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The rate of twin births is declining

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Most research papers and editorials on twin pregnancies published in the past 10 years began by acknowledging the global rise in twin pregnancies, primarily due to increasing maternal age and more widespread use of assisted conception. This trend is no longer the case.

According to the 2018 Centers for Disease Control and Prevention (CDC) data in the USA, the twin birth rate declined by 4% between 2014 and 2018, to the lowest rate in more than a decade, 32.6 twins per 1000 total births (Figure 1)[1] (https://www.cdc.gov/nchs/nvss/births.htm). This trend is mirrored in the UK: according to the 2018 Office for National Statistics (ONS) report, the rate of maternities with multiple births has declined for the third consecutive year (Figure 1)[2]. Despite the similar trend, the USA has a higher rate of twin births than the UK: of every 1000 women giving birth in the UK in 2018, 15 had twins birth[2].

Since the first successful livebirth conceived via IVF in 1978 and the subsequent rise in assisted conception, the rate of twins has increased inexorably for more than three decades. Twin births began to rise in the USA in the early 1980s, increasing 79% from 1980 to 2014[3,4]. In 1980, one in every 53 births in the USA was a twin, compared with one in every 29 births in 2014[3,4]. The largest increase in the twin birth rate was seen in women aged 45 years and over, with a rise from 15 twin pregnancies per 1,000 maternities in that age group in 1978, to a peak of 115 in 2012[2]. This is likely to be due to the increased use of assisted conception.

The most plausible explanation for the recent decline in twin births is the policy of single embryo transfer and the improvement in IVF techniques, such as better freezing of extra embryos, genetic testing, and culturing embryos until the blastocyst stage. These advances in IVF techniques have led to a move towards more single embryo transfer as the chance of successful implantation is higher. The fact that twin birth rates declined among mothers aged 30 and over, with the largest decline among mothers aged 40 and over (23% decrease), supports this hypothesis. According to the USA statistics, there was no decline in twins in mothers aged less than 30[1]. In the UK the multiple maternity rate for women aged 45 years and over has fallen from 115.5 per 1000 women in 2012 to 79.3 per 1000 women in 2018[2]. Of note, in the USA the decline was seen in non-Hispanic White women, but not in Hispanic or non-Hispanic Black women[1].

In January 2009, the UK Human Fertilisation and Embryology Authority (HFEA) introduced a policy to reduce the chances of multiple pregnancy following IVF treatment. This policy set an overall goal of reducing the national multiple birth rate conceived via IVF to 10% and set a maximum multiple birth rate that clinics must not exceed. National birth data, whether in the USA (CDC) or UK (ONS), are not reported according to the mode of conception. However, according to a HFEA Report, the multiple birth rate following IVF has decreased, as fertility clinics moved towards more single embryo transfers (eSETs). In 2017, the 10% multiple birth rate target was achieved for the first time nationally, but not across all age groups. In 2018, the 10% target was reached across all age groups[5] and nationally only 8% of IVF births resulted in a multiple birth[5].

It remains to be seen whether this trend will continue and whether it will plateau at some point. Despite the recent decline, the rate of twin births is still higher than prior to 2008. More importantly, efforts should continue to improve the perinatal outcomes of multiple pregnancies. The reported decrease in the UK national rates of stillbirth (nearly halved between 2014 and 2016 from 11.07 to 6.16 per 1000 total births) and neonatal death (one third decline between 2014 and 2016 from 7.81 to 5.34 per 1000 live births) in twin pregnancies was welcomed[6,7]. However, this trend was not sustained in 2017 (increase in stillbirths to 6.99 per 1000 total births and in neonatal deaths to 5.45 per 1000 live births), despite a decrease in stillbirth rate in singleton pregnancies.[8] Despite the fall in rates of twin pregnancies over the past few years, it is essential to maintain focus on efforts to optimise outcomes for these higher risk pregnancies.

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Figure legends

Figure 1. Rate of twin births in the USA and UK, 1982–2018.

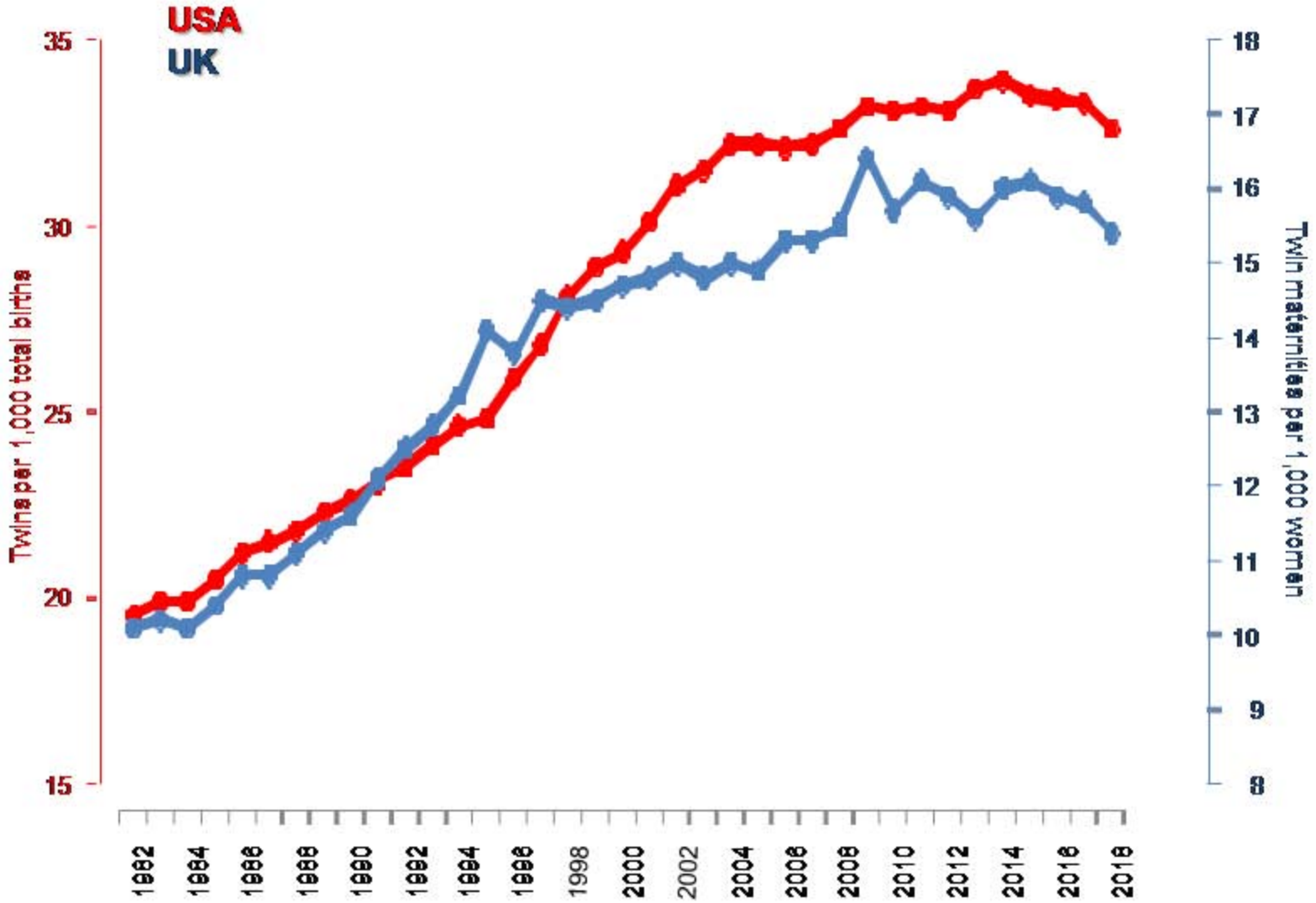

Figure 1