

The *South African Journal of Science* follows a double-anonymous peer review model but encourages Reviewers and Authors to publish their anonymised review reports and response letters, respectively, as supplementary files after manuscript review and acceptance. For more information, see [Publishing peer review reports](#).

### Peer review history for:

Govender S, Khaliq OP, Naidoo R, Moodley J. The current state of emergency medical services in South Africa: A review. *S Afr J Sci.* 2024;120(7/8), Art. #16138. <https://doi.org/10.17159/sajs.2024/16138>

#### HOW TO CITE:

The current state of emergency medical services in South Africa: A review [peer review history]. *S Afr J Sci.* 2024;120(7/8), Art. #16138. <https://doi.org/10.17159/sajs.2024/16138/peerreview>

#### Reviewer H: Round 1

**Date completed:** 09 August 2023

**Recommendation:** Accept / Revisions required / **Resubmit for review** / Decline

**Conflicts of interest:** None

Does the review fall within the scope of SAJS?

Yes/No

Is the review written in a style suitable for a non-specialist and is it of wider than only specialist interest?

Yes/No

Do the Title and Abstract clearly and accurately reflect the content of the review?

Yes/No

Does the review provide a significantly novel perspective or significant recent advances in the field?

Yes/No

Is the objective of the review concisely stated?

Yes/No

Is appropriate and adequate reference made to other work in the field?

Yes/No

Do current debates and points of contention receive appropriate coverage?

Yes/No/Not applicable

Are gaps in the literature adequately identified?

Yes/No/Not applicable

Does the review provide direction for future research?

Yes/No/Not applicable

Is the methodology and statistical treatment appropriate?

Not applicable/Yes/No/Partly/Not qualified to judge

Are the interpretations and recommendations aligned with the objective?

Yes/Partly/No

Please rate the manuscript on overall contribution to the field

Excellent/**Good**/Average/Below average/Poor

Please rate the manuscript on language, grammar and tone

Excellent/**Good**/Average/Below average/Poor

Is the manuscript concise and free of repetition and redundancies?

Yes/No

Is the supplementary material relevant and separated appropriately from the main document?

Yes/No/**Not applicable**

Please rate the manuscript on overall quality

Excellent/**Good**/Average/Below average/Poor

If accepted, would you recommend that the article receives priority publication?

Yes/No

Are you willing to review a revision of this manuscript?

Yes/No

Select a recommendation:

Accept / Revisions required / **Resubmit for review** / Decline

With regard to our policy on '[Publishing peer review reports](#)', do you give us permission to publish your anonymised peer review report alongside the authors' response, as a supplementary file to the published article? Publication is voluntary and only with permission from both yourself and the author.

Yes/No

**Comments to the Author:**

Dear Author

Well done on a fantastic review of such a lofty topic. The approach using a health systems approach is logical and commended. The problem is clearly identified and the adequate background and contextual information is provided. This allows a reader even if they are unfamiliar with the complexities of EMS, to understand what is discussed.

The results are clearly discussed and the six themes presented clearly substantiated by the relevant references.

I would however urge the author to consider including the following pieces of literature which I felt might have been missed in the review or not part of the original search strategy, but has particular relevance to this article.

Under the theme of;

\*Ambulance response times in obstetric patients - [doi.org/10.51415/10321/688](https://doi.org/10.51415/10321/688)

\*HEMS - <https://doi.org/10.1016/j.afjem.2023.05.007>

\*Stimulant use amongst prehospital providers - [dx.doi.org/10.7196/SAMJ.2021.v111i6.15465](https://doi.org/10.7196/SAMJ.2021.v111i6.15465)

Although a general systems recommendation is made, it appears in the recommendation section that the author's voice and authority on the matter is not fully expressed or explored. This might be due to word limiting of the publication, but feel that the author should really use the opportunity to argue his/her viewpoint on how this problem can be fixed or further studied. Perhaps providing specific recommendations speaking to the themes in the discussion might be a useful approach? With regards to "further studies", this is the author's opportunity state where he/she sees where the biggest difference can be made or which aspect should be most urgently addressed. Remember that fellow readers might use this research as a base for further research, the more clearer you give the instruction, the better the subsequent research.

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**Author response to Reviewer H: Round 1**

"consider including the following pieces of literature"

\*Ambulance response times in obstetric patients - [doi.org/10.51415/10321/688](https://doi.org/10.51415/10321/688) –

AUTHOR: Due to reaching the maximum word count, this literature could not be added. It will be included in the next paper which also deals more specifically with obstetric ambulance response times.

\*HEMS - <https://doi.org/10.1016/j.afjem.2023.05.007>

AUTHOR: This article was included

\*Stimulant use amongst prehospital providers - [dx.doi.org/10.7196/SAMJ.2021.v111i6.15465](https://doi.org/10.7196/SAMJ.2021.v111i6.15465)

This article was included

AUTHOR: This article was included

"although a general systems recommendation is made, it appears in the recommendation section" ....

"Perhaps providing specific recommendations speaking to the themes in the discussion might be a useful approach?"

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AUTHOR:

- Agreed. The general system's recommendations did not adequately cover all the themes and were not specific.
- Also agreed that it was not impactful in its location i.e. after all the discussions. The specific recommendations were therefore added as the last statement under each theme and it is now better placed.

"With regards to "further studies", this is the author's opportunity to state where he/she sees where the biggest difference can be made or which aspect should be most urgently addressed"

AUTHOR: Thank you for the recommendation. It has been accepted. The approach used focused on aspects that needed to be "urgently addressed" and is written with the recommendations in order to manage word count.

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**Reviewer H: Round 2**

**Date completed:** 25 March 2024

**Recommendation:** **Accept** / Revisions required / Resubmit for review / Decline

**Conflicts of interest:** None

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Does the review fall within the scope of SAJS??

**Yes/No**

Is the review written in a style suitable for a non-specialist and is it of wider than only specialist interest?

**Yes/No**

Do the Title and Abstract clearly and accurately reflect the content of the review?

**Yes/No**

Does the review provide a significantly novel perspective or significant recent advances in the field?

**Yes/No**

Is the objective of the review concisely stated?

**Yes/No**

Is appropriate and adequate reference made to other work in the field?

**Yes/No**

Do current debates and points of contention receive appropriate coverage?

**Yes/No/Not applicable**

Are gaps in the literature adequately identified?

**Yes/No/Not applicable**

Does the review provide direction for future research?

**Yes/No/Not applicable**

Is the methodology and statistical treatment appropriate?

**Not applicable/Yes/No/Partly/Not qualified to judge**

Are the interpretations and recommendations aligned with the objective?

**Yes/Partly/No**

Please rate the manuscript on overall contribution to the field

**Excellent/Good/Average/Below average/Poor**

Please rate the manuscript on language, grammar and tone

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Is the supplementary material relevant and separated appropriately from the main document?

**Yes/No/Not applicable**

Please rate the manuscript on overall quality

**Excellent/Good/Average/Below average/Poor**

If accepted, would you recommend that the article receives priority publication?

**Yes/No**

Are you willing to review a revision of this manuscript?

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Yes/No

Select a recommendation:

**Accept** / Revisions required / Resubmit for review / Decline

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Yes/No

**Comments to the Author:**

Dear author, it has been inspiring to see the second iteration of this article. It now presents as a structured article outlining the scope of the problem and research aim quite clearly.

Here follow some minor comments and feedback:

**Introduction**

The section clearly outlines problem from a broad to a narrow focus. The reader that is not an expert on EMS systems is clearly lead to the necessary framework and background of EMS. I would have liked to have seen the WHO Emergency Care Systems Framework being added here as a more narrow focus, but the WHO Building Blocks-framework serve as an adequate lens to view the EMS system. Specific recommendations are made as a result of the literature, but however not stated of as part of the research aim.

**Themes (Overall Impression)**

The breadth of the problem is well described and appropriately evidenced. The recommendations presented are appropriate and summarise solutions that can be related or mapped back to the WHO Building Blocks – very nice.

**Leadership**

160 – “There is no evidence of obstetric ambulance operations from other provinces”. It is important that when statements like this are made that due diligence is done by the author. In cases where it is unclear or not known to the author it might be better reframed as an uncertainty than a fact. Remember that this article was performed as a narrative review (cherry picking articles) and not a scoping (comprehensive) review, therefore some articles might have been missed. The reviewer is well aware that there is a word limit and not all articles could be included. By omitting this sentence still brings your point and argument across, but provides a little wiggle room in case certain articles were missed.

To illustrate the point, the following obstetric ambulance article is missing.

De Vries S, Wallis LA, Maritz D. A retrospective evaluation of the impact of a dedicated obstetric and neonatal transport service on transport times within an urban setting. *Int J Emerg Med*. 2011 Jun 14;4(1):28. doi: 10.1186/1865-1380-4-28. PMID: 21672232; PMCID: PMC3131248.

**Ambulance availability and equipment**

190 – Any comment of this article refuting the author's statement?

Stein C, Wallis L, Adetunji O. Meeting national response time targets for priority 1 incidents in an urban emergency medical services system in South Africa: More ambulances won't help. *SAMJ, S. Afr. med. j.* [Internet]. 2015 Oct [cited 2024 Mar 22] ; 105( 10 ): 840-844. Available from: [http://www.scielo.org.za/scielo.php?script=sci\\_arttext&pid=S0256-95742015001000016&lng=en](http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0256-95742015001000016&lng=en). <http://dx.doi.org/10.7196/SAMJNEW.8087>.

**HEMS**

200 – A factual correction. The Vlok et al referenced by the author article makes mention of HEMS operations in the Free-State, Gauteng, North-West and Mpumalanga.

## Limitations

The author shown self-awareness and insight into the problem of the paucity of literature and appropriately provides explanations and insights were needed.

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## Author response to Reviewer H: Round 2

### Introduction

Specific recommendations are made as a result of the literature, but however not stated as part of the research aim

AUTHOR: Accepted. The aim has been amended to include recommendations.

### Themes (Overall Impression)

The breadth of the problem is well described and appropriately evidenced. The recommendations presented are appropriate and summarise solutions that can be related or mapped back to the WHO Building Blocks – very nice.

AUTHOR: Thank you. Appreciated.

### Leadership

160 – “There is no evidence of obstetric ambulance operations from other provinces”. It is important that when statements like this are made that due diligence is done by the author. In cases where it is unclear or not known to the author it might be better reframed as an uncertainty than a fact. Remember that this article was performed as a narrative review (cherry picking articles) and not a scoping (comprehensive) review, therefore some articles might have been missed. The reviewer is well aware that there is a word limit and not all articles could be included. By omitting this sentence still brings your point and argument across, but provides a little wiggle room in case certain articles were missed.

AUTHOR: Accepted. A lesson learnt. The sentence will be removed and references adjusted.

### Ambulance availability and equipment

190 – Any comment of this article refuting the author’s statement?

AUTHOR:

- Authors statement - “Several studies in SA have also attributed poor patient outcomes to delayed ambulance availability”. This statement was not intended to attribute poor patient outcomes to the lack of operating ambulances (as the sole cause) instead it refers to “ambulance availability” as a broad description of occasions where the ambulance is not available due to being:
  - ✓ Used optimally – unavailable as the crews are attending to patients/cases.
  - ✓ Not being used optimally – unavailable as the crews are delaying on refreshment breaks, returning to base without reason, not answering their radios, poor dispatch by Emergency Call Centre, (Govender, 2011)
  - ✓ Absent – unavailable due to repairs, service, accident damaged, not procured, etc.
- If the use and context of the term “ambulance availability” is accepted then there is agreement with the article by Stein et al. that states “... the key to better response times is optimal vehicle utilisation and efficiency rather than numbers.”

### HEMS

200 – A factual correction. The Vlok et al referenced by the author article makes mention of HEMS operations in the Free-State, Gauteng, North-West and Mpumalanga.

AUTHOR: Accepted. Corrections have been made.

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## Reviewer D: Rounds 1 and 2

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