NCCMH – Royal College of Psychiatrists

Induced Abortion and Mental Health

A systematic review of the mental health impact of induced abortion

Consultation comments

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			ABOUT US
			We are an Association of Catholic Doctors, Nurses and other health care professionals. As such we believe that abortion entails the deliberate ending of a human life and that this is wrong. However, for the purposes of this review we accept the possibility that Mental Health following abortion might be either improved or made worse and that the evidence base must be objectively and fairly studied. On balance, where it is shown that abortion worsens mental health it is often seen that this is a further argument against abortion. Conversely those who believe abortion to be right and good may see the opposite. Regardless of any preconceived view, a review such as this must look at the evidence objectively and seek the truth. We were worried in the recent consultation by the Royal College of Obstetricians and Gynaecologists that they appeared to discount concerns about the mental health effects of abortion. We will set out in this response where we feel that the draft report has fallen short of the standards of scientific rigour that we would hope for, especially where such shortfalls appear to have been used to license a conclusion that mental health is not affected by abortion. For our part, we have striven to be objective in our response, using and critiquing the evidence and recognising the times when evidence suggest a (generally short term) benefit to mental health of abortion. We are not submitting any arguments based upon faith. Rather we have sought to base this submission entirely upon careful and balanced analysis of the evidence base. We would ask therefore that our response is not dismissed merely as it has a label of Catholic attached to it. The CMA(UK) is a voluntary organisation that represents Catholic Health Care professionals in the UK. We have links with the Catholic Bishops of England and Wales via the Catholic Union.

			EXECUTIVE SUMMARY OF OUR RESPONSE
18 And 45	**4 And 7-32**	**2.2 And 3.6**	**The review poses three key questions.** **Question 1 how prevalent are mental health problems in women who have an induced abortion?** In fact the answer to question 1 is simple. 1. We agree with the key finding of the review group here which is that there is a high prevalence of mental disorders in the first 3 months after termination as well as in the years that follow. We agree with the Review Group's conclusion that rates of mental health post abortion are high. 2. However we contest the wording and findings of the Review groups evidence statement 3.6.1 which states that **"studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion…"** The wording of this statement opens the way to dismissal of the evidence, when in fact it is clear that although controlling for previous mental health reduces the apparent risk, the increased incidence of mental health problems after abortion remains significant. For example, the Reardon (2003) study (which controlled for previous mental health) showed "that psychiatric admission rates subsequent to the target pregnancy event were significantly higher for women who had had an abortion compared with women who had delivered during every time period examined. The greatest difference in admission rates occurred in the first 90 days". Therefore the review groups statement in its current form is misleading and ought to conclude that **"Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for."** 3. Further when the symptoms of PTSD relate specifically to abortion it does become clear that abortion is the specific cause of at least this category of mental health problems. Data on negative reappraisal as well as some of the Fergusson data which the group elected to reanalyse abortion (see below) also suggest abortion as a cause.
51	**1**	**4.3.2**	**Question2 What factors are associated with poor mental health outcomes after abortion?.** We agree with the key findings of the review group on this question. Poor outcomes after abortion are associated with socio-economic and psychological risks factors for ill-health in women. But we disagree with statement 4.5.2. which states "*When considering prospective studies, the only consistent factor to be associated with poor post-abortion mental health is pre-abortion mental health problems*."

			Negative attitudes to abortion are clearly shown to be key risks. Coercion to abort has also been clearly shown to lead to future difficulties. In addition many studies (especially studies of PTSD) have strongly suggested that mental disorder is caused by abortion. Other mental disorder may be caused by childbirth. This includes puerperal psychosis, but puerperal illnesses are usually short lived, recover well and are clearly separate from the mental disorders caused by abortions. Our clinicians working in both Primary Care and Psychiatry have considerable experience of women whose mental illness and mental disorders have been triggered by the abortions they underwent. Some patients have suffered for decades as a result. We have suggested amendments to the review group's evidence statements below so that a more accurate description of the vulnerability to mental health problems is set out.
18 And 68	**4 And 2**	**2.2 And 5.3.2**	**Question 3 What factors are associated with poor mental health outcomes after abortion?** The answer to question 3 is also simple. Multiple studies have suggested that the risks of mental ill health are greater after abortion and some studies have suggested a causal link. But complexity around causation, the absence of suitable control groups and the impossibility of performing a controlled study means that certainty about causation is elusive and will be elusive. However some studies (see below;- negative reappraisal and high rates of depression at 5 years as well as persistent PTSD) related to abortion do suggest that abortion can specifically cause serious mental disorders. In addition, evidence of increased rates of self harm, substance abuse etc gives significant cause for concern. However there are some difficulties with the whole construct of this question. Firstly wantedness is a complex concept and not a single variable. Wantedness is a complex concept that varies in time, is affected by aborting and not aborting and is very difficult to control for in a retrospective study. Using wantedness as a requirement for comparison with women who carry their babies to term skews the data and eliminates far too many relevant studies. The consequence of this is that, in the end, very few studies are analysed. The attempt by the review group to reduce the whole question of this review to that single concept is challenging and therefore corrupts analysis. Probably the greatest effect of the decision to focus upon wantedness has been to reduce the evidence base to a tiny number of studies. The review group has thus accepted for analysis only four studies two of which are funded by pro choice lobbies. The review group has also shown a tendency, throughout the review, to see a $p>0.05$ and confirming no effect rather than simply failing to show a significant trend. One of these, the Monch Ohlsen study, uses only contact with secondary mental health care as the outcome measure. We are therefore using very blunt studies that fail to differentiate the variety of mental illness that may follow abortion with the result that the power of such studies will be greatly reduced. Further

			concerns about the methodology and relevance of this study are described later. Further, the review group have, as a result of this excluded almost all key studies, reanalysed Fergusson data to provide a conclusion that is not the peer reviewed conclusion published by Fergusson. They have not stated how they reanalysed the data and have then not reported the published conclusion. We think this is scientifically unacceptable.
18	**4**	**2.2**	An alternative question 3 might be **Does abortion reduce the mental ill-health which may result from delivering a pregnancy?** The answer to that would also be pretty simple. There is very little evidence indeed that abortion can improve the mental health of women who abort. The evidence that there is, is overwhelmingly negative. Abortion does not improve the mental health of women, while motherhood appears to confer significant benefits on many.
89	**25**	**6.3**	**Informed consent** Given the review groups statement that *"it is noted that women with unwanted pregnancies require support and monitoring as the risk of later mental health problems are greater whatever the pregnancy outcome"* at least accepts that women who abort remain at high risk of mental disorder after abortion, it follows from this that women who abort will also need to be informed of the need for such support and monitoring. That would need to be a part of the consent procedure. A statement relating to this is indicated as a part of the conclusions from this review.
			OUR RECOMMENDED CONCLUSIONS
45	**7-32**	**3.6**	We therefore suggest that, from the published data, evidence based conclusions should be amended as follows. **Question 1** **How prevalent are mental health problems in women who have an induced abortion?** 1. When prior mental health is not taken into account, rates of mental health problems post-abortion appear high 2. Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for.
63-4	**45 - 22**	**4.5**	We therefore suggest that, from the published data, evidence based conclusions should be amended as follows. **Question 2** **What factors are associated with poor mental health outcomes following an abortion?** 1. The evidence base reviewed is restricted by a number of limitations including heterogeneity in the factors assessed and the outcomes reported, inconsistent reporting of non-significant factors and variations in follow up times. 2. When considering prospective studies the only consistent factors

			associated with poor health problems after abortion are pre abortion mental health problems and negative attitudes towards abortion. 3. The most reliable predictor of post abortion mental health problems was having a history of mental health problems prior to the abortion. A history of mental health problems was associated with a range of post abortion mental health problems regardless of outcome measure or method of reporting used. 4. It has not been possible to identify any features (such as positive attitudes towards abortion) that are protective in terms of longer term mental health and it is not therefore possible to identify any groups which are not at risk of poor outcomes following abortion. 5. However there is particular concern that those who are pressurised into abortion or who are uncertain about their decision may suffer worse outcomes. 6. The lack of UK based studies may have some implications for the generalizability of data, though few reasons were identified to suggest why this might be the case. 7. It is likely that a range of factors may be associated with variations in mental health outcomes following an abortion and that those reviewed here do not constitute an exhaustive list.
81	**31-**	**5.5**	We therefore suggest that, from the published data, evidence based conclusions should be amended as follows. **Question 3** **Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth?** 1. There is considerable evidence that there are increased risks of psychiatric treatment, admission, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth. 2. There is considerable concern about the use of the term wantedness, which is a changeable dimension that is hard to measure and which may ensure, when stringently used, that outcomes in women who continue with an unwanted pregnancy may appear particularly poor. 3. Where studies do control for whether or not the pregnancy was wanted, evidence is conflicting, but studies do indicate some effect in terms of increased risks of anxiety, self harm and psychiatric illness. 4. Data from all outcomes is still limited by a number of factors including a lack of comparable data across a range of diagnostic categories and also by adequate control of confounding factors. 5. Most of all, determining causation of effects is complex. 6. Although there is evidence of increased risks of mental disorder after abortion, even when this is controlled for previous mental health, there is very little evidence of any protective effect of abortion upon subsequent mental health.
89	**11-36**	**6.3**	We therefore suggest that, from the published data, evidence based conclusions should be amended as follows. **Conclusions** 1. Although there are significant limitations with the dataset included in

			this review, this review is perhaps a little more robust, combining the approaches of both main previous reviews, and confirms many of the findings in previous reviews. 2. There is a range of mental disorders that are significantly more common after abortion when compared to woman who miscarry or continue with a pregnancy. When controlling for previous mental health, risks of abortion to subsequent mental health remain significant. Even when controlling for wantedness there is some evidence of increased risks to subsequent maternal mental health 3. Women with mental health problems prior to abortion or birth, are associated with increased mental health problems after the abortion or birth. Those with negative attitudes towards abortion are also especially at risk, although there is no evidence of any particular factors that are associated with a favourable outcome after abortion. 4. For all women who have an unwanted pregnancy, support and monitoring should be offered as the risk of later mental health problems are greater whatever the pregnancy outcome. The offer of support should depend upon the emergence of mental health problems, whether during pregnancy, post-abortion or after birth, and should be underpinned by NICE guidance for the treatment of the specific mental health problems identified. 5. Women should be told of the possible need for support and monitoring after the abortion and also informed of how to obtain it. This should be included in the consent procedure. 6. However women who suffer mental health problems after abortion will require specific targeted psychiatric and psychological interventions just as do women who suffer rape, abuse or other accidents. In particular, feelings of guilt, remorse and bereavement for the lost baby indicate careful support. Current provision for this is patchy and often provided by the voluntary sector. There is a need to develop and research the specific therapies that are relevant here. 7. If women who have an abortion show a negative emotional reaction to the abortion, or are experiencing stressful life events, support and monitoring should be offered as they are more likely than others to develop a mental health problem. 8. Consent to medical procedures requires a discussion of important risks from that procedure. Risk to mental health from abortion should be discussed as part of pre abortion counselling and informed consent.

			KEY POINTS
1	**1**		**Title of the review** If the review does not extend to include mental disorders occurring in the first three months post abortion, then its title should be changed to "**Induced abortion and persistent mental health disorders."**
19	**6**	**2.3**	**Eligibility Criteria and remit of the study** **Exclusion of the first three months after abortion.** We contest the decision of the review group to exclude mental disorders in the first three months after abortion from study. We know that adjustment disorder is very common, that it is an ICD mental disorder and that it comes with substantial psycho social changes in its wake which are often permanent. While there is some evidence that mental health may improve in the short term after abortion, there are very many women who suffer post abortion adjustment disorders and there is a rich literature on this which the review group specifically excluded. The exclusion of this group of studies from this review leads to several key problems. Firstly a substantial body of mental disorders, including adjustment disorders, are dismissed and not mentioned, This is notwithstanding the fact that adjustment disorders commonly have serious effects and also permanent effects in terms of family breakdown etc. Further the title of the study is made inaccurate by this omission. The study has only considered persistent mental disorders after induced abortion.
13	**21**	**1.3.2**	**Difficulties with the scientific presentation of the evidence.** We are concerned that, in places, the study lacks intellectual and scientific rigour. For example the review states that *To reliably estimate the risks of mental ill health after abortion, often very complex confounding variables need to be identified and adjusted for or taken into account.* This statement is, in fact, simply untrue. Estimating them is pretty easy and has been done showing a high incidence and prevalence. Attributing cause is far more complex, though deciding there is no cause ought to be seen as even more complex. The wording of this statement suggest a bias in the authorship of the report which easily dismisses clear and hard evidence of really quite high prevalences of mental disorders following abortion. And, as noted above, this excludes all the adjustment disorders etc which we know to be even more common. Cause is questionable but prevalence is not. A more accurate a statement would read *"While the prevalence of mental ill health is high after abortion, there are often very complex confounding variables which need to be identified and adjusted for or taken into account when determining whether or not abortion increases mental ill health or whether it is neutral or protective.".*

8	**1.2**		**Wantedness** In the Western countries where these studies have been done abortion is freely available. If the definition of unwanted pregnancy is one which the woman does not wish to continue with, the review group may ensure that they are comparing women who abort, with women who are denied an abortion in terms of outcome. This is a serious concern. Abortion, as a medical procedure involves informed consent and if women know that there is a risk of mental health problems after abortion (as is clearly demonstrated by this review) then they may well wish to keep the baby. If they are supported and also enabled to see how women's attitudes change with time they may also wish not to abort. There is clearly a serious problem with comparator groups and by plumping for a single very limited comparator group the Review Group may have sought clear water but finds itself desperately restricted both in terms of studies as well as in terms of validity. It is clearly very hard to compare a woman who has had an abortion at 3 months with a woman who is mothering a three month old child and also experiencing the life changing effects of that. While there are many benefits of motherhood, the stress and strain of some challenging pregnancies as well as the early years makes for a favourable comparison with women who abort. So comparing 90 days post abortion with 90 days post childbirth may well provide a temporary skew in favour of mental health in those who abort. On the other hand the protective effects of motherhood are greater once more stability is seen. This effect appears to have been shown in the Broen 2006 study. Here divergence is seen at 5y with women who abort retaining caseness for depression which women who miscarried did not retain. Several studies show the mental health of women who abort deteriorating relative to those who keep the baby over longer periods and there are also, several studies that show the concept of wantedness, as well as the concept of regret for an abortion changing over time with those who do not abort doing better. Therefore, wantedness is a complex and changing phenomenon that may render it a difficult controlling variable. We think that comparator group such as women who miscarry or woman who decide to keep unplanned pregnancies will also provide useful data and should not be seen as of less use.
8	**21**	**1.2**	**Definition of an unwanted pregnancy** The review group's definition of an unwanted pregnancy ("*a pregnancy which the woman does not which to continue with, that is, she does not wish to give birth to the baby")* fails to recognise the ambivalence about pregnancy which many women experience. The review group have set out to use wantedness as their "gold standard". In the end, they analyse everything according to this concept. And yet wantedness is complex, strongly associated with ambivalence, and changeable. We suggest that the definition of unwanted pregnancy is changed to **"A pregnancy that the woman did not seek to carry and which she is shocked to be carrying"**.

18	**10**	**2.2**	**The review questions** We think that questions 1 and 2 are sensible and appropriate. Question 3 risks predicating the answer to the enquiry merely by its structure. Question 3 makes wantedness into the arbiter of outcome.; we know that wantedness is a very variable and changing phenomenon and also that it is hard to measure. Many pregnancies begin in an unwanted state and then become wanted. 1. More importantly still, it is very clear that in any associative relationship between abortion and mental health, causality will be very hard to prove. The review group has therefore set out a question in terms that requires studies to show a significant excess of mental illness in those who continue pregnancies compared to those who have an abortion. As we shall see later, where *a statistically significant excess* has not been found, the review group have tended to conclude that there is no effect .for example on Page 58 line 44 re the Stienberg study the committee makes just such an invalid conclusion. Finding that that "multiple abortions were associated with increased social anxiety (OR = 2.20; 95% CI, 1.24 – 3.88, p< 0.01) but not PTSD (OR = 2.84; 95% CI, 0.93 – 11.90, p = 0.07) the committee conclude that there is no association. An odds ratio of 2.84 with a p value of 0.07 means that a significant association was not shown. It does not mean there is no association and a power calculation might be of help. But to state that there is no association as the committee have done is unscientific and untrue. The data does not prove a lack of association as the committee appear to claim. An alternative question 3 (or even a fourth question) might be **What evidence is there that having an induced abortion reduces risk to the future mental health of women?** Reading the evidence presented, we would have to conclude that there is very little evidence for this.
27 And 18	**7 And 10**	**3.1 And 2.2**	As stated elsewhere we applaud the review group for having considered different diagnoses individually. That said it is important that the effect of abortion upon specific mental disorders is considered. A useful additional question might therefor be **Are there specific Mental Health problems which show increased prevalence after abortion.?**
8	**1.3**		We agree with the review group that there were limitations upon both the AP and the Charles reviews.
21	**2**	**2.5**	**Selection of references** We note that of 6000 references originally found, there is reduction to just a few for each question. Some studies that clearly attempted to control for pre abortion state (eg Fergusson) were excluded from analysis with regard to existing mental health. It is hard to be certain that bias is absent here.

27		**3.1**	**Review question 1. How prevalent are mental health problems in women who have an induced abortion.?** Despite reservations elsewhere, we strongly concur with the key finding of this section. The prevalence of a range of mental disorders after abortion is high, and in many studies higher than in the general population. The rates are, in fact, remarkably high. Table 4 (pp34-6) sets out • 20% depression, and Broen set out a substantial excess in those who aborted compared to those who miscarried. • Coleman found 37% major depression,. Taft found 37% too. • Anxiety occurs in around 25%, • Alcohol misuse 15-30% • Drug misuse 10-32% • And we know of excess rates of deliberate self harm and suicide from many studies including Fergusson. • It is odd that the Fergusson data on this is excluded from this section. Self harm is a coded disorder and shown to be common after abortion. So the prevalence of mental disorder beyond 3 months is actually really very high. It is also very high within 90 days of an abortion though the Review Group decided to exclude that data.
42	**Table 6**	**3.4.2**	**We again concur strongly with the key finding here which is that even when previous mental health is accounted for there are substantial increases in prevalence rates for mental disorder beyond three months in women who have abortions.** We do have, however, some substantial concerns about the interpretation of the data by the review group. We are very worried that the wording in the report implies that controlling for the effects of previous mental health effectively eliminates the increased incidence of mental disorder. This is simply not born out by the evidence presented. The dataset shows that even when studies control for previous mental health there are high rates of mental disorder after abortion. .
45	**21**	**3.6**	So we are therefore very concerned by the group's evidence (concluding) statement in 3.6 which while stating that controlling for more variables reduces effect size (a more or less universal experience in studies that use such methodologies), the review group have omitted to mention that the effects persist to the point where their evidence statement appears to suggest that the effect has been eliminated. The current wording of the Review Groups evidence statement is therefore misleading, and predisposes to the view that there is no effect. We believe that two clear statements are warranted from this review question. **1.** When prior mental health is not taken into account, rates of mental health problems post-abortion appear high **2.** Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health

			problems are accounted for
46 **And** **43**	**7** **And** **43**	**4.1** **And** **4.5**	**Review question 2** **What factors are associated with poor outcomes following abortion?** We agree with the Review Group view that a particular risk factor for poor outcome is a history of previous mental ill health. We agree with the Review Group that there is not clarity in the literature as to particular risks factors for poor outcomes and that it is not therefore possible to identify any groups which are not at risk of poor outcomes following abortion. However a number of studies do set out that negative attitudes towards abortion increase the risks of poor mental health outcomes. However we would suggest that there is one particular group who are at severe risk of poor outcomes. The review group should add a statement to the effect that **Those who are forced or coerced to abortion, or who have abortions when they are less sure about their decision do appear to have worse outcomes and it should be stated that this group should be looked for so that poor outcomes may be avoided.** **Evidence statement 2** Actually there is evidence from several sources (Broen, Coleman and Fergusson etc) that negative attitudes towards abortion are important risk factors. So in fact we contend that negative attitudes towards abortion should be included in statement 2, as well evidenced. **We therefore suggest some rewording of the evidence statements to say that** **Statement 2** *"The only consistent factors associated with poor health problems after abortion are pre abortion mental health problems and negative attitudes towards abortion. It has not been possible to identify any features (such as positive attitudes towards abortion) that are protective in terms of longer term mental health".* **Statement 3 unchanged** **Statement 4.** we recommend rewording to state *"There is not clarity in the literature as to particular risks factors for poor outcomes and it is not therefore possible to identify any groups which are not at risk of poor outcomes following abortion."* While we cannot find evidence for mental structures or attitudes that protects against subsequent mental health difficulties, we are concerned about the issue of pressure and abortion. Coleman reports concerns about higher rates of mental problems among women pressurised into abortion, among groups who may have less autonomy (young women) and groups where outcomes appear worse (Coleman P. J Youth Adolescence DOI 10.1007/s10964-006-9094-x Resolution of Unwanted Pregnancy During Adolescence Through Abortion Versus Childbirth: Individual and Family Predictors

			and Psychological Consequences) Rue and Coleman found that that as many as 64% felt pressured into abortion. In the same study they found that 14% of women reported all the symptoms necessary for a clinical diagnosis of PTSD with 64% have some symptoms. We therefore suggest that the review group should add an **Additional statement** *However there is particular concern that those who are pressurised into abortion or who are uncertain about their decision may suffer worse outcomes.* **Amend current statement 5** *The lack of UK based studies may have some implications for the generalizability of data, though few reasons were identified to suggest why this might be the case.*
45	**18**	**3.6.2**	**Section 3.6.2** The Reardon (2003) study showed "that psychiatric admission rates subsequent to the target pregnancy event were significantly higher for women who had had an abortion compared with women who had delivered during every time period examined. The greatest difference in admission rates occurred in the first 90 days". But the review group seem to have used this study, to suggest that, "Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems". We have suggested elsewhere that this be reworded to *"Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for."*
58	**44**		1. **Steinberg Page 58 line 44** The review groups conclusion here is invalid. The review group has concluded that "*Results indicated that multiple abortions were associated with increased social anxiety (OR = 2.20; 95% CI, 1.24 – 3.88, p< 0.01) but not PTSD (OR = 2.84; 95% CI, 0.93 – 11.90, p = 0.07).* An odds ratio of 2.84 with a p value of 0.07 means that a significant association was not shown. But to state that there is no association as the committee have done is unscientific and untrue. The data does not prove a lack of association as the committee appear to claim. A more accurate description would be *Results indicated that multiple abortions were associated with significantly increased social anxiety (OR = 2.20; 95% CI, 1.24 – 3.88, p< 0.01) but a trend towards increased rates of PTSD (OR = 2.84; 95% CI, 0.93 – 11.90, p = 0.07) was not significant using the methodology and power of this study. .* The point here is an important one. The review group appear to have gone through the study and seen anything that is not significant (as well as many things that were significant including a lot of the Fergusson data) as showing there is not an association. This appears to display a

			misunderstanding of the scientific method. Failure to show a significant association is not the same as demonstration of the lack of an effect.
64	**12**		If despite the above the review group decide to keep their evidence Statement 4 unchanged, then we strongly suggest that the term "some suggestion" (as it is applied to negative attitudes towards abortion is incorrect and the evidence is far stronger that "some suggestion" suggests. Therefore **Replace some suggestion by "there is evidence that".** Perhaps then retain the term some suggestion with regard to life events as it is not at all clear if the life events that were studied were causally related to the abortion**.**
65	**9**	**5.1**	**Review question 3.** **" Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth" (Section 5.1, p 65)** Or **"Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy." (section 2.2, p18.)** The report contains two versions of the third question which are different. The question set in section 5.1 (page 65) is not the same as that set in section 2.2 (page18) The answer to the question on page 65 is clearly positive. The question on page 18 gives conflicting evidence but that evidence not clearly negative as the report suggests.
87 **And** **81**	**26** **And** **31-42**	**6.2.3** **And** **5.5**	**Evidence statements on question 3.** Interestingly, despite our concerns earlier in this paper where the review group failed to point out that having controlled for previous mental health rates of mental illness remained elevated after abortion, we find that we are bound to agree with the statement in 6.2.1 which states that "*Studies that do not control for whether or not the pregnancy was planned or wanted suggest that there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth.appeared to suggest that controlling for previous mental health".* We must however note that Fergusson controlled for wantedness and still found an effect. Moreover of the 4 studies included here all 4 found that some mental health problem was associated with abortion. Gilchrist found increased self harm, and increased psychiatric admissions between 3 and 12 months post abortion (see below). Steinberg found anxiety after 2 abortions, Cougle anxiety and Fergusson of all mental health problems and substance misuse). So it simply cannot be said that **"***Where studies control for whether or not the pregnancy was planned or wanted, there is* ***no evidence*** *of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared with those*

			who deliver the pregnancy", The review group may conclude that there is conflicting evidence or the evidence is not clear but they really cannot claim there is no evidence. To do so denies the evidence base. Further, given the clear issues with the psychosis issue in the Gilchrist study we think it is unsafe to mention that evidence in the conclusions of this study. For the reasons that we have set out below the reference to psychosis reference should be removed. As Fergusson stated in 2008 "*These findings are consistent with the view that exposure to abortion has a small causal effect on the mental health of women.*". We therefore suggest that the review group reword the evidence statement to say that *Where studies do control for whether or not the pregnancy was wanted, evidence is conflicting, but studies do indicate some effect in terms of increased risks of anxiety, self harm and psychiatric illness.* **An alternative question 3 might be** **Does abortion reduce the mental ill-health which may result from delivering a pregnancy?** The answer to that would also be pretty simple. There is very little evidence indeed that abortion can improve the mental health of women who abort. The evidence that there is, is overwhelmingly negative.
65	**20**	**5.2**	At the outset of discussion on this section we would reiterate that the exclusion of mental disorders in the first three months is not justified. We know that mental disorders in the first three months after abortion are very common and if these were included the result would be a definitive yes. We fail to see why the review group have excluded studies by Broen and a number by Fergusson.
73 **And** **81**	**6** **And** **5.5**	**5.3.3** **And** **37**	Come what may the evidence presented in table 14 and discussed in 5.3.3 shows considerable evidence that the risks of many mental disorders are very significantly increased in women who undergo an abortion compared to those who deliver a live birth. Illicit drug use, alcohol problems, suicide any mental health problems, psychiatric outpatient treatment, psychiatric admission, depression all show significant increases in the abortion group compared to those who deliver pregnancies. So while the review group set out limitations of the evidence, it really is very hard to take that dataset and reach any conclusion other than that abortion is strongly associated with an increased risk a range of mental disorders. Therefore the question asked at the start of section 5 is surely answered in the positive. The review question asked on page 65 asks "Are mental health problems more common in women who have an induced abortion when compared to women who delivered a live birth?" The answer is clearly positive and should be noted on in the evidence

			statements on p81."
75	**4**	**5.4.1**	**Abortion vs delivery of an unwanted or unplanned pregnancy.** We have set out elsewhere why we think that focussing only upon the outcomes of an unwanted pregnancy restricts the evidence base so severely that meaning is lost, and note that as a result of the attempt to do this the review group have ended up excluding all but 4 studies. The evidence base here is therefore very shaky and uncertain.
74	**2**	**5.4.2**	**The association of mental health with abortion.** Having reduced the number of studies to a tiny number that are thought to adequately compare wantedness and unwantednesss, it is remarkable that of the 4 studies mentioned here all 4 found that some mental health problem was associated with abortion. Gilchrist found increased self harm, and increased psychiatric admissions between 3 and 12 months post abortion (see below) . Steinberg anxiety after 2 abortions, Cougle anxiety and Fergusson of all mental health problems and substance misuse). The conclusion from this that "there is no evidence of elevated risk of mental health problems" after abortion does not appear to be adequately evidence based.
78	**28**	**5.4.2.6**	**Use of the Gilchrist data to set out a protective effect of abortion against psychosis. Data in fact shows a 2.5 fold excess in psychiatric admissions between 3 months and one year after abortion and is therefore very incolnclusive.** We are concerned that the RR and CI quoted by the review group (0.3 (0.2-0.4) is not the same as that in the original Gilchrist paper RR = 0.4, (CI = 0.3-0.7). The data is acknowledged as being of poor quality. Gilchrist et al specifically (and rightly) set out how poor much of the GP data was. The diagnostic classification used is ICD-8 and it is clear that if most cases were mild, many may well have not been psychotic. Therefore to use this paper as evidence of protection against psychosis may be unwise. The study comes from a time when many GP's probably classified "baby blues" or mood disorders following childbirth as puerperal psychosis. But more importantly, the rates quoted include puerperal psychosis which affected only women from the childbirth group. Gilchrist tells us that puerperal psychosis was frequently rated as mild and we know that this is a transient disorder with a good prognosis anyway. Not only that, the inclusion of events that will normally have occurred within the first three months after birth, is contrary to the agreed methodology for this study. The Review Group specifically set out to exclude the first three months post abortion or childbirth. But this study includes data from that first three months and despite all this uncertainty, the effect noted survives to form one of the only two positive conclusions in this section (page 81 line 46) Worse still, if you apply the review groups method of excluding the first three months of mental disorders post abortion it is stated in the text of the paper that in the group of women without a previous psychiatric history who gave birth only 2 women (rate 0.28/1000 deliveries) developed a psychosis between 3 months and one year. In the group that underwent abortion 5 women (rate 0.76/1000 terminations); became psychotic during that time period. These numbers are tiny and therefore not really of note, and it might be argued that we have fixed these results by excluding data from the first

			three months after the abortion. If, contrary to the design of this review, you include the first three months after abortion, data rates are 1.02/1000 deliveries post delivery and 0.93/1000 post termination. But, according to the eligibility criteria set by the Review Group this paper shows a 2.5 fold increase in psychiatric admission after abortion, compared to child birth, even after controlling for wantedness etc. Therefore, the conclusion that abortion may protect against psychosis is unsafe and not supported by the published evidence. Nevertheless it is clear to us that if that data was used to suggest that there is an odds ratio of 2.5 for increased admission to hospital with psychosis between 3 months and a year after abortion, such a conclusion would also be unsafe given the small numbers involved. But it is equally clear that to use the published evidence to suggest that abortion may reduce psychosis and to use that conclusion in the final summary of the report is no less unsafe and inappropriate. Notwithstanding the evidence of an increased admission rate for psychosis between 3 months and one year in the abortion group, we would say that the review group has overstated the relevance of this data, given the insufficient information to enable the identification of truly psychotic episodes. We do note that Gilchrist data did concur with other studies in terms of increased risk of self harm post abortion even after wantedness was controlled for.
78	**21**	**5.4.2.5**	**Problems with the review group's use of Fergusson data.** We are very unhappy about the review groups presentation of Fergusson data. In 2009 Fergusson wrote of his 2008 paper that *"These findings clearly suggested that unwanted pregnancy leading to abortion was likely to be a risk factor for subsequent mental health problems, whereas unwanted pregnancy leading to live birth was not a risk factor for these problems".* In its peer reviewed published form Fergusson showed that *"The overall rate of disorder for those who reported an unwanted/adverse reaction was 1.31 (95% CI 1.01–1.69) times higher than for those who did not (P<0.05)."* Comparing the outcome of abortion with both wanted and unwanted pregnancies Fergusson found significant excesses in several disorders in the abortion group. TOP was associated with increased rates of mental disorder OR1.86–7.08 with increases (when using a 5 years concurrent lagged model) in • Overall OR 1.54 (CI 1.28 – 1.85; p<0.001) • Uncontrolled and controlled Relative Risks (both adjusted for other pregnancy outcomes) • Major depression 2.04/ 1.58 CI sig 1.54/1.31 CI ns • Anxiety disorder 2.10/ 1.55 CI sig 2.72/2.13 CI sig • Suicidal Ideation 2.07/ 1.35 CI ns 2.26/1.61 CI ns • ADS 1.89/ 1.19 CI ns 5.33/2.88 CI sig • Substance abuse 6.64/ 3.56 CI sig 4.82/2.85 CI sig • Overall 1.49/ 1.37 CI sig p<0.001 1.48/1.32 CI sig • All of these are significant as per 95% CI

			However in the live birth groups there was no significant increased risk of mental illness in either wanted or unwanted groups. : □ Wanted: RR 0.91 (0.75 – 1.09; p>0.30) □ Unwanted: RR 1.18 (0.91 – 1.53; p>0.20) • This study shows increased risk of various mental health problems post-TOP, which persists through control for other pregnancy outcomes, control for covariates and through the 5-year lagged model • Overall 30% increase in risk of mental health problems So it seems truly bizarre that the review group have failed to quote any of this peer reviewed data while they have proceeded to state the result of their own un-peer reviewed analysis and have not even stated how they did that analysis. We are not sure that this is really in line with good practice in writing reviews. For their part, the review group state on page 78 (section 5.4.2.5) that the Fergusson 2008 study does not find an increase in the number of mental health problems ((RR 0.79, CI 0.51-1.23) nor of substance misuse. This is based upon their own analysis using a method that they have not disclosed and which has not been submitted to peer review. Their conclusion is, more or less, the opposite of the published conclusion. In short, without stating how they did their analysis, they have discarded the published data and replaced it with one analysis of their own. Given that their evidence contradicts the evidence in the paper, they must provide more data and rationale to explain their use of a study to make an opposite conclusion.
69 **And** **41**	**25** **and** **25**	**5.3.2.1** **And** **3.4.2**	**Munk Ohlsen study.** The review group are incorrect in their statement that the Munk -Ohlsen study studied a population of women with no previous history of mental health problems. The Munk-Ohlsen make it clear that they only excluded from the study women with a previous psychiatric admission. This is an associate of the most severe mental illness and the study therefore contains many women who must have had a significant past psychiatric history. Further, the study then adopted a strange methodological quirk, in that once the study had started, they took outpatient psychiatric contact or admission as a significant event. We find herein a concern that this may have skewed results and meant that the rates of contact in the first few months of study are exaggerated. This is because referral into psychiatric out-patient clinics will have a lower threshold than referral for admission and so there is a risk of skew here. Were that to be true, this would exaggerate the pre-abortion figures and diminish the post abortion figures. They found that 1.0% of women had psychiatric contact in the 9 months prior to abortion and 1.5% in the 12 months after. While the odds ratios for before and after are therefore similar, there is a risk that this may be due to the adoption of a different outcome measure after abortion from the criteria used to control for previous mental health.
69	**31**	**5.3.2.**	A further concern with the Munk Ohlsen Study is the use of nine months prior to live birth as a comparator group. Of course, the nine months prior to

		1	childbirth are often called pregnancy, and this is not a particularly useful comparator group for the study to have used. Pregnant women usually know that they are pregnant, receive additional support etc and in fact , if the study shows anything, the most powerful effect seems to be that pregnancy and childbirth are protective against the rate of serious mental illness, with the exception of an upwards blip in the three months after childbirth. We also note that this three month period after abortion/ childbirth was specifically thought by review group to not be of great interest. Finally, as the review group rightly point out on page 41 (line 44) the Munk Ohlsen study uses measures of secondary care mental health contacts as a measure of psychiatric morbidity. The problem with this type of measure is that many people with mental illness do not seek medical treatment and this may be especially so of post abortion women. We have found that women who suffer after abortion often do not wish to return to the doctors who referred them for that abortion. Therefore the study almost certainly substantially underestimates the prevalence of all mental disorders post abortion and childbirth.
82	**4**	**5.5**	**What the Munk Ohlsen study contributes .** The most important point about this study is that because it is a study about referral to secondary mental health care involving just 1.5% of women per year, it is a study of severe mental illness and cannot be extrapolated more widely than that. Consequently, the use of the study to support a conclusion that "rates of psychiatric contact were found to be significantly higher in the abortion group 9 months prior to abortion" requires substantial qualification. The Munk Ohlsen study therefore failed to find evidence of increase rates of psychiatric referral for women who had abortions, compared to the nine months prior to abortion. Using pregnancy and subsequent childbirth as a comparator group, it is clear that women who are pregnant and give birth have remarkably low rates of psychiatric referral. Having used pregnancy and childbirth as a comparator group, the study may in fact merely show the protective effects of motherhood. Such a finding would also find replication in data from other studies on suicide, self harm, substance abuse and other conditions. However we should state we do not see evidence that abortion is aetiological in causing severe mental illnesses such as schizophrenia and recurrent major depressive illnesses. A more accurate conclusion might be. *Munk Ohlsen studied severe mental illness in women who underwent abortion and those who gave birth. They did not find evidence of a significant rise in referral to secondary care mental health services after abortion , but did find that pregnant women and those who gave birth had lower rates of contact. These results cannot be generalised to mental disorders that were not referred to secondary care and thus have limited use. They reflect previous findings, from Gilchrist and others, that abortion does not appear to be aetiological in causation of severe mental illnesses such a schizophrenia, manic depressive psychosis and severe recurrent depression.*

40	**8**	**3.4.2**	**PTSD after abortion and the aetiology of PTSD.**

And 44	**1**	**And 3.4.3**	We believe that there is a special case to be made in terms of the study of PTSD. Well conducted studies of PTSD may well show that PTSD is specifically caused by abortion. We believe that this evidence is clearly there and should be considered. In part this derives from the common clinical experience of doctors who do not refer for abortion working in general practice and elsewhere. A number of GP's have reported to us the frequency with which they see women traumatised by abortion and relating their difficulties specifically to that event with PTSD like symptoms consonant with the causation being the abortion they underwent. A key lesson from organisations that support women who believe they have been harmed by abortion is that PTSD may relate to the abortion itself. We are aware via our work as physicians as well as via data from post abortion support groups of many women who have suffered following abortion. Many of those who meet the criteria for PTSD will report specific on-going triggers for their distress. For example one woman reported enduring flashbacks about the abortion when travelling through rain in a car. It had rained on the way to the clinic that day. Severe disability persisted for years. The PTSD was clearly attributable to the abortion that she had felt powerless to prevent. It is also clear that one problem with measuring this type of problem is that many people with mental illness do not seek medical treatment and this is especially so of post abortion women. It is true that not all studies allow clarity as to the cause of the PTSD. One study is cited that assessed PTSD after abortion and which controlled for pre abortion symptoms. Steinberg and Russo found a 10 fold increase in PTSD (CI 6.66- 13.86) after abortion and found that that was mainly seen in women who have had multiple abortions, and a variety of risk factors such as rape history, age at first pregnancy outcome (abortion vs. delivery), race, marital status, income, education, subsequent abortions, and subsequent deliveries. However the study does not report the causes of PTSD. Clearly, for some women who abort the PTSD may relate to violent relationships, rape and other risk factors that led to pregnancy in the first place. In this study therefore, it is not possible to tell if the PTSD relates to the abortion or to other events in the woman's life. But Broen 2004 measured the "subjective distress associated with a particular trauma" comparing abortion with spontaneous miscarriage. This is interesting as abortion is something that is consented to (i.e the abortion is normally wanted) and miscarriage normally unwanted. Not surprisingly, 47% of those who had a miscarriage were cases on the Impact of Events Scale at 10days compared to only 30% who had had an abortion. Thus in the immediate term, mental health is worse after something that was not chosen (miscarriage) than something that was consented to (abortion). But at 2years PTSD was seen in 2.6% and 18.1%, respectively (p .019). So there is a real trend towards higher PTSD, specifically related to the abortion itself in women who abort compared to those who miscarry. The key finding of the paper is that *"The short-term emotional reactions to miscarriage appear to be larger and more powerful than those to*

			induced abortion. In the long term, however, women who had induced abortion reported significantly more avoidance of thoughts and feelings related to the event than women who had a miscarriage" Broen's 2005 paper replicated these findings, with 20% showing impact Event Scale avoidance at 5 years and 45 caseness by the IES. As far as we can tell this is psychopathology that is specifically caused by the abortion. Coleman (2009) found that Abortion was related to an increased risk for a variety of mental health problems (panic attacks, panic disorder, agoraphobia, PTSD, bipolar disorder, major depression with and without hierarchy), and substance abuse disorders after statistical controls were instituted for a wide range of personal, situational, and demographic variables. Calculation of population attributable risks indicated that abortion was implicated in between 4.3% and 16.6% of the incidence of these disorders. Major found that about 70% were happy with the decision to abort after 2 years but that decision satisfaction decreased over time. She found that only 1% had PTSD (5 cases). This is an odd finding as she suggests that 10% of the general population suffer PTSD and so it is not clear how this sample derived such a low rate. Almost 50% of patients were lost to follow up, so there may be skew in the results. But this was a study that found that severe mental distress after abortion is rare. However, study participants were paid to participate and the rate of PTSD post abortion is very different from the other studies. But the study does make clear that 16.3% were dissatisfied and 19% would not make the same decision again. Over time, negative emotions increased and decision satisfaction decreased. Although sadness and regret are not psychological disorders, these feelings should not be dismissed. So the conclusion to all this is pretty simple. Many women suffer mental health difficulties after abortion. Studies that include PTSD show mental illnesses that are specifically related to the abortion itself. Other studies (Broen) show that abortion is related to persistent mental illness that is in excess of control groups. Studies that account for previous mental health show that mental health is often worse after abortion. Therefore the bald statement (page 44 Line 1) that a range of follow up times and different prevalence measures complicates comparisons made to the point that conclusions are limited as well as the objection that these were not UK based studies, really do seem to stretch the data on PTSD a long way. Further the statement in 6.3.2 (see below) needs careful rewording. PTSD will not be caused by abortion if abortion does not occur.
89	**18**	**6.3**	**We suggest, especially in the light of the data on PTSD that a conclusion is added to the review to the effect that** However women who suffer mental health problems after abortion

			will require specific targeted psychiatric and psychological interventions just as do women who suffer rape, abuse or other accidents. In particular, feelings of guilt, remorse and bereavement for the lost baby indicate careful support. Current provision for this is patchy and often provided by the voluntary sector. There is a need to develop and research the specific therapies that are relevant here. And reword conclusion statement 2 two state that *"There is a range of mental disorders that are significantly more common after abortion when compared to woman who miscarry or continue with a pregnancy. When controlling for previous mental health risks of abortion to subsequent mental health remain significant. Even when controlling for wantedness there is some evidence of increased risks to subsequent maternal mental health although that evidence is conflicting".*
			OTHER POINTS
			Membership of the review group We have some concerns about the membership of the review group. We note a strong representation from DoH and from those who were already on the RCOG group that reviewed abortion recently. That group really did appear to minimise the risks to mental health of abortion. For example the RCOG group stated that "*Women should be informed that most women who have abortions do not experience adverse psychological sequelae."* Which is remarkable as their own classification of post abortion complications (after Calman) described something that happens in just 1 - 10% of women as very common. Again the members of this review group who were on the RCOG group merely stated that "*Services should inform women about the range of emotional responses that may be experienced during and following an abortion*" and that *"only a small minority of women experience clinically significant psychological sequelae after abortion"*. This hardly gave an endorsement of the notion that there may be difficulties after abortion, and certainly conflicts with the evidence base presented here. Claudette Thompson is the abortion lead and Lisa Westall the sexual health policy manager for the Dept. of Health were all part of the group that produced the RCOG draft guidelines. In 2009 both Roch Cantwell and Ian Jones published a paper that stated *"Informed consent for surgery does not include a warning of psychological hazard. We do not believe that the evidence is strong enough to support mandating such advice for abortion."* http://bjp.rcpsych.org/cgi/content/full/194/6/571?ijkey=00d3cd223e39841830109bd9eaf442f04ab5996f&keytype2=tf_ipsecsha. Given the published statement it does appear that the authors might have appropriately declared a conflict of interest. Given our own observation of the review groups tendency to use wording that may have minimised some of the issues more than is appropriate, and concerns such as the un-peer reviewed reanalysis of data that then makes positive findings negative, we just worry that this review may not have tested itself in the development phase in a way that sufficiently stringently tested the

			hypothesis that abortion causes damage to womens mental health. **Calman KC, Royston G. Personal paper: Risk language and dialects. *BMJ* 1997;315:939–42.**
13	**28**	**1.3.2**	**Study design and sample** It is very clear from this review that mental disorders are common after abortion in women who abort. But it is far from clear that the best comparator group is restricted to women who continue with an unwanted pregnancy. In that circumstance, the comparator group will already have selected out those who did not intend a pregnancy and who have come to terms with that. Secondly and perhaps more importantly, in jurisdictions where abortion is legal, the comparator group may then be a group who experience denial of abortion. It is known that women who are either pressured into abortion and those who feel that they have been prevented from having one are both groups where subsequent mental health problems may be more common. By attempting to compare termination with a group of women who are, more or less denied abortion, the review group have set out to skew results so far that they are in danger of losing meaning.
14	**32**	**1.3.2**	**Timing of outcome** The suggestion that the Charles review method of using 90 days post partum as the best outcome measure is surprising. Any mother will tell you that fatigue and huge life changes make that period difficult for those who give birth. Thus the Charles comparator criterion may in effect guarantee that a lot of post abortion mental ill health is denied academically, as it uses a time when mothers are tired and low after giving birth. Indeed Broen's evidence is that abortion still confers some psychological benefit at three months which is lost later after negative reappraisal. We also know from a qualitative study of 10 patients Goodwin and Ogden found that while some women showed a linear progression to recovering, others remained negative about it and some reassessed their thought and became mentally distressed about it at a later point. They found evidence that a good early psychological course may not, therefore mean a good long term course. So in fact late outcomes are important. This is compatible with data in Broen's studies as well as Major. Broen et al showed that women who have spontaneous abortion have worse mental health than those with induced abortion at 10 days and six months, but that those with therapeutic abortion had significantly higher Impact of Event Score than those with spontaneous abortion at 2 years and five years and also always had significantly higher HADS scores than the general population. So in fact good early outcomes may well lead to poor long term outcome. Reardon suggested that there is a ten year period in which women may repress their feelings. He also showed ongoing and

			worsening psychiatric admission rates 4 years after abortion. This review needs to look at a range of times for outcome measures. Outcomes vary with time and, in fact, 90 days may be one of the times which gives the most results most in favour of those who abort.
14	**32**	**1.3.2**	Further it is noted that women with unwanted pregnancies require support and monitoring as the risk of later mental health problems are greater whatever the pregnancy outcome. It follows from this that women who abort will also need to be informed of the need for such support and monitoring. That would need to be in the consent procedure. This should be reflected in the conclusions as part of statement on informed consent.
11	**18**	**1.3.1**	It is also noted that post abortion women may be adversely affected by witnessing a pro-life march. If mental health problems after abortion are so lightly dismissed, is it possible that that post abortion women have such fragile mental states? Or, if such a statement is true, is it possible that the specific difficulties women suffer after abortion are in-fact significant.
18	**30**	**2.3**	**Eligibility criteria for the review** We applaud the Review Groups decision to study the range of mental disorders individually, rather than to replicate previous attempts to summarise all mental disorders that follow no form abortion. However we note that the absence of adjustment disorder from the review results does mean that much morbidity has been left out of the review. This is not reasonable. **Women who suffer post abortion rarely seek medical advice (eligibility criterion 4)** Further we are aware of strong evidence from self help groups that shows that women who suffer post abortion often do not return to the profession who helped them to abort. Therefore some studies discussed in this review may have, of their very nature and as a result of that inclusion criterion underestimated prevalence of mental disorder after abortion. The criterion of accessing mental health treatment is therefore only a partial way of collecting the data on harm from abortion and may obscure some morbidity. The reliance upon ICD and DSM is understandable but given the strong currency given to the term “Post Abortion Syndrome” by some user and voluntary groups, we wonder if this term too should have been included. As we have said earlier the attempt to compare abortion with continuing with an unwanted pregnancy suggests a desire but the report authors for a skew in the results they wished to present.
27	**21**	21	We are concerned that of the many studies available only 21 in the end were used to answer this question. We are not clear why some studies were excluded from this part of the study. For example Fergusson took a cohort sample that included data on women before they underwent

			abortion and provided prevalence data on these seen. It is odd that this data is not presented here.
37	**27**	**3.3.3**	Given that, in the end the Review Group dismisses all but four studies from their final conclusions we should ask to what extent is the concern that the UK population may be different from the range of other western nations (where studies have been done) really hold true. The concern about extrapolation as a limitation may be overstated. In reality the UK is a society in which abortion is legal, frequently done and carries little stigma. This is very similar to the jurisdictions in which these studies took place. The only useable purpose of the statement therefore seems to be to strengthen a null hypothesis, that causation of mental disorder by abortion is not proven. As we will discuss elsewhere, some of the PTSD evidence makes that a tenuous statement.
52		**Table 9**	**Is there a typo here?** Is 63.5 per 1000 women years for no psych history a typo. Is it 635 or 663.5?
54	**24**	**4.3.2.3**	We agree that the evidence does not show any especial age is at risk of negative mental health outcomes from abortion. The evidence shows that negative outcomes are really quite high in all age groups. For example Reardon found that 9.2% of women ages 13-19 who had abortions were admitted within 4 years of the abortion. Rates for 25 to 29 and 35 to 49 were 11% and 11% respectively. All these rates are high. Similarly Coleman found 105 attending outpatients (age 13-19) and 22% of women aged 35 to 49 who have abortions attended for outpatient treatment within 4 years So in fact rates of negative health outcomes are high across the age groups.
57	**45**	**4.3.2.4**	Specifically, when compared with women who did not report any negative reactions to their abortion, the incidence rate ratios (IRR) indicate a 23 and 51% increase in the rate of developing a mental health problem for women (IRR = 1.23; 95% CI, 1.00 –1.51 and IRR = 1.51; 95% CI, 1.01 – 2.27). The data here give rise to two issues. Firstly there is a large increase mental health problems in those who have negative emotional reactions to abortion. But secondly, positive emotions do not confer any protective benefit. Both parts of this data are important and ought explicitly to inform the conclusions of this section.

			Please add extra rows as needed

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