when compared to the conditions of other micro-regions. Thirteen healthcare trajectories were reconstructed, of which only one was documented as receiving medical attention from the local clinic (IMSS-*Oportunidades* RMU) after being diagnosis with hypertension during a family check-up. Members of the same household mentioned that for other minor ailments such as aches and pains, diarrhea and uncomplicated respiratory infections they sought attention at the Misión Tarahumara hospital.

The healthcare patterns of Rarámuri beneficiary households were very homogeneous. In all of the documented cases, medical attention was sought directly from the Misión Tarahumara hospital for flu and common colds, aches and pains, skin infections, among other minor ailments (ganglions, typhoid, heart murmurs and kidney problems). The quality of healthcare at the hospital was reflected not only by its lower costs, but also by its ability to treat patients successfully and efficiently, which made the therapeutic itineraries shorter and prevented patients from leaving in search of better health services. Out of all the documented cases, none included evidence of any individuals' ever having left the micro-region for treatment. The use of traditional remedies was mentioned in only two cases: in one situation, the individual received no medical care; in the other, the sufferer desisted from using the traditional remedy because of complications during an episode of diarrhea – the individual went to the hospital just in time.

In summary, Rarámuri beneficiary households enjoyed better access to, and higher quality, health services (owing to the presence of the religious medical institution) than indigenous families in other micro-regions. However, the

institution's presence did not mean an end to the ethnic gap with respect to the general state of health of these families, mostly because of precarious service infrastructure in the communities themselves, such as access to drinking water — nor has it significantly altered Rarámuri epidemiology (for example the high incidence of tuberculosis, malnutrition and skin infections). Local public health centers were used only for compliance with program co-responsibilities, and therefore it was difficult to say what the impact of *Oportunidades* was on the general health conditions of indigenous beneficiary families. There was a greater reluctance and a definite indifference on the part of the Rarámuri beneficiaries when it came to participating in health co-responsibilities; this was not as evident in the southern micro-regions (Oaxaca and Chiapas).

Norogachi micro-region

Only three cases were documented in this micro-region, but in general we observed the same healthcare patterns as those reported in the Samachique micro-region owing to the presence of another religious medical institution (The San Carlos clinic). Attitudes regarding the use of first-level services solely for the purpose of complying with co-responsibilities were also similar.

Yepachi-Maycoba micro-region

In total, seven cases were documented, five of them related to medical attention for minor ailments (colds, aches and pains), which, in general, were resolved through self-care practices. Only one case involved visiting a private doctor (lumbar pains because of the spine's malformation), and the individual discontinued their treatment for economic reasons (the course of treatment was to take three months and involved a cost of $4,800 pesos; the family could only afford the first month). The motivation to seek private health services was a response to negative opinions regarding the efficacy of local health centers.

In spite of the general mistrust of public services and the perception among Pima households that local healthcare centers were characterized by inefficiency and poor treatment, at least one household mentioned having received medical attention at the local health center when one of its members was diagnosed with hypertension during the family check-ups, which are a requirement of the *Oportunidades* Program. Although somewhat irregular, they received access to medication and subsequent appointments to monitor the patient's progress. With the exception of this example and a case where a user managed to get an appointment with a specialist thanks to a referral from a first-level institution, visits to public health centers had the sole purpose of complying with co-responsibilities. Another exception was the Maycoba case, where beneficiaries went to their local health center to place an order for medicines that the health personnel would access on their behalf from urban health centers.

Two cases documented the need for second-level specialized medical attention and were useful in describing the potential of Pima households to resolve their health needs in the event of more serious ailments.

One of the cases was related to a bone deformity in a little girl's foot. First, the family went to the health center at Yepachi, where the doctor referred the little girl to the orthopedist in emergency care at the second-level Children's Hospital in Chihuahua. A legislative representative campaigning in Yepachi paid for the consultations with the doctor in Chihuahua and half of the transportation costs; the family paid the other half ($2,000). As an emergency resource, they used $1,000 pesos of their most recent *Oportunidades* stipend. The orthopedist informed the family that the girl would need surgery, but later on, when she was older. From that time to the ethnographic present, not enough time has passed for the girl to have her operation. According to the evidence, the social networks of these beneficiaries had a very positive impact on the case's resolution, at least in that medical advice was obtained which yielded an effective resolution and the necessary steps were taken to get the consultations and transportation financed.

The other case was related to access to gynecological expertise for a woman who, after having taken the Pap test, was referred to the IMSS-Solidaridad hospital at San Juanito to undergo more clinical tests. Since the results of the subsequent studies never arrived, she started to look for other healthcare services that would provide her with

an accurate diagnosis but had to stop the search for economic reasons. In this case history, the sale of assets such as domestic fowl was essential to fund her search for effective healthcare.

In general, since the arrival of the *Oportunidades* Program to the region, Pima beneficiaries have been disposed to comply with their co-responsibilities and have favorable opinions with regard to vaccination campaigns, but have low opinions and expectations of the local healthcare services.

Overall, we can say that the general healthcare patterns of the household in this region indicate the frequent implementation of self-care practices and the tendency to look to other communities for medical attention, especially for specialized healthcare and the realization of clinical studies. They also reflect the poor success rates of these services in treating patients, owing to the shortage of medicines. Although there is not enough evidence to generalize and form definite conclusions about the use of private services, we can infer that the outcomes are similar to those of the reported cases in other micro-regions that result in the interruption of treatments for economic reasons.

In the micro-regions of Oaxaca and Chiapas at least, *Oportunidades* family check-ups were very useful in detecting hypertensive patients (although access to medication and the control of the ailment varied). In any case, these achievements must be maintained by guaranteeing access to medications at first-level health centers. Finally, it is important to emphasize that despite the poor success rates of these services in terms of treatment, regular visits to health centers by Pima beneficiaries allowed the inhabitants to establish a relationship with the health service providers who indirectly facilitate access to medicines, even if the patients had to pay for them (as in the Maycoba case, with the purchase of medicines through nurses).

SONORA

Yaqui micro-region

General observations. The majority of cases, whether indigenous or non-indigenous, are beneficiaries of the *Seguro Popular* social security program; they only attended the public clinic when they believed that their ailments were slight (respiratory and gastric infections, skin rashes). For major illnesses, they used the services of the *Seguro Social* in Ciudad Obregón or in Pótam. The studied sample reported four cases of diabetes and the same number of high blood pressure cases. One tuberculosis case was found that was treated at the *Seguro Social* facilities. Sixteen cases of indigenous beneficiaries were documented, no cases of indigenous non-beneficiaries were reported, and nine cases of indigenous non-beneficiaries were recorded along with three additional cases experienced by non-indigenous non-beneficiaries (a total of 28).

Indigenous cases. Fifteen cases were documented, the majority of which involved individuals attending the *Seguro Social* or the general hospital in Hermosillo. In general, when faced with an ailment that they considered serious or whose cause they did not know, these indigenous case studies went directly to the health center at Pótam (SSA) or to some IMSS or ISSSTE health facility, such as the Semeson in Guaymas or the *Seguro Social* at Ciudad Obregón or Vícam, alleging that they receive a superior service there and are treated better.

In one case study in the community of Huírivis, the interviewee expressed that she had gone to a witch doctor to cure minor ailments and to the doctor at the Vícam health center for more serious ailments. She said that, in the latter cases, they had to hire a vehicle (plus approximately 100 pesos for gas) and that in addition, they had to pay for medicines, if they were unavailable at the center. Two of the indigenous beneficiaries in this region resorted to the witch doctor after not having found relief through the healthcare services offered by the IMSS. Another one of the factors that influenced the cases in which patients resorted to a witch doctor was the inherent cost of medical attention, since the witch doctor was less expensive and had turned out to be more effective.

Two cases of diabetes were found: one individual received regular check-ups and treatment at the health center at Pótam, and the other one was not undergoing any treatment. One tuberculosis case was reported in which the individual was referred to the IMSS hospital at Ciudad Obregón. However, when the family noticed no improvement in the symptoms, they took him to a witch doctor.

The majority of the cases reported were related to taking small children to the health center at Pótam, although it is common practice to take them to witch doctors for some conditions (sunken fontanel, upset stomach).

No therapeutic itineraries for indigenous non-beneficiaries were reported.

In summary, the broad range of services offered in the vicinity and the ample coverage of the *Seguro Popular* encouraged patients to seek medical attention at facilities where they could be assured of an accurate diagnosis, a sufficient supply of medication, clinical tests and aftercare at a low cost, even if the transportation necessary to reach these facilities entailed a cost (which, compared to that experienced in other regions, was not excessive). The majority of patients had parents and friends in the communities where the services were located with whom they could stay if hospitalization became necessary. The coverage provided by the *Seguro Popular* in this region was significant, so patients preferred to use its facilities to tend to their health problems.

Mayo micro-region

Sixteen cases were documented, four of which correspond to indigenous beneficiaries, five to indigenous non-beneficiaries, three to non-indigenous beneficiaries and four to non-indigenous non-beneficiaries.

The existence of formal employment options in the state, notably *maquiladoras*, allowed the children to be eligible for *Seguro Social* – (social security benefits) and were therefore able to include their parents as beneficiaries.

In case of ailments such as respiratory illnesses, both indigenous and non-indigenous patients first attempted to use homemade or traditional remedies. In this region's sample, 50% of all cases studies were found to include details about individuals who were suffering from respiratory conditions or illnesses, which was probably caused by environmental factors (such as an excess of suspended particles or dust in the air). If and when these ailments became aggravated, the individuals in question went to the health clinic at La Bocana. For more serious ailments, if they were IMSS beneficiaries, they resorted to the *Seguro Social* at Etchojoa.

Indigenous beneficiaries. These individuals went to the La Bocana health center in the case of ailments they considered to be common, such as respiratory conditions. If complications arose in terms of their symptoms, they resorted to traditional medicine; if this did not work, they sought a private doctor. Private medical attention was sought in the case of a more serious ailment: the occurrence of a burst ocular blood vessel.

One case of diabetes that was observed identified that the patient was not receiving any medical attention from any institution; the family was controlling the condition through the patient's diet.

Guarijía micro-region

This micro-region documented five cases for indigenous beneficiaries, six for indigenous non-beneficiaries, 11 for non-indigenous (mestizo) beneficiaries and three for non-indigenous non-beneficiaries.

Indigenous beneficiary. Two of the cases went to the local health center in San Bernardo for different conditions. The first case was a vaginal infection for which the center had run out of medication. The second case was related to an accident at work that had caused a hernia, which could not be treated in San Bernardo; the patient was referred to the Álamos General Hospital.

A case of a female beneficiary with cervical-uterine cancer was found during a detection campaign in the community. She was offered an operation at no cost in Ciudad Obregón.

In summary, having the benefit of the *Seguro Social* status has more impact on reducing the vulnerability of these households in terms of health than being an *Oportunidades* Program beneficiary. Having access to *Seguro Popular* also plays an important role in diminishing vulnerability.

CONCLUSIONS ABOUT THE HEALTHCARE PATTERNS OF INDIGENOUS BENEFICIARY HOUSEHOLDS

We confirmed the hypothesis that indigenous households present the most unfavorable conditions when accessing health services and receiving adequate medical attention during episodes of illness, owing to social disadvantages, observing that as the indigenous population increases in numbers, the shortcomings of the public health service will become even more evident. These conditions determined the success rates of local medical centers in their ability to treat patients effectively and affected the perceptions of indigenous households with regard to their services. Likewise, the relationship between public health services and the indigenous populations are influenced by these conditions, which have consequences for the healthcare patterns of these households, generally making their therapeutic itineraries more costly. More often than not, the courses of treatments were cut short owing to economic factors, before the ailments could be fully resolved, causing profound social consequences for the domestic groups. In those households where health and sickness processes, far from being resolved, had become part of everyday life (like the Chiapas case), the productive capabilities of the domestic groups were diminished, undermining the opportunity for school-age household members to continue their schooling.

On the other hand, there were significant contrasts among the different indigenous groups with regard to access to healthcare services, in some cases determined by the presence of non government run institutions that have had, in the case of Chihuahua, a very positive impact on addressing the most urgent healthcare needs of patients and eliminating the necessity to travel great distances in search of effective healthcare, thus reducing the cost of resolving episodes of illness.

The actions associated with the Guaranteed Basic Healthcare Package – in particular those aspect which have resulted in more positive outcomes, proving to be more successful, such as the detection and treatment of hypertension (excepting those in the micro-regions in Chiapas and Yepachi-Maycoba) – not only encourage demand for first-level services but also promote the attendance of members from indigenous households for the purposes of receiving regular healthcare (monitoring) and medicines for those ailments. In addition, the program has managed to generate a very positive and specific impact on the access of indigenous families to vaccination campaigns and the conditions of their surroundings in terms of hygiene. Through the promotion of basic sanitation practices in these communities, changes have been achieved related mostly to the construction of latrines in indigenous households, whose impact varied according to the degree of marginalization and poverty of those households. The most considerable changes were observed in the studied micro-regions in Oaxaca and Sonora.

In summary, the health component of the program had a relative impact on indigenous households owing to the historic conditions of its relationship to state health services and public and social policy in general, aspects that go beyond the influence of the program. However, despite these historically and politically determined aspects that manifest themselves in the limited capacity of public health services to provide effective healthcare, the program has increased demand for and access to services for indigenous households in general, on the basis of its co-responsibilities. The few but significant achievements (vaccination campaigns and access to treatment for high blood pressure) can, in the long run, change the perception of indigenous families about public health services.

In general, and in spite of the unfavorable conditions, indigenous households (mainly in the south, where the most serious deficiencies in access to healthcare were reported) believed that the program has brought about a positive change to their households and communities, owing primarily to the cash transfers that are usually used as an emergency resource if and when medical needs arise, most commonly in indigenous households.

HEALTHCARE PATTERNS OF INDIGENOUS NON-BENEFICIARY HOUSEHOLDS IN THE STUDIED MICRO-REGIONS

Given the characteristics of the documented healthcare trajectories (succinct and few in number), the analysis we present of indigenous non-beneficiary households has been structured differently. In total, 75 case histories

for indigenous non-beneficiary households were documented, distributed as follows: 40 healthcare trajectories in Oaxaca, three in Chiapas, 19 in Chihuahua and 13 in Sonora. The main results allowed us to characterize, despite the heterogeneity of their contexts and not without exceptions, their general healthcare patterns once the similarities among them were observed, the results of which are described below:

With the exception of Norogachi and Samachique in Chihuahua, where religious medical institutions played a fundamental role in the care of the indigenous population regardless of their program status, we observed few differences between indigenous non-beneficiary households and Rarámuri beneficiary households, the only significant one being a greater tendency towards self-care practices among beneficiaries. In the other micro-regions, we observed healthcare patterns very similar to those of indigenous beneficiaries who lived further away from health centers.

In general, indigenous non-beneficiary families visited local health centers less frequently. Out of a total of 75 cases, only three described a visit to a local health center. One of these cases was documented in the micro-region of San Cristóbal de las Casas, where a woman went to the emergency room of the local unit because of intense uterus pain and was referred to a hospital in the region for gynecological care. She was treated for six months; during the first month, the hospital provided the medicines, and even though she had to buy the medications from them in the following months, she had a positive perception of the care she received, mainly because of the access she had, albeit partial, to medicines. She said she had gone to the local clinic (Saltillo) a couple of times but only before *Oportunidades* came to the community of Chacalá. She said she stopped going "because there were too many people waiting for *Oportunidades* check-ups and they only received the ones who had an appointment", so she did not feel "like going because it was always full."

Two more cases were documented, one in the Mazateco micro-region in Oaxaca and another one in Yepachi. The first account was relayed by a young woman who went to the local health center after detecting a noticeable lump in one of her breasts. Doctors at the center referred her to the closest second-level hospital at Huautla de Jiménez, where service would have no cost. However, she preferred to go to Mexico City because she had a negative perception of the efficacy of her local public hospital and thought it would be "easier" to travel to the city, relying on the network of relatives she had. The Yepachi case was the only one that did receive a diagnosis and treatment from the local clinic; it is worth mentioning that the patient, a non-beneficiary, attended the clinic encouraged by a relative who did some community work in the town.

The very limited use of local health centers by indigenous non-beneficiaries explains the tendency towards a greater employment of self-care practices for episodes of illness that are considered minor (chronic pain, diarrhea and acute uncomplicated infections, domestic accidents) and a general inclination towards healing through traditional medicine. Undoubtedly, the care and treatment of biomedical nosologies (such as diabetes, dermatitis and gastritis) through traditional medicine has an impact on the time it takes to receive effective 'conventional' treatment and often influences the escalation or seriousness of the ailments. In 22% of the cases reporting the need for urgent medical attention because of diabetes related crises (mainly in the southern states of Oaxaca and Chiapas), the individuals at first ignored their symptoms and tried to diminish them through traditional remedies.

Similarities were reported regarding the epidemiological profiles of indigenous beneficiary households. Nevertheless, significant differences were documented with respect to the general state of infant health. Greater healthcare needs were registered among the children of non-beneficiary households, a situation that occurred to a lesser extent in beneficiary domestic groups because the frequent visits of these household members to health centers allowed medical teams to identify illnesses before serious complications arose. This finding was reflected by the percentage of indigenous beneficiary households whose children, during an episode of illness, were treated in a timely manner (50%) compared to 85% of similar cases among indigenous non-beneficiary households, where individuals reported complications and the need for emergency treatment.

When members of these non-beneficiary households went to the doctor, they did so under grave circumstances, and they usually visited private clinics or doctors. Therefore, their treatments in general were longer, more costly and had a lower success rate; they also had a tendency to discontinue their courses of treatment before fully resolving the health issue, usually for economic reasons (and the cost of private medicines). Their poor state of health often

necessitates more clinical tests, medicines and consultations. While the cost of healthcare in the case of indigenous beneficiary households usually increases because of the need for specialist medical attention, among indigenous non-beneficiary households healthcare costs were usually even higher for the care of minor ailments like infecto-contagious illnesses.

In general, non-beneficiaries were less inclined to go to local health centers to request medicines such as analgesics, anti-parasitic drugs and medication for high blood pressure and diabetes (with the exception of the micro-regions in Chiapas and Gaurijío); they displayed a very regular pattern of buying medicines directly from drugstores, even analgesics.

With the noted exceptions, the healthcare patterns of non-beneficiary households were not so different from those of indigenous beneficiaries who live further away from health centers, although it is evident that the potential to participate in community activities and access health campaigns in the case of non-beneficiaries, does not exist at all, while among indigenous beneficiaries it is at least regular. Non-beneficiary indigenous families thought that community health initiatives were exclusively for program beneficiaries. In 21 case histories of the 75 documented, indigenous non-beneficiary households said the *Oportunidades* beneficiaries were given priority. Close to 87% said they did not go to health centers or take part in health campaigns because they were not program beneficiaries. Besides believing that they will not be received, they saw themselves as at a disadvantage in comparison with their beneficiary counterparts. A young woman from the San Cristóbal de Las Casas micro-region expressed it thus: "We feel healthy, but we don't know if something might be detected."

In summary, indigenous non-beneficiary households tended to prefer to combine private healthcare with traditional medicine (which was also very expensive). Their healthcare patterns also revealed that they went to see a doctor only when their state of health had deteriorated (diabetic crises are common), resulting in more serious economic consequences and a lower success rate of treatments. The most conclusive finding was their perception that health was a benefit they did not have access to because they were not families supported by the *Oportunidades* Program.

HEALTHCARE PATTERNS OF NON-INDIGENOUS BENEFICIARY HOUSEHOLDS IN THE STUDIED MICRO-REGIONS

Of the 101 case histories documented among non-indigenous *Oportunidades* beneficiary households, 20 were gathered in Oaxaca, 22 in Chiapas, 34 in Chihuahua and 25 in Sonora.

OAXACA

Mazateco micro-region

The selection of non-indigenous beneficiary households in these micro-regions for the study was guided by the criteria that families had a mestizo mother and an indigenous father, given that the population in these regions is mostly indigenous. In total, 13 case histories were recorded, out of which there was only one account of a patient who resorted to first-level care, to get treatment for a dermis infection. However, in spite of being diagnosed and having medication prescribed, the patient could not access the medicines needed, so treatment was interrupted after a few months because of the expense incurred by the medications.

Based on the cases documented in this micro-region, the families' medical check-ups (a co-responsibility) were often viewed as an opportunity to identify and diagnose ailments for which treatment was usually prescribed, even though most of the time, households did not have access to the medicines necessary. However, when episodes of illness did not coincide with their regular appointments, beneficiaries were not inclined to go to local health centers in search of medical attention. They preferred to go to private clinics and doctors in other communities (Mexico City and Huautla), above all in the case of ailments considered serious, since there was the general perception that "medicines were never in stock" or "the doctors did not know." The real approach taken for dealing with common

ailments in these households, illnesses such as colds, diarrhea or aches, combined the practice of self-medication using medicines obtained from health centers during some past episode of sickness (generally *ambroxol** and analgesics) and traditional remedies.

Mixe micro-region

There were only three cases documented in this micro-region where individuals resorted to self-care but one of them, related to the treatment of dengue fever in a family, was symbolic. This household relayed how, owing to the talks provided by the program and the work done by the health representatives to raise awareness about dengue fever, they were able to opportunely identify the symptoms and treat them accordingly with analgesics obtained from the health dispensary in combination with a domestic remedy based on local herbs. According to their experience, this helped them to "cure themselves" without needing to see a doctor.

Costa micro-region

Four case histories were documented in the Costa micro-region all from the same household; two of the cases required specialized care for cysts on the ovaries and eyes (the other two were related to pain management and infections that were resolved through self-care). The first case was resolved by the individual going directly to a regional hospital and the second one through treatment in a hospital in Acapulco. The former did not specify the cost of care; the latter had fewer expenses than is generally associated with second-level care for indigenous beneficiary households owing to the support of family networks living in the area where treatment was provided. In both cases, it was evident that there was greater access to relevant information regarding healthcare options (from service providers and key actors within the community) that enabled them to find healthcare services that offered effective treatment.

According to the experiences of the household and its members' perceptions, the major weakness of first-level health services was the shortage of medicines, which was why they did not visit these centers and limit their attendance exclusively to the compliance of their co-responsibilities. However, they frequently used their relationship with local service providers to obtain information about how to meet their healthcare needs or obtain access to some type of informal advice.

In summary, in the mestizo beneficiary households of the micro-regions in Oaxaca, we documented better ability to access information about services with higher success rates in terms of treatment and healthcare, in addition to better performance with respect to the family check-ups in the early identification of ailments. The implementation of self-care and preventive practices, such as going to the dentist, knowing how to handle a dengue fever episode or keeping appointments intended to monitor hypertensive and diabetic patients were also observed. Nevertheless, the general perception with respect to the program's inefficiency was no different to that of other types of households, given that when episodes of illness did not coincide with the check ups, even for minor ailments, these households usually prefer to go to private clinics and doctors. Therefore, in spite of demonstrating a better capacity for self-care and prevention, households continued to avoid local public health services when faced with illnesses. However, in comparison to that experienced by indigenous beneficiary households, the cost of healthcare was not as high, trajectories were a little shorter and had higher success rates, mainly among those families not living in conditions of geographic marginalization.

Finally, according to the ailments documented, the general state of health of these households were not as bad as those reported by indigenous beneficiary and non-beneficiary households.

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* Ambrosoli chlorine-hydrate, intended for the treatment of chesty coughs.

CHIAPAS*

Las Margaritas micro-region

Of all the documented case histories, seven involved a local health center, three of them thanks to an *Oportunidades* family check-up. The three cases detected during the regular program appointments were: one case of "herpes of the uterus" identified via a Pap test result, one case of diabetes and one of hypertension. None of the three detected cases was addressed with medical care from the local health center.

The woman with "herpes of the uterus" decided to go to the Las Margaritas hospital (second-level) to make sure the diagnosis given to her was correct. Before this episode, she tried to undergo Pap testing three times at the community health center (El Encanto) but on all of the three occasions, only the auxiliary nurse, whom she considered inept for the position, was present. She said that this situation meant greater health expenses because "if anything happens, you have to go to Margaritas." According to the beneficiary, the explanation given by the qualified nurse for her extended and frequent absences was that she had "to go out to do some *Oportunidades* paperwork, because if she doesn't, the *Oportunidades* benefits will be taken away from us." In addition to the problems caused by the nurse's absences, the beneficiary said that she had concerns about the management of the attendance requirements related to the receipt of *Oportunidades* benefits, as "she is not straight with us nor understanding" (the beneficiaries). When asked for an example, she told of a time when she was absent from health workshop for health reasons and could not send notice; the nurse told her, "It's not my problem, if you come, you'll get an attendance mark; if you don't, I'll mark you absent." She said that the nurse told her this in a gentle tone, which made her even angrier because "you can't fight with her like that." Another situation occurred when the nurse told several women in the community that a list had arrived with their names on it saying that they would have to attend INEA junior high school classes (7th to 9th grades) in the community "as an *Oportunidades* obligation." It was not until one of the women went to Comitán to ask about this that they found out that the classes were not a program co-responsibility; "she tells us many lies, so we don't believe her anymore." Among her obligations, she recognizes the value of going to the clinic to get check-ups and attending talks every three months. She was also later informed that her Pap test counted as attendance to the talk and that since she got tested at Las Margaritas she had to take the results there to keep from being registered as absent. She believed that the *Oportunidades* benefits have been a great support for her daughters' education and fundamental to the health of her family: "if we hadn't had the family check-ups we wouldn't have known about my husband's diabetes and they wouldn't have helped us to get a psychologist for my little daughter."

On the other hand, the diabetic patient said that even though a monthly appointment to monitor his condition was programmed for him, keeping the appointment was very inconvenient because "the doctor was only in once a week and there was a long waiting list." Limited access to free medicines and the change in diet recommended by the doctor had increased the family's health expenses, so, being the household head, he did not know for how long he would be able to afford his treatment.

Of the remaining documented case histories, only two involved the resolution of first-level healthcare needs (related to ADD and ARD and including access to medicines); the other five reported minor and uncomplicated ailments that were generally treated through self-care practices and medicines bought at drugstores in the municipal capital.

In summary, even though we have only presented some more specific examples, the opinion of mestizo beneficiaries regarding the program was more critical of the healthcare they received from local health centers. They said that it was important for them to be aware of their state of health but that they need to have access to medicines and follow-up appointments in addition to being able to count on the presence of qualified healthcare personnel.

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* In the Tumbalá micro region no case histories of mestizo beneficiaries were documented.

These perceptions were useful in illustrating that in general, mestizo beneficiaries were more skillful in demanding quality care, and are more knowledgeable of the requirements of the co-responsibilities. It was also observed that they are well disposed towards fulfilling them. Although there was a general perception that the program had been of great help to these individuals, their position with regard to the limitations of healthcare provision at local clinics was clear.

San Cristóbal de Las Casas micro-regions

Perceptions and healthcare patterns in this micro-region were not very different from those of their counterparts in Las Margaritas, although here, of the 12 documented case histories, half mentioned that (even in four cases where the individuals were able to access medicines) medication provided by the public rural clinics had been of no use to them. In addition, at least 80% did not agree with their diagnoses. Generally, taking into account the criticisms and healthcare trajectories documented during the fieldwork, which recorded more frequent visits to local public health centers for reasons other than for them to comply with their co-responsibilities, we observed greater expectations of the services. Mestizo beneficiaries in both Las Margaritas and San Cristóbal de las Casas, were reported to have visited the local health units more frequently in comparison to households in other micro-regions (regardless of their ethnic identity and program status).

CHIHUAHUA

Samachique and Norogachi micro-regions

The presence of religious hospitals in the Samachique and Norogachi micro-regions makes the program difficult to evaluate in terms of access to medical care, but we can describe some general characteristics regarding their patterns of healthcare and their general state of health.

The analysis of 16 documented case histories of mestizo beneficiary households in Samachique and seven from Norogachi showed a greater tendency to report satisfaction with the diagnoses they received and less expensive therapeutic itineraries with better access to specialized medical attention and clinical tests. They used self-care practices less frequently than non-beneficiary mestizo households and indigenous families studied in this micro-region. Where self-care practices were employed, mothers used home remedies to cure their families' ailments.

In general, owing to the presence of the Misión Tarahumara hospital in Samachique and the San Carlos clinic at Norogachi (besides other healthcare options that form a wider and better-quality service network, among them the Santa Teresita clinic in Creel), the health conditions of these families were better. The number of ailments going untreated were fewer; so were the costs of healthcare (above all for *ejidatarios** – most of them mestizo beneficiaries). However, health expenses were slightly higher for mestizo beneficiary households in Norogachi.

Although travel in search of medical attention was reported (in 4 out of 16 cases) it did not entail costs as high as those of households in other micro-regions. The presence of medical institutions that provide better-quality services and the use of local health centers led to lower costs, or at least to less significant ones than those documented among mestizo beneficiary households in the micro-regions in Chiapas, for instance. The difference lies in the fact that deficiencies in local services did not have as weighty an impact on the economies and healthcare patterns here (departure in search of an effective treatment) as reported in other micro-regions (Chiapas and Oaxaca). Health centers were generally attended so that individuals could comply with their co-responsibilities, although a greater frequency of requests for medicines was registered among mestizo households in Norogachi than in Samachique

* Communal landowners with certain rights and privileges.

because the San Carlos clinic started to refuse attention to mestizo program beneficiaries. Regarding their opinions and perceptions about the program, the data gathered was inconclusive, but we did observe that mestizo beneficiary households were better disposed to take part in health campaigns (vaccination) than indigenous beneficiary households. In general, these households had a better capacity for self-care and a greater knowledge of the adequate handling of diarrhea and dehydration episodes, although their abilities were less substantial when it came to handling respiratory infections. The profile of the reported ailments in mestizo households was significantly different from that of indigenous beneficiaries and non-beneficiaries in these micro-regions. For example, none of the mestizo household cases reported tuberculosis or malnutrition, ailments that were present in indigenous families.

Yepachi-Maycoba micro-region

There were 11 therapeutic trajectories reported in this micro-region; of these, three cases involved individuals attending the local clinic in search of healthcare for ailments reported as bronchitis, "cholesterol" and dizziness (high blood pressure), respectively. All received medical care and access to medicines.

We observed a greater willingness on the part of mestizo beneficiaries in this micro-region to attend the local public health center, particularly in the community of Yepachi. In Maycoba it was reported that monthly fees were charged to beneficiaries, even if they did not require a consultation, with the purpose of paying the room and board expenses of the medical teams; this caused the inhabitants of the community to resort to private doctors when they needed medical care.

Urgent or serious ailments were usually treated by going directly to hospitals at urban centers, like Hermosillo. In these circumstances, it was more common for indigenous beneficiary households to eventually discontinue their treatment owing to the difficulty and cost of transportation. In general, specialized care was expensive because of the distance separating households from second-level hospitals and the fact that the patients had no relatives in those communities. Mestizo beneficiaries visited the rural health centers more frequently, and their experiences there, far from discrediting the centers (where the supply of medicines was not always regular, service was not around the clock and there were no professional doctors), had managed to provide them with the skills to identify the symptoms of those illness for which these center have better success rates: Acute Respiratory Diseases (ARD) and Acute Diarrheic Diseases (ADD) care, hypertension and diabetes. They used the centers to obtain medical care in such cases.

In these households, beneficiaries believed that the impact of the program had been more important in terms of access to education than in terms of health.

SONORA

Yaqui micro region

Non-indigenous: nine cases. When confronting an episode of illness, non-indigenous beneficiaries went to the health center at Vícam, Empalme or Guaymas, or to the *Seguro Social* services at Ciudad Obregón.
The only therapeutic itinerary reported in Estación Oroz (with a non-indigenous beneficiary) was that of a household that first sought medical attention from the local health dispensary. However, the patient was referred to the General Hospital at Obregón for later analyses (skin rash).

Mayo micro-region

To a great extent, being an IMSS social security beneficiary, determined the healthcare provision for chronic ailments. One such case was that of a glaucoma patient who could access medical treatment because his son, who had a job providing social security health benefits, had named him as a beneficiary of the service.

However, the healthcare provided by IMSS was not always informative or effective. One of the patients described symptoms that indicated he might have be asthmatic (the interviewee, a non-indigenous beneficiary, did not know what the ailment was; he did not express it in those terms). The family went to the *Seguro Social* health services (the patient was a beneficiary) but was never informed of what the ailment was or told the reason for its erratic occurrence. Owing to the fact that the first clinical test were not able to determine anything, there was no continuity to the diagnosis, and the patient ended up going to a witch doctor.

Guarijía micro-region

Almost all of the cases were accounts of individuals who visited the public health center in the community. However, not all found a solution to their health problems. In one case, a female patient with a skin rash on her arms had to suffer this condition for some time because the medication she needed could not be provided by the clinic. According to the patient, the medication had a retail price of around 500 pesos; she ended up with scars. In another case, in spite of constant medical attention provided by the health center and the hospital, the patient had not been able to control her chronic ailment (varicose veins and ulcers).

HEALTHCARE PATTERNS OF MESTIZO NON-BENEFICIARY HOUSEHOLDS IN THE STUDIED MICRO-REGIONS

In total, 40 case histories of mestizo non-beneficiary households were documented, of which 9 were registered in Oaxaca (all of them in the Costa micro-region), 5 in Chiapas and 16 in Chihuahua.

In general, mestizo households that are not part of the program preferred traditional medicine over health services provided by the state, reported shorter healthcare trajectories, used local health services less frequently and showed some reluctance to take part in local health campaigns. Nevertheless, their general perception of local medical services was not as negative as that of indigenous households.

Of the 40 documented cases, only 3 in the Las Margaritas micro-region in Chiapas included reports of having gone to a local health center for medical care. In one of the cases, the patient attended the rural clinic as a *Seguro Popular* beneficiary, where he was diagnosed as hypertensive and given treatment. Another patient went in respect to a migraine and was dealt with effectively; the last one attended because of an accident, but reported numerous difficulties, not in terms of the quality of medical attention but regarding transportation costs and cost of medicines, which were not available at the clinic. To confront episodes of illness, these individuals generally resort to self-care practices, home remedies and faith healing (particularly in Chiapas). They usually went to private clinics and doctors, although less frequently (a fact that may be related to the number of cases documented) than did indigenous households in general. There was a propensity to go directly to second-level hospitals (in at least half of the reported cases), although only for serious cases, which resulted in costly medical itineraries. It was exceptional that, of the nine reported cases in the Costa micro-region, at least four cases were able to cope with the burdens caused by illness through the monetary support of remittances sent to them by relatives in the United States. These families did not report the implementation of any preventive or self-care practices, such as attendance at workshops or community health activities unconnected to the program.

When surgery was needed, it was common for families to suspend their therapeutic itineraries for economic reason, even more frequently than indigenous beneficiary households living in highly precarious circumstances. On the other hand, positive discrimination in favor of indigenous patients at the hospital in the Tarahumara region caused a counter-exclusion that in this micro-region made mestizos more vulnerable in comparison to those in micro-regions in the other states. Mestizo families in Norogachi and Samachique region reported the least number of visits to organized medical facilities.

In summary, it was evident that mestizo non-beneficiary households were more ignorant of their own general state of health, visit the doctor less frequently, even in comparison to indigenous non-beneficiary households (which

could be explained by the fewer cases documented), and did not provide any evidence to suggest they participated in community health programs and strategies. Their general state of health and patterns of healthcare were not dissimilar to those exhibited by non-beneficiary indigenous households, especially those that lived greater distances from local health centers.

ANALYSIS OF THE HEALTHCARE PATTERNS: HOW DID THE STUDIED HOUSEHOLDS CONFRONT HEALTH-SICKNESS PROCESSES?

Health-sickness processes combine a number of elements that are not only physical but also emotional, intellectual and spiritual. For this reason, the use of traditional medicine, mainly amongst indigenous groups,* combines a series of factors that are relevant to the belief system to which it belongs, like the knowledge of the geographical environment in relation to reverential topography.‡ Health-sickness processes in these contexts involves notions such as the need to exorcise the evils that nestle in the body as thorns — animals, fluids or filth caused generally by envy, stress, anger or fear. These are complex cultural syndromes that are related to structural risks rooted in the psychic, political, historical, economic and social environment, syndromes that mainly arise from the way in which meaning is drawn from the world and are a way of resolving the problems of existence. When embarking on the analysis of service quality, self-care practices and health, sickness and healthcare processes (healthcare patterns) of rural, ethnically diverse contexts it becomes essential to take into consideration the aforementioned complexities.

Conventional medicine (public or private sector) and traditional medicine (including faith healing, mainly in Chiapas) coexist and are related, but they can also oppose, complement or exclude each other throughout the course of a patient's healthcare trajectory. These are the characteristics that limit and muddle inter-ethnic boundaries within the framework of real healthcare options that combines self-care and home remedies, institutionalized academic medicine and traditional (indigenous) medicine and its magic-religious practices.

The development and treatment of an illness depends on its context and the possibilities there are regarding access to medical attention and/or the efficacy of the health services available. It was evident from the case studies that the farther away healthcare centers were, the more difficult it was for individuals to access medical attention and to be able to monitor and control their health-sickness processes. In general, episodes of illness are resolved by using all the resources available to households.

As we have made clear, travel in search of health services that offer appropriate treatment were rather common; as was the very specific use of first-level services for compliance with co-responsibilities; access to birth control methods, oral saline solution, and pain killers; control of and follow-up appointments for chronic-degenerative patients (except in the Mixe micro-region in Oaxaca, the Guarijía micro-region in Sonora and the micro-regions of Chiapas); and attention to ARD and ADD, under the conditions amply described previously.

On the whole, health services provided by public institutions showed deficiencies in terms of their coverage, which worsen in the geographically marginalized rural territories where the poorest households in the country live and which have the largest concentration of indigenous households. Regardless of the quality of the health services provided, the difficulties in accessing them owing to limited transport options, the poor infrastructure of roads and travel costs, were more than evident, mainly in the micro-regions of Chiapas and Chihuahua, the Mazateco micro-region in Oaxaca and the Guarijía micro-region in Sonora.

The team coordinated by Agudo Sanchíz in Chiapas§ documented the slim capacity of local transportation systems as a serious obstacle to the search for healthcare, mainly after four o'clock in the afternoon. Under these circumstances, traveling from one place to another becomes not only difficult but also more expensive if urgent, a

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* Although this type of medicine is also employed in mestizo households, given the availability of these services in their communities.

‡ This refers to a territory (a gully, waterfall, river or crop) as having a master spirit.[10]

§ Chiapas presented patterns of mobility that were limited by local and/or regional contexts, and local health services there were visited with greater frequency. When we refer to the mobility of the studied households as including urban destinations, Chiapas should be considered as the exception.

situation common also to the Mazateco micro-region in Oaxaca. In Sonora, however, researchers in the Yaqui and Mayo micro-regions documented the relative ease and diversity of transportation means, and healthcare service options located close to the communities where the studied families lived. In general, the location of those micro-regions, under the responsibility of urbanized *hinterlands*, configures a more diverse framework of possibilities in terms of transportation and medical care.

Access to local health services is also determined by the type of social and political organization of the particular micro-region, and by the presence of civil and religious organizations that help to provide better-quality health services. In Chihuahua, the presence of two clinics belonging to religious orders in Samachique and Norogachi has a significant impact on the healthcare patterns of local inhabitants, as these patients do not need to travel in search of effective medical care. This situation is in stark contrast to the circumstances of the other micro-regions in Chihuahua and in other states, which present difficulties in accessing health services and a limited choice of quality medical attention. In the Yepachi-Maycoba micro-region, we documented therapeutic trajectories with destinations as distant as Hermosillo and Obregón.

The table that follows summarizes the destinations or *mobility routes* undertaken by the studied households in their pursuit of effective medical attention, according to state and micro-region; this strategy came into force when households perceived local services to be inadequate to deal with their particular health problem:

Table 8
Mobility routes for search of attention with resolution capacity according to attention trajectories by studied state and micro-region

MOBILITY ROUTES AND DESTINATIONS UNDERTAKEN BY HOUSEHOLDS IN PURSUIT OF EFFECTIVE HEALTHCARE, ACCORDING TO STATE AND MICRO-REGION

STATE	MICRO-REGION	MAIN DESTINATIONS IN PURSUIT OF HEALTH SERVICES	COMMENTS
Oaxaca	Mazateco	Mexico City, Huautla de Jiménez.	The studied households in Oaxaca reported greater mobility towards cities within the region and in other states, besides a significant amount of traffic towards Mexico City, in search of medical attention.
	Mixe	Tuxtepec, Veracruz, Mexico City and Oaxaca	
	Costa	Acapulco, Pinotepa, Mexico City and Oaxaca	
Chiapas	Las Margaritas	Comitán and Altamirano	Households in the micro-regions of Chiapas reported more limited mobility routes in their search for medical attention. Destinations were generally limited to their micro-regions and to the state of Chiapas. The destinations chosen were mostly important municipal capitals in the region. Tuxtla Gutiérrez was a destination, albeit infrequent, among households of the San Cristóbal de las Casas micro-region. In comparison to other micro-regions in other states, healthcare trajectories revealed the more frequent use of local health services. Mobility in Chiapas depended on its very limited local transportation system. After four in the afternoon, moving from one place to another can become a complex task that affects the studied households' possibilities of receiving medical attention.
	Tumbalá	Yajalón, Ocosingo and Palenque	
	San Cristóbal de las Casas	San Cristóbal de las Casas (regional hospital)	

Chihuahua	Sama-chique	Misión Tarahumara hospital (Samachique), and other hospitals in the region (Creel, Guachochi and San Juanito)	In the Samachique and Norogachi micro-regions, the services provided by religious organizations were better and more effective than those services provided by the state. Their presence meant that the majority of mobility routes remained within this region, although this doesn't mean that difficulties were not encountered accessing these services, owing to the regional topography and the dispersed nature of the population's distribution that characterizes this area, and the fact that in some cases trips were made to cities in the valley to get medical attention from specialists at public and private service providers. There were fewer professional medical resources and state-promoted services in the Yepachi-Maycoba micro-region; for this reason, mobility routes went beyond regional boundaries to more important urban centers, which were, in all cases, far from the micro-region.
	Norogachi	IMSS regional hospital in Guachochi in the case of La Ciénega de Norogachi or the San Cristóbal clinic in Norogachi. Both in Norogachi and Samachique, some cases reported referrals to health centers in Cuauhtémoc, Chihuahua and La Junta.	
	Yepa-chi-Maycoba	Yecora, San Juantino, Tomochi, Chuahutemoc (indigenous households). Ciudad Obregón, Hermosillo and Chihuahua (mestizo households).	
Sonora	Yaqui	Ciudad Obregón, Guaymas and Hermosillo, Estación Vicam and Bacum.	Given their location under the responsibility of an urban *hinterland*, the Yaqui and Mayo micro-regions population had access to a diversified network of health services provided by different institutions such as the SSA, IMSS, ISSSTE, ISSSTESON, private medicine and the *Farmacias Similares*. Travel took place to the main cities in the state, and in comparison to micro-regions in the other states, options for medical attention are more diverse and more numerous. The Guarijía micro-region had a smaller presence of professional resources. In general, inhabitants of this micro-region went to the municipal capital, where there were health units such as the SSA-Sonora Álamos General Hospital and an IMSS family medical unit; however, the inefficacy of both units causes inhabitants to go to the previously mentioned urban centers
	Mayo	Etchojoa, Huatabampo and Navojoa.	
	Guari-jía	Navojoa, Obregón and Hermosillo	

For the inhabitants of the micro-regions in our study, the pursuit of medical attention is not confined to their contexts of origin and is the clearest evidence of the daily responses of families to the conditions of marginalization and the poor quality of local health services to which they are exposed. Those who did go beyond the local community in search of medical treatment often made use of a growing resource that linked them to urban centers where healthcare provision is more abundant: social and familial networks owing to migration (recent or in the past). Migration patterns further reflect the aforementioned responses of families when faced with conditions of marginalization, as inhabitants are forced* to look for alternatives elsewhere, not only for work reasons but also for healthcare reasons or simply because they perceived those health services to be better than local health centers (although this not always guaranteed). This situation happened even in municipalities such as Mazatlán Villa de Flores, where there were "relatively close" second-level health services.

Although second-level healthcare is beyond the influence and commitments of the Guaranteed Basic Healthcare Package, access to such services was taken into consideration and recorded when documenting the healthcare trajectories of the studied households, and attention has been paid to the way in which these services became, in some cases, the only way to resolve health issues, owing to the limited possibility of early diagnosis within their local contexts and the often advanced state of illness in which the majority of users began their search for treatment.

The large number of household members that had to pursue medical attention beyond their local contexts reflects the mistrust that existed with respect to State-provided services (conventional medicine) and was a consequence of the previously described conditions that compromise the effectiveness of first-level healthcare centers, which form the operational base of the Guaranteed Basic Healthcare Package.

* Regardless of ethnic identity and program exposure.

The documented healthcare patterns, mostly in the case of second-level medical attention, allow a perfect understanding of the reality of healthcare provision for the studied households: In general, the households of the micro-regions in Chiapas pursued first-level medical attention for the treatment of minor ailments like aches and pains (body, head, and stomach aches, accidents, colitis, and gastritis).* Users of first-level services were generally program beneficiaries with chronic health conditions that necessitated access to services regularly, even though in general there was a tendency to obtain medical attention from private doctors in municipal capitals or outside their communities. In the state of Chiapas, there were fewer incidences of second-level medical attention than in the other studied micro-regions in the states of Sonora, Oaxaca and Chihuahua. Self-care practices (self-medication at the *Farmacias Similares*) and consultations with witch doctors were generally quite common, mainly among non-beneficiary households regardless of their ethnic identity (although given the characteristics of the sample, it seemed that these occurred mainly among indigenous inhabitants). Chiapas registered a slightly higher use of health dispensaries, which we attribute to the limitations in mobility of the households owing to existing transportation constraints.

In general, we noted a growing tendency among indigenous beneficiary households to seek first-level healthcare as a first option and then to seek second-level care only if no resolution was obtained. In any case, the case histories in Chiapas reported fewer instances of recovery from illnesses; the general conclusion was that one learns to live with the ailments.

Regarding the micro-regions in Samachique and Norogachi in Chihuahua, we observed a greater tendency to go directly to the second-level services owing to their greater effectiveness, and the use of first-level services exclusively for *Oportunidades* co-responsibility compliance. Healthcare patterns among Rarámuri Indians generally included self-care, traditional medicine and direct access to second-level services, even for minor ailments, while mestizo beneficiary households generally received less medical attention, preferring self-care.

In the case of Oaxaca, indigenous beneficiary households had a greater predisposition to attend first-level healthcare institutions for minor ailments and a very general pattern of access to first-level diagnosis and second-level treatment, with the exception of the Mixe micro-region, which generally reported more cases of self-medication owing to economic limitations in meeting the costs of healthcare provision at the SSA María Lombardo hospital. In the Costa micro-region, the use of health dispensaries was more frequent for the treatment of minor cases, but in both the Costa and Mazateco micro-regions there was a tendency to go directly to second -level services or to private doctors for cases considered more serious by the families, without first passing through a first-level institution. Meanwhile, the Mayo and Yaqui micro-regions presented a healthcare pattern that combined first-level diagnosis and second-level care treatment.

Pima non-beneficiary households were the most vulnerable, encountering the least coverage of all the studied micro-regions in all the four states regarding access to health services of any level. In general, these conditions were shared by mestizo beneficiary households in communities with limited first- and second-level healthcare provision.

Far from decreasing, the use of second-level healthcare facilities increased for the treatment of serious ailments, mainly for beneficiary families who reported a greater willingness to see through the HSH processes by whatever means possible. We observed that, on the whole, these households went to first-level services or directly to second-level care in the case of urgent or advanced illness with complications that required the attention of specialists and therefore a corresponding referral. This practice usually saturated the second-level services, and also highlighted the incipient capacity and of preventive medicine within the studied contexts, mainly with regard to illnesses that result from respiratory, gastric or pre-natal (e.g., preeclampsia) complications and early identification of risks that imply the practice of clinical tests not available in rural clinics, like for example the Pap test.

In relation to the healthcare patterns of beneficiary households, in general, the *Oportunidades* Program has not managed to have a great influence, except in terms of co-responsibility compliance. According to the fieldwork, the therapeutic itineraries of beneficiaries were determined by the families' economic potential and by the social and

* According to the conditions reported (in terms of respondents).

service networks to which families had access in their communities, regardless of their quality. Finally, first-level services were used almost exclusively for meeting their co-responsibilities, with the exception of access to birth control methods and the treatment of ailments that were usually chronic or minor and well-identified by households (aches and pains, diarrhea, respiratory infections, accidents, and so on), and which household knew could be potentially resolved by their local centers.

ECONOMIC CONFRONTATION OF HEALTH AND SICKNESS PROCESSES

As we have documented, irregularity in the supply of medicines and professional doctors, as well as rural inhabitants' mistrust of local health centers, caused a growing tendency among patients to seek first- and second-level care at public and private clinics, which had compromising implications for the domestic economies of the studied households. The cost of these patterns was resolved as follows:

- The greater the degree of economic and social vulnerability (geographic isolation and remoteness from health centers), the higher the costs of medical attention. The expenses generated by therapeutic itineraries were significantly higher among indigenous (regardless of their program status) domestic groups and non-beneficiary mestizo households who lived in contexts of geographical isolation. The impact of HSA processes on family economies was evident in each case history and highlighted how costly access to health services still is for low-income families.
- In all of the micro-regions, indigenous households and non-beneficiaries in general reported a greater use of private healthcare services and exhibited the most expensive care patterns.
- The limited effectiveness of first-level healthcare and very minimal trust in local health services on the part of rural and indigenous populations, determined the delayed treatment of preventable diseases, which brought about subsequent increases to the cost of their treatment. There are numerous examples related to ARD and gastrointestinal diseases, which in some micro-regions required an expenditure ranging from 5,000 to 10,000 pesos.
- The monetary resources invested in the healthcare trajectories of the patients over time came from national or international remittances, or from the family networks whose members worked and/or lived in the destinations where medical attention was being received (for example, in the micro-regions in Oaxaca and Sonora).
- Healthcare costs were usually addressed through family loans (or from rural *caciques* - local political bosses) or through the sale of family assets (land, means of transportation and animals).
- Keeping fowl played a key role as an active resource in meeting the costs of medical fees, which seems to contradict the advice from health service providers who discourage and condition (though not officially one of the program's operational rules) the possession of fowl with the justification that it improves the basic sanitation in households.
- Family and community support networks were essential, above all when paying for serious illnesses such as cancer or those that required surgery or other specialized treatment. This was a more common factor in the micro-regions in Oaxaca than in the other studied states.
- Monetary transfers from the *Oportunidades* Programs were used as a resource in case of medical emergencies, a practice more common among indigenous households than among mestizo households.
- Non-beneficiary households (regardless of their ethnicity) and, in general, the studied households in the micro-regions of Chiapas and the Guarijía micro-region, had a greater tendency to suspend their medical treatment for economic reasons.
- Providing company for patients in their pursuit of medical attention added to the multiple expenses that households face. No person reported to have faced his or her ailment alone; at least one member of the family, the spouse or a child, kept the patient company (and was subsequently temporarily unable to perform their remunerative activities - agricultural work, or any other work - causing a decrease in family income, or in the case of children, were not able to attend school). The greater the distance of local health services, the more expensive it was to pay for the cost of transportation and room and board for patients and companions.

- For people living with chronic-degenerative diseases such as high blood pressure and diabetes, being an *Oportunidades* Program beneficiary represented an essential benefit that had a very favorable impact on domestic economies, guaranteeing access to medicines and to appointments that monitor the development and control of the ailment (mainly for those beneficiaries who live close to health centers).*

For some indigenous households, their status as a program beneficiary did not represent a decrease in the cost of healthcare in real terms – for example, for the Pima household in the Guarijía micro-region in Sonora healthcare costs were very high, even for relatively simple ailments. Additionally, they paid for medicines such as paracetamol, which were usually free of charge in other micro-regions, and paid monthly installments of 35 pesos at local clinics.‡ In the Pima micro-region, even mestizo households (regardless of their program status) reported excessive expenses for healthcare, although to a lesser extent than experienced by indigenous households. In this micro-region, the only truly effective service was that related to the care and treatment of hypertensive patients (under the already described payment conditions at local health centers).

In the Samachique and Norogachi micro-regions, positive discrimination in favor of Rarámuri Indians by religious health institutions had a very favorable impact in terms of cost reduction and the shorter distances traveled in search of treatment (though they still present the same pattern as other regions with respect to beneficiaries' use of local state-run health services, the SSA and the IMSS *Oportunidades,* for the compliance of their co-responsibilities).§ However, the cost of healthcare for non-indigenous households was considerably higher, mainly for second-level medical attention, since they frequently sought specialized attention (through public and private services) and had laboratory tests carried out at the nearest urban center, mainly Cuauhtémoc and Chihuahua. In such cases, program status did not signify a decrease in those costs. In fact, according to mestizo households in the micro-region, the San Carlos clinic at Norogachi was starting to refuse to attend to mestizo beneficiaries of the *Oportunidades* Program.

The costs of medical attention in the micro-regions in Chiapas were also high, although in view of the fact that courses of medical treatment were generally suspended (earlier), costs were lower when compared to, for example, those in the Guarijía micro-regions or the regions in Oaxaca and Sonora. Since private services were the most utilized, attention to relatively simple ailments such as acute diarrheic diseases and acute respiratory diseases or the aftercare of diabetic patients can cost up to $700 pesos (consultation and medicines). Although expenditure was also excessive in view of the economic potential of these families, not even payment guaranteed full recovery from their ailments. More often than not, in spite of the economic investment, households did not resolve their needs for medical attention. In these micro-regions, economic support to cover transportation costs from religious groups, or attending efficient health centers with a better track record for resolving health issues, or the payment of private doctors made the difference in terms of costs for some households.#

In the case of the micro-regions in Oaxaca, the accumulated cost of healthcare depended mainly on the type of IMSS-*Oportunidades* first- and second-level service providers were available, and their fees, which were generally excessive (relative to the economic situation of the studied household) for second-level attention at the SSA in the Mixe micro-region. While inhabitants of the Mazateco and Costa micro-regions had IMSS-*Oportunidades* hospitals that provided free medical attention for beneficiaries, Mixe households had to face high fees, mainly for gyneco-obstetrical attention, which seriously compromised their domestic economies and their health, especially that of women (a delivery may cost between 5,000 and 7,000 pesos, regardless of program status and ethnicity).

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* Except households located in micro-regions in Chiapas, the Guarijía micro region in Sonora and the Mixe micro region in Oaxaca. These were cases where the impact became evident only through comparison.

‡ Whether or not they used services, the preference was for private services.

§ Rarámuri was the ethnic group who were reported to have used local health services the least (SSA health centers and IMSS-*Oportunidades* RMUs). Among mestizos, the tendency to use these services was greater, but even then it was low in comparison to the micro-regions in other studied areas.

Unlike the Tarahumara region, the presence of religious organizations only affected access to healthcare in the described terms and no purposely-built health institutions have been established, therefore the support of these organizations was rather irregular and it was far from having the same impact it had for the healthcare of indigenous communities in the Sierra Tarahumara.

In the Mayo and Yaqui micro-regions in Sonora, costs were not as high as those in the cases described above. Their proximity to other communities that have a more comprehensive variety of health centers with different degrees of effectiveness (access to medicines, hospitalization, and so on) provided households in these regions with access to a wider range of healthcare options (made even broader by the coverage of the *Seguro Social* or the ISSSTE), as well as some support with regard to transportation (it must be emphasized that this is comparative).

We can say that the *Oportunidades* Program has had a favorable impact, since the program's economic transfers represent an extraordinary resource that can be used to cover (at least in part) the cost of medical attention. The program also guarantees (under the conditions and scenarios already described) access to free healthcare and the treatment of chronic-degenerative patients, with very favorable implications for family economies. However, the Guaranteed Basic Healthcare Package has not managed to reduce the cost associated with health and sickness processes of beneficiary households in real terms owing to the limited effectiveness of first-level services, which restricts the transition towards preventive medical practice. Healthcare continues to be palliative, although, among beneficiary households with a long exposure to the program who lived close to health centers (mainly mestizo children), there was a slight increase in the timely implementation of healthcare practices in the case of children's illnesses. However, real healthcare needs continue to be resolved with family resources and through private medicine, self-care, and traditional medicine (which, far from representing fewer healthcare costs, implied greater expenses) or the combination of conventional state-funded treatment and technical services such as laboratories, ultrasounds and X-rays, which are usually paid for by households. In addition to medical fees and the cost of medications, another common expense is the cost of traveling beyond local contexts in search of healthcare.

As a means of analyzing the healthcare patterns of the households and the implementation of the services or strategies (self-care, conventional medicine, public and private, traditional medicine and alternative medicine) available in the studied micro-regions, we relied on the qualitative analysis of the health, sickness, and healthcare processes through a reconstruction* of the case histories of different members of the studied households.

The therapeutic itineraries of the households in the study often combined different types of healthcare models. We identified differences among the strategies used according to the analytic sample and their healthcare trajectories, noting the following general observations:

On the whole, the most common strategy employed to resolve episodes of illness in beneficiary and non-beneficiary households was self-care, followed by (depending of the degree of seriousness) the use of second-level public institutions, or religious institutions in the case of the Tarahumara region in Chihuahua. In other cases, private doctors and technical services (laboratory tests, X-rays, ultrasounds) were sought in urban centers, mainly by indigenous households, regardless of their program status.

Generally, first-level services were most frequently used by mestizo beneficiaries with a long history of exposure to the program; those who used these local services less frequently were indigenous non-beneficiaries in general and Rarámuri Indians in particular (regardless of their connection to the program). First-level services are usually used for Pap testing, access to birth control methods and for pain management, and mainly to control and follow-up on chronic-degenerative diseases (in the case of both indigenous and mestizo beneficiaries).

We identified a less frequent use of first-level health services among indigenous households (regardless of their connection to the program), although those who lived closer to the health centers were more inclined to attend. These households generally ignored the diagnoses given and often referred to discomforts and ailments that they could not name. In any case, we observed a growing tendency among indigenous beneficiaries, when compared to indigenous non-beneficiaries and, to a certain extent, mestizo non-beneficiaries, to accept their diagnoses (mainly

* Healthcare patterns were reconstructed mainly from the testimonies of the female household heads of the studied domestic units. Sometimes other household members took part in the interviews. However, conversations held with female household heads (mothers) were essential because of their role as health 'agents' in the selection of health services and their role as healers in the context of self-care and company for sick relatives throughout their course of treatment.

from second-level institutions), although this was not the case among indigenous households in Chiapas, regardless of their program status. In general, beneficiaries who lived far from health centers seem little disposed to follow or complete prescribed courses of treatment, although chronic-degenerative patients who lived close to clinics displayed a willingness to follow protocols when they had regular access to medicines. There was also greater reluctance to use second-level surgical services (although *Seguro Popular* beneficiaries were more likely to use them). In any case, indigenous beneficiaries reported longer and less successful healthcare trajectories in terms of getting a diagnosis for their ailments as well as in terms of their control and treatment. Indigenous non-beneficiaries made more frequent use of private healthcare networks, reporting therapeutic itineraries that cost more, were just as long as other strategies, and were not always successful.

Indigenous beneficiaries implemented a greater diversity of healthcare strategies, including the use of conventional public medicine, traditional medicine and self-care, while non-beneficiaries regularly resorted to traditional medicine, home remedies and self-care practices (only in serious or complex cases did they resort to hospitals), and had less contact with local health centers, limiting their access to health advice and guidance. Those living far from any kind of health center did not use first-level services and went directly to hospitals, whether at urban centers where they had access to family networks or to regional hospitals. In general, they mentioned a more frequent use of self-care practices using medicines obtained at first-level health centers.

Finally, indigenous non-beneficiary households did not identify themselves with local health services and were reluctant to participate in local health campaigns. These households were more susceptible to changes in domestic roles that affected the schooling trajectories of their children, mainly those children with fewer social abilities and less schooling, and especially girls in families where mothers or grandmothers (in the case of a doughnut household)* were coping with illnesses.

Belief systems were also significant factors that could delay the search for medical treatment or affect preventive practices, especially among indigenous beneficiary and non-beneficiary households that did not have close access to health centers, or among beneficiary households that were close to services but had short exposure to the program or among households that had bad experiences with services in the past (for instance, according to the *cosmovision*‡ typical of some indigenous communities, women would not breastfeed their children for fear of the consequences of such an action on the baby). As a rule, health centers only really became an option for beneficiaries most recently incorporated into the program once they had attained beneficiary status.

Illiteracy and poor schooling among indigenous populations did have a differential and unfavorable impact on the healthcare trajectories of elderly adults (especially those living with chronic-degenerative diseases such as high blood pressure and diabetes). This situation is made worse by the dynamics of migration, causing scenarios of neglect, which are more common in indigenous households. We found that beneficiary households were more likely to obtain diagnoses and were more inclined to follow health advice and prescribed courses of treatment, reporting less expensive and shorter therapeutic itineraries that were more effective in resolving their health issues, especially for mestizo beneficiaries with long-term exposure to the program. They also used local health services and other state-provided services (like hospitals and hostels) more regularly and had better access to, and willingness to resolve health and sickness processes through, second-level surgery.

Mestizo non-beneficiary households preferred traditional medicine as opposed to services provided by the state; they mentioned shorter medical trajectories, used local health services less frequently and showed some reluctance to take part in local health campaigns; they used self-care, home remedies and faith healing to confront their episodes of illness. We documented that when there was a need for surgery, which is usually very expensive, these families

* Households where children are cared for permanently by their grandparents while the parents are absent.

‡ A widely held set of beliefs or worldview.

commonly had to suspend their treatment owing to economic reasons. Positive discrimination for indigenous patients in hospitals in the Tarahumara region brought about the exclusion of non-indigenous patients, meaning that, in this micro-region, mestizos were more vulnerable than in micro-regions in the other states.

SEXUAL AND REPRODUCTIVE HEALTH: GENERAL SAMPLE DATA FROM THE DIFFERENT STATES

CHIAPAS

The qualitative evaluation sample includes a total of 44 cases, of which 30 refer to indigenous women (26 *Oportunidades* beneficiaries and four non-beneficiaries) and 14 to non-indigenous women (10 beneficiaries and 4 non-beneficiaries). On average, reproductive cycles started at the age of 19 and ended at the age of 35. The average number of children was 6.6 per female, although this figure is not truly representative because of the great differences between case studies. There was no great difference between the patterns exhibited by indigenous and non-indigenous women (beneficiary or non-beneficiary), the main difference being the number of children depending on the length of the reproductive cycle: as would be expected, the longer it was, the more children there were per case. In addition, given the characteristics of the sample (a greater number of indigenous beneficiary cases) it was not possible to establish a convincing comparison.

Healthcare patterns during childbirth. In general, indigenous women in the studied communities in the state of Chiapas had used a local midwife. There were several reasons for this preference. On the one hand, it is customary to be aided in childbirth by a midwife; on the other, the midwife is usually a person known to the individual and the community, and, in many cases, is even a relative (mother, mother-in-law, aunt, or the like). In addition, the families consider hospital care to be cold and impersonal owing to the prevalent rotation of doctors (in the institution or in the community). There is also the issue of modesty, as these women do not like to expose themselves to unfamiliar people (especially men). Similarly, one of the greatest reasons why women in these micro-regions do not wish to give birth in a medical institution is for fear of being the victim of some medical malpractice or the fear of the surgery needed for a caesarean section. These women are also anxious about having to leave their other children unattended during the time when they have to be at hospital for childbirth or during the time necessary for recovery.

Young indigenous women (aged 18-19 at the time of the study). In the cases that were reported, these young women were attended by midwives during childbirth. A couple of young expectant mothers awaiting their first child also planned to undergo the delivery with the help of a midwife. They had different approaches to antenatal care, however: one was attended by a midwife who provided care such as "massages to arrange the child", vitamins, oral electrolyte fluids, and so on, and the other went to a health clinic.

Indigenous women between 38 and 45 years of age. Although the midwife was their first option, these women tended to use medical centers for the birth of their children in case of complications. It was noted that, generally, once the women had used the medical services, they usually preferred this type of care in the subsequent childbirths owing to the medical support available during the delivery (labor-inducing injections, medical equipment in case of complications).

Indigenous women between 40 and 50 years of age. Women in this age bracket used a midwife for almost all of their deliveries. However, women with long reproductive cycles had doctors attending their most recent childbirths. This was because the midwives themselves sent the women to get medical attention, given the risk that childbirth at a mature age represented.

Non-indigenous women. Of the few reported cases, a doctor was used only when the fetus was engaged in a difficult position (breech, for example).

Infant mortality. Nineteen cases of infant mortality were reported, 17 in indigenous households and two in non-indigenous households, although this difference is owing to the characteristics of the sample (with a majority of indigenous beneficiary cases). Ten cases occurred in the early months of the infant's life, and in one case, the child was just under one year old. There were six reported deaths during infancy. No information was specified for the remaining cases. The causes of death during the early months of the infant's life were from respiratory diseases and nutritional problems (the child did not accept the food). In the cases of infant mortality, death was caused by respiratory diseases and gastrointestinal infections. The incidences of child mortality that stand out in particular are those in the Las Margaritas region where, owing to the shortage of health services in the vicinity, the dead infants born to the first generations of women between 40 and 50 years of age had not received any medical attention; the families had resorted to a midwife or a witch doctor.

Birth control methods. One of the characteristics that stand outs in the analysis is the fact that indigenous women did not report the use of birth control methods (1/30 cases); cases of salpingo-ovariectomy (removal of ovaries) were documented for only 20%. In contrast, 40% of the sample of non-indigenous women, mainly beneficiaries and former beneficiaries, declared using or having used hormonal contraceptives, and 30% had had surgery with the purpose of preventing future conception. Mestizo beneficiary women had obtained information regarding birth control methods and their use from the *Oportunidades* talks they had attended as part of their co-responsibilities. Indigenous women believed that birth control methods such as pills and hormone injections were harmful to a woman's health; therefore, some preferred to have surgery when they felt that they already had the number of children they wanted and/or could support. This decision also took into consideration the cost of healthcare during labor and, most importantly, the possibility of a C-section, which was expensive and resulted in a recovery period that forced them to leave their families unattended. Another factor that discouraged the use of modern birth control methods in some of the studied cases (indigenous) was because the women's partners disagreed with their use and had decided to take the necessary precautions without resorting to "unnatural" methods. Regarding salpingo-ovariectomy, the work doctors did to promote the method at local health services should be acknowledged.

OAXACA

Healthcare patterns during childbirth. In general, all of the reproductive histories documented in the studied regions reported that the assistance and care provided by midwives was the most common form of healthcare provision during childbirth, especially amongst indigenous women. However, some women between the ages of 30 and 40, like the cases in Chihuahua, sought hospital care for their latter or last childbirths, whether for fear of complications related to pregnancies at a mature age, or because of the risk of having to have a caesarean section, or because they wanted to put a definite stop to their reproductive capacity by having some kind of sterilization procedure carried out at the time of birth. The wish to receive conventional medical attention was even more common among women who lived in the municipal capital, where second-level medical services were available, or among non-indigenous women. In addition, it was non-indigenous women, pregnant with their last child (or latter children) who sought conventional antenatal care. In Mazatlán Villa de Flores, there were cases of migration to Mexico City in search of hospital care for childbirth. Younger women resorted to hospitals more frequently than more mature women, especially for antenatal care, which could be explained by the greater access to institutional health services currently experienced by inhabitants when compared to the past. Older women seemed to alternate between the attention of a midwife and medical services. Beneficiary women had enjoyed maternity care more frequently during the periods when they had been beneficiaries; this was more commonly the case for non-indigenous women.

Birth control methods. Indigenous beneficiary women between the ages of 20 and 40 knew about and/or used birth control methods. For these women, the decision of whether to implement their use was related to the perception that such methods were harmful to a woman's health. Very frequently, contraceptive use or permanent sterilization was not performed until late in the reproductive cycle, when women and/or their partners felt that they already had the number of children they wanted (or could support). In general, birth control methods were used less frequently during the reproductive period: in other words, belated family planning took place. As was already mentioned in the previous section, this type of behavior was observed more in non-indigenous women than in indigenous women.

Infant mortality. Most reported deaths occurred in the early months of the infant's life and were caused by respiratory or gastrointestinal ailments.

CHIHUAHUA

There were 48 reproductive trajectories available for analysis; of these, 12 corresponded to indigenous beneficiary mothers, 13 to indigenous non-beneficiary women, 12 to non-indigenous beneficiary women and 11 to mestizo non-beneficiary women. Regarding the duration of their reproductive cycles, a difference was observed between indigenous and non-indigenous women: the former started their reproductive cycles, on average, at the age of 17 and ended at 30, while the latter started their cycles, on average, at 20 and ended at 31. The average number of children was five, with Samachique being the community most represented by this figure. Indigenous non-beneficiary women in the studied micro-regions of Chihuahua tended to have the highest number of children. This phenomenon occurred among women whose ages ranged from 42 to 60 and whose reproductive cycle was already at an end in1998.

As will be shown below, on the whole, the Samachique clinic truly fulfilled its first-level healthcare objective by guaranteeing pre-natal and post-natal care, a steady supply of birth control methods and sexual health advice for beneficiaries and non-beneficiaries.

Healthcare patterns during childbirth. The difference between indigenous and non-indigenous women's patterns lie in the fact that non-indigenous women preferred to look for medical personnel for the delivery of their children, although there were cases that were attended to by a midwife because of their urgency or because there were no other services in the vicinity. Indigenous women prefer the attention of a midwife. However, it was observed that childbirths that occurred later in the reproductive cycle were frequently attended by doctors, whether owing to complications, or related to the problematic position of the fetus, or related to the woman's health. It was very possible that this pattern was determined by an increasingly broader access to services, especially for those births that occurred around the mid-1990s. Since first-level clinics did not attend problematic childbirths, women had been forced to go to other communities with second-level services. Regarding pre-natal care, it was somewhat infrequent; in fact, it was in the Samachique micro-region where more cases were found of women who attended the local clinic in search of antenatal medical attention, whether beneficiaries or non-beneficiaries.

Birth control methods. In general, there were cases of women, indigenous and non-indigenous, who alternated the use of IUD and hormone methods with rest periods during which pregnancies had occurred. Such rest periods might have occurred by personal choice or owing to the shortage of contraceptive supplies at the local clinics; the latter represents a real limitation on their effectiveness. Many reproductive cycles ended with fallopian tube ligation surgery after the woman decided that she had given birth to her last child. In Maycoba, the clinic distributed hormonal birth control methods as well as intra-uterine devices (IUDs). Some families had to assume the cost of permanent sterilization. Younger women (19-40 years of age) used or had used birth control methods more often.

The study of cases in the Samachique micro-region yielded different results, which showed a more frequent use of hormonal methods and/or IUDs by indigenous and non-indigenous beneficiaries and non-beneficiaries at some

time in their reproductive lives (66%) and fallopian tube ligation at the end of their reproductive cycles (73%). These methods were observed with more frequency after 1990s. The cases observed reported that the sexual partner and the family were in agreement with the decision to control the family's growth. In all of the cases, the hormonal contraceptives and/or IUDs were provided by the local first-level clinic, although there were periods of shortages, in which case the women had to order them from other communities; women who did not manage to obtain the contraceptives sometimes ended up getting pregnant. As previously mentioned, the average number of children in this region was close to five per family. However, if we were to distinguish the figures of the indigenous communities from those of non-indigenous households, the average number of children was five for the former and three for the latter. This difference could be explained by the fact that indigenous women, on the whole, were making less use of contraceptives or only decided to get fallopian tube ligation after deciding that they had the desired number of children. Some testimonies made reference to the efforts of medical personnel at the local clinics to convince the population to use birth control methods and take advantage of family planning advice.

Sexual health. Beneficiary women underwent the Pap test for the detection of cervical-uterine cancer more often than non-beneficiaries. At the end of healthcare talks about the subject, women were encouraged to take the test. Since the co-responsibility talk is at the same time as the Pap test, women were often led into thinking that the test was part of their co-responsibilities, with the result that beneficiaries took the test once a year, while non-beneficiaries went for periods of up to three years without being tested. However, beneficiaries complained of not being informed of the results of the tests.
Besides the special case of Samachique, the use of hormonal contraceptives and IUDs was more frequent in the case of non-indigenous women, beneficiaries and non-beneficiaries, than in the case of indigenous women.

Infant mortality. Eighteen cases of infant mortality were documented in the studied sample, 83% corresponding to indigenous families, almost all deaths occurring before the children's first birthdays and mainly resulting from gastro-digestive and respiratory diseases. The Chihuahua sample showed an equal number of indigenous and non-indigenous cases. There was one case of medical malpractice in which the patient did not receive adequate medical attention because the doctor was reported to have been intoxicated. In all the remaining non-indigenous cases, the patients died of respiratory diseases.

SONORA

Guarijía. There were obvious differenced between the indigenous sample of studied households in the Guarijía region and the non-indigenous sample. The former showed a higher number of births per household that were assisted by midwives and even by the pregnant woman herself with the help of her husband. Only in very few cases were birth control methods used, a fact that was equally evident in non-indigenous households. The latter combined the use of midwives with public health institutions. The women in the analyzed non-beneficiary households had not taken the Pap test. Indigenous women exhibited longer reproductive cycles than their non-indigenous counterparts.

Mayo. The majority of the studied households, indigenous and non-indigenous, beneficiary and non-beneficiary in the Mayo region, resorted mainly to IMSS or SSA public health institutions for childbirth and pre-natal care. Regarding birth control methods, they were widely used; figures did not indicate any significant differences between indigenous and non-indigenous women or between beneficiary and non-beneficiary women. Apparently, proximity to hospitals and medical institutions played an important role in making the differences between the household types less noticeable, alongside the presence of *ejidatarios* in the sample who receive certain privileges.

Yaqui. The reproductive cycle of non-indigenous women was shorter and in some cases began at a later age than that of indigenous women. The latter made less use of modern birth control methods than their non-indigenous

counterparts, mainly beneficiaries. Women in the older generation had been poorly informed about birth control methods. Regarding the type of healthcare received during pregnancy and birth, there was a clear difference between indigenous women, most of who resorted to a midwife, and non-indigenous women in the studied cases, whose births had taken place in public health institutions.

In all of the cases, there was a similar pattern: the younger generations, indigenous or non-indigenous, beneficiary or non-beneficiary, presented behavior dissimilar to that of the previous generation – that is, they sought pre-natal care and preferred to have their babies delivered in health institutions.

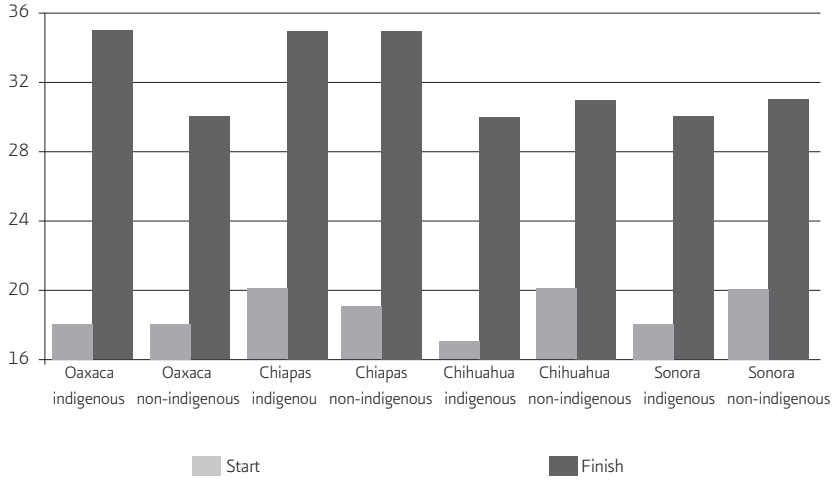
The influence of the *Oportunidades* Program on the frequency of Pap testing for cervical-uterine cancer is also remarkable. Sometimes by persuasion (awareness and informative talks provided by medical personnel) or by imposition (beneficiaries consider it to be a co-responsibility), the program has managed to increase the regularity of testing.

ANALYSIS OF REPRODUCTIVE HEALTH TRAJECTORIES

Reproductive cycle, number of children and use of birth control methods

When considering all of the cases studied across the four states, we found that, with the exception of Chiapas, the reproductive cycles of indigenous women were slightly longer than those of non-indigenous women. These cycles were characterized by the first child being born at an earlier age, around 17 or 18 years old, and the last child being born around the age of 30. Oaxaca reported cycles where women stopped having children at the age of 35. No notable differences were found regarding the duration, and age at first and last childbirth between indigenous and non-indigenous cases studied in Chiapas: both groups started having children between 19 and 20 years of age and completed their cycles, like those households in Oaxaca, at 35 (Figure 6). The two states share an average of six children per household for both indigenous and non-indigenous women. With regard to the sample from the northern states, there were differences between the average number of children born to indigenous and non-indigenous women, indicating a greater number of offspring among the former with respect to the latter (six and four for Chihuahua and five and three for Sonora, approximately) (Figure 7).

Figure 6
Duration of the reproductive cycle by states (age)



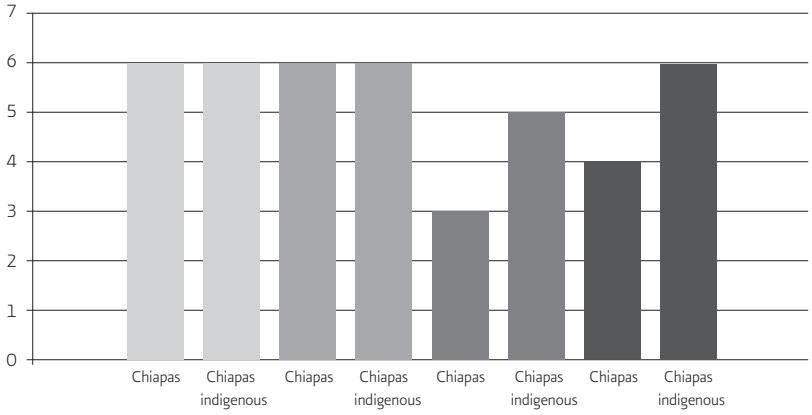


Figure 7
Number of children by state

In relation to the *use of birth control methods*, the data highlighted some differences between the studied communities. Fundamentally, such discrepancies were related to the access that women had throughout the course of her reproductive history to the different birth control methods from first-level services, and to the performance of those services related to the task of convincing women to use those methods and conveying accurate information about their use. In this sense, we can state that the older the woman is, the less likely she is to use (or have used) birth control methods, since many family planning services and health policies with respect to the quality of reproductive health have only recently been implemented. This finding is supported by the number of cases of indigenous and non-indigenous women, beneficiaries and non-beneficiaries between the ages of 20 and 40 who know about and/or have used modern birth control methods. Regarding the main factors that limit their use, shortage of contraceptives at first-level local health services, the idea that they were harmful to women, and the sexual partner's opposition to their use are the most common factors documented.

Despite the exceptions that we will discuss later in this section, indigenous women in most of the studied micro-regions admitted to not using birth control methods during their reproductive cycle. Only in some cases did women decide to have surgery to prevent further pregnancies when they felt that they did not want to have any more children. Non-indigenous women, mainly beneficiaries, used hormonal contraceptives and the IUD more often.

The analysis of case studies in the state of Chiapas showed only one instance of an indigenous woman who took contraceptives, finding that 20% of individuals had undergone salpingo-ovariectomy. In contrast, 40% of the sample of non-indigenous women, mainly beneficiaries and ex-beneficiaries, declared using or having used hormonal birth control methods, and 30% had had surgery to stop having children. Non-indigenous beneficiary women had obtained information about birth control methods and their use from the *Oportunidades* talks they attended as part of their co-responsibilities. Indigenous women in this sample believed that birth control methods such as the pill and hormone injections were harmful to their health; therefore, some preferred to have surgery when they felt that they were happy with the number of children they had/or could support. This decision took into consideration the cost of medical attention during labor, and in particular the cost of a caesarean section, which can be very expensive and forces them to leave their family unattended during the post-operation phase. Another factor that discouraged the use of modern contraceptive methods in some of the indigenous cases studied was when the woman's partner disagreed with their use and preferred to take precautionary measures without resorting to "unnatural" methods. Regarding salpingo-ovariectomy, the efforts made by doctors at local health services to promote this method should be mentioned.

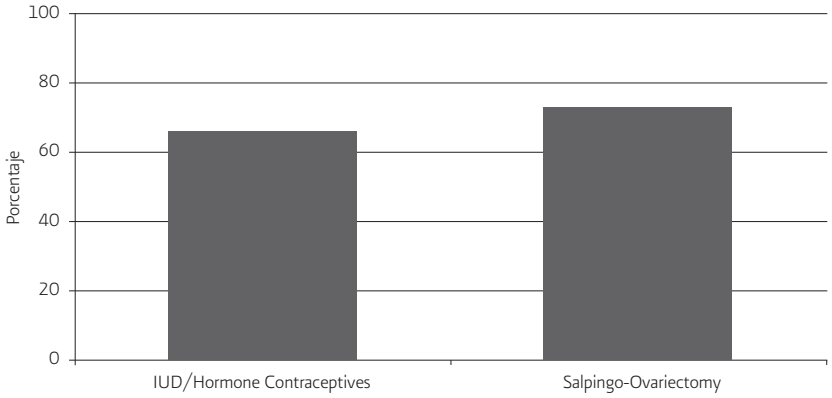
In the studied micro-regions in Oaxaca, indigenous beneficiary women aged 20 to 40 knew about and/or used birth control methods. For these women, the decision to use or not use contraception was related to their percep-

tions of such methods as harmful to their health. Taking contraceptives or undergoing permanent sterilization was frequently postponed until the end of the reproductive cycle, when a woman and/or her partner felt that they have already had the number of desired children.

In Chihuahua, there were cases of indigenous and non-indigenous women who alternated between the IUD and hormonal birth control methods, with periods of rest during which sometimes pregnancies had occurred. These rest periods might have occurred by personal choice or owing to a shortage of contraceptives at the local first-level clinic, a fact that represents a real limitation to their effectiveness. Many reproductive cycles ended with fallopian tube ligation after a woman decided to have no more children. In Maycoba, the clinic distributed hormonal contraceptives as well as intra-uterine devices (IUDs). Some families had to assume the cost of permanent sterilization. Younger women (19-40 years of age) used or had used birth control with greater frequency.

The particular case of the Samachique micro-region should be noted. Ethnographic data for that region reported the greater use of hormonal contraceptives and /or IUDs at some point during the reproductive lives of indigenous and mestizo beneficiaries and non-beneficiaries (66%), with fallopian tube ligation taking place at the end of their reproductive cycles (73%) (Figure 8). The greatest frequency of this was observed after the 1990s. The cases observed reported that the sexual partner and the family were in agreement with the decision to control the family's growth. In all of these cases, hormonal contraceptives and/or IUDs were provided by the local first-level clinics, although there were periods of shortages, in which case women had to order them from other communities; women who did not manages to obtain the contraceptives sometimes ended up getting pregnant. In Samachique, the average number of children per indigenous household was five, in contrast to three per non-indigenous households. Some testimonies made reference to the efforts of medical personnel at the local clinics to convince the population to use birth control methods and take advantage of family planning advice.

Figure 8
Contraceptive Methods in Samachique, Chihuahua



In a similar way, the Mayo micro-region in Sonora reported that most of the studied households, indigenous and mestizo, beneficiary and non-beneficiary, used hormonal birth control methods and/or IUDs widely, without exhibiting great differences in their numbers. Apparently, proximity to hospitals and medical institutions played an important role in making the differences between the household types less noticeable, alongside the presence of *ejidatarios* in the sample who receive certain privileges.

We identified that the main obstacles faced in accessing contraceptives were related to their short supply in some clinics and (mainly) negative attitudes toward them from the women's sexual partner. In cases where there was no first-level care, well-supplied community clinics were substitutes that could guarantee the access of women to birth control methods.

OPPORTUNE DETECTION OF CERVICAL-UTERINE CANCER

In general, and taking into consideration the exceptions noted previously, the limited number of references that are made in the testimonies to the cervical-uterine cancer detection test (Pap test) reflects its absence from the sexual healthcare provided to non-beneficiary women in the studied regions. In contrast, it was observed that many beneficiary women had taken the test after having received talks about the subject, where at the end they were encouraged to take the test (considering it to be part of their co-responsibilities). However, in cases where the test was actually taken, its results were never relayed or took a long time to be returned. Nevertheless, it is important to note that while beneficiaries tend to have the test performed once a year, non-beneficiaries can go up to three years without being tested.

MATERNITY CARE: PRENATAL, POSTNATAL, LABOR AND DELIVERY

Prenatal medical care was not a frequent occurrence, especially among indigenous women and/or women over 45. During certain stages of the pregnancy, attention was sought from a midwife, who performed massages on pregnant women aimed at arranging the fetus into the correct position and, in some cases, even provided vitamin complements for them. Younger women, indigenous and non-indigenous, sought medical antenatal care more often, with the exception of Chiapas, where it was observed that educated young women also went to a midwife. In the case of mature expectant mothers, healthcare alternated between the midwife and medical services. Most beneficiary women had sought antenatal services at some point since they had been incorporated into the program; this happened more often in the case of non-indigenous women. As previously mentioned, in the Mayo region in Sonora and the Samachique region in Chihuahua, almost all of the women there had experienced prenatal and postnatal care. In this respect, the clinic fulfilled its objective to provide quality first-level services by guaranteeing antenatal and postnatal care, a supply of birth control methods and sexual health advice for beneficiaries and non-beneficiaries.

It is evident from the analysis of the case studies in the different regions that women frequently resorted to giving birth assisted by a midwife (rather than in a medical institution of some sort). In addition to the paucity of maternity services that prevailed before 1990, some of the reasons given by women for choosing not to go to a hospital or clinic were: transportation difficulties and cost to get to communities with a greater supply of services, maternity care fees, the hostility of hospital institutions, the "modesty" of women who did not wish to be exposed to lots of different doctors (owing to the rotation of or the brief stay of doctors in their communities), and fear of falling victim to medical malpractice and/or abuse.* On the other hand, the midwife is often a relative (mother, mother-in-law, an aunt, or the like) or a person with a solid knowledge of labor and birth from the local community who is usually known to the expectant mother. However, many cases have been documented where midwifes refused to attend to women with potential labor complications (many of them over 30) or had referred her to some medical institution for medical attention. For this reason, the last childbirth of many indigenous and non-indigenous, beneficiary and non-beneficiary women over 45 who, in the past, had used a midwife to deliver their previous children had occurred at hospitals.‡

Some women decided to go through the childbirth process alone, perhaps because her previous experiences made her feel prepared to undergo the birth process on her own, or with the help of her partner in some cases. Urgent situations (imminent labor) and financial restrictions can also result in women delivering their baby by themselves.

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* Cases were found where doctors sterilized women without their consent; there was one case in which sterilization was performed with the consent of the partner only, and another where an IUD was implanted without the patient's knowledge, who later had complications and did not know the cause. They are also afraid of cesarean sections, since the procedure is expensive, requires post-partum recovery and represents a risk owing to the anesthesia required.

‡ Although it may also be because of their decision to have a salpingo-ovariectomy performed.

Finally, Migration patterns pose challenges to the effective provision of maternity care. For example, young migrant women at the start of their reproductive cycle who fall pregnant in territories far form their communities tend to return home during their last trimester to guarantee the company of their family and community during childbirth. This can present difficulties for rural medical centers when evaluating the medical needs and conditions of newly arrived pregnant women (no access to the medical/maternity history of the patients), and often leads to women being refused medical attention.

INFANT MORTALITY

The prevailing result shown by the data was that the main causes of infant mortality were respiratory and gastro-intestinal diseases. Most of these deaths occurred in indigenous households.
In Chihuahua, 18 cases of infant mortality were documented, out of which 80% corresponded to indigenous households. Almost all infants died before reaching their first birthday of diseases mainly related to respiratory and gastrointestinal ailments. One case of medical malpractice was reported in which the patient did not receive adequate medical attention because reportedly the doctor was intoxicated. The remaining non-indigenous cases all died from respiratory diseases. In the Las Margaritas micro-region in Chiapas, children of the first generation of women, those between 40 and 50 years of age, died without having been attended to by medical personnel owing to the paucity of medical services in close proximity at the time.

SELF-CARE TRAINING WORKSHOPS

Self-care, health and sickness are concepts that change according to different cultural contexts. It is well know that no individual or human group can survive without access to the care necessary to guarantee, to a greater or lesser extent, their physical and emotional well-being, which is dependent on an individual or group's perspective, as informed by their experiences and understanding of their surroundings. Even within one ethnic group or community, the meaning of health, sickness and 'the body' are different. Women, men, teenagers or older adults give meaning to their bodies and its care in many different ways.

In indigenous contexts, providing care for individuals and the family acquires a different connotation, where taking part in magic-religious rituals to protect crops and harvests, or getting a spiritual cleansing for the family from a witch doctor with the purpose of establishing order and balance with the forces of nature and community, are seen as part of that care process. These practices, among others, are aimed at securing the welfare, protection and care of the individual and its environment.

According to the above, to consider the self-care practices of indigenous groups requires an understanding and appreciation that goes beyond the meaning of biomedicine, and poses the following questions: What significance does the concept of personal health and 'body-care' practices have to a specific indigenous group? What meaning could the practice of self-care have to *Oportunidades* beneficiaries?

The self-care workshops associated with the *Oportunidades* Program, through the dissemination of relevant health information, are intended to promote preventive and self-care practices. Towards this end, it is essential to first explore with beneficiaries the meaning of concepts such as "taking care of oneself," "taking care," "the body," and "health," in order to effectively communicate health advice and facilitate the appropriation of relevant information. Provoking personal reflection about one's values, beliefs and actions may facilitate better relationships with the body and health, and the incorporation of new practices meant to care for both. Unfortunately, this exercise does not form part of the daily reflections of health service providers or the structure of the Guaranteed Basic Healthcare Package. The repertoire of 40 subjects to be covered by the program through its workshops* does not consider any issues related to the meaning of health, sickness, the body, or the care thereof.

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* See appendices with the list of subjects included in the self-care training workshops, according to the Rules of Operation of *Oportunidades* Development, 2008.

Eliciting a reflection about the meaning of the body, health and sickness in multicultural contexts implies, above all, creating an environment of trust and communication between health service providers and beneficiaries. For healthcare advice to have an impact on those receiving it, an interactive methodology that is attentive to the needs, feelings and practices of those involved is required, precisely to enable people to reach conclusions by themselves regarding the benefits that a gradual incorporation of new practices and attitudes can have.

Besides having the resources and spaces adequate for performing interactive exercises, the success of a self-care workshop depends on the descriptive cards that detail the group techniques relevant to the cultural contexts in which they take place and that are useful to the medical teams that develop the subjects and material. Despite the fact that these conditions can bring about a greater impact and acceptance of the subjects treated, in practice, the "workshops"* were a long way from meeting those standards. Poor infrastructural conditions, a need for supplies and materials for performing group exercises, a lack of training and the excessive workload of medical personnel compromised the quality of these interventions and their impact on self-care practices.

Workshops were organized in the following way:

a) "Workshops" were between 40 and 60 minutes long and generally had up to a half hour assigned for the registration of attendants.
b) They were conducted in Spanish, and support material was printed in Spanish.‡
c) Even though the subjects of the workshops should be presented according to each age group, there was no coherence between subjects and the groups they were aimed at (except the training subjects for the self-care of high school student beneficiaries). For example, older female adults attended workshops related to the use of birth control methods, and women with young adult children attended workshops related to the vaccination of small children.
d) Methodology was expository ("talks"). Group activities were infrequent owing to the poor training of medical teams in techniques for talking to and arranging groups (and no time to carry them out).
e) Teaching resources were limited to picture cards provided by the SSA or the IMSS-*Oportunidades* and a workbook that provided reading material for the discussion of topics. Group readings excluded illiterate beneficiaries and were generally tedious.
f) The subject agenda of the *Oportunidades* workshops comprised 40 subjects for adults and 10 for high school student beneficiaries. However, after ten years, long-term beneficiaries find reviewing the same subjects repetitive and boring. Among other things, this was because service-providers generally presented the subjects that they were more familiar with, ignoring other subjects. We believe it is appropriate to make the *time of exposure to the program* variable a consideration when arranging the agenda of the thematic subjects.
g) Ninety percent of the communities where the workshops took place did not have an adequate space for their implementation. Usually these meetings occurred in common outdoor areas where beneficiaries were exposed to the elements. Few communities had adequate seating; most used benches, stools or concrete planters used for gardens.
h) Communities where absenteeism on the part of the medical team was frequent were more prone to complicity in documenting compliance with co-responsibilities.[4] Under these conditions, health "workshops" were not given value and were delivered inadequately, and facilitators had a greater tendency just to register attendance. However, where they were truly well implemented, self-healthcare workshops were also potentially useful as a component of general education or basic skills for adults who did not finish their primary or secondary education.

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* In official terms, these interventions are considered "workshops", but given their expository methodology, the term is enclosed by quotation marks, since we feel that they are more like health talks.

‡ With the exception of four communities in Chiapas and Oaxaca (of the 38 communities studied), where it was documented that a bilingual nurse conducted the session in the indigenous language.

IMPACT OF SELF-CARE TRAINING WORKSHOPS

Subjects. In spite of there being a selection of 40 topics aimed at adult beneficiaries from which service-providers could choose, the study identified the following workshops as the most frequently treated:

a) Basic Family Sanitation,
b) Use of Nutritional Supplements,
c) Childcare of the Under-Ones,
d) Vaccines,
e) Diarrhea and the Use of Oral electrolytes, and
f) Family Planning.

Of the 40 subjects on the workshop agenda, 11 of them were related to sexual and reproductive health, but the subjects most frequently presented were:

a) Family planning, and
b) Breast cancer and cervical-uterine cancer; the Pap test and breast self-examination.

Although the agenda included the topic of health and gender, there was no evidence from the fieldwork to suggest that medical teams had ever dealt with this subject, nor did beneficiary women acknowledge ever having witnessed this presentation.

As we indicated in the section about reproductive health, access to birth control methods and their use related more to generational factors, proving that women between 20 and 40 used them more commonly. This change could also be related to the presence of services or the effect of health policies that have been implemented more recently (among them the *Oportunidades* program). Ideas with respect to the use of birth control methods have not changed significantly, the women who attended the workshops still considered birth control methods harmful to their reproductive capacity in the long run. However, women between 20 and 40 years of age (program beneficiaries and high school students) showed a greater willingness to discuss reproductive health (birth control methods and Pap tests), especially when they had been beneficiaries for a long time.

In general, the *Oportunidades* Program in conjunction with other campaigns has helped to promote sexual and reproductive health as a public health issue, not one only concerning the private lives of women. We believe that the development of self-care workshops through a stronger gender component is essential for the delivery of more technical information about the use of birth control methods, and also as a means of exploring the significance that women give to their bodies and their reproductive life. In addition, the need to encourage the attendance of men at the reproductive health talks is urgent, mostly because there was evidence of husbands' disapproval among the age group of beneficiary women over the age of 35 regarding these practices, mainly in indigenous households in Oaxaca. Among this group at least 20% of the women in the sample resorted to using health services to obtain contraceptives without the consent of their husbands. Undoubtedly, the promotion of birth control methods through technical information is needed, but cultural aspects hampering their full implementation should also be considered.

Therefore, we believe that subjects related to sexual and reproductive health – and health in general – could have better results if awareness of the importance of female self-care and the implications of gender regarding access to healthcare was more widespread amongst beneficiaries and their families. Therefore, the gender component should be more solidly integrated into the workshops' agenda and subjects related to gender and health aimed at older adult women should be more specific and integrate men into the discussions. To this end, it is essential that medical teams be provided with training on this subject.

Moreover, topics dealing with preventive practices and the healthcare of infants were received with the greatest interest by beneficiary mestizo mothers with a long history of exposure to the program. More effective treatment of children suffering with ailments such as diarrhea and dehydration was reported when their mothers were long-term beneficiaries, mainly mestizo, living near healthcare centers. Likewise, in the case of a dengue fever epidemic in the

Mixe micro-region in Oaxaca, according to the beneficiaries, early identification of the symptoms was related to the prevention activities executed by the *Oportunidades* Program (medical auxiliary visits and health talks).

Health workshops enjoyed better reception when they dealt with the following subjects: Use of nutritional supplements, the parasitosis/deparasitation cycle; basic family sanitation; vaccines; diarrhea and the use of oral electrolytes; and care of children younger /older than one year old.

Basic sanitation. Throughout the last decade, workshops had a favorable impact in the development of basic sanitation practices; however, this impact was limited by the characteristics of the local infrastructure. In all micro-regions, limited access to drinking water, as well as, river and water-table pollution were a constant and real obstacle faced by the studied households that determined their health and basic sanitation practices. During 2007, two Pima children died in Maycoba from infections derived from drinking contaminated water. In this community, skin and parasitic infections were common ailments reported by families regardless of their program status and ethnic identity. In order to have access to non-polluted water, households were forced to pay to have water transported to their homes, a practice reported by long-term beneficiary households, who were more preoccupied with obtaining drinking water.

Regardless of their program status, Rarámuri families living in geographical marginalization (in *rancherías* or dispersed hamlets) reported a higher incidence of skin and parasitic diseases derived from obstacles such as the limited access to water in their dwellings and the limited capacity to carry out basic sanitation practices such as the adequate handling of feces, the general cleaning of their homes, and ensuring the personal hygiene of its members. In the mountain community of La Ciénega in Chihuahua, households did not have a regular supply of water; some families carried water* and gathered rainwater from the roof into the water tank. Although these households were close to their local health center (five minutes on foot to the IMSS-*Oportunidades* RMU facilities) the basic sanitation practices and ailments they reported—even among long-term beneficiaries— were not significantly different from those of non-beneficiary households.

In the micro-regions in Chiapas, basic sanitation conditions were appalling: households did not have adequate latrines, and sometimes these were only "holes" in the ground, conditions that had already been overcome in other micro-regions in other states (with the exception of the Rarámuri and Pima households).
The program had a greater impact on the basic sanitation practices of the mestizo population with more years of exposure to the program, with the least impact being exhibited by indigenous families living in contexts of geographical marginalization (Gaurijío and Rarámuri). Although this situation could be explained by their ethnicity, the impact had more to do with the characteristics of the local infrastructure. In Chiapas, families of second-generation (new households) former student beneficiaries (regardless of their ethnic identity) had also exhibited the program's positive impact.

Regarding waste disposal, we observed an excellent willingness on the part of beneficiary families to pursue waste disposal solutions and management, though through the implementation of systematically erroneous measures (e.g., burning plastic). Even though the program did not directly encourage these practices, the promotion of these procedures by service providers had caused many beneficiaries to see trash burning as part of their co-responsibilities. This situation provides a good opportunity for the promotion of appropriate waste disposal practices (classifying and recycling) as part of the program's thematic agenda, making the contents explicit.

In summary, the promotion and development of basic sanitation practices is better-received when external conditions (garbage collection and disposal, access to water, construction and adequate use of latrines) are ideal, even though modest impact was documented in terms of the program's affect on hygiene habits such as boiling water and accepting the "new" conditions for keeping fowl in their yards (the animals must be kept in a pen).

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* We also observed that households (mainly indigenous) who engage in water-carrying practices, an activity normally performed by women, reported a greater occurrence of lumbar pains ("knots in the back") and miscarriages (two cases in the mazateco region) when carrying out this activity.

HEALTH AND COMMUNITY

Although belonging to the program is a privilege with respect to the access beneficiaries have to channels of communication and social networks, sometimes it also guaranteed access to federal and state programs, it is a privilege that is largely restricted to the beneficiaries and their families and does not extend to the community as a whole. This state of affairs caused widespread apathy among non-beneficiaries, which was expressed in different ways. According to the opinions gathered from non-beneficiary households and healthcare service providers, the theme of community health is linked to *Oportunidades* membership. In other words, it was assumed that community health activities were exclusively for program beneficiaries. This popular perception had terrible consequences for the promotion of preventive cleaning campaigns as well as those related to the vaccination of children and domestic animals and fowl. Non-beneficiary households were reluctant to take part in such campaigns, arguing that they "did not belong to *Oportunidades*." According to the accumulated evidence related to social participation, in rural contexts, the *Oportunidades* Program faced unforeseen consequences with regard to the following aspects:

As participation in community activities was a condition of the program, community campaigns are considered to be for beneficiaries only, resulting in the subsequent apathy of non-beneficiaries regarding the actions or practices promoted by the health sector, such as campaigns to discourage the consumption of junk food and vaccination campaigns for children and adults as well as domestic animals and fowl.

Medical teams made beneficiaries (especially main female beneficiaries) perform their duties for them.

In all of the studied communities, main female beneficiaries had to take part in the clean up of public spaces and in trash burning practices. The exclusion of males from these activities has consequently encouraged female-only community participation.

There was a social division between beneficiaries and non-beneficiaries. Program beneficiaries had evident privileges in terms of medical attention that non-beneficiaries did not receive.

Shortage of health programs that included all of the population. *Oportunization** of preventive health agendas of other state or municipal health programs.

Finally, we must stress that the dissemination of good practices among the population regarding basic sanitation practices and the prevention of contagious diseases, regardless of program status, is a challenge that cannot be ignored by the Guaranteed Basic Healthcare Package if its goal is to strengthen the health of the community as a whole. The success of more concrete actions related to the Guaranteed Basic Healthcare Package depends on the effective collaboration of all sectors and the capacity to involve and engage the members of the population who do not belong to the *Oportunidades* Program.

IV. Impact and Discussion of Results

INFRASTRUCTURE

With regards to infrastructure, we observed that the diverse contexts of the various scenarios documented during the fieldwork offered different opportunities and limitations in terms of access to healthcare. In Sonora, the Yaqui and Mayo micro-regions exhibited the greatest number and diversity of medical institutions as well as more professionalized medical teams, more equipment and better and roomier facilities. However, these conditions did not signify better medical attention for the studied households. There was excessive demand for services and irregularities in the supply of medicines that had direct repercussions on the quality of the healthcare received by families. The diversity and the conditions of the services were related to the location of these micro-regions in urban *hinterlands* that had better communication routes and transportation.

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* *By oportunization*, we mean the prevalence of the *Oportunidades* Program over others.

In the Guarijía micro-region in Sonora, the conditions of state health services were not very different from those documented in the Yepachi-Maycoba micro-region in Chihuahua: shortage of professional medical personnel and evident limitations in terms of the effectiveness of local healthcare centers, the inconvenience of being located far from second-level care centers and poor diversity in terms of medical care options.

In the Norogachi and Samachique micro-regions in Chihuahua, even though public health systems (SSA and IMSS-*Oportunidades)* were limited in terms of facilities, the supply of medicine and professional doctors, service infrastructure was significantly better owing to the presence of two religious medical institutions. Both institutions employed a respectful healthcare model that adapted to the cultural conditions of the local population and were also characterized by their efficacy in providing diagnoses and treatment, which had a direct impact on the quality of healthcare received by the households in these areas.

In Chiapas and Oaxaca, service infrastructure conditions were not much different, although Chiapas did prove to experience a greater disadvantage in terms of access to quality services, which was determined by an evident shortage of medication and professional medical teams, a shortage that was even more severe than that being experienced in Oaxaca. In Oaxaca, even though coverage, service infrastructure and medical equipment were less irregular than in Chiapas, it was observed that such conditions did not guarantee the access of indigenous families to healthcare.

We could state that the infrastructure and quality of state health services were limited in contexts of concentrated poverty and not according to the degree of marginalization in the studied states. Sonora showed a "very low" degree of marginalization in the Guaymas municipality and a "medium" degree in the Etchojoa and Álamos municipalities. However, the characteristics of the services, at least in the studied communities where the Guarijío households were located (Álamos municipality), were similar to the ones documented in the indigenous communities studied in the states of Chiapas and Oaxaca, which show "very high" degrees of marginalization. In any case, high population density and a high degree of marginalization (Oaxaca and Chiapas) attract poorer quality public health services and poor medical teams to provide those services.

We confirmed the initial hypothesis that indigenous groups presented the most unfavorable conditions for accessing health services and adequate attention in the case of illness owing to the prevalent disadvantages they face. Even though there were significant contrasts in the living conditions of the different indigenous groups, the potential for access to quality care was lower among rural indigenous inhabitants than among rural mestizos, even in contexts where access to healthcare service coverage seemed adequate, like in Oaxaca.

HEALTHCARE PATTERNS

The general conditions of the service infrastructure to which studied households had access determined their healthcare patterns. These conditions were relatively better in the northern states than in the southern states, but they were concentrated in particular areas in the Yaqui and Mayo micro-regions in Sonora, where they were a consequence of a more diverse system of public services. More favorable conditions were also observed in Chihuahua, where there was a greater potential for access because of the presence of religious medical institutions in the micro-regions of the Tarahumara Mountains (Samachique y Norogachi).

The *Oportunidades* Program has indeed increased the demand for first-level services, mainly for the purpose of co-responsibility compliance. However, after ten years, conditions and the quality of the services have not yet matched this increase in demand.

In the communities where a limited efficacy of service was documented with respect to first-level local services, there was a tendency to migrate to urban centers in search of better medical attention, with a growing tendency to underutilize first-level services, even as co-responsibility monitoring services.

The limited effectiveness of rural clinics has posed many obstacles to the access of quality healthcare and the genuine development of the Guaranteed Basic Healthcare Package and its actions. As a result, the indigenous and rural population showed little trust in the medical attention they received from local health centers, mostly those

from the studied households in the micro-regions in Oaxaca, Chiapas, Yepachi-Maycoba and Guarijía in Sonora, and this mistrust affected their general state of health and their quality of life in different ways.

The need for medical attention to resolve episodes of illness and the widespread mistrust of local health centers (no doubt well-founded) were what impelled rural inhabitants to leave their communities in search of appropriate healthcare. The long-distances traveled in search of medical attention had serious consequences for domestic economies, which were more evident in indigenous households.

Access to efficient local services who had a good track record for providing quality treatment and diagnoses tended to improve the therapeutic itineraries of patients and reduce their costs, as indicated by the healthcare trajectories of families living in the communities in the Norogachi and Samachique micro-regions, where the quality of services was higher owing to the presence of religious medical institutions and that of an IMSS-*Oportunidades* RMU, both providing adequate pregnancy care as well as reproductive health advice. However, deep social inequalities remained, especially those related to service infrastructure (water, housing, transportation) and the characteristics of mountain settlements (*rancherías* marginalized by their orographic context).

In the Yaqui and Mayo micro-regions of Sonora, the diversity of public health services offered allows for a broader range of medical options and determined its healthcare patterns. Households in these micro-regions, even indigenous ones, visited local health centers more frequently, and medical costs were generally lower than the fees documented by indigenous households in the micro-regions in the south.

The poorest quality and infrastructural conditions were found in the micro-regions of Chiapas, Oaxaca, Yepachi-Maycoba in Chihuahua and Guarijía in Sonora. In these communities, the studied households visited private clinics and laboratories or public hospitals to which they had to travel, with costly implications, more frequently. Households that invested in private healthcare located far from their communities, incurred expenses that, in the long run, decreased their possibility of their resolving their health issue. Commonly, these therapeutic trajectories were suspended before the individuals in question found a solution to their ailments, frequently for economic reasons.

For such households, unresolved episodes of illness became part of everyday life, diminishing family members' ability to work and study and contributing to the accumulation of disadvantages. Households with unresolved illnesses tended to accumulate additional health problems, which also remain untreated and add further challenges to the family's potential to generate economic resources and skills that could improve their standards of living.

The social consequences which resulted because of a change in the domestic roles of households caused by illness were more evident in indigenous households living in contexts disadvantaged by their paucity of quality local health services. The most evident impact was on the school trajectories of youths who, because of their own health or owing to the economic consequences of the illness of a family member, dropped out of school and were forced to start working prematurely. This pattern was evident in the Tumbalá micro-region in Chiapas. Former student beneficiaries saw the viability of continuing their schooling limited by their poor access to healthcare. The implications of these kinds of scenarios, which are typical amongst domestic groups living in conditions of greater vulnerability, could make these students candidates for differential benefits, especially in the case of young people living with chronic ailments or whose parents are suffering from them.

In communities that have limited healthcare provision and where residents are often forced to seek medical attention in other regions, consideration should be given to the implementation of an appropriate and widespread referral system, forming links between health institutions in rural areas with those in urban centers, that facilitates the monitoring of patients (in particular beneficiaries) and appropriate aftercare.

In spite of the aforementioned tendency to search outside of local communities for medical attention, the fieldwork provided plenty of ethnographic evidence that allowed us to confirm that there was still a real user demand for local services, especially with regard to households' access to medical advice, medicines and help in obtaining "referrals" or "recommendations" that might be useful in getting users to urban hospitals or access to other health centers further a field.

In contrast to non-beneficiaries, who were less likely to visit their local health centers, there was evidence to suggest that beneficiaries recognized the benefits of attending the rural clinics when in need of treatment for

generally chronic or minor ailments (as in the case of pre-natal care in Samachique). Commonly, these ailments were related to general aches and pains, diarrhea, respiratory infections, minor accidents and access to birth control methods and medicines for chronic-degenerative ailments in communities where supplies of these medications existed regularly.

The *Oportunidades* Program, in accordance with its commitment to the provision of primary healthcare, had a clear impact on services in some areas. In cases such as that of the RMU in Samachique, where there was adequate antenatal care, family planning advice and access to methods of birth control, women, regardless of their ethnicity had access to these services. In addition, the regular medical check-ups of whole families, encouraged by the program's co-responsibilities, proved to be extremely useful in the detection of high blood pressure patients in the micro-regions of Chihuahua and of diabetic patients in the micro-regions of Oaxaca, even when access to medicines and treatment was irregular. The care and treatment of diabetic indigenous beneficiaries was considerably better than that provided to non-beneficiaries, among whom a higher occurrence of emergency care was reported at second-level private clinics and public hospitals.

Despite the limitations of local healthcare centers in terms of medicine supplies, family check-ups were very useful for diagnosis purposes. In general, beneficiary households seemed to be more concerned about finding a cure or treatment for their illnesses. We believe that access to relevant health advice and information, supported by a regular income (cash transfers), encouraged beneficiary households to take a different approach to their health problems. Even though not all of the health issues of beneficiaries were resolved in local care centers owing to the limitations of rural health services, this attitude became more evident when compared to the approach of non-beneficiary households. In general, beneficiary families exhibited a more heightened awareness of their own state of health and were more disposed to participate in preventive healthcare campaigns.

However, although the *Oportunidades* Program has managed to increase the demand on local health services and the participation of beneficiaries in community healthcare campaigns, the capacity of these healthcare centers to treat patients effectively cannot meet these demands. Preventative health advice promoted in workshops and through community-wide campaigns loses all credibility if the supply of materials for diabetes detection and Papanaicolau testing is limited.

Nevertheless, beneficiary families identified the program with a few resounding achievements – vaccination campaigns, access to treatment for chronic-degenerative patients, availability of pain killers and in some cases birth control methods, and access to treatment for ailments that can be resolved locally by centers. In the long term, these successes can go some way to changing the perception that families, particularly indigenous ones, have about healthcare services and the need to introduce preventative and self-care practices into their daily lives. We believe that these accomplishments must be sustained, guaranteeing full access to medicines and first-level healthcare.

In any case, in view of the unfavorable conditions under which first-level public services operated, the impact of the *Oportunidades* Program on the standard of healthcare remained minimal. The transition towards preventive medicine and the provision of effective first-level medical attention that can meet the demand of the local population is still a distant goal that will only be achieved when rural clinics are guaranteed the resources and infrastructure necessary for its viable operation: supply of medicines and the presence of professional medical teams. In order to meet these fundamental requirements, there needs to be an inter-institutional commitment to pursue common goals with respect to healthcare between the *Oportunidades* Program and other health and sanitary authorities.

SEXUAL AND REPRODUCTIVE HEALTH

Fertility and Use of Birth Control Methods

The evidence from all the states confirms the hypothesis that the reproductive cycles of indigenous women were slightly longer than those of non-indigenous women. On average, indigenous women in the southern states had six children, while indigenous women in Sonora, in the north, had five. On the other hand, the age at which women

(aged 19 or older) had their first child was generally older than the age at which their mothers first gave birth, which confirms that shorter reproductive cycles are more closely related to age or generational factors than to ethnicity.

In terms of the number of children born to women in the study sample, mestizo women of the micro-regions in the north exhibited the lowest average number of children, three in Sonora and four in Chihuahua. No increase was perceived in birth rate related to the presence of the *Oportunidades* Program. In general, where there was access to birth control methods, a greater frequency in their use was reported among mestizo beneficiary women than among non-beneficiaries, especially after their incorporation into the program. There was also a better disposition towards family planning among indigenous women in Chihuahua and Sonora who had access to birth control, and surgical methods once they had decided they want no more children.

The use of birth control methods was affected by access to health centers, contraceptive supply and the perceptions that patients had about them. They were widely used in the Mayo micro-region in Sonora and in the micro-regions in Chihuahua, where few differences existed between indigenous and non-indigenous women. Mestizo women in the Yaqui micro-region used the methods more frequently, whereas, in the Guarijía micro-region, birth control was used only in a very few cases by indigenous and mestizo women, mainly owing to difficulties in obtaining them because of shortages. In Chiapas, there were no reported cases of indigenous women who used birth control methods; in Oaxaca, a preference for permanent methods was observed, as well as a very evident tendency towards giving birth to one's last child in an organized medical setting, so as to have the option of a salpingo-ovariectomy. Among indigenous women in the south, especially in Oaxaca, we witnessed fewer incidences of birth control use during a woman's active reproductive cycle, a practice that was closely related to the notion that they were harmful to reproductive health, and owing to the negative attitudes of women's sexual partners.

In addition, the patterns of birth control use were closely related to the combination of the generation factor and the establishment of healthcare institutions in these areas, which, in the rural context began around the mid-1990s. That is, women between 20 and 40 years of age knew about or had used birth control methods not only because they have had greater access to healthcare centers than their mothers but also because they had greater exposure to information regarding the use of birth control methods through general campaigns and workshops organized by the program.

The birth control methods preferred by women in the sample during their reproductive life (concentrated on mestizo beneficiaries) were the IUD and hormone injections since they require little aftercare; among indigenous women, the preferred method was the salpingo-ovariectomy.

We could not specify the impact that the *Oportunidades* Program had on family planning and the use of birth control methods, but proximity to health centers and a regular supply of contraceptives were decisive elements in determining employment patterns. Although the program has had a very positive effect regarding the promotion of birth control methods, mainly through talks and workshops, on mestizo women between the ages of 20 to 40 years old, indigenous women did not take advantage of these methods to the same degree. After ten years, perceptions about the use of birth control methods or the attitude of males about them in the studied households in Oaxaca and Chiapas had not changed very much. Therefore, in indigenous communities more workshops should be offered, where both men and women are encouraged to attend, which emphasize the advantages and explain the risks of birth control methods. It is also important that workshops aimed at raising awareness of birth control methods and their implications be developed, presented respectfully and adapted to the cultural conditions of each context. It is necessary to train medical teams to give more insightful and interactive introductions to these subjects, since they usually deliver these topics solely through "talks" or "presentations".

We were not able to determine the impact of family planning workshops on young female student beneficiaries of high school age. However, in general, these young women showed a better disposition to discuss these subjects and were better informed about them.

Finally, we suggest that healthcare centers and medical teams offer sterilization to women, providing users with the opportunity to evaluate their interest in this procedure without incurring a major family expense, and most of all to guarantee a constant supply of materials to healthcare centers.

Pregnancy and Childbirth Healthcare Patterns

There was evidence to suggest that the maternity care patterns of some women in the sample (mainly mestizo women) had changed when we compared their first and last childbirth experiences, showing an inclination towards accessing prenatal care in organized medical scenarios for the birth(s) of their last child(ren). This tendency coincided with the more recent establishment of health centers in rural areas (in the mid-1990s) but also with the phase of the domestic cycle in which these expectant mothers found themselves when they fell pregnant with their last child (entering the consolidated phase). As the consolidated phase is associated with greater economic equilibrium, access to better reproductive healthcare became a possibility. There is also no doubt that many of these changes in childbirth and antenatal care patterns also coincided with periods during which women had been beneficiaries.

There was also evidence of generational differences. With the exception of Chiapas, and regardless of ethnic identity and program status, young women (over 19) were more inclined to seek formal antenatal care in medical scenarios, which we assume was also related to the more recent establishment of health centers in their communities.

In general, any change in maternity care patterns in favor of medical contexts was more related to the access to quality first-level health services than to ethnicity. Even though ethnic identity plays an important role for indigenous women regarding their choice of care model (midwife, unassisted birth or birth assisted by the husband or a female relative), this choice is mainly shaped by the type of treatment they receive at medical units and by the fear of falling victim to medical malpractice or abuse (a situation very common in Chiapas and Oaxaca). Consequently, these women prefer to receive antenatal care and have their child delivered in a domestic context. On the contrary, when indigenous women aged between 19 and 40 years old receive friendly, quality care, they prefer to be treated in medical contexts. The Samachique case studies exemplified this. All of the women studied, indigenous and non-indigenous pursued prenatal and postnatal care options at their local clinic in Samachique owing to the good operation and reputation of the IMSS-*Oportunidades* RMU in terms of maternity care and reproductive health advice.

Regarding childbirth, the women who were most likely to give birth in a formal medical setting were women over 40 years old who gave birth after 1990 and young women (older than 19 years of age), generally mestizo beneficiaries, living in contexts where they have access to quality health services. Nevertheless, in spite of this, when we compared these case studies to the number of cases where midwives provided maternity care, it became clear that the use of midwives is still the most common form of maternity care in rural contexts. As a general rule, these women only attended medical centers on the advice of midwives or in the case of a risky pregnancy.

According to the analysis, it was obvious that choice was affected more by the availability of services than by a woman's ethnic background, which would customarily give preference to midwives rather than to medical centers (except in the above-mentioned cases). It was not a simple coincidence that women from Oaxaca, who throughout their reproductive lives had received a different type of healthcare, were precisely those whose life history was marked by patterns of migration. For example, from the city to the mountains in case of non-Mazateco women or from the mountains to the city in case of indigenous women born in the Mazateco region. Indigenous women preferred to deliver their children in domestic contexts, although we must consider that this preference was determined not only by the type of medical attention they received as indigenous women in organized medical contexts but by the intention of avoiding anything that prevented them from continuing with domestic work and from caring for their other children.

We believe that the predominance of midwives providing maternity care in rural contexts, both indigenous and non-indigenous, illustrates the difficulties associated with getting access to quality maternity services from the local medical centers and the mistrust (mainly on the part of indigenous women) of those services. Since the middle of the 1990s, there have been more healthcare centers, more information about the risks associated with pregnancy and increased support from the *Oportunidades* Program (under the name of PROGRESA in 1998). Nevertheless, these efforts have not been sufficient to guarantee effective antenatal and maternity care in indigenous and rural communities, mainly because the reproductive healthcare of women is not only a matter of budgets and access to healthcare services but also one of sensitivity.

Opportune Detection of Cervical-Uterine Cancer

The *Oportunidades* Program has had a very positive impact on increasing the numbers of beneficiary women who are tested for cervical-uterine cancer (Pap test). However, the limited number of references that were made to this preventive practice in the testimonies of non-beneficiary women reflects the difficulties that women who are not part of the program experience in accessing the test. The program also had an effect on the willingness of indigenous women to take the test, a willingness that was more common in contexts where laboratory services were relatively efficient regarding the notification of results. An effective service with a well-stocked supply of test materials and good communication between rural clinics and the laboratories that conduct the tests encouraged other women, friends and relatives of the women who had already been examined, to have the test as well (Yaqui and Mayo micro-region in Sonora).

The general perception of beneficiaries was that the Pap test was part of their program co-responsibilities, since check-ups commonly occurred at the end of the workshops. However, in contexts where beneficiaries encountered an irregular supply of materials for the test (Mazateco), the promotion of these preventive measures usually lost credibility, and women were discouraged from taking the test in the future. The most common problem encountered was the late notification of results or non-notification of negative results; it is essential to communicate test results, explain how they are to be read and offer advice regarding their importance. For patients who live in contexts of marginalization and poverty and who have difficulties accessing healthcare the failure of the system are factors that discourage women, especially those over 40, from seeking this medical help.

Nevertheless, even though the *Oportunidades* Program has increased self-care practices and preventive measures in terms of reproductive health among women, especially with regard to the Pap test, these efforts should be complemented and reinforced by an effective healthcare service.

V. Conclusions and Recommendations

The socio-structural conditions in which rural and indigenous households live and the disadvantages posed by the typical failures of the healthcare system in general all affect a household's quality of life and generate the accumulation of disadvantages, which further influence their access to healthcare and their ability to maintain an ideal state of health that will enable them to continue to work or study. Given the structural etiology of these conditions, they can hardly be modified by any action of the *Oportunidades* Program.

Guaranteed access to healthcare continues to be of fundamental importance when trying to influence intergenerational transmission of poverty. From the analysis presented here, we can conclude that health-sickness-healthcare processes in rural Mexico have real social consequences, cause changes in domestic roles and generate domestic economic crises that families find difficult to cope with owing to their accumulated deficit of resources and possibilities. When the quality of healthcare services is not guaranteed, confronting an episode of illness has destabilizing consequences for domestic roles and economies. These consequences frequently imply the loss, partial or definitive, of the productive capacity of economically active members of a household (as patients, frequently accompanied by another member of the family, embark on the search for appropriate healthcare), compromising the capacity of these individuals to work or interrupting the schooling trajectories of children or young people. Illness also has a clear impact on school performance, whether because of the illness itself or because of the emotional suffering and other consequences and tensions caused by the changes in domestic roles that can result from the illness of another family member. These are integral factors that affect the potential these households have in real terms to improve their quality of life.

According to the healthcare patterns documented here, we can see that the greater the efficacy of local health centers, the better their possibility of treating episodes of illness without healthcare processes escalating the impoverished conditions of indigenous and rural households. Clearly, the program would be highly effective if the

infrastructure, medical supplies and professionalism of medical teams were adequate enough to meet the demands and expectations of its beneficiaries.

Consequently, while better service conditions have been achieved, we feel that improved integration of the Guaranteed Basic Healthcare Package with viable and effective healthcare models is pertinent to achieving a coordinated effort between the *Oportunidades* Program and public sector institutions to implement an appropriate and widespread referral system, forming links between health institutions in rural areas with those in urban centers. Such integration would result in a strengthening of inter-institutional relations (at a regional level) that would facilitate the monitoring of patients (in particular beneficiaries) and promote appropriate aftercare.

Taking into consideration the obstacles faced by patients who have to travel to other communities in search of appropriate healthcare, the community workshops could be used as an effective tool to provide guidance to rural inhabitants with respect to the specialized and quality health services that are on offer within other nearby communities, or those further a field that have a good reputation for efficacy. This kind of guidance would contribute to keeping down the costs of seeking exogenous medical attention, as the time wasted on visits characterized by 'trial and error' or unresolved diagnosis would be avoided and converted into a more definitive and viable plan that makes better use of financial resources. For that to happen, a coordinated effort between the *Oportunidades* Program and health authorities is needed to identify the regional healthcare models that guide the provision of medical care for each region and to become familiar with the available health service options. The fact that doctors do not tend to work within the same community for longer periods of time, leads to ignorance about the healthcare options to which the population has access within the same region or in neighboring regions, options such as access to specialist medical attention, laboratory and technical services (X-rays, ultrasounds, etc.).

The quality of medical care received (as perceived and experienced by users) significantly influences the general health of families, the lengths they have to go to find appropriate healthcare and their implementation of self-care and preventive practices. We believe that the Guaranteed Basic Healthcare Package must operate under a model that is knowledgeable of, sensitive to and which encompasses the different cultural contexts of the community and region in which it operates, and that it must associate itself with other local healthcare institutions, programs, and individuals within those rural and indigenous contexts (witch doctors, faith healers, midwives, and so on). One possible recommendation is that the local health representatives be individuals who are respected within the community and who can bridge the gap between the community and the health centers, or individuals who are prestigious members of traditional care networks who generally have a better knowledge of local needs and epidemiology, since the ethnic variable plays an important role in the integration of beneficiaries into service centers and the effectiveness of the actions of the Basic Healthcare Package, whose agendas and methodologies are not generally tailored towards multicultural realities.

After a decade in operation, although the presence of the *Oportunidades* Program has generated a positive impact on the studied communities encouraging basic health and hygiene practices, particularly amongst mestizo beneficiaries who live close to medical units, we believe that the program could have a more integrated impact on community health. This objective could be achieved through improved and well-coordinated inter-sector endeavors that promote sanitation practices and also encourage activities that guarantee full access to basic services such as running water, sewage and waste disposal, and garbage collection.

We believe that it should be a priority to fully activate the components of the Guaranteed Basic Healthcare Package, especially its gender component in rural and indigenous contexts, ensuring that the information disseminated regarding health, hygiene and family planning, while bringing about positive changes with respect to preventive and self-care practices, are sensitive to and take into consideration the experiences of the women and the customs of the communities in which the program operates. Furthermore, effort should be made to ensure the integration of men into health workshops, especially those related to sexual and reproductive health.

One of the program's main objectives is to support families living in conditions of extreme poverty by "enhancing the capabilities of their members" and expanding their alternatives for achieving better standards of well-being through the broadening of their options in terms of education, health and nutrition. In addition, it seeks to "help

connect its beneficiaries with new services and social programs that foster the development of their socio-economic conditions and quality of life" With this in mind, we believe that it is essential to promote workshops for service providers as well as for service users on human rights and racial equality, as a means of strengthening and boosting the social abilities of households to broaden their range of options for reaching better levels of well-being.

The impact of the Guaranteed Basic Healthcare Package on the preventive and self-care practices of households varies greatly depending on a number of factors. The amount of time exposed to the program and ethnicity are certainly factors that affect its impact, but the quality of, access to and proximity of first-level healthcare services has an even greater impact on the health of beneficiaries. When healthcare services are of poor quality, the optimum effect of the package is weakened and its achievements are only relative, reflecting the limits of the resources and services available. Indeed, the transition towards preventive rather than palliative healthcare and the integration of self-care and preventive practices into the daily lives of households is linked to sociopolitical policies that can guarantee better-quality services. The effect of poverty on health is explained not in terms of cause and effect but in as much as the difficulties experienced in accessing quality healthcare and "bad health" are components of poverty, rather than a consequence or cause of it, highlighting the injustice and inequity of service provision, and perpetuating the intergenerational transmission of poverty.

VI. SWOT Analysis

SUBJECT	STRENGTHS AND OPPORTUNITIES/ WEAKNESSES OR THREATS	RECOMMENDATION
	STRENGTHS AND OPPORTUNITIES	
Health Actions of the GBHP	**Strength.** In general, *Oportunidades* has a favorable impact on the health of beneficiary families, in as much as, through regular check-ups (when there is a doctor or health expert in attendance) and the self-care workshops, medical personnel attain a better knowledge of the general state of health of these families in comparison with that of non-beneficiary families.	We recommend the continuation of funding for health check-ups from the Department for Health and the *Oportunidades* Program.
Health Demands and expectations of first-level services	**Strength.** There is a real demand for local services from beneficiary households with long exposure to the program or from those who, regardless of their exposure to the program and their ethnicity, live close to health centers, expect to have access to medicines and health advice, and are in search of referrals or "recommendations" to enable them to attend urban hospitals.	Given the population's interest in high quality healthcare services and the growing expectations and need for health advice, we recommend that workshops and advice sessions that focus on second-level healthcare services should be held with the following agenda: the availability and procedures necessary to access second-level services within the region, its characteristics and costs, and potential to receive medical attention,
Health Demands and expectations	**Strength.** The program has brought about a positive impact amongst beneficiary households, thanks to the cash transfers, which are be particularly useful during episodes of illness.	This is particularly true of indigenous households, therefore differentiated support should be offered to indigenous households
Health Demands and expectations	**Strength.** Increase in service demand and expectations among indigenous and mestizo beneficiaries who live close to the health centers.	
Health Community participation	**Strength.** Greater participation of beneficiaries who live close to health centers (regardless of ethnic background) in vaccination campaigns (children and domestic animals) and other basic sanitation practices (not in operation in the Tarahumara and Chiapas micro-regions) and in community activities in general.	

Health User attitude	**Strength.** Better disposition of mestizo beneficiaries with long exposure to the program to turn to local healthcare centers for health advice (as well as referrals or recommendations for second-level attention).	
Health Social and communication networks	**Strength.** Program incorporation is an advantage when accessing channels of communication and social networks. Sometimes it even guarantees access to other State and Federal programs.	
Health Basic sanitation	**Strength.** After a decade in operation, the presence of program in the studied communities has generated a positive impact regarding the promotion of basic sanitation practices in beneficiary families, mainly through the building of latrines, decreasing open air defecation or in yards, plots or fields.	To implement well-coordinated intersector endeavors that promote sanitation practices, and which guarantee full access to basic services such as running water, sewage and waste control and disposal.
Health Basic sanitation	**Strength.** Better sanitation habits in households comprised of daughters of main beneficiaries, indigenous or non-indigenous who have relative access to healthcare services and live in less marginal rural contexts (municipal capitals and communities close to urban centers or located by roads or close to healthcare centers).	
Health Basic sanitation	**Strength.** There is an excellent disposition for waste control among beneficiaries, although through erratic methods such as burning plastic waste (promotion of correct waste disposal was not documented), which, though not directly promoted by the program, has been promoted by local agents (with the exception of the micro-regions in Chiapas).	To integrate into the agenda of the self-care training workshops the topic of adequate waste handling and disposal. It must be incorporated specifically into the agenda as "Adequate Waste Classifying and Handling".
Health Child population	**Strength.** *Oportunidades* has had a very positive impact on the early identification of risk factors, diagnosis and care of children who have grown up under the threshold of the program (mainly ADD[1], ARD[2] and dehydration). Among long exposure beneficiary households that live close to healthcare centers, first-level medical attention led to the diagnosis, regardless of their ethnicity and in the case of indigenous female beneficiaries, timely detection only occurred when it coincided with routine check-ups.	
Health Medicines and chronic-degenerative patients	**Strength.** Long exposure beneficiaries living with diabetes or high blood pressure, in contexts with efficient healthcare services, show better treatment and control of their ailments (does not apply for micro-regions in Chiapas and the Mixe micro-region in Oaxaca)	The Department for Health and the *Oportunidades* Program authorities should guarantee the medicine supply of diabetic and high blood pressure patients in Chiapas.
Health Use of non-public service infrastructures	**Opportunity.** There are several places in the Tarahumara region that have hospitals and clinics that are funded by religious organizations that provide healthcare services with a respectful healthcare model adapted to the cultural conditions of the indigenous population.	The Department for Health and the *Oportunidades* Program authorities should come to an agreements with the religious hospitals and clinics that operate in the Tarahumara region to collaborate with public clinics for medical attention services and healthcare education of beneficiary families.
Health Sexual and Reproductive Health (SRH)	**Strength**. Jointly with other campaigns, the *Oportunidades* Program has helped to promote sexual and reproductive health as a public health issue and not only as a private female issue.	
Health (SRH)	**Strength.** Better disposition to **discuss** reproductive health matters (birth control methods and Papanicolau testing) in long exposure beneficiary households where first and second generation women live (the latter have been scholarship beneficiaries and are senior high school students)	
Health (SRH)	**Strength.** Better willingness to search for antenatal care among women between 19 and 40 years of age (indigenous and non-indigenous, long exposure beneficiaries living close to healthcare centers).	
Health (SRH)	**Opportunity.** Better willingness among indigenous women to accept the Pap test when laboratory service is relatively efficient regarding the waiting time for results (Yaqui and Mayo micro-regions in Sonora)	

Health Self-care workshops	**Opportunity**. The self-care training workshops are already established, recognized social spaces; in general, attendance is constant and punctual, but subject repetition becomes boring for beneficiary women (especially for those with long exposure to the Program). Usually, the better-known subjects or those that local service providers can handle better are repeated without consideration of the diversity of the subject matter on the *Oportunidades* subject agenda.	To coordinate the delivery of workshops according to the different age groups and their degree of program exposure (we observed that usually no consideration was given to this). To train health teams on matters related to domestic violence, substance abuse among male heads of households, gender violence and *machismo*, which, although considered in the agendas, are usually not promoted owing to lack of training. The need for training guides is urgent. They should include information on group dynamics and techniques for health service providers and rural assistants.
Health Self-care workshops	**Strength.** In general, the self-care training workshops are not delivered in an interactive manner but through 'talks' and presentations, owing to the limitations of time (excess workloads of health personnel and assistants), training, adequate spaces and availability of teaching materials.	To create thematic descriptive cards (flashcards) that will function as tools for health service providers and assistants.
Health Self-care workshops	**Strength.** Where they are fully implemented, self-care training workshops are potentially useful as an adult education component for those adults who did not finish their primary or secondary school cycle.	
Health Self-care workshops	**Strength.** Self-care training workshops have enjoyed a better reception when presenting the following subjects: use of nutritional supplements, parasitosis/parasite treatment cycle, basic sanitation for families, vaccines, diarrhea and VSO use, childcare of infants less than a year old and older than a year, and family planning (among beneficiaries).	To (at least) guarantee the supply of medicines and materials for the ailments that are discussed in the workshops, since we consider their success related to their regular supply (vaccines and oral electrolyte solutions), in addition to the willingness of the main beneficiaries to hear about childcare.
	THREATS OR WEAKNESSES	
Health Quality of first-level services	**Weakness.** Since first-level attention is the operational basis of the Guaranteed Basic Healthcare Package, the structural disadvantages of the healthcare system imply a **weakness** in its operation (the most serious, no doubt)	
Health Quality of first-level services	**Weakness.** In the communities where healthcare provision and treatment (first-level services) were generally ineffective, we observed the tendency of inhabitants to look to other areas (particularly urban areas) in search of better healthcare, which meant that rural clinics became underused (particularly for the fulfillment of the program's health co-responsibilities).	
Health Coverage	**Weakness.** Many indigenous families living in geographic isolation have limited access to public medical healthcare services; they constitute the sector of the population with the greatest shortage of healthcare facilities and the greatest occurrence of respiratory and mother/child illnesses, as well as, tuberculosis and malnutrition.	The Department for Health and the *Oportunidades* Program should make greater effort to coordinate the more frequent visits of mobile healthcare units and itinerant medical personnel.
Health Collaboration and reproductive health provision	**Weakness**. Migration patterns pose challenges to the effective provision of healthcare, particularly maternity care. For example, young migrant women at the start of their reproductive cycle who fall pregnant in territories far form their communities tend to return home during their last trimester to guarantee the company of their family and community during childbirth. This can present difficulties for rural medical centers when evaluating the medical needs and conditions of newly arrived pregnant women (no access to the medical/maternity history of the patients), and often leads to women being refused medical attention.	The Department for Health and the *Oportunidades* Program should encourage (and perhaps coordinate) communication between states in terms of maternity care, so that provision of medical attention is not interrupted when women moves to a different state.

Health Approach	**Weakness.** Owing to the unfavorable conditions under which first-level services operate, in general terms, the impact of the *Oportunidades* Program remains, and will continue to remain, minimal unless the approach to healthcare provision changes in favor of preventive medicines and the effective treatment of first-level demands.	The Department for Health and the *Oportunidades* Program should supply local healthcare centers with the necessary materials for taking samples of chronic degenerative ailments and ensure the supply of medicines (especially those which are known to cure common ailments).
Health Preventive and self-care practices	**Weakness.** The main limitations affecting households' implementation of preventive and self-care practices resides in the mistrust and lack of credibility of first-level healthcare centers owing to previous experiences of ineffective treatment, shortage of qualified doctors, healthcare personnel rotation, erratic diagnoses, service refusal, shortage of medicines and medical supplies and, in general, negative past experiences which are communicated down through the generations. Such is the perception of many indigenous families, regardless of their program status, who live far from healthcare centers.	The Department for Health and the *Oportunidades* Program should guarantee the supply of medical resources to ensure an effective service and employ qualified medical personnel. The local health representatives should also be individuals who are respected within the community and who can bridge the gap between the community and the health centers, helping to instill more confidence in local first-level services because they understand the needs of local inhabitants and because they too are native to the area.
Health (SRH)	**Threat.** Although the program has managed to increase the frequency of Papanicolau testing, the poor response to cases where results have tested positive, and the time taken to issue results, discourages women from employing this preventive practice. Positive results are rarely accompanied by counseling and, in general, negative results are not usually even communicated.	The Department for Health and the *Oportunidades* Program should improve the level of medical attention offered to cancer patients, including counseling and aftercare, and ensure the effective operation of Papanicolau testing: all test results should be communicated, whether positive or negative, and the time taken for those results to be issued should be improved.
Health Medical attention and migration	**Threat.** Owing to the limited efficacy of first-level healthcare provision, beneficiaries (indigenous and non-indigenous) frequently leave their communities in search of appropriate medical attention in other regions, often urban areas, which means that rural clinics become underused (particularly for the fulfillment of the program's health co-responsibilities) and non-beneficiaries stop attending altogether. Consequently, it is difficult for the *Oportunidades* Program to effectuate a significant impact on the practices of households that generally look for palliative resources rather than preventive. Rather than decreasing, the demand for second-level medical services has increased.	The Department for Health and the *Oportunidades* Program should implement an appropriate and widespread referral system, forming links between health institutions in rural areas with those in urban centers, which facilitates the monitoring of patients (in particular beneficiaries) and appropriate aftercare.
Health Perceptions, quality and service effectiveness	**Threat.** One of the main reasons why inhabitants, especially indigenous (even those who live close by), do not attend their local clinics is based on their perceptions and ineffectiveness of the services offered.	Closer collaboration between traditional services and medical institutions will help to build a more integral health service, building confidence and better links with the community at large. The Guaranteed Basic Healthcare Package should, taking into account the local customs and the perception of rural inhabitants, acknowledge the value of more traditional methods of treatment and healthcare (healers, shamans, midwives, and so on), and allocate the role of the *Oportunidades* health representative to a respected member of the local community who can help promote the advantages of the package.

Health Self-care workshops and gender	**Weakness.** Even given that it is the women of a community who are the most frequent attendees of the workshops (they constitute the majority of the audience), the subjects that enjoy a better reception are those concerning the care of others, mainly childcare, and not about women's issues.	Although health-related gender issues do already feature on the agenda of topics to be covered by the workshops (albeit in a rather general manner), owing to lack of training, they are rarely broached or not dealt with effectively. The topics of the agenda must be made more specific.
Health Self-care workshops	**Threat.** Self-care workshops run the risk of underestimating or negating the value of local wisdom and indigenous or traditional medicine.	The workshops must recognize and value the cultural heritage of the communities in which they operate, particularly with regards to the treatment of ailments. The training and sensitivity of healthcare personnel are essential.
Health Health rights	**Threat.** The violation of human rights with respect to healthcare provision and racially motivated discrimination stop many potential uses of healthcare services from attending local clinics or expose them to situations of abuse of power. Therefore, often, even when access to healthcare does exist, attendance is low.	To promote workshops for service providers as well as for service users on human rights and racial equality, as a means of strengthening and boosting the social abilities of households to broaden their range of options for reaching better levels of well-being.

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VIII. Appendices

a) Ethnographic Fieldwork Guide Material

- Reproductive History Format
- Therapeutic Itinerary Format
- Health Personnel Interview Guide

b) Subjects of the Self-Care Training Community Workshops

FIELDWORK GUIDE MATERIAL

Reproductive History Format

Reproductive histories shall be applied only to women between 15 and 55 years old living in the households selected for intense ethnographic observation (study cases). Basically, these histories will document the reproductive-healthcare trajectories of these women as well as record the perceived quality of the services received. The data gathered will be recorded by filling out a prepared table for each woman and registering their accounts regarding the topics selected for consideration: pregnancies, births and family planning. For identification purposes we will assign a consecutive number to each reproductive history, which will correspond to the personal thoughts and comments recorded in the field journal. Answers to the questions may be indicated by numbering them on blank pages (stapled) or in the field journal. Remember that part of this information might be confidential. It is recommended that the interview should be carried out with discretion, preferably alone with the interviewee.

Number: _____

Date: _____ Interviewer: _____

Community: _____

Family: _____

Name: _____

Date of birth: _____ Current age: _____

How many times have you been pregnant? _____

How many children have you had? _____

How many of them live? _____

Age at first pregnancy: _____

Filling out the following tables will allow us to fine-tune the reproductive histories. Nevertheless, blank pages or the field journal must be used to describe in detail the course of the pregnancy and the care received. Remember to include actual quotations from the interviewee's account.

NUMBER OF PREGNANCIES	NUMBER OF CHILDBIRTHS	NUMBER OF ABORTIONS	NUMBER OF LIVING CHILDREN

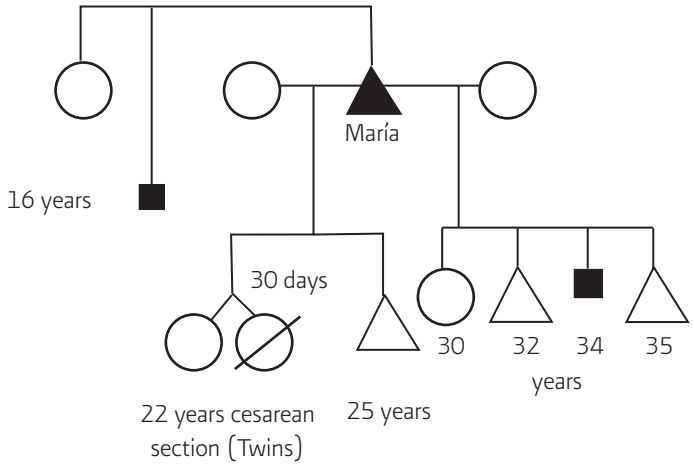
PREGNANCY	YEAR (PREG/ BIRTH)	NUMBER OF TIMES RECEIVED ANTENATAL CARE	NAME OF CHILD (LIVING CHILDREN)	OUTCOME OF PREGNANCY (NATURAL BIRTH, C-SECTION, ABORTION, STILLBIRTH)	PLACE WHERE ANTENATAL CARE WAS PROVIDED (COMMUNITY AND TYPE OF HEALTH SERVICE)	WHO PROVIDED THE MATERNITY CARE? (DOCTOR, NURSE, MIDWIFE, RELATIVE)	HOW WERE YOU TREATED?	COMMENTS (COMPLICATIONS, PROBLEMS, COSTS, ETC.)
First								
Second								
Third								
Fourth								
Fifth								
Sixth								

Graphic Reproductive History

An example: María, the interviewee, had an abortion during her first pregnancy at 16 from her first boyfriend. Later, at 22, she had a twin pregnancy resolved through a C-section resulting in the death of one of the twins one month after birth. Three years later – during her first stable relationship – she also had a baby girl through natural birth (at 25). Later, she got together with a second partner with whom she had a son, a daughter, an abortion and her last daughter. Maria's ages at the time of each birth are registered in the graph:

Gestational Episodes

To find out about pregnancy and childbirth two pregnancies will be selected from the reproductive history of each mother, those with the greatest time lapse. That is, either the first and last pregnancy to end in childbirth (the last one will always be included since it's usually the best remembered) or another example that is deemed significant (by being different in its course or results). The purpose is to obtain a comparison, preferably between an episode before 1998 and the most recent one. The ethnographer, along with the interviewee, shall select which are the gestational episodes most adequate to elaborate a detailed account; other pregnancies, which could be considered pertinent, may be included (abortions, cesarean sections, twin pregnancies, stillbirths, etcetera). We must be thorough in our data collection. In other words, we must go beneath the surface and inquire about the details of the causes and reasons behind the decisions made – from their beliefs about health to the necessities they faced (times, distances, costs, beneficiary status at the time of birth, perceived quality, etc.). The purpose is to find out if the *Oportunidades* Program has influenced the interviewee's decision-making and also how their perception regard the quality of healthcare has evolved, remembering that we are mainly concerned with the evaluation of what has happened in the past ten years.



I. Pregnancies: Record each gestation account separately.

1. Position of pregnancy in the reproductive cycle (1st, 2nd., specify)
2. Month and year when it occurred
3. Was antenatal care provided?
4. Person or persons providing it
5. When did it begin (Month of pregnancy at the time of first visit)
6. How many times did antenatal care take place? With whom each time?
7. What was the quality of the maternity care as perceived by the pregnant (at the time) interviewee? (Were there differences depending on the provider or site where care was offered?)
8. What was the pregnancy like? (Were there medical complications or any other type of difficulties?).
9. Was she weighed? Did she have height measured? Did she have her abdomen examined? Her blood pressure taken? Did she get a tetanus shot? Was she given iron, vitamins or folic acid?
10. Was she told about the symptoms of complications such as leg swelling, numbness, muscle contractions, abdominal pain, exhaustion, headaches, vaginal discharge or bleeding, fever, nausea, vomiting or of the advantages of breastfeeding?
11. Did she understand what the doctor or nurse told her about pregnancy care or about the medicines?
12. Additional comments (suggestions, anecdotes, etc.)

II. Childbirths: Each childbirth should be registered separately. They must coincide with the pregnancy episodes recorded above.

1. Month and year of occurrence
2. Where did the birth take place? (place, institution)
3. Who was the person in charge?
4. What was the perceived technical quality?
5. How was she treated?
6. Were there complications? How were they resolved?
7. Factors that motivated decisions with respect to the birth
8. Suggestions for improving maternity care.
9. In case of stillbirth (before or after labor), what were the symptoms or signs – in the mother or the child? How did they go about seeking medical attention (or not)? Were their any treatments administered? Describe the evolution of the events.

III. Family planning

1. Do you use any methods of birth control?
2. Which one?
3. Since when have you been using it?
4. Which others have you used?
5. In case of oral or injected contraceptives, where do you get them?
6. Have you had any problems getting them? (explain)
7. Would you like more children?
8. Why?
9. Would you like to use any other family planning method?
10. What is your partner's position about it? Do you agree with him?
11. Has your opinion about family planning changed in the past ten years?

IV. Detection of cervical-uterine cancer

1. Have you ever taken the Papanicolau test?
2. Why? (for both, negative and affirmative answers)
3. Before you took the test for the first time, did you know what it entailed?
4. Do you know how often the cancer test should be taken?
5. How many times have you taken it during the past three years?
6. When was the last time you took the test?
7. Where did you take it?
8. Who tested you? (man, woman, doctor, nurse, health representative)
9. Do you think that the time it takes you to get from your house to the place where the test is taken is short, normal or long?
10. Did you get your results?
11. Were the results explained to you?
12. Did you understand the explanation?
13. How did you feel you were taken care of last time you attended?
14. Do you think that the cancer test sample was taken with care?
15. Do you trust the personnel carrying out the test?

16. Do you think that the personnel carrying out the test treated you in a friendly or kind way?
17. Do instruments being used make you afraid?
18. Do you think that the place where the test is carried out is adequate? (privacy, dignity)
19. Do you consider that the waiting time is short, normal or long?
20. Do you consider that testing hours are adequate for you at the clinic you attend?
21. Do you consider that the time it takes to return results is short, normal or long?
22. Do you trust the results?
23. Have you attended any talks dealing with cervix–uterine cancer?
24. Did you find them useful? Did you learn new things from these talks?
25. How did you feel you were treated the last time you attended?
26. Do you have any suggestions regarding the Papanicolau program? (specify the place to which the suggestion is directed)

Therapeutic Itinerary Format

All members of the household should provide a therapeutic itinerary regarding their most recent episode of sickness or ailment. Other episodes may be selected if in the opinion of the interviewer they provide valuable information. Additional pages as well as the field journal may be used to fill in data, record the descriptive account and, especially, to include personal thoughts and comments. For identification purposes, we will assign a consecutive number to each therapeutic itinerary, which will be registered in the field journal alongside personal thoughts and comments. Answers to the questions may be indicated by numbering them on blank pages (stapled) or in the field journal.

Number: _____

Date: _____ Interviewer: _____

Community: _____

Family: _____

Interviewee: _____Kinship: _____

Name of patient: _____

Date of birth: _____ Current age: _____

1. When was the last time you became ill? (specify day, month, year or season, as specific as possible)

2. What was the illness you experienced? (in the words of the interviewee or patient)

3. What do you think was the reason (or reasons) for your illness or relapse? (Make a reconstruction of the account, mentioning the causes. Include your own thoughts about the factors that may well be related to the causes in your field journal)

4. Who made the first diagnosis? Were there other diagnoses? (specify the family's opinion about what was wrong and how it was or wasn't changed by a doctor's or witch doctor's diagnosis or by that of any other health agent, including relatives or friends)

5. What did you do when you got sick? (Reconstruct in detail the sequence of actions taken, from domestic ones to institutional. In the account, include thorough descriptions of what was done and when it was done (home remedies, going to a drugstore, to the doctor, etc.) indicating the decision-making processes, relevant factors associated with the quality of care and the prescriptions received (if possible, mention medicines and dosages). Include details of the problems encountered during the process of attaining and receiving healthcare, the perceived quality of the support and aid received). Do not settle for the first account of this process; probe further to find out if a witch doctor was seen, if the suggested remedies were taken, if medicines had to be obtained from elsewhere, etc. What alternatives were used in their therapeutic itinerary? (Explore domestic and nutritional measures undertaken, self-medication, medicine supply sources, received counseling and advice, use of social networks, visited health services, alternative or popular medicines.)

Make sure to number the options according to the order in which they were used.

6. Were procedures performed to aid diagnosis during the episode of illness? (specify which ones; if problems were encountered; if they were considered useful or well diagnosed)

7. What was the first therapeutical decision? Who made it? Based on what considerations?

8. Did you go outside the local community for medical attention? (Write down an account of what went on during each therapeutic action: transportation, costs, waiting times, habits, diagnostic procedures, treatments etc.)

9. What was the evolution of the ailment? (Indicate relapses and complications, subsequent appointments, sequels, chronifications, other aspects that might have had something to do with the cure or aftercare of the ailment)

10. Perceived quality of the different healthcare options experiences or sought during the course of the ailment: Interaction with personnel; if medical attention was considered adequate and opportune; if therapeutic prescriptions were explained. Where prescriptions were obtained and how. Perceived problems. Improvements. Effectiveness of institutional methods in comparison to other methods (witch doctors, midwives, etc.).

11. It is also relevant to find out about the economic consequences of the illness: expenses generated by or related to the illness; sale of resources to compensate for transportation and medical attention costs, decrease of income caused by the patient's unfitness to work or by the interruption of productive activities by household members accompanying the patient. This will allow us to identify the factors that, along with remittances from emigrants and/or the Oportunidades benefits, affect domestic economy.

12. Social consequences of the illness (changes in domestic roles, support by relatives and friends or loss of them, etc.). How was the family and the patient affected by the illness or illnesses? Find out about time invested by others in taking care of the patient, tasks they had to interrupt, role exchange, child labor, female labor and other relatives' labor, etc., or any other activity that was necessary to compensate for the disability of an active household member.

Guide for Interviewing Health Service Personnel

Health service providers are essential to the operation of the Oportunidades Program so it is necessary to interview or have talks with ALL of them (doctors, nurses, nurse auxiliaries, promoters, first-level technicians, managers, drivers, etc.) regarding the following points. To complement the guide, additional blank pages may be used. If it were considered pertinent, observations may also be included in the field journal (indexing by number).

Number: _____

Date (first time) _____

Interviewer: _____

Community: _____

Personal Data

1. Name of interviewee: _____
2. Date of birth: _____
3. Current age: _____
4. Place of birth: _____
5. Civil status (or rather, family situation; describe it):
6. Schooling: Where and what (dates and places; specializations; other studies):
7. Information about employment trajectory (previous positions; places and institutions)
8. Time working in this community
9. How did you come to be here? Why?
10. How do you like living in this community?
11. How long have you been working at this health center?
12. How do you rate your "intercultural experience? (dealing with the indigenous population)
13. Do you live in the community? Or, How long do you usually reside in the community?

II. Fulfillment of activities in the health center

1. What is your position in the health center? (specify if it is a full-time position, temporary position, social service or an unpaid position)
2. Do you feel your salary is appropriate?
3. What are your working hours/calendar?
4. Do you have another job besides this one?
5. What are your institutional responsibilities? (activities connected to the position and also specific responsibilities)
6. What other tasks have you had to voluntarily assume owing to the needs of the local community?
7. What problems do you face to carry them out?
8. Are you satisfied with your job and its results?
9. Are you satisfied with your superiors?
10. Do you have any suggestions for improvement?
11. Have you been provided with training or access to courses?
12. If so, on what subjects? (select the most important or useful according to the interviewee, indicate the less useful ones; comment on the quality of the courses)
13. When did the courses take place?

III. Local epidemiologic profile

1. What illnesses or accidents are most frequent in the community? (include the 5 most frequent or most problematic)
2. What factors relate to their occurrence?

3. Who do these illnesses usually affect (men, women, children)? Are there ethnic differences?
4. What restricts the treatment of those illnesses in this center?
5. Do you consult a source or guide about the characteristics of medicines? (indicate which one)

IV. Reproductive health of women

1. What problems do you encounter when providing healthcare to meet the needs of women's reproductive health? (in general)
2. Family planning (user attitude, implementation, supply of birth control methods)
3. Pregnancy control (user attitude, implementation, supply of medication, reference mechanisms for support units)
4. Obstetric attention (referral mechanisms for support units)
5. Early detection of cervicouterine cancer (user attitude, implementation, relations with the cytology laboratory)
6. Are there differences in the process/reactions when comparing indigenous to non-indigenous patients? (in each of the topics: PPF, antenatal care, obstetric attention, Papanicolau)
7. And in the case of long-term beneficiaries? (Ibid)
8. Include case examples

V. Children

1. What support or problems do you encounter when handling children's problems?
2. What are the most common health problems among children of the community? (Ask separately for children less than 1 year of age, 1-5 years and school age children.)
3. Are there differences when dealing with indigenous and non-indigenous children? (With respect to each of the most common illnesses including some that, even if not frequent, are problematic due to deficiencies or shortfalls in the service.)
4. And in the case of long-term beneficiaries?
5. Include case examples

VI. Older adults

1. What support or problems do you encounter when dealing with problems of hypertensive or diabetic patients?
2. Are there differences when dealing with indigenous and non-indigenous patients?
3. And in the case of long-term beneficiaries?
4. Include case examples

VII. Health center operation

1. Is there enough adequate resources to provide quality services?
2. What do you think of the medicine supply? (indicate what is lacking)
3. What about instruments and work equipment? (indicate what is lacking)
4. How do patient referral and counter-referral mechanisms to other health units operate? (indicate problems and include cases)
5. Do the clinic and services operate regularly? Regulation compliance.
6. What do you do to improve the service?
7. What is your relation with the rest of the staff in the center? What are those relationships like? Are there difficulties communicating with one another?
8. What do you think of your working hours and shifts (if applicable) of this unit?

VIII. User relations

1. Who comes most frequently to this unit or health center? (men, women, children)
2. What problems do you face in your relationships with patients?
3. Do you speak the local language or any Indian language?
4. Do you have communication problems with your patients? (Explain with which ones especially and give examples)
5. Are they on time to their appointments?
6. Do they comply with their therapeutic prescriptions?(If they don't, explain the factors that affect non-compliance of treatment)
7. Are preventive actions having any impact (Línea de vida/PREVENIMSS)?
8. Are there differences in your relationship with Oportunidades beneficiary patients?
9. Are there differences in your relationships with indigenous patients?

IX. Self-Healthcare Workshops

1. Are health workshops being provided by personnel from the center?
2. Who is in charge?
3. Are subjects appropriate for this community?
4. Did you receive any type of training (specify for which subjects you did and for which you didn't; ask about the quality of training)
5. Do you consider workshops have an impact on the health of the recipients? (Specify which workshop do, and which ones don't and why)
6. Comments or suggestions

X. About *Oportunidades*

1. What changes has Oportunidades brought to the performance of your activities?
2. How would you rate the training you received from the Oportunidades Program?
3. What do you think about the program?
4. What is the state of health of program beneficiaries?
5. And that of indigenous and non-indigenous beneficiaries?
6. How do beneficiaries carry out their health co-responsibilities? (compare indigenous and non-indigenous beneficiaries)
7. What do you think about beneficiaries who are dropped from the program for not complying with program health co-responsibilities?
8. Do you have any suggestions for improvement of the program?
9. What do you think of the operation rules of the Oportunidades Program?
10. And about the rules of operation of the health component in particular?
11. About the benefits of Oportunidades?
12. How does the family registry work in your health unit?
13. How does the certification of attendance to medical consultations and to the Self Healthcare Workshops work?
14. How does the delivery of benefits work?
15. How are you coping with all the form filling and paperwork?
16. How many hours a week do you spend on Oportunidades patients? (on average)

SUBJECTS FOR THE COMMUNITY SELF-CARE TRAINING WORKSHOPS

PROGRAM PRESENTATION

• Use of Nutritional Supplement	• Parasitosis/Deparasitation cycle
• Nutrition and Health	• Acute Respiratory Infections (ARIs)
• Basic Family Sanitation	• Tuberculosis
• Social Participation	• Artery Hypertension and Diabetes
• Adolescence and Sexuality	• Accident Prevention
• Family Planning	• Lesion Handling
• Nutrition	• Prostate Diseases
• Favorable Environment for Community Health	• Organ Donation
• Maternity Without Risks	• Oral Hygiene
• Pregnancy	• Vector and Scorpion-Transmitted Diseases
• Nutrition During Pregnancy and Breastfeeding	• Addiction Prevention
• Labor and Puerperium	• Sexually Transmitted Diseases
• Newborn Care	• HIV/AIDS Prevention
• Breastfeeding	• Gender and Health
• Breast and Cervical-Uterine Cancer, Pap Test and Breast Self-examination	• Domestic Violence
• Childcare of the Under-Ones	• Climaterium, menopause and andropause
• Childcare of the Over-Ones	• Basic Disaster Management
• Vaccines	• Care of the Elderly
• Early Stimulation	• Incapacity
• Diarrhea and use of VSO	• Other subjects linked to the local epidemiologic situation

TRAINING SUBJECTS FOR SELF HEALTHCARE OF SENIOR HIGH SCHOOL GRANT HOLDERS

1. Adolescence and sexuality
2. Family Planning
3. Accident Prevention
4. Addiction Prevention
5. Sexually Transmitted Diseases
6. HIV/AIDS
7. Gender and Health
8. Domestic Violence
9. Nutrition
10. Favorable Environment for Community Health