

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) 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>	The impact of the COVID-19 pandemic on gastrointestinal infection trends in England, February – July 2020
<b>AUTHORS</b>	Love, Nicola; Elliot, Alex; Chalmers, Rachel; Douglas, Amy; Gharbia, Saheer; McCormick, Jacquelyn; Hughes, H.E; Morbey, Roger; Oliver, Isabel; Vivancos, Roberto; Smith, Gillian

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Coffin, Susan E Philadelphia Department of Public Health
<b>REVIEW RETURNED</b>	28-Apr-2021

<b>GENERAL COMMENTS</b>	<p>In this report, the authors present data from 8 regional surveillance systems from 2015-2019 which they compare to data from 2020. They observe that there was a 50% reduction in the incidence of various GI indicators coincident with the COVID-associated "lockdowns" and that disease trended upwards as restrictions eased.</p> <p>1) Numerous references marked as "error...reference source not found" in manuscript which will need to be addressed.  2) Underascertainment is likely a significant contributor to the observation of reduced GI illness. Suggest additional sensitivity analysis be performed to adjust for estimated reductions in healthcare seeking behavior during the early part of the pandemic.  3) Is it possible to do any subgroup analysis to examine trends in essential workers who had more movement through community spaces than others during the lockdown.</p>
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<b>REVIEWER</b>	Musa, Sherief Cairo University
<b>REVIEW RETURNED</b>	15-May-2021

<b>GENERAL COMMENTS</b>	<p>The introduction section needs to be revised because the lines 10-20 appear to be part of the results and are put by mistake in this section.</p> <p>In addition I could not find references 2-7 in their place in the introduction.</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

- Numerous references marked as "error...reference source not found" in manuscript which will need to be addressed.

This has been addressed, as described above.

- Underascertainment is likely a significant contributor to the observation of reduced GI illness. Suggest additional sensitivity analysis be performed to adjust for estimated reductions in healthcare seeking behavior during the early part of the pandemic.

Professor Susan Coffin raised the point that underascertainment is likely a significant contributor to the observation of reduced GI illness. We acknowledge that underascertainment will undoubtedly have played a role in the trends observed and have tried to account for this through the triangulation of multiple sources of data. It is not possible to perform additional sensitivity analysis to adjust for estimated reduction in healthcare seeking behaviour during the early pandemic. However, these analyses may be incorporated into future work assessing further changes in trends of gastrointestinal infections during periods of relaxation of social distancing measures and further lockdown measures. We have added a sentence to discuss our inability to definitively differentiate the relative contributions of the reduced ascertainment of GI infections as a limitation in the discussion section.

- Is it possible to do any subgroup analysis to examine trends in essential workers who had more movement through community spaces than others during the lockdown.

Professor Coffin also raised the interesting idea of performing subgroup analysis to examine trends in essential workers who had more movement through community spaces than others during lockdown. This would be a very interesting and valuable analysis to perform. However, granular data on occupation is not routinely collected robustly in any routine surveillance systems used by Public Health England. We have added a sentence to the discussion section to recognise this limitation.

Reviewer: 2

- The introduction section needs to be revised because the lines 10-20 appear to be part of the results and are put by mistake in this section.

This has been corrected and this duplicated text removed.

- In addition, I could not find references 2-7 in their place in the introduction.

This has been corrected with references 2-7 added.

- Kindly embed your tables (should be editable and in table tools format). Tables should be placed in the main text where the table is first cited. Tables must be cited in the main text in numerical order. Please note that tables embedded as Excel files within the manuscript are NOT accepted. Do not upload your table separately.

Tables have now been embedded in the text. Supplementary tables have not been included in the main text.

- The in-text citation for "Figure 2C" is missing in the main text of your main document file. Please amend accordingly.

A citation has now been added.

- Re-caption Figures 2-5 to avoid confusion.

It is not clear how this should be addressed. I have amended the citations to try and make them clearer.

- You have cited Supplementary Figure 7 rights after Supplementary Figures 1-3 which makes your citations incorrect. Please review again your main document and ensure that all supplementary figures will be cited and will appear in numerical order.

- The in-text citation for "Supplementary Figure 4" is missing in the main text of your main document file. Please amend accordingly.

There was an error in the numbering of supplementary figures. This has now been amended.

- Please provide a "Competing interest statement" in your main document file as shown in ScholarOne.

A statement has now been added. We have no competing interests.