Determinants of the use of contraceptives among the indigenous population in Mexico

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Multiple studies on the demographic behavior of the indigenous population reveal that the presence of high levels of fertility and mortality is frequent. Research papers describe this phenomenon based on information from life records, population census or data gathered about specific ethnic groups or indigenous communities.

Indigenous fertility has been found to be higher than the national average in our country. This is so because indigenous women marry at an earlier age, they have less knowledge and access to birth control methods and, in general, display cultural patterns that legitimate large sized families. Thus, when taking a summary measure of recent fertility through a global fertility rate (for the 1998-2002 quinquennium), a significant difference stands out between the indigenous and the non-indigenous populations: more than one and a half children on average (4.2 and 2.7, respectively) (Chávez *et al.*, 2007).

Albeit the heterogeneity of ethnic groups, in general it is found that relationships within indigenous communities in terms of authority, power, resource control and decision making are very unequal and they favor men. The social system is based on the male control of the land, and the hereditary transmission of property rights is carried out from man to man. In most indigenous communities, this inheritance pattern is linked to patrivirilocal residence, in other words, young newly-wed women move to their parents-in-

law's house. This situation makes feminine empowerment yet more difficult (Freyermuth, 2003: 11).

Moreover, as Szasz points out, men feel that they have to exercise their authority as part of the behavior expected from them; if they fail to do it, they can be shamed for not properly controlling their women's demeanor. These contexts are also characterized by gender inequality, as well as social and material inequality, *i.e.*, men and women have different access to resources (Szasz, 2003: 13). In general terms, indigenous women have very reduced life choices; they are solely valued as mothers or wives.

Therefore, the indigenous population's precarious economic conditions together with unequal gender relationships result in a demographic lag in terms of fertility levels and prevalence of contraceptive methods. Undoubtedly, there is a lack of studies that go into detail about the determinants of indigenous reproductive behavior.

The objectives of this paper are:

1) To assess and compare the social characteristics and the pattern of use of contraceptive methods among indigenous and non-indigenous women
2) To analyze the influence of the condition of being indigenous on the use of contraceptives, taking into account economic, cultural, social and gender-related factors

Methodology

The National Survey of Reproductive Health 2003 (*Encuesta Nacional de Salud Reproductiva* – ENSAR, 2003) will be used as a basis for the analysis. The

study universe is constituted by women between 15 and 49 years of age, married or in common-law marriage at the time of the survey.

ENSAR 2003 gathers information on characteristics of the indigenous population by asking questions to determine if the subjects speak an indigenous tongue and belong to an ethnic group. Furthermore, there are questions about pregnancy history and contraception. This allows eliciting information about fertility and the use of contraceptive methods among women according to the condition of being indigenous or not. In order to place the phenomenon in its fair dimension, the results for the indigenous population are displayed, comparing them with the recorded situation among the non-indigenous population.

Moreover, a multivariate logistic regression model was carried out to recognize the conditioning factors of the use of contraceptives among indigenous and non-indigenous women. The dependent variable was the condition of use of a modern birth-control method, and the independent variables included: socio-economic stratus, rural or urban residence, region of residence, degree of education, family size, age at the time of the interview, ideal number of children and perceptions around gender equity, and the condition of being indigenous or not. The model allows us to see the influence of the condition of being indigenous, regardless of other social and economic variables.

Two gender equity indexes were established to show that the traditional roles play an important part as far as this population's reproductive practices are concerned. The first one refers to aspects related to sexuality and reproduction and it takes into account which member of the couple takes the initiative when it comes to sex, the partner's reaction if the woman expresses

her unwillingness to have sex, and which member of the couple decides how many children to have. The second index is related to the distribution of home chores and it takes into account who decides how to spend the money, if the male partner sometimes does the dishes, washes clothes, cooks, irons, goes shopping or cleans the house, if the woman helps her mate with his job, if they take their children to the doctor together, and if the male partner helps taking care of the children.

Gender equity index on aspects related to sexuality and reproduction

Variables	Values	Index
Which member of the couple takes the initiative when it comes to sex	Both	Equity
The partner's reaction if the woman expresses her unwillingness to have sex	He says nothing or He understands	Equity
Which member of the couple decides how many children to have	Both	Equity

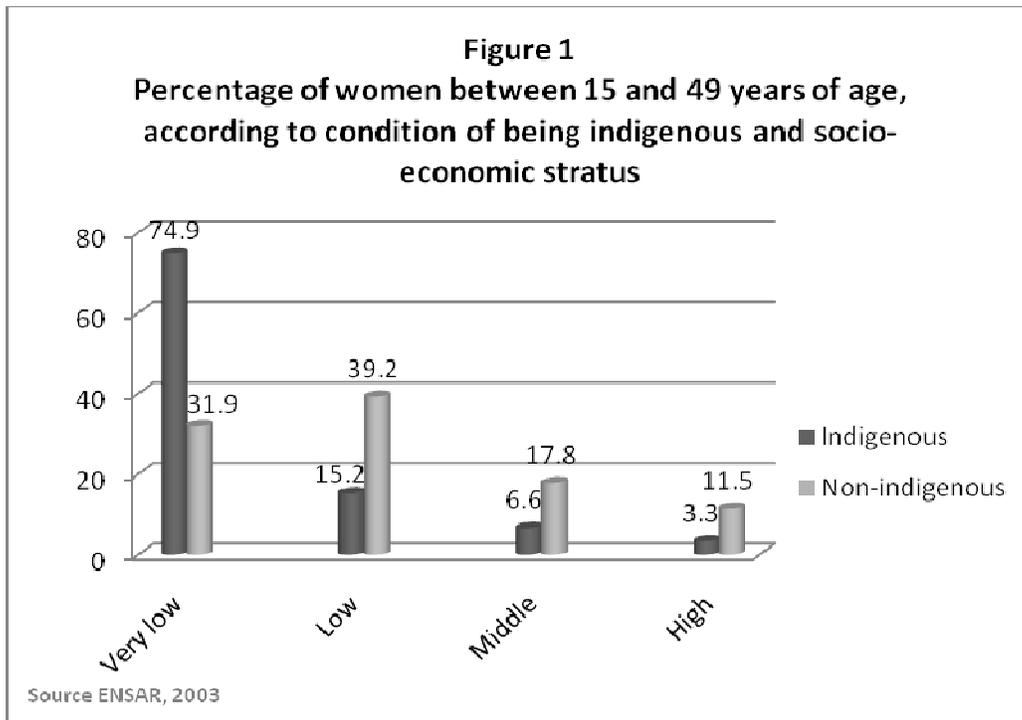**Gender equity index on aspects related to the distribution of home chores**

Variables	Values	Index
Who decides how to spend the money	Both	Equity
The male partner sometimes does the dishes, washes clothes, cooks, irons, goes shopping or cleans the house	Sometimes or Always	Equity
The woman helps her mate with his job	Sometimes or Always	
They take their children to the doctor together	Both	Equity
The male partner helps taking care of the children	Both	Equity

In relation to the construction of the other independent variables, it is worth mentioning that the household's socio-economic stratus (Echarri, 2007) was developed by the Reproductive Health and Society Program at El Colegio de México. The stratus takes into account the following variables: household characteristics, availability of public services, average education of family

members (pondered according to gender and generation) and occupational level of the family member with the highest occupational degree.

In terms of the other variables, the distinction between a *rural* and an *urban* locality was done according to the 2500-inhabitants criterion. The *complete elementary school* category included women who had pursued technical studies without a high-school degree. The *religion* variable was recodified according only to three categories: Catholic, other religion and none. The *other* category in relation to the *condition of activity* variable comprises the unpaid female family workers, unpaid female non-family workers, and female piece-workers.

It stands out that most indigenous women (74.9%) belong to the lowest social group, while only one third (31.9%) of the non-indigenous population belongs to this social group (Figure 1).

Figure 1
Percentage of women between 15 and 49 years of age, according to condition of being indigenous and socio-economic stratus

Source ENSAR, 2003

Results

The socioeconomic characteristics analyzed (Table 1) are indicative of the greater deterioration of the life conditions of indigenous people: low education levels, "very low" socio-economic stratus, limited incorporation into the formal labor market and high incorporation into the informal one. All these aspects undoubtedly have an impact on their reproductive behaviors.

Table 1.
Frequency distribution for women married or in common-law marriage by condition of being indigenous

Variables	Indigenous	Non-indigenous
Socio-economic stratus		
Very low	79,3	36,6
Low	12,5	40,1
Middle-High	8,2	23,3
N	1685	10172
Condition of activity		
Wage earning	15,2	18,7
Self-employed	12,5	15,9
Other	8,9	3,0
Does not work	63,5	62,4
N	1683	10173
Education level		
No formal education	22,3	3,5
Incomplete elementary education	33,6	15,3
Complete elementary education	27,4	24,6
High-school and beyond	16,7	56,6

Source: ENSAR, 2003.

Additionally, according to our indexes, there is greater gender inequity among the indigenous population. Tables 2 and 3 present higher rates according to our gender equity indexes. It is noteworthy that, in the case of the index on aspects related to sexuality, the difference between indigenous and non-indigenous

women with high levels of inequity is less than in the case of the index on aspects related to the distribution of home chores. Nevertheless, inequity is always greater among indigenous women.

Table 2. Percentage of women that are married or in common-law according to the gender equity index on aspects related to sexuality and reproduction by condition of being indigenous

	Inequity	**Equity**
Indigenous	64,3	35,7
Non-indigenous	59,9	40,1

Source: ENSAR, 2003.

Table 3.

Percentage of women married or in common-law marriage according to the gender equity index on aspects related to the distribution of home chores by condition of being indigenous

	Inequity	Equity
Indigenous	53,5	46,5
Non-indigenous	37,8	62,2

Source: ENSAR, 2003.

As far as the prevalence of contraceptive methods, there are also very important differences between indigenous and non-indigenous women. While 28.8% of the indigenous women between 15 and 49 years of age currently in common-law marriage have never used a birth-control method, the percentage is 7.4% in the case of non-indigenous women in the same age group (Table 4). However, when gender equity in sexuality-related issues is greater according to our index, the percentage of never-users of birth control methods is reduced to 20.6% in the case of indigenous women and to 5.4% in the case of non-indigenous females.

Table 4. Percentage of women married or in common-law marriage between 15 and 49 years of age by condition of contraceptive use and condition of being indigenous

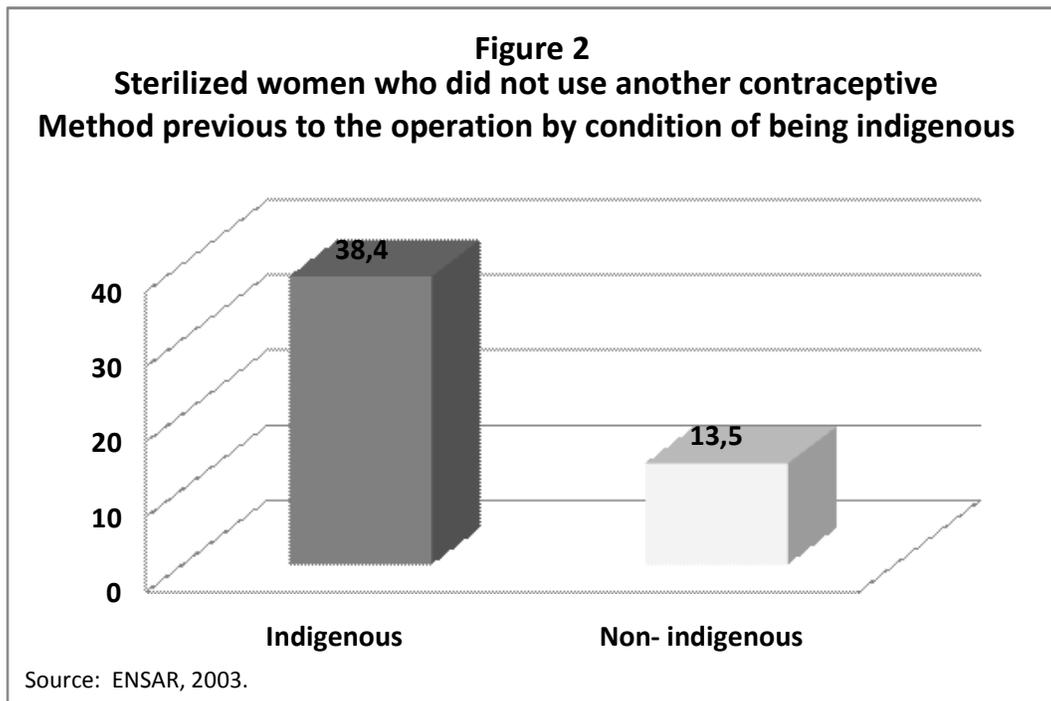|	Indigenous	Non-indigenous
Current user	44,9	65,6
Ex-user	26,3	27,0
Never-user	28,8	7,4

Source: ENSAR, 2003.

Table 5.
Percentage of women married or in common-law marriage between 15 and 49 years of age by condition of contraceptive use and condition of being indigenous under circumstances of gender equity

	Indigenous	Non-indigenous
Current user	54.0	74.7
Ex-user	25.4	19.8
Never-user	20.6	5.4

Source: ENSAR, 2003

A remarkable fact in terms of female sterilization is that almost 40% of the indigenous population used this permanent method as their first birth-control option. In contrast, only 14% of the non-indigenous population did so.

Figure 2
Sterilized women who did not use another contraceptive
Method previous to the operation by condition of being indigenous

Indigenous: 38,4
Non-indigenous: 13,5

Source: ENSAR, 2003.

REGRESSION

Table 6.
Odd ratios for women married or in common-law marriage using contraceptive method according to characteristics selected by condition of being indigenous

Characteristics	Odd ratios	Significance
Indigenous		
Yes	1.00	
No	2.21	0.000
Age (continuous)	1.01	0.002
Children born alive (continuous)	1.15	0.000
Regions		
Central	1.00	
North	2.21	0.000
South	1.10	0.176
East	2.21	0.000
Size of locality		
Rural	1.00	
Urban	1.76	0.000
Education level		
No formal education and incomplete elementary education	1.00	
Complete elementary education	1.43	0.000
High-school and beyond	2.86	0.000
Constant	1.47	0.000

Source: ENSAR, 2003.

The preceding table shows the socio-demographic variables that are related to the use of modern contraceptives. According to the model, insofar as one is not indigenous, the frequency of contraceptive use is increased by 2.21 times, regardless of the other related characteristics.

Likewise, higher education levels, urban context, Northern and Eastern regions, greater age and a larger-sized family are all related with higher

contraceptive use. Only the significant variables are presented. The gender equity index and the socio-economic stratus showed a high correlation with the education level. This is likely to explain why they did not display a statistically significant relationship once the woman's education level and the other socio-demographic variables were introduced.

Conclusions

The results show that social and economic characteristics differ greatly between indigenous and non-indigenous women. Indigenous females live in a disadvantageous social and economic situation in comparison with non-indigenous ones. Moreover, they suffer from a greater degree of gender inequity. Similarly, differences in reproductive behavior between both populations were observed: non-indigenous women display greater fertility and lesser contraceptive use. The regression model also shows that, regardless of social and economic characteristics, the condition of being indigenous is associated with a lesser use of birth-control methods. Hence, it is important that health and population policies take into account the cultural specificities of indigenous peoples so that women are able to make free and informed decisions about the size of the family they want, with no coercion whatsoever and under conditions of gender equity.

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