Peer Review File

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Reviewer A:
Major Comments:
1. The authors motivate this paper in the introduction by stating that AI/AN populations are understudied and highlight that individual racial and ethnic minorities have unique barriers to care. It would be helpful to expand this in the introduction to highlight the specific social determinants of health and mechanisms known to impact cancer care delivery to American Indian and Alaskan Native populations.

Reply 1: Thank you for this feedback. After additional literature review we have added in information highlighting social determinants of health and impacts to delivery of care in AI/AN populations
Changes in text: "Cobb et al. looked into health behaviors and social determinants of health in AI/AN and found AI/AN people had high prevalence estimates of tobacco use, obesity, and physical inactivity, and low prevalence estimates of fruit and vegetable consumption, cancer screening, and seatbelt use in comparison to NHW. In addition to these health behaviors AI/AN people have less insurance coverage and worse access and utilization of care than NHW. AI/AN were more likely to be uninsured than NHW with over half of low-income uninsured AIANs did not have access to the IHS. Even with access to IHS, AI/AN women had lower rated of preventative care which may reflect the relative lack of resources for preventive care in the IHS." Added into the introduction (line 109).

2. The authors present a comprehensive overview of known inequities in lung cancer incidence, tobacco use and survival, however the discussion is very limited in it's discussion of actual mechanisms driving these disparities. It is important that the authors expand their discussion to move beyond descriptions of racial inequities in care to providing a comprehensive discussion of why the disparities in receipt of anatomic resection exist. For instance, the authors could expand this section to include more discussion regarding funding through the IHS for complex cancer care and cancer work force, access to high volume centers for lung cancer surgery, hospital level segregation, access to complex cancer care in rural communities, access surgeon specialists i.e. non-cardiac general thoracic surgeons compared to general surgeons or cardiothoracic surgeons, etc. In order to ultimately begin to address the racial inequities found by authors, there needs to be more robust discussion regarding the contributing factors.
a. Potential Citations:
i. Bonner SN, Dualeh SHA, Kunnath N, Dimick JB, Reddy R, Ibrahim AM, Lagisetty K. Hospital-Level Segregation Among Medicare Beneficiaries Undergoing Lung Cancer Resection. Ann Thorac Surg. 2023 Apr;115(4):820-826. doi: 10.1016/j.athoracsur.2022.12.032. Epub 2023 Jan 4. PMID: 36608754.
ii. Guadagnolo BA, Petereit DG, Coleman CN. Cancer Care Access and Outcomes for American Indian Populations in the United States: Challenges and Models for Progress. Semin Radiat Oncol. 2017 Apr;27(2):143-149. doi: 10.1016/j.semradonc.2016.11.006. Epub 2016 Nov 24. PMID: 28325240; PMCID: PMC5363281.
iii. Sawchuk CN, Van Dyke E, Omidpanah A, Russo JE, Tsosie U, Goldberg J, Buchwald D. Barriers to Cancer Care among American Indians and Alaska Natives. J Health Care Poor Underserved. 2016;27(1):84-96. doi: 10.1353/hpu.2016.0003. PMID: 27763460.

Reply: Thank you for the feedback. We appreciate the addition literature sources you have provided and included additional ones to expand on the discussion regaring contributing factors.
Changes in text: "There are documented disparities in health coverage and care showing that AIANs continue to be at a disadvantage in the US health system with lack of insurance coverage at much higher rates than NHW.27 Although the IHS provides a valuable source of basic health care for some AI/ANs who lack coverage, there are gaps in preventive care that could be contributing to findings in this paper and need to be addressed. Although the quality of care within the IHS, especially as it pertains to preventative services,

has improved in recent years, perennial underfunding and continued suboptimal coordination between the IHS and the Medicare, and Medicaid programs continue to hinder its progress.28 Less AI/AN patients receive cancer- directed therapies after diagnosis than NHW as seen in this study. In addition to IHS, this is likely related to socioeconomic indicators such as lower income and rural residency. An analysis of the largest all-payer data source for hospital admissions for the United States and includes all states, except Alaska found that of patients admitted to the hospital with cancer diagnoses confirmed, American Indian patients were more likely to live in low-income zip codes, more likely to have Medicaid insurance, and more likely to have their cancer surgeries performed at a rural hospital.29 Although not completely studied nor seen in this study, it has previously been described that a small proportion of hospitals provide a disproportionate amount of surgical care for racial and ethnic minorities with lung cancer with higher mortality, complications, and readmissions for resections for lung cancer with a larger portion of these surgeries being emergent rather than elective.30,31 Culturally tailored programs in targeted communities have been shown to mitigate the observed cancer-related health disparities among AI/AN communities. One program that has seen success incorporates traditional healers into consultation workflow to reduce dipartites in hospice use among American Indians.32 Cultural issues specific to certain tribes, regional gradients of inequity, geography, and a multitude of other factors contribute to the fact that any program will need to be regionally tailored to serve its target population to find greatest success in addressing barriers and reducing health disparities.33" Was added to the discussion section.

Minor Comments:

1. Line 61: Black should be capitalized per recent changes in guidelines the reporting of race and ethnicity. See citation:
Flanagin A, Frey T, Christiansen SL, Bauchner H. The Reporting of Race and Ethnicity in Medical and Science Journals: Comments Invited. JAMA. 2021;325(11):1049–1052. doi:10.1001/jama.2021.2104

Reply: Thank you for this feedback.
Changes in text: 'B' capitalized

2. Line 90: Would rephrase to say lower survival compared to other racial and ethnic minorities.

Reply: Thank you for this suggested rephrasing for clarification.
Changes in text: deleted "lower survival than in other minorities", added "lower survival compared to other racial and ethnic minorities"

3. The authors should also mention in their methods section how race and ethnicity is captured by the NCDB. They can also highlight in the limitations that there is probably underreporting of AI/AN population in NCDB due to the problem of racial misclassification. This is particularly important in claims and registry data for American Indian and Alaskan native patient populations
a. https://hcup-us.ahrq.gov/datainnovations/raceethnicitytoolkit/or26.jsp
b. Jim MA, Arias E, Seneca DS, Hoopes MJ, Jim CC, Johnson NJ, Wiggins CL. Racial misclassification of American Indians and Alaska Natives by Indian Health Service Contract Health Service Delivery Area. Am J Public Health. 2014 Jun;104 Suppl 3(Suppl 3):S295-302. doi: 10.2105/AJPH.2014.301933. Epub 2014 Apr 22. PMID: 24754617; PMCID: PMC4035863.

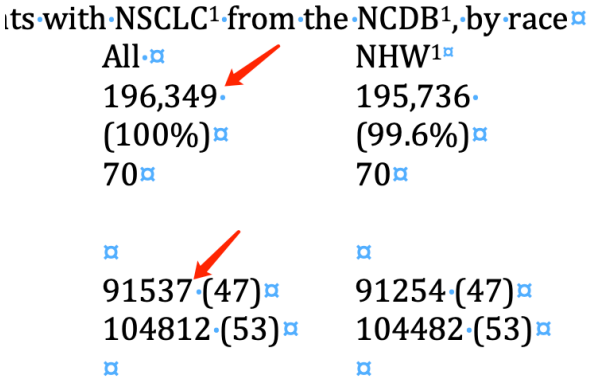
Reply: Thank you for bringing to attention this limitation with our study.
Changes in text: In methods we included "The NCDB contains standardized data elements on patient demographics". In our limitations section in discussion we included "There is potentially underreporting of AI/AN population in NCDB due to the problem of racial misclassification which has been reported on in other national databases" to further bring attention to this limitation.

Reviewer B:

1. It seems that the work was presented in the AATS meeting. Please confirm and acknowledge that in the "Acknowledgements" section.
https://www.aats.org/resources/a-nationwide-analysis-of-care-delivery-to-american-indians-and-alaska-natives-with-non-small-cell-lung-cancer?

Thank you – this has been included in the acknowledgements section.

2. Please correct the format of values and add a comma for these values. Please recheck the whole paper and uniform them.



This has been corrected through the text, tables, and figures. Thank you.

3. Reporting of P values:

The description of the P value should be in uppercase italic format, i.e., "P".
If P value< 0.001, report "P < 0.001" to avoid reporting unnecessarily excessive precision (with the exception of hypothesis tests that include correlations or studies with exponentially small P values, such as genetic association studies, which can be reported exponentially, e.g., P=1×10-5).
If 0.001≤ P value< 0.01, report the specific P value to 3 decimal places, e.g., "P=0.001" "P=0.009".
If P value≥0.01, report the specific P value to 2 decimal places, e.g., "P=0.01" "P=0.06" "P=0.10" "P=0.90".
If the P value is >0.99, report "P>0.99".
Do not round P values, do not report "not significant" simply because the data is greater than an arbitrary value, and do not report only vague bounds such as P<0.05, as described above, but report the exact P value.

Thank you, this has been corrected throughout the text and in the tables and figures.

4. ref 9 and 27 are duplicate. After you correct this issue, please recheck the names and their citations in the main text to make sure they are consistent.

Thank you, this has been corrected throughout the text and in the citations.

5. The name below is not corresponding with ref 1.

nt.[22] Bach *et al* found that Black Americans underwen

r stage I and II lung cancer compared to NHW.[1] Simil

Thank you, this has been corrected throughout the text and in the citations.

6. The references should be cited consecutively when they are first discussed. Please recheck all the citations to make sure they are all cited and follow the rule. Only for examples, 1) citation to ref 2 is absent. 2) ref 14 should not be cited after ref 15-20 when they are first discussed.

Thank you, this has been corrected throughout the text and in the citations.

AN population.[15,17] There are, how

advantage compared to men with l

l and Smith *et al*.[4,14] described low

11. Add citations for the sentence below if possible

119 comprehensive insurance coverage and worse access/ utilization of care thar

120 show that AI/AN are more likely to be uninsured than NHW and that over l

Thank you, this has been corrected throughout the text and in the citations.