Status of Sex and Gender in Emergency Medicine
A Five Year Follow Up Report

Basmah Safdar MD, MSc
Kimberly E. Ona Ayala BA
Syed Shayan Ali MD
Benjamin J. Seifer BSME
Lehigh Valley Health Network, Benjamin.Seifer@lvhn.org
Michelle Hong BS, MS
Lehigh Valley Health Network, Michelle.Hong@lvhn.org
See next page for additional authors

Follow this and additional works at: https://scholarlyworks.lvhn.org/emergency-medicine

Part of the Emergency Medicine Commons
Authors
Basmah Safdar MD, MSc; Kimberly E. Ona Ayala BA; Syed Shayan Ali MD; Benjamin J. Seifer BSME; Michelle Hong BS, MS; Marna R. Greenberg DO, MPH, FACEP; Esther K. Choo MD, MPH; and Alyson J. McGregor MD, MA
Status of Sex and Gender in Emergency Medicine – A Five Year Follow Up Report

Basmah Safdar, MD, MSc,1 Kimberly E. Ona Ayala, BA,1 Syed Shayan Ali, MD,1 Benjamin J. Seifer, BSME,2 Michelle Hong, BS, MS,2 Marna Rayl Greenberg, DO, MPH,2 Esther K. Choo, MD, MPH,3 Alyson J. McGregor, MD, MA4

1Department of Emergency Medicine, Yale School of Medicine, New Haven, CT, 2Department of Emergency and Hospital Medicine, Lehigh Valley Health Network/USF MCOM, Lehigh Valley Campus, Allentown, PA, 3Department of Emergency Medicine, Oregon Health & Science University, Portland, OR, 4Department of Emergency Medicine, Warren Alpert Medical School of Brown University, Providence, RI

INTRODUCTION
Despite a clear need for the inclusion of sex and gender based medicine in emergency medicine (SGEM) research, a 2011 review showed that EM, unlike the fields of cardiology, psychiatry, and oncology, failed to apply sex/gender considerations to research design. Two percent examined sex/gender as a primary outcome and 29% within the study analysis. This project provides a five-year follow up on SGEM status following the 2014 AEM consensus conference on sex/gender research within EM. The objective was to evaluate the scope of the inclusion of sex and gender in publications by emergency medicine researchers.

METHODS
Using MEDLINE, the term “emergency” was used to identify all English-language, EM-affiliated studies of adult human subjects published between 1/2014 and 2/2017 in which the first, second, or last author belonged to an EM section, division, center, or institution functioning as an emergency department. Five trained abstractors reviewed the data using a standardized data abstraction form. Articles were coded for sex/gender composition, use of sex/gender as a control variable, independent variable, or a component of the primary objective. Inter-rater reliability (IRR) was calculated with 95% confidence intervals (CI).

RESULTS
The search revealed 6,442 articles using the selected “emergency” terms and 2,628 original studies coded as EM-affiliated publications were reviewed; 2,233 met inclusion criteria and were analyzed. The five study areas contributing the most articles were cardiovascular (20%), administration/crowding (17%), infectious diseases/sepsis (10%), trauma (10%), and emergency medical services (7%). Ninety percent of the published studies were descriptive and 10% experimental. Eighty-six percent (n=1,921) of articles reported the sex/gender composition of the sample and 0.4% (n=8) reported transgender identity. Thirty-four percent reported sex/gender in the study composition, with 27% (n=609) reporting it as a control variable, 24% (n=543) as an independent variable, and 2% using sex/gender as a component of the primary outcome. The adjusted IRR for data abstraction was 97% (95% CI=95.4%, 98.6%).

CONCLUSION
Compared to the 2011 report, the number of EM driven scholarship reporting sex/gender in its study composition has increased from 29% to 33%, while those evaluating it as a primary outcome remains unchanged.