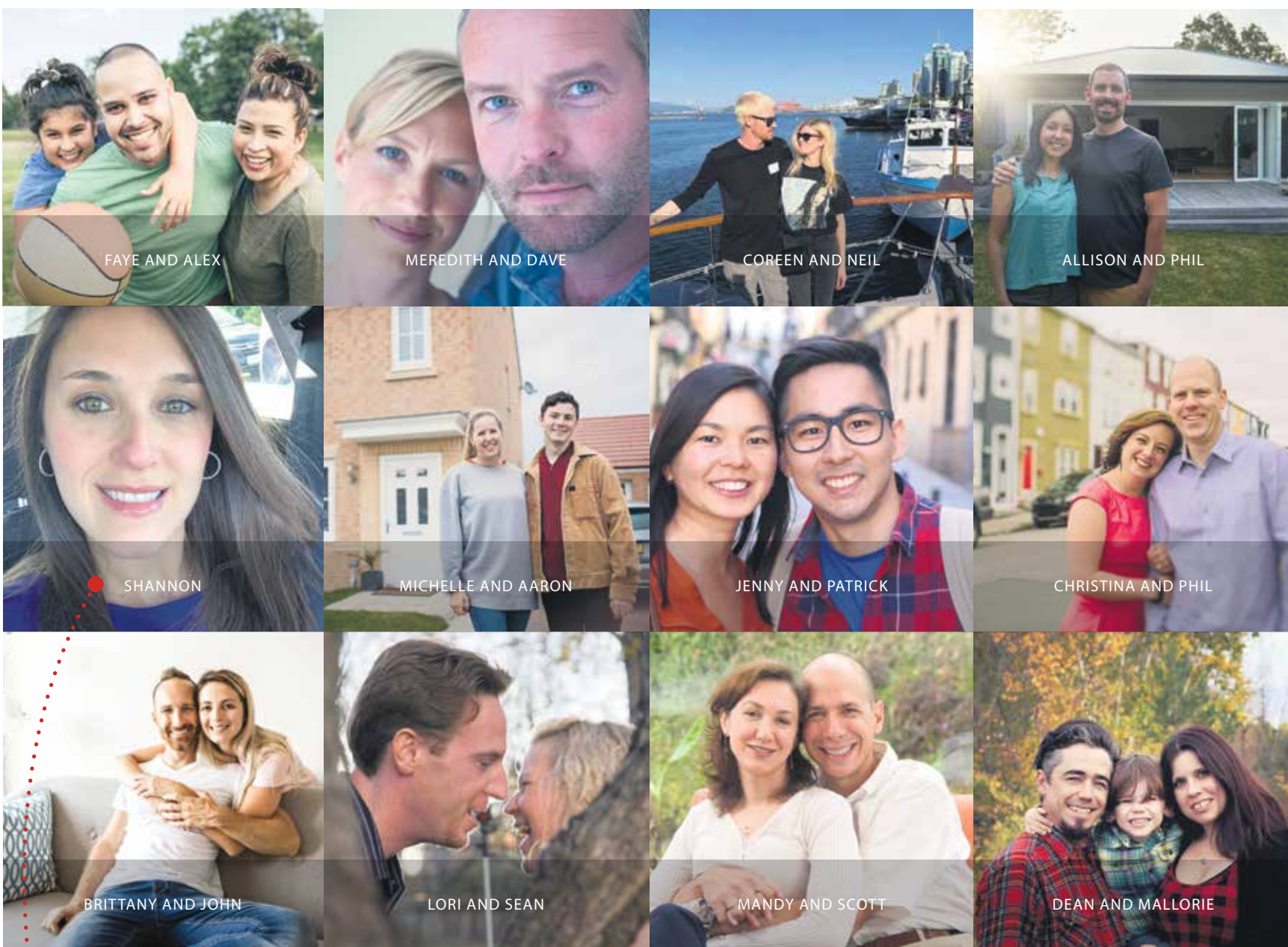


UNDERSTANDING FERTILITY

Exploring options for the path to parenthood



Fertility Matters Canada encourages Canadians to share their journey with fertility challenges. Read the stories at fertilitymatters.ca/1-in-6-stories. SUPPLIED

One in six Canadian couples encounters infertility, and one in four pregnancies ends in miscarriage. It's time to speak out to end the stigma.

"I ALMOST FAINTED WHEN I SAW THOSE TWO LINES ON the pregnancy test," says Shannon Pearson, who had taken the test to rule out being pregnant – rather than confirm it. Her menstrual cycle was late and she was supposed to start taking medication to evaluate endometrial receptivity, the ideal cycle day for her body to receive an embryo.

Before that, Shannon and her husband had completed a second unsuccessful round of in-vitro fertilization (IVF), which had followed on the heels of other fertility testing and treatments, including three rounds of intrauterine insemination (IUI). After having experienced one disappointment after another, could this natural pregnancy be the answer to the couple's dream of parenthood?

Unfortunately, there were almost immediate warning signs when levels of human chorionic gonadotropin



What do fertility treatments look like? The packaged medication laid out neatly in piles represent what Shannon Pearson and her husband needed for their first and second rounds (left and centre) of in-vitro fertilization. The prepared needles, used sharps storage containers, alcohol pads, etc. (right) show one night's injections' worth of IVF medication. SUPPLIED

(hCG) – also referred to as pregnancy hormone – indicated problems with Shannon's pregnancy. "I ended up miscarrying," says the 35-year-old. "That's how our journey with fertility

treatments had started two years ago – with a miscarriage."

In hindsight, the hardest part was confronting the expectation that IVF would "solve our problem," says

Shannon. "Sadly, this was not the case. We've been through many treatments and failures, and we're feeling exhausted – mentally, physically and financially. But we're still hopeful."

While Shannon retains some optimism that she and her husband will have children, Niki and Chris Sloan say they are done "peeing on sticks and counting days." The couple, who married when they were 35 and 38, went through a period of testing and treatments for "unexplained infertility."

"We went ahead with one round of IUI," says Niki. "When this was unsuccessful, we took a six-month break. During that time, we decided

we were done: we were not going to have babies."

Even though the challenge to conceive didn't come as a complete surprise given the couple's age, Chris says staying childless wasn't a result they expected when they embarked on the journey. "Everyone only reports on the success," he says. "You rarely see the other side."

During the course of the treatments, Niki had found a close-knit community of people facing similar challenges, and she decided to stay connected and volunteer with Fertility Matters Canada (FMC), a national organization that empowers **See Understanding on UF2**

ADVANCES IN FERTILITY TREATMENT HELP BALANCE FAMILY AND CAREER PLANNING INEQUITY

Women hitting their career-building stride in their early to mid-30s are often faced with an impossible decision – lose their professional momentum or give up on the possibility of having a family.

But new options have emerged, if quietly, starting in 2012.

Before then, egg freezing was considered experimental, says Dr. Caitlin Dunne, co-director of the Pacific Centre for Reproductive Medicine. "The old technology wasn't very efficient, so it was only used in specific situations, such as before some types of breast cancer treatment."

By 2012, medical technology advances that make it possible to flash-freeze eggs (and embryos) made the process much more viable, and "the floodgates opened," says Dr. Dunne. "Companies like Google, Apple and Facebook and the American military now cover the cost of egg freezing to help women extend their fertility."

Career planning isn't the only pressure women face as their fertility wanes. Today, the number one reason that her clients freeze their eggs is that they haven't met the right person yet, says Dr. Dunne. "I'm seeing women in their 30s and late 20s who have identified that having a family is important to them; they want to maintain that option."

For many reasons, women are having children later in life – in 2015, women 30 to 39 had 58 per cent of



Vitrification – flash-freezing eggs or embryos – has transformed treatment, vastly reducing the occurrence of multiple births and associated risks. ISTOCK.COM

all births. But egg viability begins to erode after age 34; by the age of 44, chances of a successful pregnancy fall to just two per cent even with in-vitro fertilization.

This new technology means that 40 really can be the new 30. Hormone therapy helps eggs mature that would otherwise be flushed from the body at the end of the ovulation cycle. Flash-freezing them for later implantation increases the chance of a successful pregnancy to greater than 60 per cent. "It's not a guarantee, but

it's the best treatment we have," says Dr. Dunne.

In-vitro fertilization (IVF) has now been around for more than 40 years. But more recently, vitrification – flash-freezing eggs or embryos – has transformed treatment, vastly reducing the occurrence of multiple births and the associated risks. Embryo survival rate has increased from 30 per cent to 50 per cent to greater than 98 per cent, which means it is possible to transfer one embryo at a time.

Organizations now have an opportunity to attract highly sought-after professionals by covering this treatment for their employees, says Dr. Dunne. (While the cost varies somewhat across the country, the Pacific Centre for Reproductive Medicine charges \$7,600 for a cycle of egg freezing, and the additional cost of medications ranges from \$3,000 and \$6,000.)

"Women are under tremendous pressure these days to achieve their goals – education, career, personal, travel – and have a family, all within a 10- to 15-year period," she says. "Compared to men, who make new sperm every 70 days, virtually their whole lives, this biological inequity is something that we have to deal with. It's something that we all need to be aware of so that we can be more open to having this conversation – and more supportive of the men and women who struggle."

CHANGING THE APPROACH TO FERTILITY AND SEXUAL HEALTH

When she was having fertility treatments for the first of her three IVF babies, Marjorie Dixon remembers a conversation with her embryologist – she had to look at him through her legs while she was lying on an examination table.

"I told myself, if I ever opened my own centre, I'd make sure that conversation happened from the side of the patient – not while she has her legs in stirrups and the clinician is sitting on the other side of her vagina."

Dr. Dixon is the founder of Toronto's Anova Fertility & Reproductive Health, and her practice has been designed to treat her patients with dignity and treat fertility and women's sexual health as holistically as possible.

"What I do is a privilege," Dr. Dixon says. "I get to educate people about their fertility potential and then we get to live our vision around

patient-centred care in fertility and cutting-edge science by Canadians for Canadians."

Dr. Dixon, who won the RBC Canadian Women Entrepreneur Award last year, is committed making sure the fertility journey is as easy as possible.

"We look at our services from the perspective of our patient, not with the attitude that they're lucky to have us as physicians," she says. "We flip it to ask, 'How can we better serve you? How can we give best-in-class, global-standard care while considering it from a human perspective?'"

Anova marries that philosophy with a scientific approach, to provide patients with the best possible options for live births. With a first IVF implantation success rate of 56 per cent, and 67 per cent with PGT-A, Anova is an industry leader (PGT-A, pre-implantation genetic testing to look for an abnormal number of **See Changing on UF2**

EXPANDING REPRODUCTIVE OPTIONS

Destigmatizing infertility is compassionate – and essential for our collective future

Infertility has long been stigmatized as a “personal issue” and a “women’s issue.” Yet one of the most significant challenges faced by economically developed countries is a falling birthrate; average sperm count in these countries has fallen by more than 50 per cent since the 1970s. But the stigma has held because it’s a topic few people have felt comfortable talking about.

Through social media and support groups, however, this is starting to change, says Dr. Ken Seethram, a fertility specialist with the Pacific Centre for Reproductive Medicine.

“ We have to start educating young people about what their reproductive options are. ”

Dr. Ken Seethram
fertility specialist, the Pacific Centre for Reproductive Medicine

“We’re in an era of reproductive science advances that intersect with more openness about reproductive options.”

With his patients, he says, “a lot of our conversations centre around questions like, ‘Do I want to have my first at 40?’ and ‘What are my risks when I’m 42 and having a second?’”

While it’s easy to be lulled into a false sense that there is lots of time because of tabloid headlines about movie stars having babies at 50, the reality of human fertility is quite different. “Those births are

almost always enabled by egg donors, surrogacy or some other method,” says Dr. Seethram. “Time is a huge enemy for human reproduction. We have to start educating young people about what their reproductive options are.”

INNOVATION INSIGHT
Especially for couples who are carriers of genetic disorders,

advances in genetic screening are life-changing, with the potential to eliminate potentially devastating genetic diseases such as Huntington’s and hemophilia in future generations. The new technology – Pre-implantation Genetic Testing (PGT) – also reduces the risk of chromosomal issues that might lead to implantation failure or miscarriage during fertility treatments.

FROM PAGE 1
CHANGING: A PATIENT-CENTRED APPROACH

chromosomes in a cell, is performed on embryos to identify healthy ones, ultimately improving success rates of implantation).

“Growing up, I was told I had power to change the world and that’s what I endeavour to do in my career,” Dr. Dixon says. “We have a department committed to research and development. We also have support groups for patients. This takes an emotional toll on couples, on women and their families.”

She launched with nine employees and now has more than 70. Departments include medical, nursing, operations, embryology and radiology. Dr. Dixon also employs naturopaths, acupuncturists, massage therapists and fertility-specializing psychologists.

“We use a Western approach to medicine, but we treat the entire woman, so we consider how can we support women with alternative medicine. There are many elements to achieving pregnancy and we are advancing science daily to understand even more.”

Dr. Dixon has been a staunch advocate for national funding of IVF treatments to increase access for all. In addition, geography isn’t a barrier as



Marjorie Dixon is the founder of Toronto’s Anova Fertility and Reproductive Health, and her practice has been designed around her wish to treat her patients as human beings. SUPPLIED

several patients come from Europe, the Middle East and Australia.

“We see patients who live in remote areas in Ontario and internationally,” she says. “I do consultations over the Ontario Telemedicine Network.”

In her work, she also considers the patient beyond her fertility years. To

that end, she offers a product that enhances women’s sexual health. During any period of decreasing estrogen, such as peri-menopause, post-partum or while taking birth control, tissue sensitivity and blood flow diminish, as does lubrication, which also affects enjoyment. Her technological answer, known as Cliovana, uses non-invasive sound-wave technology – something that’s been used in male sexual dysfunction for some time – to enhance sensitivity of the clitoris.

“It amplifies the physiologic response by improving neuro-sensitivity,” Dr. Dixon says. “In short, it amplifies the intensity of orgasm.”

The non-invasive three-step treatment costs \$2,500 and isn’t covered by the Ontario Health Insurance Plan, but many of her services are.

“Considering the whole woman throughout her reproductive years and beyond is something that’s critical and that society doesn’t do well,” she says. “Doctors see patients and identify a problem list that must be solved. That’s not the right way to do things. We want to be the best at changing the approach to women’s health care. We must do better.”

Canadians to help reach their reproductive health goals by providing support, awareness, information and education.

“I liked the idea of having a community where people were able to share their experiences and give advice,” says Niki. “When I realized I would be OK without kids, I found it could be helpful for people facing fertility challenges to be aware that not having children is also a potential outcome.”

Darlene Tozer, executive director at Fertility Matters Canada, sees more and more people coming forward to share stories about struggling to build a family, whether they are successful in having children or not. “It is heart-warming and gut-wrenching at the same time,” she says. “The reality is there are many people going through challenges like this.”

According to a recent study, one in six Canadian couples encounters infertility – defined as the inability to get pregnant after trying for at least one year – and one in four pregnancies ends in miscarriage.

While scientific advances promise hope for many prospective parents, it is also important to bring fertility struggles and pregnancy loss into the light. “There is still stigma surround-

ing these issues,” says Darlene. “People don’t think twice about quizzing a couple about when they’ll have a baby. When someone is struggling to build a family, that question can tear at their soul.”

Niki adds that people sometimes presume that since they are childless, she and Chris don’t want – or even like – kids. These assumptions hurt, she says.

Shannon and her husband often found themselves as the only couple without children among their friends and acquaintances, making it hard to share their experiences. “I recently decided to tell everybody in my life,” says Shannon. “Frankly, telling the truth was a relief because keeping it all in has been exhausting.”

For people navigating what can be a turbulent time, she suggests, “Do your research, learn the language of fertility treatments and talk to people in similar situations. You need to be your own advocate.”

Darlene agrees. “Get the support you need for your mental and physical well-being,” she says. “There are so many people struggling to build their families, not just heterosexual couples but also single parents and members of the LGBT+ community. “You are not alone.”



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