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BC to fund in vitro fertilization: For whom and how?

BC is in a unique position to learn from other provinces and countries that offer fertility funding. We review the available data and consider how to provide equitable access for BC residents to a much-needed treatment.

ABSTRACT: Infertility is a common diagnosis: in its original, heteronormative definition, it is known to impact about 1 in 6 couples worldwide. Governments across Canada and beyond have been increasingly providing support for those undergoing fertility treatment, and BC is the most recent province to announce funding, beginning in 2025. As the amount of proposed funding is not sufficient to cover treatment for all who seek it, we look to examples from other provinces and countries to guide us in forming criteria that balance fair access with likelihood of successful treatment. A majority of Canadian provinces currently provide publicly funded fertility care, albeit with highly variable models. Quebec previously introduced a model with generous coverage, including up to three cycles of in vitro fertilization (IVF), along with medications, associated procedures, and embryo transfers for each live birth. Due to high costs, this funding was removed and reintroduced in 2021 with a more restrictive model, as well as age cutoffs for IVF and embryo transfers. In Ontario, the current funding model was introduced in 2015 and covers intrauterine insemination cycles and one cycle of IVF in patients younger than 43 years of age. Other provinces have offered a fertility treatment tax credit. While the BC announcement stated that one cycle of IVF with medications will be covered, the details on how this finite resource will be distributed are still unclear. We hope BC will consider the lessons learned from other provinces and countries and implement a program that is fair and accessible to those who need it.

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Defining infertility

Infertility is defined as a condition or disease that results in difficulties in achieving a successful pregnancy. It has been estimated to affect 1 in 6 heterosexual couples worldwide.[1] The true prevalence of infertility is likely higher if a more inclusive definition is used, because many members of the LGBTQIA2S+ community and single individuals will need access to fertility treatments to build their families. The traditional definition of infertility is heteronormative and includes regular, unprotected intercourse for 12 months (if the female partner is younger than 35 years of age) or 6 months (if the female partner is 35 years of age or older). In 2023, the American Society for Reproductive Medicine expanded the definition of infertility to acknowledge that age, medical history, sexual history, reproductive history, physical findings, and testing also contribute to its diagnosis.[2] With this more inclusive definition, patients who require the use of donor gametes, either as a single individual or as a couple (for example, same-sex female couples), are addressed.[2] The impact of infertility stretches beyond the ability to create a family—the significant emotional and financial hardship experienced by patients is well documented, as is the stigma associated with the disease. Moreover, this diagnosis does not discriminate between individuals of varying socioeconomic classes, leading to a disparity in who can access treatment.[1]

The economics of fertility

An aging population, combined with a reduction in birth rates, has led to population decline worldwide, and BC is not immune. In fact, for the first time in history, BC has experienced negative population growth.[3] The potential impacts on the economy due to this trend—fewer people entering the workforce than leaving it—are concerning, and governments around the globe have been taking notice and providing increased funding for fertility services. For example, of the 43 countries providing in vitro fertilization (IVF) and intrauterine insemination (IUI) in Europe, 39 provide at least partial funding.[4] Across Canada, the approach to public funding is highly variable but is available in a majority of provinces: Quebec, Ontario, Manitoba, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, and New Brunswick.[5-11]

Fertility funding in BC

In February 2024, BC announced coverage for fertility treatments, with funding for one cycle of IVF with medications, starting 1 April 2025.[12,13] The announcement acknowledged the aims of funding, including providing treatment for people experiencing infertility, same-sex and gender-diverse couples, and individuals wanting to build a family.[12] However, details on program eligibility and access to services and the definition of a "cycle of IVF" have yet to be determined.[13] Beyond expanding access to fertility treatments, funding also helps break the stigma of infertility and raise awareness.[14] While this news is exciting, a budget of $64 million over 2 years leaves many questions unanswered. In BC, we are in a unique position to consider the key learning points that other provinces and countries have gained from their experiences. We review these points and present considerations to enable equitable access to a much-needed treatment for BC residents.

Fertility funding elsewhere in Canada and beyond

Quebec

In 2010, Quebec introduced the most generous public coverage for IVF, with no exclusion criteria. The program allowed self-referrals and included three cycles of IVF with medications and any associated procedures, such as surgical sperm retrieval or donor sperm. Embryo transfer for all created embryos was also included, and a successful live birth reset the cycle count to one. To tackle the IVF-related multiple pregnancy rate—one of the primary goals of the program—a strict limit was placed on the number of embryos transferred.[15]

During funding, single embryo transfer rates increased from 9.2% to 64.3%, with a subsequent drop in multiple pregnancies from 25.6% to between 3.3% and 7%. The number of IVF cycles, however, ballooned from 2000 per year prior to coverage to over 8000 per year by 2013, placing enormous pressure on the health care system and fertility clinics. With the increase in cycle numbers came a decline of nearly 10% in the live birth rate.[15]

While the exact costs of the program are unclear, it is estimated that this unrestrictive coverage policy cost the province $60 to $80 million annually (equivalent to between $82.4 million and $109.9 million in 2024).[15-17] The program was terminated in November 2015 in favor of a restrictive policy covering only IUI, except in the case of fertility preservation for oncology.[15]

The current Quebec model came into practice in November 2021, and coverage for IVF was once again included. Only one cycle is covered, with specific restrictions, including age (< 41 for IVF and < 42 for embryo transfers) and no history of vasectomy or tubal ligation. Superovulation and donor insemination are also covered (including medications). However, despite a more restrictive model of IVF coverage, wait lists have lengthened to the point that some women age out of funding.[5] In fact, a temporary reimbursement program was established in June 2022 to help reimburse expenses incurred for out-of-pocket IVF in these individuals and families.[5]

Ontario

Ontario also has a long history of fertility coverage and was the first province to fund IVF, in 1985.[18] However, funding was withdrawn in 1993, except for the indication of bilateral tubal occlusion.[18] Ontario reintroduced funding for fertility treatments in 2015: unlimited IUI cycles and one cycle of IVF in females younger than 43 years of age (including single embryo transfer of all viable embryos).[6,19] Medications are not covered, although many individuals and families have coverage through private insurance providers.[6,19] As in Quebec, coverage is not dependent upon having a diagnosis of infertility.[6,19,20]

After its reintroduction, there was an influx of consultations and an increase in IVF cycles.[20] For example, the number of treatment cycles in females aged 40 to 42, a poorer-prognosis group, doubled.[21] However, similar to the Quebec experience, there was an associated decrease in the live birth rate per IVF cycle started.[21] Initial wait times for IVF were listed as 1.5 years and settled to around 1 year a few years later,[20] although the wait time between clinics remains variable. Management of wait lists has been left to individual clinics, with minimal transparency to patients regarding the different allocation methods used: first come first served, lottery, priority to those approaching the age restriction, or priority to better-prognosis patients.[20] This has led to some patients attending consultations at multiple clinics, hoping to maximize their chance of receiving funded IVF as soon as possible,[20] further stretching finite resources.

Other provinces

A more generalized approach to coverage has been taken by other provinces, including tax credits or reimbursements up to a certain value or percentage for fertility treatments. Shortly after Quebec began funding IVF in 2010, Manitoba began offering a fertility treatment tax credit.[7] The credit covers 40% of treatment costs, including the full spectrum of fertility treatments, to a maximum annual eligibility of $20 000 (i.e., a maximum tax credit of $8000).[7] There is no limit on the number of treatments under this model.[7] Nova Scotia provides the same tax credit as Manitoba, with a recent extension of its coverage to include surrogacy expenses.[8]

Funding outside Canada

Around the globe, programs vary widely in their coverage and implementation. The approach taken by the UK is coverage for IVF in the context of 2 years of unprotected intercourse for heterosexual couples or following six rounds of IUI for female same-sex couples.[22] The details and cutoffs vary locally and are determined by an integrated care board.[22] These cutoffs generally include a body mass index (BMI) between 19 and 30 kg/m^2, age younger than 42 years, and nonsmoking status of both partners.[22] They also specifically state that at least one person in the couple must be childless (i.e., no adopted or biological children).[22]

Currently, BC's Medical Services Plan

(MSP) covers the initial consultation and office visits for infertility, as well as a large portion of fertility testing. Anti-Müllerian hormone—a crucial test for determining ovarian reserve—is not included in the coverage and costs, on average, between $70 and $80. Fertility-related surgeries, including hysteroscopy and laparoscopy, when indicated, are covered. While a hysterosalpingogram for uterine cavity and tubal patency assessment is covered by MSP, this test is becoming increasingly difficult for patients to access, as fewer and fewer hospitals and clinics are offering the service. While alternative forms of uterine cavity and tubal patency by ultrasound are available, these options are not currently covered by MSP. An influx of patients following the introduction of IVF coverage will likely worsen the current bottleneck, resulting in further delays in diagnosis and treatment for patients unless access to this testing is improved.

Treatment costs

In our current model, once history and testing indicate that IVF is the recommended treatment, most care is no longer covered by MSP. Treatment with IVF typically costs $10 000 to $12 000, with medications costing an additional $5000 to $9000. The large range in cost is a result of the type of fertilization method used and the dose of medications required, respectively. The funding would be able to cover approximately 1600 to 2250 cycles each year, which would not include the costs of future embryo transfers (approximately $3000 to $4000 per transfer) and storage fees. Additional optional costs include surgical sperm retrieval and genetic testing of embryos for aneuploidy or for indications such as translocations (a potential cause of recurrent miscarriage) or single gene disorders.

Repercussions of increased demand for treatment

Currently, fertility clinics in BC perform over 2500 IVF cycles annually for infertility. With financial barriers to treatment removed, demand will surely increase. As described above, experience in other provinces indicates that the introduction of funded IVF will lead to a dramatic increase in the number of IVF cycles performed annually.[15,20] Regardless of the number of cycles being funded, this demand may not be sustainable for fertility clinics, where there is a maximum number of cycles that can be safely performed from both the clinical and laboratory perspectives. Additionally, there is a North American shortage of specialists trained in reproductive endocrinology and infertility,[23] with only a handful of new physicians being trained in Canada annually.[24]

Limitations in access to treatment

It is also important to consider how these services can be accessed by patients in geographically underserved regions, where visiting an IVF clinic requires time off work, travel, and other expenses. Fertility clinics are centred in the Lower Mainland and Victoria, with only a handful of satellite clinics with ultrasound and IUI capabilities present in other regions of the province. While telehealth and partnership with gynecologists in these regions can provide some assistance, patients are still required to be seen in a fertility clinic for procedures, which can be performed only by a reproductive endocrinology and infertility specialist connected with a fertility lab.[20] Consideration should be given to how funding can be provided to patients across BC in an equitable manner, regardless of their geographical location.

How to allocate finite funding

The finite funding will not cover IVF for all BC residents, so how can we allocate it to best serve the population? With funding available for a single treatment (IVF) there may be a desire to pursue IVF over nonfunded, less-invasive options (e.g., IUI or ovulation induction). For example, first-line therapy for polycystic ovarian syndrome (and resultant oligo-ovulation) is ovulation induction with an oral agent combined with timed intercourse, and, in unexplained infertility, both the American Society for Reproductive Medicine and the Canadian Fertility and Andrology Society advocate for three to four cycles of medicated (i.e., superovulation) IUI in patients younger than 38 years of age before pursuing IVF.[25,26] Funding will lead to challenges balancing these evidence-based recommendations with patients' desire to use the funded option, potentially resulting in lengthy wait lists.

As it is not financially feasible to provide IVF to everyone likely to seek treatment under the current proposed funding, restrictions and/or criteria are needed to balance fair access with the likelihood of successful treatment. When determining eligibility for funding, the most common criterion put in place is age—being mindful of the significantly lower success rates with advancing maternal age.[4] For instance, when Quebec offered multiple cycles of IVF with no age limit, a retrospective analysis showed a 10% live birth rate per cycle at age 40, declining to 6.9% at age 41, 5.4% at age 42, and 4.1% at age 43, with 0 live births at age 44.[27] While each live birth is valuable, at age 43, the mean treatment cost per live birth (excluding medications) was $103 994, and at age 44, the mean treatment cost was $597 800, with no live births.[27] A recent study from Ontario found an 8.3% live birth rate per IVF cycle started for patients aged 40 to 42.[19] Other regions have also considered predictors of success when determining exclusion criteria, including smoking and BMI. Regulations from the College of Physicians and Surgeons of BC for nonhospital surgical settings necessitate anesthesia involvement for patients undergoing egg retrieval who have a BMI greater than or equal to 40 kg/m^2.[28] This comes at an additional cost and is available at only certain clinics in BC.

How this funding will extend to all individuals wanting to create a family is unclear. To inclusively provide treatment for same-sex and gender-diverse couples and individuals wanting to have a child independently, it may be reasonable to consider funding the purchase of donor sperm and subsequent inseminations for same-sex female couples and single women wanting to conceive. For same-sex males wanting

to create embryos, donor eggs are either provided by a known donor or purchased, which is more costly.

Assuming a tax credit system is not used, thought will need to be given to moderating wait lists and creating a centralized wait list. With this, patients would be assessed based on set criteria and approved for treatment. If deemed eligible, they could use the provided funding at the fertility clinic of their choice. This system would prevent patients from feeling that they should seek consultations and be placed on IVF wait lists at multiple clinics, as documented in other provinces,[19] further minimizing the unnecessary use of finite resources. Additionally, the question will be raised whether patients who have fertility coverage for procedures and medications through extended health benefits should have the same access to government funding as those without any coverage.

Another pressing concern is that patients who need treatment may delay care to wait for the funding. It is well known that IVF success is based largely on egg quantity and quality, both of which reduce with time. Time is crucial for patients with a low egg reserve and for patients at an age where dramatic reductions in egg quality are occurring.

Additionally, although funding breaks down the financial barrier to treatment, it can also open the door to indiscriminate use of the technology. IVF is not without risk, for both the patient and the pregnancy. It involves injection medications and a surgical procedure, with risks including ovarian hyperstimulation syndrome, infection, bleeding, and damage to surrounding organ structures. Pregnancies may be higher risk for babies small or large for their gestational age or preeclampsia.

While IVF has broken down many barriers faced by individuals and couples hoping to build a family, it should not be used indiscriminately. The funding announcement is exciting and requires careful consideration from interested parties on how to best use this finite resource to serve BC while still supporting medical recommendations. ■

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