

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Doctors on the move: a European case study on the key characteristics of national recertification systems
<b>AUTHORS</b>	Sehlbach, Carolin; Govaerts, MJ; Mitchell, Sharon; Rohde, Gernot; Smeenk, Frank; Driessen, Erik

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Gilles Dussault Instituto de Higiene e Medicina Tropical Universidade Nova de Lisboa Portugal
<b>REVIEW RETURNED</b>	22-Nov-2017

<b>GENERAL COMMENTS</b>	<p>This is a potentially interesting paper, but it is not suitable for publication in its present form.</p> <p>Major weaknesses:</p> <p>There is no clear definition of what the authors mean by recertification</p> <ol style="list-style-type: none"><li>1. The cases (Table 3) are not identified which makes the verification of data and information impossible. For example, in my own country, which is among the selected, there is no recertification process, but I am unable to check what the authors say about my country.</li><li>2. Sources of data on countries (Table 2, references 24-32). Most country monographs of the Health in Transition series (HiT) are available in a more recent version (<a href="http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits">http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits</a>).</li><li>3. The information on documents analyzed (what they were, was a language a barrier and if so how this was dealt with) and on interviews (exact number per country, profile of respondents, when interviews were conducted) is insufficient.</li><li>4. The presentation of results should clearly indicate what interviews contributed in addition to documents.</li><li>5. The Discussion should include some reference to non-EU experiences and to how they compare to the latter.</li></ol> <p>Minor comments:</p> <ol style="list-style-type: none"><li>1. The title and the text should specifically refer to recertification in EU member states. Note Switzerland is not a EU member state, even though it is part of the free movement zone.</li><li>2. A number of expressions need to be clarified: p. 5, 86: different clinical presentations p. 8: labour market restrictions</li></ol>
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	<p>p. 11, 175: deans for professional practice</p> <p>p.13, 202: authentic and suitable methods</p> <p>p.20, 308: prefigure patient outcomes</p> <p>3. Some references are incomplete: 23, 28-32</p> <p>4. There remains typos and grammatical errors that need to be corrected.</p>
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<b>REVIEWER</b>	Ivy Bourgeault University of Ottawa Canada
<b>REVIEW RETURNED</b>	26-Nov-2017

<b>GENERAL COMMENTS</b>	<p>Major Compulsory Revisions</p> <ul style="list-style-type: none"> <li>• It is important for the author to explicitly detail how the recertification rules uncovered in the different case countries differ for locally trained and internationally trained physicians. Are the programs uncovered unique to the internationally trained or are there some that overlap with those for locally trained physicians?</li> <li>• Line 119 and elsewhere – the authors are encouraged to also consider the issue of cultural competency and how that is accessed (or not) within national recertification systems. It is an issue that has arisen in the literature on internationally educated health professionals, see for example, Neiterman, E. &amp; Bourgeault, I.L. (2013). Cultural competence of Internationally Educated Nurses: Assessing Problems and Findings Solutions. Canadian Journal of Nursing Research, 45(4), 88- but similar references in medicine on cultural competency more broadly beyond a migration context could also be considered, see for example, Kumagai, A. K., &amp; Lypson, M. L. (2009). Beyond cultural competence: critical consciousness, social justice, and multicultural education. Academic Medicine, 84(6), 782-787. Or Kumas-Tan, Z., Beagan, B., Loppie, C., MacLeod, A., &amp; Frank, B. (2007). Measures of cultural competence: examining hidden assumptions. Academic Medicine, 82(6), 548-557.</li> <li>• I appreciate that “Country names are not individually reported due to the perceived sensitivity of the information provided by the interview partner” but it is difficult to interpret the findings without this information. At the very least, this should be mentioned explicitly in the text of the methods section – not just a footnote of the tables. I leave it to the Editor’s discretion as to whether it is recommended that the country cases be identified, my preference.</li> </ul> <p>Minor, yet Essential Revisions</p> <ul style="list-style-type: none"> <li>• It is important to include the number of key informants in the abstract and in the methods section</li> <li>• Elements of Table 3 are difficult to interpret. Perhaps a different way to visually represent some of the data, for example, the assessment methods would be helpful – in a chart identifying the most prevalent – would aid in interpretation.</li> <li>• It is curious as to whether there is a requirement of EU mobility of recertification processes to be standardized and/or harmonized.</li> </ul>
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<b>REVIEWER</b>	Robert K Crone, MD Weill Cornell Medicine in Qatar
<b>REVIEW RETURNED</b>	28-Nov-2017

<b>GENERAL COMMENTS</b>	<p>This is an important and timely study given the cross-border migration of physicians in the European Union. Although the interviews and data collected are somewhat superficial, the study highlights the extreme variability, deficiencies and non-uniformity in approach to national recertification. In this reviewer's opinion, the study would be strengthened considerably by identifying the 10 countries included in the results section of the study. The rationale for de-identifying the countries is not clear to me. Understanding and correlating the political and social/cultural context of each country with their assessment of methodology is important to the reader who can bring their own experience and knowledge to bear to the conversation. Although the authors make a compelling case for establishing a more consistent pan-EU process for assessment and recertification, they end with the curious comment that "achieving an overarching quality assurance system is an unrealistic goal" when it would seem to this reviewer that such a system would be the most appropriate recommendation, given the data presented. I also think the manuscript could be strengthened by addressing the challenges of language and local culture presented by cross border migration and agree strongly that including patient's outcomes and patient's satisfaction in any assessment of provider competence is important. In table 2, it is not clear why in some instances in the Reliance on foreign doctor column, some countries, doctors are referred as Foreign-born and in others Foreign-trained.</p>
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### VERSION 1 – AUTHOR RESPONSE

In this second part of this rebuttal letter, we address the reviewers' comments point-by-point.

Revision – Author response  
 BMJ Open-2017-019963

We would like to thank the editor and the reviewers for their time and effort, and the valuable comments made.

Editorial Requirements:

- Please revise your title to state the research question, study design, and setting (location). This is the preferred format for the journal.

Response to Editor: We acknowledge the editorial requirement to include the research question and the setting in the title. We rephrased it into:

“Doctors on the move: a European case study on the key characteristics of national recertification systems”

- Please complete and include a COREQ check-list, ensuring that all points are included and state the page numbers where each item can be found: the check-list can be downloaded from here:

<https://www.equator-network.org/reporting-guidelines/coreq/>

Response to Editor: The COREQ check-list has been completed and can be found attached. Where necessary we included additional information.

Reviewer(s)' Comments to Author:

Overall, all three reviewers recommended to name the cases by the country name. We have added the country names in Table 4 and Table 5 and throughout the text.

Reviewer: 1

Overall comment: There is no clear definition of what the authors mean by recertification

Response to Reviewer: We thank the reviewer for the remark and would like to point his attention towards page 5, lines 98-103, where we give our understanding of the term recertification as part of the introduction. We have added in line 98-99 "It describes the process designed to promote and demonstrate continuous professional competence." Additionally, we refer to a reference (reference 4) which entails different definitions of recertification.

Major Comment #1: The cases (Table 4) are not identified which makes the verification of data and information impossible. For example, in my own country, which is among the selected, there is no recertification process, but I am unable to check what the authors say about my country.

Response to Reviewer: We have added the country names in Table 4 and Table 5, and throughout the text.

Major Comment #2: Sources of data on countries (Table 2, references 24-32). Most country monographs of the Health in Transition series (HiT) are available in a more recent version (<http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits>).

Response to Reviewer: We have checked all references used, and updated the Health System Review of the UK and Portugal to the latest version available (Reference 24, 25, 29-33). References can be found on pages 27-29.

Major Comment #3: The information on documents analysed (what they were, was a language a barrier and if so how this was dealt with) and on interviews (exact number per country, profile of respondents, when interviews were conducted) is insufficient.

Response to Reviewer: First, we have addressed language, and the process of translating documents into English on page 11, lines 172-173. "and translated them into English if needed." We also explained in more detail what kind of documents we consulted and analysed on page 11, lines 173-175. "The documents included national recertification schemes and regulations, rules and reports of medical education and training, user guidelines, laws and grey literature articles."

Second, we like to address the reviewer's remark regarding the interviews. We have included the number of interviews conducted per country on page 11, lines 179-182, and in table 3, line 186, and thank the reviewer for the question to clarify. "To validate and corroborate our interpretation of data from document analysis, we conducted one to three semi-structured interviews with representatives of each national regulatory body responsible for postgraduate medical education and recertification or the recognition of professional qualifications (e.g., international affairs offices) (N=19)."

Information of our interviewees' profile and when the interviews were conducted can equally be found on page 11, lines 182-185 "These interviewees were deans for professional practice directors of professional development and practice, heads of recertification departments, experts on continuing

professional development, and official secretaries or legal advisors to national medical education offices, medical or scientific societies, accreditation bodies, medical royal colleges, councils, or chambers.”, and on page 12-13, lines 193-196 respectively. “Interviews were audio-taped and lasted 50-90 minutes, during which notes were taken. Notes were subsequently presented to interviewees to approve or to add information.

Data collection took place from April to September, 2016.”

On line 186, in table 3, we provide information on the number and profile of respondents.

Table 3. Number and profile of respondents per country

Third, we followed the COREQ questionnaire to check if all information required was given, and added details where needed. “The interview protocol was piloted in the Netherlands.” (page 12, line 189).

Major Comment #4: The presentation of results should clearly indicate what interviews contributed in addition to documents.

Response to Reviewer: On page 19, lines 267-269 we have now included information on what the interviews contributed in addition to the documents. “Information obtained from interviews confirmed information from documents with the exception of handling of con-compliance: compared to the rules laid down in official documents, interviewees reported a more lenient handling of con-compliance in practice.”

Major Comment #5: The Discussion should include some reference to non-EU experiences and to how they compare to the latter.

Response to Reviewer: We understand the reviewer’s position and question to include references to non-EU experiences in comparison to EU countries. Previous literature incorporated in our references, such as the work from Shaw and colleagues (2009), provides a comparison between recertification systems, i.e. of the United States, the United Kingdom and Canada. In addition to that, we have also referred to other non-EU experiences on page 23, lines 371-374 “Other non-European countries have experienced similar challenges in implementing adequate assessment methods for recertification purposes. Also Australia and North America investigate new methods to evaluate competence and practice performance, cautiously moving away from self-assessment.” When discussing the use of peer review, we now also refer to Canada, on page 21, lines 339-340 “but is for example employed in some Canadian provinces”

We refer to the following additional literature, listed on page 27-29:

(4) Shaw K, Cassel CK, Black C, Levinson W. Shared medical regulation in a time of increasing calls for accountability and transparency: Comparison of recertification in the United States, Canada, and the United Kingdom. *JAMA*. 2009;302(18):2008-14.

(43) Dauphinee WD. An International Review of the Recertification and Revalidation of Physicians. In: McGaghie WC, Suker JR, editors. *International Best Practices for Evaluation in the Health Professions*. London: Radcliffe Publishing; 2013. p. 284-6.

(57) Newble D, Paget N, McLaren B. Revalidation in Australia and New Zealand: approach of Royal Australasian College of Physicians. *BMJ*. 1999;319(7218):1185-8.

(58) Drazen JM, Weinstein DF. Considering Recertification. *New Engl J Med*. 2010;362(10):946-7.

Minor comments:

Minor Comment #1: The title and the text should specifically refer to recertification in EU member states. Note Switzerland is not a EU member state, even though it is part of the free movement zone.

Response to Reviewer: After revising the title of our manuscript, it now refers to “a European case study”. We thank the reviewer for the remark that Switzerland is not part of the European Union. Switzerland is however member of European Economic Area which allows free movement across borders.

Minor Comment #2: A number of expressions need to be clarified:

Response to Reviewer:

We thank the reviewer for the question to clarify some expressions used. We have adjusted the text.

p. 5, 86: different clinical presentations

□ To better describe what we meant with clinical presentations, we replaced the expression with “different morbidity patterns” on page 5, line 88.

p. 8: labour market restrictions

□ We deleted the criterion of labour market restrictions (page 7, lines 148-149; and Table 1, line 151) because it was a minor criterion for the selection of our sample and might lead to confusion.

p. 11, 175: deans for professional practice

□ We decided to leave out the position of Dean for Professional Practice described (page 11, line 183) as we understand that this might be unclear to the reader. Instead we referred to “directors of professional development and practice,” on page 11, line 182.

p.13, 202: authentic and suitable methods

□ We have added “which aim at measuring day-to-day performance and professional competence” to clarify what we mean with authentic and suitable methods on page 14, line 212-213.

p.20, 308: prefigure patient outcomes

□ We replaced “prefigure patient outcomes” with “in assessing quality of healthcare and doctor performance” on page 21, lines 332-332. The sentence was rephrased into “Involving patients to prefigure patient outcomes and quality in assessing quality of healthcare and doctor performance seems inevitable for accountability and transparency purposes.”

Minor Comment #3: Some references are incomplete: 23, 28-32

Response to Reviewer: We thank the reviewer for this observation, and have completed and updated the references and thank the reviewer for his attention. We have added all contributors, to reference 23 (now reference 24) and added the series title.

References can be found on page 27-29. Reference 28 was updated with the latest version available (now reference 29). We have completed the references 28-32 (now 29-33) by adding the editors and referring to the European Observatory on Health Systems in Policies.

Minor Comment 4: There remains typos and grammatical errors that need to be corrected.

Response to Reviewer: We have checked the manuscript again for mistakes, and we have corrected the manuscript to our best knowledge.

Reviewer: 2

## Major Compulsory Revisions

Major comment #1: It is important for the author to explicitly detail how the recertification rules uncovered in the different case countries differ for locally trained and internationally trained physicians. Are the programs uncovered unique to the internationally trained or are there some that overlap with those for locally trained physicians?

Response to Reviewer: We thank the reviewer for the question, which stimulated us to underline that all physicians registered and practicing in a country with a recertification system, must enrol in that system. We added a short clarification on this to the synopsis of the results, on page 15, lines 226-228. "All systems uncovered applied to all registered practicing doctors, irrelevant of whether they were trained nationally or internationally, as they are automatically enrolled in the national scheme upon registration."

Major Comment #2: Line 119 and elsewhere – the authors are encouraged to also consider the issue of cultural competency and how that is accessed (or not) within national recertification systems. It is an issue that has arisen in the literature on internationally educated health professionals, see for example, Neiterman, E. & Bourgeault, I.L. (2013). Cultural competence of Internationally Educated Nurses: Assessing Problems and Findings Solutions. *Canadian Journal of Nursing Research*, 45(4), 88- but similar references in medicine on cultural competency more broadly beyond a migration context could also be considered, see for example, Kumagai, A. K., & Lypson, M. L. (2009). Beyond cultural competence: critical consciousness, social justice, and multicultural education. *Academic Medicine*, 84(6), 782-787. Or Kumas-Tan, Z., Beagan, B., Loppie, C., MacLeod, A., & Frank, B. (2007). Measures of cultural competence: examining hidden assumptions. *Academic Medicine*, 82(6), 548-557.

Response to Reviewer: We very much thank the reviewer for the list of literature and the suggestions being made. Addressing issues around cultural competencies and critical consciousness more specifically are an interesting addition. On page 6, line 122, we added "as well as cultural competence or critical consciousness" to the already mentioned competencies communication, collaboration and clinical judgement, referring to the work by Kumagai and Lypson (2009). We also recommend investigating the assessment of cultural competency within recertification further "Considering the increasing internationalisation of healthcare, doctors' cultural competency should be incorporated into recertification programmes."(page 24, lines 410-411).

Major Comment # 3: I appreciate that "Country names are not individually reported due to the perceived sensitivity of the information provided by the interview partner" but it is difficult to interpret the findings without this information. At the very least, this should be mentioned explicitly in the text of the methods section – not just a footnote of the tables. I leave it to the Editor's discretion as to whether it is recommended that the country cases be identified, my preference.

Response to Reviewer: We have added the country names in Table 4 and Table 5, as well as throughout the text.

## Minor, yet Essential Revisions

Minor Comment #1: It is important to include the number of key informants in the abstract and in the methods section

Response to Reviewer: We thank the reviewer for the comment, and followed the advice. The number of interviewees “N=19” is now included in the abstract (page 3, line 43) and the methods section (page 11, line 181).

Minor Comment #2: Elements of Table 3 (now Table 4) are difficult to interpret. Perhaps a different way to visually represent some of the data, for example, the assessment methods would be helpful – in a chart identifying the most prevalent – would aid in interpretation.

Response to Reviewer: We agree with the reviewer that the data presented in Table 4 (before Table 3) might be difficult to read. Therefore, we altered the way of presenting our data and used “+/- “ signs instead of “yes” and “no” on pages 16-16. We have also summarized assessment methods data throughout the table. Additionally, we for instance grouped numbers “1.4-1.7” instead of itemizing every single number separately. We also adjusted the footnotes accordingly, on page 17 lines 239-249.

We carefully considered the reviewers remark of including a chart to identify the most prevalent assessment methods. After careful considerations, we however felt that adapting the table as indicated above increased readability. Furthermore, we also felt the need to describe the assessment methods per country, rather than the overall prevalence.

Minor Comment #3: It is curious as to whether there is a requirement of EU mobility of recertification processes to be standardized and/or harmonized.

Response to Reviewer: We have added the following explanation on page 24, lines 399-404. “To our knowledge, currently there is no requirement or overarching effort in striving towards harmonising recertification processes across countries within the European Union. Its member states have agreed that each individual country will remain responsible for national health care affairs, without European regulations interfering. Moving towards a standardised system would however require an EU-wide regulation, which is currently interrupted by those strong nationally regulatory powers.” We further included in lines 414-416 “This however asks for an increased collaboration between countries and understanding of differences inherent to each system and culture”

Reviewer: 3

We would like to thank reviewer 3 also for his valuable comments.

Comment #1: In this reviewer's opinion, the study would be strengthened considerably by identifying the 10 countries included in the results section of the study. The rationale for de-identifying the countries is not clear to me. Understanding and correlating the political and social/cultural context of each country with their assessment of methodology is important to the reader who can bring their own experience and knowledge to bear to the conversation.

Response to Reviewer: We have added the country names in Table 4 and Table 5, as well as throughout the text.

Comment #2: Although the authors make a compelling case for establishing a more consistent pan-EU process for assessment and recertification, they end with the curious comment that "achieving an overarching quality assurance system is an unrealistic goal" when it would seem to this reviewer that such a system would be the most appropriate recommendation, given the data presented.

Response to Reviewer: We understand the reviewer's curiosity about an overarching system being an unrealistic goal. We see clear challenges in pan-European systems, based on wide varieties in healthcare systems and clinical standards. We have tried to make this more explicit by describing that



recertification remains under national regulations. On page 24, lines 399-404 we added “To our knowledge, there currently is no requirement or overarching effort in striving towards harmonising recertification processes across countries within the European Union. Its member states have agreed that each individual country will remain responsible for national health care affairs, without European regulations interfering. Moving towards a standardised system would however require an EU-wide regulation, which is currently interrupted by those strong nationally regulatory powers.”  
 We continued in line 414 “This however asks for an increased collaboration between countries and understanding of differences inherent to each system and culture”  
 This equally followed the advice of reviewer 2.

Comment #3: I also think the manuscript could be strengthened by addressing the challenges of language and local culture presented by cross border migration and agree strongly that including patient's outcomes and patient's satisfaction in any assessment of provider competence is important.

Response to Reviewer: We would like to thank the reviewer for underlining the importance of language and culture, which we included on page 5, line 90 (“and culture”) and on page 24, line 416. Following the reviewer’s advice, we have addressed the importance of cultural competency and critical consciousness, as also pointed out by reviewer 2. We have incorporated in the text that doctors are required “to consciously reflect on the local culture” on page 24, line 398. We also appreciate the reviewer’s encouragement regarding strengthening the role of patients.

Comment #4: In Table 2, it is not clear why in some instances in the Reliance on foreign doctor column, some countries, doctors are referred as Foreign-born and in others Foreign-trained.

Response to Reviewer: We appreciate this remark and have consulted additional sources to list information on foreign trained doctors only. The adapted information can be found in Table 2.

We thank all reviewers for their helpful comments.

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Robert K Crone, MD Weill Cornell Medicine-Qatar
<b>REVIEW RETURNED</b>	12-Jan-2018

<b>GENERAL COMMENTS</b>	The revised manuscript satisfies my original concerns including identifying the countries studied and reporting their results. This is a very thoughtful beginning of a dialogue around assessing the competency of physicians who cross national borders and the need for standardization of some components of assessment.
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<b>REVIEWER</b>	Gilles Dussault Instituto de Higiene e Medicina Tropical Universidade Nova de Lisboa Lisbon, Portugal
<b>REVIEW RETURNED</b>	17-Jan-2018

<b>GENERAL COMMENTS</b>	The authors have responded to almost all comments and suggestions made by reviewers. Some minor points still need to be revised: Include a note explaining the choice of Switzerland (this is because it looks odd to have selected a non-EU country) Table 2: Portugal has a NHS, which is not mentioned, as for the UK, the existence of a NHS should be in the 3rd column
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	Table 3: National Board member in Portugal. What is that? In that table, respondents can be identified as their exact title is mentioned. This table can simply be deleted. 23, 369 North America is not a country: say the USA and Canada
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## VERSION 2 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

The authors have responded to almost all comments and suggestions made by reviewers. Some minor points still need to be revised:

Minor Comment #1:

Include a note explaining the choice of Switzerland (this is because it looks odd to have selected a non-EU country)

Response to Reviewer:

We thank the review for his remark and understand that our choice to include Switzerland might seem odd at first sight. Therefore, we have added a footnote explaining our choice on page 8 line 160ff: "Although Switzerland is not a member of the European Union, it is part of the European Economic Area and characterised by a high migration rate, and high reliance on foreign trained doctors, which makes it relevant for our study."

Minor Comment #2:

Table 2: Portugal has a NHS, which is not mentioned, as for the UK, the existence of a NHS should be in the 3rd column

Response to Reviewer:

We thank the author for his observation and have included information on the National Health Service in Portugal on page 9, table 2.

Minor Comment #3:

Table 3: National Board member in Portugal. What is that? In that table, respondents can be identified as their exact title is mentioned. This table can simply be deleted.

Response to Reviewer:

We agree with the reviewer's remark and have deleted the last column of this table. We decided not to delete the complete table as previous remarks from reviewers had asked for specification of number of interviewees per country.

Minor Comment #4:

23, 369 North America is not a country: say the USA and Canada

Response to Reviewer:

We thank the reviewer for this observation and replaced North America by "the USA and Canada" on page 23, line 369.

Reviewer: 3

Comment: The revised manuscript satisfies my original concerns including identifying the countries studied and reporting their results. This is a very thoughtful beginning of a dialogue around assessing

the competency of physicians who cross national borders and the need for standardization of some components of assessment.

Response to Reviewer: We would like to thank reviewer 3 for his final remarks.

**VERSION 3 – REVIEW**

<b>REVIEWER</b>	Robert K Crone, MD Weill Cornell Medicine-Qatar Qatar
<b>REVIEW RETURNED</b>	15-Mar-2018
<b>GENERAL COMMENTS</b>	I believe all concerns of the reviewers have been addressed.