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Re: International approaches to covid-19 self-isolation and quarantine: an analysis of support, monitoring and adherence. [BMJ-2021-064618]

Dear Dr Cook,

We thank you, the editorial department, and the reviewers for taking the time to review our submission, and for the prompt feedback. We appreciate your comments and have addressed each of these below (in green) and where applicable, in the manuscript. We hope that these modifications have improved the paper's suitability for publication. Please do not hesitate to contact us if any further clarifications are required.

Yours sincerely,

Mr Jay Patel
Dr Genevie Fernandes
Prof Devi Sridhar

Editor's Comments:

This is a very timely paper and the topic will be of interest to The BMJ's global audience. This is currently written up as a scoping review which is not a good fit for our analysis section. Analysis papers are 1800-2000 word debates with data, written in a journalistic style. The paper will need to be reframed as such to work for this section.

Thank you for clarifying the expectations of analysis articles. The manuscript has been reframed to reflect this requirement. We have revisited several studies cited in our report and included further data in line with the reviewers' suggestions, which constitute a more analytic evaluation of our research question. To avoid a scoping review writing style, we have modified narrative aspects of the article and replaced with more analytic comments, fitting with the overall 'journalistic' writing format. To fit the 'debate' expectation, we have strengthened our arguments throughout the article.

We appreciate the reviewers' comments regarding the presentation of data but for the analysis section we request you do not to take a more systematic approach to this in your revision as suggested by some of the reviewers as our analysis papers are not research papers. Instead we think greater transparency about where the evidence is drawn from will help.

Noted. For greater transparency, we have added details in the 'contributors and sources' section to illustrate our methodological process for the evidence synthesis.

Table 1 includes very useful information but if the paper is accepted this will have to be online only if the paper were selected for our print issue.

We understand the space constraints in the print publication, and are happy to accept this compromise.

Reviewer 1 Comments:

I have been closely following the evidence and literature on Covid self-isolation (mostly in UK) since Spring last year, so I was very interested to read this paper. It is, as far as I am aware, the first paper to compare approaches to self-isolation systematically across different countries. As such, the analysis is extremely valuable in informing us of both practices and processes (including the relations between forms for support and levels of adherence and confirmed cases). It is also extremely valuable for the practical recommendations we can take from it. It builds on, and reinforces for the first time with systematic international comparison, the recent published analysis by SPI-B and others. It also presents a very up to date literature review and includes most of the recent relevant papers I am aware of. I hope this paper is published soon so I can cite it and share it with others. I am confident many others will be interested and will want to cite it. I also have a few minor comments and suggestions that the authors might want to consider.

I am not familiar with the journal's norms around presenting methodological details, but I wondered if a little more could be said about the selection of the 20 countries and the search strategy for the scoping review.

Thank you for your kind comments. We have made amendments in line with the editor's suggestions around reframing the article to fit the Analysis section. Given the format of the Analysis articles, we have not included methodological details in the article text; instead, we have provided the information on the selection of countries and data sources in the 'contributors and sources' section.

Some of the references need to be checked:

Page 2 (3), lines 52-57/36-44 refers to the UK case and should reference 4 (Smith et al) but instead references 3 (Norwegian data).

Corrected, thank you for highlighting.

Page 3 lines 60-61 '18% self-reported full adherence to self-isolation orders (i.e. not leaving home in the seven days prior to developing symptoms)'
The wording doesn't make sense and is not a correct reporting of Smith et al. which is:
'Of those who reported having experienced symptoms of COVID-19 in the last seven days, only 18.2% (95% CI 16.4 to 19.9) said they had not left home since developing symptoms'

Thank you for pointing out this detail. We have amended this line accordingly.

P. 3 line 80 'Increased adherence can be predicted in countries with higher pre-pandemic levels of trust in politicians and institutions'
But the paper cited for this claim (Wright et al.) is a panel study of UK data collected during the pandemic, not a study comparing countries in terms of levels of pre-pandemic trust and adherence.

We have reworded this paragraph, drawing on more appropriate evidence to support the argument.

The details referred to on p 4 / 5 lines 95-97/ 45-49. Do not quite match those in the paper cited (10 itself

The references have now been corrected.

p. 5 p. 6 In the absence of support, penalties alone are unlikely to encourage desirable behaviours 148 during the covid-19 pandemic.21
The argument that penalties alone are unlikely to change behaviour without support is completely logical and has been made several times in the context of support for self-

isolation (e.g. by former health secretary Jeremy Hunt). However, the paper cited as a reference for the statement (Tunçgenç et al.) is not about self-isolation (it's about physical distancing) or about penalties. Unlike self-isolation, physical distancing, hand-washing etc. can be achieved with little support.

Thank you for this comment. We have corrected the reference and included more relevant citations to support this argument.

Other points

p. 3 lines 12-15, 74-75: 'following a positive test result, was around 95% in a sample of 64,000 people, reducing to 84% if a member of their household had tested positive and 43% if a close contact had covid-19.7
Ambiguous. Can you clarify that the first figure means the total (ie includes people confirmed as infected)?

This sentence has been rephrased to avoid ambiguity.

p. 6 (7) 152-155 ' Weekly statistics reported from the NHS Test and Trace programme in England consistently show that cases and contacts monitored and managed locally, substantially outperform their counterparts––coordinated under wider, non-specific systems––in testing, contact tracing and isolation metrics'
This is somewhat oblique and coy. It needs to be more explicit and clear, in particular for international readerships who won't have followed the controversies in the UK. The difference being referred to here is between local public health teams and the outsourced private companies.

Thank you for highlighting this point. We acknowledge that this sentence may be ambiguous to the *BMJ's* international readership, particularly for those who may not be aware of the NHS Test and Trace infrastructure. Given that the UK's Test and Trace system is not the primary point of discussion in this article, we have reworded and added to this paragraph to mitigate the need for commenting excessively on the private sector outsourcing, but briefly familiarise readers of the tracing framework. But as you correctly infer, the aim of including this example is to demonstrate the value of local public health teams, as compared to central outsourced private systems.

Support beyond financial is important as the authors say – this is a very important factor, as several lines of research show. One final point worth considering is that requests to and activities of mutual aid groups are a proxy measure of relevant needs of, and support given by, those in self-isolation. This is a good source: https://www.newlocal.org.uk/wp-content/uploads/2020/12/Communities-vs-Coronavirus_New-Local.pdf

Thank you for raising this important point. Mutual aid groups have clear parallels to our analysis, especially in terms of local provision of support and community mobilisation.

This comment and the suggested reference have now been incorporated in our manuscript.

Reviewer 2 Comments:

Thank you for having me involved in this interesting opinion regarding approaches around the world used to ensure COVID-19 isolation. The commentary draws strength in the scan of international programs being used to support isolation. However, one of the fundamental challenges during COVID-19 has been the limited implementation details often described in the context of public health strategies. And it is in the specification of interventions that we can draw meaningful insights into whether these conditions can be met or whether contexts differ.

There are guidelines available including the STARI indicators (https://www.equator-network.org/reporting-guidelines/stari-statement/) which can support standardization of reporting of the information needed for policy or program designers in other settings. These guidelines were developed given the exact challenges that are so often pronounced during the COVID-19 response—ie, in the absence of specification or context, the transferability of the results to other settings is limited.

Many thanks for pointing us to these guidelines. As this suggestion relates to the methodological aspects of our analysis, we will follow the editor's guidance on framing the article to fit the Analysis section.

The example used here is that Australia provided up to $1500 compared to 500 pounds in the UK. However, in reviewing several documents, there were also notable implementation specifics with the Australian payment (https://assets.kpmg/content/dam/kpmg/au/pdf/2020/covid-19-government-assistance-programs.pdf). Moreover, it is important to note the additional elements to support isolation in Australia that provide context to this payment including the use of drones and also the decision of the human rights committee in Victoria about the use of 500 police officers to initiate the lockdown in towers with mostly recent immigrants and refugee claimants. The table at the bottom provides very high level details that really challenge interpretation. If there are challenges with detailing implementation specifics, at least using an established policy reporting framework would be key. Or using systematic searches of the literature or media content analyses to understand implementation would be helpful.

Given the nature of analysis articles we avoided systematic searches as this would lend itself more appropriately to a review in the research section of the *BMJ*. However, we recognise your concerns about the complexities of specific details and eligibility criteria in each country however the international approaches have been considered to support the message in this analysis. Our aim was to briefly summarise the international approaches in a way that allows cross-country comparison. We believe the advantage of

our summarised comparative framework, as opposed to one which scrupulously assesses the finer policy details, is the use in clearly identifying optimal strategies.
We have re-visited Australia's policies and assessed the relevance of these details in our article. After careful consideration, we have chosen to briefly mention drones as a surveillance technology and added a sentence emphasising the associated challenges of transferability to other nations.

There is a reference to "East Asian" countries, but the responses varied intensely within countries never mind across countries. "East Asia" is also not an official region of the world—so either using WHO criteria of SEARO or Western Pacific would be helpful. Could also use East Asia Pacific if focused on the World Bank, but do worry about summarizing at this level and also the creation of new global regions based on colloquial phrases.

Thank you for pointing this out. Where appropriate, we have omitted regional references which generalize the countries in question. Regional references have been revised to reflect the more widely-accepted nomenclature: Asia-Pacific.

The description of CARES act in the US did not specify specific elements such as this was limited to businesses with more than 500 employees (https://www.dol.gov/agencies/whd/pandemic/ffcra-questions) and the Payroll Protection Program ran out of money by April https://www.fastcompany.com/90491891/why-the-rollout-of-the-2-trillion-cares-act-was-a-colossal-mess#:~:text=The%20CARES%20Act%E2%80%94Coronavirus%20Aid,businesses%2C%20airlines%2C%20and%20individuals.&text=The%20Payroll%20Protection%20Program%20(PPP,cannot%20accept%20any%20more%20applications). Collectively, with these limited details, the reader would be challenged to effectively interpret the utility of these policies.

Thank you for sharing these articles, a caveat around eligibility has been added. We have revisited the cited research paper, and believe the study findings have been accurately reported. The details you raise are very interesting, but may not be appropriate to explore at length in this article.

I do think there is utility in reviewing support programs for isolation but would suggest the authors consider more systematic approaches to facilitate interpretation of transferability. Again, this could be achieved by standardizing review and reporting methods in line with standards available on EQUATOR. If not, would suggest this be framed as an opinion piece and an interesting one at that!

Thank you for your feedback on this point. We understand the value of a more systematic approach that can allow for a discussion on the transferability of the support

measures. However, we will follow the editor's suggestion on shaping this article to fit the Analysis section.

Reviewer 3 Comments:

Many thanks for asking me to review this article.

This is a good article; however, I have several reservations.

This paper is quite similar to a recent BMJ article (reference 30) regarding self-isolation support and wrap-around services, with a broader aim to review the international evidence.

[1] It is unclear how the search was done, whether this was done systematically, the selection criteria of these specific countries and how these details were collected.
I would recommend having a more systematic approach to this analysis.

Thank you for this suggestion, we have added more information about how this search was done in the "contributors and sources" section. Regarding the comment about taking a more systematic approach, we are following the editor's comment on shaping this for the Analysis section, given that this is not intended to be a research article.

[2] How publics adherence section:
This section covers more or less similar to what was addressed in the recent BMJ article on self-isolation (Reference 30), which provides a much more public health focus considering socioeconomic inequalities are the main reason for the inability to self isolate. This section lacks an overview of the complex network dynamics, heterogeneous transmission dynamics, differential acquisition & transmission risks, especially regarding working conditions and living circumstances of individuals who are particularly at risk of infection and hospitalisation.

We concur with the importance of the aspects named above. Given the nature of this article type, as one which is accessible to a wide, and maybe non-specialist readership, some of these aspects would be challenging to explore in detail. However, transmission dynamics, in the context of our analysis, is pertinent when considering the ability for cases and contacts to isolate in households. Hence, we have cited the PHE paper on transmission dynamics. We included the Vermont example, as it builds on the importance of effective housing policies to mitigate household infection.

[3] What support measures are provided by the governments
This section is interesting, but fundamentally it is challenging to understand any details about these specific interventions implemented in these countries, eligibility, access and provision of these support services. It is also essential to differentiate statuary sick pay

from one-off payment, whether this support reaches self-employed, zero-hour contract workers etc. is unclear to me.

Thank you for understanding the difficulties associated with drawing international data for support measures. We have emphasised the paucity of reliable international data on the specific support details, particularly eligibility, access and provision. Regarding the need to differentiate statutory sick pay from one-off payments, we considered these separately as 'employment benefits' and' financial support', and have made this distinction clearer throughout the manuscript. The paragraph on 'support measures being offered by governmnets' is paragraphed by key points to emphasise this.

Line 106: Community engagement term may not be accurate here. I wonder whether the authors mean outreach? Community engagement means building a working relationship with the public to inform policy collaboratively. This paragraph does not include community engagement activities.

Thank you for pointing out this detail. We have address this comment and rephrased the section to illustrate practical support being offered at the community level.

Line 114-120: It would be useful to understand how Taiwan and South Korea implemented these support packages. It is not clear whether these are voluntary services or mandatory? It might be useful to discuss these services' quality and acceptability, especially if mandatory, in many Western countries.

To the best of knowledge, while we have tried to include all the available information on isolation-related support measures in Taiwan and South Korea, we could not locate specific details on implementation and public reception of these services. Although, we have included a comment about the differences between western countries and those in East Asia, which may make transferability of certain support measures challenging.

Line 122: These two specific services were. discussed in the recent BMJ article (reference 30)

We have had several personal communications with the New York City Test and Trace Corps, who kindly provided preliminary data on the adherence levels to self-isolation, given their comprehensive support strategy. This was shared on Friday 5th February 2021, and has not yet been reported elsewhere, therefore the novelty of these data could be of interest to policy-makers. The San Francisco evidence has been referenced, but to our knowledge, not in the context of an article with a primary emphasis on community-based support for self-isolation. Hence, these two examples were selected for further elaboration in boxes.

[4] How is public adherence being monitored?

Line 136: The authors discuss the stringency of these measures, and how these are mandated or regulated in various countries but do not discuss how acceptable these measures especially central monitoring, close surveillance could be in the UK. Some of the measures in Asian countries are quite strict, mandated by the government and enforced by police.

We concur with the importance of this detail, hence we have added a sentence to address the issues of transferability and policy reproduction in the UK and other European countries.

Line 143: One of the reasons Slovakia has abandoned mass testing was because the population no longer wished to go through the same process, especially constant tracking of individuals. Moreover, the authors do not discuss how digital surveillance might influence individual freedom and acceptability in western countries. Especially given that even the test and trace app is not picked up in the UK as much as it was wished initially, and overall, this is not particularly helping to prevent onward transmission and the data apart from mobility data does not help to understand transmission dynamics either. I think the pros and cons of these approaches need to be discussed in detail.

We have addressed both of these important comments in the 'monitoring self-isolation' segment by discussing the differences in countries with respect to central surveillance, data privacy landscape and public attitudes, how these play an important role in the transferability of support measures.

Line. 155: While NHS Test and Trace is able to reach the majority of "reported" contacts, the average number of contacts reported to the T&T is less than 5, and the majority of these contacts are household contacts. A large number of cases do not arise among reported contacts to the T&T.
This may be due to underreporting or unknown contacts. For example, four in five cases in England have not previously been named as close-contacts.

This specific paragraph also does not discuss how T&T would be linked to these support services.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945978/S0921_Factors_contributing_to_risk_of_SARS_18122020.pdf

Many thanks for the comments and this resource. We have addressed this by highlighting the difference in performance indicators between local health protection teams and private outsourced efforts and raising the benefits of linkage between contact tracing and isolation support at the local government level and building public trust for improved reporting of contacts. Comments by "reviewer 1" have also been considered here.

[5] How effective are support interventions?

This section is about the effectiveness of support interventions, but it discusses compliance with self-isolation. Effectiveness of support services should be discussed to prevent onward transmission, hospitalisations and deaths, not merely about how many people violated the isolation.

Thank you for this, the heading has been adjusted ("effectiveness of support interventions in promoting adherence") to reflect the content that appears in this section.

Boxes in this section cover the models discussed in Reference 30.

Our comment on the examples in the boxes are addressed above: We have had several personal communications with the New York City Test and Trace Corps, who kindly provided preliminary data on the adherence levels to self-isolation, given their comprehensive support strategy. This was shared on Friday 5th February 2021, and has not yet been reported elsewhere, therefore the novelty of these data could be of interest to policy-makers. The San Francisco evidence has been referenced, but to our knowledge, not in the context of an article with a primary emphasis on community-based support for self-isolation. Hence, these two examples were selected for further elaboration in boxes.

[6] What are the key insights for improving adherence?
Line 195: community engagement is the right term here.

Noted.

Line 205: "Particular emphasis should be placed on explaining the rationale for self-isolation" While some individuals need only information about the importance of self-isolation, many people will require financial support and a safe space for self-isolation.

Overall: It would be much more useful piece if it includes more details about these services to make it relevant for policy-making as many aspects regarding these services are not provided and remain abstract. In addition, it is important to review some of these interventions from a Western culture perspective. I would suggest to submit this as an opinion piece as it currently stands does not fulfil analysis article requirements without a systematic approach.

Thank you for your valuable feedback. One of the key challenges that emerged was the paucity of reliable data and the ability to distil all of the specific details (support provision, access, eligibility etc.) into an analysis article. Since these articles should have a journalistic style, this could make the piece more systematical research-orientated. We concur that comments about the Western culture would strengthen this article, and this is now mentioned in the manuscript. Regarding the appropriate article type, and systematic methodologies, we appreciate this feedback and will be following the editor's guidance with respect to this.

Reviewer 4 Comments:

This is a very important and timely paper. The pandemic has demonstrated very clearly the challenges and weaknesses of poor test trace and isolate systems. There has been widespread comment on the weaknesses of the English system and its over focus on testing rather than self- isolation and quarantine.

The paper provides an excellent set of comparisons and really focusses on the most important issues of monitoring and adherence in a wide variety of systems.
Based on their analysis the authors have provided a clear and coherent view about factors that influence self-isolation and quarantine. These include, inadequate financial support, alternative accommodation for individuals unable to safely isolate at home. Also locally-delivered solutions and community engagement are highly effective, and have particular benefit amongst vulnerable or low-income populations.

The authors have also highlighted that lessons from international approaches have consistently demonstrated the importance of a fully-functional and locally-delivered test trace-isolate-support system. They make clear that even the most effective mass testing and intense contact tracing systems limited value and effect, if positive cases and close contacts are unable or unwilling to self-isolate.

It was particularly useful that the analysis and key insights are from 20 countries.
The data and information is very well presented in Table 1.

The authors also acknowledge the lack of high-quality data on adherence to self-isolation or quarantine measures. They do state that the few available studies are consistent in their findings: adherence to self-isolation in the UK is significantly lower than intention to do so; financial and logistical factors determine an individual's ability to comply; and the reason for isolating is relevant in predicting compliance, in particular symptomatic and positive cases are more likely to adhere than contacts of positive cases. I think this is a very useful finding.

The authors also make it clear that the study does not cover Travellers.
This is perhaps a weakness given the current Government and media focus on Travellers. The current focus is on variant strains and quarantining Travellers entering the UK particular those entering form countries classified as 'Red' zones is also an important area for effective isolate and quarantining.
With a mandatory stay in selected hotels at a cost of £1750 for 10 days.
Also heavy fines and or prison sentences - up to 10 years.

Thank you for your kind comments. Regarding travellers, we decided to omit any reference to travel in this paper because the international guidance is very different, and the analysis would risk becoming a research paper, systematically assessing isolation

policies. Given that much emphasis has been placed on travellers, as you have alluded to, we conceived this analysis article to focus attention on cases and contacts.

Although this study doesn't include Travellers I believe it still provides great insight to what constitutes effective test, trace and isolate systems.
It therefore should be published and I suggest the authors consider making it clear both in the Title and earlier in the paper that it doesn't include Travellers.

Thank you, we have included this in the opening paragraph. From an editorial perspective, this may not be appropriate for inclusion in the title or stand first, but we are willing to make this change in line with the editor's suggestion.

The authors may also consider any particular aspects of their study that could be relevant to Travellers. Some of the points about financial and other support may be relevant to Travellers.
Also relevant will be public adherence and monitoring.

We agree that the key messages, especially those highlighted above, presented in this analysis may also be applicable to travellers. However, to avoid extrapolating conclusions to a different research question, it may be more appropriate to only draw insights relating to cases and contacts, as per our analysis.

In summary this is a very relevant paper which provides a well designed scoping review of 20 countries.
Although it doesn't cover Travellers it does provide good insights on important characteristics and I think adds considerable value especially as the current system could be significantly improved.
I highly recommend that this paper is published and authors consider the small changes I have suggested above