

## How does the regulation of abortion provision for pregnancies resulting from rape affect its supply in the municipalities?

Marina Gasino Jacobs (<https://orcid.org/0000-0002-2488-6016>)<sup>1</sup>

Alexandra Crispim Boing (<https://orcid.org/0000-0001-7792-4824>)<sup>1</sup>

**Abstract** *The provision of abortion in pregnancies resulting from rape in Brazil is limited, restricted to a few facilities and concentrated in large urban centers. We aimed to estimate the potential for expansion of this service considering the installed capacity in the country's municipalities. From the data of June 2021 in the Cadastro Nacional de Estabelecimentos de Saúde (Brazilian National Registry of Health Facilities, CNES), three different scenarios of abortion provision provided by law in pregnancies resulting from rape were elaborated, and the percentage of female population of childbearing age living in the municipalities of each scenario was calculated by region. The first scenario included the municipalities with installed provision; the second, those with potential for provision considering the current regulations; and the third, those with potential for provision considering only the recommendations of the World Health Organization and the Penal Code of Brazil. The scenarios were composed of 55, 662 and 3,741 municipalities, respectively, and were home to 26.7%, 62.1%, and 94.3% of the country's females between the ages of 10 and 49. In all regions, there was installed capacity to expand provision, both in light of current regulations and international recommendations.*

**Key words** *Health services accessibility, Legal abortion, Equity in Access to Health Services, Reproductive Health Services*

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<sup>1</sup> Programa de Pós-Graduação em Saúde Coletiva, Universidade Federal de Santa Catarina. R. Delfino Conti s/n, Trindade. 88040-900 Florianópolis SC Brasil. [marina.gjacobs@gmail.com](mailto:marina.gjacobs@gmail.com)

## Introduction

Rape is a type of violence that happens frequently in Brazil. In 2020, the *Secretarias Estaduais de Segurança Pública e Defesa Social* (State Departments of Public Safety and Social Defense) registered 60,460 rapes, in 86.9% of which the victims were female, and in 66.1% they were of childbearing age (between 10 and 49 years old)<sup>1</sup>. Despite the high number of cases, there is significant underreporting. In the early 2010s, only 7.5% the crimes of sex offense were reported to the police<sup>2</sup>, a historical pattern of underreporting that was possibly worsened by the pandemic in the year 2020<sup>1</sup>.

In addition to other possible physical and psychological consequences of rape, sexual violence can result in a pregnancy. Of the rapes recorded in the *Sistema de Informação de Agravos de Notificação* (Notifiable Diseases Information System) in 2011, 7.1% resulted in pregnancy<sup>3</sup>. Pregnancies resulting from rape are potentially affected by feelings of rejection, remind the victims of the violence they suffered, may cause the feeling of violation of the right to choose maternity, as well as fear of social and psychological damage, and consequent desire to terminate the pregnancy<sup>4</sup>. In these situations, abortion performed by a doctor and with the pregnant woman's consent has not been penalized in Brazil since the Penal Code of 1940<sup>5</sup>.

Despite being part of the Penal Code since 1940, the provision of legal termination of pregnancy by the services of the *Sistema Único de Saúde* (Unified Health System, SUS) only became regulated in Brazil in 1999, with the first technical standard of the Ministry of Health on the subject. This standard had new editions and was later followed by the publication of ordinances regarding the provision of abortion in pregnancies resulting from rape.

The regulations indicate the abortion methods for each gestational age, the minimum number of staff recommended to perform the abortion provided by law and the type of structure needed. Methods that have been incorporated more extensively over time are manual vacuum aspiration and misoprostol<sup>6,7</sup>. The human and material resources required to perform abortion in pregnancies resulting from rape also vary depending on the technical standards and ordinances published over time. In the first technical standard, the only essential professional category was the medical one<sup>6</sup>. That has expanded with the standardization of the procedure of justifi-

cation and authorization for terminating pregnancy in the cases provided by law in the scope of SUS, and, in the minimum number of staff, certain medical specialties and other health professionals were included<sup>8-10</sup>. The definition of the operation of the *Serviço de Referência para Interrupção de Gravidez nos Casos Previstos em Lei* (Referral Service for Termination of Pregnancy in Cases Provided by Law) is less specific as to the medical specialties required, but also requires other health professionals<sup>11</sup>. As for the facilities, the technical standards recommend that the procedure be performed in a surgical center<sup>6</sup>; however, it is later established that Referral Services for Termination of Pregnancy in Cases Provided by Law, besides hospitals and maternity hospitals, can be organized in emergency rooms, Emergency Care Units, and non-hospital emergency services<sup>11</sup>. Despite the provision for the organization of Referral Services in non-hospital facilities, the use of misoprostol has remained exclusive to hospitals in the country since 1998<sup>12</sup>.

Unlike the Brazilian regulation, the World Health Organization (WHO) guidelines indicate that medical or vacuum aspiration abortion can be safely performed in primary care, at least in the first 12 weeks of pregnancy, and that the procedure can be performed by a non-medical professional, provided that professional is trained and it is necessary to have an emergency back-up in case of complications<sup>13</sup>.

Even though the abortion provided by law has been offered by SUS and regulated for more than 20 years, it is still a procedure that is rarely performed. Between 2008 and 2015, the System funded about 1,600 legal abortions per year<sup>14</sup>. The low number of procedures is inserted in a context of criminalization and stigmatization of abortion. The social understanding about abortion affects both the search for the procedure and its provision, manifesting, on the one hand, in shame, fear and guilt among people who access or are eligible for the service; while it reaches those who design and implement public policies, hindering the expansion of legal alternatives, services, funding, training of professionals, as well as the dissemination of information on the subject<sup>15,16</sup>.

Among the obstacles to accessing abortion provided by law is the low availability of the service. In 2019, 200 Brazilian municipalities had abortion provision provided by law, 3.6% of the country's total municipalities. Among residents of the municipalities which provided the procedure, the rate of legal abortions was almost 5

times the rate of the municipalities that did not provide it<sup>17</sup>. The lack of local access and the need to travel to get a legally provided abortion decreases access to the safe procedure<sup>18-20</sup>, making it inaccessible especially to already vulnerable groups<sup>19</sup>. People who do not have access to the service may end up performing the abortion in an unsafe way, with potential threats to health and even life<sup>21</sup>. In addition to the physical health risk, not having access to legal abortion implies worse mental health outcomes in the short term<sup>22</sup>.

Given the limited availability of facilities providing abortion under the law in Brazil and the loss of access resulting from the concentration of the service, the question is whether the country has the structure for expanding its provision. Thus, in light of the regulations governing the provision of abortion in pregnancies resulting from rape and international recommendations, we aim to estimate the potential supply of abortion in pregnancies resulting from rape considering the installed capacity in the country's municipalities.

## Methods

This is a descriptive cross-sectional study that has as its source the records of facilities and professionals from June 2021 in the CNES. The CNES is the official system for registering information on health facilities in the country and gathers information on all facilities, regardless of their legal nature or connection to SUS. The registration and updating of data are mandatory for any health facility to be allowed to operate. In addition to the facilities themselves, the services, workers and physical resources attached to them are detailed<sup>23</sup>. The data are made available to the public by the SUS Informatics Department (DATASUS).

In this study, we present three different scenarios of abortion provision provided by law in pregnancies resulting from rape: the current provision record; the potential provision considering the current SUS regulations<sup>7,10,11</sup>; and the potential supply considering the international recommendations<sup>13</sup> and the Penal Code of Brazil<sup>5</sup>.

Initially, in the first scenario, the municipalities that have Referral Services for Termination of Pregnancy in Cases Provided by Law regis-

tered in the CNES are listed among the *Serviços de Atenção às Pessoas em Situação de Violência Sexual* (Services of Care for People in Situations of Sexual Violence) and have the resources listed in the current regulations for the process of justification, authorization and performance of abortion in pregnancies resulting from rape in the SUS (Chart 1). In addition to the procedures regarding care, Ordinance 485/2014<sup>11</sup> mentions the collection and storage of genetic material as one of the actions to be carried out by the Referral Services for Termination of Pregnancy in Cases Provided by Law. This capacity, however, is not assessable through the data available in the CNES.

Next, in scenario 2, the municipalities with at least one facility that would meet the physical structure and personnel requirements of the regulations in force regarding abortion in pregnancies resulting from rape in the SUS are presented (Chart 1). Also in this scenario, the capacity of the facilities to collect and store genetic material was not assessable.

Finally, a third scenario was created with the potential supply that lists the resources needed to provide abortion based on technical recommendations and health policies on abortion from the World Health Organization (WHO)<sup>13</sup> and according to the Penal Code of Brazil<sup>5</sup> (Chart 1). In this scenario, only teams with a doctor were included, because, although the provision of abortion by non-physicians can be done safely<sup>24</sup>, the Penal Code of Brazil establishes that abortion in pregnancies resulting from rape is not punishable only when performed by a doctor.

The three provision scenarios were presented using maps, and the percentage of the female population of childbearing age (between 10 and 49 years old) living in the municipalities of each scenario was shown, by region. For this calculation, estimates of municipal population by age and sex from the Ministry of Health for 2021 were used<sup>25</sup>. To produce the maps, the digital mesh of Brazil was used with the political-administrative division in effect in 2020 made available by the *Instituto Brasileiro de Geografia e Estatística* (Brazilian Institute of Geography and Statistics, IBGE). All records in areas within Distrito Federal (DF) were associated with Brasília (IBGE code 5300108), the only municipality in DF recognized by IBGE. The maps were made with the Qgis 3.10.7 software, keeping the Geocentric Reference System for the Americas (SIRGAS) 2000.

## Results

The first scenario was composed of 55 of the 5,570 Brazilian municipalities, and four states did not have any municipality that provided legal abortion (Figure 1). This scenario was the residence of 26.7% of the country's females between 10 and 49 years old (Table 1). In the 55 municipalities, there were 88 Referral Services for Termination of Pregnancy in Cases Provided by Law with capacity compatible with the regulations for justification, authorization and performance of abortion in pregnancies resulting from rape. These facilities represent only a part of the 102 Referral Services for Termination of Pregnancy in Cases Provided by Law registered in the CNES in June 2021.

The second scenario was composed of 662 municipalities (Figure 2), where more than half of the country's females of childbearing age lived (Table 1). This scenario included 1,115 facilities that were potential Referral Services for Termination of Pregnancy in Cases Provided by Law and able to perform the procedures for authorization and justification of abortion in pregnancies resulting from rape, as well as to proceed with the termination of pregnancy in accordance with the regulations in force by the SUS.

When comparing the scenarios 1 and 2, it is evident that all regions had installed potential to provide abortion in pregnancies resulting from rape, in addition to their Referral Services for Termination of Pregnancy in Cases Provided by Law capable of justifying, authorizing and per-

**Chart 1.** Criteria considered for developing the scenarios of abortion supply in pregnancies resulting from sexual violence in Brazil in June 2021.

Scenario	References	Criteria	CNES Coding
1	Ministry of Health Ordinance No. 485/2014	In the facilities: -Established Referral Service for Termination of Pregnancy in Cases Provided by Law -Type of unit: general hospitals, maternity hospitals, emergency rooms, Emergency Care Units ( <i>Unidades de Pronto-Atendimento</i> - UPA) or non-hospital emergency services. -Service Hours: 24 hours a day, 7 days a week. -Team: general practitioner or general surgeon, nurse, nurse technician, psychologist, social worker and pharmacist -SUS Health Insurance	-Specialized Service: 165- Services of Care for People in Situations of Sexual Violence Classification: 006- Referral Services for Termination of Pregnancy in Cases Provided by Law -Unit type code: 5 - general hospital or 7 - specialized hospital with sub-type 5 - maternity, or unit type code 20 - general emergency room, or 73 - emergency room with sub-type 3-UPA, or unit type code 73 - emergency room with sub-type 1 - general emergency room -Service Hours: code 6 - continuous service 24 hours a day (on duty: includes Saturdays, Sundays and holidays) -Brazilian Classification of Occupations (CBO): 2251 or 2252, and 2235-05, 3222-05, 2515-10, 2516-05 and 2234 -Health insurance: 001 - SUS
	Technical standard Ministry of Health/2012 "Prevention and treatment of injuries resulting from sexual violence against women and adolescents"	In the facilities: -Doctor -Surgical center -SUS Health Insurance	-CBO: 2251 or 2252 -Facility Subtype Code: 1 - Surgical Center -Health insurance: 001 - SUS
	Ministry of Health Ordinance No. 2561/2020	In the facilities: -Team with obstetrician, anesthesiologist, nurse, social worker or psychologist -SUS Health Insurance	-CBO: 225250, 225151, 2235, and 251605 or 2515 -Health insurance: 001 - SUS

it continues

**Chart 1.** Criteria considered for developing the scenarios of abortion supply in pregnancies resulting from sexual violence in Brazil in June 2021.

Scenario	References	Criteria	CNES Coding
2	Technical standard Ministry of Health/2012 “Prevention and treatment of injuries resulting from sexual violence against women and adolescents”	In the facilities: -Doctor -Surgical center -SUS Health Insurance	- CBO: 2251 or 2252 -Facility Subtype Code: 1 - Surgical Center -Health insurance: 001 - SUS
	Ministry of Health Ordinance No. 485/2014	In the facilities: -Type of unit: general hospitals, maternity hospitals, emergency rooms, Emergency Care Units ( <i>Unidades de Pronto-Atendimento</i> - UPA) or non-hospital emergency services. -Service Hours: 24 hours a day, 7 days a week. -Team: general practitioner or general surgeon, nurse, nurse technician, psychologist, social worker and pharmacist -SUS Health Insurance	-Unit type code: 5 - general hospital or 7 - specialized hospital with sub-type 5 - maternity, or unit type code 20 - general emergency room, or 73 - emergency room with sub-type 3-UPA, or unit type code 73 - emergency room with sub-type 1 - general emergency room -Service Hours: code 6 - continuous service 24 hours a day (on duty: includes Saturdays, Sundays and holidays) -CBO: 2251 or 2252, and 2235-05, 3222-05, 2515-10, 2516-05 and 2234. -Health insurance: 001 - SUS
	Ministry of Health Ordinance No. 2561/2020	In the facilities: -Team with obstetrician, anesthesiologist, nurse, social worker or psychologist -SUS Health Insurance	-CBO: 2252-50, 2251-51, 2235, and 2516-05 or 2515 -Health insurance: 001 - SUS
3	<i>Abortion care guideline</i> WHO/2022 Decree-Law Ministry of Health No. 2848/1940 (Penal Code)	In the municipalities: -Primary care team with a physician AND -Facility with Emergency Service 24 hours a day, 7 days a week	-Type of team: 70 - eSF - Family Health Team -CBO: 2251, 2252 or 2253 -Professionals without a termination date -SUS Service: Yes -Service provided: 4 - emergency -Health insurance: 1 - SUS -Service Hours: 6 - continuous service 24 hours a day; on duty: includes Saturdays, Sundays and holidays

Source: Authors.

forming abortion. However, the difference between regions is clear, with 46.1% of municipalities with potential supply in the Northeast and 72.9% in the Southeast (Table 1).

The third scenario was composed of 3,741 municipalities (Figure 3) and was the residence of the vast majority of the country's females between 10 and 49 years old (Table 1). In June 2021, the country had 54,338 primary health care facilities, and only one of the country's 5,570 municipalities had no record of this type of facility. Of these facilities, 33,724 had a physician on staff, which was not the case in 61 municipalities. The country also had 10,507 24-hour emergency services associated with the SUS distributed in 3,764

municipalities. As previously pointed out, 3,741 municipalities had the concomitant presence of a primary care facility with a physician and 24-hour emergency services provided by the SUS.

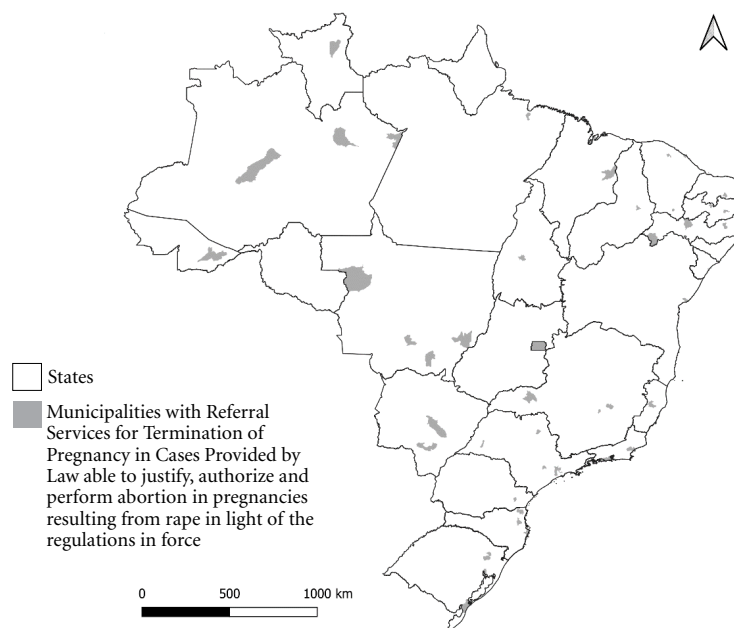
When comparing scenario 3 to scenario 2, the expansion of the provision potential is evident in all regions. The greatest difference in coverage between the two scenarios is in the Northeast region, with 47.2% (Table 1).

## Discussion

Even more than 20 years after the first regulation of abortion, by the SUS, for pregnancies resulting

from rape, there are only 55 municipalities with Referral Services for Termination of Pregnancy in Cases Provided by Law registered and with installed capacity to perform abortion in these situations. In these 55 municipalities, lived more than  $\frac{1}{4}$  of the female population of childbearing age in the country, which indicates the concentration of the service in municipalities with larger populations.

Four states did not have any facilities in scenario 1; of the five regions in the country, the only ones in which all states had at least one municipality providing the service were the South and Southeast. The distribution of the facilities that made up scenario 1 follows the unequal way in which outpatient and inpatient care units are allocated in Brazil, with a concentration of resources and technology in urban centers and in



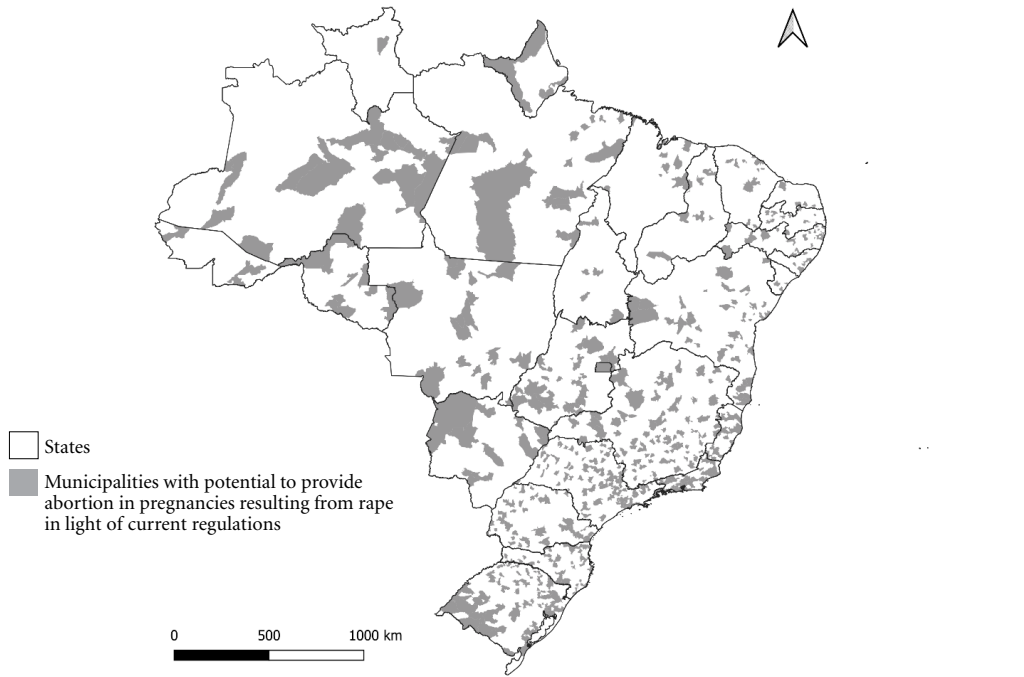
**Figure 1.** Scenario 1 of municipalities with Referral Services for Termination of Pregnancy in Cases Provided by Law capable of justifying, authorizing and performing abortion in pregnancies resulting from rape in Brazil, in June 2021

Source: CNES/Ministry of Health, 2021.

**Table 1.** Female population of childbearing age living in municipalities with abortion services for pregnancies resulting from rape in the three different scenarios of supply. Brazil by region, 2021.

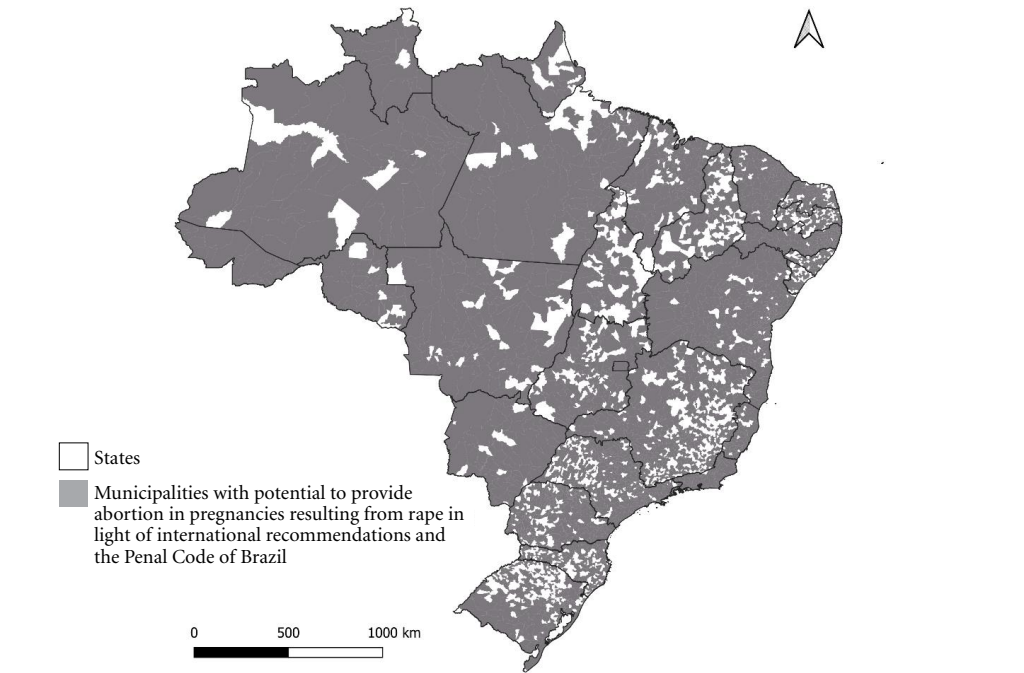
Region	Total (n)	Female population aged 10 to 49		
		Residents in municipalities with abortion services for pregnancies resulting from rape (%)		
		Scenario 1	Scenario 2	Scenario 3
North	6,120,661	26.5%	58.1%	93.3%
Northeast	18,241,583	22.7%	46.1%	93.3%
Southeast	26,241,992	30.1%	72.9%	95.4%
South	8,694,218	21.5%	63.8%	93.2%
Midwest	5,159,860	32.1%	66.2%	95.8%
<b>BRAZIL</b>	<b>64,458,314</b>	<b>26.7%</b>	<b>62.1%</b>	<b>94.3%</b>

Source: CNES/Ministry of Health, 2021.



**Figure 2.** Scenario 2 of municipalities with potential to provide abortion in pregnancies resulting from rape in Brazil, in June 2021, in light of current regulations.

Source: CNES/Ministry of Health, 2021.



**Figure 3.** Scenario 3 of municipalities with potential to provide abortion in pregnancies resulting from rape in Brazil, in June 2021, in light of international recommendations and the Penal Code of Brazil.

Source: CNES/Ministry of Health, 2021.

the South and Southeast regions<sup>26</sup>. The coincidence of geographical distribution is expected, since, as a rule, the abortion provided by law in Brazil is restricted to medium and high complexity facilities<sup>11</sup>. This concentration, however, generates the need for inter-municipal travel and increases the distances to be covered<sup>20</sup>, with greater logistical, time and money implications<sup>27</sup>, limiting access to the service, especially for already vulnerable groups<sup>19</sup>.

As for the Referral Services for Termination of Pregnancy in Cases Provided by Law, as a whole, it is noteworthy that, of the 102 registered, only 88 had, in June 2021, sufficient structure and staff to carry out the process of justification, authorization and abortion in pregnancies resulting from rape according to the regulations in force. The specific regulation in effect regarding this, Ordinance No. 2,561/2020, requires an obstetrician and an anesthesiologist in the staff for the justification and authorization of the procedure in these cases<sup>10</sup>, even though there are not any particularities in pregnancies resulting from rape when compared to other causes that make the differential presence of these professionals necessary. Regarding this type of requirement, the WHO indicates that the criteria for accreditation of services should only contain requirements that are essential for the safe performance of the abortion. The requirement for resources beyond what is necessary is a barrier to providing the service and, consequently, to eligible people having access to the procedure<sup>13</sup>.

Besides the minimum number of staff with an anesthesiologist and an obstetrician, the regulations indicate that the procedure must be performed in a surgical center, and provided in certain types of high and medium complexity facilities. This structure may be necessary for specific situations of abortion provided by law, but is generally dispensable in the first weeks of pregnancy<sup>24,28,29</sup>. This type of requirement reflects the logic of abortion provided by law in Brazil, with centralization of any procedure in a single type of reference service, regardless of the pregnant woman's condition, gestational age or the method for termination of pregnancy. Centralization overestimates the need for physical resources and personnel when dealing with abortions in low-risk situations, thus limiting the supply capacity and, consequently, access to the service. The Brazilian Health Regulatory Agency (Anvisa), in Ordinance No. 344/1998, restricts the use of misoprostol to the hospital environment<sup>12</sup>, which also reflects the logic of centralizing the supply of

the procedure, even though it is known that the drug is safe to use in other contexts<sup>13,28,29</sup>.

The second scenario has at least one municipality in each state with capacity to provide abortion in pregnancies resulting from rape. The percentage of the population with access is lower in the North and Northeast regions, and, when compared to scenario 1, the potential to expand supply in these regions is lower. As previously mentioned, the concentration of high and medium complexity services is in the South and Southeast regions<sup>26</sup>, so the unjustified requirement that any abortion provided by law be performed in this type of facility limits, in a more accentuated way, the supply in the other regions of the country<sup>13,28</sup>.

Still comparing the first two scenarios, it is noticeable that, even though Brazilian regulations are restrictive about providing abortion in pregnancies resulting from rape, of the 1,115 facilities which do have the capacity to offer the procedure, only 88 do so. In all, following the regulations in force, more than 600 municipalities do not perform the procedure even though they have the capacity to do it, that is, ten times more municipalities could perform abortion in pregnancies resulting from rape, covering 35.4% more of the population.

Regarding this gap, it is relevant to point out that, although Brazil is a secular state, the political decisions that concern abortion are influenced by religious morality<sup>16,30</sup>. The context of social condemnation and stigmatization of abortion, fueled by its criminalization, limits the provision and access to the procedure even in situations where it is legal. Stigma affects policy making and the conditions for setting up and maintaining the service<sup>15,16</sup>, such as the training and availability of non-objecting professionals<sup>31</sup>, the dedication of managers to the subject<sup>32</sup> and the accessibility of information to the population<sup>33</sup>.

Finally, regarding scenario 3, it is noticeable the expansion of municipalities with potential to provide abortion in pregnancies resulting from rape when the WHO recommendations are taken as a basis in light of the Penal Code of Brazil. This is the scenario that follows the Brazilian law and the best evidence in health, disregarding the non-statutory standards in force in the country. In other words, the difference between scenarios 2 and 3 is given by the restriction of potential provision arising only from administrative acts of the Executive Branch. This difference results in the impossibility of providing abortion in pregnancies resulting from rape in 3,079 municipal-



ities, to 32.2% of the population. The restriction especially affects the population in the North and Northeast regions of the country.

Even in this scenario, not all municipalities would have the capacity to offer the abortion provided by law, even though primary care is extremely widespread in the country. Given the need for backup emergency services, approximately two out of three municipalities would be able to provide the procedure, covering 94.3% of the population. However, the estimated coverage is conservative because it only considers the services available in the municipality and not the regional agreements for the supply of emergency services<sup>34</sup>.

In this scenario, primary care would be the preferred location for performing abortion in pregnancies resulting from rape during the first weeks of pregnancy, always backed up by an emergency service. The use of more technologically dense services would be restricted to complications, to situations that demand specialized care and to more advanced pregnancies.

The health network in Brazil is organized by levels of increasing complexity, with primary care in the territories as the priority entrance door to the health system, and services of greater technological density as references<sup>35</sup>. Thus, in order to expand provision of the procedure in the country, it would be useful if the less invasive methods of abortion and their performance, at least in the first weeks of pregnancy, could take place in less complex and more widespread services in the Brazilian territory, such as primary care<sup>13,36</sup>. Primary care is in practically every municipality in the country and, since the establishment of the SUS, it has contributed to the reduction of inequality of access to health care, both in terms of regional differences and among groups with different socioeconomic levels<sup>37</sup>.

The restriction of gestational age to perform the procedure safely in primary care, however, limits the procedure in the territory when the pregnancy is discovered late or there is a delay in seeking care. This restriction may especially affect people who are younger and less educated because of the delay in identifying the pregnancy<sup>38,39</sup>, as well as those who are more vulnerable, such as people with mental disabilities, who were under the effect of substances that act on the central nervous system at the time of the rape, or who are related to the aggressor<sup>39</sup>.

Besides gestational age, other clinical conditions or even the background of the user may make it necessary to receive care in specialized

services. These limitations in primary care mean that some of those eligible for an abortion provided by law need to go to non-primary care facilities. Still, it is certain that decentralization would make abortion more accessible, preventing these pregnancies from being prolonged and from bringing more consequences to the mental and physical health of those who have suffered sexual violence.

Even though the scenario presented points to the safety of performing abortion outside the hospital environment and, therefore, to a great potential for expanding access, the country's regulations have not advanced in this direction<sup>16,36</sup>. Specifically regarding medical abortion, in 2021, the Ministry of Health issued an informative note which indicates that, despite WHO guidelines, Brazil does not incorporate the use of misoprostol outside of the hospital environment due to particularities of the country's culture and development<sup>40</sup>. Although the particularities have not been listed, it can be assumed that among them is the naturalization of the deprivation of sexual and reproductive rights, especially for certain groups of the population, a cultural characteristic that hinders access to abortion in pregnancies resulting from rape<sup>16</sup>. In this scenario, access to health care is neglected and women are subjected to degrading treatment, thus perpetuating structural violence.

### Limitations

It is worth pointing out that this study has some limitations. The data source, the CNES, is filled in by the management of the health facilities and may contain incomplete information. For example, it is described that not all services that perform abortion provided by law, for any of the causes, are registered in the CNES as a Referral Service for Termination of Pregnancy in Cases Provided by Law, thus making it possible that more municipalities compose scenario 1<sup>17</sup>. In this sense, all scenarios may have had the number of municipalities underestimated due to potential filling mistakes in the CNES. In any case, the CNES is a public document and the official information system for the registration of facilities, and its completion is mandatory for the operation of any health facility in the country. The purpose of the registration is to make available information on the services, professionals and installed capacity of the facilities. Also, it is the source of data for other information systems, as well as for health policy management and to keep citizens informed<sup>23</sup>.

Specifically regarding scenarios 1 and 2, it was not possible to evaluate the capacity to carry out the collection and storage of genetic material, as established by Ordinance No. 485/2014<sup>11</sup>. This requirement possibly further restricts the availability of services with the capacity to provide abortion in pregnancies resulting from rape. The collection and storage of this material aims to identify the sexual assault perpetrators<sup>10</sup>, and, although this is a right of the people who have suffered sexual violence, this requirement should not limit the access to abortion provided by law. The intention of punishing the aggressor cannot cloud the urgency of health care for those who have survived the sexual crime; that is, in health services, the logic of public safety should not override that of care<sup>16</sup>. The same confusion of roles appears in Ordinance No. 2,561/2020<sup>10</sup>, when it mentions the communication of sexual violence to the police in cases of abortion in pregnancy resulting from rape. This regulation might discourage and limit the access of women who, for some reason, including safety reasons, do not want to report the crime to the police<sup>16</sup>.

As for scenario 3, besides the aforementioned registration limitations, the coverage may have been underestimated, since only the municipalities with emergency services in their own territory were included, without taking into account the regional agreements that may expand the backup

emergency service, and therefore the capacity to provide abortion safely.

### Final considerations

The three scenarios presented depict the current and potential provision of abortion in pregnancies resulting from rape in Brazil. The scenarios indicate that, today, the limited provision of abortion provided by law in Brazil does not derive from resource limitations. When comparing scenarios 1 and 2, it is evident that the installed capacity for provision is much higher than the current Referral Services for Termination of Pregnancy in Cases Provided by Law, which indicates difficulties in implementing the service that are beyond the requirements of structure or minimum number of staff. As regards the comparison between scenarios 2 and 3, it is important to point out that the non-statutory regulations regarding abortion in pregnancies resulting from rape limit the procedure by requiring unnecessary structure to perform the procedure. Brazil does not take advantage of the potential of the widespread provision of abortion in the first weeks of pregnancy and continues to centralize this care in facilities with higher technological density, concentrated in capital cities, which limits access to the service.

### Collaborations

MG Jacobs and AC Boing conceived the article. MG Jacobs wrote the first draft of the manuscript, and both authors worked on subsequent revisions and approved the final version.

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