REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 3-A-09

Subject: Disparities in Maternal Mortality

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Referred to: Reference Committee E
(Martin G. Guerrero, MD, Chair)

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1 INTRODUCTION
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3 Resolution 511, "Racial and Ethnic Disparities in Maternal Mortality," introduced by the Minority
4 Affairs Consortium and adopted at the 2008 Annual Meeting, asks that our American Medical
5 Association (AMA) work with other organizations to: (1) seek increased public and private funding
6 to assist in educating health care providers, hospitals, and patient organizations about the increase
7 in maternal mortality in the United States and the importance of preconception care to reduce these
8 risks; (2) work with other interested organizations to seek increased funding to study racial
9 disparities in maternal mortality; and (3) report back on these efforts at the 2009 Annual Meeting
10 (AMA Policy D-420.994, AMA Policy Database).
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12 This report briefly examines the global context and recent trends in maternal mortality in the
13 United States, including racial and ethnic differences, factors influencing maternal mortality rates,
14 and current efforts of key stakeholders to reduce this mortality.
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16 METHODS
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18 Literature searches for articles published from 1995 through February 2008 were conducted in the
19 PubMed database and the Cochrane Database of Systematic Reviews using the search terms
20 "maternal mortality," "epidemiology," "health statistics," and "prevention and control." Web sites
21 managed by federal agencies, and applicable professional and advocacy organizations were also
22 reviewed for relevant information. Additional articles were identified by reviewing the reference
23 lists of pertinent publications.
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25 EFFORTS TO ELIMINATE HEALTH DISPARITIES
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27 Concern over emerging health disparities in the United States, in general, has triggered research
28 into understanding their background and impact. Less attention has been directed toward exploring
29 solutions to these problems. The first concerted effort to address solutions for health disparities was
30 a Congressional mandate in 1999, which directed the Agency for Healthcare Research and Quality
31 to create two new annual reports: the National Healthcare Disparities Report (NHDR) and the
32 National Healthcare Quality Report (NHQR). As a public report, the NHDR provides a frame of
33 reference to assist patients (and physicians) in pursuing quality care.[1]

Action of the AMA House of Delegates 2009 Annual Meeting: Council on Science and Public
Health Report 3 Recommendations Adopted, and Remainder of Report Filed.

AMA Policy

Elimination of health disparities remains a priority for our AMA. Previous reports issued by this Council, as well as by the Council on Ethical and Judicial Affairs and the Council on Long Range Planning and Development, provide the foundation for key AMA policies on reducing racial and ethnic disparities in health care (Policies H-350.974, "Racial and Ethnic Disparities in Health Care;" E-9.121, "Racial and Ethnic Health Care Disparities;" H-350.972, "Improving the Health of Black and Minority Populations"). Our AMA also recognizes the value of preconception care and supports recommendations developed by the Centers for Disease Control and Prevention (CDC) for improving such care (Policy H-425.976, "Preconception Care").

To foster an ongoing effort to reduce health disparities, our AMA, the National Medical Association (NMA), and the National Hispanic Medical Association (NHMA) convened the Commission to End Health Care Disparities, now comprising more than 60 organizations. More detailed information on the goals of the Commission can be found at http://www.ama-assn.org/go/commission, and additional information on AMA resources and activities on eliminating health disparities can be found at http://www.ama-assn.org/ama/pub/category/7639.html.

TRENDS IN U.S. MATERNAL MORTALITY

Reducing maternal mortality is a global challenge. According to the 2005 World Health Report, the majority of maternal deaths occur in developing countries and are related, in part, to the overall investment in the health care system.[2] Nevertheless, maternal mortality remains an important issue in the United States as well.

Death caused by pregnancy (maternal mortality) is defined in the *International Classification of Diseases, Ninth Revision* (ICD-9) as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management but not from accidental or incidental causes."[3] In 1986, a Maternal Mortality Working Group, formed under the auspices of the American College of Obstetricians and Gynecologists (ACOG) and the CDC, developed two additional terms to further advance research and knowledge about pregnancy and mortality, namely:[4]

> Pregnancy-associated death. The death of a woman while pregnant or within 1 year of termination of pregnancy, irrespective of cause.
>
> Pregnancy-related death. The death of a woman while pregnant or within 1 year of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by her pregnancy or its management but not from accidental or incidental causes.

These terms broaden the base for analysis of pregnancy-related outcomes, but do not account for the much larger burden (quantitatively) of pregnancy-related complications.

The ICD-9 definition is used by the CDC's National Center for Health Statistics in its reports on maternal mortality. Maternal mortality in the United States dropped precipitously during the period from 1950 (83.8 deaths/100,000 live births) to 1980 (9.2 deaths/100,000 live births). This rate remained relatively constant over the next 20 years, but began increasing again in 2003 and each successive year, reaching a rate of 15.1 deaths/100,000 live births in 2005.[5-7] The maternal mortality rate for black women was 36.5 deaths/100,00 live births, approximately 3.3 times the rate

for white women (11.1 deaths/100,00 live births) in 2005, a disparity that has persisted over the entire time period.[4,7]

EFFORTS TO COMBAT MATERNAL MORTALITY

In 1987, the CDC's Division of Reproductive Health, in collaboration with ACOG's Maternal Mortality Study Group and state departments of health, established the Pregnancy Mortality Surveillance System to evaluate pregnancy-related deaths reported by state health departments, health care providers, and state-based maternal mortality review committees.[4] This comprehensive, broad-based surveillance was needed to identify the factors occurring before pregnancy through the postnatal period that affect a woman's chance of survival and that place minority and older women at increased risk for pregnancy-related death.

In collaboration with the CDC, ACOG also developed national toolkits and provided starter grants to state ACOG sections for the purpose of establishing Maternal and Infant Mortality Review Committees to assist in investigating maternal and infant deaths. In the state of Michigan, for example, the Michigan Maternal Mortality Study determined that suicide in pregnant women occurs at least twice as often as in women of similar age who are not pregnant.[8]

A strategic issue paper from the CDC in collaboration with ACOG, the U.S Department of Health and Human Services, the American College of Nurse-Midwives, and others also is available to inform approaches to reducing maternal mortality.[9]

FACTORS INFLUENCING MATERNAL MORTALITY

The relevant issues and factors contributing to maternal mortality are complex, ranging from inadequate access to prenatal care to complications occurring during and/or after delivery. Some causes of maternal mortality are preventable, while others are largely unpreventable. For example, most deaths caused by hemorrhage or that are related to complications of chronic disease are believed to be preventable, whereas deaths due to amniotic fluid embolus, microangiopathic hemolytic syndrome, and cerebrovascular accident are largely unpreventable.[10] The number of Cesarean section deliveries has increased over the past two decades. Although complications can occur with any surgical procedure, whether this trend has contributed to the recent increase in maternal mortality is not established.[10] Other recognized causes of maternal mortality include hypertension (pre-eclampsia), placenta previa with hemorrhage, and cardiomyopathy.

Despite these recognized causes, inadequate access to care is the primary factor in maternal mortality. Increasing a pregnant woman's access to prenatal care will significantly improve the chances of reducing maternal mortality. Pregnancy-related maternal mortality is 3 to 4 times higher among women who receive no prenatal care compared with those receiving such care.

ADDRESSING HEALTH CARE DISPARITIES IN MATERNAL MORTALITY: THE AMA ROLE

Inadequate access to prenatal care is a social determinant of maternal and fetal health. In the United States, social determinants of health status are influenced by a patient's race and ethnicity; mortality rates for almost all disease categories are higher in minorities.[11] These factors reflect systemic problems related to disparities in health care delivery and the need for systemic/national interventions. If interventions are done in a culturally competent manner, health outcomes can improve for minority populations and could also affect specific issues, such as maternal mortality.[12] To develop interventions that reduce mortality and eliminate health disparities, perspectives from

individual providers, hospitals, hospital systems, state and local government agencies, and academic medical centers, as well as patients, must be considered.

There are numerous national efforts on the part of organizations to eliminate disparities in various aspects of health care treatment and outcomes. One such effort is being led by the Commission to End Health Care Disparities. The Commission was founded in 2004 as a collaborative effort of our AMA, the NMA, and the NHMA in response to the Healthy People 2010 goals and to the Institute of Medicine report, "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care." Currently, the Secretariat of the Commission, comprising the AMA, NMA, and NHMA, collaborates with the more than 60 member organizations on work to eliminate disparities in health care through educating providers, policy/advocacy efforts, the provision of workforce development tools, and building awareness about disparities in this country. These member organizations represent a diverse group of health care stakeholders, including several medical specialty societies, other medical/nursing organizations, and pharmaceutical and health insurance companies. ACOG is a member of the Commission.

The Council believes that the issue of maternal mortality is best explored on a systemic level through the work of the Commission to End Health Care Disparities. The Commission provides a national platform to identify and implement necessary policy change and advocacy that may help advance solutions to eliminate disparities and therefore positively impact the challenge of maternal mortality in minority populations.

SUMMARY/CONCLUSION

Maternal mortality remains one of the priority areas of the World Health Organization. Given the scope of the challenge in the United States, this issue should be addressed by a systemic approach to eliminating health care disparities. Impact in this broader arena will directly affect the issue of disparities in maternal mortality. The Commission to End Health Care Disparities is a national organization working to develop solutions to eliminate health care disparities and is best positioned to advocate for policies and activities designed to reduce maternal mortality in the United States.

RECOMMENDATIONS

The Council on Science and Public Health recommends that the following be adopted, and the remainder of this report be filed:

1. That our American Medical Association ask the Commission to End Health Care Disparities to evaluate the issue of health disparities in maternal mortality and offer recommendations to address existing disparities in the rates of maternal mortality in the United States. (Directive to Take Action)

2. That our AMA rescind D-420.994 (Directive to Take Action)

Fiscal Note: Less than $500.

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