

# Review of: "Crude Oil Spills and Respiratory Health of Clean-up Workers: A Systematic Review of Literature"

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Potential competing interests: No potential competing interests to declare.

In this manuscript, the authors systematically reviewed the literature's existing knowledge on global crude oil spills and the respiratory health outcomes among the clean-up workers. The topic is interesting and has public health significance. However, there are some comments as described below:

<b>OVERALL</b>	The manuscript should be much more concise, particularly in the "Introduction" and "Results" sections.
<b>TITLE</b>	OK
<b>ABSTRACT</b>	Content in "Results" and "Conclusion" may need to be revised upon the revision of the main manuscript.
<b>INTRODUCTION</b>	<p>Paragraphs 1-4: relevant and good.</p> <p>Paragraphs 5-7: should be more concise and closely relevant to crude oil (such as contents in the last 4 lines of Paragraphs 5 and 6, and the first 4 lines of Paragraph 7).</p> <p>There should be a paragraph summarizing the current body of epidemiological evidence about oil spill exposure and respiratory health effect among oil spill workers (including previous systematic reviews) and gap(s) of knowledge (with clearly specific detail) that need further investigation.</p> <p>The last paragraph: the study objective(s) should be in accordance with the knowledge gap(s) identified in the previous paragraph.</p>
<b>METHODS</b>	
<b>Inclusion Criteria and Exclusion Criteria</b>	In the last line, the phrase "studies not written in the English language" may not be necessary since it is the repetition of the inclusion criteria, and the term "weak precision" needs more specific description (how to be considered as "weak precision"?).
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<p><b>Data Extraction and Data Synthesis</b></p> <p>Page 4, last paragraph.</p>	<p>The selected studies should be categorized according to the type of outcomes (such as acute vs long-term, subjective vs objective, upper vs lower respiratory symptoms, lung function change, etc.) and quality of evidence.</p> <p>However, information about each oil spill such as nature, location, magnitude, type and number of cleanup/rescue workers involved, number and nature of epidemiological studies conducted to assess the health impact among the cleanup/rescue workers should also be briefly provided early in “Results” section (as in the authors’ ‘3.4 Crude Oil Spills’ sub-section).</p>
<p><b>RESULTS</b></p>	
<p>3.2.1 Study Design</p> <p>Page 6, Line 2.</p>	<p>The authors’ specified “case-control” study is actually “cross-sectional” study since it compared between the ‘exposed’ and ‘non-exposed’ workers rather than the ‘sick’ and ‘not-sick’ workers (also for 3.5.1 Tasman oil spill and Respiratory Health of Clean-up Workers, Pages 7-8, Paragraph 3, Lines 1-2, and Table 2, S/N 2 on Page 13).</p>
<p>3.4 Crude Oil Spills</p>	
<p>Quality of Evidence</p>	<p>Detail on the quality of evidence of the involved studies should also be described.</p>
<p>3.5 Crude oil spills and Respiratory Health</p> <p>Pages 7-13.</p>	<p>The content in this sub-section should be <u>very much more concise</u>.</p> <p>Furthermore, rather than categorizing based on the oil spill incidents, findings about the exposure-outcome relationship should be described basing on the categories of the type of outcomes (such as acute vs long-term, subjective vs objective, , upper vs lower respiratory symptoms, lung function change, etc.) and quality of evidence. Where appropriate, this could be supplemented with finding about dose-response pattern of such relationship.</p> <p>In presenting the significant change in lung function tests, detail about the magnitudes of changes (average and confidence interval) in lung function parameters should also be provided in addition to the p-values (such as in 3.5.1 Tasman oil spill and Respiratory Health of Clean-up Workers, Pages 7-8, Paragraph 2, lines7-8 and Lines 10-11, and Paragraph 4, Lines 8-12). This can be done in the relevant paragraphs and/or Table 2.</p> <p>In presenting the difference in prevalence of symptoms, it will be more informative if shown in the form of pairwise comparisons for both the exposed and un-exposed groups (such as in 3.5.1 Tasman oil spill and Respiratory Health of Clean-up Workers, Pages 7-8, Paragraph 3, Lines 6-7). This can be done in the relevant paragraphs and/or Table 2.</p>
<p><b>Table 2</b></p> <p>Pages 13-16.</p>	<p>There should be a column dedicated to the “Type of outcome” (such as acute vs long-term, upper vs lower respiratory symptoms, lung function change, etc.), probability before the “Methods of Assessing Respiratory Effects” column.</p>
<p><b>DISCUSSION</b></p>	
	<p>There should be a paragraph summarizing the level of evidence concerning the relationship between oil spill exposure and respiratory health effects among cleanup workers basing on type of outcomes (which outcome (s) the evidence is firm, which outcome(s) the evidence is weak, which outcome(s) the evidence is inconclusive?).</p>

Pages 18-20.	<p>The following paragraph(s) should dedicate on discussing the possible explanation for such finding in the previous paragraph.</p> <p>Strengths and limitations of this systematic review should be addressed somewhere in the discussion.</p>
<b>Challenges and Recommendation and Conclusion</b>  Page 20.	<p>These sections may need minor revision after revising the “Results” and “Discussion” sections (to be basing more specifically on the findings of this systematic review).</p>