

## PEER REVIEW HISTORY

BMJ Paediatrics Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Children's Hospital at Westmead, Deafness Centre, Australia
<b>AUTHORS</b>	Graciano, Ana Lia Bhutta, Adnan T. Custer, Jason W

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Reviewer name: Dr. Jonathan Grigg Institution and Country: Child Health, Blizzard Institute, United Kingdom of Great Britain and Northern Ireland Competing interests: None
<b>REVIEW RETURNED</b>	8-Sep-2020

<b>GENERAL COMMENTS</b>	This is an interesting report - and confirms what many paediatricians have observed to be associated with COVID-19 mitigation measures. The possible role of air pollution is discussed. Other effects - such as increased adherence to inhaled medications in asthmatics may have played a role. Inclusion of the table with the breakdown of respiratory diagnoses tends to exclude an effect due to cancelled respiratory surgical procedures. However – in Table 1 it would be helpful if the authors state whether they limited analysis to emergency admissions?
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<b>REVIEWER</b>	Reviewer name: Dr. Matthew Thomas Institution and Country: Great North Children's Hospital, United Kingdom of Great Britain and Northern Ireland Competing interests:
<b>REVIEW RETURNED</b>	11-Oct-2020

<b>GENERAL COMMENTS</b>	Graciano and authors present a short report describing the remarkable drop in admissions they observed in paediatric critical care admissions in their locality. These data are useful & further support the case that the public health measures taken in response to COVID-19 have had a profound epidemiological impact on children's health. The methods are simple and valid. The paper is well written and clearly articulated.  One minor comment – the authors note that air pollution levels (NO <sub>2</sub> ) are the lowest since 2015. The data presented go back to 2016 – would it be feasible to compare to the 2015 levels of respiratory admissions in order to present a better comparison in relation to NO <sub>2</sub> ?"
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### VERSION 1 – AUTHOR RESPONSE

Dear Drs Choonara and Brodlie,

Thank you and the reviewers for the thoughtful comments. Please note below our responses. We believe we have answered all questions as requested. Thank you for the opportunity to publish our study in the BMJ Pediatrics Open

Rev 1-Comment 1: This is an interesting report - and confirms what many paediatricians have observed to be associated with COVID-19 mitigation measures. The possible role of air pollution is discussed. Other effects - such as increased adherence to inhaled medications in asthmatics may have played a role.

- Authors response: This is an interesting thought, we do not have data but some of our pulmonologists have reported that the use of telemedicine has allowed them to monitor more appropriate use of home inhalers in some cases.

Rev 1-Comment 2: Inclusion of the table with the breakdown of respiratory diagnoses tends to exclude an effect due to cancelled respiratory surgical procedures. However – in Table 1 it would be helpful if the authors state whether they limited analysis to emergency admissions?

- Authors response: We added a comment at the bottom of the table. The number of scheduled respiratory surgical procedures is limited in our patient population but they were excluded as all scheduled surgeries were cancelled. Thank you for the comment.

Reviewer: 2

Graciano and authors present a short report describing the remarkable drop in admissions they observed in paediatric critical care admissions in their locality. These data are useful & further support the case that the public health measures taken in response to COVID-19 have had a profound epidemiological impact on children's health. The methods are simple and valid. The paper is well written and clearly articulated.

One minor comment – the authors note that air pollution levels (NO<sub>2</sub>) are the lowest since 2015. The data presented go back to 2016 – would it be feasible to compare to the 2015 levels of respiratory admissions in order to present a better comparison in relation to NO<sub>2</sub>?"

- Authors response: Thank you for your comment. 2015 data has been added to the table.

-Authors reply to Editor in Chief comments

Title has been changed as instructed

Unstructured abstract - added

The text was shortened to 600 words (thank you for the suggestions on text removal)

Thank you again for the opportunity to publish our findings in the BMJ Pediatrics Open

Most sincerely,

Ana Lia Graciano, MD, FAAP, FCCM

Professor of Pediatrics

Pediatric Critical Care Medicine

University of Maryland Children's