

Letters

COMMENT & RESPONSE

Explanation of Errors in Population Numbers and Missing Data in Studies of Lifetime Skin Cancer Associated With Sexual Orientation and Gender Identity

To the Editor: We write to report errors that occurred in 2 studies that we published online on February 12, 2020, and in the April issue of *JAMA Dermatology*: “Association Between Sexual Orientation and Lifetime Prevalence of Skin Cancer in the United States”¹ and “Gender Identity and Lifetime Prevalence of Skin Cancer in the United States.”² These were cross-sectional studies that analyzed data from annual Behavioral Risk Factor Surveillance System (BRFSS) surveys of adults aged 18 years and older who self-identified as being heterosexual, gay, lesbian, or bisexual from 2014 through 2018. Both measured self-reported lifetime history of skin cancer. The first study¹ evaluated the association between sexual orientation and lifetime prevalence of skin cancer, and the second study² evaluated skin cancer history by gender identity. In the first article, we reported that gay and bisexual men had an increased self-reported lifetime prevalence of skin cancer compared with the prevalence among heterosexual men. In the second article, we reported that compared with cisgender men, gender nonconforming individuals, but not transgender men or women, had a higher self-reported lifetime prevalence of skin cancer.

Soon after our articles were published online in *JAMA Dermatology*, another researcher who was also examining data from the 2014-2018 BRFSS surveys informed us of a few discrepancies in our first article, including the overall population numbers. Because of this, we looked into our data collection and realized that our data set was missing information from all years of Connecticut, 1 year of Iowa, and 1 year of Arizona over the 2014-2018 period. After reperforming our analysis with these states included, our numbers matched those of the individual who had reached out to us. In addition, there was an error in how we reported missing data in Table 1 of the first article¹ because we had not included numbers for those who had been missing data on alcohol use, as these data were added to our model later.

Correcting for these errors affects the number of states listed in the Methods sections, numbers in the Results sections, and the Tables of both articles.^{1,2} For example, the total number of participants changes from 845 264 to 877 650 in the first article.¹ In the second article, the study sample changes

from 368 197 to 382 216.² The number of states included changes from 37 to 36.

Although many of the specific numbers in our results change with the addition of the corrected data, none of the findings—either positive or negative—change after the addition of these data. In our study focusing on sexual orientation,¹ our major findings that gay and bisexual men had increased lifetime prevalence of skin cancer when compared with heterosexual men is still correct. In addition, bisexual women had decreased lifetime risk of skin cancer. In addition, our findings from the study looking at gender minority patients do not change after addition of the corrected data.² All interpretations in the Discussion section and the Conclusions remain the same.

We have carefully reviewed both of our articles and these are the only changes that need to be made. We have double-checked our data as well as our analyses. We apologize to the readers and editors of *JAMA Dermatology* for the errors in our articles and appreciate the opportunity to correct them. Both articles have been corrected online.^{1,2}

Sean Singer, BS
Elizabeth Tkachenko, BS
Rebecca I. Hartman, MD, MPH
Arash Mostaghimi, MD, MPA, MPH

Author Affiliations: Department of Dermatology, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts (Singer, Tkachenko, Hartman, Mostaghimi); University of Massachusetts Medical School, Worcester (Tkachenko); Department of Dermatology, Veterans Integrated Service Network, Jamaica Plain, Massachusetts (Hartman); Associate Editor, *JAMA Dermatology* (Mostaghimi).

Corresponding Author: Arash Mostaghimi, MD, MPA, MPH, Department of Dermatology, Brigham and Women's Hospital, 221 Longwood Ave, Boston, MA 02115 (amostaghimi@bwh.harvard.edu).

Published Online: June 3, 2020. doi:10.1001/jamadermatol.2020.1638

Conflict of Interest Disclosures: Dr Hartman reported receiving grants from the American Skin Association during the conduct of the study. Dr Mostaghimi reported receiving personal fees from Pfizer, personal fees and equity from Hims, personal fees from 3DerM, equity from Lucid, and having performed clinical trials from Eli Lilly and Company, Aclaris Therapeutics, and Concert Pharmaceuticals outside the submitted work. No other disclosures were reported.

1. Singer S, Tkachenko E, Hartman RI, Mostaghimi A. Association between sexual orientation and lifetime prevalence of skin cancer in the United States. *JAMA Dermatol*. Published online February 12, 2020. doi:10.1001/jamadermatol.2019.4196

2. Singer S, Tkachenko E, Hartman RI, Mostaghimi A. Gender identity and lifetime prevalence of skin cancer in the United States. *JAMA Dermatol*. Published online February 12, 2020. doi:10.1001/jamadermatol.2019.4197