

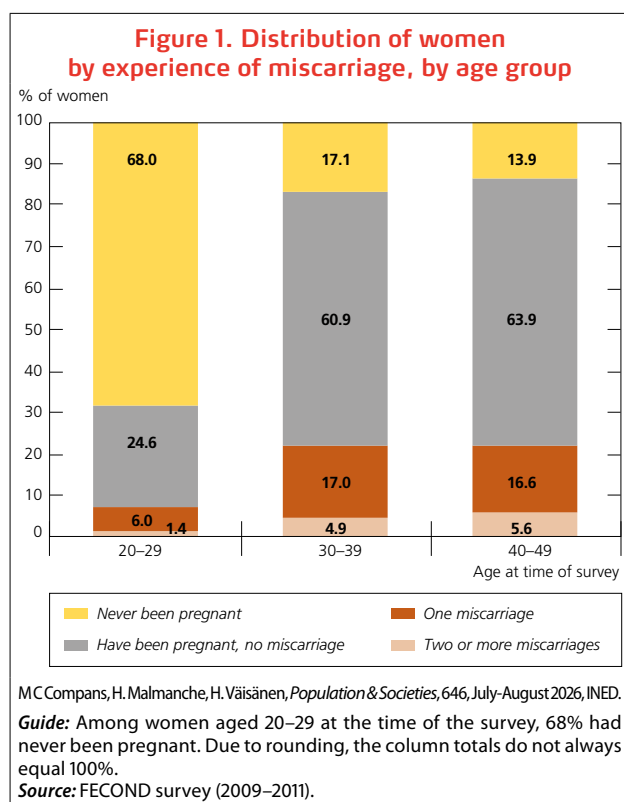
Since 2008, moreover, a late miscarriage (between 14 and 22 weeks of gestation) may be reported to the civil registry as a stillbirth [1, 2].

Around 1 in 4 women who have been pregnant report experiencing a miscarriage

The Fertility, Contraception, and Sexual Dysfunction survey (FECOND, 2009–2011) allows us to reconstruct the pregnancy histories reported by the survey respondents. Among women aged 40–49 at the time of the survey, whether they had ever been pregnant or not, more than 1 in 5 (22%) had experienced at least one miscarriage. More specifically, 17% of them had experienced one miscarriage and 6% had experienced two or more (Figure 1). Only 7% of women aged 20–29 at the time of the survey had experienced at least one miscarriage, but more than half of these respondents (68%) had never been pregnant. Lastly, among women aged 30–39 at the time of the survey, 17% had experienced one miscarriage and 5% had experienced multiple (Figure 1).

Overall, among women aged 40–49 who had ever been pregnant, around one quarter had experienced miscarriage.

Different types of data can be used to measure the prevalence of miscarriage, i.e., the share of pregnancies ending this way. Each data type presents its own advantages and limitations, but by combining them we can better quantify this risk.



According to the FECOND survey (Box 2), 14% of pregnancies reported by respondents of all ages ended in miscarriage (Figure 2); this figure is consistent with international literature estimates, which often place this proportion between 12% and 19% [3]. Furthermore, 8% of these miscarriages are late (beyond 14 weeks of gestation), meaning that 0.6% of all reported pregnancies end in late miscarriage. The large

Box 2. Data sources

a) The *Fécondité, contraception et dysfonctions sexuelles* survey (Fertility, Contraception, and Sexual Dysfunction, FECOND), 2009–2011

The FECOND survey was conducted from 2009 to 2011 by the French Institute of Health and Medical Research (INSERM) and the French Institute for Demographic Studies (INED) among 5,275 women and 3,373 men between 15 and 49 years old. It covers various topics associated with sexual and reproductive health and can be used to trace the full pregnancy histories reported by the respondents. After indicating the number of pregnancies previously experienced, respondents were asked about the outcome of each of these pregnancies, with one of the categories being ‘une fausse couche ou un œuf clair’, i.e., miscarriage or blighted ovum (anembryonic pregnancy). The full questionnaire is available at this link:

<https://data.ined.fr/index.php/catalog/61>

b) Administrative data from the *Système national des données de santé* (National Health Data System, SNDS), 2013–2023

The SNDS is composed of multiple databases of administrative healthcare records, including the health insurance and hospitals databases (Programme de médicalisation des systèmes d’information [PMSI]). It covers all beneficiaries of the public health insurance system (Assurance Maladie) in France. When a miscarriage results in a hospital stay, it is directly identified in the PMSI using codes from the International Classification of Diseases 10th Revision (ICD-10). Miscarriages that did not result in a hospital stay were indirectly identified by the authors 1) in cases where pregnancy ultrasounds were conducted in the first trimester but not after, and 2) in cases of first trimester pregnancies declared to the health insurance system without resulting in a birth [4]. These data do not, therefore, enable us to identify miscarriages that did not require any medical care. Furthermore, as this information is only available for 2013 onwards, any pregnancy that occurred before that year is not observed. At the time of analysis, data from 2023 are the most recently available.

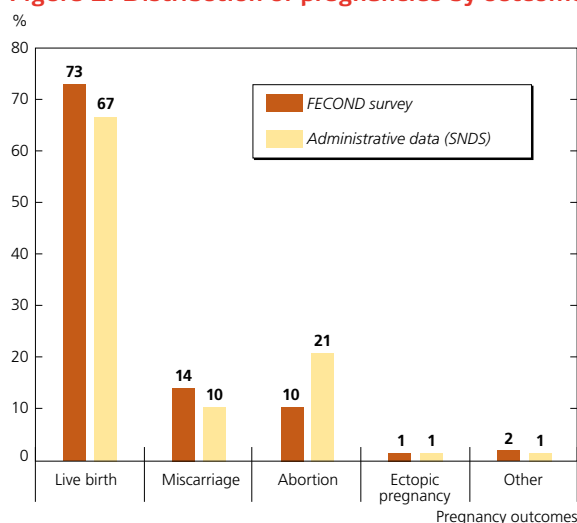
c) The *Fausses couches et inégalités sociales* survey (Miscarriages and Social Inequalities, FISO), 2025

The FISO survey is a qualitative survey administered in 2025 via semi-structured interviews by members of the SOC-MISC team (INED). It was used to collect 41 interviews with women who had experienced a miscarriage during the last 5 years within metropolitan France. The interviewees were recruited through a call for testimonies publicized in hospital waiting rooms across four departments of France ($n = 20$), through an advertisement on social media ($n = 15$), and via the snowball effect ($n = 6$). This survey aimed to document the diversity of miscarriage experiences in France. It was particularly focused on the individual perceptions and definitions of miscarriage held by those concerned, with the aim of improving miscarriage follow-up in epidemiological studies; on the experience of medical care in order to gain a better understanding of care pathways within the French system; and, lastly, on the consequences of miscarriage on mental health and its medium- and long-term effects.

majority of miscarriages identified therefore take place during the first trimester of pregnancy.

Administrative data extracted from the National Health Data System (SNDS) for the 2013–2023 period indicate that around 10% of pregnancies ended in miscarriage; this figure is lower than that of the FECOND study and declines slightly over the time period in question. This discrepancy versus the survey results is explained by the fact that these administrative

Figure 2. Distribution of pregnancies by outcome



MC Compans, H. Malmanche, H. Väisänen, *Population & Societies*, 646, July-August 2026, INED.

Guide: According to the FECOND survey, 73% of all pregnancies reported resulted in a live birth.

Note: Only one outcome per pregnancy is recorded. The category 'Other' includes terminations of pregnancy for medical reasons (TFMR), molar pregnancies (abnormal egg with proliferative degeneration of the placenta), and stillbirths.

Scope: All pregnancies in women aged 15–49.

Sources: FECOND survey (2009–2011) and National Health Data System (SNDS), 2013–2023.

data are less accurate when it comes to identifying miscarriages (see Box 2) but are more accurate at recording abortions than surveys (in which the latter tend to be under-reported) [5]. These two effects result in a lower proportion of miscarriages being observed among total pregnancies in the administrative data than in the survey data.

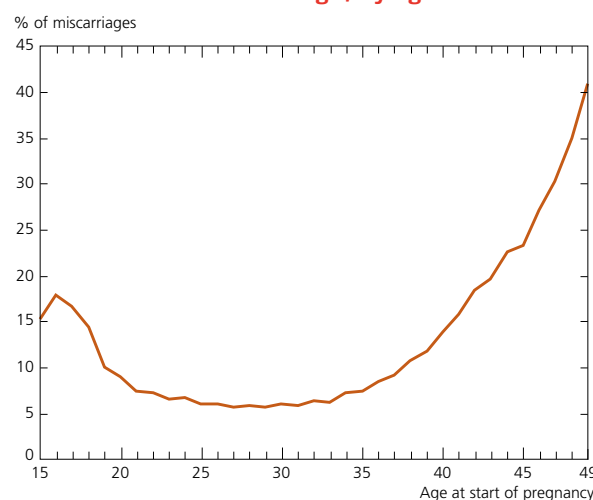
Higher risk of miscarriage before the age of 20 and particularly over the age of 34

Age is the primary risk factor for miscarriage. For this analysis we use the administrative data only, since the population numbers by precise age at start of pregnancy in the survey data are too small. The probability that a pregnancy will end in miscarriage is relatively high in women under the age of 20, reaching over 10% before declining; it then increases again from the age of 34 (Figure 3). This J-curve is consistent with the findings of international literature [3]. Thus, in pregnant women aged 35, 8% of pregnancies identified in the administrative data result in a miscarriage. This proportion reaches 14% of pregnancies at the age of 40, 23% at age 45, and more at older ages.

Miscarriage risk varies little by education or financial situation

According to the FECOND survey, the rate of miscarriage remains at around 14% regardless of women's level of education [6]. Furthermore, pregnancies in women who report facing no financial difficulties at the time of conception have a slightly higher risk of miscarriage than pregnancies in women who did face them, but these differences are not significant. These results are similar whether we take age into account or not (Figure 4).

Figure 3. Percentage of pregnancies ending in miscarriage, by age

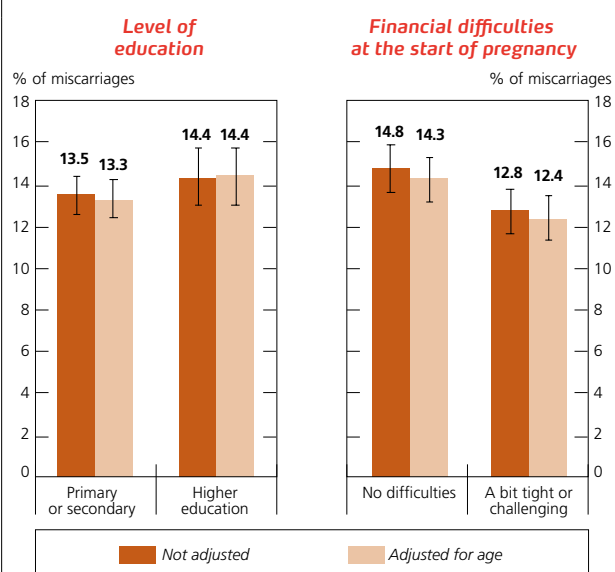


MC Compans, H. Malmanche, H. Väisänen, *Population & Societies*, 646, July-August 2026, INED.

Guide: Nearly 15% of pregnancies in women 15 years of age result in miscarriage, as opposed to any other pregnancy outcome (live birth, abortion, ectopic pregnancy, stillbirth, termination for medical reasons, or other loss of pregnancy).

Source: National Health Data System (SNDS), 2013–2023.

Figure 4. Probability that a pregnancy will end in miscarriage, by level of education and financial situation



MC Compans, H. Malmanche, H. Väisänen, *Population & Societies*, 646, July-August 2026, INED.

Guide: Among women with primary or secondary education, 13.5% experience miscarriage. Adjusting for age, the rate for this same category is 13.3%. The bars represent 95% confidence intervals.

Scope: All pregnancies in women aged 15–49.

Source: FECOND survey (2009–2011).

Miscarriage care

International medical standards define three possible approaches to a non-viable pregnancy: expectant (no intervention), medical treatment (primarily with misoprostol), and surgical treatment (aspiration). A miscarriage may also be complete by

the time of the medical consultation. In this event, no treatment is necessary and medical examination can confirm the miscarriage diagnosis.

In France, whether the miscarriage results in hospitalization or treatment by a physician elsewhere, it is covered by the social security system. In practice, very few miscarriages are managed only outside hospital: individuals either go directly to the emergency room or they are sent there by a community-based doctor for confirmation of the diagnosis and/or so that any necessary treatment can be initiated.

Furthermore, the proportion of miscarriages resulting in hospitalization is decreasing. This is not only the case in France but also across other European countries [4], possibly reflecting an increasing preference for the expectant approach or medical treatment, rather than for surgical intervention. The first two options are less invasive and do not require a hospital stay.

Some miscarriages also occur without any medical consultation, but the proportion they represent is difficult to quantify due to lack of data. The qualitative survey Miscarriages and Social Inequalities (*Fausse couches et inégalités sociales*, FISO), conducted in 2025 (see Box 2), shows that some women choose not to seek medical care if the miscarriage occurs very early in the gestation, if they have no doubts about what they are experiencing, or if they attribute the event to a 'natural process' that does not require medical treatment.

Towards better medical care: the beginnings of change

Emergency gynecological care for miscarriage is often considered inadequate by those who experience it. For the very large majority of the 41 women interviewed in the FISO survey, there was a discrepancy between their needs and expectations and the care they received in hospital. For example, they waited in a space shared with pregnant women or women in labour; there was a lack of information about the treatment process and what to expect afterwards—especially during the expulsion of the embryo or fetus—; and no sick leave or referral for psychological support was offered. Finally, clumsy or even hurtful language was used by practitioners, and there was a lack of medical follow-up after the miscarriage.

These findings highlight the need to reassess the care provided in the event of early pregnancy loss. Changes are already underway, both at institutional level and in clinical practice. Since September 2024, a period of sick leave exempt from an initial waiting period (i.e., compensated from the first day of leave) is available to women who have had a miscarriage, but many healthcare professionals remain unaware of this scheme. Furthermore, forthcoming new clinical practice guidelines for miscarriage management, which have been developed with the involvement of the SOC-MISC team, may help to improve the care experience of individuals affected. Lastly, experiencing

a miscarriage can have repercussions on subsequent fertility behaviours and intentions, as well as on mental and physical health. These are issues that merit future research.

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Abstract

In France, more than 1 in 5 women aged 40–49 have experienced a miscarriage, that is, 1 in 4 women who have ever been pregnant. Between 10% and 14% of pregnancies therefore end in miscarriage. The risk increases with age from around 34 years but is unrelated to education or financial situation. The emergency medical care provided by hospital gynecology departments is often experienced as inadequate by patients. Recent changes (immediate sick leave) and imminent adjustments (new guidelines for medical practice) mark the beginning of a necessary shift.

Keywords

miscarriage, France, early pregnancy loss, reproductive health, SNDS, FECOND survey, medical care