

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Use of environmental scans in health services delivery research: a scoping review
<b>AUTHORS</b>	Charlton, Patricia; Kean, Terri; Liu, Rebecca; Nagel, Daniel; Azar, R; Doucet, Shelley; Luke, Alison; Montelpare, William

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Turin, Tanvir University of Calgary, Department of Family Medicine, Cumming School of Medicine
<b>REVIEW RETURNED</b>	03-May-2021

<b>GENERAL COMMENTS</b>	<p>The scoping review by Charlton et al aims to examine the extent and nature of evidence on the use of ESs in a health services delivery context. Also, this study's protocol has previously been published in BMJ Open. Few points those need attention:</p> <p>(1) The authors have embarked with a number of research questions. Though these are important, but five research questions (1: a-d &amp; 2) has yielded a lot of information. So, to be reader-friendly – the main results need to be highlighted in some way so that the general readers can have a take home message.</p> <p>(2) The authors have a number of descriptive figures those simple presents the different domains of their research question (Figures in page 73-79). As these results are already described in the text, removing these figures might be a good idea [the authors can opt to provide a combined table as appendix file].</p> <p>[3] Overall, the paper reads well but reads like merely a descriptive presentation (but that's the nature of this specific work, I presume). It will be good if the authors contextualize their findings more explicitly in the Discussion section. So, a reader like me will benefit from take home message beyond the data.</p>
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<b>REVIEWER</b>	Webster, Jacqui George Institute
<b>REVIEW RETURNED</b>	07-May-2021

<b>GENERAL COMMENTS</b>	I enjoyed reviewing this paper. The use of Environmental Scans to inform decision making in the health services sector is an interesting topic. The findings are likely to be of use to a wide range of readers and have the potential to influence future research methods and ultimately policy and practice. The methods
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	<p>are sound and have been previously published in a protocol in the same journal.</p> <p>My main concern is that at present the manuscript is too long (more than 6000 words) and some of the important findings are lost in the detail. The paper would benefit from shortening and editing to ensure that the main findings and the implications of the findings are more clearly articulated.</p> <p>I have provided further detailed feedback on different sections below.</p> <p>I hope that the authors find this useful.</p> <p>The abstract is a little hard to follow. The objective states “To describe the extent and nature of evidence that describes the use of environmental scans” This is not clear to me. The objective is much clearer further down in the introduction i.e. “to examine the extent and nature of evidence on the use of ESs in a health services delivery context”. I suggest amending the abstract in line with this.</p> <p>The results state: ESs were conducted for many purposes, the most common being to examine current state of programs, services, or policies. Researchers conducted ESs to examine trends, issues, services, policies, practices, policies, guidelines and standards, strategies, technologies, tools and resources, structures, and/or client/patient/provider perceptions and experiences”. The second sentence is a very long list and ‘policies’ is repeated, both in the sentence and from the previous sentence. These two sentences could be synthesised and the list grouped into themes.</p> <p>I don’t really understand the relevance/implications of passive versus active or personal versus impersonal at this stage (having not read the rest of the manuscript yet). Is it possible to describe in a way that would be more meaningful for someone who is only reading the abstract?</p> <p><b>Strengths</b> First dot point is a bit vague. Maybe this could say:  <ul style="list-style-type: none"> <li>• This scoping review addresses an important knowledge gap - the use of Environmental scans to inform decision making in health services delivery - and includes a comprehensive analysis of the peer reviewed and grey literature.</li> </ul> </p> <p><b>Limitations</b> First bullet point – what restrictions are you referring to here – in the methods you state there were no restrictions Third bullet point should read: The quality of the studies included in our review were not assessed for methodological quality</p> <p><b>Main article</b> The article is currently too long and should be edited down to 3000-4000 words in line with the journal guidelines.</p> <p><b>Introduction</b> The introduction should be edited down to key points (1-2 pages). There are also some inconsistencies. For example:</p>
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	<p>The first sentence says that “environmental scanning is the process of gathering pertinent information from an organization’s external environment”</p> <p>The rest of this section goes onto explain how environmental scanning combines information on both internal (to the organisation) and external factors.</p> <p>Page 6 Line 48 – scanning activity can be formal or informal - please provide details of what this means and maybe examples</p> <p>Page 7 line 13 – please explain personal or impersonal – it is not clear why this is relevant (although potentially this is described further on ...)</p> <p>Page 9 line 24-50 Most of this can probably be deleted.</p> <p>Minor edits required throughout</p> <p>E.g. page 7 line 40 should read ... the COVID pandemic</p> <p>Page 8 line 22 – “Several studies noted the utility of” ... Sudden switch to the past tense made me think this was reporting of results. Consider changing to “Several studies have noted the utility of”</p> <p><b>Methods</b></p> <p>The methods are sound and very comprehensive but need to be shorted, particularly as you have already published the protocol. Please just provide a brief summary and refer to the protocol.</p> <p>Page 10 lines 24-33 could probably be deleted.</p> <p>The eligibility criteria don’t merit a table and could be edited down – no need to include same things in inclusion and exclusion criteria – again could probably delete as this is in the protocol.</p> <p>Page 15 Lines 47-52 reads “For the thematic analysis approach, initial codes were applied to the data that reflected the content being generated for several data elements that were amenable to thematic analysis.” Please clarify this and perhaps provide examples</p> <p>Page 17 lines 6-7 Change “and” to “which” in the following sentence: The data are presented in a tabular form and includes a narrative and descriptive numerical summary of the studies’ characteristic</p> <p><b>Results</b></p> <p>9 figures in the results is too many – my suggestion would be to just include 3-4 in line with the journal guidelines.</p> <p>Page 17 Line 50 – Add the percentage (4%) from Australia</p> <p>General comment on the results: In view of the fact that this study was examining the use of ES’s in informing decision making, it would have been interesting to look at the different types of recommendations made by the studies. Is this information that could be reported on from the data you collected? Alternatively, it might be the topic of a future study</p> <p><b>Discussion</b></p> <p>The discussion could be better structured and edited down so information from the introduction is not repeated.</p> <p>The first para is currently superfluous as it just repeats the rationale and objective. The first para in the discussion should spell out in one or two sentences, the main conclusion of the paper. i.e. The findings from our scoping review provide new evidence to support the fact that ES’s are a useful tool for</p>
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	<p>supporting health planning, program and policy development. However, we also identified significant gaps. First, second, third .....</p> <p>Page 26 Line 36 to page 27 line 18 just repeats the lists of things you identified that they were used for in the introduction so this is not new. This should be summarised.</p> <p>What it would also be interesting to know is the extent to which the recommendations resulting from ES's have been used to inform decision making? Or at least the types of recommendations that are being made? Please consider including reference to this if you think it would be useful.</p> <p>Page 27 – lines 34-41 Please add something about the implications of these inconsistencies. Explain why this is important. Likewise lines 45-52 in relation to the definitions</p> <p>Page 28 – is it just about providing clarity for researchers who want to adopt the methodology or is it also about making ES's a stronger tool for supporting decision making and hence influencing policy and practice? It might be good to emphasise both.</p> <p>Line 34 – working definition “and or adapt to changing environments” – this clause doesn't quite work as it is not clear what the subject is. Do you mean “adapt the health care system to changing environments”.</p> <p>Page 30 – lines 26-27 – please briefly explain why this is more useful as this will strengthen the point</p> <p>Lines 45-47 –so what? please briefly explain what the implications of this are</p> <p>Page 31 – Again in relation to stakeholder engagement. I think the implication here is that increasing and improving the quality of ES's would be an effective way of increasing stakeholder engagement to strengthen decision making – but it would be great if you could make this more explicit.</p> <p>Page 32 – Future directions – the other big question to me is how are ES's being used to inform decisions – what decisions have been influenced as a result of ES's? You might want to consider including this here.</p> <p>Conclusion – This should be shortened considerably to have greater impact. Potentially the first three paras can be summarised into one. The final para works well.</p> <p>Thanks for the opportunity to review. I hope you find this feedback useful and look forward to seeing a revised version.</p>
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<b>REVIEWER</b>	Spooner, Catherine University of New South Wales, CPHCE
<b>REVIEW RETURNED</b>	12-May-2021

<b>GENERAL COMMENTS</b>	This was an interesting and useful scoping review of the use of environmental scans in the health services sector. Some comments for consideration are provided below.
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	<p>I found the term 'personal' sources unclear. Can this be better explained? Is it possible to use another term as 'personal' suggests 'private'.</p> <p>In the discussion, you wrote that this review provided evidence to support the observation that ES is a useful tool. Your review did not assess whether or not ES is useful – there were no reported outcomes from doing an ES e.g. improvement in effectiveness of a policy. I suggest deleting that sentence.</p> <p>You described the lack of a definition of ES as a research gap. I wonder if this is a 'conceptual', rather than 'research' gap.</p> <p>You present your definition of ES but do not describe how the definition was developed. For example, was it developed in a workshop with the authors? With others? Reviewed by stakeholders/experts?</p> <p>It would be good to know how your definition differs from and improves upon the many definitions that already exist – whether from other sectors or within health services research.</p> <p>You wrote 'These gaps were evident' about a lack of guidance to support attempts to "design and conduct ESs within a health services delivery context". Can you explain how the gaps were evident?</p> <p>You wrote that you could have missed studies from outside the USA because other countries might have used a different term for ES. You later mention terms such as 'jurisdictional scans' and 'situational analysis'. This seems quite important to the review and calls into question the search terms used in the review and its comprehensiveness. It seems to be something that warrants more attention. How much does this limit the review?</p> <p>The paper would benefit from a final review for grammar. In particular:</p> <ul style="list-style-type: none"> <li>- Tense is not consistent and should generally be more consistently in the past. I found the repeated provision of numbers and percentages unnecessary.</li> <li>- With a sample of 96 articles, the paper could generally just report percentages.</li> <li>- There was reference to research librarians LB and KM, who do not appear to be on the author list or in acknowledgements. Should they be in the acknowledgements?</li> </ul>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
1	Overall	Though these are important, but five research questions (1: a-d & 2) has yielded a lot of information. So, to be reader-friendly – the main results need to be highlighted in some way so that the general readers can have a take home message.	The paper has been shortened substantially with key messages highlighted in the Results and Discussion. Key messages are also highlighted in the form of questions in the

			Future Directions Section.
1	Results	The authors have a number of descriptive figures those simple presents the different domains of their research question (Figures in page 73-79). As these results are already described in the text, removing these figures might be a good idea [the authors can opt to provide a combined table as appendix file].	Figures were removed with any additional data added to the text.
1	Discussion	Overall, the paper reads well but reads like merely a descriptive presentation (but that's the nature of this specific work, I presume). It will be good if the authors contextualize their findings more explicitly in the Discussion section. So, a reader like me will benefit from take home message beyond the data.	The scoping review describes the extent and nature of evidence on the use of the environmental scan (ES) in the health services delivery literature. The Discussion section has been revised to include key points and the take home message
2	Overall	My main concern is that at present the manuscript is too long (more than 6000 words) and some of the important findings are lost in the detail. The paper would benefit from shortening and editing to ensure that the main findings and the implications of the	The paper has been refined and shortened throughout to include key findings and the

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		findings are more clearly articulated.	implications to practice of these results.
2	Abstract	The abstract is a little hard to follow. The objective states "To describe the extent and nature of evidence that describes the use of environmental scans" This is not clear to me. The objective is much clearer further down in the introduction i.e. "to examine the extent and nature of evidence on the use of ESs in a health services delivery context". I suggest amending the abstract in line with this.	Objective in the Abstract is amended to align with the objective in the Introduction.

2	Abstract	The results state: ESs were conducted for many purposes, the most common being to examine current state of programs, services, or policies. Researchers conducted ESs to examine trends, issues, services, policies, practices, policies, guidelines and standards, strategies, technologies, tools and resources, structures, and/or client/patient/provider perceptions and experiences". The second sentence is a very long list and 'policies' is repeated, both in the sentence and from the previous sentence. These two sentences could be synthesised and the list grouped into themes.	The Abstract has been revised and this sentence was removed due to space limitations.
2	Abstract	I don't really understand the relevance/implications of passive versus active or personal versus impersonal at this stage (having not read the rest of the manuscript yet). Is it possible to describe in a way that would be more meaningful for someone who is only reading the abstract?	We have included a brief explanation of these terms into the Abstract. There is also a description of these terms in the Methods section.
2	Strengths and Limitations Box	Strengths First dot point is a bit vague. Maybe this could say: • This scoping review addresses an important knowledge gap - the use of Environmental scans to inform decision making in health	This point is re-written as suggested.

Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
		services delivery - and includes a comprehensive analysis of the peer reviewed and grey literature.	
2	Strengths and Limitations	Limitations First bullet point – what restrictions are you referring to here – in the methods you state there were no restrictions Third bullet point should read: The quality of the studies included in our review were not assessed for methodological quality	We have revised this bullet to clarify the restrictions, and have changed the position of third bullet as suggested.

2	Main Article	The article is currently too long and should be edited down to 30004000 words in line with the journal guidelines.	The manuscript is shortened substantially throughout. In the Methods section readers are referred to the Protocol article. Results only include findings deemed most relevant, and Discussion shortened to articulate key messages, and implications for research and practice.
2	Introduction	The introduction should be edited down to key points (1-2 pages). There are also some inconsistencies. For example: The first sentence says that “environmental scanning is the process of gathering pertinent information from an organization’s external environment” The rest of this section goes onto explain how environmental scanning combines information on both internal (to the organisation) and external factors.	Edited, synthesized further and shortened as recommended.

Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
2	Introduction Page 6 Line 48	Scanning activity can be formal or informal - please provide details of what this means and maybe examples	Changed as recommended. Added additional detail on formal and informal scanning activity
2	Introduction Page 7 line 13	– Please explain personal or impersonal – it is not clear why this is relevant (although potentially this is described further on ...)	Changed as suggested, clarified these terms within discussion of the selection of data sources for environmental scanning.
2	Introduction Page 9 line 24-50	Most of this can probably be deleted.	Changed as suggested, lines deleted.



2	Introduction page 7 line 40 and Page 8 line 22	Minor edits required throughout E.g. page 7 line 40 should read ... the COVID pandemic Page 8 line 22 – “Several studies noted the utility of” ... Sudden switch to the past tense made me think this was reporting of results. Consider changing to “Several studies have noted the utility of”	Changed as suggested, changed to COVID pandemic, and changed tense of this sentence.
2	Methods Pages 10-17	Methods The methods are sound and very comprehensive but need to be shorted, particularly as you have already published the protocol. Please just provide a brief summary and refer to the protocol.	Edited and shortened as suggested and readers referred to Protocol for more detail.
2	Methods Page 10 lines 24-33	Page 10 lines 24-33 could probably be deleted.	As suggested, we have deleted these lines. Readers are referred to the Protocol article for more detail.
2	Methods Pages 13-14	The eligibility criteria don't merit a table and could be edited down – no need to include same things in inclusion and exclusion criteria – again could probably delete as this is in the protocol.	This Table was removed and pertinent information edited to

Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
			include short summary of eligibility criteria
2	Methods Page 15 Lines 47-52	...reads “For the thematic analysis approach, initial codes were applied to the data that reflected the content being generated for several data elements that were amenable to thematic analysis.” Please clarify this and perhaps provide examples	Additional thematic analysis was conducted and a descriptive summary of attributes and themes are included in the Results. Supplementary file 7 presents the themes and codes generated.
2	Methods Page 17 lines 6-7	Change “and” to “which” in the following sentence: The data are presented in a tabular form and includes a narrative and descriptive numerical summary of the studies' characteristic	Sentence changed as recommended.
2	Results Pages 17-26	9 figures in the results is too many – my suggestion would be to just include 3-4 in line with the journal guidelines.	All figures were removed from the manuscript.

2	Results Page 17 Line 50	Add the percentage (4%) from Australia	4% was added here
2	Results Pages 17-26	General comment on the results: In view of the fact that this study was examining the use of ES's in informing decision making, it would have been interesting to look at the different types of recommendations made by the studies. Is this information that could be reported on from the data you collected? Alternatively, it might be the topic of a future study	We have added a paragraph on the types of recommendations that were informed by the ESs. We also suggested in the Future Research section that a potential topic for future research could examine how

Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
			ESs ultimately informed decision-making.
2	Discussion Pages 26-31	Discussion The discussion could be better structured and edited down so information from the introduction is not repeated.	Discussion is edited down and to include key findings, relevant supporting evidence, and implications for future research and practice
2	Discussion Pages 26-31	The first paragraph is currently superfluous as it just repeats the rationale and objective. The first paragraph in the discussion should spell out in one or two sentences, the main conclusion of the paper. i.e. The findings from our scoping review provide new evidence to support the fact that ES's are a useful tool for supporting health planning, program and policy development. However, we also identified significant gaps. First, second, third .....	First paragraph edited to remove repetition, and change made as recommended to the first paragraph
2	Discussion Page 26 Line 36 to page 27 line 18	Page 26 Line 36 to page 27 line 18 just repeats the lists of things you identified that they were used for in the introduction so this is not new. This should be summarised	This section in the Discussion has been summarized as suggested.

2	Discussion	What would also be interesting to know is the extent to which the recommendations resulting from ES's have been used to inform decision making? Or at least the types of recommendations that are being made? Please consider including reference to this if you think it would be useful.	The scope of the study did not examine the extent to which the recommendations that were generated, were ultimately used to inform decision-making. We have added a paragraph on the types of recommendations that were informed by the ESs. We also suggested in the Future
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Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
			Research section that a potential topic for future research could examine how ESs ultimately informed decision-making.
2	Discussion Page 27 – lines 34-41 , and lines 45-52	Page 27 – lines 34-41 Please add something about the implications of these inconsistencies. Explain why this is important. Likewise lines 45-52 in relation to the definitions	We have expanded upon the implications of the regarding the inconsistencies in the ES literature, and added supporting evidence.
2	Discussion Page 28	– is it just about providing clarity for researchers who want to adopt the methodology or is it also about making ES's a stronger tool for supporting decision making and hence influencing policy and practice? It might be good to emphasise both.	We have added this point in the implications paragraph.
2	Discussion Line 34	– working definition “and or adapt to changing environments” – this clause doesn't quite work as it is not clear what the subject is. Do you mean “adapt the health care system to changing environments”.	The definition was condensed substantially and refined to reflect key attributes of ES derived from the study findings. This phrase about ‘... adapting to changing environments..’ was removed when condensing the working definition.

2	Discussion Page 30 – lines 2627	please briefly explain why this is more useful as this will strengthen the point	These lines were removed due to condensing the Discussion to just key points.
2	Discussion Page 30 Lines 45-47	–so what? please briefly explain what the implications of this are	These two sentences were removed when condensing the Discussion to just key points.

Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
2	Discussion Page 31	Again in relation to stakeholder engagement. I think the implication here is that increasing and improving the quality of ES's would be an effective way of increasing stakeholder engagement to strengthen decision making – but it would be great if you could make this more explicit.	This implication was added with a supporting reference.
2	Future Directions Page 32	Future directions – the other big question to me is how are ES's being used to inform decisions – what decisions have been influenced as a result of ES's? You might want to consider including this here.	As indicated earlier, our study did not examine how ES ultimately informed decisions, but we have suggested in this section that it would be an interesting area for future study.
2	Conclusion Page 32	This should be shortened considerably to have greater impact. Potentially the first three paragraphs can be summarised into one. The final paragraph works well.	Edited and shorted as suggested.
3	Overall	I found the term 'personal' sources unclear. Can this be better explained? Is it possible to use another term as 'personal' suggests 'private'.	Changed as recommended. Personal sources were changed to person-sources throughout to clarify.
3	Discussion Page 26	In the discussion, you wrote that this review provided evidence to support the observation that ES is a useful tool. Your review did not assess whether or not ES is useful – there were no reported outcomes from doing an ES e.g. improvement in effectiveness of a policy. I suggest deleting that sentence.	This sentence was edited and suggestion that it was a useful tool was removed.

3	Discussion Page 28, Conclusion Page 32	You described the lack of a definition of ES as a research gap. I wonder if this is a 'conceptual', rather than 'research' gap.	We have revised this section to describe the lack of definition as a conceptual gap and the
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Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
			lack of guidance as a methodological gap
3	Discussion Page 28	You present your definition of ES but do not describe how the definition was developed. For example, was it developed in a workshop with the authors? With others? Reviewed by stakeholders/experts?	We have added information about how the definition was developed (analysis of 96 studies, and discussions with team) and emphasized that this is a first step in a research agenda to explore the development a consensus definition.
3	Discussion Page 28	It would be good to know how your definition differs from and improves upon the many definitions that already exist – whether from other sectors or within health services research.	The working definition has been condensed to reflect the findings of the study and its uniqueness to the health services delivery context is described.
3	Discussion Page 30	You wrote 'These gaps were evident' about a lack of guidance to support attempts to "design and conduct ESs within a health services delivery context". Can you explain how the gaps were evident?	Information added here to indicated that previous studies suggested these gaps, and studies in our scoping review also noted these gaps.
3	Strengths and Limitations Page 32	You wrote that you could have missed studies from outside the USA because other countries might have used a different term for ES. You later mention terms such as 'jurisdictional scans' and 'situational analysis'. This seems quite important to the review and calls into question the search terms used in the review and its	We have removed this statement from the Limitations. Our focus was solely on examining how the concept of an 'environmental scan' was conceptualized

		comprehensiveness. It seems to be something that warrants more	and operationalized in the
Reviewer	Section, Original Line and Page #	Feedback/Correction Recommendations	Follow-up Actions
		attention. How much does this limit the review?	literature. This previous sentence was intended to recognize that there are other types of planning techniques used in strategic management that may have ES as a component, such as situational analysis, but this was not the focus or within scope of this study. As such, we do not feel that it is a limitation in the search strategy, however, we have suggested that these similar techniques might be a topic for future research.
3	Overall	<p>The paper would benefit from a final review for grammar. In particular:</p> <ul style="list-style-type: none"> <li>- Tense is not consistent and should generally be more consistently in the past. I found the repeated provision of numbers and percentages unnecessary.</li> <li>- With a sample of 96 articles, the paper could generally just report percentages.</li> </ul>	The paper was reviewed for grammar and tense throughout. As suggested, absolute numbers were removed and only percentages were presented.
3	Methods Page 12 and Acknowledgements Page 33	There was reference to research librarians LB and KM, who do not appear to be on the author list or in acknowledgements. Should they be in the acknowledgements?	We have added both librarians to the Acknowledgements.

**VERSION 2 – REVIEW**

<b>REVIEWER</b>	Turin, Tanvir University of Calgary, Department of Family Medicine, Cumming School of Medicine
<b>REVIEW RETURNED</b>	09-Aug-2021

<b>GENERAL COMMENTS</b>	None
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<b>REVIEWER</b>	Spooner, Catherine University of New South Wales, CPHCE
<b>REVIEW RETURNED</b>	10-Aug-2021

<b>GENERAL COMMENTS</b>	The authors have addressed the reviewer comments satisfactorily
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