PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	HealthPathways implementation in a New Zealand health region: a qualitative study using the Consolidated Framework for Implementation Research
AUTHORS	Stokes, Tim; Tumilty, Emma; Doolan-Noble, F; Gauld, Robin

VERSION 1 – REVIEW

REVIEWER	Delphine Tuot University of California, San Francisco, USA
REVIEW RETURNED	16-Jul-2018

GENERAL COMMENTS	Comments to the Authors In this manuscript, the authors present an evaluation of HealthPathways implementation in one region in New Zealand using constructs inherent to the CFIR framework. Notable strengths of the study include the use of a robust implementation/evaluation framework, from the design of interview questions, to the thematic analysis. Specific comments on how to strengthen the manuscript are listed below. Major Compulsory Revisions • Abstract. It's not clear why this evaluation was undertaken; can the authors include the motivation in the objective section? The results section could be strengthened by describing the "adaptable periphery" and providing examples of 'failures of the implementation process" and how implementation was 'highly problematic". To allow room for these examples, would recommend streamlining the description of CFIR. I would recommend, however, identifying in italics the different CFIR domains that were pertinent to the thematic analysis. The first sentence of the conclusion could be deleted as well. • Strengths/limitations. In the first bullet point, can the authors provide some additional context to their statement that this is the first study to use an implementation science theory framework? Additionally, I don't think third bullet point is a limitation, as the study goal was to explicitly explore local activities. • Introduction. I had a little trouble understanding the motivation driving the proposed evaluation. Was this evaluation planned from original implementation/inception? Was the evaluation planned as a direct result of positive or negative experiences/feedback or to plan dissemination to another region in NZ? Understanding the motivation behind this study would help place the rest of manuscript in context. • Methods. I would recommend moving the last paragraph of the introduction to the Methods, as it describes the implementation framework used to conduct the study. Additionally, there needs to be an explanation as to why only certain domains were used for this

	study. Was this only after the deductive analysis or was this determined a priori? If the latter, were there no comments related to other CFIR constructs? • Methods. How does the interview guide relate to the CFIR framework? Can the authors identify to which domain each question was related? • Methods. How many individuals were contacted to participate in the study? How were providers contacted to participate? Please describe inclusion/exclusion criteria. How many individuals declined to participate? Were those who declined any different than those who agreed to participate? Did the authors provide written consent to participate? • Methods. How did the authors know that theoretical saturation was reached? Was there a minimum number that was determined a priori? • Results. It seems that some of the quotes relate to the structural characteristics and network/communication domains of the Inner Setting. If so, consider including a mention of these constructs. Are there quotes that can serve as evidence for each of the constructs within the "Process" CFIR domain? • Discussion. Can the authors provide details about how a re-launch of the program has taken account the study findings (as described on page 21)? Minor Essential Revisions • Methods. Please explicitly state that ET is an author of the study. • Methods. Can the authors list all of the variables used for the purposeful sampling? • Results. Please include a one-word description the participants whose quotes are used in the results section (i.e., Participant 4, hospital specialist). Discretionary Revisions • Discussion: The paragraph about CFIR on page 20 does not seem to add much to the discussion. Consider removing or better integration with the prior paragraph about findings from other studies that mirror the results from this CFIR-informed study.

REVIEWER	Dr. Grace Warner Dalhousie University, Canada
REVIEW RETURNED	05-Aug-2018

GENERAL COMMENTS	Abstract Pg 2 Lines 35-42: The identification of the core component and the adaptable periphery are unclear. The phrase, " it was seen as sufficient to deliver the web portal populated with the the new HealthPathways..." is confusing. The author(s) need to clarify this. I did not really understand what it meant by populating the portal. I will address this problem later in my review as the confusion in the abstract is an indication of the confusion in the manuscript. p 3 Lines 27-31: Might rephrase to "This is the first process evaluation of implementing Health Pathways in New Zealand using qualitative methods..." Introduction p 4 Line 53: Not sure it is important to mention the emerging evidence is from uncontrolled before and after studies, this comment does not add anything. If keep state why this information is important.

	P 5 line 12: Is it Health Pathways as in the multiple pathways or is it the web-based portal and referral system as a unit so pronoun should be it instead of they. line 17-18: I do believe the statement that a process evaluation is needed to determine which aspect of the intervention in a defined context are likely to succeed, provide evidence. line 29: Paragraph does not have a concluding statement Line 40- Stop sentence at South then start new sentence as Alliance South is a contractual alliance...improving care coordination and integration in the southern region of New Zealand. Lines 33-54: This paragraph needs some additional information. Here is where you need to clarify what has happened before your study and what is the core versus the adapted periphery. If you define this here it will make the rest of the manuscript much clearer. Restate that the HealthPathways refers to what was developed in Canterbury, and your project is examining how HealthPathways can be adapted to be implemented in the Southern Region. From what I understand your core is the original HealthPathways and what was done to the IT aspect of HealthPathways? Provide more information on the components of the HealthPathways so the intervention is better explained. Indicate if the HealthPathways in Canterbury was successfully implemented, and by what measure. Methods p6 Lines 3-10: Is it necessary to bring up the CLAHRCs? If so, put it at the end in the discussion when you mention how you shared your results. Lines 30-31: edit the sentence-...providing a comprehensive and standardized list of domains and constructs allowing researchers to identify factors that are relevant... P 7 Lines 22-24: Provide more details on what you mean regarding greater of lesser degree of involvement in implementing the Southern HealthPathways. Line 33: What do you call it a topic guide? We often use the term semi-structured interview guide, how is a topic guide different? Results P 8 Lines 30-37: Why did you divide the number of practitioners between general and specialists? This should be explained in the methods. What degree of involvement with implementing the Southern HealthPathway did the other three participants have? P 10 Lines 3-27: This section will hopefully be clearer once you clearly define the core and the adaptable periphery. P 11 Line 13: Provide definitions of the outer and inner settings, here or in the methods. Line24-26: The following is confusing, so further details or a diagram would be helpful...where two strong corporate and professional cultures mitigated against the... Line31-32: Change to ...the local corporate culture-represented by the relationships between the... P 12 Lines 3-4: Is this statement also reflecting the source of the intervention was not from within, but an outer entity that was imposing the pathways? p14 Lines 48-53: This would have been helpful when you described the

	core of the intervention. p 15 Lines 22-24: Explain what is meant by the socialization of the HealthPathways. p 16 Lines 29-40: This would have been helpful when you described the core of the intervention. Lines 44-46: What implementation are you referring to? The one at Canterbury or Southern? Discussion P 17 Lines 6-9: Were there quantitative assessments? If so, mention them here. Lines 22-27: This section will hopefully be clearer once you clearly define the core and the adaptable periphery. P 18 Lines 22-27: Careful here as part of your argument is that the context is important. Provide more information on what contexts your findings would be transferable to. P 19 Lines 5-8: Not clear why you wanted to recruit those not involved in implementation process. Are you talking about those who were not leaders in advocating the the pathways versus those who just had to use the pathways? Did you gather any information on particular clinical pathways that may have been easier to implement than others? P 22 Reference the two additional documents you included at the end.

VERSION 1 – AUTHOR RESPONSE

No.	Reviewer's comments	Authors' Response
	Reviewer 1	
	In this manuscript, the authors present an evaluation of HealthPathways implementation in one region in New Zealand using constructs inherent to the CFIR framework. Notable strengths of the study include the use of a robust implementation/evaluation framework, from the design of interview questions, to the thematic analysis. Specific comments on how to strengthen the manuscript are listed below.	We thank the reviewer for highlighting the strengths of the study. We note we have revised the title of the paper to make it clearer CFIR was used to inform the study. The new title is: *HealthPathways implementation in a New Zealand health region: a qualitative study using the Consolidated Framework for Implementation Research* In our responses below we either fully address the reviewer's specific comments or, when we consider it is

		necessary to rebut the comments, offer a full and reasoned argument as to why the relevant text does not require revision.
	Major Compulsory Revisions	
1.	Abstract. It'snot clear why this evaluation was undertaken; can the authors include the motivation in the objective section?	With regard to stating why the evaluation was undertaken – we fully set this out in our revised introduction section (see below). Given that we have only a limited word count for the abstract - a maximum word count of 300 – we consider it is more important to address the need to make the results section clearer and more comprehensive.
	The results section could be strengthened by describing the "adaptable periphery" and providing examples of 'failures of the implementation process" and how implementation was 'highly problematic". To allow room for these examples, would recommend streamlining the description of CFIR. I would recommend, however, identifying in italics the different CFIR domains that were pertinent to the thematic analysis.	In line with the helpful comments from both reviewer 1 and reviewer 2 set out below we have rewritten and expanded the results section of the abstract as far as wecan given the abstract word count limit (Page 2-3).
	The first sentence of the conclusion could be deleted as well.	We consider that it is important to highlight in the conclusion section that The use of implementation science theory (CFIR) has furthered our understanding of the factors needed for the successful implementation of a complex health intervention (HealthPathways) in the New Zealand health system. We have therefore retained this sentence.
2.	Strengths/limitations [box] In the first bullet point, can the authors provide some additional context to their statement that this is the first study to use an implementation science theory framework?	We understand the reason for this request however this bullet point needs to be a short summary statement and we therefore consider it is not appropriate to add the context here. We would note that we discuss this point in detail in the discussion (Pages 21-22) We have therefore shortened the statement by deleting "and the first evaluation to use an implementation science theory framework." This is covered in the second bullet point. We have also slightly reworded the opening of the discussion section to reflect this (Page 18).
	Additionally, I don't think third bullet	

	point is a limitation, as the study goal was to explicitly explore local activities.	We agree. This is not stated as a limitation, there is no definition of numbers of limitations or strengths that need to be presented in this section in BMJ Open guidance.
3.	Introduction. I had a little trouble understanding the motivation driving the proposed evaluation. Was this evaluation planned from original implementation/inception? Was the evaluation planned as a direct result of positive or negative experiences/feedback or to plan dissemination to another region in NZ? Understanding the motivation behind this study would help place the rest of manuscript in context.	We agree this is an important omission. We have added an additional sentence to provide clarity on the rationale for the evaluation (Page 6). We have further deleted the section on CLARHCs which is not that relevant here (see Reviewer 2, comment 21).
4.	Methods. I would recommend moving the last paragraph of the introduction to the Methods, as it describes the implementation framework used to conduct the study. Additionally, there needs to be an explanation as to why only certain domains were used for this study. Was this only after the deductive analysis or was this determined a priori? If the latter, were there no comments related to other CFIR constructs?	Thank you. We agree and have moved this paragraph to the beginning of the methods section. We agree this is important. We would point out that we address this point (Page 9) by clearly stating we deductively coded into all the five domains as appropriate. In the results we state that after the deductive analysis we focussed on presenting the identified relevant CFIR constructs (table 1) (Page 10) We further provide information on this issue in the Discussion (Page 20).
5.	Methods. How does the interview guide relate to the CFIR framework? Can the authors identify to which domain each question was related?	In designing the topic guide we reviewed the guidance on conducting interviews using the CFIR framework on the framework's website (https://cfirguide.org/). We have revised the methods section to state this (Page 8). We were keen to ensure that the topic guide (synonymous with interview guide) was designed to allow us to flexibly explore what was considered to have "worked well', and "not worked so well" with participants – in short to record their story of how HealthPathways had been implemented in their own terms and ensure that the interview was a "conversationwith a purpose." ((Burgess, R G. (1984). Autobiographical accounts and research experience. In R. G. Burgess (ed.), *The Research Process in Educational Settings: Ten Case Studies*, pp.251-270. Lewes: The Falmer Press.)). We were concerned that undue use of the range of questions relating to specific domains set out in the CFIR

		framework guide would lead to an interview that would become somewhat structured and stilted and not allow all issues to be raised. We therefore chose to use a set of broad open questions, with appropriate probes, to allow participants to fully describe their account of how pathways had been implemented. The above approach is consistent with guidance on the CFIR website (https://cfirguide.org/) which notes: The suggested CFIR questions "are offered as a starting point – there is great latitude in how questions can be worded; concepts within constructs may not be covered by the available set of questions." We then, as we set out in the methods section, used the CFIR framework in the analysis phase to make sense of our participants' interviews. It would therefore not in our view be useful to identify which CFIR domain each question referred to as we only applied the CFIR framework after we had captured each participants' account of Health Pathways implementation verbatim. We have inserted the interview topic guide as a supplemental file.
6.	Methods. How many individuals were contacted to participate in the study? How were providers contacted to participate? Please describe inclusion/exclusion criteria. How many individuals declined to participate? Were those who declined any different than those who agreed to participate? Did the authors provide written consent to participate?	It is not usual in qualitative studies (as opposed to quantitative surveys) to quantitatively report the number of people approached to take part and the number who declined. Our reporting of the sampling approach is fully in accordance with the reporting guidance for qualitative studies recommended by BMJ Open: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International Journal for Quality in Health Care. 2007. Volume 19, Number 6: pp. 349 – 357 We set out in a revised supplemental file, a completed COREQ-32 checklist, our method of recruitment and non participation. Purposive sampling via email lists was used with snowball sampling with participants who took part See: COREQ-32 items 10-13. In accordance with Ethics Committee Approval, written consent to participate was obtained. We state this in the Ethics approval and consent to participate section of

		the paper (Page 25).
7.	Methods. How did theauthors know that theoretical saturation was reached? Was there a minimum number that was determined a priori?	The term “theoretical saturation” has a specific meaning in the context of Glaser and Strauss’s grounded theory methodology – where inductive analysis is used to develop new theoretical categories. In this study, in contrast, the interviews were deductively coded into an existing implementation science framework and so we consider that it is not appropriate to ask the question was “theoretical saturation” achieved. In support of our position we would refer to this recent paper by Saunders and colleagues which fully explores this issue: Saunders, B., Sim, J., Kingstone, T. et al. Saturation in qualitative research: exploring its conceptualization and operationalization Qual Quant (2018) 52: 1893. PubMed https://doi.org/10.1007/s11135-017-0574-8 This point is unclear. There was no a priori definition of the number of interviews chosen.
8.	Results. It seems that some of the quotes relate to the structural characteristics and network/communication domains of the Inner Setting. If so, consider including a mention of these constructs. Are there quotes that can serve as evidence for each of the constructs within the “Process” CFIR domain?	We agree that there are quotes that appear to relate to a number of different CFIR constructs. We found, however, in line with other researchers using CFIR using a similar methodology (reference 22) that the CFIR domains overlapped and that it made presentation of the results problematic if we tried to split out key findings by each domain/construct. We have aimed to use quotations only when they add further illustrative value to what is summarised in the text. Thus for the planning, executing and evaluation/reflection constructs adding further quotes would increase the word count but not add further illustrative value to what is summarised in the text.
9.	Discussion. Can the authors provide details about how a re-launch of the program has taken account the study findings (as described on page 21)?	We have expanded this section to provide further details as how the relaunch has taken account of the study findings (Pages 22-23) . A full description of the relaunch is outside the scope of this paper.

	Minor Essential Revisions	
10.	Methods. Please explicitly state that ET is an author of the study.	We have done this in the author information section (Page 24) and in the author list on page 1.
11.	Methods. Can the authors list all of the variables used for the purposeful sampling?	We have revised this and they are listed in the sample section of the methods (Page 8). We have reworded this section (See Reviewer 2, comment 23) to make these clearer.
12.	Results. Please include a one-word description the participants whose quotes are used in the results section (i.e., Participant 4, hospital specialist).	We discussed whether we should label each quotation according to the professional group the participant belonged to at the time of writing up the paper. We were concerned that this approach would lead to loss of confidentiality as it would increase the likelihood that study participants would be able to recognise themselves from the verbatim quotes. We did not consider adding the professional group to the quotes added explanatory value and therefore considered that it was correct not to add these to the quotes for this "confidentiality" reason. This is in line with our data sharing comment (Page 25).
	Discretionary Revisions	
13.	Discussion: The paragraph about CFIR on page 20 does not seem to add much to the discussion. Consider removing or better integration with the prior paragraph about findings from other studies that mirror the results from this CFIR-informed study.	We would wish to retain this paragraph. In it we highlight the important finding, in line with our study, that "a recent CFIR-informed qualitative process evaluation study (exploring the barriers affecting implementation of an online frailty tool into primary care), using a similar methodology, also found that it was necessary to report empirical findings that related to the most important CFIR domains to best "make sense" of the data" (reference 22) (Page 22.
	Reviewer 2	
14.	Abstract Pg 2 Lines 35-42: The identification of the core component and the adaptable periphery are unclear. The phrase, " it was seen as sufficient to deliver the web portal populated with the the new HealthPathways..." is confusing. The author(s) need to clarify this. I did not really understand what it meant by populating the portal. I will address this problem later in my review as the confusion in the abstract is an indication of the	We agree. Thank you for pointing out this important point. We have revised this section, taking full account of the revisions reviewer 2 has requested we make (and have made) below. We trust we have now fully rectified this issue.

	confusion in the manuscript.	
	Introduction	
15.	p 3 Lines 27-31: Might rephrase to "This is the first process evaluation of implementing Health Pathways in New Zealand using qualitative methods..." Introduction	We agree. We have reworded this bullet point (Page 4).
16.	p 4 Line 53: Not sure it is important to mention the emerging evidence is from uncontrolled before and after studies, this comment does not add anything. If keep statewhy this information is important.	We agree. This has been removed.
17.	P 5 line 12: Is it Health Pathways as in the multiple pathways or is it the web-based portal and referral system as a unit so pronoun should be it instead of they.	Thank you. HealthPathways as one word is the web-based portal and referral system as a unit. So proun is “it”.
18.	line 17-18: I do believe the statement that a process evaluation is needed to determine which aspect of the intervention in a defined context are likely to succeed, provide evidence.	Thank you.
19.	line 29: Paragraph does not have a concluding statement. Line 40- Stop sentence at South then start new sentence as Alliance South is a contractual alliance...improving care coordination and integration in the southern region of New Zealand.	We agree. The whole paragraph does not seem to fit here. We have moved the first part of it to the section on Alliance South HealthPathways (Page 7) and we have moved the second part of it to the description of CFIR in the methods section (page 7). We have actioned this.
20.	Lines 33-54: This paragraph needs some additional information. Here is where you need to clarify what has happened before your study and what is the core versus the adapted periphery. If you define this here it will make the rest of the manuscript much clearer. Restate that the HealthPathways refers to what was developed in Canterbury, and your project is	We agree with the need for additional information. We have revised the earlier part of the introduction to make it clear what HealthPathways is (Pages 5-6). We have further revised this section to make clear what the rationale for the evaluation was (Page 6) and that what was implemented was the Canterbury Health Pathways.

	examining how HealthPathways can be adapted to be implemented in the Southern Region. From what I understand your core is the original HealthPathways and what was done to the IT aspect of HealthPathways? Provide more information on the components of the HealthPathways sothe intervention is better explained. Indicate if the HealthPathways in Canterbury was successfully implemented, and by what measure.	We have expanded this section to make this clearer. This allows the introduction of the concepts of "core component" and "adaptable periphery" to make more sense at the beginning of the Results section. We have also amended the wording there (Results, Pages 10-12). We address this issue in the evidence review for the effectiveness of care pathways (Pages 5-6) and discussion (Page 21).
	Methods	
21.	p6 Lines 3-10: Is it necessary to bring up the CLAHRCs? If so, put it at the end in the discussion when you mention how you shared your results.	We agree that their inclusion does not add to the argument of the section and it has therefore been removed.
22.	Lines 30-31: edit the sentence- ...providing a comprehensive and standardized list of domains and constructs allowing researchers to identify factors that are relevant... P 7	We have revised this (Page 7)
23.	Lines 22-24: Provide more details on what you mean regarding greater of lesser degree of involvement in implementing the Southern HealthPathways.	We have reworded this section to better define who these individuals were and their involvement (Page 8).
24.	Line 33: What do you call it a topic guide? We often use the term semi-structured interview guide, how is a topic guide different?	We would suggest that Topic Guide, Interview Schedule and Interview guide are interchangeable terms. We note that "topic guide" is the term used in the reporting guidance for qualitative studies recommended by BMJ Open: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International Journal for Quality in Health Care. 2007. Volume 19, Number 6: pp. 349 – 357 (Reference 19).
	Results	

25.	P 8 Lines 30-37: Why did you divide the number of practitioners between general and specialists? This should be explained in the methods. What degree of involvement with implementing the Southern HealthPathway did the other three participants have?	Thank you. We consider we have addressed this by revisions referred to above that make it clear in the paper that each individual care pathway is developed with input from specialists and general practitioners as appropriate, and that the end users are general practitioners (reviewer 2, comment 23). We have amended the description of the sampling frame so it is clearer who was intended to be sampled (see reviewer 2, comment 23 and reviewer 1 comment 11). This is also reported in the COREQ questionnaire submitted as a supplemental file.
26.	P 10 Lines 3-27: This section will hopefully be clearer once you clearly define the core and the adaptable periphery	Thank you. We have reworded this section to make this clearer (Pages 10-12) as well as revised the introduction section as requested earlier (reviewer 2, comment 20)
27.	P 11 Line 13: Provide definitions of the outer and inner settings, here or in the methods.	Thank you. We have revised and expanded table 1 so it summarises the definitions of all five CFIR domains, including those not used in the paper.
28.	Line24-26: The following is confusing, so further details or a diagram would be helpful...where two strong corporate and professional cultures mitigated against the...	We are not clear why a diagram would necessarily be helpful here. We consider we have appropriately defined each of the two cultures clearly in the text. We have further reduced any confusion regarding definition of each CFIR domain through our revisions to table 1 (comment 27 above).
29.	Line31-32: Change to ...the local corporate culture-represented by the relationships between the...	We have revised this as requested (Page 13).
30.	P 12 Lines 3-4: Is this statement also reflecting the source of the intervention was not from within, but an outer entity that was imposing the pathways?	We are unclear exactly what this comment refers to in the paper. As noted in our response to reviewer 1, comment 8 we found, in line with other researchers using CFIR (reference 22) that the CFIR domains overlapped and that it made presentation of the results problematic if we tried to split out key findings by domain.
31.	p14 Lines 48-53: This would have been helpful when you described the core of the intervention.	Thank you. We have revised the description of the core intervention – introduction, (Page 5).
32.	p 15 Lines 22-24: Explain what is meant	We have re-written this sentence to make it clear that we

	by the socialization of the HealthPathways.	use the term as defined by one of the interview participants (Page 17).
33.	p 16 Lines 29-40: This would have been helpful when you described the core of the intervention	Thank you. We have revised the description of the core intervention – introduction, (Page 5).
34.	Lines 44-46: What implementation are you referring to? The one at Canterbury or Southern?	Thank you. We refer to the Southern one. We have amended the text to make it clear (Page 18).
	Discussion	
35.	P 17 Lines 6-9: Were there quantitative assessments? If so, mention them here.	We make clear, later in the discussion, that it was not possible to perform a quantitative evaluation (Pages 22-23)
36.	Lines 22-27: This section will hopefully be clearer once you clearly define the core and the adaptable periphery.	We agree. We have re-written this section both here (Pages 18-19) and in the abstract to more clearly define the core and adaptable periphery.
37.	P 18 Lines 22-27: Careful here as part of your argument is that the context is important. Provide more information on what contexts your findings would be transferable to	We agree. We have reworded this section - consideration of the adaptable periphery is important in whatever local context HealthPathways are being implemented (Page 20).
38.	P 19 Lines 5-8: Not clear why you wanted to recruit those not involved in implementation process. Are you talking about those who were not leaders in advocating the the pathways versus those who just had to use the pathways?	We have re-worded this section to make it clearer (Page 20) and see also responses to comments 11 and 23 above. Wewould note that when we initiated the project we originally wanted to speak to end-users about their experience of using the pathways (see Page 8). However given the trouble HeathPathways faced in its implementation, this proved difficult as many people weren't using it and recruiting non-users is always more difficult than those that have strong opinions.
39.	Did you gather any information on particular clinical pathways that may have been easier to implement than others? P 22	Unfortunately we were not able to explore this issue given the general failure of implementation of the HealthPathways programme per se.
40.	Reference the two additional documents you included at the end.	We have re-read the discussion section and can confirm that we have inserted all appropriate references.

VERSION 2 – REVIEW

REVIEWER	Dr. Grace Warner Dalhousie University, Canada
REVIEW RETURNED	07-Oct-2018

GENERAL COMMENTS	The authors have done a good job of addressing the comments. I only have a few minor edits I would like the authors to consider for clarity. My comments are in reference to the revised manuscript, "Health_Pathways_SDHB_Stokes_BMJ_Open_Revised_tracked_V1.2 I have noted the page numbers to help the authors. Page 2 Results of abstract, consider word change to make it clear what is referred to when discussing the adaptable periphery... 1) Little attention had, however, been paid to the SUPPORTING THE NEEDED WORK TO TAILOR THE adaptable periphery (adaptable elements, structures and systems related to HealthPathways and the organization into which it was being implemented) 2) ...it was seen as sufficient just to deliver the web portal and referral system and the set of clinical care pathways AS DEVELOPED to effect successful implementation. page 6 1) I don't think you need the double parentheses in the following sentence ((general practitioners (GPs) who consulted with selected Southern Region secondary care clinicians)) 2) Sometimes the term secondary care clinician is used and sometimes specialist is used (methods). I suggest being consistent by using secondary care clinician then indicating if they were specialists in parentheses. 3) The sentence...2017 over 400 individual clinical care pathways had been localized ... Does this mean tailored to the local context? Page 10 1) the sentence...Thus the focus of the analysis shifted to using the relevant CFIR domains and constructs (Table 1) to systematically should be changed to Thus the focus of the analysis shifted FROM using the relevant CFIR domains and constructs (Table 1) to systematically Page 1) Change the following sentence...What was apparent, however, in participants' accounts of how the core component (web portal and referral system) was implemented was limited or no consideration of the adaptable periphery. should be changed to... What was apparent, however, in participants' accounts of how the core component (web portal and referral system) was implemented was THERE WAS limited or no consideration of the adaptable periphery. 2) After the sentence...There was no clear understanding by the local team leading the implementation process of the need to both construct and populate a web portal and referral system (core component) and to address related issues that were necessary for the Canterbury HealthPathways to be successfully adapted and used in the Southern Health System (adaptable periphery).

	It would be nice to add a sentence explicitly stating what are the elements of the HealthPathways that need to be adapted. It is implicit here, but still vague. Page 13 1) The sentence...strong corporate and professional cultures mitigated against the successful implementation of an intervention I think this should be they worked against instead of mitigated. Page 15 1) The sentence...This CFIR construct is defined as the tangible and immediate indicators ... If construct is singular it should be indicator.

VERSION 2 – AUTHOR RESPONSE

No.	Reviewer's comments	Authors' Response
	Reviewer 2	
1.	The authors have done a good job of addressing the comments. I only have a few minor edits I would like the authors to consider for clarity. My comments are in reference to the revised manuscript, "Health_Pathways_SDHB_Stokes_BMJ_Open_Revised_tracked_V 1.2 I have noted the page numbers to help the authors.	Thank you. We note that these are minor suggested edits to consider for clarification.
2.	Results of abstract, consider word change to make it clear what is referred to when discussing the adaptable periphery... 1) Little attention had, however, been paid to the SUPPORTING THE NEEDED WORK TO TAILOR THE adaptable periphery (adaptable elements, structures and systems related to HealthPathways and the organization into which it was being implemented) 2) ...it was seen as sufficient just to deliver the web portal and referral system and the set of clinical care pathways AS DEVELOPED to effect successful implementation.	We agree this needs clarification. We consider our proposed revision: 1) Little attention had, however, been paid to ADDRESSING the adaptable periphery (adaptable elements, structures and systems related to HealthPathways and the organization into which it was being implemented) Makes this clarification more concisely, which is important for an abstract with a limited word count. Thank you. We agree and have revised as suggested.

		We have also revised the opening section of the discussion so it is consistent with the abstract changes. In order that the abstract still fits the 300 word limit imposed at submission we have made several minor changes to keep to this word count.
3.	PAGE 6 1) I don't think you need the double parentheses in the following sentence ((general practitioners (GPs) who consulted with selected Southern Region secondary care clinicians)) 2) Sometimes the term secondary care clinician is used and sometimes specialist is used (methods). I suggest being consistent by using secondary care clinician then indicating if they were specialists in parentheses. 3) The sentence...2017 over 400 individual clinical care pathways had been localized ... Does this mean tailored to the local context?	We agree. We have revised to: *The approach used Clinical Editors - general practitioners (GPs) who consulted with selected Southern Region secondary care clinicians - to localize/adapt …* We agree. We have changed this to secondary care clinician for consistency when appropriate and added (hospital specialist) in brackets. Yes. We define this in previous sentence and have made this clearer by adding "localised … for use in the Southern health region"
4.	Page 10 1) the sentence...Thus the focus of the analysis shifted to using the relevant CFIR domains and constructs (Table 1) to systematically should be changed to Thus the focus of the analysis shifted FROM using the relevant CFIR domains and constructs (Table 1) to systematically Page 1) Change the following sentence...What was apparent, however, in participants' accounts of how the core component (web portal and referral system) was implemented was limited or no consideration of the adaptable periphery. should be changed to... What was apparent, however, in participants' accounts of how the core component (web portal and referral system) was implemented was THERE WAS limited or no consideration of the adaptable	We disagree with the suggestion to use "from" as this wrongly changes the sense of the sentence. It is worded correctly in the revised paper ("to"). Thank you. We agree and have made this change.

	periphery. 2) After the sentence...There was no clear understanding by the local team leading the implementation process of the need to both construct and populate a web portal and referral system (core component) and to address related issues that were necessary for the Canterbury HealthPathways to be successfully adapted and used in the Southern Health System (adaptable periphery). It would be nice to add a sentence explicitly stating what are the elements of the HealthPathways that need to be adapted. It is implicit here, but still vague.	Thank you. We set out the other "related issues" later in the results and thus consider clarification is not required here.
5.	Page 13 1) The sentence...strong corporate and professional cultures mitigated against the successful implementation of an intervention I think this should be they worked against instead of mitigated.	Thank you. We agree and have revised as suggested.
6.	Page 15 1) The sentence...This CFIR construct is defined as the tangible and immediate indicators ... If construct is singular it should be indicator.	Thank you. We agree and have revised as suggested.