Impact of the COVID-19 pandemic on health care during pregnancy
Report No. 4, March 2023

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Impact of the COVID-19 pandemic on health care during pregnancy (Report No. 4 of the Series)

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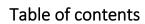
English translation from original in Spanish: Alba Rovira Font and Sandra Ezquerra





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### 1. Introduction

In March 2020, the global pandemic caused by COVID-19 created an international health and care crisis. In Catalonia, as in many other places in Spain, Europe, and the world, health services were overwhelmed and at risk of collapse, not only to respond to the ravages caused by the new disease but also to address other situations, such as care for pregnant women before, during, and after childbirth.

In this context, the measures adopted in the health services to face the emergency scenario caused important alterations in the processes of maternity care as it had been carried out up to that moment. Furthermore, some voices denounced that the sexual and reproductive rights of women during pregnancy, labor, or postpartum were being subordinated to the demands of the management of the pandemic and, on some occasions, violated.

Based on the interest in understanding the extent and the way in which health care for women was affected at such a fundamental moment in their lives, the <u>Inclusive Societies</u>, <u>Policies and Communities</u> <u>Research Group</u> (SopCI) and the <u>UNESCO Chair Women</u>, <u>Development and Cultures</u> of the <u>Universitat de Vic- Universitat Central de Catalunya</u> promoted the research project <u>Sexual and Reproductive Rights in times of pandemic: maternity and COVID-19 in Catalonia</u>. The project initially received funding from the Ministry of Equality (Secretary of State for Equality and against Gender Violence/State Pact against Gender Violence). Subsequently it also received funding from the Secretariat for Universities and Research of the Department of Enterprise and Knowledge of the <u>Generalitat de Catalunya</u> (2017SGR0657). The study was approved by the Research Ethics Committee of the <u>Universitat de Vic-Universitat Central de Catalunya</u>.

Beyond the publications and other scientific results derived from the project, we believe that the data generated are of great relevance to, firstly, shed light of situations, not always positive, that thousands of women in Catalonia had to live at a time in their lives with an enormous need for care and support. Therefore, it also seems important to us to publish the main results of the research in this brief report format to make them accessible to different audiences:

- to women who were pregnant or became mothers in times of pandemic,
- to the groups, organizations, associations, and other feminist spaces dedicated to promoting the rights of women to become mothers in conditions of care, respect, free choice in the different phases of the processes and with attention focused on their needs and desires,
- to those responsible for managing services and promoting policies for pregnancy, childbirth, and postpartum care,
- to the media,
- to all citizens.

As we said, the COVID-19 pandemic had a devastating impact on the Catalan health care system. This impact resulted in enormous difficulties not only to respond to the ravages caused by the disease, but also to maintain attention to other situations and health care needs. In a context marked by tragedy, where thousands of people lost their lives or were seriously ill, the "collateral effects" of the pandemic and the indirect impacts of the situation on other groups in need of health care were silenced and relegated to the margins of the media, political and social agenda. Pregnant women or women who had recently become pregnant are an example of this: follow-ups, tests, support groups to pregnancy, labor and childbirth and postpartum were cancelled; the entry of companions was prohibited during tests and



labor itself; family visits at the hospitals were prohibited; women were forced to give birth wearing masks; the hospitals where they were supposed to give birth were changed at the last minute and, overall, neither the changes or their impacts were shared with the women. Going deeper into these situations based on the women's own accounts is essential not only to make them visible, but also to understand the impact they have had on women, their children, and their immediate environment. And, above all, we hope that a photography such as the one we provide here will contribute to generating lessons that will help to make things a little (or a lot!) better, particularly regarding placing respect for and defense of women's sexual and reproductive rights at the center of public policies and health services.

This is the fourth in a series of reports resulting from the research project Sexual and reproductive rights in pandemic times: maternity and COVID-19 in Catalonia. The first focused on the care received during childbirth by COVID-19 positive women. The second report addressed the impacts of the pandemic on women's possibilities to have an attendant of their choice present during childbirth. The third report examined women's chances to be accompanied by a person of their choice during pregnancy monitoring in the context of the pandemic. This fourth report studies the impact of the COVID-19 pandemic on the health care received during pregnancy follow-up, as well as the cancellation of tests, visits and courses or support groups and the conversion of the care system to a telematic format.

Changes made to in-person pregnancy follow-up tests and appointments that were either converted to telematic format or cancelled outright were explained to prevent the spread of COVID-19. However, such changes may have compromised universal access to sexual and reproductive rights for pregnant women (World Health Organization, 2016, 2022).

We have chosen this topic to continue this collection of reports on the impact of the COVID-19 pandemic on maternal health care with the aim of contributing to the reflection on the tensions that arose during the worst moments of the crisis between humanized, person-centered care in the follow-up and health care of pregnancy, on the one hand, and the security measures that were decided to be adopted in a context of risk of contagion, on the other hand. Our interest in this subject is based on the premise that the decisions made under the pretext of preserving the health of the population may have had negative effects on the lives of women and, particularly, on the intensity and quality of the care received. In this regard, it is worth asking whether the benefits of these decisions outweigh the price that women were forced to pay. The results of our research presented in this report suggest that the answer is that they do not.

If you wish to be informed about the publication of data and results of the research project and to receive future reports, you can fill out the form you will find:

https://mon.uvic.cat/catedra-unesco/en/activitats-2/maternitat-i-pandemia-covid19-a-catalunya/



### 2. Methodology

### 2.1. Preparation of the research

This research has an eminently exploratory character and a quantitative approach, based on the collection of data from a survey addressed to women who were pregnant from January 1, 2018 until the end of September 2021. We had therefore a target group (women with an experience after March 13, 2020) and a control group (women with an experience prior to this date).

The dimensions and axes of analysis helped to measure the impact of the management of the COVID-19 pandemic on health services for maternity care and support, and were structured considering three axes: 1) the impact on services, 2) the impact on women's experiences, and 3) women's strategies and agency in the face of the changes. In addition, the specificities of each stage and the magnitude of the elements analyzed made it necessary to segment the axes according to the phases of pregnancy, labor and childbirth, and postpartum. In a schematic way (and without considering the indicators in detail) the operationalization has considered:

### **Pregnancy**

Impacts on services

- Proximity and continuity of care
- Support and information services that empower women and enable their active participation in the pregnancy-partum-postpartum process
- Humanized and person-centered care
- Safety measures in services against the risk of COVID-19 infection

Impacts on women's experiences

- General well-being
- Mental and emotional health

Women's strategies and agency in the face of changes in service operations and risk of COVID-19 infection

- Seeking alternatives
- Seeking safety from the risk of COVID-19 infection
- Non-use of services for other reasons

Cross-cutting themes

### Childbirth

Impacts on services

- Proximity and continuity of care
- Support and information services that empower women and enable their active participation in the pregnancy-partum-postpartum process
- Humanized and person-centered care



- Level of demedicalization
- Safety measures in services against the risk of COVID-19 infection

### Impact on women's experiences

- General well-being
- Mental and emotional health

Women's strategies and agency in the face of changes in services operations

- Seeking alternatives
- Seeking safety from the risk of COVID-19 infection
- Seeking safety from other risks
- Non-use of services for other reasons

Cross-cutting themes

### <u>Postpartum</u>

### Impacts on services

- Proximity and continuity of care
- Support and information services that empower women and enable their active participation in the pregnancy-partum-postpartum process
- Humanized and person-centered care
- Level of demedicalization
- Safety measures in services against the risk of COVID-19 infection

### Impact on women's experiences

- General well-being
- Mental and emotional health
- Breastfeeding

Women's strategies and agency in the face of changes in service operations

- Seeking alternatives
- Seeking safety from the risk of COVID-19 infection
- Non-use of services for other reasons

### Cross-cutting themes

The design phase of the survey took place between April and July 2021, with a previous phase of review of scientific and press articles on the subject, as well as three exploratory interviews with women with their own experience of pregnancy and/or labor and childbirth during the pandemic. The survey was also reviewed by an active midwife prior to its dissemination. The survey has 156 questions divided into the following 10 sections:



O: Filter questions, to determine eligibility to participate in the study, as well as the itinerary to follow once the survey had begun.

- A: General sociodemographic and labor, pregnancy and postpartum data.
- B: Data on pregnancy follow-up.
- C: Data on possible bad news and/or complications during pregnancy follow-up.
- D: Data on the childbirth preparation group or course and other preparation resources for pregnancy follow-up.
- E: Data on the overall assessment of pregnancy follow-up.
- F: Data on labor and childbirth.
- G: Data on COVID-19 positive or considered false negative women at the time of labor.
- H: Data on hospital postpartum.
- I: Data on home postpartum.

Depending on the time at which the pregnancy occurred, there were different itineraries: women who had experienced the entire pregnancy, labor and childbirth, and postpartum process in the context of the COVID-19 pandemic; women who had experienced, labor, childbirth, and postpartum in the context of the COVID-19 pandemic; women who had experienced postpartum in the context of the COVID-19 pandemic; women who were still pregnant at the time of the survey or who had a pregnancy termination, abortion, or miscarriage in the COVID-19 pandemic context; and women who experienced the entire pregnancy, labor and childbirth, and postpartum process previously to the COVID-19 pandemic.

The data collection phase was carried out during the months of July, August and September 2021. The questionnaire was disseminated online in Catalan, Spanish and English. It was distributed through social media, carrying out specific dissemination actions in local media and/or media related to the subject. A total of 2,600 responses were obtained, of which 2,070 were considered valid (1,862 from the target group and 208 from the control group). The sample size offers a margin of error of ±2.3% for a 95.5% confidence and maximum indeterminacy scenario.

The comparative analysis of the sociodemographic characteristics of the sample with the Birth Statistics published by the Catalan Institute of Statistics (depending on the variable, 2017 or 2020 data) points to a bias in the level of education of the participants in the survey, since they have a higher level of education than all pregnant women in Catalonia in recent years. For this reason, the data have been weighted to readjust the results to a representative sample.

### 2.2. Characteristics of mothers at the time of pregnancy

The most common profile of the women who participated in the study and who answered the questions about pregnancy care during the pandemic is that of a woman between 30 and 37 years old who is a second-time mother, considered to have a low risk during pregnancy, and with delivery at term (not preterm).

• Age. 56.6% of the mothers are between 30 and 37 years of age and, overall, about 68.0% of the cases are concentrated between 30 and 40 years of age.



- Parity. 40.1% of the sample corresponds to primiparous mothers while 59.9% already had a daughter/son. No results were obtained for mothers with more than one previous daughter/son.
- Risk in pregnancy. 62.9% of the pregnancies were considered low risk, 21.7% medium risk and 15.4% high risk.
- **Prematurity.** 15.5% of the deliveries were preterm, except for one case, all of which were moderate or late, and the remaining 84.5% were deliveries at term.
- Waves of pandemic. Of the pregnancies analyzed, 93.7% of the births occurred after the first state of alarm and about 6.3% occurred during this first period of the pandemic.



### 3. Main results

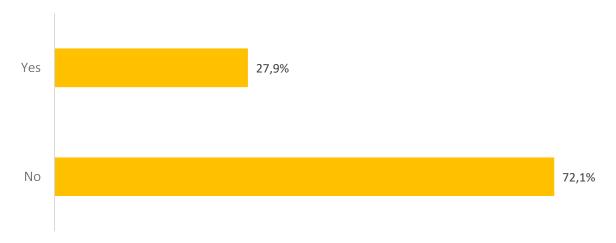
### 3.1. Alteration of tests, visits, courses, or groups during pregnancy

### 3.1.1 Cancellation of tests during pregnancy

- Prenatal care or pregnancy follow-up procedures have included clinical testing, follow-up visits, and childbirth preparation classes or groups. Each of these services has been affected to varying degrees of intensity during the pandemic.
- In relation to clinical tests, about 3 out of 10 women had at least one test cancelled. On the other hand, 72.1% of women were able to complete their tests despite the pandemic (See Graph 1).
- In contrast, only a minority of women, 6.3%, chose not to attend a clinical visit or test during pregnancy for fear of contracting COVID-19. In contrast, about 9 out of 10 women chose to attend their appointments during the pandemic (See Graph 2), a fact that points to the importance women place on such tests and visits and to the fact that fear of the consequences of not doing the tests outweighed fear of infection.
- The tests with the highest incidence of cancellation recorded were, in this order, the O'sullivan test (10.5%), the glucose curve (4.8%), follow-up ultrasound scans other than the standard three trimester ultrasound scans (2.9%), urine cultures (2.8%), Chorion biopsy, amniocentesis (2.5%) and first trimester blood tests (1.7%) (See Graph 3).
- The results suggest that the experience of test cancellation was not positive for most women. Feelings of insecurity (32.7%), indignation (31.7%), frustration (29.6%), resignation (26.6%), helplessness (24.8%) and abandonment (23.8%) define the women's experiences. On the other hand, neutral and/or positive adjectives such as acceptance (21.0%), tranquility (8.1%) and security in the face of COVID-19 infection (8.0%) also appear as part of the experiences, although less frequently (See Graph 4).
- Most women (58.1%) did not seek alternatives to canceling their pregnancy follow-up tests. Among those who did, 29.2% sought care at a private health center, while 6.8% went to the public emergency room to access services. In summary, the average experience of the women shows an absence of alternatives to cancellations, while the private health care system was the main one chosen in the face of cancellations.



Graph 1. Cancellation of pregnancy follow-up tests due to the COVID-19 pandemic. Percentages, Catalonia.

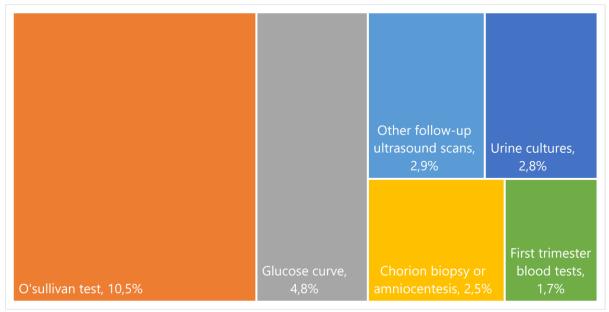


Graph 2. Did you decide not to attend a visit or a pregnancy follow-up test for fear of contracting COVID19? Percentages, Catalonia.

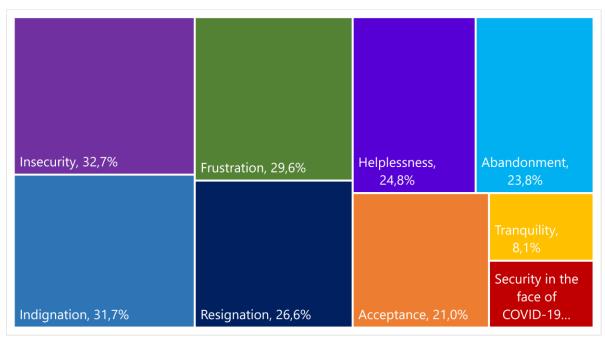




Graph 3. Tests cancelled due to the COVID-19 pandemic. Including multiple responses greater than 1%. Percentages, Catalonia.



Graph 4. How did you experience the cancellation of pregnancy follow-up tests? Including multiple responses of more than 8%. Percentages, Catalonia.





### 3.1.2 Cancellation of in-person pregnancy follow-up appointments

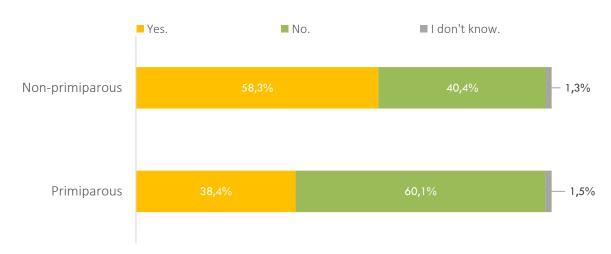
- Almost half of the women (46.7%) had at least one in-person pregnancy follow-up appointment cancelled because of the pandemic (See Graph 5). Some demographic and contextual characteristics shed light on this. For example, among non-primiparous women, the cancellation of in-person visits was higher (58.3%) than among those whose pregnancy was their first (38.4%) (See Graph 6). Priority criteria were probably applied according to experience and previous knowledge of the pregnancy, as well as continuity of the clinical history. Thus, 6 out of 10 women who were pregnant for the first time did not have their in-person visits cancelled, compared to about 4 out of 10 women who had given birth previously.
- The level of risk during pregnancy also seems to lead to differences in the opportunity to attend follow-up appointments. Thus, women classified as having a high-risk level and, therefore, more prone to complications during pregnancy, had fewer cancelled appointments (44.8% of the total) than those pregnant women with a medium risk (60.8% of cancellations). On the other hand, cancellations between low and high risk women did not differ significantly (See Graph 7). This fact may be related to primiparity. That is, according to the sample, most of the women who gave birth for the first time were placed at low risk during pregnancy. That said, precisely the fact that they were primiparous caused the level of cancellations to be close to the level of cancellations of women with a high-risk pregnancy.
- In relation to other factors, such as the public or private health care system, the cancellation of in-person appointments in the public system was higher than in the private system. Thus, while 60.1% of women attended in public hospitals and health centers had at least one inperson appointment cancelled during pregnancy, this percentage was significantly lower in private centers, where the cancellation rate was 21.9% (See Graph 8). These results are probably a reflection of the leadership of the public health care system in the care of people sick with COVID-19 and how this was to the detriment of some groups in need of attention and care (Legido-Quigley et al., 2020; Peña-Ramos et al., 2021; Spain, 2021).
- Likewise, the experiences of cancellation of in-person pregnancy follow-up appointments show disparities between the health regions of Catalonia, located in a very wide range between 32.3% and 91.2% of cancellations. The region with the highest percentage of cancellations was *Alt Pirineu i Aran* (91.2%), while *Catalunya Central* had the lowest (32.3%). *Lleida* stood at 68.4% of cancellations, *Camp de Tarragona* 62.9% and *Terres de l'Ebre* was in an intermediate scenario with 55.6%. Below this midpoint are *Girona* (46.1%) and *Barcelona* (39.4%) (See Graph 9).



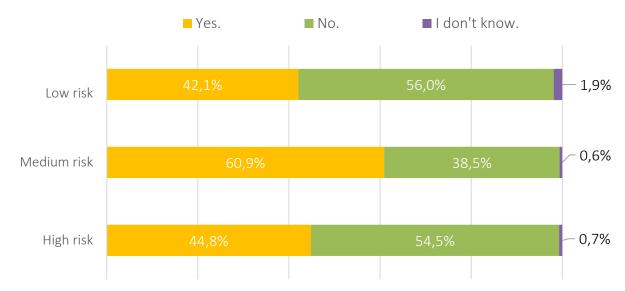
Graph 5. Cancellation of in-person pregnancy follow-up visits due to the COVID-19 pandemic. Percentages, Catalonia.



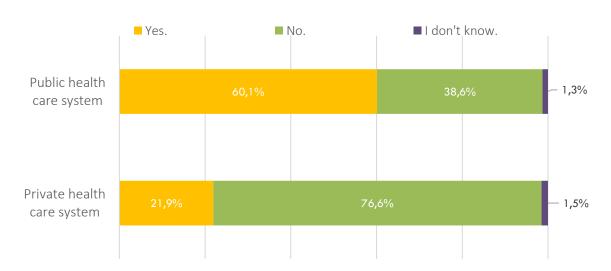
Graph 6. Cancellation of in-person pregnancy follow-up visits due to the COVID-19 pandemic by parity. Percentages, Catalonia.



Graph 7. Cancellation of in-person pregnancy follow-up visits due to the COVID-19 pandemic by pregnancy risk. Percentages, Catalonia.

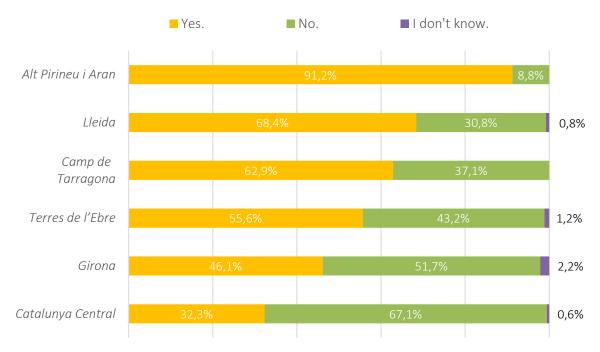


Graph 8. Cancellation of in-person pregnancy follow-up visits due to the COVID-19 pandemic by health system (public or private). Percentages, Catalonia.





Graph 9. Cancellation of in-person visits due to the COVID-19 pandemic by health region. Percentages, Catalonia.





# 3.1.3 Replacement of in-person appointments with telematic appointments during pregnancy

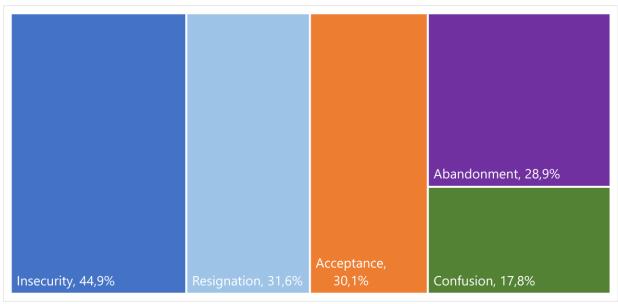
- One of the measures adopted to alleviate the pressure on health care systems and reduce the risk of contagion was to move from in-person appointments to telematic ones. This change was adopted as a precaution against the risk of COVID-19 infection. Despite maintaining contact with pregnant women, the protection of their reproductive rights could be compromised by this type of appointment, whose dynamics differ from in-person ones and make it impossible to perform certain procedures (especially those related to physical examination).
- Most women (91.2%) experienced the replacement of in-person appointments with telematic appointments during their pregnancy (See Graph 10). In general, they reported feeling insecurity (44.9%), resignation (31.6%), abandonment (28.9%) and confusion (17.8%) in the face of this change. Only 30.1% of the women reported feeling acceptance of the change in appointment modality. And the percentages of other non-negative emotions such as relief (0.6%) or indifference (1.3%) were in the minority (less than 2%) (See Graph 11).
- On the other hand, the evaluation of telephone and/or telematic appointments shows lower levels of satisfaction than in-person appointments. Overall, 40.0% of the women who made telephone and/or telematic appointments were very or fairly satisfied with the service received. In the case of in-person appointments, this figure is 68.5%, almost 30 points higher. This difference also occurs at the other end of the satisfaction level, since the percentage of women who say they are not at all satisfied with telephone and/or telematic appointments (22.1%) is more than double the percentage of those who say the same in the case of in-person appointments (See Graph 12).



Graph 10. Substitution of in-person pregnancy follow-up appointments by telematic visits during pregnancy due to the COVID-19 pandemic. Percentages, Catalonia.

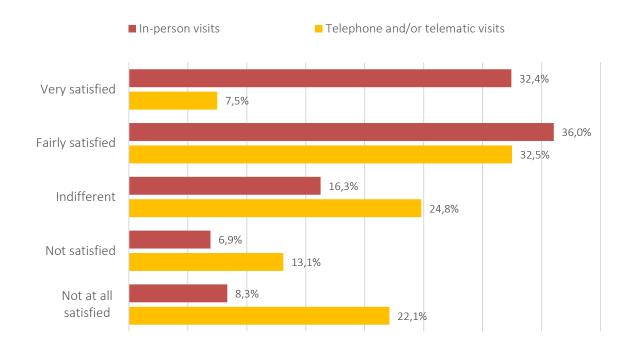


Graph 11. How did you experience being cancelled in-person pregnancy follow-up appointments? Including multiple responses of more than 17%. Percentages, Catalonia.





Graph 12. How do you rate the in-person pregnancy follow-up appointments? How do you rate the telephone and/or telematic pregnancy follow-up appointments? Percentages, Catalonia.



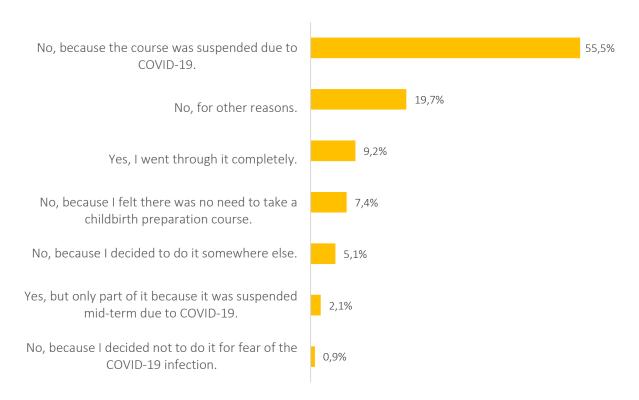


### 3.1.4 Attendance at childbirth preparation course or group

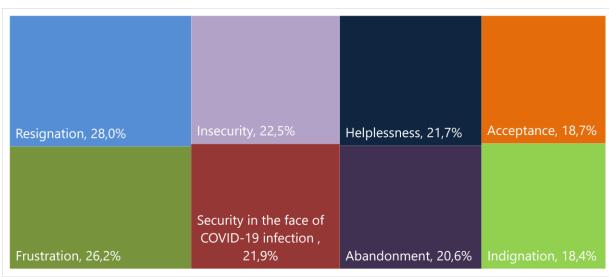
- In addition to the cancellation of clinical tests and in-person appointments, and the substitution of in-person for telematic appointments because of the pandemic, pregnant women also experienced the suspension of childbirth preparation courses or groups. Only 9.2% of women completed the in-person course from start to finish, while 2.1% started but did not complete it because it had been suspended as a result of the pandemic. Most women (55.5%) stated that they had not participated in an in-person course or group at their health center because it was suspended due to the COVID-19 pandemic. There were also those who did not participate in the course for other reasons (19.7%), because they did not feel it was necessary (7.4%) or because they decided to take the course elsewhere (5.1%). Women who chose not to attend the course for fear of being infected with COVID-19 were in the minority, accounting for less than 1% of the total (See Graph 13).
- The feelings generated by not being able to participate in an in-person childbirth preparation course or group divide the women. Even so, the most frequently reported feelings are resignation (28%) and frustration (26.2%). Other highlighted negative feelings are insecurity (22.5%), helplessness (21.7%), abandonment (20.6%), and indignation (18.4%). Feelings such as security in the face of COVID-19 infection (21.9%) and acceptance (18.7%) are also reported, although less frequently (See Graph 14).
- If we compare the level of satisfaction of pregnant women participating in the course or inperson group, before and during the pandemic, we observe that before the pandemic the evaluations were, in general, more positive. It should be recalled that the study has a target group (women with an experience after March 13, 2020) and a control group (women with an experience prior to this date). The largest discrepancy observed is in cases of dissatisfaction, where most women during the pandemic identified themselves (54.4% for the category 'not at all satisfied'), while only 15.6% of women before the pandemic reported feeling this way. More than 3 in 10 women who went through pregnancy before COVID-19 were quite satisfied with the in-person course (33.3%). However, only 17.2% of women during the pandemic rated themselves quite satisfied with this service (See Graph 15a).
- In parallel, the level of satisfaction with the in-person childbirth preparation courses or groups that took place before the pandemic compared to the telematic courses or groups that took place during the pandemic points to differences in the ratings. In the control group, 1 out of 3 women was quite satisfied (33.3%) while in the target group the figure for this degree of satisfaction dropped to 25.4%, and indifference to the course or telematic group was the element most highly rated by women during the pandemic (30.9%). On the other hand, the proportion of women who were very satisfied in both types of course was very similar (23.6% and 23.1%) (See Graph 15b).



Graph 13. Did you attend the childbirth preparation course at your health care center? Percentages, Catalonia.



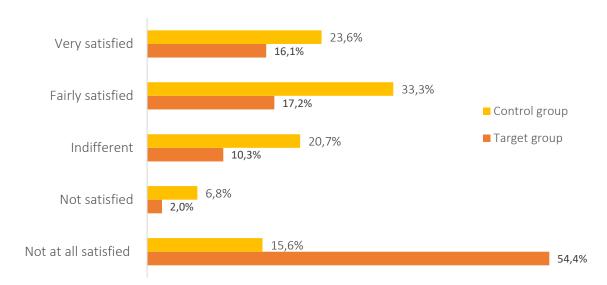
Graph 14. How did you experience not taking an in-person childbirth preparation course? Including multiple responses of more than 18%. Percentages, Catalonia.



Graph 15a. Assessment of the level of satisfaction with the childbirth preparation course or group

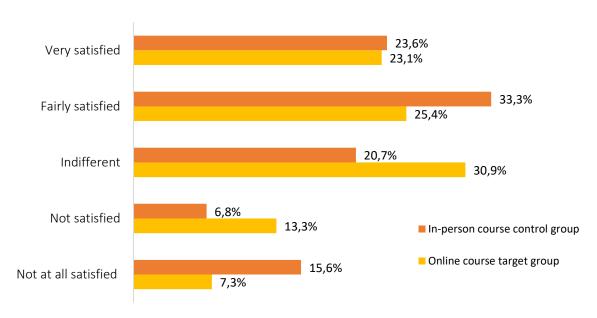
pandemic). Percentages, Catalonia.

according to control group (pregnancy before the pandemic) and target group (pregnancy during the



Source: Sexual and reproductive rights in pandemic times: maternity and COVID-19 in Catalonia.

Graph 15b. Assessment of the level of satisfaction with the control group (pregnancy before the pandemic) and with the telematic course or group of the target group (pregnancy during the pandemic). Percentages, Catalonia



## 3.1.5 Alternatives to test, course, or group cancellations

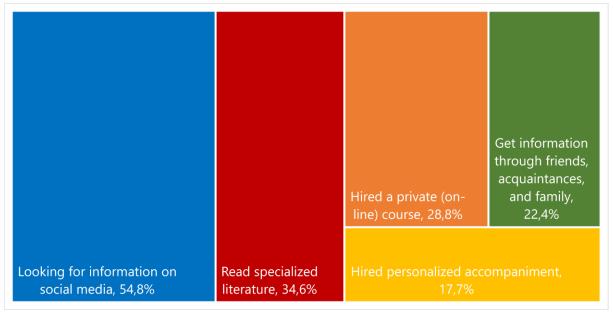
- During the pandemic situation of cancellation of childbirth preparation courses or groups, women positioned themselves by seeking other possibilities of support and sources of information. Nearly 6 out of 10 women opted for other types of support in preparation for childbirth (See Graph 16). Most women reported looking for information on social media (54.8%) and opted to read specialized literature (34.6%) or get information through friends, acquaintances, and family (22.4%). In turn, 28.8% of the women hired a private (on-line) course and 17.7% hired personalized accompaniment (See Graph 17).
- At the same time, there were also women who did not seek alternative support in the face of cancellations, and the reasons expressed included: considering that they did not need them (43.8%), not knowing they existed (23.6%), not being able to pay for them (22.6%) or not having time for them (13.9%) (See Graph 18). For example, unemployed women, by far, did not seek alternatives to cancellations of childbirth preparation courses or groups (21.7%) compared to 4.6% of waged women and 0.8% of self-employed women or freelances. There is probably a relationship between the search for alternatives to the public system and the economic capacity of women to meet the costs of the services offered outside the public system.
- The higher cancellation of appointments in the public centers led to a higher percentage (10.9%) of the women attended by this system to seek alternatives. A lower level of cancellations in the private system resulted in a lower percentage of women seeking alternatives. Thus, among women treated in the private system, only 3.1% sought alternatives (almost three times less than in the public system). Likewise, primiparous women were more likely not to seek alternatives (9.2%) than those who already had children (7.9%) and, in turn, resorted more to private centers as an alternative (6.2%) than non-primiparous women (3.0%).

Graph 16. Did you opt for any other type of support in preparation for childbirth? Percentages, Catalonia.

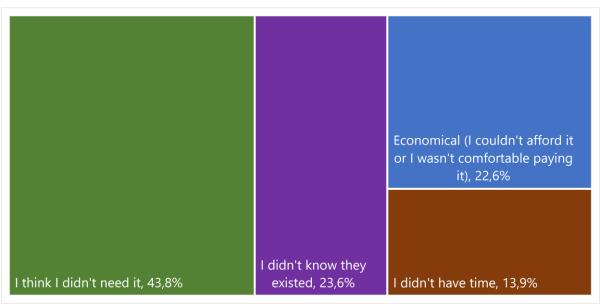




Graph 17. What other childbirth preparation support did you opt for? Including multiple responses of more than 17%. Percentages, Catalonia.



Graph 18. If you did not opt for any alternative support, why didn't you do so? Including multiple responses of more than 13%. Percentages, Catalonia.





### 4. In summary

- The telematic or on-line alternative has been used as a resource of great centrality during the COVID-19 pandemic. However, it should not be forgotten that several studies (Baena-Antequera et al., 2020; Currell et al., 2000; Leon-Sicairos et al., 2022; Perez-Ferre et al, 2010) indicate that, although the telematic healthcare can be a good complement for pregnancy follow-up and particularly beneficial for women with a high risk pregnancy, this does not mean that in-person and telematic modalities are interchangeable, or that they provide the same quality of care. The generalization of telematic appointments as a complement to in-person appointments should be considered in the framework of public policies, in order to universalize sexual and reproductive rights. In particular, in regions of difficult accessibility or limited infrastructure, as long as telematic appointments are of high quality, they can help in the absence of medical posts or availability of professionals (Brown & DeNicola, 2020); or even in the case of women infected with COVID-19 (Gutiérrez et al., 2021).
- Although the health crisis scenario generally limited potential exposure to COVID-19 through restrictions on social contact, this had a negative impact on the usual functioning of reproductive health services. The scientific literature and the positioning of different national and international organizations give special importance to in-person clinical appointments in the follow-up of pregnancy and the reassurance of pregnant women. In addition to being part of the standard pregnancy care protocol, their cancellation can directly influence women's perception of pregnancy, labor and childbirth, and maternity. Also, universal access to medical follow-up procedures constitutes a sexual and reproductive right (Lalor et al., 2022; Montagnoli et al., 2021; World Health Organization, 2016, 2022).
- While telemedicine health care can be important in regions with difficult accessibility, where there is a shortage of health professionals and health centers (Brown & DeNicola, 2020), as well as in situations with patients with high risk pregnancies, it should in no case replace inperson care. Telematics appointments and tests should be understood as complementary to in-person contacts and not as substitutes for them (Lalor et al., 2022). They can also contribute to the social isolation of pregnant women, which, in turn, can have a negative impact on their mental and emotional health (Montagnoli et al., 2021). Thus, according to WHO, each pregnancy should have at least eight contacts with a health professional in its follow-up (Baena-Antequera et al., 2020).
- The results of our study show that, when given the choice, women generally chose not to miss their tests and appointments during the pandemic, showing the importance of these in the pregnancy process despite concerns about the risk of COVID-19 infection.
- In clinical tests, the incidence of cancellations was 3 out of 10 tests cancelled due to the pandemic. In this regard, the O'sullivan test was the procedure with the highest recorded cancellations. The test cancellation experience was not positive for most women. Most of

them did not seek alternatives to cancelled pregnancy follow-up tests. That said, when they did, the private health care system was the main alternative chosen. This led to inequities in access depending on whether women could afford this alternative or not.

- Nearly 5 out of 10 women had at least one in-person pregnancy follow-up appointment cancelled because of the pandemic. This figure was highest among multiparous women, those with medium pregnancy risk, women attended in public hospitals and health care centers, and those whose health region is the *Alt Pirineu i Aran*.
- Most women (91.2%) experienced during their pregnancy the replacement of in-person appointments by telematic and/or telephone visits. The evaluation of this change was diverse, but generally negative, with feelings of insecurity, resignation, helplessness, and confusion. To a much lesser extent, there were also more neutral feelings such as acceptance. Overall satisfaction with telephone and/or telematic appointments shows a much lower level of assessment than in-person appointments, with a distance of almost 30 points.
- Finally, in relation to childbirth preparation groups and/or courses it should be noted that more than half of the women (55.5%) stated that they had not participated in an in-person course or group at their health care center because it was suspended due to the COVID-19 pandemic. But again, this was not their decision. The women who chose not to take the course in-person for fear of infection with COVID-19 were exceptions, not adding up to 1% of the total.
- Comparing the level of satisfaction of pregnant women participating in the course or in-person group, before and during the pandemic, it is observed that before the pandemic the evaluations were, in general, more positive. This points to a decline in the quality of the service offered to pregnant women during the pandemic or a decrease in its ability to meet the women's needs and expectations.



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