

National Perinatal Epidemiology and Statistics Unit

## Assisted Reproductive Technology in Australia and New Zealand 2017



Assisted Reproductive Technology in Australia and New Zealand 2017, published September 2019, provides a detailed picture of ART treatment undertaken in all fertility clinics in Australia and New Zealand during 2017.

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 2013 to 2017.

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

## How many cycles were performed in 2017?

There were 82,215 ART treatment cycles reported from Australian and New Zealand clinics in 2017 (74,942 and 7,273 respectively) representing increases of 0.8% in Australia and 8.5% in New Zealand from 2016.

Nearly 95% of cycles in 2017 were autologous cycles. Of the 77,353 autologous cycles, 61.5% were fresh cycles and 38.5% were thaw cycles.

10 <u>.</u> 30 40 50 60 70 80 90 100 Percentage Autologous fresh Autologous thaw Fresh donor Thaw donor Other cycles (47,545 cycles) (29,808 cycles) (2,414 cycles) (2,084 cycles) (364 cycles)

Figure 1: Types of ART treatment cycles, Australia and New Zealand, 2017

## What were the success rates?

The clinical pregnancy rate per embryo transfer cycle was 31.3%, for fresh cycles and 36.1% for frozen/thaw cycles. The live birth rate per initiated cycle was 16.4% for autologous fresh (non *freeze-all*) cycles and 27.9% for autologous frozen/thaw cycles.

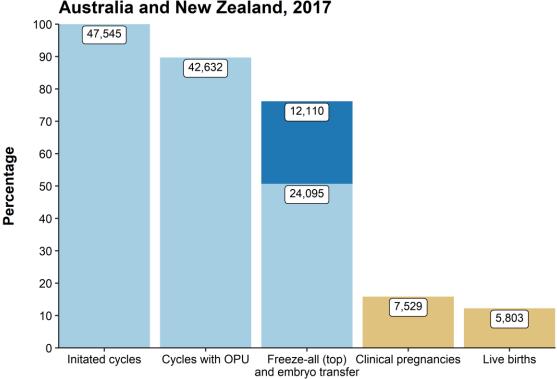
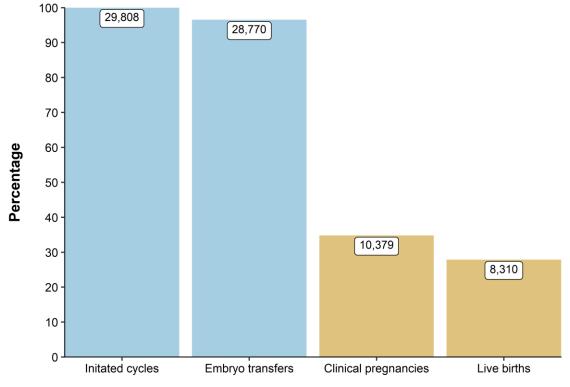


Figure 2: Progression of autologous fresh cycles, Australia and New Zealand, 2017

Figure 3: Progression of autologous thaw cycles, Australia and New Zealand, 2017

cycles (bottom)



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, 2017

## Trends in ART

There was a 15.0% increase in the number of treatment cycles between 2013 and 2017, during which, the live birth rate per initiated ART cycle increased marginally to around 21%. While the live birth rate per fresh initiated (non *freeze-all*) ART cycle decreased from 17.7% to 15.6%, the live birth rate per frozen/thaw ART initiated cycle increased from 21.8% to 27.9% during the five-year period. There was a decline in the multiple birth rate from 5.6% in 2013 to 3.6% in 2017.

Treatment group

Age group (years)

Autologous fresh

Autologous thaw

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 10.5% of initiated fresh cycles in 2013 to 24.2% of fresh initiated cycles in 2017.

Figure 5: Live birth and multiple birth rate trends in ART treatment, Australia and New Zealand, 2013 to 2017

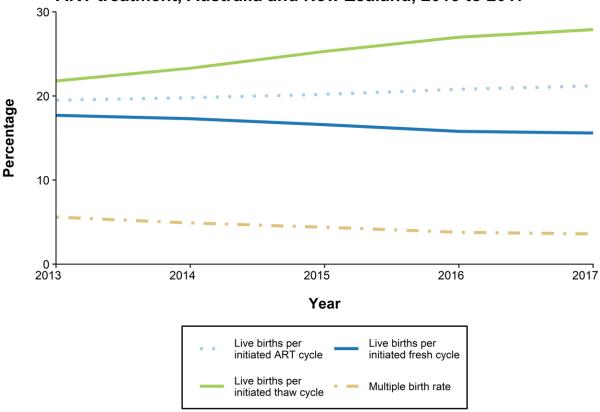


Figure 6: Percentage of frozen/thaw embryo transfer cycles by freezing method and stage of embryo development, Australia and New Zealand, 2013 to 2017

