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# **The Safety of Self-managed Abortion: A Dearth of Good-quality Evidence and a Wealth of Misrepresentation**

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**ABSTRACT:** Self-managed abortion has been particularly prominent in recent discussions of abortion, with the rise of telemedicine abortion during the COVID-19 pandemic and the reality of self-managed illegal abortion in pro-life states following the overturning of *Roe v. Wade*. There has likewise been much political concern about misinformation and fake news circulated in the media. This article highlights how misinformation and poor quality studies have been used to make implausible claims regarding the safety of telemedicine and the number of deaths from unsafe abortion where abortion is illegal. This puts women's health and lives at risk by authorizing unsafe medical practice and poorly evidenced policy decisions regarding abortion and emergency obstetric care.

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## **Introduction**

The argument that legalising abortion makes it safer and prevents women dying from dangerous illegal abortions has been perhaps the most prominent argument historically for legalising abortion, continuing to this day in many pro-life countries. The argument is forceful because it does not depend on any particular view about the moral value of the fetus, or on the balance between a woman's bodily autonomy and the child's right

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to life. It says that even if abortion is morally wrong, it should be legal, because women will die otherwise. Sometimes the claim is also added that legalising abortion will not increase the number of abortions; it will only convert illegal abortions to legal abortions. This latter claim has been disproven repeatedly.<sup>1</sup>

At the same time, there has been an interest in a new kind of self-managed abortion: telemedicine abortion. This involves the provision of abortion drugs to women without them ever being seen in person by a healthcare professional (for a face-to-face history, examination, ultrasonography, and/or blood tests). It is impossible to deny that self-managed or so called 'backstreet' abortion without any in-person contact has become a lot safer than in most of the 20<sup>th</sup> century and even earlier. Yet serious concerns about telemedicine abortion have been raised by leading (typically pro-choice) medical and safeguarding authorities in the UK, one of the first countries to introduce telemedicine abortion.<sup>2</sup>

The argument from illegal/backstreet abortions and the argument for telemedicine abortion may cancel each other out, to a degree: if self-managed abortion really is safe, then criminalising abortion is unlikely to lead to a large number of deaths from self-managed abortion. It is perhaps for this reason that the US Women's March, advocating for greater abortion access, explicitly advised attendees not to use coat-hanger imagery for fear of perpetuating the 'right-wing talking point' that self-managed abortion is unsafe.<sup>3</sup>

The reality is more complicated: telemedicine abortion with mifepristone and misoprostol is certainly much safer than methods of abortion in earlier centuries and decades, but is still less safe than abortion counselled and performed in medical establishments.<sup>4</sup> The convergence of illegal and legal abortion upon telemedicine abortion suggests that whatever impact the legalisation of abortion might have on maternal mortality will tend to zero as time goes on. Previous papers have described in greater detail the evidence relating to telemedicine abortion and the relationship between abortion legalisation and maternal mortality,<sup>5</sup> with a more comprehensive survey of the empirical evidence on backstreet abortions to follow.<sup>6</sup>

The political nature of both of these topics has the consequence that claims may be made which are not rooted in strong evidence, in both the mainstream media and in academic settings. In this article, I describe some case studies of poorly evidenced claims in both contexts, emphasising the need for rigorous

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<sup>1</sup> Ekblad (1956); Foster (2018); Foster (2018; 2020); Frejka (1983); Gebhard (1959); Huldt (1968); Levine (2004); New (2018).

<sup>2</sup> Royal College of Paediatrics and Child Health (2022); National Network of Designated Healthcare Professionals for Children (NNDHP) (2022).

<sup>3</sup> Women's March (2021).

<sup>4</sup> Miller (2022b).

<sup>5</sup> Miller (2021a; 2022a; 2022b).

<sup>6</sup> Miller (forthcoming; unpublished).

study design and integrity in making empirical claims in the public sphere. In the case of unsafe abortion mortality, I examine some recent estimates of deaths from unsafe abortion. In the case of telemedicine abortion, I focus on the studies typically cited in favour of its safety. I pay particular attention to the UK context, whence much of the conversation and literature on unsafe abortion and telemedicine abortion derives.

## **Unsafe Abortion Mortality**

### ***The Royal College of Obstetricians and Gynaecologists in 1966***

Unsafe abortions – also known as backstreet or backalley abortions—are abortions in which the mother’s life or health is also threatened, due to dangerous methods or lack of medical supervision. They are typically identified with illegal abortions—also known as criminal or clandestine abortions—but the correlation is not exact, since legal abortions can be dangerous for the mother and illegal abortions can be relatively safe for her.

The argument from unsafe abortion to legal abortion typically involves premises like the following:<sup>7</sup>

- 1) There is a huge number of illegal abortions.
- 2) There is a huge number of deaths from illegal abortions.
- 3) Legalising abortion won’t increase the abortion rate.
- 4) But it will stop women from dying from illegal abortions.

Pro-life scholars often and unsurprisingly dispute some, if not all, of these claims. Less well known is that in 1966, the year before abortion was legalised in the UK, the Royal College of Obstetricians and Gynaecologists (RCOG) likewise disputed them with unanimous approval from their Council, noting that each was at that time without empirical foundation.

In response to 1), they noted that “It has been repeatedly stated that as many as 100,000 criminal abortions are induced in this country each year, and a more recent estimate is 250,000. These, and an earlier figure of 50,000, are without any secure factual foundation of which we are aware... In the experience of many gynaecologists working outside large cosmopolitan cities the occurrence is relatively uncommon.”<sup>8</sup>

In response to 2), they pointed out that the vast majority of abortion complications were actually from spontaneous abortion, i.e. miscarriage: “it is the experience of gynaecologists that most cases of abortion treated in hospital are spontaneous in onset, and their occurrence is to the disappointment of the patient. Our impression is that not more than one out of five abortions treated in hospital is other than spontaneous in onset.”<sup>9</sup>

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<sup>7</sup> Singh et al. (2018), p. 41.

<sup>8</sup> Royal College of Obstetricians and Gynaecologists (1966).

<sup>9</sup> Ibid.

In response to 3),<sup>10</sup> the RCOG explained that not only did legalisation increase legal abortion rates, it was not even clear it decreased illegal abortion rates at all: “criminal abortion becomes less abhorrent, and those guilty of the offence receive punishments so light as not to discourage them and others in their activities. The total effect is that women are increasingly ready to have their pregnancies terminated and potential criminal abortionists are less reluctant to help... [In Japan], during the years immediately following legalization of abortion on socio-economic as well as medical grounds it is reckoned that when the number of legal abortions rose to one million per annum the number of illegal abortions was also one million per annum.”<sup>11</sup>

Finally, responding to 4), they noted that the empirical evidence for this claim was non-existent, not least because illegal abortions themselves usually did not decrease: “except in those countries where abortion on demand and without inquiry is permissible, the legalization of abortion often resulted in no reduction and sometimes in a considerable increase in the number of illegal abortions. This is because those women who aim to be rid of an unwanted pregnancy are so concerned to preserve secrecy or to avoid delay that they continue to seek help from unorthodox sources... In Hungary and Czechoslovakia, where abortion is induced freely, the number of abortions other than legal treated in hospital in 1961 was approximately the same as in the years before the introduction of abortion laws.”<sup>12</sup>

In 1970, 3 years after abortion was legalised, they considered themselves vindicated: “The fact that legalization of abortion has not so far materially reduced the number of spontaneous abortions or of deaths from abortions of all kinds is not surprising. It confirms the experience of most countries and was forecast by the College’s 1966 statement.”<sup>13</sup>

### ***United States Figures***

In the same era, claims of thousands of deaths from unsafe abortion in the US were common. But it was later revealed by Bernard Nathanson—a leading abortion advocate who subsequently changed his mind—that these figures were fabricated:

How many deaths were we talking about when abortion was illegal? In NARAL we generally emphasized the drama of the individual case, not the mass statistics, but when we spoke of the latter it was always 5,000 to 10,000 a year. I confess that I knew the figures were totally false, But in the

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<sup>10</sup> Which, as noted earlier, is not only implausible given basic economic theory, but has also been decisively disproven.

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*

<sup>13</sup> Royal College of Obstetricians and Gynaecologists (1970).

“morality” of our revolution, it was a useful figure, widely accepted, so why go out of our way to correct it with honest statistics?<sup>14</sup>

In fact, CDC statistics demonstrate that in 1972, the year before *Roe v. Wade*, 63 women died from abortion, 24 of which were from legal abortion and 39 from illegal abortion.<sup>15</sup> Despite this, the American College of Obstetricians and Gynecologists and Planned Parenthood, as recently as 2019 and 2014 respectively, maintained that 5,000 women a year were dying of unsafe abortion prior to *Roe v. Wade*.<sup>16</sup>

Such implausible claims are not uncommon in the mainstream media. I offer here further examples.

### **Kenyan Figures**

In August 2020, it was reported by Reuters that Kenya was condemning women to death by unsafe abortion, even despite a constitutional change in 2010 allowing greater access to abortion than previously. One parliamentarian, Martha Karua, claimed that “Ten years since the promulgation of the constitution we are still losing the lives of women and girls in great numbers... These deaths are preventable, but unfortunately little has been done... Our inaction has pushed poor women and girls to quacks. We are condemning them to death by unsafe abortion.”<sup>17</sup>

The basis for these remarks was a new report by the Center for Reproductive Rights<sup>18</sup> claiming that unsafe abortion was still a major problem. But the figures cited by Reuters—that 2,600 women still die annually from unsafe abortion—were explicitly noted by the CRR as being prior to the constitutional reform of 2010. The CRR report also claimed that in the early 2000s, 35% of maternal deaths were attributable to unsafe abortion (from which the 2,600 figure is seemingly derived, given 7,700 maternal deaths). The source for this claim is ostensibly the 1998 Demographic and Health Survey. A source from a quarter century ago is evidently not a reliable basis for saying that in the current day, despite constitutional reform just 10 years ago, many women are dying from abortion.

But this is not the only problem: a more pressing problem is that the 1998 DHS Report has no figures at all concerning causes of maternal death, abortion-related or otherwise. Even the underlying dataset provided no data on this question. On personal correspondence with the DHS Program, it was

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<sup>14</sup> Nathanson and Ostling (1979).

<sup>15</sup> Koonin et al. (1996). Some states had legalised abortion slightly earlier, hence the large number of deaths from legal abortion.

<sup>16</sup> Kessler (2019).

<sup>17</sup> Bhalla (2020).

<sup>18</sup> Center for Reproductive Rights (2020).

confirmed that ‘there is no basis for giving a percentage breakdown and saying they come from DHS... The variable MM11 is “NA” (not applicable)—the information was not collected in the survey.’<sup>19</sup> One of the most widely circulated figures on deaths from unsafe abortion in Kenya is not only from quarter of a century ago; even then it appears to have been invented; at the very least, it is extremely difficult to discern where it might have originated.<sup>20</sup>

Such erroneous claims are not, however, confined to mainstream media: as already demonstrated, they appear in claims by legislators and in documents circulated by NGOs (in this case, the Center for Reproductive Rights) lobbying for abortion across the world.

They are also made by professional bodies and academic institutions. For example, the International Federation of Gynecology and Obstetrics in 2019 claimed that 17% of maternal deaths in Kenya are due to unsafe abortion.<sup>21</sup> But a closer look at their source, Mutua et al. (2018), suggests that ‘up to’ 17% of deaths ‘may’ be associated with induced abortion. Mutua et al. did not use any data from Kenya specifically, but relied on a 2014 estimate from the World Health Organization (WHO) that, between 2003 and 2009, 9.6% of maternal deaths in sub-Saharan Africa generally were from abortion —with 17.2% being the upper bound of a large confidence interval.<sup>22</sup>

Hence there are at least three problems with the FIGO statistic: it is relatively outdated, it is a statistic for sub-Saharan Africa generally, not Kenya, and it is the upper bound of a confidence interval, not the actual point estimate.

A fourth and even more critical problem is that the WHO study explicitly noted that ‘abortion’ in this context includes not only unsafe abortion, but also safe induced abortion, spontaneous abortion, ectopic pregnancy, and a variety of other less common causes of maternal death.<sup>23</sup> There is nothing in the WHO study to distinguish unsafe abortion as a cause of death from the other causes—and hence no basis for estimating any number of deaths from unsafe abortion specifically. The situation is relevantly similar to knowing that, say, 30% of deaths in a given population are from cancer, and claiming that 30% of deaths in the same population are from breast cancer specifically. Hence there are at

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<sup>19</sup> Personal correspondence with the Demographic and Health Survey Program.

<sup>20</sup> Likewise, the CRR in 2015 claimed that 35-50% of maternal deaths were attributable to unsafe abortion. This came from a 2012 report from the Kenyan National Commission on Human Rights, which relied on a 2004 document by an abortion activist group, Ipas. But this document is no longer available online (Ipas did not respond to a request for the document). A *British Journal of Obstetrics and Gynaecology* paper with a very similar name by an Ipas researcher published in 2005 made no claims about the percentage of maternal mortality attributable to unsafe abortion. There is no indication of where a 35-50% figure could come from. See Center for Reproductive Rights (2015).

<sup>21</sup> Kaaria (2019).

<sup>22</sup> Say et al. (2014).

<sup>23</sup> Ibid.

least 4 critical problems with the FIGO statistic. In fact, the 2017 Confidential Enquiry into Maternal Deaths in Kenya revealed that only 1.7% of maternal deaths were clear cases of induced abortion (some or many of which may well have been legal).<sup>24</sup>

This example therefore helpfully illustrates some of the various ways in which abortion mortality statistics are misrepresented in the public domain, not only by mainstream media actors but also professional bodies and institutions. In fact, the latest evidence suggests an extremely small percentage of maternal deaths in Kenya are related to unsafe abortion.

### **Global Figures**

While there is little reason to doubt that the WHO estimate (when properly interpreted as referring to a variety of causes) for 2003-2009 was an accurate reflection of maternal mortality causes during that period, there is reason to doubt the WHO's commitment to accurate abortion mortality statistics subsequently.

For example, this same study noted that 4.7-13.2% of global maternal deaths from 2003-2009 were due to abortive outcomes, again, including safe abortion, spontaneous abortion and ectopic pregnancy, *inter alia*. But the WHO in their other literature and advocacy consistently claim<sup>25</sup> that this figure refers only to 'unsafe abortion', despite the clarity of the paper itself, despite repeatedly being corrected, and despite one of the paper authors—who works for the WHO—agreeing that this is a misrepresentation of the statistic.<sup>26</sup> This author did not reply when it was pointed out that the WHO made this same misrepresentation as other sources.

The same statistic has been variously misrepresented by other prominent organisations, including the UN Office of the High Commissioner for Human Rights,<sup>27</sup> the RCOG,<sup>28</sup> and the British Medical Association.<sup>29</sup> When Up To Date was informed of this error, they immediately corrected it.<sup>30</sup> By contrast, the Royal College of Obstetricians and Gynaecologists only removed the claim after many months, and only in a website overhaul which appeared to remove the offending article along with many others. The claim still appears at least twice on their website.<sup>31</sup> When asked whether they would write to the WHO to help correct the misinformation, the RCOG replied that 'we do not feel it is our place to write to the WHO on this matter. We have responsibility for the

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<sup>24</sup> Ministry of Health Kenya (2017).

<sup>25</sup> World Health Organization (2021).

<sup>26</sup> Personal correspondence with a study author.

<sup>27</sup> Office of the United Nations High Commissioner for Human Rights (2020).

<sup>28</sup> Royal College of Obstetricians and Gynaecologists (2020a).

<sup>29</sup> Regan (2018).

<sup>30</sup> Personal correspondence with Up to Date; Up To Date (2023).

<sup>31</sup> Royal College of Obstetricians and Gynaecologists (2018; 2020b), rounded to 5-13%.

accuracy of our own outputs, but we cannot be responsible for those of other organisations.<sup>32</sup> It is harder to see how this unwillingness to politely correct an important mistake by an allied organisation aligns with the stated mission of the RCOG which includes “[advising] the government and other public bodies on healthcare matters relating to O&G.”<sup>33</sup> Indeed, the RCOG frequently goes significantly beyond engaging with international organisations to advocating for law change on abortion in other sovereign nations<sup>34</sup> where RCOG’s ideological positions are rejected by the overwhelming majority of the population—in lobbying efforts which have for decades been criticised as neo-colonial.<sup>35</sup> The RCOG even explicitly say that they “are committed to advocating for safe abortion care globally for everyone who needs it.”<sup>36</sup> A small note to the WHO correcting a demonstrable and harmful error would be a minor interference by contrast.

The American College of Obstetricians and Gynecologists makes the same basic error in their commentary on mortality from unsafe abortion globally. They write that ‘approximately 25 million women around the world resort to unsafe abortions each year, and complications from these unsafe procedures account for as many as 15% of all maternal deaths, approximately 44,000 annually.’<sup>37</sup> However, the supplementary material for their source clearly shows that this figure include deaths from ectopic pregnancies, miscarriages, and a variety of other conditions<sup>38</sup>—not to mention the fact that the Global Burden of Disease study on which they rely had been updated since, with far fewer deaths from abortion estimated.

### **Malawian Figures**

A final example along the same lines was a recent claim from the RCOG that 12,000 women die every year in Malawi from unsafe abortion. The RCOG cited a recently published article by *The Telegraph*, which claimed that ‘Thousands of women’ (namely, 12,000) were ‘dying like chickens’. But this is impossible, since total maternal deaths in Malawi are fewer than 2,000.<sup>39</sup> Despite this demonstrable impossibility, the RCOG initially refused to retract their endorsement of the claim, holding that “There isn’t any controversy about the article anywhere else and *The Telegraph* hasn’t retracted anything since the

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<sup>32</sup> Personal correspondence with senior board member.

<sup>33</sup> Royal College of Obstetricians and Gynaecologists (2022).

<sup>34</sup> E.g. Royal College of Obstetricians and Gynaecologists (2021).

<sup>35</sup> Ekeocha (2018).

<sup>36</sup> Royal College of Obstetricians and Gynaecologists (2023).

<sup>37</sup> American College of Obstetricians and Gynecologists (2020).

<sup>38</sup> Kassebaum et al. (2014).

<sup>39</sup> Miller (2021a).



article was published in February. We therefore feel satisfied that this article accurately portrays the situation for women in Malawi.<sup>40</sup>

This position became increasingly unsustainable as a comprehensive review of abortion deaths in Malawi had been published shortly before this response,<sup>41</sup> along with a *Journal of Medical Ethics* blog<sup>42</sup> drawing attention to the errors. The RCOG subsequently retracted their endorsement after a protracted dispute, commenting understatedly that ‘there is a question mark over the figure for maternal deaths’.<sup>43</sup> Likewise, after nearly a year of complaints and an intervention by the Independent Press Standards Organisation, *The Telegraph* withdrew the original article, agreeing that “a closer examination of the joint report [on which the original article was based], which is publicly available, shows that this estimate of 12,000 women dying from backstreet abortions annually is unsupported by the data contained in the report. In fact the number of deaths from back street abortion in Malawi is likely to be far lower.”<sup>44</sup>

*The Telegraph* did not specify just how much lower, but they did link to the comprehensive review published in 2021. This suggested that the real proportion of deaths from abortion and miscarriage combined had already fallen to 6% by 2001, equating to around 70-150 deaths today—around half (or perhaps more) of which may be from miscarriage,<sup>45</sup> suggesting 35-75 deaths from induced abortion given a 6% overall rate. But since abortion mortality generally falls as a proportion of maternal mortality over time,<sup>46</sup> this proportion has in all likelihood fallen further in the last 20 years. Hence deaths from abortion in Malawi are therefore probably significantly lower than 35-75 now. That a figure of 12,000 was claimed in the media and cited with approval by the RCOG illustrates how easily such misinformation can go unchecked.

## Telemedicine Abortion

In this section I describe some of the ways in which poor research methodology and the selective presentation or misinterpretation of results have put women’s life and health at risk, in a new kind of unsafe self-managed abortion—this time with the imprimatur of leading abortion advocacy groups and other organisations, such as the WHO.

Telemedicine abortion is defined in various ways in the literature: here, I refer to what might be called ‘full telemedicine abortion’—the provision of

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<sup>40</sup> Personal correspondence with senior board member.

<sup>41</sup> Miller (2021a).

<sup>42</sup> Miller (2021b).

<sup>43</sup> Personal correspondence with senior board member.

<sup>44</sup> *The Telegraph* (2022).

<sup>45</sup> Miller (2021a).

<sup>46</sup> Miller (2021a; 2022a; forthcoming; unpublished).

abortion pills without any in-person contact with a healthcare provider. That some elements of the abortion process could be performed remotely is trivially true; what is more controversial is the recent move in a few countries<sup>47</sup> to prescribe abortion pills without any in-person contact at all.<sup>48</sup> This necessarily removes, as routine features: a) guaranteed privacy for taking a history; b) ultrasound examination; c) blood testing, especially Rhesus; d) physical examination; e) sexually transmitted disease (STD) testing; f) supervision of pill administration.

Many scholars and doctors, including some leading professional bodies, have raised concerns about the safety of this practice. These concerns have not been limited to those ideologically opposed to abortion, but have been shared by leading pro-choice bodies responsible for the safeguarding of children and vulnerable adults in the UK, such as the Royal College of Paediatrics and Child Health (RCPCH) and the National Network of Designated Healthcare Professionals for Children (NNDHP). These concerns were so serious that both groups actively lobbied for the law to restrict telemedicine abortion access, and included the following:<sup>49</sup>

1) **Safeguarding:** Women and girls who are victims of abuse or trafficking frequently present to abortion providers,<sup>50</sup> which have therefore traditionally been a centrally important opportunity to make contact with such women and girls and identify them as victims; moreover, coerced abortions make up a large minority of abortions,<sup>51</sup> and a private consultation was previously the primary mechanism of determining that an abortion was really the women's choice—private consultations obviously cannot be guaranteed via telemedicine.<sup>52</sup>

2) **Ectopic pregnancies:** Ultrasound is the standard way of excluding ectopic pregnancy, but a physical examination can help in its absence. Ectopic pregnancies are therefore more likely to be missed with telemedicine, and moreover, the symptoms of medical abortion are often impossible to differentiate from a ruptured ectopic pregnancy, leading to delays in presentation if an ectopic pregnancy does rupture.<sup>53</sup>

3) **Delayed gestation:** Without an ultrasound (or physical exam) it is impossible to reliably determine with accuracy the gestation of the pregnancy; as a result, dozens of babies have been born at late gestations in the UK with no medical supervision after attempted telemedicine abortions, sometimes to teenage girls, and in at least one case resulting in

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<sup>47</sup> Moreau et al. (2021).

<sup>48</sup> Full telemedicine allow some women to be seen in person, but not routinely; this would only occur after initial screening in a telephone or video consultation.

<sup>49</sup> Described at greater length with complete references in Miller (2022b).

<sup>50</sup> Lederer and Wetzel (2014), Motta et al. (2015).

<sup>51</sup> Miller (2022b); ComRes (2022).

<sup>52</sup> Miller (2022b).

<sup>53</sup> *Ibid.*

a murder investigation after a baby was born alive.<sup>54</sup> Moreover, at later gestations, Rhesus isoimmunisation may occur, putting future pregnancies at risk of Rhesus disease. The WHO previously recommended giving anti-D for abortions over 9 weeks, recently changing this to 12 weeks without a clear evidence base. They claimed that the ‘theoretically there should be zero chance of antibody formation’<sup>55</sup> at 12 weeks, despite clear cases contradicting this claim in the literature of Rh sensitisation in women having abortions prior to 12 weeks.<sup>56</sup>

4) Lack of examination: Without an examination, the provider may miss other important examination findings such as multiple pregnancy, fibroids, pelvic tumours, or a molar pregnancy. They will also likely miss signs of conditions requiring more complex abortion provision, such as anaemia, malaria or RTIs/STIs.<sup>57</sup>

5) Interval between mifepristone and misoprostol: Although this applies to all home abortion regardless of whether there has been an in-person consultation, and although the proper interval is not always reliably reserved even in abortion clinics, telemedicine exacerbates these poor practices and increases the risk of complications.<sup>58</sup>

6) STD testing: Although STD testing, particularly chlamydia, is recommended before every abortion, there has been a doubling of women not receiving an offer of chlamydia screening before abortion since telemedicine was introduced in the UK.<sup>59</sup>

7) Contraception: Post-abortion contraception is standardly seen as an important intervention to prevent further unwanted pregnancies. However, telemedicine abortion during COVID caused an enormous drop in the uptake of the most effective contraception (LARCs), from around one third to 8.7% of patients.<sup>60</sup> Leading advocates of telemedicine abortion later drew out this implication in more detail.<sup>61</sup>

### **Evidence for Telemedicine Abortion Prior to COVID-19**

The evidence for the general safety of telemedicine abortion was very limited prior to COVID. A 2019 systematic review by Endler et al. found that ‘Several areas, however, remain to be investigated in order to substantiate policy recommendations on abortion care though [telemedicine].’ The review found that for the least unsafe telemedicine procedures, those below 10 weeks, hospitalisation rates of up to 2.85% were seen, in addition to the 0.9-19.3% rates of surgery for incomplete abortion. When all gestations were included, surgery

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<sup>54</sup> Ibid.

<sup>55</sup> World Health Organization (2022).

<sup>56</sup> Goldman and Eckerling (1972); Gavin (1972).

<sup>57</sup> World Health Organization (2012).

<sup>58</sup> Miller (2022b).

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> Dixon et al. (2022).

rates varied from 8.5-20.9% and the need for antibiotics was 9.3%. It was noted that surgical evacuation rates with telemedicine abortion are higher than normal.<sup>62</sup>

In addition to these somewhat concerning findings, the review had significant limitations. First, ectopic pregnancies were not measured or discussed at all—a considerable limitation given that this is one of the primary safety concerns regarding telemedicine abortion. Moreover, the studies included had high attrition rates of 5-57% and mostly used self-reported data, and so the authors concluded that the overall data quality was low, with a high risk of selection bias. Most crucially, this review included studies which retained mandatory ultrasound prior to the abortion. Hence it did not properly evaluate full telemedicine—that is, lack of in-person contact.

Despite their somewhat cautious conclusions and significant limitations—with Endler et al. noting the low data quality—this review has been presented by others as demonstrating the safety of telemedicine abortion. Particularly troubling is that it has been used to advocate for full telemedicine,<sup>63</sup> when the review is very clear that many of the studies were not full telemedicine at all—they used some of the key safeguards missing in full telemedicine (e.g. routine ultrasonography).

A similar systematic review was performed by the Cochrane Library in 2020, on home abortion (in which the abortion pills are taken at home). This concluded that ‘The evidence for the safety of these interventions was very low.’<sup>64</sup> Since telemedicine abortion is a specific subset of home abortion—the subset with no in-person contact at all—the evidence base for telemedicine abortion was necessarily slimmer still.

Hence prior to the COVID pandemic, the evidence base for home abortion in general, including telemedicine abortion, was extremely limited. Nevertheless, it was promoted from the beginning of the pandemic as safe and effective, becoming authorised in a variety of countries almost immediately.

### ***Evidence for Telemedicine Abortion Since COVID-19***

Since the evidence base was inevitably still somewhat limited, a variety of studies were conducted during the pandemic with the aim of demonstrating the safety and efficacy of full telemedicine abortion. Some of the leading proponents of telemedicine abortion, Parsons and Romanis, subsequently cited (in addition to the review by Endler et al.) four studies, claiming that ‘There is a strong body of evidence to demonstrate that [telemedical early medical abortion] is safe, effective, and acceptable to patients.’<sup>65</sup>

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<sup>62</sup> Endler et al. (2019).

<sup>63</sup> E.g. Parsons and Romanis (2022); British Society of Abortion Care Providers (2020).

<sup>64</sup> Cochrane Library (2020).

<sup>65</sup> Parsons and Romanis (2022).

These studies, however, fail to support Parsons and Romanis' conclusions. The first was a qualitative study of 45 patients,<sup>66</sup> and the second had minimal data on complications,<sup>67</sup> focusing on client satisfaction instead. The third found that 6% of patients had emergency room visits and 7.8% other outpatient visits. Moreover, around three quarters of the patients did in fact have ultrasound, and the outcomes did not distinguish these from women who had in-person contact but no ultrasound, or from those who had full telemedicine (i.e. no in-person contact).<sup>68</sup> None of these, therefore, show that full telemedicine—no routine in-person contact—is safe and effective. Yet full telemedicine is exactly what is at stake.

In fact, they only cite one study which actually addresses full telemedicine, Aiken et al. (2021), which claimed to study 85% of all medical abortions nationally from April to June 2020, and reported 1.2% incomplete abortions and 0.7% requiring surgical evacuation. This is the primary study on which the RCOG and other pro-abortion medical bodies also relied for their political advocacy.<sup>69</sup>

The authors claimed that telemedicine was more efficient and hence allowed earlier abortions, which are safer in general. But this was unconvincing for at least six reasons: 1) there was a pre-existing trend towards earlier abortions into which the alleged trend would fit; 2) the pandemic may have caused earlier recognition of pregnancy; 3) given the lack of ultrasound, the gestations measured were not reliably accurate; 4) the alleged reduction in gestation was 0.4 weeks (2.8 days); yet 5) this was outweighed by the time taken to deliver the pills (2.4 days on average; in some cases 5 days or never), since the study measured only the *posting* of the pills and not their reception; and 6) the fact that only half of women receiving pills take them the same day, with 2.5% taking them over a week later.<sup>70</sup>

Hence the proposed mechanism for telemedicine being safer is without empirical foundation. But the results are likewise demonstrably inaccurate. For example, they say that only 1.2% had incomplete abortions (including continued pregnancy). This would be surprising enough given background data suggesting that incomplete abortion rates are typically much higher.<sup>71</sup> But the specific data for England and Wales in 2020 show a rate of 6% for incomplete abortions on Freedom of Information requests to hospitals.<sup>72</sup> Hence the study demonstrably underrepresented complications by a very large margin. Clearly,

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<sup>66</sup> Kerestes et al. (2021).

<sup>67</sup> Meurice et al. (2021).

<sup>68</sup> Chong et al. (2021).

<sup>69</sup> Royal College of Obstetricians and Gynaecologists et al. (2022).

<sup>70</sup> For each of these claims, see Miller (2022b) and references therein.

<sup>71</sup> Endler et al. (2019).

<sup>72</sup> Duffy (2021).

hospitals have picked up many complications which were not found by the study authors. This is consistent with evidence from healthcare regulators in the UK that abortion clinics have had significant failures in reporting incidents to the appropriate regulators.<sup>73</sup>

In fact, Aiken et al. did find that post-abortion discovery of ectopic pregnancy was three times more common with telemedicine than with the traditional model—and this was likely an underestimate given the aforementioned concerns about underreporting. This was not mentioned because the sample size was too small to demonstrate statistical significance—but clearly warrants further study and caution in the interim. Likewise, abortions of a greater gestational age than clinically safe (by the standards of those who think telemedicine abortion is safe) numbered 11 in the telemedicine group, compared to none in the non-telemedicine group. These were likewise grossly underestimated given what is known from Freedom of Information requests.

Thus the evidence cited to support full telemedicine—no routine in-person contact—is largely from studies which *did* have routine in-person contact. In the major study which did look at full telemedicine, the results are simply inconsistent with all background knowledge, and even with known data from what is substantially the same dataset.

### ***The Political Dynamics of Telemedicine Abortion***

It is inevitable in such a politically invested subject that some of those pursuing a particular policy will at times rely on substandard evidence—or misrepresent the evidence—in order to achieve that end. This may happen intentionally or unintentionally. Either way, it raises the need for critical analysis of the evidence to ensure that women's safety is not jeopardised by unsafe medical practice. In this case, unsafe, non-evidence based practice has been authorised primarily for political reasons, supported by an uncritical use of poor quality studies, and misrepresentation of other studies.

It was claimed by some medical authorities that there was robust evidence for telemedicine's safety, that there was no convincing evidence against it, and that the only opposition to it was from pro-life ideologues. For example, it was suggested by a variety of abortion activist medical bodies that the National Network for Designated Healthcare Professionals—the National Health Service's network of senior doctors and nurses with child safeguarding responsibilities—were not 'authorities who have expertise and experience in the safeguarding of young people who present for abortion care.'<sup>74</sup>

Those same medical bodies, defending telemedicine's safety, drew attention to the fact that the Royal College of Paediatrics and Child Health had produced guidance supporting telemedicine for young people—but when the

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<sup>73</sup> See, for example, Care Quality Commission (2021a; 2021b; 2021c).

<sup>74</sup> Morris et al. (2021).

RCPCH (2022) were allowed to speak for themselves they raised their own concerns about telemedicine abortion for young people and supported a parliamentary amendment to restrict it, despite their general support for abortion access for children.

Again, the NNDHP and RCPCH are not pro-life bodies—they are leading pro-choice medical authorities<sup>75</sup> whose duty is to safeguard children, teenagers and vulnerable young adults. Their sincere medical and safeguarding opinion was that telemedicine abortion was fundamentally unsafe, even going so far as to support political action against it.<sup>76</sup>

In 2022 the same groups supporting telemedicine abortion, including the RCOG and the Royal College of Midwives, escalated their rhetoric against the NNDHP,<sup>77</sup> accusing the NNDHP of ‘undermining] the democratic process’ simply for sharing their concerns as experts and experienced clinicians in child safeguarding *after* the matter had been debated in Parliament. This makes little sense: the fact that the legislature has made a decision evidently does not make it anti-democratic for child safeguarding professionals to voice concerns about that decision.

The groups attempted to undermine their colleagues at the NNDHP further by attributing the NNDHP’s statement to ‘individuals within that group’ and implying that the group had inadequate governance and did not respect the diversity of their members. But given the stances described above that the RCOG has taken (in various cases rooted in misinformation and certainly not reflecting their diversity of membership) and the ways in which they have explicitly resisted accountability when challenged over misinformation—this criticism is difficult to take seriously, or at least, easy to turn back against the RCOG itself. The RCOG is not the only one of the groups with questionable governance and lack of accountability to its members: the Royal College of Midwives, for example, had just a few years prior suffered a revolt after its President—with the vested interest of being Chairman at the UK’s largest abortion provider—unilaterally signed the College up to supporting the complete decriminalisation of abortion with no consultation among members whatsoever.<sup>78</sup>

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<sup>75</sup> ‘We now call for a full review of abortion service provision that gives the needs of all children and young people separate and distinct consideration, ensuring that they have ready access to safe and effective abortion services.’ National Network for Designated Healthcare Professionals for Children (2022); ‘Every child and young person has the right to the best possible health. It is in the best interests of a child or young person to have equitable access to safe, effective and quality abortion services.’ Royal College of Paediatrics and Child Health (2022).

<sup>76</sup> National Network for Designated Healthcare Professionals for Children (2022); Royal College of Paediatrics and Child Health (2022).

<sup>77</sup> Morris et al. (2022).

<sup>78</sup> Petre and Adams (2016).

Given the extremely poor quality of the evidence cited by the RCOG and other groups, the credibility (and lack of pro-life vested interest) of dissenting professional groups, and the rare to unprecedented hostility implicit in these remarks between professional medical colleagues, the best explanation of the attacks on those groups is that they are perceived as a threat to a valued political interest—namely, easier access to abortion through the removal of safeguards.<sup>79</sup> But in this case, the political interests are putting women and girls in danger, by misleading them about the safety of taking abortion pills without ever being seen in person. The reality is that this is a controversial treatment which has primarily been advocated by highly politicised groups with a strong ideological commitment to abortion—but opposed by a wide range of stakeholders from a variety of perspectives, with a great deal of expertise, experience and, crucially, evidence.

### Politics and Academia

The misrepresentation of data and the selective use of poor quality data in academic settings in service of abortion ideology is nothing new. Katerini Storeng and Jennifer Palmer described in *The Lancet* the intimidation and threats they and their co-authors received when evaluating the efficacy of maternal health and family planning interventions funded by the Department for International Development and implemented by Marie Stopes International and Ipas, two of the world's leading abortion lobbyist groups: "Censorship is a strong word. But what else can you call it when a donor that commissions a research-based evaluation of one of its major global health programmes instructs the researchers to omit important results from their final report? Or puts pressure on them to change the tenor of their conclusions? Or when a staff member of an implementing partner that is being evaluated threatens the reputation of the researchers and their university if they publish negative findings?"<sup>80</sup> The Department for International Development's maternal health work has already been criticised for focusing disproportionately on family planning as a result of its strong incentives to show cost-effectiveness even when a programme is failing. Avoidable maternal deaths occur as a result.<sup>81</sup>

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<sup>79</sup> The RCOG are explicit about their vested political interests: "Denying pregnant people safe abortion care may lead to violations of their right to life, their right to health, their right to privacy and can in some cases amount to cruel, inhumane or degrading treatment. Women and girls should have the right to choose what they do with their own bodies. The RCOG and FSRH are committed to advocating for safe abortion care globally for everyone who needs it." (Royal College of Obstetricians and Gynaecologists, 2023).

<sup>80</sup> Storeng and Palmer (2019). The original paper was examining the ways in which Marie Stopes International and Ipas used donor funding from the UK government to lobby covertly for the legalisation of abortion in various African countries.

<sup>81</sup> Miller (2021a).



On the topic of abortion and mental health, it is commonly held that the causal associations between abortion and mental health have been disproven.<sup>82</sup> A comprehensive and careful review of the literature has shown that the opposite is true—that the best available evidence shows a clear causal link between abortion and various psychiatric sequelae.<sup>83</sup> The author who published what is widely regarded by the leading major reviews<sup>84</sup> as being the best quality research on this topic was pro-choice, but he held that the research clearly showed a causal link between abortion and mental health.<sup>85</sup> Yet despite the high quality of his research and his own pro-choice stance, he was asked by his country's government-appointed Abortion Supervisory Committee not to publish his findings in case they were used by pro-life advocates.<sup>86</sup> This sort of overt pressure and attempted censorship goes a long way to explaining the commonly held but false position that there is no association between abortion and negative psychiatric outcomes.

Finally, a particularly remarkable example occurred in 2017, when Blair Darney and colleagues accused Elard Koch, a leading Chilean epidemiologist, of various errors in his work on mortality from unsafe abortion in Latin America—they went so far as to question his (and his colleagues') transparency and integrity: 'Transparency and integrity in research is crucial, as well as perhaps even more in politically contested topics such as abortion. Rigorous evidence about the health impacts of increasing access to safe abortion worldwide is needed.'<sup>87</sup>

Darney submitted a research proposal to the Society for Family Planning, which both gave her team \$250,000 and published her paper in their journal, *Contraception*. In the proposal she criticised the society for '[failing] to respond to anti-abortion junk science'. These criticisms are somewhat ironic given the various vested ideological and financial incentives involved in the publishing of this paper.<sup>88</sup>

It emerged later, however, that Darney et al.'s own paper had misrepresented the science—so much so that they had *reversed* their actual findings in their conclusions. Koch and colleagues had shown that states protecting unborn life showed a decreased in the maternal mortality ratio. In their response, Darney et al. achieved the same result but wrote that there was an *increase*—exactly

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<sup>82</sup> Royal College of Obstetricians and Gynaecologists (2011).

<sup>83</sup> Miller (2022c); this review also addresses the recent Turnaway Study, which is of considerably lower quality.

<sup>84</sup> American Psychological Association (2008); National Collaborating Centre for Mental Health (2011).

<sup>85</sup> Fergusson et al. (2008; 2013).

<sup>86</sup> Hill (2006).

<sup>87</sup> Darney et al. (2017).

<sup>88</sup> Moynihan (2019).

inverting the truth. And *this* was used to suggest that Koch and colleagues had lacked transparency and integrity, and been guilty of ‘junk science’. The error from Darney et al. was so egregious that, after initial reluctance from both the authors and the journal, the journal eventually had no option but to entirely retract the paper.<sup>89</sup>

## Conclusion

This article has highlighted some important and recent instances of the manipulation and misrepresentation (or potentially even fabrication) of data for political purposes. I have shown that academic and medical bodies are not immune to propagating such ‘fake news’.

The Kenyan case is a good illustration of a particularly common phenomenon in this area: a chain of citations leading back so far that few people are motivated to check the original data and see whether they are fairly described. This leads to false statistics being cited as common ‘knowledge’ and readily accepted and propagated, while rarely challenged because of the effort required to obtain the original source. The chain extends back sufficiently far that the original source is, by the time of writing, outdated or misrepresented, or in some cases even non-existent.<sup>90</sup> This highlights the need for contemporary writers on these themes to be vigilant and engaged in their own source-checking/fact-checking.

In other cases, such as the Malawi example, the statistics are demonstrably false to begin with, and have no discernible basis in any study, and yet are published and repeated by medical bodies. This can only be remedied at present by those medical bodies choosing to fact-check their sources and endorse only accurate data. Given the political advantages of publishing or endorsing false data, this mechanism is bound to fail in various instances. Thus, mechanisms of accountability need to be introduced to medical bodies to ensure that they do not mislead the public on health issues. There will always be reasonable debate on various issues surrounding as controversial an issue as abortion—but the magnitude of some of the errors described in this paper go beyond any reasonable controversy and can be fairly described as demonstrably and decisively false.

Misinformation for political ends will always exist, and for the foreseeable future will continue to be published even by authoritative medical bodies. There is a degree to which this can only be resolved by the voluntary will of those publishing such misinformation—and at present there is still a strong reluctance on the part of certain medical bodies, particularly the RCOG, to correct misinformation which they have published.

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<sup>89</sup> Darney et al. (2019); Moynihan (2019).

<sup>90</sup> Often having been written prior to routine internet publication or archiving.

In such situations, the optimal solution is not easy to discern, especially in a liberal democracy which permits a wide latitude on harmful and false instances of speech. While few liberals would want to see these sorts of claims legally outlawed, since free speech is a basic right, there may be a case for maintaining the *rights* but removing the *privileges* of public organisations consistently committed to misleading the public on demonstrable falsehoods—especially healthcare bodies misleading the public about healthcare issues. For example, public funding—a privilege, not a right, in this case—could be dependent on a commitment to refraining from publishing misinformation or to establish mechanisms of accountability from neutral, external authorities. In the case of the RCOG, for example, it might be felt that a Royal Charter should not be attached to Colleges knowingly and persistently propagating misinformation. Hence there are some mechanisms of accountability which do not impede the strong *prima facie* right to freedom of speech so rightfully valued by many societies.

In the meantime, individual doctors and groups of doctors can at least make themselves more aware of false statistics circulating in academia and the media, particularly on the topic of abortion. They can take steps to ensure they check the original source of statistics, especially when there may be strong political motivation to misconstrue those statistics. This will likely never eradicate misinformation, but may at least lessen the harm caused by it.

## Bibliography

Aiken, ARA et al. (2021). 'Effectiveness, safety and acceptability of no-test medical abortion (termination of pregnancy) provided via telemedicine: a national cohort study,' *British Journal of Obstetrics and Gynaecology*, 128(9): 1464-1474.

American College of Obstetricians and Gynecologists (2020). 'Increasing access to abortion,' available online at <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2020/12/increasing-access-to-abortion> [accessed 2/21/2023].

American Psychological Association (2008). *Report of the APA Task Force on Mental Health and Abortion*. Washington, DC: American Psychological Association.

Bhalla, N (2020). 'Kenya condemns women to 'death by unsafe abortion', campaigners warn,' *Reuters*, available online at <https://www.reuters.com/article/us-kenya-women-rights-idUSKBN25M1ZC> [accessed 7/13/2022].

British Society of Abortion Care Providers (2020). 'BSACP position statement: remote consultations,' available online at <https://bsacp.org.uk/wp-content/uploads/2020/10/BSACP-Position-Statement-Remote-Consultations-18082020.pdf> [accessed 2/22/2023].

Care Quality Commission (2021a). *BPAS - Doncaster*, available online at <https://api.cqc.org.uk/public/v1/reports/bc49d8d2-46df-4b00-8d9f-965383c0be81?20211104080100> [accessed 2/22/2023].

Care Quality Commission (2021b). *BPAS - Merseyside*, available online at <https://api.cqc.org.uk/public/v1/reports/b1211e17-f487-48a2-acde-00007f702a50?20211102080239> [accessed 2/22/2023].

Care Quality Commission (2021c). *BPAS - Middlesbrough*, available online at <https://api.cqc.org.uk/public/v1/reports/beb7e1f3-b0f7-458e-bc2f-c74df1e76b87?20211104080100> [accessed 2/22/2023].

Center for Reproductive Rights (2015). Letter to Committee on the Rights of the Child. Available online at <https://www.reproductiverights.org/sites/default/files/documents/Kenya-CRC%20Committee-71%20full%20session%20letter.pdf> [accessed 2/18/2023].

Center for Reproductive Rights (2020). *A Decade of Existence: Tracking Implementation of Article 26(4) of the Constitution*. Nairobi: Center for Reproductive Rights.

Chong, E et al. (2021). 'Expansion of a direct-to-patient telemedicine abortion service in the United States and experience during the COVID-19 pandemic,' *Contraception*, 104(1): 43-48.

Cochrane Library (2020). *Self-administered versus provider-administered medical abortion*. Available online at <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013181.pub2/full> [accessed 7/13/2022].

ComRes (2022). 'Reproductive coercion poll - BBC Radio 4 - 8 March 2022,' available online at <https://comresglobal.com/polls/reproductive-coercion-poll-bbc-radio-4-8-march-2022/> [accessed 7/13/2022].

Darney, BG et al. (2017). 'Maintaining rigor in research: flaws in a recent study and a re-analysis of the relationship between state abortion laws and maternal mortality in Mexico,' *Contraception*, 95(1): 105-111.

Darney, BG et al. (2019). 'Retraction notice to: "Maintaining rigor in research: flaws in a recent study and a reanalysis of the relationship between state abortion laws and maternal mortality in Mexico" [Contraception 95/1 (2017) 105-111]' *Contraception*, 99(1): 71.

Dixon, A et al. (2022). 'Uptake of long-acting reversible contraception after telemedicine delivered abortion during Covid-19,' *European Journal of Contraception & Reproductive Health Care*, 27(4): 284-288.

Duffy, K (2021). *FOI Investigation into Medical Abortion Treatment Failure* [online], available from: <https://percuity.files.wordpress.com/2021/10/foi-ma-treatment-failure-211027.pdf> [accessed 11/21/2021].

Eklblad, M (1956). 'Relation of the legal-abortion clientele to the illegal-abortion clientele and the risk of suicide,' *Acta Psychiatrica Scandinavica*, 30(S99): 93-98.

Ekeocha, O (2018). *Target Africa: Ideological Neocolonialism in the Twenty-First Century*. San Francisco: Ignatius Press.

Endler, M et al. (2019). 'Telemedicine for medical abortion: a systematic review,' *British Journal of Obstetrics and Gynaecology*, 126(9): 1094-1102.

Fergusson, DM et al. (2008). 'Abortion and mental health disorders: evidence from a 30-year longitudinal study,' *British Journal of Psychiatry*, 193(6): 444-451.

Fergusson, DM et al. (2013). 'Does abortion reduce the mental health risks of unwanted or unintended pregnancy? A re-appraisal of the evidence,' *Australia & New Zealand Journal of Psychiatry*, 47(9): 819-827.

Foster, DG (2018). 'Stop saying that making abortion illegal won't stop people from having them,' available online at <https://rewirenewsgroup.com/article/2018/10/04/stop-saying-that-making-abortion-illegal-doesnt-stop-them/> [accessed 7/13/2022].

Foster, DG (2020). *The Turnaway Study*. New York: Scribner.

Frejka, T (1983). 'Induced abortion and fertility: a quarter century of experience in Eastern Europe,' *Population and Development Review*, 9(3): 494-520.

Gavin, PS (1972). 'Rhesus sensitization in abortion,' *Obstetrics & Gynecology*, 39(1): 37-40.

Gebhard, PH et al. (1959). *Pregnancy, Birth and Abortion*. London: William Heineman Ltd.

Goldman, JA and Eckerling, B (1972). 'Prevention of Rh immunization after abortion with Anti-Rh (D)-immunoglobulin,' *Obstetrics & Gynecology*, 40(3): 366-370.

Hill, R (2006). 'Abortion researcher confounded by study,' *New Zealand Herald*, available online at <https://www.nzherald.co.nz/nz/abortion-researcher-confounded-by-study/3FYSQTNVHDEWTOTS4HKSEYGG6GA/> [accessed 2/22/2023].

Huldt, L (1968). 'Outcome of pregnancy when legal abortion is readily available,' *The Lancet*, 291(754): 467-68.

Kaaria, A (2019). 'Reducing unsafe abortion in Kenya: where are we?' available online at <https://www.figo.org/news/reducing-unsafe-abortion-kenya-where-are-we> [accessed 7/13/2022].

Kassebaum, NJ et al. (2014). 'Global, regional, and national levels and causes of maternal mortality during 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013,' *The Lancet*, 384(9947): 980-1004.

Kerestes, C et al. (2021). "'It was close enough, but it wasn't close enough": A qualitative exploration of the impact of direct-to-patient telemedicine abortion on access to abortion care,' *Contraception*, 104(1): 67-72.

Kessler, G (2019). 'Planned Parenthood's false stat: 'thousands' of women died every year before Roe,' available online at <https://www.washingtonpost.com/politics/2019/05/29/planned-parenthoods-false-stat-thousands-women-died-every-year-before-roe/> [accessed 2/17/2023].

Koonin, LM et al. (1996). 'Abortion surveillance—United States, 1992,' available online at <https://www.cdc.gov/mmwr/preview/mmwrhtml/00041486.htm> [accessed 2/17/2023].

Lederer, LJ and Wetzel, CA (2014). 'The health consequences of sex trafficking and their implications for identifying victims in healthcare facilities,' *Annals of Health Law*, 23: 61-91.

Levine, PB (2004). *Sex and Consequences*. Princeton: Princeton University Press.

Meurice, ME et al. (2021). 'Client satisfaction and experience of telemedicine and home use of mifepristone and misoprostol for abortion up to 10 weeks' gestation at British Pregnancy Advisory Service: a cross-sectional evaluation,' *Contraception*, 104(1): 61-66.

Miller, C (2021a). 'Maternal mortality from induced abortion in Malawi: What does the latest evidence suggest?' *International Journal of Environmental Research and Public Health*, 18(19): 10506.

Miller, C (2021b). 'Backstreet abortion deaths: not as common or preventable as thought,' *Journal of Medical Ethics blog*, available online at <https://blogs.bmj.com/medical-ethics/2021/11/01/backstreet-abortion-deaths-not-as-common-or-preventable-as-thought/> [accessed 7/13/2022].

Miller, C (2022a). 'Legalisation of abortion and maternal mortality in Ethiopia,' *Ethiopian Medical Journal*, 60(2): 189-195.

Miller, C (2022b). 'Telemedicine abortion: why it is not safe for women,' in Colgrove, N, Blackshaw, BP and Rodger, D (eds.). *Agency, Pregnancy and Persons*. New York: Routledge.

Miller, C (2022c). 'Abortion's causal role in trauma and suicide,' in Colgrove, N, Blackshaw, BP and Rodger, D (eds.). *Agency, Pregnancy and Persons*. New York: Routledge.

Miller, C (forthcoming). 'Does legalising abortion reduce deaths from backstreet abortions? Experiences in sub-Saharan Africa,' in Milo, C (ed.). *Patients' safety and the law*. Cheltenham: Edward Elgar.

Miller, C (unpublished). 'Legalising abortion does not reduce deaths from backstreet abortions: A global survey'.

Ministry of Health Kenya (2017). *Saving Mothers Lives: Confidential Enquiry into Maternal Deaths in Kenya*. Nairobi: Ministry of Health.

Moreau, C et al. (2021). 'Abortion regulation in Europe in the era of COVID-19: a spectrum of policy responses,' *BMJ Sexual & Reproductive Health*, 47(4): e14.

Morris, E et al. (2021). Letter to CCGs. Available online at <https://bsacp.org.uk/wp-content/uploads/2021/07/RCOG-FSRH-BSACP-letter-to-CCGs-on-safeguarding-young-people-in-response-to-NNDHP-27-July-2021.pdf> [accessed 7/13/2022].

Morris, E et al. (2022). 'Safeguarding in abortion care - response to April 2022 position statement from NNDHP,' available online at <https://www.rcog.org.uk/media/da5p1nmb/telemedicine-safeguarding-position-statement-rcog-rcm-fsrh-bsacp-may-2022.pdf> [accessed 7/13/2022].

Motta, S et al. (2015). 'Domestic violence in a UK abortion clinic: anonymous cross-sectional prevalence survey,' *Journal of Family Planning and Reproductive Health Care*, 41(2): 128–133.

Moynihan, C (2019). 'Retraction: why you can't believe all 'the science' on abortion,' available online at <https://mercatornet.com/retraction-why-you-cant-believe-all-the-science-on-abortion/24073/> [accessed 7/13/2022].

Mutua, MM et al. (2018). 'Policy, law and post-abortion care services in Kenya,' *PLoS One*, 13(9): e0204240.

Nathanson, B and Ostling, R (1979). *Aborting America*. New York: Pinnacle Books.

National Collaborating Centre for Mental Health (2011). *Induced Abortion and Mental Health*. London: Academy of Medical Royal Colleges.

National Network of Designated Healthcare Professionals for Children (NNDHP) (2022). 'Early medical abortions: safeguarding young people (second position statement: April 2022).'

New, MJ (2018). 'How the legal status of abortion impacts abortion rates,' available online at <https://lozierinstitute.org/how-the-legal-status-of-abortion-impacts-abortion-rates/> [accessed 7/13/2022].

Office of the United Nations High Commissioner for Human Rights (2020). 'Abortion,' available online at [https://www.ohchr.org/Documents/Issues/Women/WRGS/Sexual-Health/INFO\\_Abortion\\_WEB.pdf](https://www.ohchr.org/Documents/Issues/Women/WRGS/Sexual-Health/INFO_Abortion_WEB.pdf) [accessed 7/13/2022].

Parsons and Romanis (2022). 'The case for telemedical early medical laboration in England: dispelling adult safeguarding concerns,' *Health Care Analysis*, 30(1): 73–96.

Petre, J and Adams, S (2016). 'Resign now! MPs tell midwives boss who wants to axe abortion time limit to quit her £155,000-a-year role,' *Daily Mail*, available online at <https://www.dailymail.co.uk/news/article-3602868/MPs-tell-midwives-boss-wants-axe-abortion-time-limit-quit-155-000-year-role.html> [accessed 7/13/2022].

Regan, L on behalf of British Medical Association (2018). 'Addressing unmet needs in global women's health,' available online at <https://www.bma.org.uk/media/2117/bma-womens-global-health-report-aug-2018.pdf> [accessed 7/13/2022].

Royal College of Obstetricians and Gynaecologists (1966). 'Legalised abortion: Report by the Council of the Royal College of Obstetricians and Gynaecologists,' *British Medical Journal*, 1(5491): 850–54.

Royal College of Obstetricians and Gynaecologists (1970). 'The Abortion Act (1967): findings of an inquiry into the first year's working of the Act conducted by the Royal College of Obstetricians and Gynaecologists,' *British Medical Journal*, 2(5708): 529–535.

Royal College of Obstetricians and Gynaecologists (2011). *The Care of Women Requesting Induced Abortion*. London: RCOG Press.

Royal College of Obstetricians and Gynaecologists (2018). 'FSRH press statement: RCOG/FSRH statement on access to safe and legal abortion care worldwide,' available online at <https://www.fsrh.org/news/fsrh-statement-rcog-international-safe-abortion-day/> [accessed 7/13/2022].

Royal College of Obstetricians and Gynaecologists (2020a). 'RCOG statement to mark International Safe Abortion Day,' available online at <https://www.rcog.org.uk/en/news/rcog-statement-to-mark-international-safe-abortion-day/> [accessed 7/13/2022].

Royal College of Obstetricians and Gynaecologists (2020b). 'Leading Safe Choices,' available online at <https://www.rcog.org.uk/leadingsafechoices> [accessed 7/13/2022].

Royal College of Obstetricians and Gynaecologists (2021). 'Make abortion safe: advocating for safe access to abortion in Zambia,' available online at <https://www.rcog.org.uk/news/make-abortion-safe-advocating-for-safe-access-to-abortion-in-zambia/> [accessed 7/13/2022].

Royal College of Obstetricians and Gynaecologists (2022). 'What we do,' available online at <https://www.rcog.org.uk/about-us/what-we-do/> [accessed 7/13/2022].

Royal College of Obstetricians and Gynaecologists et al. (2022). 'Joint medical briefing for Health & Care Bill - Telemedicine for Early Medical Abortion,' available online at <https://www.rcog.org.uk/media/elkdjbjkc/joint-briefing-hc-bill-telemedicine-for-ema-march-2022.pdf> [accessed 2/22/2023].

Royal College of Obstetricians and Gynaecologists (2023). 'RCOG and FSRH key messages on safe abortion: Introduction,' available online at <https://www.rcog.org.uk/about-us/global-network/centre-for-womens-global-health/making-abortion-safe/key-messages-on-safe-abortion/introduction/> [accessed 2/22/2023].

Royal College of Paediatrics and Child Health (RCPCH) (2022). 'Lords consideration stage briefing on home early medical abortion provisions in the Health and Care Bill,' available online at <https://www.rcpch.ac.uk/sites/default/files/2022-04/RCPCHBriefingHealthandCareBillPositiononHomeEarlyMedicalAbortion5April2022.pdf> [accessed 7/13/2022].

Say, L et al. (2014). 'Global causes of maternal death: a WHO systematic analysis,' *The Lancet Global Health*, 2(6): E323-333.

Singh, S et al. (2018). *Abortion Worldwide 2017: Uneven Progress and Unequal Access*. New York: Guttmacher Institute.

Storeng, KT and Palmer, J (2019). 'When ethics and politics collide in donor-funded global health research,' *The Lancet*, 394(10193): 184-186.

The Telegraph (2022). 'Clarification: Malawi back street abortions,' available online at <https://www.telegraph.co.uk/global-health/women-and-girls/clarification-malawi-back-street-abortions/> [accessed 7/13/2022].

Up To Date (2023). 'Unsafe abortion,' available online at <https://www.uptodate.com/contents/unsafe-abortion> [accessed 2/22/2023].

Women's March (2021). 'We don't use coat hangers or coat hanger imagery because we don't want to accidentally reenforce right-wing talking points that self-managed abortions are dangerous, scary and harmful,' available online at <https://twitter.com/womensmarch/status/1444302751186526210> [accessed 7/13/2022].

World Health Organization, 2012. *Safe abortion: technical and policy guidance for health systems*. 2<sup>nd</sup> ed. Geneva: World Health Organization.

World Health Organization (2021). 'Abortion,' available online at <https://www.who.int/news-room/fact-sheets/detail/abortion> [accessed 7/13/2022].

World Health Organization (2022). 'Abortion care guideline: Supplementary material 2: evidence-to-decision frameworks for the clinical service recommendations,' available online at [https://cdn.who.int/media/docs/default-source/reproductive-health/abortion/supplementary-material-2.pdf?sfvrsn=f3e102fd\\_7](https://cdn.who.int/media/docs/default-source/reproductive-health/abortion/supplementary-material-2.pdf?sfvrsn=f3e102fd_7) [accessed 7/13/2022].