Lung Cancer Screening: A Necessary Tool Not Accessible for the Whole Population

We were pleased to read the article by Hirsch et al titled “Determinants Associated With Longitudinal Adherence to Annual Lung Cancer Screening: A Retrospective Analysis of Claims Data” [1]. The authors examined the associations between lung cancer screening (LCS) and factors related to adherence such as comorbidities, health care usage, and geographic and demographic aspects. They were able to identify that age, rural residency, and insurance type are associated with reduced adherence to annual LCS.

First, we want to highlight that this is the first study to analyze adherence in a “real world, unselected US population outside of a study” [1]. This is highly important, considering that lung cancer lethality is elevated because many cases are diagnosed when metastatic disease is already established. Mortality and burden of disease cannot be dismissed, with 1,276.45 per 100,000 inhabitants’ disability-adjusted life years in the United States and 285.07 per 100,000 inhabitants in other countries like Colombia [2]. However, this illness is preventable, and strategies such as screening are extremely valid and useful, because LCS with low-dose CT has been shown to reduce cancer mortality [1]. The analysis made in the study is very helpful because it provides data of vital importance for public health and allows for the constant improvement of the system.

We also believe that the information supplied is vital for other populations for whom screening programs are needed or are under construction, building important knowledge to adjust and implement new interventions according to population-based determinants of LCS adherence from the beginning. This is the case in Colombia, where LCS is starting to gain strength in some institutions, like ours, and this information is essential to have the highest adherence possible to be able to reduce lung cancer mortality in our population.

Nonetheless, knowing that the efficacy of the LCS depends strongly on annual adherence, we would like to ask the authors if they believe that income and education must be taken into consideration as factors that could affect it, based on the fact that historically, individuals with lower income and education have less access to health coverage and have a higher burden of uncontrolled comorbidity, making this population at risk of not being adherent or even eligible for LCS because of a lack of contact with health services. These could become a proxy as a determinant factor in adherence. Establishing a correlation between income and education with LCS adherence could be useful information that could be extrapolated to other populations and other countries where social inequity is even greater.

Even though the authors acknowledge it as a limitation, we want to remark that racial and ethnic minority groups are known to suffer from inequity to access health services and that the coronavirus disease 2019 pandemic has caused this problem to resurge, reinforcing inequities and barriers such as access to high-quality education and jobs with higher revenues [3].

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Authors’ Response

We agree with the observation from Gallo et al. [1] that income and education are important factors to consider when defining populations adherent to annual lung cancer screening. In the United States, income and education are common measurements for social determinants of health (SDOH) that contribute to health disparities and inequitable access to health care [2]. Notably, female gender, high income, high education, and private insurance were recently associated with better limited stage small cell lung cancer survival [3]. Failure to recognize similar effects of SDOH on lung cancer screening
adherence will be detrimental to the individual and population benefits of lung cancer–specific mortality reduction attributable to screening. Our study did find an association between reduced adherence and rural residence and individuals with Medicaid or Medicare fee-for-service insurance [4]. It is possible that these findings are mediated or confounded by other measures of SDOH. Unfortunately, the data needed to measure SDOH variables, including income and education, are not available in the Colorado All Payer Claims data set. Although the use of claims data allowed us to analyze lung cancer screening adherence from a population health perspective, the primary purpose of claims data is for billing and comes with several limitations for using these data for research analyses. Health insurance claims data are mostly limited to clinical or procedure codes and billing data, with few demographic or individual characteristic data available. Furthermore, claims data do not include any data on uninsured individuals, further complicating the use of these data to consider SDOH elements in analyses. Given the importance of continuing to define populations that have reduced annual adherence for the development of targeted interventions, future research that can better define and measure important aspects of SDOH will be extremely important and a valuable asset to maximizing adherence and reaching the full potential of lung cancer screening.

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Re: “Burnout, Professional Fulfillment, Intention to Leave, and Sleep-Related Impairment Among Faculty Radiologists in the United States: An Epidemiologic Study”

I read the article on burnout by Higgins et al [1] with a sense of somber acceptance. The authors cite several causes for a disturbing trend of increasing burnout and declining professional fulfillment among radiologists over the last two decades. Although the prevailing medicolegal climate and increasing workload in the face of decreasing reimbursements are contributory factors, the very important role played by isolation at the workplace and progressive decline in human interaction in radiology needs to be highlighted. Our specialty is particularly susceptible to “working in silos,” and the ongoing pandemic has only exaggerated a known vulnerability. The so-called efficiency model in which we are motivated to churn out more studies without being interrupted by other doctors can rapidly lead to disengagement and foster dissatisfaction.

We have heard anecdotes from older colleagues about the quinquennial view-box era of radiology, when clinicians would congregate in the reading room, ostensibly to discuss specific details related to their patients’ scans. This human interaction served more than one important purpose. It reinforced the radiologist’s role as an integral member of the patient-care team and also served to provide much-needed human interaction. The