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## Ethnically Diverse Normative Data for Diffusing Capacity and Lung Volumes: Another Research Priority

To the Editor:

We read with interest the recent ATS Workshop Report on Identifying Clinical and Research Priorities in Sickle Cell Lung Disease (SCD) (1). We congratulate the authors for this comprehensive assessment of research priorities in SCD.

A number of the highlighted research questions centered around lung function. We wish to point out that these questions could be challenging to address because of the lack of robust normative data for lung volumes and diffusing capacity from African Americans.

The Global Lung Function Initiative (GLI) has collected respiratory function outcomes from researchers and health care professionals from around the world. To date, the GLI Network has produced reference equations for spirometry from 74,000 subjects across the lifespan and from a variety of ethnic and national backgrounds, using modern and robust statistical techniques (2).

GLI has also collected data for Transfer Factor for Carbon Monoxide and generated normative values from 12,660 measurements from asymptomatic, lifetime nonsmokers from 14 different countries (3). Unfortunately, 85% of the submitted data were from white subjects. Similarly, the majority of plethysmography data submitted to GLI for the development of normative data for lung volumes were from white subjects (S. Stanojevic, personal communication).

As SCD predominantly affects African Americans in the United States, this complicates interpretation of lung function data, as patients are compared with normative data obtained from white subjects. One recent study in children found lower  $DL_{CO}$  and alveolar volume in African Americans compared with white subjects (4). We suggest that obtaining normative data from diverse ethnic groups will be important for lung function

assessment in patients with SCD, as well as nonwhite patients undergoing pulmonary toxic chemotherapy, and should be high on the list of research priorities.

**Author disclosures** are available with the text of this letter at [www.atsjournals.org](http://www.atsjournals.org).

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