

## **Society for the Protection of Unborn Children - Written evidence (PRT0019)**

1. The Society for the Protection of Unborn Children is grateful for the opportunity to submit evidence regarding how the incidence of preterm birth in the UK might be reduced. The focus of this submission will be the link between prior induced abortion (IA) and preterm birth. The evidence shows that prior IA is a risk factor for preterm birth, and moreover that the effect is stronger for very and extremely preterm births. These births have the highest impact on the child and his or her parents and so strategies targeted to reduce them will yield the greatest overall benefit. It is also noted that the estimated cost of preterm births to the health system is £3.4bn per year<sup>1</sup>, and very and extremely preterm births contribute disproportionately to this cost.
2. There have been four meta-analyses about the link between IA and preterm birth, and one more recent meta-analysis examining the link between IA and cervical dysfunction, which can lead to preterm birth.
3. The meta-analysis by Lemmers *et al* in 2016 included 21 studies and found that dilatation and curettage (D&C) from IA and miscarriage led to an increased risk of 29% for preterm (<37 weeks), 69% for very preterm (<32 weeks), and 68% for extremely preterm (<28 weeks).<sup>2</sup> The meta-analysis by Saccone *et al* in the same year utilised data from 36 studies and found a 52% increased risk of preterm for women with a history of IA.<sup>3</sup> Both studies found greater risk with more abortions, which is suggestive of causality.

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<sup>1</sup> Story L *et al*, (2019) Reducing the impact of preterm birth: Preterm birth commissioning in the United Kingdom. *Eur J Obstet Reprod Biol* <https://doi.org/10.1016/j.eurox.2019.100018>

<sup>2</sup> Lemmers M *et al*, (2016) Dilatation and curettage increases the risk of subsequent preterm birth: a systematic review and meta-analysis. *Human Reprod* 31(1):34-45.

<sup>3</sup> Saccone G *et al*, (2016) Prior uterine evacuation of pregnancy as independent risk factor for preterm birth: a systematic review and metaanalysis. *Am J Obstet & Gynecol* <http://dx.doi.org/10.1016/j.ajog.2015.12.044>.

4. Results from two earlier meta-analyses, both in 2009, yielded similar outcomes.<sup>4,5</sup>
5. In their 2023 meta-analysis of IA and cervical dysfunction, Brittain *et al* found a 154% increased risk of cervical dysfunction for prior medical or surgical IA. When the analysis was restricted to surgical abortions, the increased risk was 308%.<sup>6</sup> The authors refer to an earlier study by Anum *et al*, where risk of cervical incompetence increased with multiple abortions – one abortion, 149%; two abortions, 266%, three abortions 707%; four abortions, 1136%.<sup>7</sup> This not only strongly suggests causality but is particularly relevant for the 92,000 women in England and Wales in 2021 whose abortion was at least their second (43% of 214,256).<sup>8</sup>
6. It is not clear whether there is a difference between surgical and medical abortions. The meta-analysis by Brittain *et al* found an increased risk of cervical dysfunction for *both* surgical and medical abortions. Similarly, Virk *et al*, found an increased risk of preterm birth for both medical and surgical IAs.<sup>9</sup> Nevertheless, other studies found surgical IAs to be worse than medical ones, or that there was no risk for medical IAs.<sup>10,11</sup> A recent review by Calhoun acknowledges the contradictory evidence with respect to medical IAs and preterm birth, and argues that further research is critical, especially given plausible reasons for limitations in many studies.<sup>12</sup>

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<sup>4</sup> Swingle HM *et al*, (2009) Abortion and the risk of subsequent preterm birth: a systematic review with meta-analysis. *J Reprod Med* 54:95-108.

<sup>5</sup> Shah PS & Zao J (2009) Induced termination of pregnancy and low birthweight and preterm birth: a systematic review and meta-analyses. *Brit J Obstet & Gynaecol* 116(11):1425-42.

<sup>6</sup> Brittain JJ *et al*, (2023) Prior Spontaneous or Induced Abortion Is a Risk Factor for Cervical Dysfunction in Pregnant Women: a Systematic Review and Meta-analysis. *Reproductive Sciences* <https://doi.org/10.1007/s43032-023-01170-7>

<sup>7</sup> Anum EA *et al*, (2010) Health disparities in risk for cervical insufficiency. *Hum Reprod* 25:2894–900.

<sup>8</sup> Abortion Statistics England and Wales; 2021 (2023) *Op.Cit.*

<sup>9</sup> Virk J *et al*, (2007) Medical Abortion and the Risk of Subsequent Adverse Pregnancy Outcomes. *N Engl J Med* 357:648-53.

<sup>10</sup> Bhattacharya S *et al*, (2012) *Reproductive outcomes following induced abortion: a national register-based cohort study in Scotland.* *BMJ Open* 2:e000911.

<sup>11</sup> Oliver-Williams C *et al*, (2013) Changes in association between previous therapeutic abortion and preterm birth in Scotland, 1980 to 2008: A historical cohort study. *PLOS Medicine* 10(7).

7. Whether an IA is surgical or medical there are explanatory mechanisms – for surgical IAs, cervical damage from instrumentation, and for medical IAs, infections or surgical follow-up with D&C.<sup>13,14,15</sup>
8. Since the four meta-analyses, there have been more recent studies exploring the link.
9. In a retrospective cohort study from China, researchers found an 18% increased risk for preterm (<37 weeks), and a 65% increased risk for very preterm (<34 weeks).<sup>16</sup> This translated to an overall preterm rate (<37 weeks) of 6.5% for these women compared with 5.5% for those with no history of IA.
10. In a nationwide registry study from Finland, researchers compared later IAs (>12 weeks) with earlier ones (<12 weeks), finding an increased risk for the former of 5% for preterm (<37 weeks), 27% for very preterm (<32 weeks), and 128% for extremely preterm (<28 weeks).<sup>17</sup> When comparing IA versus no IA, risk was only found for late abortions. Preterm risk also increased with the number of prior abortions, strengthening the case for causality.
11. A study from Rwanda found an 89% increased risk of preterm birth after IA.<sup>18</sup>

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<sup>12</sup> Calhoun B (2024) Medication abortion and preterm birth. *Issues in Law & Medicine* 38(2):175-181.

<sup>13</sup> Woolner A *et al*, (2013) The effect of method and gestational age at termination of pregnancy on future obstetric and perinatal outcomes: a register-based cohort study in Aberdeen, Scotland. *BJOG* 121:309-318.

<sup>14</sup> Saccone G *et al*, (2016) *Op. Cit.*

<sup>15</sup> Malosso ERM *et al*, (2018) US trends in abortion and preterm birth. *J Maternal-Fetal & Neonatal Med* 31(18):2463-2467.

<sup>16</sup> Yu J-Y *et al*, (2023) History of induced abortion and the risk of preterm birth: a retrospective cohort study. *J Maternal-Fetal & Neonatal Med* 36:1, 2207114.

<sup>17</sup> Situ KC *et al*, (2020) The duration of gestation at previous induced abortion and its impacts on subsequent births: A nationwide registry-based study. *Acta Obstet Gynecol Scand* 99:651-659.

<sup>18</sup> Rutayisire E *et al*, (2023) Maternal, obstetric and gynecological factors associated with preterm birth in Rwanda: findings from a national longitudinal study. *BMC Pregnancy and Childbirth* (2023) 23:365 <https://doi.org/10.1186/s12884-023-05653-y>.

12. It is noted that the Committee is also interested in ethnic and socioeconomic inequalities in relation to preterm births. In the US, the rate of preterm births amongst Black American women is 14.6% compared with 9.4% for White American women.<sup>19</sup> The abortion rate amongst Black Americans is approximately 4.5 times that of White Americans,<sup>20</sup> and while there are many risk factors for preterm birth, these figures confirm the critical need for better research to determine to what extent IA is responsible, and also whether the situation might also apply for different ethnic groups in the UK. To the extent that something similar may hold for the UK, the *Office of National Statistics* reports that "Babies from the Black ethnic group have had the highest proportion of preterm births since data collection began in 2007".<sup>21</sup> This group also has nearly twice the rate of abortions compared with White women (7% of abortions, and 4% of the population).<sup>22,23</sup>
13. In summary, despite a considerable body of evidence that shows IA to be a risk factor for preterm birth, clearly more research is needed. If the study from China cited above is correct, IA could account for about 15% of preterm births (5.5% with no IA versus 6.5% with), and to reiterate, these are more likely to be the very or extremely preterm ones. If something similar were to pertain in the UK, then about 1.2% of preterm births could have resulted from IA.

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<sup>19</sup> March of Dimes (2024), Preterm birth by race and ethnicity, United States, 2020-2022. Available from: <https://www.marchofdimes.org/peristats/tools/prematurityprofile.aspx?reg=99> Accessed 25 March 2024.

<sup>20</sup> Kortzmit K *et al*, (2023) Abortion Surveillance - United States, 2021. *Office of Science, CDC*, 72(9):1-32. Available from: <https://www.cdc.gov/mmwr/volumes/72/ss/pdfs/ss7209a1-H.pdf> Accessed 25 March 2024.

<sup>21</sup> Office for National Statistics (2023) Birth Characteristics in England and Wales: 2021. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/bulletins/birthcharacteristicsinenglandandwales/2021/pdf> Accessed 25 March 2024.

<sup>22</sup> Office for Health Improvement & Disparities (2023) Abortion Statistics for England and Wales: January to June 2022. Available from: <https://www.gov.uk/government/statistics/abortion-statistics-for-england-and-wales-january-to-june-2022/abortion-statistics-for-england-and-wales-january-to-june-2022> Accessed 25 March 2024.

<sup>23</sup> UK Government (2023) Population of England and Wales. Available from: <https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/population-of-england-and-wales/latest/> Accessed 25 March 2024.

Hence without IA, 8% could be reduced to 6.8%, over half of the way to the goal of 6% by 2025.

14. In his analysis of the relationship between abortion and preterm birth, McCaffrey notes that research on the abortion/preterm birth link is stronger than that between smoking and preterm birth, and yet women are widely warned about the latter, but not the former.<sup>24</sup> Women should be informed about *all* risk factors for preterm birth. Moreover, just as considerable resources are spent on discouraging smoking, resources should also be spent on discouraging abortion.

*25 March 2024*

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<sup>24</sup> McCaffrey MJ (2017) The Burden of Abortion and the Preterm Birth Crisis. *Issues in Law & Medicine* 32(1):73-98.