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**Women's Health in Massachusetts**

**Abstract**

**Introduction:** Many medical center and community-based interventions have been initiated in Massachusetts to address perceived deficiencies in health care, health education, and disease prevention for women in the state. Findings from the Massachusetts Department of Public Health for 2005 suggest that these interventions have had an impact on women's health.

**Methods:** Mortality and morbidity findings available from the MDPH for 2005 were examined for trends in women's health. Findings reported by gender, race and ethnicity, educational level, and socioeconomic status were compared.

**Main findings:** For all groups examined, healthy behaviors in many areas had increased. However, for each group, areas of unhealthy behavior, with significant health impacts, were also reported.

**Discussion:** Most women's health indicators in Massachusetts meet benchmarks, particularly when compared to other states. Still, health care disparities based on gender, race and ethnicity are observed. These disparities suggest that a relationship exists between health and health-risk management. To improve women's health, access to care considerations should address factors within communities in which women live and work that facilitate their engagement with key, targeted health behaviors

## **Women's Health in Massachusetts**

Here we consider implications for policy emerging from recent (2005) health indicators on female natality, morbidity, and mortality, as well as socio-demographic characteristics, reported by the Massachusetts Department of Public Health.

Most women's health indicators in Massachusetts meet benchmarks, particularly when compared to other states. Still, health care disparities based on gender, race and ethnicity are observed.<sup>1</sup> These disparities suggest that a relationship exists, whether biologically or socially mediated, between health and health risk management. Such a relationship appears especially manifest in categories that disproportionately accrue according to gender, race/ethnicity, and socio-economic status, as is the case for many chronic illnesses and chronic stressors. Thus, factors undermining capable management should be the subject of further investigation.

In Massachusetts, where access to health insurance has become increasingly available, culminating in Chapter 58 (2006)<sup>2</sup>, and notwithstanding health fairs and community-based outreach forums, instituted for underserved sectors and assessed by an array of medical, public health, and community groups, key incidence rates for chronic diseases and other public health measures remain worrisome, and in some cases puzzling.

The data from 2005 suggest that the next yield in health gains is likely to occur through initiatives that assess and target cumulative exposure to systemic stressors critically impacting women's lives. Topics in chronic illness, injuries, reproductive health, and other long-term health concerns must move beyond concepts of access<sup>3</sup>, defined primarily in terms of the cost of diagnostic and treatment protocols, to a more nuanced understanding of proactive cooperation

between patients and caregivers. This cooperation must take into account both biological and socio-cultural factors involved in safeguarding health. Moreover, investigators must pay greater attention to the relationship between reciprocal support networks and health, the role of chronic stressors in illnesses affecting women, and encourage a robust incorporation of findings from genetics, neuroscience, psychiatry and mental health research efforts<sup>4</sup> into clinical care.

### **Demographics and Self-Reports on Health Indicators**

#### *Statewide Socioeconomic Measures*

In 2005, the Massachusetts Department of Public Health categorized the state's female population by race or ethnicity as follows:

White non-Hispanic	81%
Hispanic	8%
Black non-Hispanic	6%
Asian non-Hispanic	5%
American Indian	0.2%

Some 15% of women statewide had received an advanced degree, and 24% earned more than \$50,000 annually. Asian women represented the highest proportion of women holding a bachelor's degree (28%) and earning above \$50,000 (30%); Hispanic women represented the lowest, at 6% and 7%, respectively. More black women and white women earned above \$50,000 annually than had completed a bachelor's degree (at 15% and 8%, and at 24% and 15%, respectively). By contrast, the values of these socioeconomic indicators were closely linked for Asian (30% and 28%), Hispanic (7% and 6%), and American Indian women (9% and 9%), respectively.

Common societal assumptions about the links between education, employment and remuneration<sup>5,6</sup> are borne out by the education/remuneration values observed above for Asian, Hispanic, and American Indian women. However, the discrepancy between remuneration and education for black and white women is of note. Occupational conditions, experiences, practices and beliefs of African-American and white women in the workplace thus provide important sites of inquiry.

#### *Self-Reports on Socioeconomic Factors in Seeking Medical Care*

Overall in 2005, 93% of women reported having health insurance, compared to 90% of men; the greatest gender disparity occurred between Hispanic women and men (86% and 65%, respectively). White women and white men reported having health insurance at very similar rates (94% and 93%), as did black women and black men (88% and 89%), respectively.

Findings regarding insurance and health care utilization reveal complex intersections between available resources and decision-making alternatives in health care.<sup>7</sup> For example, a greater percentage of Hispanic women (21%) compared to Hispanic men (15%) reported not seeing a doctor due to cost, despite the fact that substantially more Hispanic women reported having health insurance (86%), when compared to Hispanic men (65%). Obvious costs, such as lack of insurance and co-pay obligations, as well as more hidden costs, such as child care expenses, quickly serve as possible explanations for these discrepant values.<sup>8-12</sup> However, given the incidence of self-reported “poor” and “fair-to-poor” health status among Hispanic women (see below), as well as markedly different findings among women and men of other ethnicities, investigations to identify factors that undercut efficient use of resources are needed.

### *Self-Reports on State of Health*

Overall, 6% of women reported “poor,” while 14% reported “fair” or “poor” mental or physical health. Hispanic women reported the greatest incidence of “poor” (9%), “fair” (9%) and “fair” or “poor” (26%) mental or physical health, compared to 6% and 13% of white women and 6% and 17% of black women, respectively.

Compared to 18% of men, 21% of women reported having a disability for at least one year.

Women were more likely to have arthritis (31% for women, 21% for men), but less likely to have heart disease (7% vs. 11%).

### *Self-Reports on Smoking, Activity and Diet*

Overall, 18% of women and 19% of men reported current smoking. The complexity of health behaviors in the context of cultural and individual decision-making were again underscored here.

For example, white women reported the highest rates of regular physical activity (53%), of eating five or more daily servings of fruits and vegetables (34%), and of smoking (19%).

Hispanic women, by contrast, reported the lowest rate of both smoking (12%), and of daily consumption of five or more servings of fruits and vegetables. Fundamental understanding of the links between healthy behaviors and health may or may not exist, but it is clear from reported values across groups that a consistent practice of linked, healthy behaviors is far from the norm.

Policy-makers must develop fresh approaches and incentives for bridging gaps between health findings and healthy behaviors. Actual alternatives and contexts considered when women make decisions affecting health in daily life should be investigated, differences in successful health strategies that appear stratified by gender, race/ethnicity and socio-economic status particularly

considered,<sup>13-15</sup> and the results used in public health campaigns to model how women can identify and navigate health risks. Views that can confound healthy decision-making processes should be directly addressed: such campaigns proved effective during the first decade of the HIV crisis. By characterizing engaged, culturally resonating ways in which women can reframe negotiations of health risk to achieve healthy behaviors, practices now often believed to address remote possibilities, or to be virtually impossible to integrate within women's daily lives, may be fostered, and the health of women thereby improved.

### **Maternity**

Overall, in 2005, 6% of Massachusetts mothers were teenagers; 8% had less than a high school education (Table 1). Hispanic mothers were the highest represented in these categories (15% teens, 28% <high school education) followed by black mothers (10% teens, 10% <high school education). Adolescent girls, at risk for pregnancy as they maneuver into adulthood after physical maturity, particularly need easily available, informational and health-care oriented public health interventions on topics associated with teen pregnancy in their communities, school health offices, and clinics.<sup>16</sup> In addition, partnerships between schools and health care sites, such as teen and tot programs<sup>17-19</sup>, along with information in pediatric clinics on community sites and services that assist women in furthering their education and career, should be encouraged.

### **Prenatal care**

Indicators on insurance status, prenatal care, and infant weight at birth strongly suggest that healthier pregnancy outcomes for mothers and their infants in Massachusetts can be achieved. Three steps toward this outcome follow ethnographic stratification of the indicators.

In 2005, 24% of Massachusetts mothers were insured by Medicaid. Nearly half of all Hispanic (47%) and black (46%) mothers were Medicaid-insured. By race or ethnic background, 17% of

white non Hispanic, 46% of black non Hispanic, 47% of Hispanic, 20% of Asian non Hispanic, and 31% of American Indian non Hispanic mothers were insured by Medicaid.

Nevertheless, 17% of Massachusetts mothers did not received adequate prenatal care in 2005.

By race of ethnic background, 14% of white non Hispanic, 27% of black non Hispanic, 25% of Hispanic, 19% of Asian non Hispanic, and 17% of American Indian non Hispanic pregnant women did not receive adequate prenatal care. The birth of low birthweight (less than 5.5 lbs) infants was reported for 8% of women overall in Massachusetts in 2005. By race or ethnic background, 7% of white non Hispanic women, 12% of black non Hispanic women, 8% of Hispanic women, 8% of Asian non Hispanic women, and 13% of American Indian non Hispanic women delivered infants of low birthweight.

These data clearly signal that a need still exists for improved access to care for pregnant women, especially among those who are young and poor.<sup>20</sup> Further, the disturbing percentage of low birthweight infants born to American Indian non-Hispanic women (13%) and black non-Hispanic women (12%) must be investigated. Finally, the prevention of smoking by pregnant women (7% overall) remains an imperative focus of public health campaigns.<sup>21</sup>

### **Morbidity**

In 2005, Massachusetts women (987) had lower heart disease hospitalization rates than men (1,589) per 100,000 people. However, black (1,160) and Hispanic women (1,005) had much higher hospitalization rates for heart disease than white (886) and Asian women (354).

At 12% vs. 7%, women had higher rates of asthma than men in 2005; Hispanic women had the highest reported rate (16%). Women also had higher rates of asthma hospitalization than men, at 163 vs. 113 per 100,000 people, respectively. However, the most startling disparities occurred

by race and ethnicity. Rate of asthma hospitalization for white women was 133, for black women 374, for Hispanic women 371, and for Asian women 63 per 100,000 people.

Cancer incidence rates, presented as the number of cases per 100,000 people using 2003 data, showed that Massachusetts lung cancer rates were lower for women (62) than for men (83). However, white women (64) had a higher incidence than black women (50), Hispanic women (31), and Asian women (33). Overall incidence of female breast cancer was 130/100,000, with the incidence rate higher for white women (135) than the overall rate. Incidence for black women (95), Hispanic women (88) and Asian women (59) was lower. Mammography rates continue to climb. In 2005, 87% of black women, 84% of white women, and 83% of Hispanic women ages 40 and older had received a mammogram in the preceding two years.

Across race/ethnicity, men had a higher incidence rate of colorectal cancer than women, at 68 compared with 48 per 100,000 people. Black women had an incidence rate of 51, Hispanic women of 29, and Asian women of 22 per 100,000 people.

Dramatic differences in race-gender patterns of obesity were reported. The greatest disparity between men and women existed among blacks: 37% of black women and 28% of black men were obese. Hispanic women were also more obese (30%) than Hispanic men (25%). By contrast, the percentage of white women who were obese was less than the percentage for white men, at 17% and 23%, respectively.

As of the close of 2005, the number of women living with AIDS in Massachusetts was 4,598 (29% of people in the state living with AIDS). Of this group, black women represented 40%, white women 30%, Hispanic women 29%, and Asian women 1%.

### **Mortality**

Based on total number of deaths, the 10 leading causes of death among women and men in Massachusetts during 2005 were the same, but their relative rankings differed (Table 2). Based on the total number of deaths in the state during 2005, the 10 leading causes of death among women differed according to race and ethnicity. Cancer and heart disease, respectively, were the first and second leading causes of death for black, Hispanic, and Asian women, while heart disease and cancer, respectively, were the first and second leading causes for white women. Stroke was the third leading cause of death for white, black, and Asian women, while diabetes was third for Hispanic women.

Of note, influenza and pneumonia ranked among the 10 leading causes of death only for white women, suicide only for Asian women, perinatal condition only for Hispanic women, and hypertension only for black women.

Women had lower heart disease mortality rates than men overall (138 vs. 216 per 100,000), and among all racial/ethnic groups. Black men (234) and black women (174) had the highest heart disease mortality rates as compared with men and women of other racial and ethnic groups.

Women also had lower overall diabetes mortality rates compared to men (15 vs. 21 per 100,000) across race and ethnicity, except among Hispanics. Hispanic women had a higher diabetes

mortality rate than Hispanic men (31 vs. 27). Black and Hispanic women had the highest diabetes mortality rate, when compared to other women (GET #s).

Leading causes of cancer death among women by race and ethnicity in 2005 were as follows.

Lung cancer was the leading cause of cancer death among white and black women, but the second leading cause among Hispanic and Asian women, perhaps reflecting smoking patterns.<sup>22</sup>

Breast cancer was the leading cause of cancer death among Hispanic women, but second among white and black women. Pancreatic cancer was the leading cause of cancer death among Asian women, but fourth among white and black women, and fifth among Hispanic women. Colorectal cancer was the third leading cause of cancer death for all racial/ethnic groups. For lung cancer, breast cancer, and colorectal cancer, higher mortality rates were seen for black men and/or black women. Studies are urgently needed to identify factors involved in the elevated mortality rates reported in racial/ethnic minorities.

### **Policy implications**

Varying disparities across gender, race/ethnicity, and socioeconomic markers suggest factors not well addressed by models of access and choice in prevention and treatment as these are now conceptualized. The outcomes we currently see are only partially those we might have been predicted three decades ago, when the first contemporary research and policy objectives targeting access to care across gender, race and ethnicity were formulated. Those objectives focused on obstacles posed by such economic disparities as the availability and scope of health insurance,<sup>8</sup> and on practices by providers and patients that resulted, for example, in infrequent utilization of early screening techniques.<sup>23</sup> Important efforts toward reducing such gaps have been instituted through greater enrollment in state-funded medical insurance, better training of core medical practitioners, and a wider use of health education outreach to promote early

screening<sup>24</sup> and healthy lifestyles.<sup>25, 26</sup> Moreover, research continues to identify factors positively associated with healthy outcomes, such as recent findings on the positive role played by a patient's affiliation with a "medical home" for primary care.<sup>27</sup>

Key gains in such areas as mammography and physical breast examination<sup>28</sup> confirm that a lively interest exists for an informed and cooperative relationship between Women's Health providers and patients who are women. However, this interest can translate into optimal health gains only through improved provider-patient cooperation. This will require strategic identification of assumptions deleterious to effective engagement during clinic visits, and the strengthening of clear and appropriate methods through which to communicate health behaviors, health beliefs, environmental factors, and genetic determinants in morbidity and mortality between those seeking and providing care.

A widespread belief held by caregivers and patients alike is that the practice of medicine rests on dialogue, through which a patient's medical history and reasons for seeking care at a specific time are established. Growing interest in providing culturally sensitive care underscores the strength of this belief.<sup>29, 30</sup> A patient's self-report and a caregiver's response provide crucial opportunities for synchronizing vocabularies of health, including terms reflecting biological factors and psycho-social stressors understood by either party as important to a presenting condition.<sup>31</sup>

The brief time allotted to clinical visits renders establishing and communicating a viable vocabulary for expressing these factors an especially critical arena. Surveys and other instruments that limit and standardize responses have made patients plainly aware of an interest

in brevity for key concerns. Moreover, a minimum of institutional investment can permit patients to address some points effectively through technological innovation. However, in face-to-face meetings, patients and caregivers should be encouraged to recount proactive, healthy behaviors undertaken by the patient, unhealthy behaviors not yet understood or eliminated, contexts outside the patient's immediate control that may exert a sustained or chronic influence upon her health, and risks observed in her racial, ethnic, social, and/or occupational groups.

The data here reviewed supports consideration of a woman's race and ethnicity, socio-economic status, and cultural background in determinations of likely health risks. A coordinated effort to replace beliefs about "negative," "hysterical" or "psychosomatic" attention to health concerns that patients may harbor with reasonable terms and categories that permit reflection and action upon factors now established as important or contrary to health, along with a consideration of potential biological responses to these factors, is now mandated (REF NEEDED). Women can help manage their health more effectively, and can provide caregivers with information useful in ordering diagnostic tests, if they are aware of risks to which they are particularly liable, and of better alternatives in health decision-making possible within the context of their daily lives.

The complexities of the female endocrine system, in tandem with a staggering array of societal obligations, have been so long considered commonplace as to yield some of the most intractable stereotypes in human description. However, these views proved of little moment when, as a result of a concerted effort between public health offices and medical practices, women of a wide range of ages and backgrounds were taught to conduct a regular breast self-exam and to seek mammography so as to maximize chances for early detection of breast lesions.<sup>32</sup>

Massachusetts' 2005 findings on the health of women in the state's various communities attest to complexities now faced by caregivers in improving women's health. For medical and public health practitioners to gain greater insight into strategies by which women can maintain and mediate healthier lives, as well as encounter and counter illness, data collection for health parameters should also include information to permit geocoding analysis. This will permit researchers to define strategies that go beyond a narrow focus on ethnicity, race, and socioeconomic status, while allowing these factors to be evaluated at the level of healthy decisions-making, or limits thereto, within the neighborhoods in which women live and work. With this information, caregivers and patients alike can better engage healthy decisions and behaviors, as well as understand and communicate health risks, so as to maximize useful interventions by which women can maximize their possibilities for improved health.

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