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3 Title: Sex and Gender Based Medicine in Clinical Medical Education
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5 Introduced by: Andrew Short for the Medical Student Section
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9 Walter
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11 Referred to: Reference Committee E
12
13 House Action: **APPROVE**
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15
16 Whereas, the cellular biology, gene expression, and hormonal profile differs between sexes
17 and genders, and influence the clinical presentation, progression, and outcome for a variety of
18 diseases¹, and
19

20 Whereas, the Institute of Medicine supports the advent and implementation of sex and gender
21 based medicine in daily practice of patient care due to its multifactorial impact on overall patient
22 health and disease prognosis², and
23

24 Whereas, sex and gender based medical education is a critical component in the pursuit of
25 more personalized medicine^{3,4}, and
26

27 Whereas, the majority of current educational materials used in medical education have a
28 gender-bias toward male patients, and educators must make the conscious decision to offer learning
29 materials and teaching that is sex and gender based⁵, and
30

31 Whereas, there are demonstrated sex and gender differences in drug responses to therapeutic
32 doses due to variations in gene expression leading to increases in adverse effects disproportionately
33 in the female sex⁶, and
34

35 Whereas, sex and gender-based medicine (SGBM) may not currently be addressed in
36 undergraduate or graduate medical education, and medical students and residents may not fully
37 understand the impact of these differences on patient care^{3,7,8}, and
38

39 Whereas, a recent study shows 96 percent of medical students are aware of differences in
40 SGBM, and 94.2 percent believe including it in the curriculum improves their ability to care for future
41 patients⁸, and
42

43 Whereas, some schools have already adapted their curriculum to include SGBM through
44 integration into existing educational resources, including clinical cases and learning modules^{9,10}, and
45

46 Whereas, over twenty national and international organizations and schools are already
47 addressing sex and gender implications in medical education and continuing medical education
48 curricula¹¹, and
49

50 Whereas, the American Medical Association (AMA) has recently expanded the definition of
51 women’s health to be inclusive of all health conditions for which there is evidence that women’s risks,
52 presentations, and/or responses to treatment are different from those of men, and encouraged
53 physicians to use this in their training^{12,13}, and

54 Whereas, the AMA has previously resolved to encourage the research of sex and gender
55 differences in medicine, and recommends that medical/scientific journals require sex based analysis of
56 data when appropriate¹⁴; therefore be it
57

58 RESOLVED: That MSMS encourages the inclusion of sex and gender based medicine in clinical
59 medical education in Michigan, including but not limited to, medical schools, residency programs and
60 Continuing Medical Education programs; and be it further
61

62 RESOLVED: That the Michigan Delegation to the American Medical Association (AMA) ask our
63 AMA to encourage the AMA Council on Medical Education and Academic Physician Section to petition
64 the Accreditation Council for Graduate Medical Education, Liaison Committee on Medical Education,
65 Commission on Osteopathic Accreditation, Association of American Medical Colleges, and
66 Accreditation Council for Continuing Medical Education (ACCME) to assure the inclusion of sex and
67 gender based medicine in medical education programs across the spectrum of learners nationwide.
68

69
70 WAYS AND MEANS COMMITTEE FISCAL NOTE: NONE

Relevant AMA Policy:

An Expanded Definition of Women's Health H-525.976

Our AMA recognizes the term "women's health" as inclusive of all health conditions for which there is evidence that women's risks, presentations, and/or responses to treatments are different from those of men, and encourages that evidence-based information regarding the impact of sex and gender be incorporated into medical practice, research, and training.

Medical Education and Training in Women's Health H-295.890

Our AMA: (1) encourages the coordination and synthesis of the knowledge, skills, and attitudinal objectives related to women's health/gender-based biology that have been developed for use in the medical school curriculum. Medical schools should include attention to women's health throughout the basic science and clinical phases of the curriculum;
(2) does not support the designation of women's health as a distinct new specialty;
(3) that each specialty should define objectives for residency training in women's health, based on the nature of practice and the characteristics of the patient population served;
(4) that surveys of undergraduate and graduate medical education, conducted by the AMA and other groups, should periodically collect data on the inclusion of women's health in medical school and residency training;
(5) encourages the development of a curriculum inventory and database in women's health for use by medical schools and residency programs;
(6) encourages physicians to include continuing education in women's health/gender based biology as part of their continuing professional development; and
(7) encourages its representatives to the Liaison Committee on Medical Education, the Accreditation Council for Graduate Medical Education, and the various Residency Review Committees to promote attention to women's health in accreditation standards.

¹ Oertelt-Prigione, Sabine, and Vera Regitz-Zagrosek. *Sex and Gender Aspects in Clinical Medicine*. London: Springer-Verlag London Limited, 2012. Print.

² McGregor, Alyson J., et al. "Advancing sex and gender competency in medicine: sex & gender women's health collaborative." *Biology of sex differences* 4.1 (2013): 11.

³ Kling, Juliana M., et al. "Evaluation of sex-and gender-based medicine training in post-graduate medical education: a cross-sectional survey study." *Biology of sex differences* 7.1 (2016): 38.

⁴ Pinn VW. *Sex and Gender Factors in Medical Studies: Implications for Health and Clinical Practice*. JAMA. 2003;289(4):397-400.

⁵ Verdonk, Petra, et al. "From gender bias to gender awareness in medical education." *Advances in Health Sciences Education* 14.1 (2009): 135-152.

⁶ Franconi, Flavia, et al. "Gender differences in drug responses." *Pharmacological research* 55.2 (2007): 81-95.

⁷ Song, Michael M., Betsy G. Jones, and Robert A. Casanova. "Auditing Sex- and Gender-based Medicine (SGBM) Content in Medical School Curriculum: A Student Scholar Model." *Biology of Sex Differences* 7.S1 (2016): n. pag. Web.

⁸ Jenkins, Marjorie R., et al. "Sex and gender in medical education: a national student survey." *Biology of sex differences* 7.1 (2016): 45.

⁹ Jenkins, Marjorie R., Richard Dickerson, Michael Song, Chwan-Li Shen, Susan Bergeson, Betsy Jones, Simon Williams, Robert Casanova, Texas Tech University Health Sciences Center School of Medicine, and Laura W. Bush Institute for Women's Health. *Direct Connection of Foundational Science Principles to Clinical Care*. Texas Tech Sex and Gender-Based Medicine Longitudinal Curriculum Model. N.p., n.d. Web.

¹⁰ McGregor, Alyson J., Ana Núñez, Rebecca Barron, Robert Casanova, and Eliza Lo Chin. "Workshop Summaries from the 2015 Sex and Gender Medical Education Summit: Utilization of Sex and Gender Based Medical Education Resources and Creating Student Competencies." *Biology of Sex Differences*. BioMed Central, 14 Oct. 2016. Web. 21 Feb. 2017

¹¹ Sex and Gender Women's Health Collaborative – Collaborators (<http://sgwhc.org/participate/collaborators/#sthash.kxbSvcku.dpbs>)

¹² AMA Resolution H-295.890. "Medical Education and Training in Women's Health". Approved 1999, Reaffirmed 2009.

¹³ AMA Resolution H-525.976. "An Expanded Definition of Women's Health". Approved 2016.

¹⁴ AMA Resolution H-525.988. "Sex and Gender Differences in Medical Research". Approved 1991, Appended 2000, Modified 2010, Reaffirmed 2016.