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Reproductive Medicine Act monitoring

Key results for 2023

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1 Introduction: Reproductive Medicine Act monitoring

The Reproductive Medicine Act (RMA) specifies the conditions under which techniques of medically assisted reproduction may be used in Switzerland. On 1 September 2017, a partial revision of the RMA came into force, involving in particular the legalisation of preimplantation diagnosis.

Also included in the revised Act were provisions concerning evaluation (Art. 14a RMA). Whether the Act fulfils its purpose was to be determined via a review of its effectiveness.[1] To provide a basis for the evaluation of the legislation, the Federal Office of Public Health (FOPH) also conducts a monitoring programme, which should continue to provide data on reproductive medicine in Switzerland after the evaluation has been concluded. Büro Vatter (Political Analysis) was commissioned to carry out the data collection and processing for this monitoring. The most important results thereof are published online by the FOPH.

Thematically, this report is structured in accordance with the corresponding FOPH web page. No figures or tables are included; instead, for each section, a link is provided to the analyses and explanations presented by the FOPH on its "Reproductive Medicine: facts & figures" web page.[2]

[1] https://www.bag.admin.ch/bag/en/home/medizin-und-forschung/fortpflanzungsmedizin/wirksamkeitspruefung-fmedg.html; (1.4.2025)

[2] https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin.html; (1.4.2025)

2 Medical practice in the area of reproductive medicine

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/medizinische-praxis-im-bereich-fortpflanzung.html

2.1 Assisted reproductive techniques

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/medizinische-praxis-im-bereich-fortpflanzung/verfahren-der-fortpflanzungsmedizin.html

Couples starting IVF treatment: In 2023, 3,202 couples started in vitro fertilisation (IVF) treatment. This figure is virtually unchanged from 2022, when 3,203 couples began such IVF treatment.

Reason for IVF treatment: In almost all cases, the reason for starting IVF treatment was infertility. In 2023, only 40 couples started IVF treatment to avoid the risk of transmitting a serious genetic disease. This is twice the number of couples (20) who gave this reason in 2022; but it is broadly at the level observed in previous years.

IVF treatment overall: The total number of couples undergoing IVF treatment in 2023 was a slight decline on the previous year. Some 6,524 couples underwent such treatment in 2023, compared to 6,619 in 2022. The total number of treatment cycles for the year increased slightly, however, to 12,497 (2022: 12,439). IVF embryos from 3,263 couples were preserved, a figure which was also an increase on the previous year (2022: 2,912), and which surpassed the previous record high of 3,095 couples recorded for 2021. Before 1 September 2017, the preservation of embryos had only been permitted in exceptional cases. Under the revised RMA legislation, the preservation of embryos was legalised and made subject to the same requirements as the preservation of impregnated ova (Art. 16 para. 1 RMA).

Preimplantation diagnosis (permissible since 1 September 2017): Here, a distinction is made between testing for specific genetic diseases (preimplantation genetic diagnosis or PGD) and screening for chromosome abnormalities (preimplantation genetic testing for aneuploidy or PGT-A). Some 14.1% of all the couples who underwent IVF treatment in 2023 made use of preimplantation diagnosis, a slight increase on both 2022 (13.4%) and previous years. The increase was seen in all forms of preimplantation diagnosis. A PGD was requested by 37 couples in 2023 compared to 31 in 2022, while both a PGD and a PGT-A were requested by a further 58 couples in 2023 compared to 48 the previous year. Demand for PGT-A also continued to grow, from 807 couples in 2022 to 825 in 2023. One couple also requested a polar body diagnosis in 2023, which two couples had requested in 2022.

Couples undergoing treatment with donor sperm: A minority of the couples who undergo fertility treatment in Switzerland use donor sperm. In 2023, 167 couples underwent IVF with donated sperm cells, a substantial increase on the numbers seen in previous years (2020: 101,

2021: 111, 2022: 102). By contrast, the number of couples undergoing intrauterine insemination with donor sperm in 2023 was below its 2022 level of 307. Some 291 couples underwent intrauterine donor insemination in 2023.

Of these, 151 were same-sex couples. The number of same-sex couples doing so was thus more than double the 70 recorded for 2022, while the number of different-sex couples doing so saw a tangible decline from 237 to 140. Such treatment has been available to female married couples since 1 July 2022.

2.2 Handling of embryos from in vitro fertilisation

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/medizinische-praxis-im-bereich-fortpflanzung/umgang-mit-embryonen-nach-in-vitro-fertilisation.html

Embryos developed: For several years up to 2016, the total number of embryos developed per year was between roughly 17,000 and 19,000. Thereafter, these annual totals rose sharply, reaching a record to date of 31,191 in 2021. Since then, the annual numbers of such embryos developed have declined, to 29,469 in 2022 and to 28,811 in 2023.

The broad overall increase seen from 2017 onwards is probably most attributable to two changes in the relevant legislation. Firstly, up to 12 embryos may now be developed per treatment cycle (previously three; Art. 17 para. 1 RMA). Secondly, the preservation of embryos is now no longer only permissible in exceptional cases (Art. 16 para. 1 RMA).

Embryos preserved: As a result of these changes in the legislation, the numbers of embryos preserved have also increased dramatically: while only 251 embryos were preserved in 2016, this had risen to 13,233 by 2021 and an only slightly lower 12,714 for 2022 and 12,242 for 2023.

Embryos transferred: Conversely, the same period saw a marked decrease in the numbers of embryos transferred – from 14,659 in 2016 to 8,993 in 2023. The decline is attributable to two developments:

Firstly, following the partial revision of the RMA, fewer embryos are being transferred on average per cycle. While 2016 saw two or three embryos transferred simultaneously in almost two thirds (66%) and one individual embryo transferred in only one third (34%) of all cases, in 2023 only one embryo was transferred in 90% of all cases (a further increase in the proportion of such single-embryo transfers on the 88% of 2022).

Secondly, the total number of such transfers generally declined over the past few years. From 2009 to 2016, more than 8,500 transfers were recorded each year. This number then declined, with 7,891 transfers recorded in 2019, before rising again to 9,115 by 2021 and then declining once more to 8,290 in 2022 and 8,162 in 2023.

Embryos destroyed: The total number of embryos destroyed each year has increased more than fivefold since 2016. While 3,297 embryos were destroyed in that year, this total rose to 17,684 in 2023. As in previous years, by far the commonest reason for such destruction was failure of embryo development (12,854 embryos).

2.3 Pregnancy and birth after in vitro fertilisation

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/medizinische-praxis-im-bereich-fortpflanzung/schwangerschaft-geburt-in-vitro-fertilisation.html

Birth rate: Of all the treatment cycles started in 2023, some 20% resulted in a birth – the highest birth rate since such records began in 2007, and a further slight increase on the average rates for the previous few years, which had remained steady since 2020 at 18%.

Births after IVF with preimplantation diagnosis: The total number of births following IVF treatment showed a renewed slight increase. While 2022 had seen 2,289 such births, 2023 saw 2,448, a number broadly in line with the 2,403 of 2021. The number of (singleton or multiple) births after IVF with preimplantation diagnosis again increased markedly over previous years: 406 such treatments resulted in a singleton or multiple birth in 2023, compared to 240 in 2021 and 337 in 2022. Some 367 births were recorded in 2023 following IVF with PGT-A, 13 after PGD and 26 after PGD combined with PGT-A.

Multiple births after IVF: The annual numbers of multiple births have decreased since the entry into force of the revised RMA. In 2017, 295 IVF treatments resulted in a twin birth and six in a triplet birth. In 2022, 84 sets of twins were born, while no triplets were born for the first time since records began in 2007. 2023 saw the birth of 69 sets of twins and again no triplets. The proportion of singleton IVF births has increased from the 84% of 2017 to 97% in 2023. By comparison, of all the births recorded in Switzerland in 2023, over 98% were singleton births, with multiple births accounting for just under 2% (source: Swiss Federal Statistical Office).

Premature births: Some 283 births after IVF in 2023 occurred before the end of the 37th week (2022: 294). The proportion of premature births among all births after IVF has thus decreased from the 21% of 2017 to 12% (2022: 13%).

2.4 Preservation of reproductive cells

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/medizinische-praxis-im-bereich-fortpflanzung/konservierung-eigenvorsorge-und-spende.html

Note: The figures for previous years regarding the number of reproductive cells for preservation may be subject to change owing to late registrations. These changes will be made on the internet platform, but they are not included in the published short reports from previous years.

Oocytes and ovarian tissue preserved: Individuals may have their reproductive cells preserved as a precautionary measure under the RMA. The maximum preservation period is generally ten years (Art. 15 RMA). As of 31 December 2023, oocytes or ovarian tissue were preserved from a total of 3,803 women, which represents another substantial year-on-year increase (2022: 2,912). Such preservation was undertaken for medical reasons in 1,130 cases (2022: 1,068), and for other reasons in 2,673 cases (2022: 1,903). The increase is thus primarily attributable to preservation for other reasons.

Sperm and testicular tissue preserved: As of 31 December 2023, sperm or testicular tissue was preserved from 6,583 men, representing a further increase on earlier years (2022: 6,154). In 4,661 cases such preservation was for medical reasons (2022: 4,670), while in 1,922 cases the sperm or testicular tissue was preserved for other reasons (2022: 1,484). Thus, as with the preservation of oocytes and ovarian tissue, the increase is largely attributable to preservation for other reasons.

3 Actors in reproductive medicine

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/akteure-der-fortpflanzungsmedizin.html

Physicians with a licence: The number of physicians with a licence for reproductive medicine in accordance with Art. 8 RMA remains broadly at its levels of the past few years. Some 98 physicians held such a licence in 2024, compared to 103 in 2023, 95 in 2022 and 93 in 2021. Of these, 73 were also authorised in 2023 to conduct preimplantation diagnostic procedures.

Laboratories conducting genetic testing on embryos: In 2023, seven genetic laboratories in Switzerland were authorised to conduct genetic testing on embryos, a number that has remained unchanged since 2017. Five of these laboratories conducted such tests in the course of the year.

4 Sperm donor-conceived children

https://www.bag.admin.ch/bag/en/home/zahlen-und-statistiken/zahlen-fakten-zu-fortpflanzungsmedizin/kinder-aus-samenspende.html

Reported births registered: Since 2001, physicians performing IVF treatments have been required to report births of sperm donor-conceived children to the Federal Civil Registry (EAZW), so that the children concerned may subsequently obtain information about the donor. A total of 3,661 such births (some of which may also have been multiple births) were recorded in the EAZW's donor data registry between 2001 and the end of 2018. Since then,

a further marked increase has been seen in the number of such births registered: a total of 4,524 births had been registered by the end of 2022, and a total of 4,671 births were recorded in the registry as at 31 December 2023. A total of 147 such births were thus newly registered in 2023 (2022: 150). 2024 saw somewhat fewer such births added than in preceding years: 111, bringing the year-end total of such registered births to 4,782.

Registered sperm donors: In the period from 2001 to the end of 2019, some 776 sperm donors were registered with the EAZW following reported births. By the end of 2023, this total had risen to 888, and by the end of 2024 to 935. Some 47 new donors were thus registered in 2024 (2023: 51). These were higher increases than in the preceding years (2021: 36, 2022: 24), a trend most probably attributable to increased demand for treatment with donated sperm since married female couples also became eligible for sperm donations from 1 July 2022.

Children's requests for information: In 2020, for the first time, a child who had been conceived using donated sperm cells requested information from the EAZW on the donor, in accordance with Art. 27 para. 1 RMA. The donor concerned agreed to make contact. Further such requests followed in subsequent years, though only in isolated cases. Two were submitted in 2023: one from a now-adult individual and one from a minor. In both cases the donor agreed to make contact. Three further such requests followed in 2024. Two of them were from now-adults: in one case the donor agreed to contact, while in the other the donor's contact data were not available. The third request was submitted by a minor based on a legitimate interest, so the donor's contact data was not requested.

5 Sources used for RMA monitoring

As far as possible, RMA monitoring relies on existing data sources. Only a small amount of information is specially collected for the monitoring programme, using direct surveys of physicians licensed to conduct activities in accordance with Art. 8 para. 1 RMA.

The monitoring is based on the following data sources:

- *FIVNAT:* Fécondation In Vitro National (FIVNAT) is a committee of the Swiss Society for Reproductive Medicine (SGRM) which collects in vitro fertilisation (IVF) data. Some of this data has also been published for many years by the Swiss Federal Statistical Office; as a result, some IVF statistics go back as far as 2007.
- *Licensed physicians:* These are physicians who use assisted reproductive techniques, preserve reproductive cells or arrange the supply of sperm cells, for which activities they require a licence under Article 8 RMA. For monitoring purposes they are directly surveyed, inter alia, on insemination using preserved sperm cells, on the precautionary preservation of reproductive material by individuals and on their storage of donated sperm cells. Information is thus collected on activities requiring a licence which are not directly connected with IVF treatment.

- *Cantonal licensing authorities:* Responsibility for the enforcement of the RMA lies with the cantonal licensing authorities, who are surveyed for monitoring purposes. They provide, inter alia, information on licence holders.
- *EAZW:* The Federal Office for Civil Registration (EAZW) manages data in accordance with the RMA on sperm donors and children conceived through sperm donation. The first data available for monitoring here dates back to 2018.
- *SFSO:* The criminal justice statistics of the Swiss Federal Statistical Office (SFSO) cover offences against the criminal provisions of the RMA. Up to 2023, however, no convictions on the basis of these provisions had been recorded.
- *FOPH:* The FOPH grants licences to laboratories which perform genetic testing on reproductive cells or embryos. These laboratories require authorisation under Article 8 of the Federal Act on Human Genetic Testing (HGTA). Data on these laboratories is obtained from the FOPH for monitoring purposes.