Contraception and caesareans in Brazil: an example of bad reproductive health practice in need of exemplary action[1]

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With the redemocratization of Brazil, the 1980s were a landmark for women's struggles and certain legal rights related to reproductive health. The 1980s ushered in the Program for Integrated Health Care for Women (*Programa de Assistência Integral à Saúde da Mulher - PAISM*), the Commission for Studies on Human Reproductive Rights, the National Council for Women's Rights, and the 1988 Federal Constitution, to mention just the progress made at the Federal level.

The Program for Integrated Health Care for Women was conceived of in 1983 and approved in final form in 1986. It resulted from efforts by health professionals, the women's movement, and experts from the Ministry of Health itself to undertake actions that significantly broadened health care for women. Under the *PAISM*, women are seen not just as reproductive organs but in their totality and in all phases of their life cycle. The Program's actions include the control of specific diseases such as cervical and breast cancer as well as family planning, ranging from treatment of infertility to contraception. This concept was an extremely important step as both a gain in itself and a perspective for the years to come.

The National Council for Women's Rights (*Conselho Nacional dos Direitos da Mulher - CNDM*) was set up in 1985 in the Ministry of Justice. Its articulation with various women's groups and institutions all over Brazil led to various actions in reproductive health. An outstanding example was its participation in the drafting process on reproductive health aspects in the 1988 Federal Constitution.

The Commission for Studies on Human Reproductive Rights also originated from articulation between feminists, health professionals, and Ministry of Health experts. It was created in 1987 in the Ministry of Health as an agency for collective negotiating in technical consultancy in order to do a broad diagnosis of the status of human reproduction in Brazil, not only from the point of view of health per se, but also in its social, economic, ethical, and political aspects, in addition to providing technical backup for a health sector policy proposal pertaining to reproduction. The Commission was made up of reknowned experts, the vast majority of whom were women. Its purpose was to follow actions by the Ministry of Health in the process of articulating with various social sectors and institutions involved in the issue of human reproduction.

Women's health rights are protected under the 1988 Federal Constitution, Article 226, paragraph 7: "Based on the principle of human dignity and responsible parenthood, family planning is a free decision pertaining to the couple, while the state is responsible for providing educational and scientific resources for the exercise of this right, and any form of coercion by official or private institutions is prohibited."

Frequent changes in the Ministry of Health resulting from a continuous turnover of Ministers (always stemming from political decisions) substantially hampered the operationalization of the PAISM. What began as constant, productive collaboration with the Commission for Studies on Human Reproductive Rights was gradually undermined by the Ministry of Health. The role of the National Council for

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Women's Rights was also considerably curtailed on the national scenario.

On the other hand, a number of state and municipal councils for women's issues flourished, as did several women's police stations (*Delegacias da Mulher*). Emerging nongovernmental women's organizations also concentrated on women's rights in general and reproductive rights in particular. The National Feminist Health and Reproductive Rights Network was founded, and together with other NGOs it began to organize for reflection and effective exchange of information and knowledge to provide the backup for policies devoted to women's rights.

The Commission for Citizenship and Reproduction emerged in 1991 as the result of concern over health and reproductive rights in the country and the need for a channel to link efforts by the academic, legislative, legal, and health sectors in civil society in order to watch over and ensure citizens' reproductive rights.

Dialogue with Congress increased, and congressional investigative commissions were set up in several state houses of representatives and in the National Congress in order to investigate accusations related to the breach of reproductive rights, particularly with regard to the sterilization of women. Beginning in 1989, 27 bills were presented in the National Congress (most of which were presented in 1991): nine were on abortion, four on sterilization and pregnancy tests, six on family planning, five on medical and prenatal care, and three on new reproductive technologies. Members of Congress and feminists are still attempting to come to a consensus on guidelines for regulating sterilization of women.

In recent years, one senses a strong trend towards the defense of reproductive health and the rights pertaining to it, since they are still not a reality enjoyed by the majority of Brazilian women. A recent study by Costa[2] bears witness to this situation. The study examined state and municipal health secretariats (the latter covering just state capitals) in order to assess the status of implementation of the PAISM. The study pointed out the following:

1. Coverage of health services pertaining to the PAISMC was less than 40% in 81% of the municipal health secretariats in the capital cities and in 67% of the state health secretariats.

2. Some 38% of the municipal health secretariats in the capitals and 44% of the state health secretariats were providing prenatal care for less than 20% of the pregnant women in their respective catchment areas.

3. Coverage for gynecological care is less than 10% in some 25% of the institutions studied.

4. Control of cervical cancer covers less than 10% of the female population in 44% of the municipal secretariats in the capitals and 36% of the state secretariats.

5. Some 45% of the municipal health secretariats and 50% of the state secretariats provide family planning programs covering less than 10% of the needs of their populations.

A systematic, sharp drop in human fecundity in Brazil is occurring in the context described above. While women in 1980 had an average of 4.5 children, this figure had dropped to 3.5 by 1984 and 2.5 by 1991.[3] The question remains, what resources do Brazilian women have at their disposal to be able to reduce their fecundity so rapidly?

Contraception in the Brazilian context

Unfortunately, the most recent available data on nationwide coverage for contraception are from 1986.[4,5] At that time, according to these data, the situation for contraception in Brazil was marked by a high overall rate of usage: some 70% of married or cohabiting women from 15 to 54 years of age were using some contraceptive method. For all women,

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[2] COSTA, A.M., *O PAISM Uma política de assistência integral à saúde da mulher a ser resgatada*. Comissão de Cidadania e Reprodução, Brasília, 1992.

[3] FIBGE.

[4] PNAD-86. FIBGE.

[5] PNSMIPF-BEMFAM, 1986.

regardless of marriage status, this figure was some 43%.

Table 1 shows the breakdown of users according to the methods used, for Brazil as a whole and some states. It was clear from the data that female sterilization was at the top of the list, followed by synthetic hormones. Together they made up 85% of the methods used. Among what are considered highly effective methods for avoiding pregnancy, intrauterine devices were nearly absent from the list, with only 1,5% of women using them, while fewer than 1% of the women had vasectomized partners. The so-called less efficient methods were used by 10,4% of women, with periodic abstinence in the lead. It is also clear from Table 1 that birth control does not vary much from one state to the next in Brazil.

Inspite of differences in sterilization rates and use of the pill from one state to the next, there is no doubt that when one refers to contraception in Brazil, one means the pill or tubal ligation, with the Northeast and the state of Goiás leading the country for the latter.

In the 1990s, two studies - one in the Northeast in 1991[6] and the other in the city of São Paulo in 1992[7] - give an idea of the birth control situation in these two contexts. They also allow one to assess whether the contraceptive picture has changed there over the last five years. In the Northeast, the study showed that 54,3% of all women had used at least one contraceptive method and that 39,1% were doing so at the time of the survey (Table 2). The figures were much higher in São Paulo, where 58,3% of the women interviewed stated that they were currently using a contraceptive method and 76,8% had used one at some time during the childbearing period of their lives. Table 2 shows that the picture had not changed since 1986. In other words, birth control was virtually limited to two methods: the pill and sterilization of women. Taken together, the two are used by 74,7% of all female users of contraceptive methods in São Paulo, and 85,9% in the Northeast.

In São Paulo, as in 1986, the pill had a slight lead over tubal ligation, but in the Northeast ligations were in the lead, with 62,9% of users of contraceptive methods.

Table 1: Married or cohabiting women from 15 to 54 years of age using some form of contraception, according to method used. Brazil and several states, 1986.

Method	Brazil	SP*	RJ*	RS*	PR*	MG*	GO*	AM*	BA*	PE*
Sterilization	44.4	38 4	41.4	17.7	42.8	37.4	71.3	55.4	39.5	61.4
Pill	41.0	39.4	45.3	64 9	45.5	44.0	20.2	35.6	40.1	27.1
Vasectomy	0.9	2.5	0.2	1.1	1.5	0.6	1.5	0.7	0.9	0.5
IUD	1.5	1.2	1.3	4.6	1.0	2.9	0.6	0.3	5.2	0.4
Condoms	1.8	3 8	1.8	0.9	1.8	2.9	0.8	0.3	0.6	0 7
Coitus interruptus	2.5	4.5	1.5	1.5	2 0	1.6	1.7	0.4	2.5	2.1
Periodic abstinence	6.2	7.5	6 8	7.3	3.6	8.6	3.5	6.3	7.8	5.5
Other	1.7	2.7	1.7	2.0	1.8	2.0	0.4	1.0	3.4	2.3

* SP (São Paulo), RJ (Rio de Janeiro), RS (Rio Grande do Sul), PR (Paraná), MG (Minas Gerais), GO (Goiás), AM (Amazonas), BA (Bahia), PE (Pernambuco).

From BERQUÓ, E. *A anticoncepção no Brasil hoje*. Paper presented at the 12th World Congress of Gynecology and Obstetrics, Rio de Janeiro. October 1988.

[6] *Pesquisa sobre Saúde Familiar no Nordeste*. Brasil 1991. BEMFAM-DHS.

[7] *Pesquisa sobre Saúde Reprodutiva da População Negra*. 1992. CEBRAP.

Table 2: Distribution(%) of all women of childbearing age using some kind of contraceptive method, according to method used, in the Northeast (1991) and the municipality of São Paulo (1992).

Methods	São Paulo[1]	Northeast[2]
Female sterilization	36.1	62.9
Pill	38.6	23.0
Condoms	6.2	2.8
Vasectomy	4.5	0.2
Injections	2.8	1.8
IUD	2.2	0.8
Vaginal methods	0.3	0.0
Coitus interruptus	3.8	4.1
Periodic abstinence	2.3	4.3
Other	3.2	0.1
TOTAL	100.0	100.0
Number of women	**1,026**	**6,222**
% using some method	58.3	39.1
% having used at some time	76.8	54.3

Sources: [1] *Pesquisa sobre Saúde Reprodutiva da População Negra*. CEBRAP, 1992.
[2] *Pesquisa sobre Saúde Familiar no Nordeste*. Brasil 1991.

In addition, the prevalence of tubal ligations increased as compared to 47.2% of users in 1986. On the other hand, use of the pill decreased from 32.1% in 1986 to 22% in 1991. In other words, in the poorest region of Brazil, the range of alternatives for contraception was narrowed even further. This is notworthy, considering that in the field of human reproductive technology, the list of options for controlling conception is getting longer and longer. In terms of the population as a whole, according to available data, we estimate that of the 10,487,909 women from 15 to 49 years of age in the Northeast in 1991[8], from 2.3 to 2.5 million had been sterilized.

From an international perspective, the high figures for female sterilization in the Brazilian contraceptive repertoire is part of a trend seen in various parts of the world, particularly in the less-developed bloc. As one can observe in Table 3, the estimates for 1990 show that in the less-developed bloc, prevalence of female sterilization is over twice that found in the rich countries as a whole. In addition, exactly the opposite occurs with the so-called "other methods" (that is, the non-modern ones) - that is, they are at the top of the list in the most developed nations!

[8] Preliminary data from the 1991 National Census.

Table 3: Percentage of use of contraceptive methods (by married women of childbearing age). Estimates for 1990.

Methods	World	More developed nations	Less developed nations
Sterilization	**20.1**	**11.4**	**22.3**
Female	15.7	7.6	17.8
Male	4.4	3.8	4.5
IUD	10.9	5.4	12.3
Synthetic hormones	**8.6**	**14.4**	**7.1**
Pill	7.7	14.3	6.0
Injectable	0.9	0.1	1.1
Condoms	5.4	15.1	2.9
Other	8.0	16.1	5.9
TOTAL	**53.0**	**62.4**	**50.5**

Source: ROSS, J.A. *Sterilization: Past, Present, Future*. Working Papers nº 29. The Population Council, 1991.

We should stress that most of the industrialized countries have low birth rates, below the replacement level, without having to rely heavily on irreversible contraceptive methods. Women there prefer to use more traditional methods, and when these fail they turn to legal abortion, without having to give up their reproductive capability.

According to Ross[9], currently some 25% of all Third World couples are sterilized. In addition, 95% of all the sterilized women in the less-developed bloc live in just 20 countries, of which 14 are in Asia, five in Latin America, and one in Africa. Considering the countries with the highest sterilization rates, Latin America is particularly overrepresented (Table 4). Brazil is in eighth place in the worldwide list.

Sterilized women

These two studies from the 1990s show some characteristics of the sterilized women in the two contexts. They also point to some trends over time.[10]

In the Northeast, 19% of all women had been sterilized before reaching the age of 25, as compared to 10% in São Paulo. However, median age at sterilization was quite similar in the two studies: 29.7 and 31 years, respectively. It is astonishing to observe how the age for definitively interrupting childbearing had dropped so drastically over the course of just five years. In fact, in 1986 just 5% and 3% of women had been sterilized by the age of 25 in the Northeast and São Paulo, respectively. Median age at sterilization was 36,6 and 38.2, respectively - in other words, in both cases there was a drop of some seven years!

The median number of children born before sterilization is also quite similar in the two

[9] ROSS, J A. *Sterilization: Past, Present, Future*. Working Papers nº 29. The Population Council, 1991.

[10] In the case of São Paulo, the 1992 study refers to the municipality and the 1986 study to the state.

contexts: 2.7 for São Paulo and 3 for the Northeast. However, in the Northeast, the proportion of women sterilized after bearing a maximum of two children increased from 15% in 1986 to 22% in 1991; with a maximum of three children, the figure increased from 40% to 49%. The median number thus decreased from 3.6 to 3 children. Meanwhile, in São Paulo, the median number of children at sterilization remained virtually stable.

Table 4: Prevalence of Sterilization and use of contraceptive methods in 20 selected countries. 1990.

COUNTRY	% OF WOMEN		% OF STERILIZED WOMEN AMONG USERS OF SOME METHOD
	Sterilized	Using some method	
South Korea	47.6	76.1	62.5
Puerto Rico	46.8	74.8	62.6
Panama	37.7	66.4	56.8
China	36.8	74.9	49.1
Dominican Rep.	36.5	55.3	66.0
El Salvador	36.1	52.6	68.6
Sri Lanka	31.4	65.5	47.9
India	31.3	44.9	69.7
Brazil	30.4	69.2	43.9
Thailand	30.4	73.5	41.4
Taiwan	26.0	78.0	33.3
Hong Kong	23.4	82.6	28.3
Singapore	22.8	73.5	31.0
Uruguay	22.5	69.5	32.4
North Korea	22.3	68.4	32.6
Mexico	21.8	57.9	37.6
Chile	20.9	64.4	32.4
Argentina	19.9	61.5	32.4
Colombia	19.6	66.7	29.4
Costa Rica	17.7	70.9	25.0

Source: ROSS, J.A. *Sterilization: Past, Present, Future*. Working Papers nº 29. The Population Council, 1991.

There was a slight proportional increase in prevalence of sterilization in the Northeast with an increase in schooling, while in the São Paulo study there was no association between sterilization and education.

In both the Northeast and São Paulo, there was no significant difference in sterilization between white and black women. In the Northeast, 38.5% of white women and 37.5% of black women had undergone tubal ligations (the figures refer to women who were or had been married or had cohabited). In São Paulo, the figures were 28% and 27.2% for white and black women, respectively. In this context, the only significant difference was in the group of women with the least schooling and in the 25-34 year age bracket, where prevalence of ligations was higher for black women than for white women.

In both studies, practically 50% of the ligations had occurred in the last five years.

The São Paulo study identified the most frequent reason cited by women for having submitted to sterilization. Some 61.6% stated that they no longer wanted to have children, while 25% referred to health problems. The change in women's discourse in these few years is worthy of note. In 1986, the proportion of women who stated having submitted to tubal ligation because they had already born the ideal number of children varied from 18% to 48% by state in Brazil, a figure well below the 61.6% who so declared in the São Paulo study. On the contrary, in 1986, the reason cited most frequently by women was related to health problems, varying from 32% to 54% from one state to the next, or well over the 25% in the São Paulo study. As for the 1986 figures, at that time we argued that this frequency of "health problems" could reflect the influence of physicians over women's discourse, since according to the Brazilian code of medical ethics, sterilization can only be performed in exceptional cases of serious health problems in women.[11],[12] In the final analysis, these women were repeating what they were allowed to say. Even in the face of the precarious living conditions and health care to which women were subjected, it was difficult to believe that these would become such strong factors for sterilization.

In my opinion, the fact that in 1992 they were much more directly explicit in turning to tubal ligation because they no longer wanted to have children (when, as everyone knows, health care had been scuttled even further in Brazil by that time) reflects a change of attitude by women. They feel they have already had as many children as they want, and that they have the right to express this. This is due unquestionably to an atmosphere that has been established in the country thanks to women's movements in defense of reproductive rights, as I attempted to show above. Of course, if women had knowledge about and access to other contraceptive methods, they could exercise their right without necessarily having to rely on an irreversible method en masse. In this sense, the study in the Northeast showed that while nearly 100% of women had heard of the pill and tubal ligation and over 80% knew where to obtain them, only 50% had heard of the IUD and over 76% did not know where to obtain it. Worse yet, only 37% had heard of vaginal methods and 79% did not know where to get them.

Sterilization as a culture

The process of sterilization in Brazil has followed its course as if it were part of a culture, leading cohorts of women every year to put an end to their ability to reproduce. In the Northeast, 54% of all sterilized women submitted to the operation in the last five years, and in São Paulo the figures were not very different.

Such statistics speak of a veritable culture. In São Paulo, 52% of sterilized women are daughters or sisters of other sterilized women, and there are cases of families where the mother and two or three of her daughters have had tubal ligations. In addition, of those who still have not undergone sterilization, 42% are members of families where the mother or sisters have already submitted to this procedure.

When asked if they would recommend tubal ligation to other women, 65% of those who had already undergone the operation said yes, justifying their answer on the basis of financial difficulties in raising many children (40%), safety in the method (37%), and not harming one's health like the pill does (18%). This last reason shows once again that they only have two options available: the pill or sterilization. Of the other 35%, 70% said that they should not

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[11] BERQUÓ, E.A. *A esterilização feminina no Brasil hoje*. Paper presented at the International Meeting "Women's Health: A Right to be Won", promoted by the *Conselho Nacional dos Direitos da Mulher* (National Council for Women's Rights). Brasília, June 5-6, 1989.

[12] Chapter VI of the Medical Code of Ethics: On the physician's responsibility. Article 52: "Sterilization is a crime, but it may be performed in exceptional cases when there is a precise indication, approved by two physicians heard jointly."

give advice because every woman should decide for herself, but 14% said that the woman may still want to have more children and 9% stated that sterilization can cause frigidity, menopause, or other kinds of health problems.

Some 89% of the women said they were satisfied with sterilization, and the reasons stated were not having to worry about using other methods and the fact that they already had the ideal number of children. For those who regretted having submitted to sterilization, the reasons are the same found in other studies: death of children, new marriages, wanting to have more children, and health problems.[13],[14]

Looking to the future, 39% of married (or cohabiting) women expressed the intent to turn to sterilization, while the highest proportion was among women in the 15 to 24 year age bracket. In the Northeast, among the currently married women who were not using any contraceptive method, 31% stated that they intended to submit to sterilization over the next twelve months and 36% intended to do so later on.

In my view, this veritable culture of sterilization in Brazil is ensured by the cumplicity established between women and physicians. For women who no longer wish to have children (for reasons that go far beyond the scope of this brief treatise) and who lack the resources to buy the pill or do not feel good taking it, the only alternative is a tubal ligation. But since sterilization is forbidden under the Brazilian Penal Code[15] and the Medical Code of Ethics, physicians are led to perform ligations during Caesarean sections. In this case, the patient's hospital costs and the doctor's fees are covered by INAMPS (the Social Security system), and the additional cost of sterilization is paid for "under the board" by the patient.[16],[17]

This explains why, in 1986, 75% of tubal ligations were performed along with the woman's last delivery, that is, by Caesarean section. This national average was surpassed by 50% of the states, with the highest figures going to Pará (82.6%), São Paulo (83%), and Amazonas (85.9%). The recent study from São Paulo revealed that 80% of tubal ligations had been done during Caesarean sections. The situation is illustrated well by the fact that 55% of the women sterilized stated that they had paid the physician for the operation in cash: furthermore, in 11% of the cases, in addition to coverage from INAMPS (Social Security) or health insurance, they had also paid a portion in cash. Health insurance or INAMPS covered the entire cost for 11% of the women. However, it is worthy of note that 23% of the tubal ligations were performed free of cost - they were paid for by some source that the women ignored. One possible clue to this part of the situation is that a 1989 report by the *Associação Brasileira de Entidades de Planejamento Familiar* (Brazilian Association of Family Planning Organizations) lists approximately 150 institutions all over the country, including hospitals, clinics, and maternity wards, with which it maintains agreements.

Arrangements are usually made with physicians during prenatal care (that is, in some 50% of cases). Osis[18] and collaborators interviewed 3,703 women of childbearing

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[13] GRUBB, G.S., PETERSON, H.B., LAYDE, P.M., RUBIN, G.L. Regret after decision to have a tubal sterilization. The American Fertility Society. *Fertility and Sterility*, vol. 44, no. 2, August 1985.

[14] PINOTTI, J.A. et al. Identificação de fatores associados à insatisfação após esterilização cirúrgica. *Gin. Obst Bras.* 9(4) 304, 1986.

[15] According to the Brazilian Penal Code (written up in 1940), Article 29, paragraph 2-III, sterilization is a crime, since it constitutes serious bodily injury, resulting in the loss of reproductive function. The corresponding sentence is two to eight years in jail.

[16] BARROS, F.C., VAUGHAN, J.P., VICTORIA, C.G., HUTTLY, S R.A. (1991). Epidemics of Caesarean sections in Brazil. *The Lancet* 338 (20): 167-169.

[17] FAÚNDES, A., CECATTI, J.G. A operação cesárea no Brasil. Incidência, Tendências, Causas, Consequências e Propostas de Ação. *Cadernos de Saúde Pública*, Rio de Janeiro, 7(2): 150-173, April-June 1991.

[18] OSIS, M.J.D. et alli (1990). Laqueadura tubária nos serviços de saúde do Estado de São Paulo. *Revista de Ginecologia e Obstetrícia* 1 (3): 195-204.

age in 1988 in the state of São Paulo and found that 87% of the women discussed tubal ligation with their physicians during prenatal care. Some 10% of agreements are also reached just prior to childbirth, and 11% of the sterilized women stated that the physician-patient decision had been reached during labor! In light of the situation just described, 32% of the women stated that that had gotten pregnant in order to be sterilized during childbirth - by Caesarean section, of course!

The fact that Caesarean sections are used to perform sterilizations becomes clear in comparing the proportions of 80% and 33% of Caesareans in the last delivery for sterilized and non-sterilized women, respectively (in 1992 in São Paulo) (Table 5). In the Northeast, too, the proportion of Caesarean sections for the last live birth for those women who had at least one live delivery in the last five years was 52% for sterilized women and 21% for non-sterilized women.

Table 5 also shows that the incidence of Caesarean sections in the last childbirth increases with level of schooling for the patients, thus confirming previous studies.[19] This trend is true for both sterilized and non-sterilized women.

Table 5: Percentage of Caesarean sections in last childbirth, for women who had ever been married or cohabited, age 15 to 50 years, sterilized and non-sterilized, by level of schooling. São Paulo, 1992.

Level of schooling	Total	Sterilized	Non-sterilized
Illiterate or incomplete primary school	36.7	71.1	24.3
Primary school complete to junior high complete	48.3	83.1	31.8
Secundary school incomplete or more	60.1	87.7	48.1
TOTAL	46.8	80.1	32.9

Source: *Pesquisa sobre Saúde Reprodutiva da Mulher Negra*. CEBRAP, 1992.

Abuse of Caesarean sections

Just as the desire or need for sterilization leads women to submit to Caesarean sections, through the mechanisms described above, the abuse of such surgical deliveries by obstetricians leads many women to submit to sterilization, since they have already undergone several Caesareans and run the risk of a ruptured uterus during childbirth. I will also show that this second line of causality is present in Brazil and that it contributes to the high prevalence of tubal ligations. First, however, I will provide figures on the prevalence of Caesarean sections among Brazilian women.

A nationwide survey of patients from the INAMPS (Social Security) system showed an increase of Caesareans from 15 to 31% of deliveries between 1970 and 1980.[20] Examining nearly one million births occurring from 1981 to 1986 in 192 maternity hospitals in 15 states of Brazil, a report by the Latin American Committee on Perinatology (LACP/PAHO/WHO)[21] showed an increase in the proportion of Caesareans from 20%

[19] FAÚNDES, A., CECATTI, J.G., opus cit..

[20] GRANADO-NEIVA, J.G. Operação cesárea no INAMPS. 26th Congress of Gynecology and Obstetrics, Rio de Janeiro, 1992.

[21] *Nascimentos por Cesárea em Instituições Brasileiras*. Report by the Latin American Committee on Perinatology/PAHO/WHO. *Centro Latinoamericano de Perinatología y Desarrollo Humano*. Montevideo, Uruguay, 1988.

of deliveries in 1981 to 26% in 1986. Under the coordination of the Maternal and Child Health Division of the Ministry of Health, this study showed an even greater variation from state to state, where Caesareans made up as many as 42% of births. The study also showed that private hospitals providing care to higher-income groups were the ones with the highest rates of Caesarean sections. Projections made by the Committee indicate that by 1995, 60 out of every 100 deliveries will be performed by Caesarean section.

Declaration of childbirth data for hospital deliveries, a procedure established in recent years by the Ministry of Health, will provide current annual data on Caesarean sections in terms of nationwide coverage. For some states, the data already available are sufficient to show high rates of Caesareans. In 1991, the Caesarean rates in the states of Mato Grosso do Sul and Goiás were 68.7 and 53.1%, respectively.[22] Rondônia and Sergipe had lower rates: 29.8 and 19.1%, respectively.

São Paulo is no exception to the rule. Table 6 shows how these rates for 43 regions of the state varied from 31 to 78% in 1992, while two-thirds of all the regions had rates of over 50%. The overall rate for the state is estimated at 53.4%.

Table 7, which includes series of deliveries for two, three, and four live births, shows clearly how the abuse of Caesarean sections has led to repetitive sequences of this form of delivery, which in turns leads to sterilization in order to avoid more serious problems. Starting with women who have given two live births, one first observes that 63.6% of those who had been sterilized had Caesareans in the first delivery, while the figure was only 28.4% for those who had not been sterilized. The sequence of two Caesarean sections in the first two deliveries was 63.6 and 27.2%, respectively, for sterilized and non-sterilized women.

For women who had three live births, one observes that Caesareans were performed in the first delivery for 51.2% of the sterilized women as compared to only 18.1% for the rest. In the second delivery, 48.8 and 17.3% of sterilized and non-sterilized women, respectively, had Caesareans. A sequence of three Caesareans was seen in 42.7% of the sterilized women as compared to 12.8% of the rest.

Finally, considering women with four live births, one observes first that the first delivery was done by Caesarean in 44.5% of the sterilized women as compared to just 11.2% of the non-sterilized women. In the second delivery, the rates were 22.2 and 16.7%, respectively. In the third delivery they were 28.8 and 16.7%. Finally, the sequence of four Caesareans was practically three times greater for sterilized women than for non-sterilized. These findings corroborate beyond a shadow of a doubt the causality mentioned above - that is, that abuse of Caesarean sections is a determining factor for sterilization in Brazil.

Furthermore, the contrast between frequencies of Caesareans for sterilized as compared to non-sterilized women for the various sequences and a given number of children illustrates the other kind of link between Caesareans and sterilization referred to above, that is, the recourse to Caesareans in order to be sterilized. In fact, the VC, VVC, and VVVC sequences are the ones that most clearly illustrate this kind of situation, and in these cases there is a blatant difference between sterilized and non-sterilized women:

VC	25.0	11.7
VVC	31.7	4.2
VVVC	40.1	5.6

Table 7 also shows that 11.4, 11.0, and 24.5% of women who were sterilized with two, three, and four children, respectively, submitted to tubal ligation outside the moment when the Caesarean was performed, which on average corresponds to the the 20% mentioned previously.

[22] MELLO JORGE, M.H. et al. *O sistema de informação sobre nascidos vivos*. São Paulo, CBCD, 1992 (nº 7).

Table 6: Percentage of live births by Caesarean section in regions of the state of São Paulo, 1992.

Region	% Caesareans	Region	% Caesareans
Catanduva	78.1	Ourinhos	53.9
S. José do Rio Preto	75.3	Botucatu	53.3
Araraquara	72.6	S. José Campos	52.9
Bauru	69.2	Rio Claro	52.6
Andradina	67.8	S.João Boa Vista	51.9
São Carlos	66.4	Franca	51.5
Guaratinguetá	64.6	Ribeirão Preto	49.3
Araçatuba	64.5	Bragança Paulista	48.5
Lins	63.5	Limeira	46.7
S. Joaquim da Barra	62.7	Taubaté	46.6
Assis	61.8	Itapetininga	43.8
Barretos	61.5	Jundiaí	43.6
Jaú	61.3	Avaré	42.9
Marília	61.2	Área Metropolitana	42.8
Piracicaba	60.5	Santos	41.1
Votuporanga	59.2	Sorocaba	41.0
Tupã	58.8	Fernandópolis	38.9
Adamantina	58.2	Cruzeiro	33.1
Dracena	56.8	Itapeva	31.8
Jales	56.4	Registro	31.4
Presidente Prudente	55.4	Caraguatatuba	31.2
Campinas	55.4		

Source: Fundação SEADE.

Conclusions

The above discussion clearly shows that there is an abuse of modern reproductive technology in Brazil. There is an extremely high rate of Caesarean sections coupled with surgical sterilization. In this sense, above all, Brazil is a **unique** case of significant association between the two, which constitutes a serious public health problem. This status quo directly affects both reproductive morbidity and mortality and the conditions of neonates. Furthermore, it feeds rising hospital costs in the Social Security system.

Without a doubt, the main issue at stake is the position taken by physicians, particularly obstetrician/gynecologists. This class knows quite well that the reasons for our epidemic of Caesareans go far beyond clinical indications pertaining either to the mother or the fetus; still, they continue to prefer surgical deliveries, either because of convenience or lack of ability to perform vaginal deliveries. Faúndes and Cecatti[23], in a thorough study on the subject, discuss the institutional, legal, and clinical obstetric factors influencing the high incidence of Caesareans. They enumerate and demonstrate the serious consequences of contraindicated Caesareans for both the neonate and the mother.

No less important is the well-known lack of coverage in the public health system for reproductive health care, which deprives women of their reproductive rights.

In short, Brazilian women - and above all those from lower income groups who are the vast majority - are facing a serious dilemma. With the pill as their only reversible

[23] FAÚNDES, A., CECATTI, J.G., opus cit.

recource, purchased in drug stores without a doctor's prescription, and with no access to legal abortion to back up occasional misses, women see sterilization as a "lifesaver" in the abandonment they experience in reproductive health. But in order to grab the lifesaver, they have to pay the physician "under the board" and submit to a Caesarean, even if there is no clinical indication for it. Sometimes they are forced to accept the procedure because of the abuse of previous Caesareans performed by physicians.
The situation in Brazil could not be a worse example of reproductive health practice. And urgent exemplary action is needed to change it!

Table 7: Sequences of types of childbirth for live births, for women who had ever been married (or cohabited), aged 15 to 50, sterilized and non-sterilized, according to number of children born. São Paulo, 1992.

Nº of Children	Sequence of Deliveries	Sterilized Women	Non-Sterilized Women
2	CC	63.6	27.2
	VC	25.0	11.7
	CV	0.0	1.2
	VV	11.4	59.9
	Total	100.0	100.0
3	CCC	42.7	12.8
	VCC	4.9	0.0
	CVC	6.1	1.1
	VVC	31.7	4.2
	CVV	2.4	4.2
	VCV	1.2	5.3
	VVV	11.0	72.4
	Total	100.0	100.0
4	CCCC	15.6	5.6
	VCCC	2.2	8.3
	CVCC	4.4	0.0
	VCVC	4.4	0.0
	VVVC	40.1	5.6
	VVCC	4.4	0.0
	VCVV	0.0	2.8
	VVCV	2.2	2.8
	CVVV	2.2	5.6
	VVVV	24.5	69.3
	Total	100.0	100.0

C = Caesarean section V = vaginal delivery