LETTERS

mechanics of extracellular matrices. *Proc Natl Acad Sci USA* 2009; 106:1081–1086.

- 2 Bhatt SP, Bodduluri S, Hoffman EA, Newell JD Jr, Sieren JC, Dransfield MT, et al. CT measure of lung at-risk and lung function decline in chronic obstructive pulmonary disease. Am J Respir Crit Care Med 2017;196: 569–576.
- 3 Regan EA, Hokanson JE, Murphy JR, Make B, Lynch DA, Beaty TH, et al. Genetic epidemiology of COPD (COPDGene) study design. COPD 2010;7:32–43.
- 4 Pompe E, Strand M, van Rikxoort EM, Hoffman EA, Barr RG, Charbonnier JP, et al.; COPDGene Investigators. Five-year progression of emphysema and air trapping at CT in smokers with and those without chronic obstructive pulmonary disease: results from the COPDGene study. *Radiology* 2020;295:218–226.
- 5 Tian X, Samei E. Accurate assessment and prediction of noise in clinical CT images. *Med Phys* 2016;43:475.
- 6 Stewart JI, Moyle S, Criner GJ, Wilson C, Tanner R, Bowler RP, et al.; For The Copdgene Investigators. Automated telecommunication to obtain longitudinal follow-up in a multicenter cross-sectional COPD study. COPD 2012;9:466–472.
- 7 Shaker SB, Dirksen A, Lo P, Skovgaard LT, de Bruijne M, Pedersen JH. Factors influencing the decline in lung density in a Danish lung cancer screening cohort. *Eur Respir J* 2012;40:1142–1148.

- 8 Dransfield MT, Kunisaki KM, Strand MJ, Anzueto A, Bhatt SP, Bowler RP, et al.; COPDGene Investigators. Acute exacerbations and lung function loss in smokers with and without chronic obstructive pulmonary disease. Am J Respir Crit Care Med 2017;195:324–330.
- 9 Tanabe N, Muro S, Hirai T, Oguma T, Terada K, Marumo S, et al. Impact of exacerbations on emphysema progression in chronic obstructive pulmonary disease. Am J Respir Crit Care Med 2011;183:1653–1659.
- 10 Coxson HO, Dirksen A, Edwards LD, Yates JC, Agusti A, Bakke P, et al.; Evaluation of COPD Longitudinally to Identify Predictive Surrogate Endpoints (ECLIPSE) Investigators. The presence and progression of emphysema in COPD as determined by CT scanning and biomarker expression: a prospective analysis from the ECLIPSE study. *Lancet Respir Med* 2013;1:129–136.
- 11 Ilumets H, Rytilä PH, Sovijärvi AR, Tervahartiala T, Myllärniemi M, Sorsa TA, et al. Transient elevation of neutrophil proteinases in induced sputum during COPD exacerbation. Scand J Clin Lab Invest 2008;68:618–623.
- 12 van Eeden SF, Sin DD. Oxidative stress in chronic obstructive pulmonary disease: a lung and systemic process. *Can Respir J* 2013; 20:27–29.

various specific components, is a population at greater risk for

both COPD and CVD (2, 3). Data and results from studies not

Copyright © 2022 by the American Thoracic Society

Check for updates

Chronic Obstructive Pulmonary Disease in the LGBTQI+ Population

To the Editor:

We read with great interest the article by Krishnan and colleagues (1), "Race and Sex Differences in Mortality in Individuals with Chronic Obstructive Pulmonary Disease," recently published in *AnnalsATS*.

The authors examined, by race and sex and underlying mechanisms, mortality differences in chronic obstructive pulmonary disease (COPD). They used Medicare claims among REGARDS (Reasons for Geographic and Racial Differences in Stroke) cohort participants to identify COPD and found no race and sex differences in all-cause mortality. For all race and sex groups with COPD, the most common cause of death was cardiovascular disease (CVD).

Krishnan and colleagues concluded that CVD comorbidity management, especially among Black individuals, may improve mortality outcomes, as Black women with COPD more frequently die of CVD (1). We sadly note that the authors do not mention sexual and gender minorities (SGMs). Unfortunately, the study seems to confirm the invisibility of the LGBTQI+ (agender, asexual, bisexual, gay, gender diverse, genderqueer, genderfluid, intersex, lesbian, nonbinary, pansexual, queer, and transgender people) population in the analyzed data. In this regard, we would like to remind readers that SGMs represent approximately 10% or more of the U.S. population. Yet the LGBTQI+ population, which should not be considered as a whole but divided into its

including LGBTQI+ people perpetuate disparities for SGM populations (4). There is the urgency to also consider the LGBTQI+ population in studies together with the need to increase and improve the delivery of health care for SGMs. Protocols and guidelines for caring for LGBTQI+ patients are poorly defined. Furthermore, data on targeted screening, as well as validated reference data for laboratory and imaging/diagnostic testing or information on the efficacy of drugs and their adverse effects, are lacking among SGMs. To identify and characterize the population of interest is the first and most critical step to better understand and eliminate health disparities and deliver culturally competent care. To promote equality of care and provide patient-centered care, it is essential to collect and document patients' sexual orientations and gender identity information in healthcare settings, but to date, most healthcare organizations have yet to implement this aspect. To better understand the unique needs of the LGBTQI+ population, more research is needed, and the availability of data is critical. To enhance data availability for analysis of the LGBTQI+ population, it is necessary to improve data collection and analysis methods incorporating claims and other sources, such as surveys and electronic health record data among others (5). Unfortunately, at the moment, the collection and availability

of data relating to sex and gender identity are still a critical point. The LGBTQI+ community has historically experienced bias, discrimination, and perceived inadequate or inappropriate care (6). Reduction of this barrier can begin involving the whole scientific community, which must include LGBTQI+ populations in studies, trials, protocols, and guidelines.

³ This article is open access and distributed under the terms of the Creative Commons Attribution Non-Commercial No Derivatives License 4.0. For commercial usage and reprints, please e-mail Diane Gern.

Author disclosures are available with the text of this letter at www.atsjournals.org.

Maria Maddalena Sirufo, M.D. University of L'Aquila L'Aquila, Italy and AUSL 04 Teramo Teramo, Italy

Lina Maria Magnanimi, M.D. University of L'Aquila L'Aquila, Italy

Lia Ginaldi, M.D. University of L'Aquila L'Aquila, Italy

AUSL 04 Teramo Teramo, Italy

and

Technical Group for the Coordination of Gender Medicine Regione Abruzzo, Italy

Massimo De Martinis, M.D.* University of L'Aquila L'Aquila, Italy

AUSL 04 Teramo Teramo, Italy

Technical Group for the Coordination of Gender Medicine Regione Abruzzo, Italy and UniCamillus-Saint Camillus International University of Health Sciences Rome, Italy

ORCID ID: 0000-0003-4253-1312 (M.D.M.).

*Corresponding author (e-mail: demartinis@cc.univaq.it).

References

- 1 Krishnan JK, Rajan M, Banerjee S, Mallya SG, Han MK, Mannino DM, et al. Race and sex differences in mortality in individuals with chronic obstructive pulmonary disease. Ann Am Thorac Soc 2022;19: 1661–1668.
- 2 Dragon CN, Guerino P, Ewald E, Laffan AM. Transgender Medicare beneficiaries and chronic conditions: exploring fee-for-service claims data. *LGBT Health* 2017;4:404–411.
- 3 Caceres BA, Streed CG Jr. Cardiovascular health concerns in sexualand gender minority populations. *Nat Rev Cardiol* 2021;18: 227–228.
- 4 Sirufo MM, Magnanimi LM, Ginaldi L, De Martinis M. A sex and gender specific approach to achieve diagnostic excellence for older patients. *Arch Gerontol Geriatr* 2022;102:104755.
- 5 Grasso C, McDowell MJ, Goldhammer H, Keuroghlian AS. Planning and implementing sexual orientation and gender identity data collection in electronic health records. J Am Med Inform Assoc 2019; 26:66–70.
- 6 Sirufo MM, Magnanimi LM, Ginaldi L, De Martinis M. A call for all healthcare professionals to prioritize sex and gender minorities' health through innovations in education, research and practice. *Nurs Outlook* 2022;70:564–565.

Copyright © 2022 by the American Thoracic Society

Check for updates

Reply: Chronic Obstructive Pulmonary Disease in the LGBTQI+ Population

From the Authors:

We thank Sirufo and colleagues for their thoughtful comments regarding our recently published study (1). They point out that our study of race and sex differences in causes of mortality in subjects with chronic obstructive pulmonary disease (COPD) does not include further analysis of our population on the basis of sexual orientation and gender identity (SOGI). Our analysis was conducted using data from the REGARDS (Reasons for Geographic and Racial Differences in Stroke) cohort, which did not collect baseline information regarding participants' gender identities and sexual orientations (2). Because of this, we were unable to further characterize our finding of increased cardiovascular disease mortality among Black women compared with White women with COPD on the basis of gender identity. We agree with Sirufo and colleagues that a discussion of this limitation is important and would be consistent with Sex and Gender Equity in Research guidelines (3).

The lack of adequate SOGI data collection is widespread and concerning and needs to be addressed. SOGI data are missing from many observational cohort studies, national public health surveillance programs, and electronic health records (4). The sparsity of SOGI data is particularly glaring given that contrary to clinician beliefs, most patients are comfortable disclosing this information (5). The need to collect SOGI data is vital in respiratory epidemiology, especially considering the higher prevalence of tobacco use in the LGBTQI+ community because of targeted marketing and discrimination (6).

Despite being unable to address differences in all-cause and cause-specific mortality in our REGARDS COPD population according to SOGI, we agree with Sirufo and colleagues that future research to identify these differences is important. Doing so will help create and prioritize targeted interventions to improve the health of individuals in the LGBTQI+ community with COPD.

³ This article is open access and distributed under the terms of the Creative Commons Attribution Non-Commercial No Derivatives License 4.0. For commercial usage and reprints, please e-mail Diane Gern.

Supported by National Heart, Lung, and Blood Institute grant T32 HL134629 (J.K.K.).