National Perinatal Epidemiology and Statistics Unit

Assisted Reproductive Technology in Australia and New Zealand 2018

Assisted Reproductive Technology in Australia and New Zealand 2018, published September 2020, provides a detailed picture of ART treatment undertaken in all fertility clinics in Australia and New Zealand during 2018.

The report describes the numbers and types of treatment cycles undertaken, treatment success rates and treatment outcomes. The report also provides trends in success rates from 2014 to 2018.

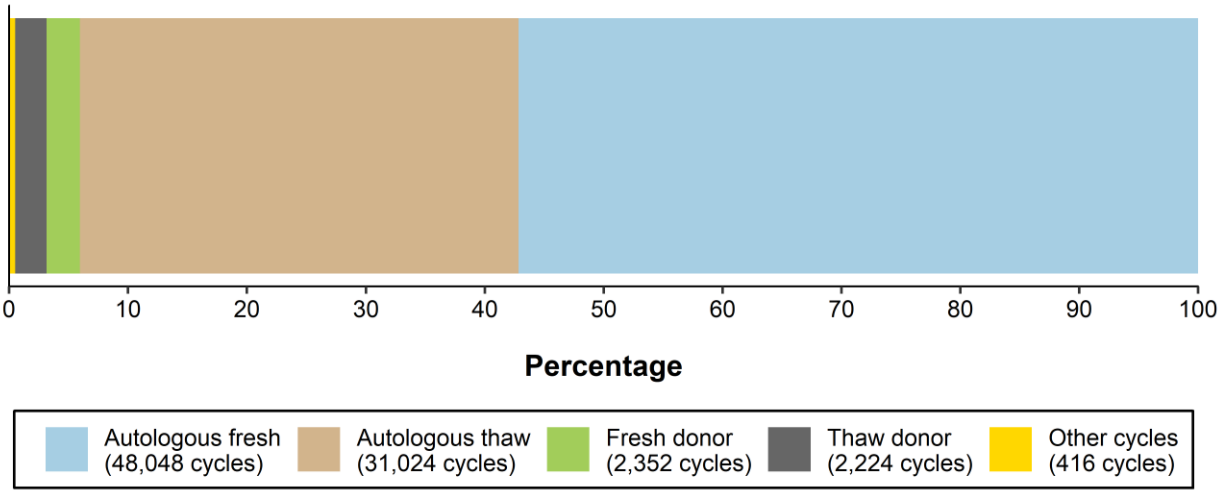
To find out more read a summary below, or click here for the full report.

How many cycles were performed in 2018?

There were 84,064 ART treatment cycles reported from Australian and New Zealand clinics in 2018 (76,341 and 7,723 respectively) representing increases of 1.9% in Australia and 6.2% in New Zealand from 2017.

Nearly 95% of cycles in 2018 were autologous cycles. Of the 79,072 autologous cycles, 60.8% were fresh cycles and 39.2% were thaw cycles.

Figure 1: Types of ART treatment cycles, Australia and New Zealand, 2018



What were the success rates?

The clinical pregnancy rate per embryo transfer cycle was 31.2%, for fresh cycles and 36.8% for frozen/thaw cycles. The live birth rate per initiated cycle was 16.8% for autologous fresh (non freeze-all) cycles and 28.5% for autologous frozen/thaw cycles.

Figure 2: Progression of autologous fresh cycles, Australia and New Zealand, 2018

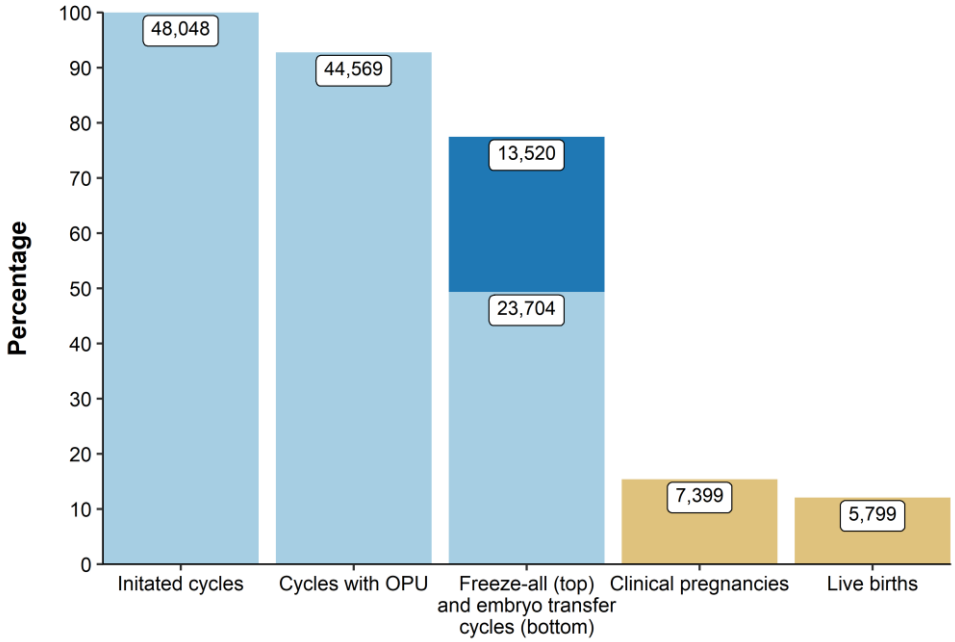
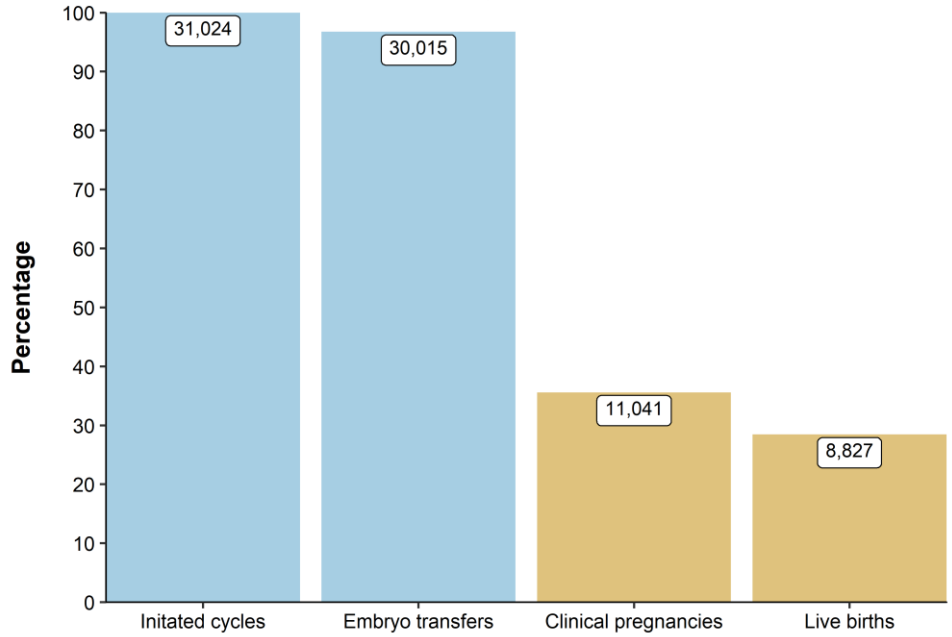
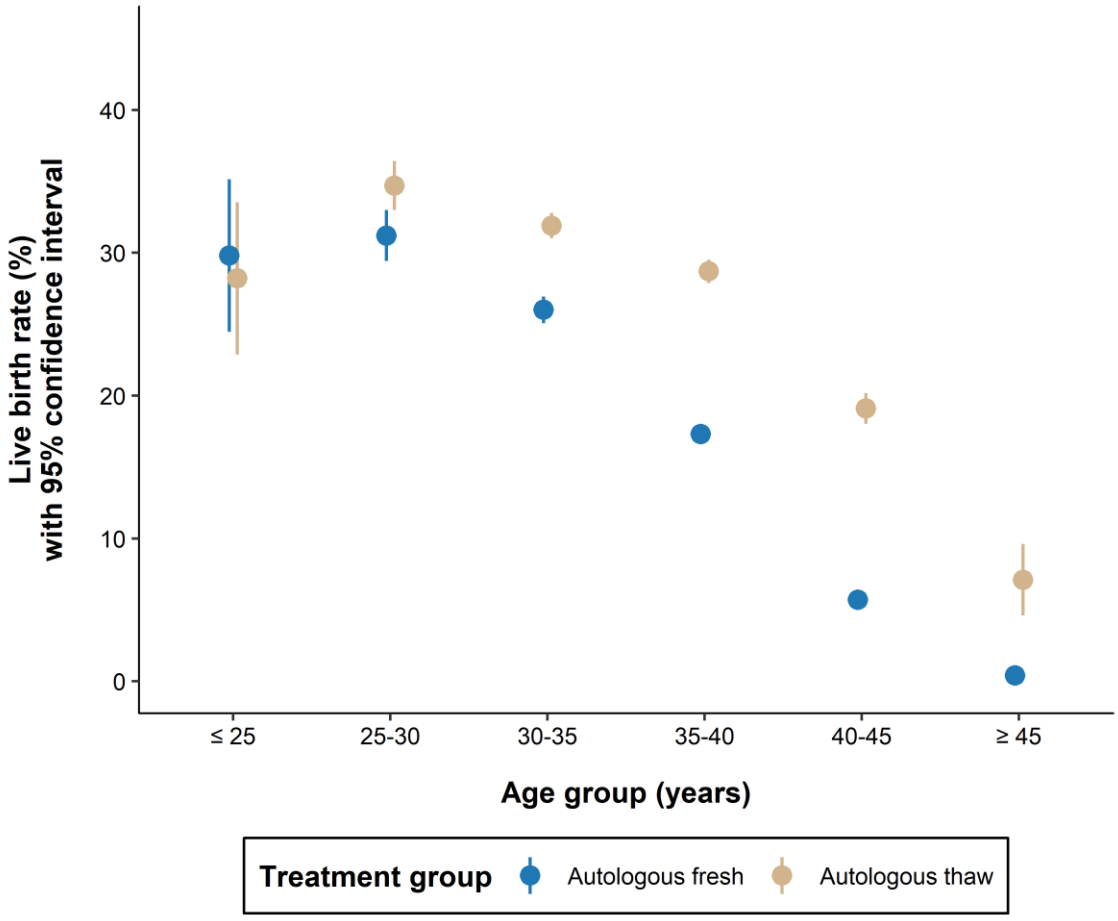


Figure 3: Progression of autologous thaw cycles, Australia and New Zealand, 2018



Overall, live birth rates were higher in women aged 30 years or less. Success rates for autologous thaw cycles were higher than autologous fresh cycles for women aged 25 or older. Thawed embryos originate from a previous fresh cycle and therefore the age of a thawed embryo is younger than the chronological age of a woman at the time of transfer.

Figure 4: Live births per initiated autologous cycle by women's age at start of treatment cycle, Australia and New Zealand, 2018



Trends in ART

There was a 14.2% increase in the number of treatment cycles between 2014 and 2018, during which, the live birth rate per initiated ART cycle has increased marginally to around 22%. While the live birth rate per fresh initiated (non freeze-all) ART cycle decreased from 17.3% to 16.1%, the live birth rate per frozen/thaw ART initiated cycle increased from 23.3% to 28.4% during the five-year period. There was a decline in the multiple birth rate from 4.9% in 2014 to 3.2% in 2018.

Over the last five years there has been an increasing trend in the proportion of cycles where all oocytes or embryos are cryopreserved (freeze-all cycles) from 13% of initiated fresh cycles in 2014 to 26.7% of fresh initiated cycles in 2018.

Figure 5: Live birth and multiple birth rate trends in ART treatment, Australia and New Zealand, 2014 to 2018

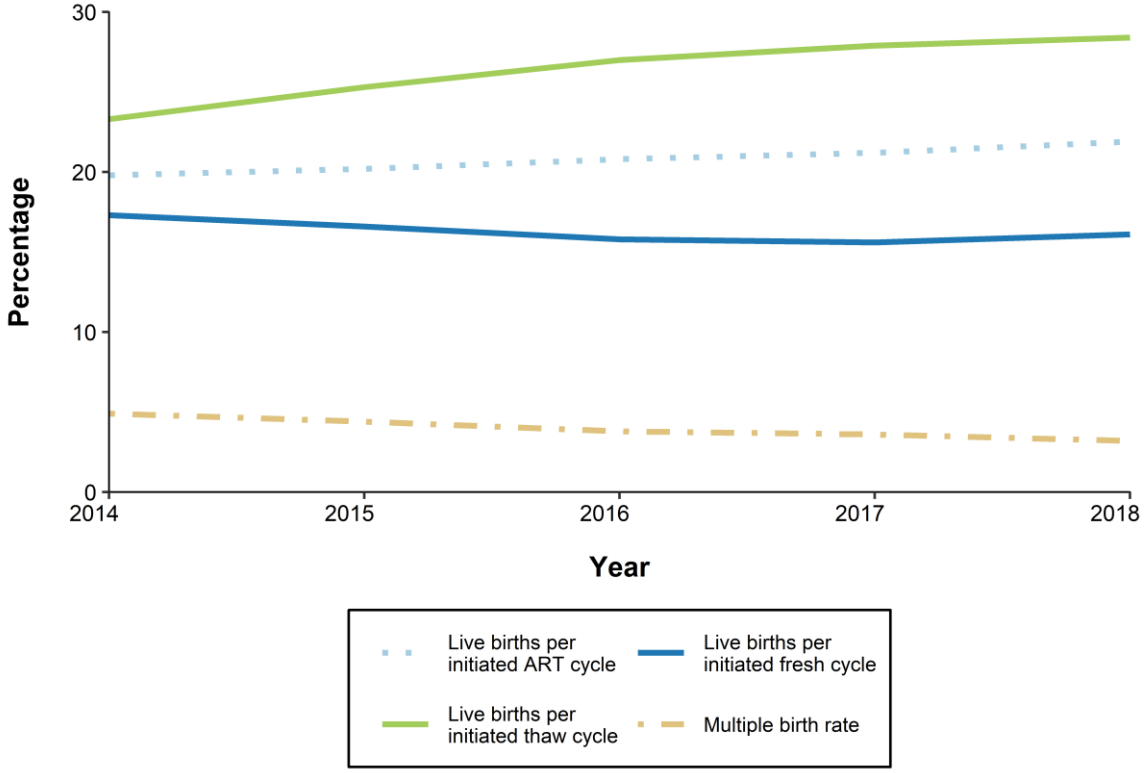


Figure 6: Percentage of frozen/thaw embryo transfer cycles by freezing method and stage of embryo development, Australia and New Zealand, 2014 to 2018