

United States Senate
WASHINGTON, DC 20510

February 4, 2022

Dr. Patricia L. Turner
American College of Surgeons
20 F Street NW #1000
Washington, D.C. 20001

Dear Dr. Turner,

Everyone deserves to feel safe undergoing a medical procedure, but history has shown that women are far more likely than men to have their pain dismissed, their concerns ignored, and their lives put at risk. Recent reporting indicates that physician gender is a significant predictor of patient outcomes, particularly when that patient is also female. While anyone may fall ill, women are uniquely vulnerable to worse outcomes based on the gender of the doctor that they see.

A recent study found that women experienced lower rates of complications, readmissions, and death when operated on by a female surgeon.¹ This is supported by existing findings that female patients treated by male physicians have higher mortality rates after a heart attack.² Other studies have found female patients suffer worse outcomes for coronary artery bypass grafting,³ mitral valve procedures,⁴ and other surgical procedures.⁵ Likewise, female physicians are less likely to perform caesarian deliveries.⁶ These trends are even more troubling when racial disparities are

¹ Wallis, Jerath, and Coburn, "Association of Surgeon-Patient Sex Concordance With Postoperative Outcomes," *JAMA Surgery* (December 2021); Branigin, Anne, "Women Are 32% More Likely to Die Post-Op if Their Surgeon Is a Man, Study Finds," *The Lily*, January 11, 2022. <https://www.thelily.com/women-are-32-more-likely-to-die-post-op-if-their-surgeon-is-a-man-study-finds>; Campbell, Denis, "Women 32% More Likely to Die After Operation by Male Surgeon, Study Reveals," *The Guardian*, January 4, 2022. <https://www.theguardian.com/society/2022/jan/04/women-more-likely-die-operation-male-surgeon-study>.

² Greenwood, Brad, Carnahan, Seth, and Huang, Laura, "Patient-Physician Gender Concordance and Increased Mortality Among Female Heart Attack Patients," *PNAS* 115, no. 34 (August 2018): 8569-8574; *see also* Schmittdeil, et al., "The Association of Patient-Physician Gender Concordance with Cardiovascular Disease Risk Factor Control and Treatment in Diabetes," *Journal of Women's Health* 18, no. 12 (December 2009): 2065-2070.

³ Gupta, et al., "Sex Differences in Outcomes After Coronary Artery Bypass Grafting," *Journal of Cardiothoracic and Vascular Anesthesia* 34, no. 12 (January 2020): 3259-3266; Vaccarino, et al., "Gender Differences in Recovery After Coronary Artery Bypass Surgery," *Journal of the American College of Cardiology* 41, no. 2 (January 2003): 307-314.

⁴ Seeburger, et al., "Gender Differences in Mitral Valve Surgery," *The Thoracic Cardiovascular Surgeon*, 61, no. 1 (January 2013): 42-6.

⁵ Sinnamon, et al. "The Influence of Socioeconomic Factors on Gender Disparities in Lower Extremity Bypass," *Journal of Surgical Research* 188, No. 2 (May 2014): 537-544; *see also* Nguyen, et al., "Disparity in Outcomes of Surgical Revascularization for Limb Salvage; Race and Gender Are Synergistic Determinants of Vein Graft Failure and Limb Loss," *Circulation* 119, no. 1 (January 2009): 123-130.

⁶ Hoxha et al., "Caesarean Delivery and Gender of Delivering Physicians: A Systematic Review and Meta-Analysis" *Obstetrics and Gynecology* 136, no. 6 (December 2020): 1170-1178.

considered; female patients of color are at greater risk for adverse surgical outcomes.⁷ Given this growing body of evidence, it is essential that medical organizations, including the American College of Surgeons, address these disparities and prioritize the health of women.

To further improve women’s health outcomes, medical organizations should also take additional action to support more women seeking to become surgeons. The Association of American Medical Colleges reported that as of 2019, women make up just 22 percent of all general surgeons.⁸ In orthopedics, women only make up 6 percent. There are several deterrents for women considering the surgical field, including sexual discrimination, lack of professional role models, and inhospitable work environments.⁹ Given our growing understanding that physicians’ gender plays a role in their practice and quality of care, this dearth of gender diversity is especially troubling.

The medical profession must take a serious look at how it can address the gender inequality that pervades the healthcare system. Please respond by no later than March 7, 2022, with information regarding the steps ACS is taking this year to reduce gender disparities in patient outcomes and improve the career pipeline for female surgeons.

Thank you for your attention to this important matter. I look forward to your response.

With every best wish,

A handwritten signature in blue ink that reads "Maggie Hassan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Margaret Wood Hassan
United States Senator

⁷ Chinn, Martin, and Redmond. “Health Equity Among Black Women in the United States” *Journal of Women’s Health* 30, no. 2 (2021): 212-219.

⁸ AAMC, “Active Physicians by Sex and Specialty, 2019” *Association of American Medical Colleges*, 2019 <https://www.aamc.org/data-reports/workforce/interactive-data/active-physicians-sex-and-specialty-2019>.

⁹ Gargiulo, Hyman, and Hebert. “Women in Surgery: Do We Really Understand the Deterrents?” *Archives of Surgery* 141, no. 4 (2006): 405–408.