

## Abortion and health in Brazil: challenges to research within a context of illegality

Aborto e saúde no Brasil: desafios para a pesquisa sobre o tema em um contexto de ilegalidade

Aborto y salud en Brasil: desafíos para la investigación sobre el tema en un contexto de ilegalidad

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doi: 10.1590/0102-311X00197918

### Abstract

*Abortion research faces great challenges, even more so in contexts in which it is illegal. Women tend to omit the voluntary termination of pregnancy or to declare having miscarried, which results in an underestimation of abortions. Research on this subject is indispensable because it enables us to estimate the incidence of abortion and its complications, and to identify unmet demands and more vulnerable groups so as to subsidize health actions and policies. In this article, we seek to describe the main challenges faced by researchers through a review of original studies on abortion and our reflections based on empirical studies we have conducted. We discuss the difficulties in obtaining information, strategies and techniques used to increase accuracy and reliability and their limits and advantages, and strategies for estimating the occurrence of abortion and its complications, using direct (interviews and data from medical charts) and indirect (secondary data on mortality and morbidity) methods. When investigating abortion complications, we address studies on mortality and morbidity, emphasizing the specificities of abortion among obstetric causes. We discuss the main indicators used by researchers and methodological aspects of their construction. We make recommendations for overcoming methodological problems and conducting new studies. In the conclusion, we reiterate the relevance of research on abortion and the need for approaches that contemplate its complexity.*

*Criminal Abortion; Research; Methods; Interview*

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## Introduction

Abortion research faces great challenges even in countries where it is legal, with no “unique and universal” context for its reporting<sup>1</sup>. Due to a condemnatory social norm, women tend to omit the voluntary termination of pregnancy or to declare having miscarried, which results in an underestimation of abortion<sup>2</sup>. Where abortion is legal, it is formally recorded at health services, and its occurrence can be directly measured based on official statistics. Nonetheless, legal abortions are recognized as only part of total induced abortions, due to the under-recording and under-reporting of the practice<sup>2,3</sup>.

This becomes considerably worse when the practice is illegal. In these contexts, the clandestine nature and the lack of medical care lead to abortions being carried out under unsafe conditions, that is, provided by unqualified individuals and/or in environments that do not meet minimum health standards<sup>4</sup>. Under these circumstances, the voluntary interruption of pregnancy may have grave consequences for health, even resulting in death, something that does not happen when the procedure is carried out under safe conditions<sup>4</sup>. When abortions are performed clandestinely, there is no possibility of reliable records.

Despite the increased challenges, in very restrictive contexts, research on abortion is indispensable because it enables the estimation of the incidence of abortion and its complications, and the identification of unmet demands and more vulnerable groups, which provides subsidies to health actions and policies.

That is the case of Brazil, where abortion is only permitted in cases of rape, risk to the woman’s life and fetal anencephaly. The criminalization reinforces social inequalities and increases vulnerability to its complications, including death, preferentially affecting women who are black, young, students or domestic workers and who do not have a partner<sup>5,6</sup>.

In this article, we seek to describe the main methodological challenges of research on abortion in contexts where, like in Brazil, it is illegal, through a review of quantitative original studies on the subject<sup>7</sup> and our reflections based on empirical studies we have conducted<sup>8,9,10,11</sup>.

### The first challenge: obtaining information

The clandestine nature and stigma associated with abortion make its investigation complex, beginning by its very admission by women. The voluntary interruption of pregnancy involves moral, ethical and religious conflicts which, added to social condemnation and reinforced by its illegality, result in its omission or in false reports of miscarriages<sup>12</sup>. Thus, simply excluding spontaneous miscarriages from analysis may lead to an underestimation of the incidence of abortion<sup>13</sup>.

Different strategies and techniques have been used to obtain information with which to estimate the occurrence of abortions, but none completely assures the trustworthiness or completeness of the data.

The most common strategies include using official statistics on legal abortions; demographic surveys on reproductive health (such as the *Demographic and Health Surveys* that is periodically carried out in many countries), population surveys with representative samples of women, surveys of female health service users and other selected populations, studies of hospital records on admissions due to abortions and studies or mortality from this cause<sup>2,3,14</sup>. The advantages and limits of each are summarized in Box 1.

The main techniques for producing primary data are extracting data from medical charts and other hospital records and conducting interviews with women using standardized questionnaires, whether face to face or through self-administered instruments, with varying degrees of reporting<sup>2,3,14</sup>.

Self-administered instruments are considered a good alternative because the answers are not known to the person administering the questionnaire and confidentiality is better preserved. However, they largely depend on participants’ educational level and acceptance, though this is not an exclusive limitation of studies on abortion<sup>15</sup>.

Alternatives such as the Randomized Response Technique (RRT) and the Ballot Box Method have been used to increase the accuracy of the information and measure abortion under-reporting<sup>16,17</sup>. The former is a probabilistic technique used to study stigmatizing or illegal situations, such as abor-

**Box 1**

Strategies for obtaining information to estimate the occurrence of induced abortions.

<b>Methods</b>	<b>Advantages</b>	<b>Limits</b>
Analysis of official legal abortion statistics	Direct access to "Medical abortion, complete or unspecified" (ICD-10 O04.9). Use of different sources (governmental institutions, private providers, insurance reimbursements).	Depends on the degree of legal restriction of abortion. Record coverage and completeness depend on the regulation of sources that produce the information and provide abortion care.
Studies of mortality from abortion-related complications	Low cost. Continuous annual accessibility. Can be used for temporal trend analyses. Can be used for regional comparisons.	Express extremely severe conditions. Depend on the quality of information included in the Death Certificate. These obstetric causes are the most vulnerable to under-recording and under-reporting. Very limited availability of information on social determinants.
Studies of hospital admissions due to abortion-related complications	Low cost. Continuous annual accessibility. Can be used for trend analyses. Can be used for regional comparisons.	Only reflect more severe cases in which abortion complications took place or could have taken place. Depend on the quality of the recorded information. Difficulty distinguishing between induced abortions and spontaneous miscarriages. Very limited availability of information on social determinants. In Brazil, the system only covers the public sector.
Demographic reproductive health surveys (DHS)	Availability of the information. Regularly conducted. Comparison with other countries.	Do not always include pregnancies that resulted in abortions. Take place every ten years and do not provide information in the intervals. Vulnerable to under-reporting even in contexts in which abortion is legal.
Household surveys with interviews of samples of women	Population representativeness. Inclusion of men as respondents regarding their partners.	More expensive and complex. Vulnerable to under-reporting even in contexts in which abortion is legal. More vulnerable to explicit refusals.
Surveys of users of hospital services	Can be used for studies of near misses. More efficient identification of women who have had abortions.	Reflect abortion complications that resulted in a demand for health care. Exclude women who completed abortions without hospitalization and those with extreme access difficulties.
Studies with selected populations	Can be used to investigate more vulnerable groups, such as sex workers, young women, women who are HIV+.	Often demand specific sampling and recruiting strategies. Instruments and their administration must be culturally appropriate. Inferences limited to the reference populations.
Extracting data from charts and other hospital records	Guarantees access to a large volume of data on clinical aspects for the classification of abortion types and complications.	Depends on access to charts and the quality of the information included in them. Difficulty of interpreting recorded information. Variety in the form and quality of records among health professionals.

ICD-10: International Classifications of Disease, 10<sup>th</sup> revision; DHS: *Demography and Health Survey*.

tion, in which the interviewer is completely unaware of the answer; in the latter, the interviewee deposits her answer in a ballot box, using an unidentified ballot with plain language (Figure 1). In Brazil, RRT was used in population surveys in São Paulo State <sup>18,19</sup>; and the Ballot Box Method was used in a study in Rio Grande do Sul <sup>20</sup> and in the *National Abortion Survey* (PNA in Portuguese) in 2010 <sup>21</sup> and 2016 <sup>22</sup>.

The construction of culturally-appropriate structured questionnaires, with special care taken with the language and order of questions, may ensure greater acceptance by interviewees and more trustworthy answers <sup>1</sup>. It is essential that researchers avoid questions that cause embarrassment, such as, for example, asking women who probably have had an abortion about the loss of a child. Likewise, researchers should use additional questions which confirm the type of abortion, because technical terms such as miscarriage, induced abortion, therapeutic abortion and voluntary interruption of pregnancy are not self-explanatory and may be difficult for interviewees to understand. In a standardized instrument, the order of questions must be carefully considered in order to avoid the abrupt introduction of the subject and to enable a prior empathy between interviewers and interviewees. The order of questions must be planned so as to make the questionnaire coherent, facilitate event recall, reduce the risk of information loss due to refusal to answer some question or even due to the interruption of the interview. The instrument's efficiency can be increased by using filters which distinguish different subgroups of experiences. For example, a questionnaire can initially inquire into previous pregnancies, whether or not they were intended, and, next, ask about their outcomes <sup>23,24</sup>.

Use of validated instruments – especially for apprehending complex constructs, such as, for example, the quality of post-abortion care – must be ensured in order to enable comparability between studies and the production of trustworthy data <sup>25,26,27</sup>.

Another crucial aspect for the trustworthiness of answers to sensitive questions, such as those regarding abortion and gender violence, consists of the establishment of an appropriate environment

### Figure 1

Example of ballot used in the Ballot Box Method.

**Confidential**  
Your answers will be kept secret.

1. How old are you? \_\_\_\_\_

2. This was:       induced abortion       spontaneous miscarriage

Source: GravSUS-NE Study <sup>25</sup>.

that guarantees privacy<sup>28,29,30,31</sup>. A further crucial aspect is the selection of interviewers (preferably women, due to the subject), based on experience, training and age. It is recommended that the selected interviewers not have a stigmatizing stance on abortion.

The need to respect the confidentiality of the information and not to make value judgments during the interview must be emphasized during team training and regular work supervision. In addition to meeting technical standards, interviewers must also be capable of, simultaneously, maintaining the distance needed for scientific production and ensuring support in situations in which practices are revealed, or in which participants are exposed to risks<sup>30</sup>. The team must pay attention to situations in which there is need for psychological support, providing information on reference services.

Primary data on abortion may also be produced through its extraction from medical charts, but the quality depends on the completeness and accuracy of the records, and varies according to the type of document researchers consult. Emergency care records generally present briefer information<sup>32</sup>, and the wealth of details increases as the care becomes more complex, as in the case of Intensive Care Units (ICUs).

Researchers must develop a specific form for data extraction, along with a manual describing its application, so as to guarantee a standardized data collection<sup>33</sup>. These instruments, carefully thought-out before the start of field research, must guide team training and supervision. Researchers must consider that records are produced for the purposes of clinical follow-up and are filled out by professionals, with varying degrees of completeness<sup>33</sup>. In order to ensure efficiency and the accuracy of the information to be transcribed, the team may be composed of professionals capable of recognizing this type of (often barely legible) writing, as well as the technical terms used, such as, for example, individuals with health-related degrees<sup>33</sup>. However, they must strictly follow the research protocol, so as to avoid interpretation biases, and should, preferably, not be aware of the study's key hypotheses<sup>33</sup>.

Often, the challenge is the identification of abortion cases itself, which depends on the International Disease Classification code entered into the hospital admission form. In addition to possible failures in this record, the non-standardized use of these codes may harm data compatibility, if studies use different criteria, with greater or lesser specificity. The most recommended course of action is to transcribe data to the form with no interpretations or judgments of the diagnosis, which should be reserved for a later stage, preferably by experts, with blind, standardized double classification.

It may be difficult to distinguish spontaneous miscarriages from induced abortions. One approach used in Brazil<sup>34,35</sup> was proposed by the World Health Organization (WHO)<sup>36</sup> based on the work by Figa-Talamanca, which classifies abortions according to the degree of certainty of inducement. The classification of abortions as "certainly induced", "probably induced", "possibly induced" and "spontaneous miscarriage" takes into consideration accounts from women, family members and health professionals, in addition to hospital records of abortion-related complications (Box 2). This method has the potential for two types of biases: spontaneous miscarriages with complications and those resulting from unintended pregnancies may be falsely classified as induced; induced abortions with no complications may be categorized as miscarriages. This second type has become particularly relevant in recent decades, due to the increased use of medications such as misoprostol, which are known to reduce severe complications<sup>3</sup>.

### **The visibility of abortion: strategies for estimating occurrence**

Abortion occurrence can be estimated directly (based on primary data) or indirectly (using secondary data), depending on the type of method, as described above. Estimates may further be produced by combining both types of methods<sup>3</sup>.

Population surveys enable researchers to estimate measures which express the occurrence of pregnancies that ended in abortions, health care coverage and demands that are not met by services, but depend on women's self-reporting, which is subject to the degree of social tolerance of abortion. Therefore, the data obtained always express a minimum level of occurrence<sup>8</sup>.

These surveys also have the advantage of identifying women's profiles, vulnerable groups and abortive itineraries, and including men's perceptions of their partners' abortions, in addition to

**Box 2**

Method for distinguishing induced abortions and spontaneous miscarriages – World Health Organization (based on Figa-Talamanca, 1986).

Abortion type	Criteria
Certainly induced	Abortion directly reported by the woman as having been induced and/or when there is evidence of trauma or a foreign body in the genital tract. In case of death, information from family members or health professionals is also considered.
Probably induced	Abortion accompanied by sepsis or peritonitis AND pregnancy declared as unintended (with contraception use at the time).
Possibly induced	Abortion accompanied by sepsis or peritonitis OR pregnancy declared as unintended (with contraception use at the time).
Spontaneous miscarriages	All other situations for which information is available.
Unclassified	Cases with lacking or incomplete information needed for classification.

propitiating studies with specific populations (young people, sex workers, women who are HIV positive, among others) <sup>8,37,38</sup>.

As for indirect estimates for measuring the occurrence of abortion, different methods have been used <sup>3,14</sup>, following the proposal of the Alan Guttmacher Institute (AGI) <sup>39</sup>, which has been applied to several countries. The number of induced abortions is obtained from hospital data, with corrections in the formula for the population estimate, predicting hospital admissions and use of private health services, discounting potential spontaneous miscarriages and adding those which would not lead to a hospitalization. However, the method has limitations which imply a probable overestimation, and is the object of a scientific debate <sup>40,41</sup>. Other aspects must be considered with regard to estimate parameters, depending on the context.

For example, in Brazil, estimates using the AGI methodology considered the following as parameters for the correction factor: of the total number of cases, 12.5 % were considered abortions performed outside of the public sector, 25% were considered spontaneous miscarriages, and 25% were considered to require hospitalization due to abortion-related complications <sup>42</sup>. However, these values probably vary across the country's regions. For births, the study *Birth in Brazil* found that 20% of women used the private sector <sup>43</sup>, in agreement with data from the 2006 *National Demographic Survey of Children and Women's Health* <sup>44</sup>, which estimated that 27% of the female population was covered by private health insurance, varying from 12% in the Northeast and 37% in the Southeast. Additionally, the PNA showed, in 2010 <sup>21</sup> and 2016 <sup>22</sup>, that 50% of abortions resulted in hospitalizations. Lastly, the proportion of spontaneous miscarriages differs according to women's age, which would affect the estimates according to age group <sup>45</sup>.

Whatever the method used, when estimates are based on hospital records, their interpretation must take into account issues related to the severity of cases and to access to health services. Hospitalizations often express greater severity of cases and the presence of more severe complications, which may even lead to death. Thus, less severe cases tend to be underestimated, because they are resolved without hospitalization. On the other hand, severe cases enable a good estimate of population occurrence, because one may assume that the women only survived because they received hospital care <sup>13</sup>.

For population estimates, researchers must consider that women with higher levels of income and education have abortions under safer conditions, in private clinics, and therefore are not included in the hospital statistics of the public health systems in Brazil and in other similar contexts. On the other hand, poorer women, who are more exposed to unsafe abortions and are at greater risk for complications, may be over-represented in the indirect estimates, thus reiterating the association between abortion and poverty. However, they are the ones who seek out hospitals, whether to finish emptying the uterus after prior use of misoprostol, or to avoid complications, without this necessar-

ily implying greater severity <sup>5,6</sup>. On the other hand, those who face discrimination and institutional violence in previous pregnancies, such as black women, may seek out health services less often, and be underestimated in estimates based on hospital statistics <sup>46</sup>. Another aspect that deserves attention is hospital re-admissions, which are not very common, but may contribute to the overestimation of the abortion incidence.

Despite the limitations we have discussed, estimates obtained through indirect methods, such as that from the AGI, are justified by the difficulty in obtaining direct estimates in contexts of illegality and, even where abortion is legal and accessible, because of the persistence of unsafe practices resulting from stigma.

When constructing indicators of occurrence, in addition to the aspects related to the “number of abortions” numerator, whatever the chosen measure, other methodological aspects must be discussed. The most commonly used indicators are: abortion rate/1.000 women of fertile age, proportion of pregnancies which result in abortion and ratio of abortions/100 live born children <sup>47</sup>.

The denominator may be total number of women of fertile age, the total number of pregnant women, or the total number of live born infants. There is also the possibility of using the group of women who have unintended pregnancies. In the first case, the definition of fertile age may vary – 15 to 49 years <sup>48</sup>; 15 to 54 years <sup>10</sup> – or, due to ethical reasons, only include women who are legal adults <sup>22</sup>. When investigating young women and adolescents, different age ranges are used – 12 to 19 years <sup>49</sup>; 14 to 25 years <sup>50</sup> or 18 to 24 years <sup>51</sup>. These definitions influence result comparability.

The calculation of the denominator “number of live born infants” may be affected by problems related to information coverage. Consequently, temporal and regional differences may not be exclusively attributed to abortion magnitudes and trends, since both the population of reproductive age and the number of live born infants may change.

A relevant issue is the reference period used, that is, the estimate of induced abortions over the course of the reproductive life <sup>52</sup> or within a specific period – over the previous five years <sup>53</sup> or the previous year <sup>22</sup>. Studies which use “lifetime” as the reference period usually find higher values because it is a cumulative experience in a greater period of exposure to unplanned pregnancies. They may also be affected by recall bias, with the tendency toward remembering the more recent and/or more significant events (for example, those that had complications or demanded hospitalization).

## Investigation of factors associated with induced abortion

In a review of articles on unsafe abortion in Brazil <sup>7</sup>, among the quantitative studies published between 2008 and 2018, most were cross-sectional, with the limitation of ensuring the temporal sequence of events. Many used small samples and, despite good methodological quality, the generalizability of their findings was limited because they referred to very specific contexts. Works with greater sample sizes had deficiencies in their statistical analysis and few studies reported statistical power, not including, for example, confidence intervals for their estimates of abortion prevalence. Many of the studies relied on participant accounts, obtained through interviews, to measure independent variables and induced abortion, with no validation from a different source of information <sup>7</sup>. Another important aspect is that many determinants were often measured using the moment of the interview as the reference, instead of the period when the abortion took place, further worsening the issue of temporality. For example, marital status, income, number of children, contraceptive use are aspects that vary over women’s lives. This leads some results to be clearly biased, with a greater prevalence of abortion among women with tubal ligation, who are no longer able to become pregnant, or the reverse causality between women with no children and abortion.

Many of the studies on determinants of abortion and its complications did not clearly present the conceptual models used when analyzing associations, or used inadequate models <sup>7</sup>. The choice of variables, in general, was not justified and, in some cases, was inappropriate. Another aspect related to conceptual models is the comparison between male accounts of their partners’ abortions and the accounts directly provided by women. Although the focus on male participation in abortion is laudable, results from this type of comparison must be interpreted with caution, taking into consideration gender differences both in the experiences and the accounts thereof.

In addition, the choice of comparison groups for the outcome “induced abortion” was very varied and subject to biases. For example, comparing induced abortions with spontaneous miscarriages may lead to an underestimation of risk factors, because the group of women who reported spontaneous miscarriages may include some who had induced abortions, but did not report them. Additionally, induced events occur more frequently among women with unintended pregnancies. This group should be the population base, both in cohort and case-control studies <sup>7</sup>.

### **Estimates of the occurrence of complications associated with abortions**

A data source that is traditionally used to study complications from abortions are mortality statistics, which express the most serious side of the problem.

Use of mortality data from any cause has limitations related to the system’s coverage and the quality of information recorded in Death Certificates (DC) <sup>54</sup>. Maternal deaths are known to be especially affected by under-reporting, which led, in Brazil, to a series of initiatives, from including a field for identifying pregnancy in DC to the investigation of maternal deaths, which was officially made an attribution of the epidemiological surveillance system <sup>55</sup>. Consequently, calculations of maternal mortality measures depend on the proportion of deaths of women of fertile age that have been investigated, the confirmation of causes of death as maternal, and the incorporation of new cases into the official information system.

However, abortion is considered one of the most poorly-reported causes of maternal mortality <sup>47</sup>, and there are differences depending on whether one uses the immediate cause or contributing causes of death when calculating the maternal mortality ratio (MMR). Recent studies have estimated a 30-40% increase in MMR when multiple causes are used <sup>56,57</sup>. Considering the illegality of the practice, it is possible that delays in receiving care and complications that result in death after 42 days (delayed death) facilitate its omission as an immediate cause in the DC, favoring under-reporting of abortion as a cause of maternal mortality. Additionally, violent causes of death, such as homicide and suicide, which are potentially related to pregnancy, may be under-reported, since they do not compose the numerator when calculating MMR <sup>58</sup>.

Starting in the 2000s, in the international literature, there has been a rise of investigations that analyze cases of women who developed severe morbid conditions due to maternal causes and, among them, more severe cases – the so-called near misses <sup>59</sup>.

Complications from induced abortions encompass a broad spectrum of conditions. Studies on maternal morbidity have used a typology of complications (Figure 2) which ranges from less severe cases, conditions that are potentially not life-threatening, more severe situations, which are potentially life-threatening, up to near misses, defined as those in which the woman almost died, but survived severe complications during the pregnancy-delivery period – and death <sup>60,61</sup>.

Initial studies on maternal near misses had different criteria for classifying cases, which limited result comparability. In 2009, the WHO proposed a classification typology. This line of research with standardized criteria has been considered an advancement, because it enables the evaluation of the quality of obstetric care, comparing services, monitoring and epidemiological surveillance. It also leads to greater operational ease due to the greater possibility of obtaining data, since morbid cases are comparatively more frequent than deaths, in addition to information being obtained directly from women <sup>59,62</sup>. However, applying this model may be difficult in certain contexts, such as the Brazilian one, because it requires records on clinical condition, laboratory alterations and how cases are handled in health services <sup>63</sup>.

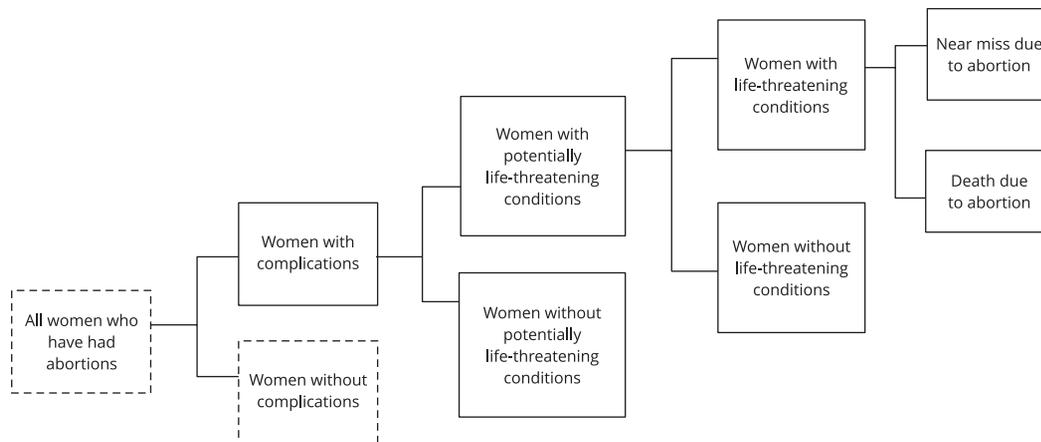
In Brazil, studies have examined mortality from abortion, however, studies on morbidity due to this cause have only recently used the typology that includes severe maternal morbidity and near miss <sup>7</sup>.

Complications and deaths associated with abortion may also be investigated through interviews and by extracting data from hospital charts <sup>53</sup> or through secondary data available on information systems <sup>64,65</sup>.

Data obtained from interviews are subject to recall bias and, in the case of morbidity, accuracy is strongly related to the type of event. In a validation study of a questionnaire for maternal near miss <sup>66</sup>, researchers found that recall of previous hysterectomy had the highest trustworthiness ratio, followed

**Figure 2**

Morbidity spectrum: from abortions with no complications to deaths from abortions.



Source: Adapted from Say et al. 60.

by admission to an ICU, blood transfusion, eclampsia with or without convulsions. Hemorrhage and puerperal infections had much lower values. The use of standardized questionnaires already used in national studies <sup>61</sup> is thus reinforced for identifying cases of maternal near miss in population surveys, which would facilitate study comparability.

## Final thoughts

Due to all of the reasons listed here, it is clear that abortion and its complications are difficult to measure, imposing countless methodological challenges. These are joined by ethical challenges – especially the need to preserve data secrecy and confidentiality, as well as the safety of the research team and, above all, of the interviewed women, who may be reported to law enforcement even by the health care workers who treat them <sup>7,67,68</sup>. Likewise, we must consider potential risks from a psychological standpoint, when calling upon women to speak of something that is emotionally mobilizing, especially considering that some of the studies are carried out while they are still in the hospital. Attention and care in the interaction imply taking in emotions, creating empathy with interviewees and, if necessary, referring them to follow-up by a mental health professional. Research on abortion must, therefore, consider that methodological decisions have reciprocal implications with ethical decisions.

More robust theoretical models are needed for investigating induced abortion <sup>7</sup>. We must likewise overcome gaps, especially regarding service quality and their effects on complications and death due to abortion. New methods for obtaining incidence data have been developed and applied in many countries <sup>2</sup>, however, we must redouble efforts to investigate complications and deaths due to abortion <sup>69</sup> and the role of stigma and discrimination in health services in determining them.

Especially in countries where abortion is criminalized, such as Brazil, studies must be carried out so as to determine the dimension of the morbi-mortality resulting from unsafe practices, since they affect young, black and poor women in particular, in a clearly avoidable manner.

In order to overcome some of the challenges we identified, we require investments in research that subsidize the development and perfecting of the methodological aspects of abortion studies, with an emphasis on the development of theoretical models, definition of study population, improvement of measurements of induced abortions and associated factors.

Among current issues that must be investigated are changes in abortion strategies employed in restrictive legal contexts. In countries where abortion is legal, medication abortions are offered under the supervision of health professionals. However, in contexts where abortion is criminalized, women, especially those who are younger, have used self-abortion strategies, turning to online services, which offer direct lines of information on medications<sup>70</sup>.

The scientific production must provide a basis for public policies and, for this, we must invest in comparative studies of different regions of the country – multicentric, population studies – with the inclusion of women from rural areas and smaller towns, as well as indigenous women, quilombolas, women with disabilities, among other groups that are more vulnerable to social exclusion. The combination of multi-disciplinary strategies is a requirement in these studies, since abortion is a complex phenomenon and must be addressed from different perspectives so as to be understood.

### Contributors

G. M. S. Menezes, E. M. L. Aquino, S. C. Fonseca and R. M. S. M. Domingues contributed in article conception, formulation, writing and approval.

### Acknowledgments

We thank the partners from the research teams that investigate the subject, with whom we share the challenges discussed in the article. Estela M. Aquino is a recipient of a 1D productivity grant from CNPq.

### Additional informations

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## Resumo

*A pesquisa sobre o aborto impõe grandes desafios, que são redobrados em contextos onde a prática é ilegal. As mulheres tendem a omitir a interrupção voluntária da gravidez ou declarar o aborto como espontâneo, o que resulta em subestimação da sua ocorrência. A pesquisa sobre o tema é imprescindível, por permitir estimativas de incidência do aborto e de suas complicações, e a identificação de demandas insatisfeitas e de grupos mais vulneráveis de modo a embasar ações e políticas de saúde. Neste artigo pretendeu-se descrever os principais desafios enfrentados, a partir de uma revisão de estudos originais sobre o tema e da reflexão das autoras com base na realização de pesquisas empíricas. Discute-se as dificuldades para obtenção da informação, as estratégias e técnicas utilizadas para aumentar a acurácia e a confiabilidade, seus limites e vantagens, e para estimativas de ocorrência do aborto e de suas complicações, com o uso de métodos diretos (entrevistas e extração de dados de prontuários) e indiretos (fontes de dados secundários de morbidade e mortalidade). Na investigação das complicações do aborto, aborda-se os estudos de mortalidade e morbidade enfatizando-se as especificidades dos abortos entre as causas obstétricas. São apontados os principais indicadores utilizados e aspectos metodológicos para sua construção. Recomendações são feitas para superar problemas metodológicos e realizar novos estudos. Em conclusão, a relevância da pesquisa sobre o aborto e a necessidade de abordagens para contemplar sua complexidade são reiteradas.*

*Aborto Criminoso; Pesquisa; Métodos; Entrevista*

## Resumen

*La investigación sobre el aborto impone grandes desafíos, que son redobrados en contextos donde la práctica es ilegal. Las mujeres tienden a omitir la interrupción voluntaria del embarazo o declarar el aborto como espontáneo, lo que resulta en un subestimación de su ocurrencia. La investigación sobre este tema es imprescindible, al permitir estimaciones de incidencia del aborto y de sus complicaciones, y la identificación de demandas insatisfechas y de grupos más vulnerables, de modo que puedan fundamentar acciones y políticas de salud. En este artículo se pretendió describir los principales desafíos enfrentados, a partir de una revisión de estudios originales sobre el tema y de la reflexión de las autoras, en base a la realización de investigaciones empíricas. Se discuten las dificultades para la obtención de la información, las estrategias y técnicas utilizadas para aumentar la precisión y la confiabilidad, sus límites y ventajas, y para las estimaciones de ocurrencia del aborto y sus complicaciones, con el uso de métodos directos (entrevistas y extracción de datos de registros médicos) e indirectos (fuentes de datos secundarios de morbilidad y mortalidad). En la investigación de las complicaciones del aborto, se abordan los estudios de mortalidad y morbilidad enfatizándose las especificidades de los abortos entre las causas obstétricas. Se apuntan los principales indicadores utilizados y aspectos metodológicos para su construcción. Las recomendaciones se realizan para superar problemas metodológicos y realizar nuevos estudios. En conclusión, se reiteran la relevancia de la investigación sobre el aborto y la necesidad de abordajes para contemplar su complejidad.*

*Aborto Criminal; Investigación; Métodos; Entrevista*

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Submitted on 15/Oct/2018

Final version resubmitted on 01/Mar/2019

Approved on 13/Mar/2019

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**Menezes GMS, Aquino EML, Fonseca SC, Domingues RMSM. Abortion and health in Brazil: challenges to research within a context of illegality. Cad Saúde Pública 2020; 36 Suppl 1:e00197918.**

doi:10.1590/0102-311XER197918

Where it reads:

**Keywords:** *Criminal Abortion; Research; Methods; Interview*

**Palavras-chave:** *Aborto Criminoso; Pesquisa; Métodos; Entrevista*

**Palabras-clave:** *Aborto Criminal; Investigación; Métodos; Entrevista*

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