Date of submission: April 30, 2010

Submission to: United States Department of State

Re: Universal Periodic Review

Dear U.S. State Department Representatives:

The American Association of Pro-Life Obstetricians and Gynecologists is honored to offer to the United States Department of State information relevant to preparation for the Universal Periodic Review. In brief introduction, AAPLOG is one of the largest special interest groups within the American College of Obstetrics and Gynecology, representing 2000 members and affiliates, and we speak as obstetricians and gynecologists concerned with the medical care of women not only in the U.S. but also in resource poor nations, where many of our members have served or are actively serving.

We would like to address two issues of concern: I. Current Administrative policy concerning the rights of conscience of Hippocratic medical practitioners and II. Current U.S. Administrative policy concerning the inclusion of abortion in the definition of Reproductive Health, and its implications for US policy concerning MDG5.

## Part I. Current Administrative policy concerning the rights of conscience of Hippocratic medical practitioners.

The Right of a human being to act according to his or her conscience is enumerated and protected in the Universal Declaration of Human Rights, in the following articles:

#### Article 1.

 All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

#### Article 18.

Everyone has the right to freedom of thought, conscience and religion; this right
includes freedom to change his religion or belief, and freedom, either alone or in
community with others and in public or private, to manifest his religion or belief in
teaching, practice, worship and observance.

#### Article 30.

Nothing in this Declaration may be interpreted as implying for any State, group or
person any right to engage in any activity or to perform any act aimed at the destruction
of any of the rights and freedoms set forth herein.

Preserving the right to conscientiously object from participation in procedures which cause patients harm is vitally important to the provision of health care in this nation for three reasons:

- 1) The Hippocratic physician acts as patient advocate in the healthcare setting, and physician-patient trust is merited on the premise that the physician will act in the best interests of the patient.
- 2) Protection of conscience in belief and practice is protected by the Universal Declaration of Human Rights, articles 18 and 30, as well as by the United States constitution since the founding of the United States.
- 3) Gutting the medical system of Hippocratic physicians by forcing performance of procedures violating their conscience will precipitate an unnecessary and dangerous shortage of medical care providers at a time when the U.S. is already facing a shortage of providers.

#### 1. The Hippocratic physician as patient advocate.

Exercise of the right of conscience by healthcare workers originates in the Hippocratic Oath over 2000 years ago. The distinguishing characteristic of Hippocratic physicians is that they have vowed by all that they hold sacred to first do no harm to their patients, a vow which informs their conscience regarding their actions toward patients. This oath of "primum non nocere" specifically forbids the health practitioner from participating in both euthanasia and abortion. It is this solemn oath that forms the basis of the trust inherent in the doctor-patient relationship. Thus the Hippocratic physician serves the vital role of advocate for their patients regarding life and death decisions in health care. It is the exercise of the conscience of the Hippocratic physician which forms the basis of the trust inherent in the physician-patient relationship, which is a necessary component of the healing art. A Hippocratic physician or practitioner has vowed not to harm or kill his or her patients, and thus the patient can trust that recommendations given by the physician or practitioner are given with the intent to bring health, not harm to the patient.

Abortion does not heal, but rather harms patients. Induced abortion not only kills the unborn patient, it also damages the reproductive health of women. Immediate complications from

surgical and medical abortion include hemorrhage, infection and retained tissue requiring surgical removal. Medical abortion has increased risks of each of these complications.<sup>1</sup>

An examination of the first 605 Adverse Event Reports submitted to the FDA in the first three years of mifepristone (*Mifegyne*) abortions in the United States, revealed that one third of the women with adverse events (237) experienced severe bleeding requiring emergency surgery, half of these required hospitalization, and forty two women bled over half of their blood volume; these events would be fatal in resource poor nations.<sup>2</sup> The rate of complications seen with mifepristone and misoprostol abortions increases with the use of misoprostol alone. In a WHO sponsored study, one out of every five women who had misoprostol abortions failed to abort<sup>3</sup> and required surgical intervention, or continued a pregnancy now exposed to a teratogenic drug<sup>4</sup>, <sup>5</sup>. Medical abortion has been linked to deaths from *Clostridium sordelii* infection, for which the case fatality rate approaches 100%<sup>6</sup>.

In addition to the immediate harms of voluntary induced abortion, there are long term harms to the woman:

<sup>&</sup>lt;sup>11</sup> Niinimäki, M., M.D., Pouta, A., M.D. PhD, Bloigu, A., Gissler, M., BSc, PhD, Hemminki, E., M.D, PhD, Suhonen, S., M.D., PhD, Heikinheimo, O., M.D. PhD. Immediate Complications After Medical Compared With Surgical Termination of Pregnancy. OBSTETRICS & GYNECOLOGY Vol 114, No 4, October 2009 795-804. ["When comparing numbers of women with adverse events or complications, the difference between the two groups was notable: 20% of women in the medical-abortion group and 5.6% of women in the surgical abortion group had at least one type of adverse event." "In multivariable analysis, the risk of bleeding was almost eightfold higher, the risk of incomplete abortion was fivefold higher, and the risk of (re)evacuation was twofold higher after medical abortion compared with surgical abortion." "Because medical abortion is being used increasingly in several countries, it is likely to result in an elevated incidence of overall morbidity related to termination of pregnancy."]

<sup>&</sup>lt;sup>2</sup> Gary, M.M., and Harrison, D.J., **Analysis of Severe Adverse Events Related to the Use of Mifepristone as an Abortifacient** The Annals of Pharmacotherapy 2006 Feb. Vol 40 (Online, 27 Dec 2005, *www.theannals.com*, DOI 10.1345/aph.1G481).

<sup>&</sup>lt;sup>3</sup> von Hertzen H, Piaggio G, Huong NT, Arustamyan K, Cabezas E, Gomez M, Khomassuridze A, Shah R, Mittal S, Nair R, Erdenetungalag R, Huong TM, Vy ND, Phuong NT, Tuyet HT, Peregoudov A; WHO Research Group on Postovulatory Methods of Fertility Regulation. UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, Department of Reproductive Health and Research, WHO, Geneva, Switzerland. <a href="mailto:vonhertzenh@who.int">vonhertzenh@who.int</a> Efficacy of two intervals and two routes of administration of misoprostol for termination of early pregnancy: a randomized controlled equivalence trial. Lancet. 2007 Jun 9;369(9577):1938-46.

<sup>&</sup>lt;sup>4</sup> British Journal of Obstetrics and Gynecology 107 (April 2000): 519-23.

<sup>&</sup>lt;sup>5</sup> Vargas, FR, et. al. Prenatal Exposure to Misoprostol and Vascular Disruption Defects: A Case Control Study. Am Journal of Medical Genetics 95 (2000) 302-306.

<sup>&</sup>lt;sup>6</sup>Fischer, M. Bhatnager, J., Guarner, J., Reagan, S., Hacker, J., Van Meter, S., Poukens, V., Whiteman, D., Iton, A., Cheung, M. Dassey, D., Shieh, W., Zaki, S. "Fatal Toxic Shock Syndrome Associated with clostridium sordellii after medical abortion" NEJM Dec 1, 2005.

- 1) Increasing pre-term birth in subsequent pregnancies. Recent systematic reviews(SR) and meta-analyses (SRMA) reveal significantly increased preterm birth rates in subsequent pregnancies for women who have induced abortions vs. women who deliver<sup>7</sup>, <sup>8</sup>, <sup>9</sup>, <sup>10</sup>. There are zero SRMAs or SRs finding that prior induced abortions do not elevate premature birth risk.
- 2) Damaging subsequent mental health of women. Studies with nationally representative samples and a variety of controls for personal and situational factors that may differ between women choosing to abort or deliver indicate abortion significantly increases risk for depression, anxiety, substance abuse, suicide ideation, and suicidal behavior <sup>11</sup>, <sup>12</sup>, <sup>13</sup>, <sup>14</sup>, <sup>15</sup>, <sup>16</sup>, <sup>17</sup>, <sup>18</sup>, <sup>19</sup>, <sup>20</sup>, <sup>21</sup>,

URL:http://www3.interscience.wiley.com/journal/122591273/abstract

[Women with 1 induced abortion had an odds ratio of 1.35 increased risk (i.e. 35% increased risk) for preterm delivery. Women with more than one prior IA had an odds ratio of 1.93(95% increased risk of a premature delivery compared to women with zero prior induced abortions).]

<sup>9</sup>van Oppenraaij RHF, Jauniaux E, Christiansen OB, et al. Predicting adverse obstetric outcome after early pregnancy events and complications: a review. Human Reproduction Update Advance Access 7 March 2009;1(1):1-13 [ URL: http://humupd.oxfordjournals.org/cgi/content/abstract/15/4/409 ]

[confirmed significant abortion and preterm birth risk. In addition, Dr. van Oppenraaij et al. confirmed 'Swingle' by finding that prior induced abortions significantly boosted the risk of a very preterm birth (under 32 weeks' gestation)]

<sup>&</sup>lt;sup>7</sup> Swingle HM, Colaizy TT, Zimmerman MB, et al. Abortion and the Risk of Subsequent Preterm Birth: A Systematic Review and Meta-Analysis. Journal Reproductive Medicine 2009;54:95-108. **[64%increased risk of delivering newborn baby under 32 weeks' gestation in women with one prior abortion compared to women with no prior abortions]** 

 $<sup>^8</sup>$  Shah P. et al. "Induced termination of pregnancy and low birthweight and preterm birth: a systematic review and meta-analysis." BJOG,2009;116(11):1425-1442.

<sup>&</sup>lt;sup>10</sup> Appendix A Comprehensive bibliography of Abortion and Subsequent Preterm Birth.

<sup>&</sup>lt;sup>11</sup> Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2004). Psychological impact on women of miscarriage versus induced abortion: A 2-year follow-up study. Psychosomatic Medicine, 66(2), 265-271.

<sup>&</sup>lt;sup>12</sup> Broen, A.N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2005). The course of mental health after miscarriage and induced abortion: A longitudinal, five-year follow-up study. BMC Medicine, 3, 18.

<sup>&</sup>lt;sup>13</sup> Coleman, P.K., (2006). Resolution of unwanted pregnancy during adolescence through abortion versus childbirth: Individual and family predictors and psychological consequences. Journal of Youth and Adolescence, 35, 903-911.

<sup>&</sup>lt;sup>14</sup> Coleman, P.K., Coyle, C.T., Shuping, M., & Rue, V. (2009). Induced Abortion and Anxiety, Mood, and Substance Abuse Disorders: Isolating the Effects of Abortion in the National Comorbidity Survey. Journal of Psychiatric Research, 43, 770–776.

<sup>&</sup>lt;sup>15</sup> Coleman, P. K., Reardon, D. C., & Cougle, J. R. (2005). Substance use among pregnant women in the context of previous reproductive loss and desire for current pregnancy. British Journal of Health Psychology, 10(2), 255-268.

<sup>&</sup>lt;sup>16</sup> Cougle J., Reardon, D.C, & Coleman, P. K. (2003). Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort. Medical Science Monitor, 9(4), CR105-112.

<sup>22</sup>, <sup>23</sup>, <sup>24</sup>, <sup>25</sup>, <sup>26</sup>, <sup>27</sup>, <sup>28</sup>, <sup>29</sup>, <sup>30</sup>. Abortion is associated with a higher risk for negative psychological outcomes when compared to other forms of perinatal loss and with unintended pregnancy carried to term. Most social and medical science scholars agree that a minimum of 20% of women who abort suffer from serious, prolonged negative psychological consequences, yielding at least 260,000 new cases of mental health problems each year.

Since the Hippocratic practitioner has vowed not only to not perform abortion or euthanasia, but also vowed to "first do no harm", inducing an abortion violates conscience on two counts: the killing of the practitioner's unborn patient, and the harm done to the reproductive health of the patient who is pregnant.

A physician willing to kill their patient whether intra- or extra-uterine, at the command of the state, destroys the trust inherent in the Hippocratic doctor-patient relationship, transforming it into a vendor-customer relationship, in which the principle of "Caveat Emptor" prevails. Non-Hippocratic practitioners pursue their trade for a variety of reasons: financial gain, social prestige, etc. But none of these reasons intrinsically require that the best interest of the patient be the paramount guiding principle which may not be violated on oath. Thus a non-

<sup>&</sup>lt;sup>17</sup> Cougle, J., Reardon, D.C., Coleman, P. K. (2005). Generalized anxiety associated with unintended pregnancy: A cohort study of the 1995 National Survey of Family Growth. Journal of Anxiety Disorders, 19 (10),137-142.

<sup>&</sup>lt;sup>18</sup> Dingle, K., Alta, R., Clavarino, A. et al. (2008). Pregnancy loss and psychiatric disorders in young women: An Australian birth cohort study. The British Journal of Psychiatry, 193, 455-460.

<sup>&</sup>lt;sup>19</sup> Fergusson, D. M., Horwood, J., Ridder, E. M. (2006). Abortion in young women and subsequent mental health. Journal of Child Psychology and Psychiatry, 47,16-24.

<sup>&</sup>lt;sup>20</sup> Fergusson, D.M., Horwood, J. H., & Boden, J. M. (2008). Abortion and mental health disorders: Evidence from a 30-year longitudinal study, The British Journal of Psychiatry, 193, 444-451.

<sup>&</sup>lt;sup>21</sup> Gissler, M. et al. (1996). Suicides after pregnancy in Finland, 1987-94: Register linkage study. *British Medical Journal*, 313, 1431-4.

<sup>&</sup>lt;sup>22</sup> Gissler, M., et al. (2005). Injury deaths, suicides and homicides associated with pregnancy, Finland 1987-2000. *European Journal of Public Health*, 15, 459-463.

<sup>&</sup>lt;sup>23</sup> Goodwin P, Ogden J. Women's reflections about their past abortions: an exploration of how emotional reactions change over time. Psychology and Health 2007; 22: 231-248.

<sup>&</sup>lt;sup>24</sup> Major, B., & Cozzarelli, C. (1992). Psychological predictors of adjustment to abortion. Journal of Social Issues, 48, 121-142.

<sup>&</sup>lt;sup>25</sup> Pedersen, W. (2007). Addiction. Childbirth, abortion and subsequent substance use in young women: a population-based longitudinal study, 102 (12), 1971-78.

<sup>&</sup>lt;sup>26</sup> Pedersen W. (2008). Abortion and depression: A population-based longitudinal study of young women. Scandinavian Journal of Public Health, 36 (4):424-8.

<sup>&</sup>lt;sup>27</sup> Reardon, D. C., Coleman, P. K., & Cougle, J. (2004) Substance use associated with prior history of abortion and unintended birth: A national cross sectional cohort study. American Journal of Drug and Alcohol Abuse, 26, 369-383.

<sup>&</sup>lt;sup>28</sup> Rees, D. I. & Sabia, J. J. (2007) The Relationship Between Abortion and Depression: New Evidence from the Fragile Families and Child Wellbeing Study. Medical Science Monitor, 13(10), 430-436.

<sup>&</sup>lt;sup>29</sup> Zolese, G., & Blacker C. V. R. (1992). The psychological complications of therapeutic abortion. *British Journal of Psychiatry*, *160*, 742-749.

<sup>&</sup>lt;sup>30</sup> Appendix B Abortion and Mental Health comprehensive bibliography.

Hippocratic physician or practitioner can be used as an agent to pursue the interests of the State, over and against the interests of the individual patient. This experiment has already been performed in Soviet and Nazi regimes, where Hippocratic physicians were systematically purged from the medical systems in order to allow for the medical systems to become political instruments, for the "good of the state".

#### 2. Exercise of Conscience is protected by the Universal Declaration of Human Rights.

Efforts by the U.S. Department of State to force practitioners here and abroad to violate their Hippocratic Oath violates Articles 18 and 30 of the Universal Declaration of Human Rights, which guarantees the right of individuals to manifest their beliefs in practice. The recission of the HHS conscience protection regulations, [which were formulated in response to efforts pressuring Hippocratic obgyn doctors to perform or refer for abortions or else lose their board certification<sup>31</sup>, <sup>32</sup>], leaves health care providers vulnerable to claims of "unethical behavior" for refusing to perform or refer for abortions<sup>33</sup>. The federal laws now in effect provide no protection of the rights of conscience of non-physician health care workers such as pharmacists, nurses, PA's and other practitioners. Further, this Administration has narrowed the protection of conscience rights of physicians limiting it to abortion, neglecting the conscience issues surrounding euthanasia, in vitro fertilization, and stem cell research. This lack of protection of health care workers allows for a violation of the workers human right to exercise their conscience in practice<sup>34</sup> in violation of Article 18 of the Universal Declaration of Human Rights, and allows for the state and other group to engage in activities aimed at destroying the health care workers right of conscience, in violation of article 30<sup>35</sup>.

#### 3. The need for Hippocratic health care providers in the U.S. medical system.

The growing shortage of physicians and health care practitioners across the United States has serious ramifications for the adequate delivery of health care, especially in underserved populations and regions of our nation and globally. The same ethic which causes the Hippocratic practitioner to care for his/her patients also causes many Hippocratic physicians to practice in rural or underserved areas where the need for health care is greatest. A recent national survey of faith based health care professionals revealed that 95% agreed ""I would rather stop practicing medicine altogether than be forced to violate my conscience."

<sup>&</sup>lt;sup>31</sup> American College of Obstetrics and Gynecology "ACOG Ethics Statement # 385: The limits of conscientious refusal in reproductive medicine". November 2007.

<sup>&</sup>lt;sup>32</sup> American Board of Obstetrics and Gynecology "Bulletin for 2008 Maintenance of Certification" The Vineyard Centre 2915 Vine Street, Dallas, TX 75204

<sup>&</sup>lt;sup>33</sup> ACOG Ethics Statement # 385 "The limits of conscientious refusal in reproductive medicine". November 2007. 
<sup>34</sup>United Nations General Assembly. "Universal Declaration of Human Rights", Article 18. Geneva. December 10,

<sup>&</sup>lt;sup>35</sup> United Nations General Assembly. "Universal Declaration of Human Rights", Article 30. Geneva. December 10, 1948

<sup>&</sup>lt;sup>36</sup> http://www.freedom2care.org/learn/page/surveys Highlight of survey of faith based health care professionals. Last visited 4/29/10.

Attempting to force Hippocratic health care providers to violate their oath by forcing performance of abortion under the guise of "reproductive rights" will cause tremendous shortage in the most underserved areas of the country, and of the world, in violation of Article 25 of the Universal Declaration of Human Rights:

(1) Everyone has the right to a standard of living adequate for the health and well-being
of himself and of his family, including food, clothing, housing and medical care and
necessary social services, and the right to security in the event of unemployment,
sickness, disability, widowhood, old age or other lack of livelihood in circumstances
beyond his control.

In summary, the free exercise of the right of Hippocratic health care practitioners to practice conscientious medicine in accordance with the precept of "primum non nocere" is protected by the Universal Declaration of Human Rights. The current U.S. Administration's lack of conscience protections for all health care workers, for all procedures which may harm patients, is a violation of the Universal Declaration of Human Rights of both health care workers and their patients.

#### Part II: The U.S. policy of promoting abortion under the guise of MDG5.

The moral and legal principle under-girding the obligation to prevent maternal mortality and morbidity is the human right to life, which provides for the right to bodily integrity. The legal right to life has been enshrined in every major UN human rights document since the 1948 the Universal Declaration of Human Rights. This right leads to a right to the highest attainable standard of health, and thus to the need for increased access to health care for all human beings, from fertilization to natural death. Applauding the critically important function of mothers in sustaining the health of the family and community, member nations agreed on Millennium Development Goal 5: Improving Maternal Health, and specifically created a target of reducing the maternal mortality ratio by 75% between 1990 and 2015, after intense discussion. Member states rejected the proposed "Universal Access to Reproductive Health" because of its sponsors' clear intent to use this proposal as a means to promote legalization of elective abortion worldwide, as confirmed by comments of Secretary of State Clinton before Congress<sup>37</sup>.

It is absolutely essential to recall that during that same Summit, the proposed goal of "Universal Access to Reproductive Health" was explicitly rejected by the member nations. Although this goal included many worthwhile targets, the goal included a target to eliminate "unsafe" abortion<sup>38</sup>, by provision of "safe abortion", essentially mandating abortion legalization

<sup>&</sup>lt;sup>37</sup> Reference for Hillary Clinton's remarks in response to U.S. Congressional Representative Christopher Smith. Available at: <a href="http://chrissmith.house.gov/News/DocumentSingle.aspx?DocumentID=123424">http://chrissmith.house.gov/News/DocumentSingle.aspx?DocumentID=123424</a>. (Nov. 20, 2009) 
<sup>38</sup> Sedgh, G, Henshaw, S and Singh, S. from the Alan Guttmacher Institute, and Ahman, E, and Shaw, from the World Health Organization. **Induced abortion: estimated rates and trends worldwide** *The Lancet* 2007; 370: 1338–45

worldwide. For this reason, member states rejected the proposed goal of Universal Access to Reproductive Health.

However, the monitoring mechanisms for achievement of MDG 5 have nevertheless implicitly incorporated the targets related to that rejected goal.<sup>39</sup> Incorporating targets of a goal which member states have explicitly rejected into the monitoring mechanism tied to development funding is tantamount to cultural imperialism on the part of the United States, and violates the rights of U.N. member nations to self-determination. Worse still, the accepted target of reducing maternal mortality has been undermined and subverted to serve a radically absolutist abortion-rights political agenda currently being pursued by the United States, and to impose that agenda on resource poor nations through development funding. This approach seeks to deny morally-rich member nations the right to recognize legal rights of personhood from the moment of conception. To the contrary, abortion rights advocates seek to impose their own morally impoverished, culturally biased views and pro-abortion agenda, often tainted with population-control ideology, through the mechanism of development funding. This sort of cultural imperialism not only violates the right of member nations to national sovereignty, but deprives the member nations of their right and duty to evaluate the medical and policy effects of elective induced abortion within their own religious, cultural, social and regional contexts.

Hijacking funding for MDG5 to advance the legalization of abortion worldwide will not improve maternal mortality, as evidenced in Chile<sup>40</sup>, and other recent publications<sup>41</sup>,<sup>42</sup>. Advancing "reproductive rights," defined as legalizing voluntary induced abortion, will likely increase maternal mortality<sup>43</sup>. Medical abortion will be especially dangerous in resource-poor nations which lack the health care infrastructure to handle the increasing number of complications of

#### Panel 1: Definitions of safe and unsafe abortion

**Safe abortions:** Abortions (a) in countries where abortion law is not restrictive,\* and (b) that meet legal requirements in countries where the law is restrictive.†

**Unsafe abortions:** Abortions done either by people lacking the necessary skills or in an environment that does not conform to minimum medical standards, or both. These include (a) abortions in countries where the law is restrictive and (b) abortions that do not meet legal requirements in countries where the law is not restrictive.

World Health Organization, National-level monitoring of the achievement of universal access to reproductive health: conceptual and practical considerations and related indicators – report of a WHO/UNFPA Technical Consultation, 13–15 March 2007, Geneva. ISBN 978 92 4 159683 1 40 Koch et al. Personal correspondence. publication pending. Appendix D abortion not significantly correlated with maternal mortality p value of 7.1.

<sup>&</sup>lt;sup>41</sup>Niinimäki, M., M.D., Pouta, A., M.D. PhD, Bloigu, A., Gissler, M., BSc, PhD, Hemminki, E., M.D., PhD, Suhonen, S., M.D., PhD, Heikinheimo, O., M.D. PhD. **Immediate Complications After Medical Compared With Surgical Termination of Pregnancy. OBSTETRICS & GYNECOLOGY** Vol 114, No 4, October 2009 795-804.

<sup>&</sup>lt;sup>42</sup> Hogan, M.C.,Foreman, K.J.,Naghavi, M.,Ahn, S.Y., Wang, M., Makela, S.M., Lopez, A.D., Lozano, R., Murray, C.J.L., "Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5"www.thelancet.com. Published Online April 12, 2010 DOI:10.1016/S0140-

<sup>6736(10)60518-1</sup> 

<sup>&</sup>lt;sup>43</sup> Niinimaki-See footnote 11.

hemorrhaging, infection and surgery necessary to remove retained tissue.<sup>44</sup> Promoting druginduced abortion, with its increased risks<sup>45</sup>, is counter-productive to any efforts to decrease the maternal mortality of a resource-poor region. In the U.S., corresponding with FDA approval of medical abortion in 2000,<sup>46</sup>maternal mortality began to rise.

The encouragement by this Administration, through UNFPA and WHO, of the use of mifepristone (RU-486, *Mifegyne*) and misoprostol (*Cytotec*) as abortifacients in medically resource poor nations is unconscionable and a violation of the human right to health of women in resource poor medical systems, increasing the rate of hemorrhage, infection and incomplete abortion in medical systems unable to provide adequate medical care for these women. This policy increases, not decreases maternal mortality and morbidity in a female population already struggling with malnutrition, anemia, malaria, parasitic infections, etc. Nothing could be more contrary to the purposes underlying the Millennium Summit Declaration's purpose of protecting pregnant women.

The current U.S. policies promoting worldwide legalization of abortion under the guise of MDG 5 are misguided. While reducing maternal mortality is critically important because of the key role that mothers play in the life of their children and community. Strategies with proven effectiveness of decreasing the deaths of mothers in the process of pregnancy and delivery are:

- 1) Skilled birth attendance,
- 2) Adequate delivery facilities equipped with antibiotics, oxytocin and magnesium sulfate,
- 3) Increasing female literacy which empowers women to access health care.

Recent Chilean mortality data demonstrate these three factors directly attribute to the dramatic decline in maternal mortality.<sup>47</sup>

Reductions in maternal mortality have been achieved in the U.S.<sup>48</sup>, and Chile<sup>49</sup>, not by legalization of abortion, but by provision of 1) skilled birth attendants (who monitor for

<sup>&</sup>lt;sup>44</sup> Niinimäki, M., M.D., Pouta, A., M.D. PhD, Bloigu, A., Gissler, M., BSc, PhD, Hemminki, E., M.D, PhD, Suhonen, S., M.D., PhD, Heikinheimo, O., M.D. PhD. Immediate Complications After Medical Compared With Surgical Termination of Pregnancy. OBSTETRICS & GYNECOLOGY Vol 114, No 4, October 2009 795-804. ["When comparing numbers of women with adverse events or complications, the difference between the two groups was notable: 20% of women in the medical-abortion group and 5.6% of women in the surgical abortion group had at least one type of adverse event." "In multivariable analysis, the risk of bleeding was almost eightfold higher, the risk of incomplete abortion was fivefold higher, and the risk of (re)evacuation was twofold higher after medical abortion compared with surgical abortion." "Because medical abortion is being used increasingly in several countries, it is likely to result in an elevated incidence of overall morbidity related to termination of pregnancy."]

<sup>&</sup>lt;sup>45</sup> Correspondance from research Dr. Ralph Miech, attached.

<sup>&</sup>lt;sup>46</sup> Appendix E(2) Graph of U.S. maternal mortality 1960-2006.

<sup>47</sup> Koch, et. Al. Personal correspondence. Publication pending. Appendix D,C.

obstructed labor, hemorrhage, sepsis and other major killers of women who are giving birth), who can treat mothers in 2) a facility equipped to handle these complications. Dramatic decreases in maternal mortality accompany female literacy which allows women to access health care through written media, instead of relying on word of mouth.<sup>50</sup>

Implementing these interventions in nations with the greatest maternal mortality will provide the most rapid reduction in maternal mortality, paralleling the reductions in nations with similar interventions.

Respectfully submitted,

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Donna J. Harrison, M.D. President, American Association of Pro-Life Obstetricians and Gynecologists www.aaplog.org Life. It's Why We Are Here.

<sup>&</sup>lt;sup>48</sup> Appendix E. Graphs of maternal mortality in the U.S. [Note dramatic decreases in maternal mortality corresponding with introduction of modern obstetrical techniques and delivery in hospital settings, not with legalization of abortion in 1973. Note rise in maternal mortality beginning in 2000, correlating with the legalization of RU486 in the U.S.].

<sup>&</sup>lt;sup>49</sup> Appendix C and D. Graphs of maternal mortality reduction corresponding to decreasing illiteracy in females, and provision of skilled birth attendants with safe delivery facilities. <sup>50</sup> Koch, publication pending. Appendix C.

# Appendix A: Studies demonstrating an association between induced abortion and subsequent preterm birth:

List of 117 Significant APB Studies (last updated 12 April 2010)

1960s

- 1 Barsy G, Sarkany J. Impact of induced abortion on the birth rate and infant mortality. Demografia 1963;6:427-467.
- 2 Miltenyi K. On the effects of induced abortion. Demografia 1964;7:73-87.
- 3 Furusawa Y, Koya Y. The Influence of artificial abortion on delivery. In: Koya Y, ed. Harmful effects of induced abortion. Tokyo: Family Planning Federation of Japan,1966:74-83.
- 4 Arvay A, Gorgey M, Kapu L. La relation entre les avortements (interruptions de la grossesse) et les accouchements prematures. Rev Fr Gynecol Obstet 1967;62:81-86

1970s

- 5 Drac P, Nekvasilova Z. Premature termination of pregnancy after previous interruption of pregnancy. Cesk Gynekol 1970;35: 332-333.
- 6 Dolezal A, Andrasova V, Tittlbachova S, et al. Interruption of pregnancy and their relation to premature labous and hyptrophic foetuses. Cesk Gynekol 1970:36:331
- 7 Pantelakis SN, Papadimitriou GC, Doxiadis SA.Influence of induced and spontaneous abortions on the outcome of subsequent pregnancies. Amer J Obstet Gynecol. 1973;116: 799-805.
- !!8 Van Der Slikke JW, Treffers PE. Influence of induced abortion on gestational duration in subsequent pregnancies. BMJ 1978;1: 270-272 [>95% confident of preterm risk for gestation less than 32.0 weeks].
- 9 Richardson JA, Dixon G. Effect of legal termination on subsequent pregnancy. British Med J 1976;1:1303-1304.
- +10 Papaevangelou G, Vrettos AS, Papadatos D, Alexiou C. The Effect of Spontaneous and Induced Abortion on Prematurity and Birthweight. The J Obstetrics and Gynaecology of the British Commonwealth. May 1973;80:418-422.

- +11 Bognar Z, Czeizel A. Mortality and Morbidity Associated with Legal Abortions in Hungary, 1960-1973. AJPH 1976;66:568-575.
- 12 Grindel B, Lubinski H, Voigt M. Induced abortion in primigravidae and subsequent pregnancy, with particular attention of underweight. Zentralbl Gynaekol 1979;101:1009-1114.
- +13 Obel E, et al. Pregnancy Complications Following Legally Induced Abortion With Special Reference to Abortion Technique. Acta Obstet Gynecol Scand 1979;58:147-152.
- 14 World Health Organization Task Force on the Sequelae of Abortion. Gestation, birthweight and spontaneous abortion. Lancet 1979;1:142-145.
- 15 Ratten G et al. Effect of Abortion on Maturity of Subsequent Pregnancy. Med J Australia June 1979: 479-480.
- 16 Roht LH, Aoyama H, Leinen GE, et al. The association of multiple induced abortions with subsequent prematurity and spontaneous abortion. Acta Obstet Gynaecol Jpn 1976;23: 140-145.
- 17 Harlap S, Davies AM. Late sequelae of induced abortion: Complications and Outcome of Pregnancy and Labor. Amer J Epidemiology 1975;102:219-224.
- 18 Koller O, Eikhom SN. Late Sequelae of Induced Abortion in Primigravidae. Acta Obstet Gynecol Scand 1977;56:311-317.
- 19 Lean TH, Hogue CJR, Wood J. Low birth weight after induced abortion in Singapore, Presented at the 105th Annual Meeting of the Americal Public Health Association, Washington DC, Oct. 31, 1977.
- 20 World Health Organization. Special Programme of Research, Development and Research Training in Human Reproduction: Seventh Annual Report, Geneva, Nov. 1978.
- 21 Hungarian Central Statistical Office. Perinatalishalazons. Budapest: Hungarian Central Statistical Office, 1972.
- 22 Czeizel A, Bognar Z, Tusnady G, et al. Changes in mean birth weight and proportion of low-weight births in Hungary. Br J Prev Soc Med 1970;24:146-153.
- 23 Dziewulska W. Abortion in the past versus the fate of the subsequent pregnancy. State of the newborn. Ginekol Pol 1973;44:1143-1148 [Poland].

- 24 Kaminski M, Goujard J, Rumeau-Roquette. Prediction of low birthweight and prematurity by a multiple regression analysis with maternal characterisitics known since the beginning of the pregnancy. Intl J Epidem 1973;2:195-204
- 25 Chabada J, Pontuch A, Sutta I, Pohlova G. Interruptions of gravidity as a cause of premature labour Cesk Gynekol 1974;49(5):329-330
- 26 Fredrick J. Antenatal identification of women at high risk of spontaneous preterm birth. BJOG 1976;83:351-354
- 27 Pohanka O, Balogh B, Rutkovszky M. The impact of abortion on the birth weight of newborns. Orb Hetil 1975;116:1983-1989
- 28 Mikolas M. The effect of the legalization of abortion on public health and some of its social concomitants in Hungary. Demografia 1973;16:70-113
- 29 Link M, Wichmann A. Pregnancy in adolescents. Zentrabl Gynekol 1976;98(11):682-689
- 30 Knarre P. Influence of abortions and interruptions of pregnancy in subsequent deliveries. II Cause of labor. Zentrabl Gynekol 1976;98(10):591-594
- 31 Kreiblich H, Ehring E. Zentralfl Gynokol 1978;100(19):1254-1260
- 32 Macku F, Rokytova V, Titmann O. Artificial Interruption of Pregnancy in Primigravidae as a risk factor in future pregnancies. Cesk Gynekol 1978;43(5):340-343
- 33 Zwahr C, Coigt M, Kunz L, Thielemann F, Lubinski H. Multidimensional investigations to elucidate relationships between case histories of interrupted pregnancies and premature deliveries and low birth weight. Zentrabl Gynekol 1979;101(23):1502-1509

#### 1980s

- 34 Zwahr C, Voigt M, Kunz L, et al. Relationships between interruption abortion, and premature birth and low birth weight. Zentrabl Gynaekol 1980;102:738-747.
- 35 Kreibich H, Ludwig A. Early and late complications of abortion in juvenile primigravidae (including recommended measures). Z Aerztl Fortbild (Jena) 1980;74:311-316.
- !!+36 Levin A, Schoenbaum S, Monson R, Stubblefield P, Ryan K. Association of Abortion With Subsequent Pregnancy Loss. IAMA 1980;243(24):2495-2499

- 37 Legrillo V. Quickenton P, Therriault GD, et al. Effect of induced abortion on subsequent reproductive function. Final report to NICHD. Albany, NY: New York State Health Department, 1980.
- 38 Slater PE, Davies AM, Harlap S. The Effect of Abortion Method on the Outcome of Subsequent Pregnancy. J Reprod Med 1981;28:123-128.
- 39 Lerner RC, Varma AO. Prospective study of the outcome of pregnancy subsequent to previous induced abortion. Final report, Contract no. (N01-HD-62803). New York: Downstate Medical Center, SUNY, January 1981.
- +40 Berkowitz GS. An Epidemiologic Study of Preterm Delivery. American J Epidemiology 1981;113:81-92.
- 41 Lampe LG, Ratar I, Bernard PP, et al. Effects of smoking and of induced abortion on pregnancy outcome. IPPF Med Bull 1981;15:3
- 42 Schoenbaum LS, Monson RR. No association between coffee consumption and adverse outcomes of pregnancy. N Engl J Med 1982;306:141-145
- 43 Pompe-Tansek NM, Andolsek L, Tekovcic B. Jugosl Ginekol Opstet Sept.-Dec. 1982;22(5-6):118-120
- +44 Puyenbroek J, Stolte L. The relationship between spontaneous and induced abortions and the occurrence of second-trimester abortion in subsequent pregnancies. Eur J Obstet Gynecol Reprod Biol 1983;14:299-309 [this is the only study in this entire list that uses second-trimester miscarriage as a surrogate for PTB risk].
- 45 Zwahr C, Voigt M. The effect of various parameters on the incidence of premature births. Zentralbl Gynakol 1983;105:1307-1312
- 46 Schuler D, Klinger A. Causes of low birth weight in Hungary. Acta Paediatrica Hungarica 1984;24:173-185
- 47 Pickering RM, Forbes J. Risk of preterm delivery and small-for-gestational age infants following abortion: a population study. British J Obstetrics and Gynecology 1985;92:1106-1112.
- !!+48 Lumley J. Very low birth-weight (less than 1500g) and previous induced abortion: Victoria 1982-1983. Aust NZ J Obstet Gynecol 1986;26:268-272.
- +49 Shiono PH, Lebanoff MA. Ethnic Differences and Very Preterm Delivery. Am J Public Health 1986;76:1317-1321.

- 50 Peterlin A Ardolsek L. The effect of induced abortion in adolescence on the manifestations of spontaneous abortion, premature abortion, and birth weight. Jugosl Ginekol Perinatol May-Aug 1986;26(3-4):49-52
- 51 Ross MG, Hobel CJ, Bragenier JR, Bear MB, Bemis RL. A simplified risk-scoring system for prematurity. Amer J Perinatology 1986;3:339-344
- 52 Lieberman E, Ryan KJ, Monson RR, Schoenbaum SC. Risk Factors Accounting For Racial Differences in the rate of premature birth. NEJM 1987;317:743-748.
- 53 Krasomski G, Gladysiak A, Krajerski J. Fate of subsequent pregnancies after induced abortion in primiparae. Wiad Lek 1 December 1987;40(23):1593-1595
- 543 Seidman DS, Ever-Hadani P, Slater PE, Harlap S, et al. Child-bearing after induced abortion: reassessment of risk. J Epidemiology Community Health 1988;42:294-298.
- 55 Zwahr, C, Neubert D, Triebel U,Voight M, Kruppel KH. Correlation between some environmental, anamnestic and social markers of pregnant patients and the delivery of autotrophic premature and hypotrophic newborn infants. Zentralbl Gynakol 1988;110:479-487
- !! +56 Mueller-Heubach E, Guzick DS. Evaluation of risk scoring in a preterm birth prevention study of indigent patients. Am J Obstetrics & Gyn 1989;160:829-837.

#### 1990s

- +57 Vasso L-K, Chryssa T-B, Golding J. Previous obstetric history and subsequent preterm delivery in Greece. European J Obstetrics & Gynecology Reproductive Biology 1990;37: 99-109.
- 58 Li YJ, Zhou YS. study of factors associated with preterm delivery. Zhongjua Liu Xing Bing Xue Za Chi. Aug 1990;11(4):229-234
- 59 Haper JH, Hsing AW, Tuomala RE, Gibbs RS, et al. Risk factors for preterm premature rupture of fetal membranes: A multicenter case-control study. Am J Obstet Gynec 1990;163:130-137
- 61 McGregor JA, French J, Richter R. Antenatal microbiologic and maternal risk factors associated with prematurity. Amer J Obstet Gynecol 1990;163:1465-1473

61 Pickering RM, Deeks JJ. Risks of Delivery during 20th to the 36th Week of Gestation. Intl. J Epidemiology 1991;20:456-466.

!!+62\*Zhang J, Savitz DA. Preterm Birth Subtypes among Blacks and Whites. Epidemiology 1992;3:428-433.

63\*Michielutte R, Ernest JM, Moore ML, Meis PJ, Sharp PC, Wells HB, Buescher PA. A Comparison of Risk Assessment Models for Term and Preterm Low Birthweight. Preventive Medicine 1992;21:98-109.

64 Gong JH. Preterm delivery and its risk factors. Zhounghua Fu Chan Ke Za Chi Jan. 1992;27(1):22-24

65 Mandelson MT, Maden CP, Daling JR. Low Birth Weight in Relation Multiple Induced Abortions. Am J Public Health 1992;82;391-394 [Note: More than a few authors refer to the 'Mandelson' study as **NOT** finding higher risk of Low Birth Weight for women with prior induced abortions; such authors should be checked for 'seeing glasses', since Mandelson et al found that women with ANY (i.e. 1, 2, 3, or more) prior induced abortions had SIGNIFICANTLY higher risk of low birthweight babies; so, get a copy of the Mandelson study and read it yourself.]

!!+66 Lumley J. The epidemiology of preterm birth. Bailliere's Clin Obstet Gynecology. 1993;7(3):477-498

!!67 Algert C, Roberts C, Adelson P, Frammer M. Low birth weight in New South Wales, 1987: a Population-Based Study. Aust New Zealand J Obstet Gynaecol 1993;33:243-248

68 Ekwo EE, Grusslink CA, Moawad A. Previous pregnancy outcomes and subsequent risk of premature rupture of amniotic sac membranes. Brit J Obstet Gynecol 1993;100(6):536-541

69 Lekea-Karanika V, Tzoumaka-Bangoula C. Past obstetric history of the mother and its association with low birth weight of a subseaquent child: a population-based study. Paediatr Perinat Epidemiol 1994;8:173-187

70 Guinn D, Goldenberg RL, Hauth JC, Andrews WA et al. Risk factors for the development of preterm premature rupture of membranes after arrest of preterm labor. AJOG 1995;173 (4):1310-1315.

71 \*Hillier SL, Nugent RP, Eschenbach DA, Krohn MA,et al. Association Between Bacterial Vaginosis And Preterm Delivery Of A Low-Birth-Weight Infant. NEJM 1995;333: 1737-1742.

72 Khalil AK, El-Amrawy SM, Ibrahim AG, et al. Pattern of growth

and development of premature children at the age of two and three years in Alexandria, Egypt. Eastern Mediterranean Health Journal 1995;1(2):186-193.

73 Meis PJ, Michielutte R, Peters TJ, Wells HB. Factors associated with preterm birth in Cardiff, Wales. Amer J Obstet Gynecol 1995; 173:590-596

+74 Lang JM, Lieberman E, Cohen A. A Comparison of Risk Factors for Preterm Labor and Term Small-for-Gestational-Age Birth. Epidemiology 1996;7:369-376.

\*75 Hagan R, Benninger H, Chiffings D. Evans S, French H. Very preterm birth - a regional study. Part 1: Maternal and obstetric factors. BJOG 1996;103:230-238

76 Chie-Pein Chen, Kuo-Gon Wang, Yuh-Cheng Yang, Lai-Chu See. Risk factors for preterm birth in an upper middle class Chinese population. Eur J Obstet Gynecol Reprod Bio 1996;70(1):53-59

77 Jacobsen G, Schei B, Bakketeig LS. Prepregnant reproductive risk and subsequent birth outcome among Scandinavian parous women. Norsk Epidemiol 1997;7(1):33-39

!!+78 Lumley J. The association between prior spontaneous abortion, prior induced abortion and preterm birth in first singleton births. Prenat Neonat Med 1998;3:21-24.

!!+79 Martius JA, Steck T, Oehler MK, Wulf K-H. Risk factors associated with preterm (<37+0 weeks) and early preterm (<32+0 weeks): univariate and multi-variate analysis of 106 345 singleton births from 1994 statewide perinatal survey of Bavaria. European J Obstetrics & Gynecology Reproductive Biology 1998;80:183-189.

80 Small Babies in Scotland A Ten Year Overview 1987-1996. Information and Statistics Division. The National Health Service in Scotland. Scottish Program for Clinical Effectiveness. Edinburgh 1998 ISBN 1-902076-07-9.

81 Lee KS, Lee WC, Meng KH, Lee Ch, Kim SP. Maternal Factors Associated with the Premature Rupture of Membrane in the Low BIrth Weight Infant Deliveries. Korean J Prev Med 1998;21(2): 207-216

!!+82 Ancel PY, Saurel-Cubizolles M-J, Renzo GCD, Papiernik E, Breart G. Very and moderate preterm births: are the risk factors different? British J Obstetrics and Gynaecology 1999;106:1162-1170.

!!+83 Zhou W, Sorenson HT, Olsen J. Induced Abortion and Subsequent Pregnancy Duration. Obstetrics & Gynecology 1999;94:948-953.

84 Ancel PY, Saurel-Cubizolles, Di Renzo GC, Papiernik E, Breart G. Social Differences of very preterm birth in Europe: interaction with obstetric history. American J Epi 1999;149(10):908-915.

#### 2000-2010

86 Foix-L'Helias L, Ancel PY, Blondel B. Changes in risk factors of preterm delivery in France between 1981 and 1995. Paediatric and Perinatal Epidemiology. Oct 2000;14(4): 314-323.

86 Foix-L'Helias L, Ancel, Blondel B. Risk factors for prematurity in France and comparisons betweeen spontaneous prematurity and induced labor; results from the National Perinatal Survey 1995. J Gy necol Obstet Bio Reprod (Paris) Feb 2000;29(1);55-65

\*87 Gardosi J, Francis A. Early Pregnancy predictors of preterm birth: the role of a prolonged menstruation-conception interval. BJOG 2000;107(2):228-237

88 Bettiol H, Rona RJ, Chin S, Goldani M, Barberi M. Risk Factors Associated with preterm births in Southeast Brazil: a comparison of two birth cohorts born 15 years apart. Paediatric Perinatal Epidemiol 2000;14(1):30-38

89 Letamo G, Majelantle RG. Factors Influencing Low Birth Weight and Prematurity in Botswana. J Biosoc Sci 2001;33(3):391-403

90 Henriet L, Kaminski M. Impact of induced abortions on subsequent pregnancy outcome: the 1995 French national perinatal survey. BJOG 2001;108(10):1036-1042

91 Grimmer I, Buhrer C, Dudenhausen JW. Preconceptional factors associated with very low birth weight delivery: a case control study. BMC Public Health 2002; 2:10 [Germany].

92 Balaka B, Boeta S, Aghere AD, Boko K, Kessie K, Assimadi K. Risk factors associated with prematurity at the University of Lme, Togo. Bull Soc Pathol Exot Nov 2002;95(4):280-283

93 Han WH, Chen LM, Li CY. Incidences of and Predictors for Preterm Births and Low Birth Weight Infants in Taiwan. Chinese Electronic Periodical Services 2003:131-141

94 El-Bastawissi AY, Sorensen TK, Akafomo CK, Frederick IO, Xiao R,

Williams MA. History of Fetal Loss and Other Adverse Pregnancy Outcomes in Relation to Subsequent Risk of Preterm Delivery. Maternal Child Health J 2003;7(1):53-58

95 Reime B, Schuecking BA, Wenzlaff P. Perinatal outcomes of teenage pregnancies according to gravidity and obstetric history.

Annals of Epidemiology 2004;14(8):619-619 [German subjects]

http://www.sciencedirect.com/science?\_ob=3DGatewayURL&\_method=3DcitationSearch&\_uoikey =3DB6T44-4D8V8F5
2R& origin=3DSDEMFRASCII& version=3D1&md5=3De73601c4adf512cbb49d79b556183ab7

!!+96 Ancel PY, Lelong N, Papiernik E, Saurel-Cubizolles MJ, Kaminski M. History of induced abortion as a risk factor for preterm birth in European countries: results of EUROPOP survey. Human Repro 2004; 19(3): 734-740.

97 Umeora OUJ, Ande ABA, Onuh SO, Okubor PO, Mbazor JO. Incidence and risk factors for preterm delivery in a tertiary health institution in Nigeria. J Obstetrics Gynaecology Nov. 2004; 24(8):895-896

!!+98 Moreau C, Kaminski M, Ancel PY, Bouyer J, et al. Previous induced abortions and the risk of very preterm delivery: results of the EPIPAGE study. British J Obstetrics Gynaecology 2005;112(4):430-437 [France] [abstract online: www.blackwell-synergy.com/links/doi/10.1111/j.1471-0528.2004.00478.x/abs/]

99 Conde-Agudelo A, Belizan JM, Breman R, Brockman SC, Rosas-Bermudez. Effect of the interpregnancy interval after an abortion on maternal and perinatal health in Latin America. Int J Gynaecol & Obstet 2005;89 (Supp. 1):S34-S40.

!!100 Stang P, Hammond AO, Bauman P. Induced Abortion Increases the Risk of Very Preterm Delivery; Results from a Large Perinatal Database. Fertility Sterility Sept 2005;S159

101 Etuk SJ, Etuk IS, Oyo-Ita AE. Factors Influencing the Incidence of Pre-term Birth in Calabar, Nigeria. Nigerian J Physiological Sciences 2005;20(1-2):63-68

102 Poikkens P. Unkila-Kallio L, Vilska S, Repokari L. et al. Impact of Infertility Characteristics and treatment modalities on singleton pregnancies after assisted reproduction. Reproductive Tiomed July 2006;13(1):135-144

103 Samin A, Al-Dabbagh, Wafa Y Al-Taee. Pregnancy and Childbirth. BMC 2006;6:13

!!104 Smith GCS, Shah I, White IR, Pell JP, Crossley JA, Dobbie R.

Maternal and biochemical predictors of spontaneous preterm birth among nulliparous women: a systematic analysis in relation to degree of prematurity. Intl J Epidem 2006;35(5):1169-1177

105 Briunsma F, Lemley J, Tan J, Quinn M. Precancerous changes in the cervix and risk of subsequent preterm birth. BJOG Jan. 2007;114(1):70-80

106 Jackson JE, Grobman WA, Haney E, Casele H. Mid-trimester dilation and evacuation with laminaria does not increase the risk for severe subsequent pregnancy complications. Intl J Gynecol Obstet 2007;96:12-15

107 Chung-Chin Lo, Jenn-Jeih Hsu, Ching-Chang Hsieh, T'sang-T-sang Hsieh, Tai-Ho Hung. Risk Factors For Spontaneous Preterm Delivery Before 34 Weeks of Gestation Among Taiwanese Women. Taiwan J Obstet Gynecol 2007;46(4):389-394

108 Curry AE, Vogel I, Drews C, Schendel D, Skogstrand K, et al. Mid-pregnancy maternal plasma levels of interleukin 2, 6, and 12, tumor necrosis factor-alpha, interferon-gamma, and granulocyte-macrophage colony-stimulating factor and spontaneous preterm delivery. Acta Obstectica et Gynecologica 2007:86:1103-1110

109\* Brown TS, Adera T, Masho SW. Previous abortion and the risk of low birth weight and preterm births. J Epidemiol Commun Health 2008:62:16-22

110 Reime B, Schuecking BA, Wenzlaff P. Reproductive Outcomes in Adolescents Who Had a Previous Birth or an Induced Abortion Compared to Adolescents' First Pregnancies. BMC Pregnancy and Childbirth 2008;8:4

!!+111 Voigt M, Olbertz D, Fusch C, Krafczyk D. Briese V, Schneider KT. The infuluence of previous pregnancy terminations, miscarriages, and still-birth on the incidence of babies with low birth weight and premature births as well as somatic classication of newborns. Z Geburtshilfe Neonatol 2008;212:5-12

112\* Sareer Badshah, Linda Mason, Kenneth McKelvie, Roger Payne, Paulo JG Lisboa. Risk factors for low birthweight in the publichospitals at Peshawar NWFP-Pakistan 2008;8:197-206

113 Freak-Poli R, Chan A, Gaeme J, Street J. Previous abortion and risk of preterm birth: a population study. J Maternal-Fetal Med Jan. 2009; 22(1):1-7

114 Voigt M, Henrich W, Zygmunt M, Friese K, Straube S, Briese V. Is induced abortion a risk factor in subsequent pregnancy? Journal

115 Swingle HM, Colaizy TT, Zimmerman MB, et al. Abortion and the Risk of Subsequent Preterm Birth: A Systematic Review and Meta-Analysis. Journal Reproductive Medicine 2009;54:95-108

116 Shah P. et al. Induced termination of pregnancy and low birthweight and preterm birth: a systematic review and meta-analysis BJOG 2009;116(11):1425-1442
URL: http://www3.interscience.wiley.com/journal/122591273/abstract

117 van Oppenraaij RHF, Jauniaux E, Christiansen OB, et al. Predicting adverse obstetric outcome after early pregnancy events and complications: a review. Human Reproduction Update Advance Access 7 March 2009;1(1):1-13 [ URL: <a href="http://humupd.oxfordjournals.org/cgi/content/abstract/15/4/409">http://humupd.oxfordjournals.org/cgi/content/abstract/15/4/409</a> ]

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The following is a significant APB study but is not part of the 'official' list above since it involves predominently 'illegal' induced abortions:

Okonofus FE, Onwudiegwu U, Odutayo R. Pregnancy outcomes after illegal induced abortions in Nigeria: a retrospective referenced historical study. Africa J Med Science 1994;23:165-169

\* studies that included spontaneous and induced abortions but did not report PTB/LBW risk separately for each + studies that found dose/response (the more SIAs, the higher the risk)

Eighteen (18) Statistically Significant AVPB and AVLBW Studies

A1 Reime B, Schuecking BA, Wenzlaff P. Reproductive Outcomes in Adolescents Who Had a Previous Birth or an Induced Abortion Compared to Adolescents' First Pregnancies. BMC Pregnancy and Childbirth 2008;8:4

A2+ Voigt M, Olbertz D, Fusch C, Krafczyk D. Briese V, Schneider KT. The influence of previous pregnancy terminations, miscarriages, and still-birth on the incidence of babies with low birth weight and premature births as well as somatic classification of newborns. Z Geburtshilfe Neonatol 2008;212:5-12

A3 Smith GCS, Shah I, White IR, Pell JP, Crossley JA, Dobbie R. Maternal and biochemical predictors of spontaneous preterm birth

among nulliparous women: a systematic analysis in relation to degree of prematurity. International J Epidemiology 2006;35(5): 1169-1177

A4 Stang P, Hammond AO, Bauman P. Induced Abortion Increases the Risk of Very Preterm Delivery; Results from a Large Perinatal Database. Fertility Sterility. Sept 2005;S159 [Study only published as an abstract]

A5+ Moreau C, Kaminski M, Ancel PY, Bouyer J, et al. Previous induced abortions and the risk of very preterm delivery: results of the EPIPAGE study. British J Obstetrics Gynaecology 2005;112(4): 430-437 [abstract online: www. blackwell-synergy.com/links/doi/10.1111/j.1471-0528.2004.00478.x/abs/]

A6 Ancel PY, Lelong N, Papiernik E, Saurel-Cubizolles MJ, Kaminski M. History of induced abortion as a risk factor for preterm birth in European countries: results of EUROPOP survey. Human Reprod 2004;19(3):734-740.

A7+ Ancel PY, Saurel-Cubizolles M-J, Renzo GCD, Papiernik E, Breart G. Very and moderate preterm births: are the risk factors different? British J Obstetrics Gynaecology 1999;106:1162-1170.

A8+ Zhou W, Sorenson HT, Olsen J. Induced Abortion and Subsequent Pregnancy Duration. Obstetrics & Gynecology 1999;94:948-953.

A9+ Martius JA, Steck T, Oehler MK, Wulf K-H. Risk factors associated with preterm (<37+0 weeks) and early preterm (<32+0 weeks): univariate and multi-variate analysis of 106 345 singleton births from 1994 statewide perinatal survey of Bavaria. European J Obstetrics Gynecology Reproductive Biology 1998;80:183-189.

A10+ Lumley J. The association between prior spontaneous abortion, prior induced abortion and preterm birth in first singleton births. Prenat Neonat Med 1998;3:21-24.

A11+ Lumley J. The epidemiology of preterm birth. Bailliere's Clin Obstet Gynecology 1993;7(3):477-498

A12+ Algert C, Roberts C, Adelson P, Frammer M. Low birth weight in New South Wales, 1987: a Population-Based Study. Aust New Zealand J Obstet Gynaecol 1993;33:243-248

A13+\* Zhang J, Savitz DA. Preterm Birth Subtypes among Blacks and Whites. Epidemiology 1992;3:428-433.

A14+ Mueller-Heubach E, Guzick DS. Evaluation of risk scoring in a preterm birth prevention study of indigent patients. Amer J Obstetrics & Gynecol 1989;160:829-837.

A15+ Lumley J. Very low birth-weight (less than 1500g) and previous induced abortion: Victoria 1982-1983. Aust NZ J Obstet Gynecol 1986;26:268-272.

A16 Schuler D, Klinger A. Causes of low birth weight in Hungary. Acta Paediatrica Hungarica 1984;24:173-185

A17+ Levin A, Schoenbaum S, Monson R, Stubblefield P, Ryan K. Association of Abortion With Subsequent Pregnancy Loss. JAMA 1980;243(24):2495-2499

A18 Van Der Slikke JW, Treffers PE. Influence of induced abortion on gestational duration in subsequent pregnancies. BMJ 1978; 1:270-272 [>95% confident of preterm risk for gestation less than 32.0 weeks].

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\* studies that included spontaneous and induced abortions but did not report PTB/LBW risk separately for each

+ studies that found dose/response (the more SIAs, the higher the risk)
!! Significant VPB (Very Preterm Birth) and/or AVLBW (Very Low Birth Weight)

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# Appendix B Studies demonstrating an association between voluntary induced abortion and subsequent adverse mental health outcomes.

Allanson, S., & Astbury, J. (2001). Attachment style and broken attachments: Violence, pregnancy, and abortion. Australian Journal of Psychology, 53, 146-151.

Amaro H., Zuckerman B, & Cabral H. (1989). Drug use among adolescent mothers: profile of risk. Pediatrics, 84, 144-151.

Barnett, W., Freudenberg, N., & Wille, R. (1992). Partnership after induced abortion: A prospective controlled study. Archives of Sexual Behavior, 21(5), 443-455.

Bianchi-Demicheli, F et al (2002). Termination of pregnancy and women's sexuality. Gynecol Obstet Invest, 53, 48-53.

Boesen, H.C., Rorbye C., Norgaard, M., Nilas, L. (2004). Sexual behavior during the first eight weeks after legal termination of pregnancy. Acta Obstetricia et Gynecologica Scandinavica, 83, 1189-1192.

Bradley, C.F. (1984) Abortion and subsequent pregnancy. Canadian Journal of Psychiatry, 29, 494.

Bradshaw, Z., & Slade, P. (2003). The effects of induced abortion on emotional experiences and relationships: A critical review of the literature. Clinical Psychology Review, 23, 929-958.

Bradshaw, Z., & Slade, P. (2005). The relationship between induced abortion, attitudes toward sexuality, and sexual problems. Sexual and Relationship Therapy, 20, 390-406. Brockington, I. F. (2005). Postabortion psychosis, Arch Womens Ment Health 8: 53–54.

Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2004). Psychological impact on women of miscarriage versus induced abortion: A 2-year follow-up study. Psychosomatic Medicine, 66(2), 265-271.

Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2005a). The course of mental health after miscarriage and induced abortion: A longitudinal, five-year follow-up study. BMC Medicine, 3, 18. Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2005b). Reasons for induced abortion and their relation to women's emotional distress: A prospective, two-year follow-up study. General Hospital Psychiatry, 27(1), 36-43.

Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2006). Predictors of anxiety and depression following pregnancy termination: A longitudinal five-year follow-up study. Acta Obstetricia et Gynecologica Scandinavica, 85(3), 317-323.

Burnell, G. M., & Norfleet, M. A. (1987). Women's self-reported responses to abortion. The Journal of Psychology, 121, 71–76.

Butlet, C. (1996). Late psychological sequelae of abortion: Questions from a primary care physician. Journal of Family Practice, 43, p. 396-401.

Campbell, N., Franco, K. & Jurs, S. (1988). Abortion in Adolescence. Adolescence 23, 813-823.

Cohan, C. L., Dunkel-Schetter, C., & Lydon, J. (1993). Pregnancy decision making: Predictors of early stress and adjustment. Psychology of Women Quarterly, 17, 223-239.

Coleman, P. K. (2006). Resolution of unwanted pregnancy during adolescence through abortion versus childbirth: Individual and family predictors and psychological consequences. Journal of Youth and Adolescence, 35, 903-911.

Coleman, P.K., Coyle, C.T., Shuping, M., & Rue, V. (2009). Induced Abortion and Anxiety, Mood, and Substance Abuse Disorders: Isolating the Effects of Abortion in the National Comorbidity Survey. Journal of Psychiatric Research, 43, 770–776.

Coleman, P. K., Maxey, C. D., Rue, V. M., & Coyle, C. T. (2005). Associations between voluntary and involuntary forms of perinatal loss and child maltreatment among low-income mothers. Acta Paediatrica, 94(10), 1476-1483.

Coleman, P. K., Maxey, D. C., Spence, M. & Nixon, C. (2009). The choice to abort among mothers living under ecologically deprived conditions: Predictors and consequences. International Journal of Mental Health and Addiction 7, 405-422.

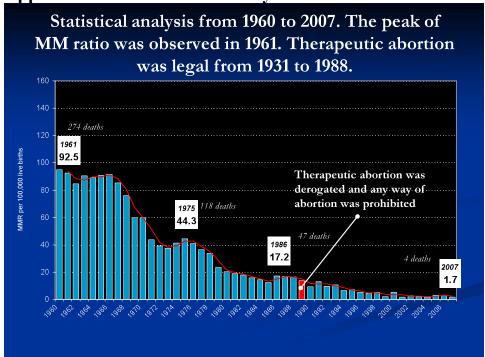
- Coleman, P. K., & Nelson, E. S. (1998). The quality of abortion decisions and college students' reports of post-abortion emotional sequelae and abortion attitudes. Journal of Social & Clinical Psychology, 17, 425-442.
- Coleman, P. K., Reardon, D. C., & Cougle, J. (2002). The quality of the caregiving environment and child developmental outcomes associated with maternal history of abortion using the NLSY data. Journal of Child Psychology and Psychiatry, 43, 743-757.
- Coleman, P. K., Reardon, D. C., & Cougle, J. R. (2005). Substance use among pregnant women in the context of previous reproductive loss and desire for current pregnancy. British Journal of Health Psychology, 10(2), 255-268.
- Coleman, P. K., Reardon, D. C., Rue, V. M., & Cougle, J. (2002a). A history of induced abortion in relation to substance use during subsequent pregnancies carried to term. American Journal of Obstetrics and Gynecology, 187, 1673-1678.
- Coleman, P. K., Reardon, D. C, Rue, V. M., & Cougle, J. (2002b). State-funded abortions versus deliveries: A comparison of outpatient mental health claims over 4 years. American Journal of Orthopsychiatry, 72, 141-152.
- Coleman, P. K., Reardon, D. C., Strahan, T., & Cougle, J. R. (2005). The psychology of abortion: A review and suggestions for future research. Psychology and Health, 20, 237-271.
- Coleman, P. K., Rue, V., Coyle, C. (2009). Induced abortion and quality of intimate relationships: Analysis of male and female data from the Chicago Health and Social Life Survey. Public Health 123, 331–338.
- Coyle, C., Coleman, P., & Rue, V. (in press) Inadequate Pre-abortion Counseling and Decision Conflict as Predictors of Subsequent Relationship Difficulties and Psychological Stress in Men and Women. Traumatology: An International Journal.
- Congleton, G. K., & Calhoun, L. G. (1993). Post-abortion perceptions: A comparison of self-identified distressed and non-distressed populations. International Journal of Social Psychiatry, 39, 255-265.
- Congleton, G. & Calhoun, L. (1993). Post-abortion perceptions: A comparison of self-identified distressed and non-distressed populations. International Journal of Social Psychiatry, 39, 255-265.
- Conklin, M. P., & O'Connor, B. P. (1995). Beliefs about the fetus as a moderator of post-abortion psychological well-being. Journal of Social & Clinical Psychology, 14, 76-95.
- Cote-Arsenault, D., Dombeck, M. T. B. (2001). Maternal assignment of fetal personhood to a previous pregnancy loss: Relationship to anxiety in the current pregnancy. Health Care for Women International 22, 649-665.
- Cougle, J. R., Reardon, D. C., & Coleman, P. K. (2003). Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort. Medical Science Monitor, 9(4), CR105-112.79.
- Cougle, J. R., Reardon, D. C., & Coleman, P. K. (2005). Generalized anxiety following unintended pregnancies resolved through childbirth and abortion: A cohort study of the 1995 National Survey of Family Growth. Journal of Anxiety Disorders, 19, 137-142.
- Cozzarelli, C. (1993). Personality and self-efficacy as predictors of coping with abortion. Journal of Personality and Social Psychology, 65, 1224-1236.
- David, H., Rasmussen, N. & Holst, E. (1981). Postpartum and postabortion psychotic reactions. Family Planning Perspectives, 13, 88-91.
- Dingle, K., Alta, R., Clavarino, A. et al. (2008). Pregnancy loss and psychiatric disorders in young women: An Australian birth cohort study. The British Journal of Psychiatry, 193, 455-460.
- Fayote, F.O., Adeyemi, A.B., Oladimeji, B.Y. (2004). Emotional distress and its correlates. Journal of Obstetrics and Gynecology, 5, 504-509.
- Fergusson, D. M., Horwood, L. J., & Ridder, E. M. (2006). Abortion in young women and subsequent mental health. Journal of Child Psychology and Psychiatry, 47, 16-24.
- Fergusson, D.M., Horwood, J. H., & Boden, J. M. (2008). Abortion and mental health disorders:
- Evidence from a 30-year longitudinal study, The British Journal of Psychiatry, 193, 444-451.
- Fielding, S. L., & Schaff, E. A. (2004). Social Context and the Experience of a Sample of U.S. Women Taking RU-486 (Mifepristone) for Early Abortion. Qualitative HealthResearch, 14, 612-627.

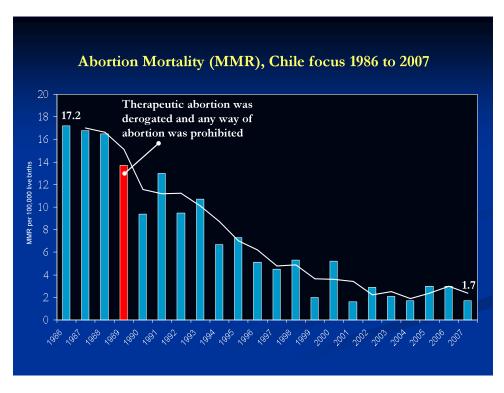
- Franz, W., & Reardon, D. (1992). Differential impact of abortion on adolescents and adults. Adolescence, 27(105), 161-172.
- Gissler, M., Hemminki, E., & Lonnqvist, J. (1996). Suicides after pregnancy in Finland, 1987-94: Register linkage study. British Medical Journal, 313, 1431-1434.
- Gissler, M., et al. (2005). Injury deaths, suicides and homicides associated with pregnancy, Finland 1987-2000. European Journal of Public Health, 15, 459-463.
- Guilbert, E., & Rotter, D. (1997). Assessment of satisfaction with induced abortion procedure. The Journal of Psychology, 131, 157-166.
- Harlow, B. L., Cohen, L. S., Otto, M. W., Spiegelman, D., & Cramer, D. W. (2004). Early life menstrual characteristics and pregnancy experiences among women with and without major depression: the Harvard Study of Mood and Cycles. Journal of Affective Disorders, 79, 167176.
- Hemmerling, F., Siedentoff, F., & Kentenich, H. (2005). Emotional impact and acceptability of medical abortion with mifepristone: A German experience. Journal of Psychosomatic Obstetrics & Gynecology, 26, 23-31.
- Henshaw, R., Naji, S., Russell, I., & Templeton, A. (1994). Psychological responses following medical abortion (using mifepristone and gemeprost) and surgical vacuum aspiration: A patient-centered, partially randomized prospective study. Acta Obstetrica et Gynecologica Scandinavica, 73, 812-818.
- Hittner, A. (1987). Feelings of well-being before and after abortion. American Mental Health Counselors Association Journal, 9, 98-104.
- Hope, T. L., Wilder, E. I., & Terling Watt, T. (2003). The relationships among adolescent pregnancy, pregnancy resolution, and juvenile delinquency. Sociological Quarterly, 44, 555-576.
- Husfeldt, C., Hansen, S. K., Lyngberg, A., Noddebo, M., & Pettersson, B. (1995). Ambivalence among women applying for abortion. Acta Obstetricia et Gynecologia Scandinavica, 74, 813-17.
- Kero, A., Hoegberg, U., Jacobsson, L., & Lalos, A. (2001). Legal abortion: A painful necessity. Social Science and Medicine, 53, 1481-1490.
- Kero, A., Hoegberg, U., & Lalos, A. (2004). Wellbeing and mental growth long-term effects of legal abortion. Social Science and Medicine, 58, 2559-2569.
- Kero A, Lalos A. (2000). Ambivalence a logical response to legal abortion: a prospective study among women and men. Journal of Psychosomatic Obstetrics and Gynecology; 21, 81-91.
- Kitamura, T., Toda, M. A., Shima, S., & Sugawara, M. (1998). Single and repeated elective abortions in Japan: A psychosocial study. Psychosomatic Obstetrics and Gynecology, 19, 126-134.
- Lauzon, P., Roger-Achim, D., Achim, A., & Boyer, R. (2000). Emotional distress among couples involved in first-trimester induced abortions. Canadian Family Physician, 46, 2033-2040.
- Lazarus, A. & Stern, R. (1986). Psychiatric Aspects of Pregnancy Termination" Clinics in Obstetrics & Gynaecology 13, 125-134.
- Lazarus, A. (1985). Psychiatric Sequelae of Legalized Elective First Trimester Abortion. Journal of Psychosomatic Ob&Gyn, 4, 141-150.
- Lemkau, J. P. (1988). Emotional sequelae of abortion: Implications for clinical practice. Psychology of Women Quarterly, 12, 461–472.
- Lewis, W. J. (1997). Factors associated with post-abortion adjustment problems: Implications for triage. The Canadian Journal of Human Sexuality, 6, 9-17.
- Llewellyn, S. P., & Pytches, R. (1988). An investigation of anxiety following termination of pregnancy. Journal of Advanced Nursing, 13, 468–471.
- Lodl, K. McGettigan, A. & Bucy, J. (1985). Women's Responses to Abortion. Journal of Social Work & Human Sexuality, 3, 119-132.
- Lydon, J., Dunkel-Schetter, C., Cohan, C. L., & Pierce, T. (1996). Pregnancy decision-making as a significant life event: A commitment approach. Journal of Personality and Social Psychology, 71, 141-151.
- Major, B. (1989). Self-blame, Self-efficacy and Adjustment to Abortion. Journal of Personality and Social Psychology, 5, 1059-1068.

- Major, B., Cozzarelli, C., Cooper, M.L., Zubek, J., Richards C., Wilhite, M., & Gramzow, R.H. (2000). Psychological responses of women after first trimester abortion. Archives of General Psychiatry, 57, 777-84.
- Major, B. Cozzarelli, C., Sciacchitano, A. M., Cooper, M. L., Testa, M., & Mueller, P. M. (1990). Perceived social support, self-efficacy, and adjustment to abortion. Journal of Personality and Social Psychology, 59, 186-197.
- Major, B.,& Gramzow, R. H. (1999). Abortion as stigma: Cognitive and emotional implications of concealment. Journal of Personality and Social Psychology, 77, 735-745.
- Miller, W. B. (1992). An empirical study of the psychological antecedents and consequences of induced abortion. Journal of Social Issues, 48, 67-93.
- Miller, W. B., Pasta, D. J., & Dean, C. L. (1998). Testing a model of the psychological consequences of abortion. In L. J. Beckman and S. M. Harvey (eds.), The new civil war: The psychology, culture, and politics of abortion. Washington, DC: American Psychological Association.
- Morgan, C., Evans, M., Peter, J. R., & Currie, C. (1997). Mental health may deteriorate as a direct result of induced abortion. British Medical Journal, 314, 902.
- Moseley, D. T., Follongstad, D. R., Harley, H., & Heckel, R.V. (1981). Psychological factors that predict reaction to abortion. Journal of Clinical Psychology, 37, 276-279. Mueller, P. &
- Mufel, N., Speckhard, A. & Sivuha, S. Predictors of Posttraumatic Stress Disorder Following Abortion in a Former Soviet Union Country. Journal of Prenatal & Perinatal Psych & Health, 17, 41-61 (2002).
- Ney, P. G., Fung, T., & Wickett, A.R. (1993). Relations between induced abortion and child abuse and neglect: Four studies. Pre and Perinatal Psychology Journal, 8, 43-63.
- Ney, P. G., Fung, T., Wickett, A. R., & Beaman-Dodd, C. (1994). The effects of pregnancy loss on women's health. Social Science & Medicine, 38, 1193-1200.
- Ostbye, T., Wenghofer, E. F., Woodward, C. A., Gold, G., & Craighead, J. (2001). Health services utilization after induced abortions in Ontario: A comparison between community clinics and hospitals. American Journal of Medical Quality, 16, 99-106.
- Patterson, M. J., Hill, R. P., & Maloy, K. (1995). Abortion in America: A consumer-based perspective. Journal of Consumer Research, 21, 677-694.
- Pedersen, W. (2008). Abortion and depression: A population-based longitudinal study of young women. Scandinavian Journal of Public Health, Vol. 36, No. 4, 424-428.
- Pedersen, W. (2007). Addiction. Childbirth, abortion and subsequent substance use in young women: a population-based longitudinal study, 102 (12), 1971-78.
- Pope, L. M., Adler, N. E., & Tschann, J. M. (2001). Post-abortion psychological adjustment: Are minors at increased risk? Journal of Adolescent Health, 29, 2-11.
- Posavac, E., & Miller, T. (1990). Some problems caused by not having a conceptual foundation for health research: An illustration from studies of the psychological effects of abortion. Psychology and Health, 5, 13-23.
- Prommanart, N., et al. (2004). Maternal grief after abortion and related factors. Journal of the Medical Association of Thailand, 87, 1275-1280.
- Reardon, D. C., & Coleman, P. K. (2006). Relative treatment for sleep disorders following abortion and child delivery: A prospective record-based study. Sleep, 29(1), 105-106.
- Reardon, D. C., Coleman, P. K., & Cougle, J. R. (2004). Substance use associated with unintended pregnancy outcomes in the National Longitudinal Survey of Youth. American Journal of Drug and Alcohol Abuse, 30(2), 369-383.
- Reardon, D. C., & Cougle, J. R. (2002a). Depression and unintended pregnancy in the National Longitudinal Survey of Youth: A cohort study. British Medical Journal, 324(7330), 151-152.
- Reardon, D. C., & Cougle, J. R. (2002b). Depression and unintended pregnancy in the National Longitudinal Survey of Youth: A cohort study: Reply. British Medical Journal, 324(7345), 1097-1098.
- Reardon, D. C., Cougle, J. R., Rue, V. M., Shuping, M. W., Coleman, P. K., & Ney, P. G. (2003).
- Psychiatric admissions of low-income women following abortion and childbirth. Canadian Medical Association Journal, 168, 1253-1256.

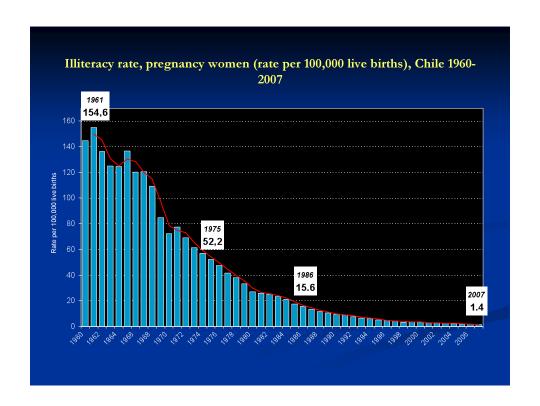
- Reardon, D. C., & Ney, P. G. (2000). Abortion and subsequent substance abuse. American Journal of Drug and Alcohol Abuse, 26, 61-75.
- Reardon, D. C., Ney, P. G., Scheuren, F., Cougle, J., Coleman, P. K., & Strahan, T. W. (2002). Deaths associated with pregnancy outcome: A record linkage study of low income women. Southern Medical Journal, 95(8), 834-841.
- Rees, D. I. & Sabia, J. J. (2007) The Relationship Between Abortion and Depression: New Evidence from the Fragile Families and Child Wellbeing Study. Medical Science Monitor 13(10): 430-436.
- Remennick, L. I., & Segal, R. (2001). Sociocultural context and women's experiences of abortion: Israeli women and Russian immigrants compared. Culture, Health, And Sexuality, 3, 49-66.
- Rue, V. M., Coleman, P. K., Rue, J. J., & Reardon, D. C. (2004). Induced abortion and traumatic stress: Preliminary comparison of American and Russian women. Medical Science Monitor, 10, SR5-16.
- Schleiss, L., Mygind, K. A., Borre, R. V., & Peterson, B. H. (1997). Psychological consequences of induced abortion. Ugeskrift Laeger, 159, 3603-3606.
- Sivuha, S. Predictors of Posttraumatic Stress Disorder Following Abortion in a Former Soviet Union Country. Journal of Prenatal & Perinatal Psych & Health, 17, 41-61 (2002).
- Slade, P., Heke, S., Fletcher, J., & Stewart, P. (1998). A comparison of medical and surgical methods of termination of pregnancy: Choice, psychological consequences, and satisfaction with care. British Journal of Obstetrics and Gynecology, 105, 1288-1295.
- Soderberg, H., Andersson, C., Janzon, L., & Slosberg, N-O. (1997). Continued pregnancy among abortion applicants. A study of women having a change of mind. Act Obstetricia Gynecologica Scandinavia, 76, 942-947.
- Söderberg H, Janzon L and Sjöberg NO (1998). Emotional distress following induced abortion. A study of its incidence and determinants among abortees in Malmö, Sweden. European Journal of Obstetrics and Gynecology and Reproductive Biology 79, 173-8.
- Speckhard, A. & Mufel, N.(2003) Universal responses to abortion? Attachment, trauma, and grief in women following abortion. Journal of Prenatal & Perinatal Psych & Health, 3-37.
- Speckhard, A. C., & Rue, V. M. (1992). Postabortion syndrome: An emerging public health concern. Journal of Social Issues, 48, 95-119.
- Suliman et al. (2007) Comparison of pain, cortisol levels, and psychological distress in women undergoing surgical termination of pregnancy under local anaesthesia versus intravenous sedation. BMC Psychiatry, 7 (24), p.1-9.
- Tamburrino, M. B., Franco, K. N., Campbell, N. B., Pentz, J. E., Evans, C. L., & Jurs, S. G. (1990). Postabortion dysphoria and religion. Southern Medical Journal, 83, 736-738.
- Thorp, J. M., Hartmann, K. E., & Shadigin, E. (2003). Long-term physical and psychological health consequences of induced abortion: Review of the evidence. Obstetrical & Gynecological Survey, 58(1), 67-79.
- Tornbom M. and Moller A. (1999). Repeat abortion: A qualitative study. Journal of Psychosomatic Obstetrics and Gynecology, 20, 21-30.
- Turell, S., Armsworth, M., & Gaa, J. (1990). Emotional Response to Abortion: A Critical Review of the Literature. Women & Therapy 9, 49-68.
- Urquhart D.R., & Templeton, A. A. (1991). Psychiatric morbidity and acceptability following medical and surgical methods of induced abortion. British Journal of Obstetrics and Gynecology, 98, 396-99.
- Williams, G. B. (2001). Short-term grief after an elective abortion. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 30(2), 174-183.
- Wilmoth, G. H., deAlteriis, M., & Bussell, D. (1992). Prevalence of psychological risks following legal abortion in the U.S.: Limits of the evidence. Journal of Social Issues, 48, 37–66.
- Yamaguchi, D., & Kandel, D. (1987). Drug use and other determinants of premarital pregnancy and its outcome: a dynamic analysis of competing life events. Journal of Marriage and the Family, 49, 257–270.

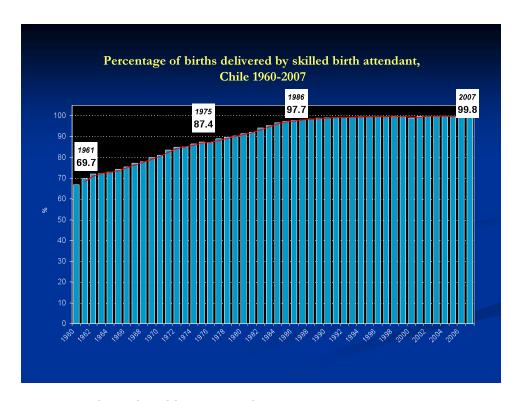
Appendix C: Maternal Mortality Data from Chile





Source: Koch et. Al. publication pending.





Source: Koch et. Al. publication pending.

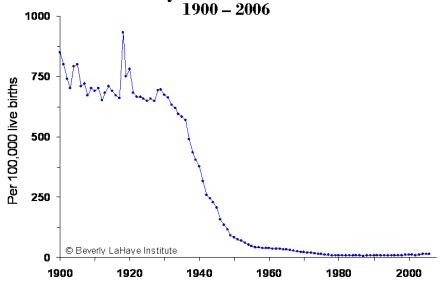
# Appendix D. Table of Maternal Mortality Variables and P value associations-Chile

predictors for MMR adjusting for education			
Variable	Beta	SE	p-value
Fertility rate	6.27	7.81	0.42
Average of schooling years (women)	- 27.4	3.39	< 0.001
GDI per capita US\$ (ppp)	0.007	0.002	0.006
Births delivered by skilled birth attendant (%)	-2.58	0.80	0.002
Matrons (per 10,000 live Births)	0.21	0.74	0.77
Number of Primary Care units	- 0.003	0.02	0.90
Abortion Period (1960 to 1988)	- 3.27	8.73	0.71
Primiparous women (%)	<b>-</b> 1.79	1.39	0.20

Koch, et al. Publication pending.

### Appendix E: United States Maternal Mortality 1900-2006

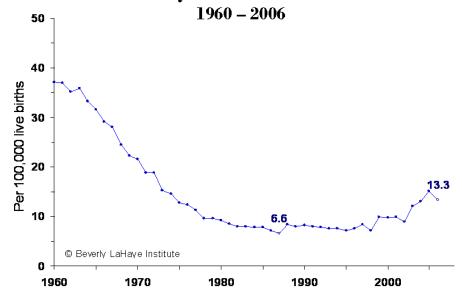
# Maternal Mortality Rate Per 100,000 Live Births



Source: National Center for Health Statistics, Table 33 Table 33. Number of maternal deaths and maternal mortality rates for selected causes, by race: United States, 2006, and earlier reports www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\_14.pdf.

#### 2

### Maternal Mortality Rate Per 100,000 Live Births



Source: National Center for Health Statistics, Table 33 Table 33. Number of maternal deaths and maternal mortality rates for selected causes, by race: United States, 2006, and earlier reports www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\_14.pdf.