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Title	Identifying strategies to improve diabetes care in Alberta, Canada, using the knowledge-to-action cycle
Authors	Braden Manns MD MSc, Ted Braun MD, Alun Edwards MD, Jeremy Grimshaw MBChB PhD, Brenda Hemmelgarn MD PhD, Don Husereau MSc, Noah Ivers MD MSc, Jeff Johnson PhD, Steve Long BSc MBA, Kerry McBrien MD MPH, Christopher Naugler MD, Peter Sargious MD MPH, Sharon Straus MD MSc, Marcello Tonelli MD SM, Andrea Tricco PhD, Catherine Yu MD MHSc; the Alberta Innovates — Health Solutions Interdisciplinary Chronic Disease Collaboration
<b>Reviewer 1</b>	Lesley Tarasoff
Institution	Dalla Lana School of Public Health, University of Toronto, Toronto, Ont.
General comments	<p>The article is well written and easy to follow. The authors addressed most of the limitations I identified in their discussion section. I however would like to see more detail concerning the demographics of their survey participants, e.g., broken down by age and gender. Individual patient barriers may differ based on these demographics. A look at the Health Behaviour Model may be worthwhile re: individual patient barriers and facilitators. Further, given that this is a province-wide initiative, it might have been beneficial to survey patients beyond just Calgary, an urban setting where resources are arguably more available than in rural settings of Alberta. Moreover, were any of the survey participants Aboriginal/First Nations? Are there Aboriginal-specific health initiatives run by the PCNs? Is diabetes not a major concern for this marginalized population?</p> <p>With regard to the focus groups, given the emphasis put on pharmacists and other allied health professionals, the study would have benefited from a larger and more diverse sample of health care providers.</p>
<b>Reviewer 2</b>	Mark Embrett
Institution	Centre for Health Economics and Policy Analysis, McMaster University, Hamilton, Ont.
General comments	<p>1) The abstract identifies the goals of determining feasibility and prioritizing interventions. Neither of these goals is well addressed in the results or discussion of the findings. This paper would be strengthened with a cleared definition and discussion about what the authors mean by feasibility. Feasibility of reform? of the implementation? is feasibility determined by the participants or experts? It remains unclear. Prioritization is hardly dealt with at all in the results or discussion. What are these interventions being prioritized over? All existing interventions and practices? This paper would be strengthened if it was clearer as to how these were prioritized, and in what context do they take priority.</p> <p>2) The knowledge to action framework and the IHI collaborative model are put in as frameworks for analysis however, it is unclear how exactly they are used. This paper would be stronger if the authors included how these frameworks contributed to the analysis of their results. There is little discussion about how the knowledge discovered in this research can be put into action. Therefore applying the principles of this framework to the analysis would be beneficial.</p> <p>3) Methods are vague, and as such it impossible to determine the role of the researcher in the collection of this data and how they may have influenced the findings. More descriptive characteristics of participants, and especially the patients surveyed would provide a clearer picture for the reader. Various methodological concerns arise from the description of the study including: what type of questions were asked, were there any concerns over the findings, was member checking done, or was there any disagreement among participants or researchers. As is, it is difficult to determine how the inclusion of certain participants could have biased the results. Additionally, information on how the workshop was conducted is very important in these types of studies to protect against researcher bias in reporting results. This type of article may be best suited for an essay or commentary piece. Given the weakness/ opaqueness of the methods it is difficult/ impossible to recommend. Perhaps adding exact quotes from participants would help support the findings and improve the trustworthiness of interpretations.</p> <p>3) The barriers do not seem to align with the proposed interventions. Interventions are quite vague. These two sections in the results could be made much clearer, and a stronger associations made between the barriers and the interventions. A much tighter approach that aligns purpose, results and discussion would benefit this paper.</p> <p>4) The references seem quite one sided, and there is little acknowledgement of any</p>

	<p>counter arguments. For example, page 5, line 32, reference 7 is used to support the use of multidisciplinary management but the reference is an opinion piece from 1997. This is both insufficient to support point and outdated. Some other references suffer from this too. This paper would be strengthened with further support from the literature on many of the statements of claim.</p> <p>Minor issues:</p> <p>1) The paragraph on page 10, lines 24-46 seems contradictory. Providers report sufficient clinical information out there, but then report insufficient information on effective methods for collaboration. This paper would be much stronger if these ideas were flushed out a bit more. As it is difficult to determine how to move forward on these recommendations.</p> <p>2) It is difficult to have a take home from this paper. The authors should reinforce what the purpose of the paper is and how it contributes to existing knowledge. Currently it is difficult to appreciate the contribution, if any.</p> <p>3) one goal seems to be to examine causes of suboptimal outcomes, but they are not addressed in the abstract. This needs to be made clearer earlier. Additionally, it is not made clear what optimal outcomes are. The paper would be stronger if this was made clearer.</p> <p>4) reform ideas are present in the discussion, but it should be introduced earlier as an objective) and challenges to reform should be addressed (or reform ideas should not be included in the discussion because the methods don't seem robust enough to really tackle this issue.</p>
<p><b>Author response</b></p>	<p><b>Reviewer: Lesley Tarasoff</b> <b>Comments to the Author</b></p> <p><b>The article is well written and easy to follow. The authors addressed most of the limitations I identified in their discussion section.</b></p> <p><b>1. I however would like to see more detail concerning the demographics of their survey participants (e.g., broken down by age and gender). Individual patient barriers may differ based on these demographics.</b></p> <p>Thank you. We have now included further detail on the demographics of survey respondents, including a baseline characteristics table. Unfortunately, given the small sample size of this survey, we are unable to stratify responses based on age and gender.</p> <p><b>2. A look at the Health Behaviour Model may be worthwhile re: individual patient barriers and facilitators.</b></p> <p>Thank you. We agree that the Health Belief Model provides useful information to explain health behaviours. As you know, in this model, barriers are considered, but other aspects are also considered, including Perceived Susceptibility, and cues to action, etc. We did not organize our survey to collect information on all of these aspects, but were interested to read further on this and will take this into consideration in future studies.</p> <p><b>3. Further, given that this is a province-wide initiative, it might have been beneficial to survey patients beyond just Calgary, an urban setting where resources are arguably more available than in rural settings of Alberta.</b></p> <p>We agree with this, and are currently conducting a larger survey of people with diabetes within and outside Alberta. Unfortunately, for this workshop, we only had the results of this pilot survey. Within the limitations section, we acknowledge our small sample size as a limitation, and now include the lack of rural patients as a limitation.</p> <p><b>4. Moreover, were any of the survey participants Aboriginal/First Nations? Are there Aboriginal-specific health initiatives run by the PCNs? Is diabetes not a major concern for this marginalized population?</b></p> <p>We agree that diabetes is a major issue for First Nations people, and while there are pilot programs providing outreach care to some First Nations people with diabetes on reserve, these were not offered within the Primary care networks we surveyed. We did not record race, but suspect that very few (if any) of the patients were First Nations. We have added this as a limitation.</p>

**5. With regard to the focus groups, given the emphasis put on pharmacists and other allied health professionals, the study would have benefited from a larger and more diverse sample of health care providers.**

We agree that it would have been ideal to have a larger sample of allied health care providers in our focus group. Having said that, the workshop was attended by three allied health care providers working actively in the field and 17 policy-makers (many of whom are former allied health care providers). We have added this level of information to the manuscript.

**Reviewer: Mark Embrett**

**Major issues:**

**1. The abstract identifies the goals of determining feasibility and prioritizing interventions. Neither of these goals is well addressed in the results or discussion of the findings. This paper would be strengthened with a cleared definition and discussion about what the authors mean by feasibility. Feasibility of reform? Of the implementation? Is feasibility determined by the participants or experts? It remains unclear. Prioritization is hardly dealt with at all in the results or discussion. What are these interventions being prioritized over? All existing interventions and practices? This paper would be strengthened if it was clearer as to how these were prioritized, and in what context do they take priority.**

Thank you. We agree that our objectives were not as clear as they could have been, and now ensure that they are consistent across the abstract and methods section. Also, please see response to editor comment #2.

**2. The knowledge to action framework and the IHI collaborative model are put in as frameworks for analysis however, it is unclear how exactly they are used. This paper would be stronger if the authors included how these frameworks contributed to the analysis of their results. There is little discussion about how the knowledge discovered in this research can be put into action. Therefore applying the principles of this framework to the analysis would be beneficial.**

Thank you. Please see response to editor comment #3.

**3. Methods are vague, and as such it impossible to determine the role of the researcher in the collection of this data and how they may have influenced the findings. More descriptive characteristics of participants, and especially the patients surveyed would provide a clearer picture for the reader. Various methodological concerns arise from the description of the study including: what type of questions were asked, were there any concerns over the findings, was member checking done, or was there any disagreement among participants or researchers. As is, it is difficult to determine how the inclusion of certain participants could have biased the results. Additionally, information on how the workshop was conducted is very important in these types of studies to protect against researcher bias in reporting results. This type of article may be best suited for an essay or commentary piece. Given the weakness/ opaqueness of the methods it is difficult/ impossible to recommend. Perhaps adding exact quotes from participants would help support the findings and improve the trustworthiness of interpretations.**

We understand the concern, but would like to note that four of the authors on this paper are policy makers – this includes the head of primary care in the Calgary zone of Alberta Health Services (Braun), the Director of the Diabetes Strategic Clinical Network (Edwards), the past Director of Chronic Disease Management with Alberta Health Services (Sargious), and the past Executive Director of Pharmaceutical Services with Alberta Health (Long). They have all approved the paper, and offered careful revisions.

We agree that more details on the survey respondents and how the workshop was conducted, and have included this. We also note that the submitted article was 3000 words, and we have now reduced the word count to 2500 words – as such, we were not able to add voluminous detail. We have appended the survey as an appendix, and have now included a link to all of the presentations which were given at the meeting.

**4. The barriers do not seem to align with the proposed interventions. Interventions are quite vague. These two sections in the results could be made much clearer, and a stronger association made between the barriers and the interventions. A much tighter approach that aligns purpose, results and discussion would benefit this paper.**

As noted, the intent of strategic clinical networks was to identify variation in clinical care and to propose standards, pathways and innovative solutions to improve access, and quality of care. However, they do not hold health care budgets, and must work with Alberta Health Services, as well as primary care practices to implement interventions – both of which take time. Given this, it is important to note that the workshop, and subsequently the Strategic clinical networks have proposed these as potential interventions – and indeed for further study, which is currently underway.

We have modified Table 2 to explain further the link between barriers and proposed interventions – and we provide references to further studies which describe the intervention under consideration. Moreover, we have now added additional information to this Table to be more clear on which interventions have already been implemented.

**5. The references seem quite one sided, and there is little acknowledgement of any counter arguments. For example, page 5, line 32, reference 7 is used to support the use of multidisciplinary management but the reference is an opinion piece from 1997. This both insufficient to support point and outdated. Some other references suffer this too. This paper would be strengthened with further support from the literature on many of the statements of claim.**

Thank you. We have carefully reviewed and updated the references within this paper.

**Minor issues:**

**1) The paragraph on page 10, lines 24-46 seems contradictory. Providers report sufficient clinical information out there, but then report insufficient information on effective methods for collaboration. This paper would be much stronger if these ideas were flushed out a bit more. As is it is difficult to determine how to move forward on these recommendations.**

We agree that this was confusing – providers felt that sufficient knowledge was available to allow them to care for patients with diabetes, but were frustrated by multiple sets of clinical practice guidelines which did not concur on all points. We have reworded this section.

**2) It is difficult to have a take home from this paper. The authors should reinforce what the purpose of the paper is and how it contributes to existing knowledge. Currently it is difficult to appreciate the contribution, if any.**

As recommended by the editors, we have extensively modified the discussion, and in so doing, we have responded to this comment.

**3) One goal seems to be to examine causes of suboptimal outcomes, but they are not addressed in the abstract. This needs to be made clearer earlier. Additionally, it is not made clear what optimal outcomes are. The paper would be stronger if this was made clearer.**

Information has been added to the abstract and methods on quality indicators (A1C > 10%, use of statins), as well as potential causes of suboptimal outcomes. As noted, all changes have been marked within the manuscript for the ease of identifying changes.

**4) Reform ideas is present in the discussion, but it should be introduced earlier as an objective) and challenges to reform should be addressed (or reform ideas should not be included in the discussion because the method don't seem robust enough to really tackle this issue.**

In the process of revising the discussion, and to save space, we have removed this part of the discussion.