

<b>Article details: 2012-0015</b>	
Title	Compensated occupational cancer fatality claims are on the rise
Authors	Ann Del Bianco PhD, Paul A. Demers PhD
<b>Reviewer 1</b>	Kenneth D. Rosenman
Institution	Occupational and Environmental Medicine, Michigan State University
General comments	<p>Although the paper addresses an important issue, I found the manuscript misleading. The authors confuse the rising rate of occupational cancer fatality claims with a rising incidence of occupational cancer. Although a rising incidence of work-related cancer is possible cause for the increase in claims, the authors present no data to support this possibility. Given the small percentage of individuals who apply for compensation, one can view the rise in occupational cancer claims as a good trend; more individuals and their dependents are appropriately applying and receiving benefits. To describe this increase as a "growing problem" is a misreading of the data. The interpretation in the abstract and the Conclusion and Future Direction section in the discussion are not at all supported by the manuscript's data. Rather an alternative conclusion is that, despite the rising trend in accepted claims for occupational cancer, increased education of patients and health care providers is needed to ensure that patients with work-related cancer are identified and file a claim.</p> <p>Editorial Changes:</p> <p>Results, page 5, line 30, change "since 2009" to "in 2009 and 2010".</p> <p>Results, page 5, line 45, "dramatic increase". The authors need to present data rather than editorialize in the results section.</p> <p>Results, page 5, line 53. The authors need to repeatedly use the words "accepted claims" so as not to confuse the reader that they are presenting data on cancer incidence.</p> <p>Results, page 6, line 58. These are results and the authors need to provide percentage and not use terms such as "the great majority".</p> <p>Figures, pages 13 and 14, the figures need to have titles that are appropriate for the figures</p>
<b>Reviewer 2</b>	Igor Burstyn
Institution	Department of Medicine, University of Alberta, Edmonton, Alta.
General comments	<p>The paper is purely descriptive and is not able to draw any particular well-founded inferences, except to say that "if we believe results from UK and US, then there any many un-compensated occupational cancers in Canada". The argument is not new but is perhaps worth repeating to general medical community. The only improvement to the article that strikes me as essential is to mention the need for occupational disease surveillance to estimate cancers and other diseases attributable to occupational exposures. There are many papers written on the topic but 2 recent articles that use Canadian WCB data in conjunction with provincial physician billing records deserve to be mention:</p> <p>Beach J, Burstyn I, Cherry N. Estimating the extent and distribution of new-onset adult asthma in British Columbia using frequentist and Bayesian approaches. <i>Ann Occup Hyg.</i> 2012 Jul;56(6):719-27. doi: 10.1093/annhyg/mes004. Epub 2012 Feb 29. PubMed PMID: 22378842.</p> <p>Cherry N, Beach J, Burstyn I, Fan X, Guo N, Kapur N. Data linkage to estimate the extent and distribution of occupational disease: new onset adult asthma in Alberta, Canada. <i>Am J Ind Med.</i> 2009 Nov;52(11):831-40. doi: 10.1002/ajim.20753. PubMed PMID: 19753592.</p> <p>Although the above-mentioned work was done in context of asthma, the general principles apply to cancer as well.</p> <p>It can be argued that given long latency of cancer, active surveillance is not helpful to prevention but use of compensated WCB claims for the same purpose is even worse, since compensation depends on much more, as the authors describe, then a "signal" from surveillance scheme – excess of particular disease in an unexpected population,</p>

	<p>perhaps defined by common occupation or industry.</p> <p>The authors mention efforts from UK but fail (most likely deliberately as they are certainly aware of the work) to describe active occupational disease surveillance schemes from UK that involve primary physicians:</p> <p>Meyer JD, Holt DL, Chen Y, Cherry NM, McDonald JC. SWORD '99: surveillance of work-related and occupational respiratory disease in the UK. <i>Occup Med (Lond)</i>. 2001 May;51(3):204-8. PubMed PMID: 11385125.</p> <p>I am sure that CMAJ is the right place to reach out to Canadian doctors to see if they have any enthusiasm for what their UK counter-parts are doing to identify occupational cancers etc. Please share this with the readers!</p> <p>These 2 ideas – and other reviewers may well have identified others -- have to be added to vision of future work to give the readers more balanced and creative/open-minded view of how occupational diseases can be counted better in Canada.</p>
<b>Author response</b>	<p>1. Please identify the main purpose of the study in the Introduction. The objectives you present seem quite broad and do not appear to match your analysis.  <i>* Introduction now includes a statement outlining the main purpose of the study. The numbered objectives have been removed and amended to match the analysis. * See comments provided in the "introduction" and second paragraph of the "methods" section.</i></p> <p>2. As noted by reviewer 1, you do not have data on the incidence of occupational cancer in Canada. Please clearly state that you are examining trends in successful occupational cancer fatality claims and not in the incidence of occupational cancer. This will affect the Interpretation and Conclusion sections of your manuscript.  <i>* Revised</i></p> <p>3. We were not convinced by your application of US/UK proportions of all fatal lung cancers that were estimated to be due to occupational exposure. Please remove this from your analysis. Please consider comparing your data (successful occupational cancer fatality claims) with total cancer fatality data instead. You are welcome to include the US/UK references in the Interpretation section as part of the comparison of your study with other studies, with the caveat that your study looked at successful claims, not incidence.  <i>* Application of US/UK proportions of all fatal lung cancers that were estimated to be due to occupational exposure has been removed; these estimates have been moved to the "interpretation" section as suggested.  * The successful number of occupational lung cancer claims has been compared with the total number of lung cancer deaths instead.</i></p> <p>4. What was the purpose of comparing occupational cancer fatality claims in Ontario with occupational cancer fatality claims in Canada? Did the Canadian data include Quebec (of particular importance for cancers relating to asbestos exposure)? If not, please omit the Canadian comparison.  <i>* Please refer to comments under #5 below</i></p> <p>5. Please include a data table, showing lung cancer cases, by province, over time.  <i>* Rather than include a data table of lung cancer cases, by province, over time, a new figure has been added which examines all compensated occupational cancers, by province, over time. By including this new figure (now numbered figure 2) it is clear that Ontario is driving much of Canada's compensated occupational cancer fatality claims and hence the comparison between Ontario and Canada.</i></p> <p>6. Please revise the title of your study: It should reflect the purpose of the study and the study type (not the study findings).  <i>* Revised</i></p> <p>Other minor points:  1. Abbreviations: For only the most standard abbreviations (i.e., 95% CI, SD, OR, RR, HR), please spell out at first mention and include the abbreviation in parentheses. The abbreviations may be used throughout the remainder of the manuscript. Please remove all other abbreviations.  <i>* Revised throughout</i></p> <p>2. Please include up to 1 academic and 1 professional degree after each author's name.</p>

*\*Not applicable*

3. Please provide a funding statement (which includes a comment on the role of the funder) at the end of your manuscript.

*\*Included at the end of the manuscript just before the References*

4. Please structure the Interpretation section (discussion) into the following 4 main categories: main findings; explanation and comparison with other studies; limitations; and conclusions and implications for practice and future research.

*\*Revised, with the exception of "main findings" which have been included under the main heading "Results" – following the format of recently published articles in CMAJ Open.*

5. Please use plain numbers in brackets for your references and do not use automatic numbering of field codes as these do not carry over well into our publishing software.

*\* Field codes have been deleted.*

Reviewers' Comments to Author:

Reviewer: 1

Comments to the Author

Although the paper addresses an important issue, I found the manuscript misleading. The authors confuse the rising rate of occupational cancer fatality claims with a rising incidence of occupational cancer. Although a rising incidence of work-related cancer is possible cause for the increase in claims, the authors present no data to support this possibility. Given the small percentage of individuals who apply for compensation, one can view the rise in occupational cancer claims as a good trend; more individuals and their dependents are appropriately applying and receiving benefits. To describe this increase as a "growing problem" is a misreading of the data. The interpretation in the abstract and the Conclusion and Future Direction section in the discussion are not at all supported by the manuscript's data. Rather an alternative conclusion is that, despite the rising trend in accepted claims for occupational cancer, increased education of patients and health care providers is needed to ensure that patients with work-related cancer are identified and file a claim. *\* helpful suggestion – thank-you. This has been integrated in the Conclusions (both in the abstract and in the manuscript).*

Editorial Changes:

1. Results, page 5, line 30, change "since 2009" to "in 2009 and 2010".

*\*comment no longer applicable*

2. Results, page 5, line 45, "dramatic increase". The authors need to present data rather than editorialize in the results section.

*\*revised*

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*\*revised throughout, however this has created some redundancy.*

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5. Figures, pages 13 and 14, the figures need to have titles that are appropriate for the figures.

*\*Figures now have new titles*

Reviewer: 2

Comments to the Author

The paper is purely descriptive and is not able to draw any particular well-founded inferences, except to say that "if we believe results from UK and US, then there any many un-compensated occupational cancers in Canada". The argument is not new but is perhaps worth repeating to general medical community.

1. The only improvement to the article that strikes me as essential is to mention the need for occupational disease surveillance to estimate cancers and other diseases attributable to occupational exposures. There are many papers written on the topic but 2 recent articles that use Canadian WCB data in conjunction with provincial physician billing records deserve to be mention:

• Beach J, Burstyn I, Cherry N. Estimating the extent and distribution of new-onset adult asthma in British Columbia using frequentist and Bayesian approaches. *Ann Occup Hyg.* 2012 Jul;56(6):719-27. doi: 10.1093/annhyg/mes004. Epub 2012 Feb 29. PubMed PMID: 22378842.

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Although the above-mentioned work was done in context of asthma, the general principles apply to cancer as well.

It can be argued that given long latency of cancer, active surveillance is not helpful to prevention but use of compensated WCB claims for the same purpose is even worse, since compensation depends on much more, as the authors describe, than a "signal" from surveillance scheme – excess of particular disease in an unexpected population, perhaps defined by common occupation or industry.

2. The authors mention efforts from UK but fail (most likely deliberately as they are certainly aware of the work) to describe active occupational disease surveillance schemes from UK that involve primary physicians:

- Meyer JD, Holt DL, Chen Y, Cherry NM, McDonald JC. SWORD '99: surveillance of work-related and occupational respiratory disease in the UK. Occup Med (Lond). 2001 May;51(3):204-8. PubMed PMID: 11385125.

*\* helpful suggestions – thank-you – surveillance and active occupational disease surveillance schemes involving primary physicians in the UK has now been incorporated in the "interpretation" section under "explanation and comparison with other studies".*

I am sure that CMAJ is the right place to reach out to Canadian doctors to see if they have any enthusiasm for what their UK counter-parts are doing to identify occupational cancers etc. Please share this with the readers!

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