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Response to Wyatt et al.'s comment on "Changes in traumatic mechanisms of injury in Southern California related to COVID-19: Penetrating trauma as a second pandemic"

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County compared with the surrounding rural communities in 2020: 95 of 175 cases (54.29%) in 2020 compared with 218 of 532 from 2015 to 2019 ($p = 0.0028$, Fisher's exact test). Conversely, we found an increase in accidental penetrating trauma within the surrounding rural communities: 100 of 165 cases (60.61%) in 2020 compared with 327 of 453 from 2015 to 2019 ($p = 0.0078$, Fisher's exact test).

Similar to the findings of Yeates et al.,¹ we found an increased rate of penetrating trauma in 2020, particularly, a significant increase in assaultive penetrating trauma in Lubbock County, relative to the surrounding rural communities. These data suggest that factors unique to the year 2020 may have affected urban communities disproportionately to rural communities. It is possible that regulations around social distancing created a greater negative impact on mental health, social well-being, and cohesion in urban versus rural communities; it is also possible that financial constraints had a different impact in different regions. Variations in injury patterns in 2020 have anecdotally been shared by many trauma centers across the country; compiling these patterns into a snapshot of the pandemic impact may help inform future decisions regarding trauma prevention during a public health crisis.

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DISCLOSURE

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REFERENCES

1. Yeates EO, Grigorian A, Barrios C, et al. Changes in traumatic mechanisms of injury in Southern California related to COVID-19: penetrating trauma as a second pandemic. *J Trauma Acute Care Surg.* 2021;90(4):714–721.
2. Executive Order GA-08: COVID-19 preparedness and mitigation, EO-GA-08 (Texas 2020). March 19, 2020. Available at: <https://lrl.texas.gov/scanned/govdocs/Greg%20Abbott/2020/GA-08.pdf>. Accessed December 20, 2020.
3. Executive Order GA-28: Targeted response to reopening — COVID-19, EO-GA-28 (Texas 2020). June 26, 2020. Available at: <https://lrl.texas.gov/scanned/govdocs/Greg%20Abbott/2020/GA-28.pdf>. Accessed December 20, 2020.
4. Executive Order GA-34: Opening Texas: response to COVID disaster, EO-GA-34 (Texas 2021). March 2, 2021. Available at: <https://lrl.texas.gov/scanned/govdocs/Greg%20Abbott/2021/GA-34.pdf>. Accessed March 15, 2021.

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To the Editor:

We appreciate the response, data, and insights provided by Wyatt et al. Their esteemed Level I trauma center in Texas noted an increase in penetrating trauma rates associated with COVID-19–related restrictions, similar to findings in our multicenter study in Southern California.¹ However, their center notably serves both urban and rural communities, allowing for a unique comparison of pandemic-related changes in trauma between these diverse geographic locations.

Their study found that the more urban region of Lubbock County suffered an increase in assaultive penetrating trauma compared with surrounding rural communities, postulating that urban communities may be more affected as a whole by factors unique to 2020. Although prior studies have shown significant increases in penetrating trauma in urban and rural areas separately, the current study describes an important difference in the magnitude of

change between two different communities in close proximity.^{2–4} Wyatt et al. go on to discuss that this finding may be related to a greater impact of social distancing regulations on urban communities or disparities in financial impacts. Regardless of the cause, we agree that this adds another layer to the discussion regarding the substantial impact this pandemic has had on the preexisting epidemic of penetrating trauma across the country.

We believe future studies should confirm differences in penetrating trauma burden between rural versus urban areas and search deeper to understand the exact underlying risk factors, including social determinants of health, substance abuse, socioeconomic status, and strictness of pandemic-related restrictions.⁵ We believe that understanding these subtleties may prove useful to design interventions at the hospital and/or community level to combat the second pandemic of firearm violence.

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REFERENCES

1. Yeates EO, Grigorian A, Barrios C, et al. Changes in traumatic mechanisms of injury in Southern California related to COVID-19: penetrating trauma as a second pandemic. *J Trauma Acute Care Surg.* 2021;90(4):714–721.
2. Hatchimonji JS, Swendiman RA, Seamon MJ, Nance ML. Trauma does not quarantine: violence during the COVID-19 pandemic. *Ann Surg.* 2020; 272(2):e53–e54.
3. Sherman WF, Khadra HS, Kale NN, Wu VJ, Gladden PB, Lee OC. How did the number and type of injuries in patients presenting to a regional level I trauma center change during the COVID-19 pandemic with a stay-at-home order? *Clin Orthop Relat Res.* 2021;479(2):266–275.
4. Rhodes HX, Petersen K, Biswas S. Trauma trends during the initial peak of the COVID-19 pandemic in the midst of lockdown: experiences from a rural trauma Center. *Cureus.* 2020;12(8):e9811.
5. Young KN, Yeates EO, Grigorian A, et al. Drug and alcohol positivity of traumatically injured patients related to COVID-19 stay-at-home orders. *Am J Drug Alcohol Abuse.* (In press).