



**Comfort and user  
acceptance of respirators in  
clinical practice - Does it  
matter?**

# Acknowledgement

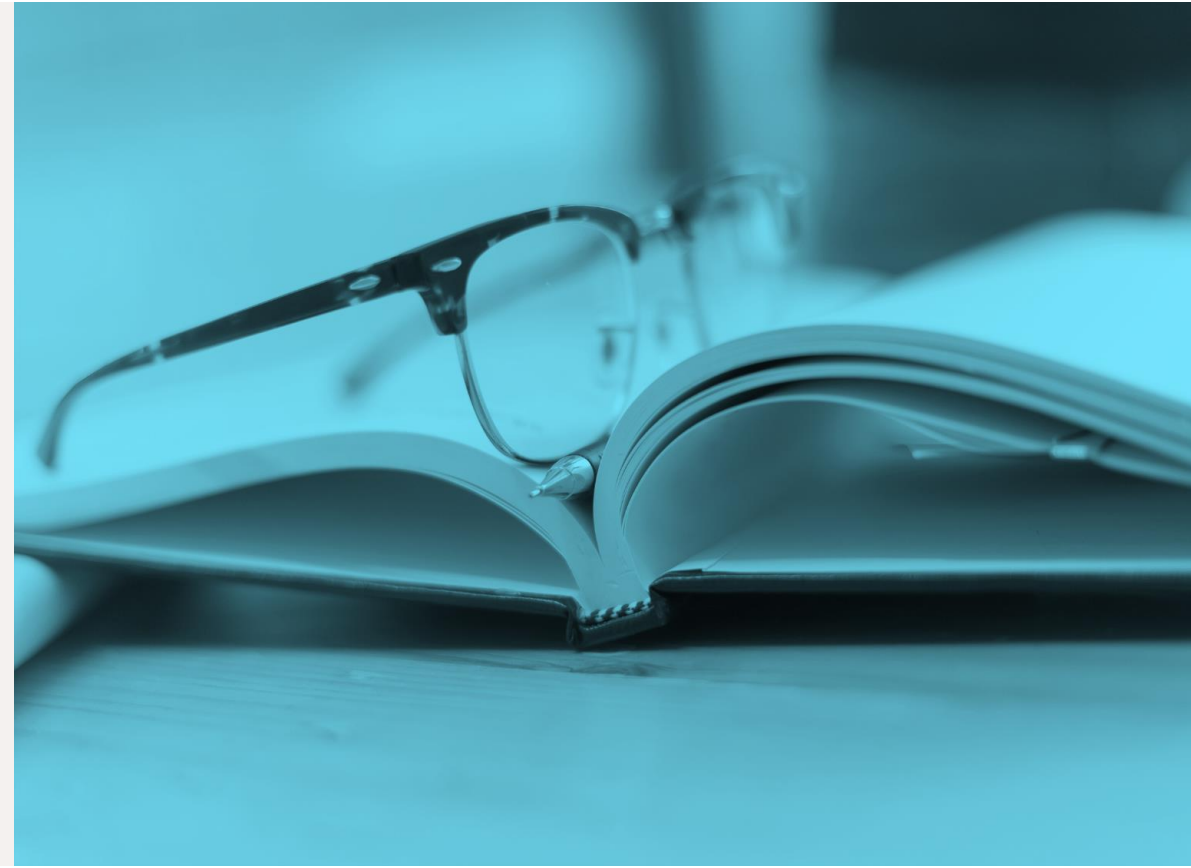
- Acknowledges that we are meeting on the traditional Country of the Kurna people of the Adelaide Plains and pay respect to Elders past and present.





# Disclosure

- I have no potential conflicts of interest to report.
- I would like to acknowledge the contributions from the survey participants, CEC Research, Evaluation and Knowledge directorate and CEC IPAC/HAI team.





# Background

The effectiveness of any respirator is dependent on achieving and maintaining an adequate seal for the duration of its use.

IPAC guidance supports continuous or extended use of respirators, but respirators may be difficult to tolerate for long durations and this may impact on compliance to maintaining an adequate seal.

The CEC sought input on respirator (P2/N95) use experience from health workers providing direct clinical care to patients.



# Aim

To better understand the relationship between respirator comfort and user experience to improve health worker compliance to respiratory protection.

A secondary aim was to determine any themes to inform changes in CEC policy, guidelines, or resource development.

# Study procedure

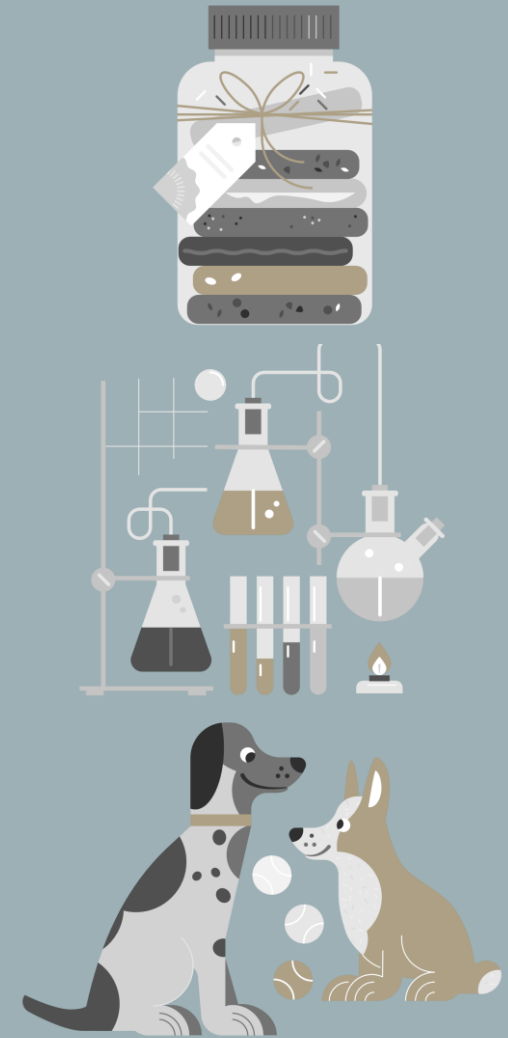
- An online self-administered survey was distributed to clinicians across 15 LHDs/SHN and NSW Ambulance between Nov-Dec 2022
- The researchers were not involved in survey distribution and there was no record of the receipt of the survey link by an individuals to ensure anonymity to encourage responses from all viewpoints.



# Inclusion and exclusion criteria

NSW Health clinicians working in clinical settings were eligible for participation into this survey. Non-clinicians were excluded due to their varying level of respirator use.

The survey draft was distributed to an expert group which consisted of 10 IPAC professionals and 2 ID specialists.







# Ethics approval

NORTHERN SYDNEY  
LOCAL HEALTH DISTRICT  
ETHICS COMMITTEE  
(2022/ETH01566).



# Data Analysis

- The data were analysed using Microsoft forms and uploaded into PowerBI.
- An inductive content analysis was used to analyse the open-ended questions and general comments.

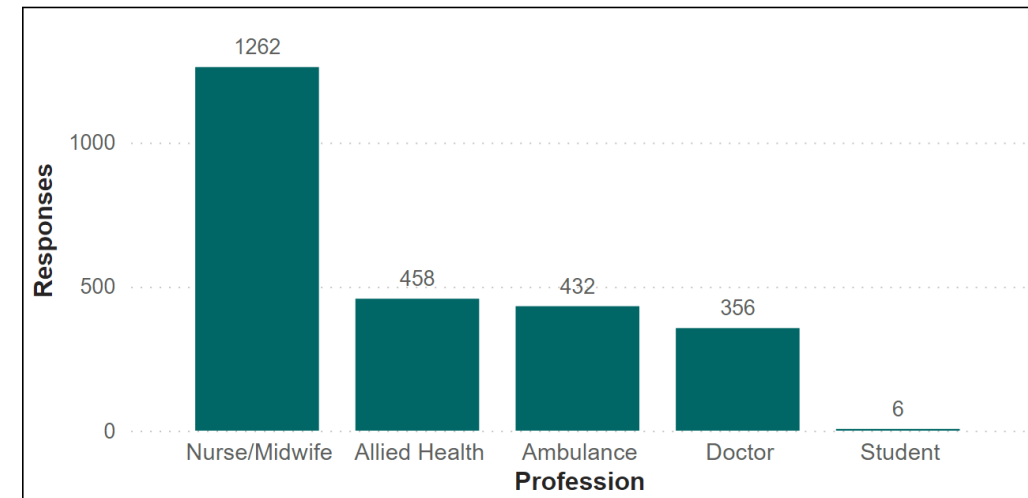




# Results

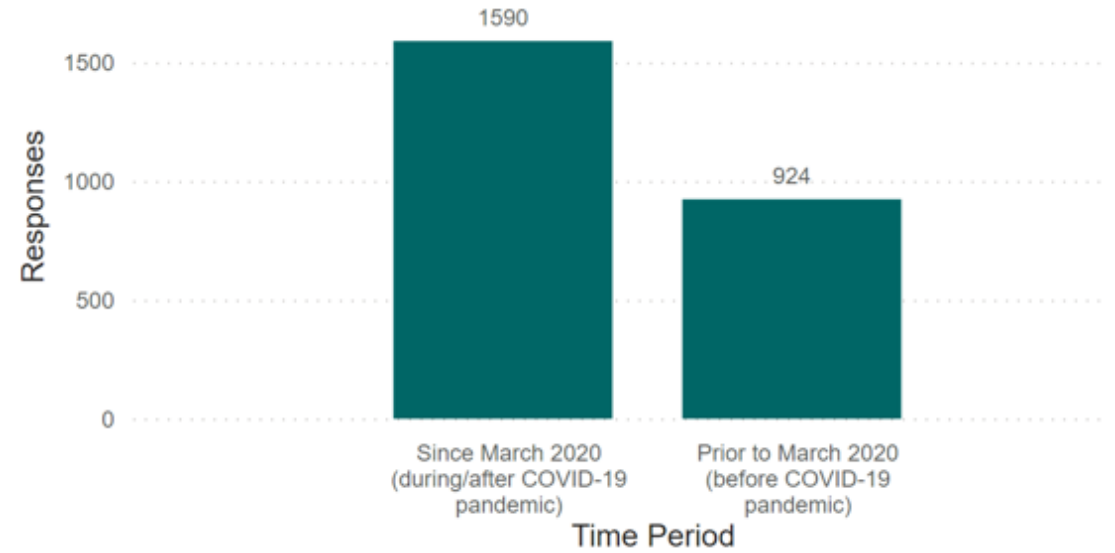
# Responses

- A total of 2,623 surveys were completed, 109 were excluded.
- A response rate was unable to be calculated
- Of the remaining 2,514 respondents, half were nurses and midwives (50%), AH 18%, ambulance 17% and doctors, 14%



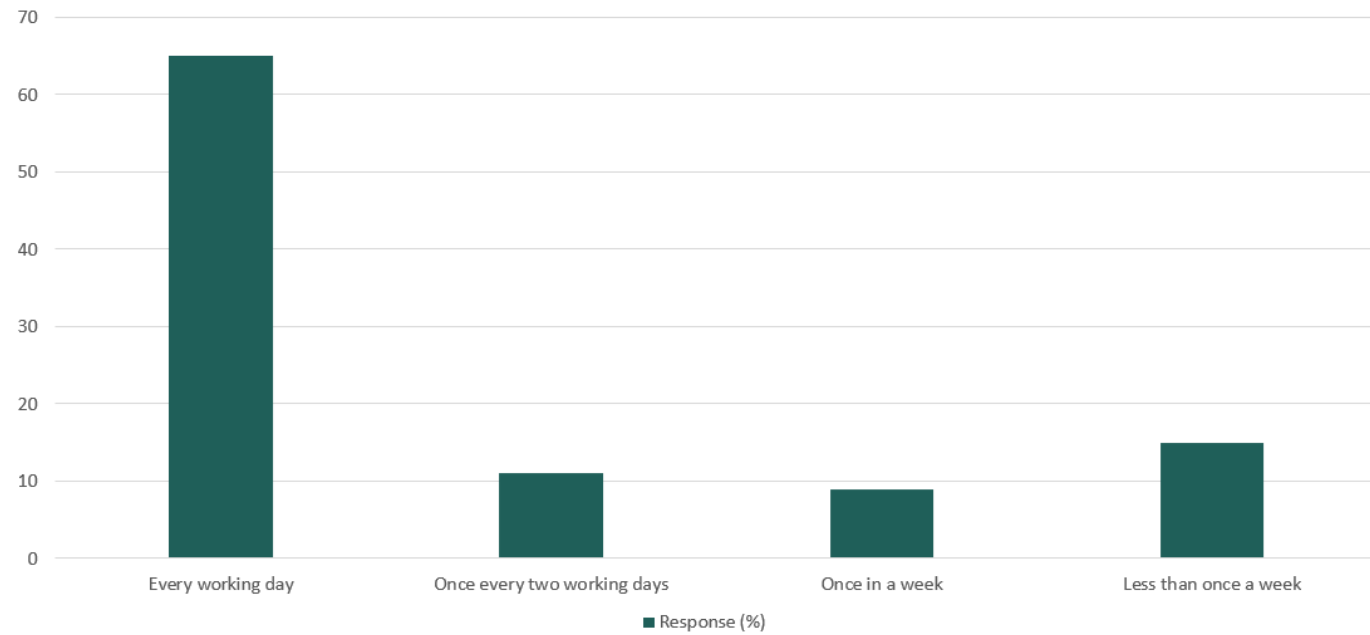


# When did you first use a disposable respirator?



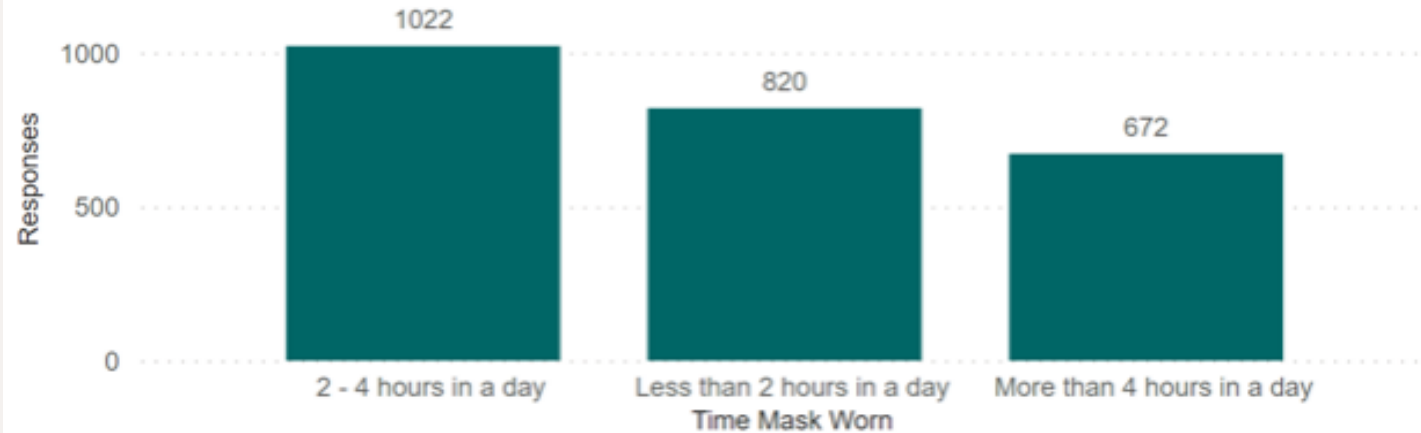
- 37% Prior to COVID-19
- 63% since March 2020

# How often do you wear a respirator?



- 65% every working day
- 11% once every two working days
- 9% once in a week
- 15% less than once a week

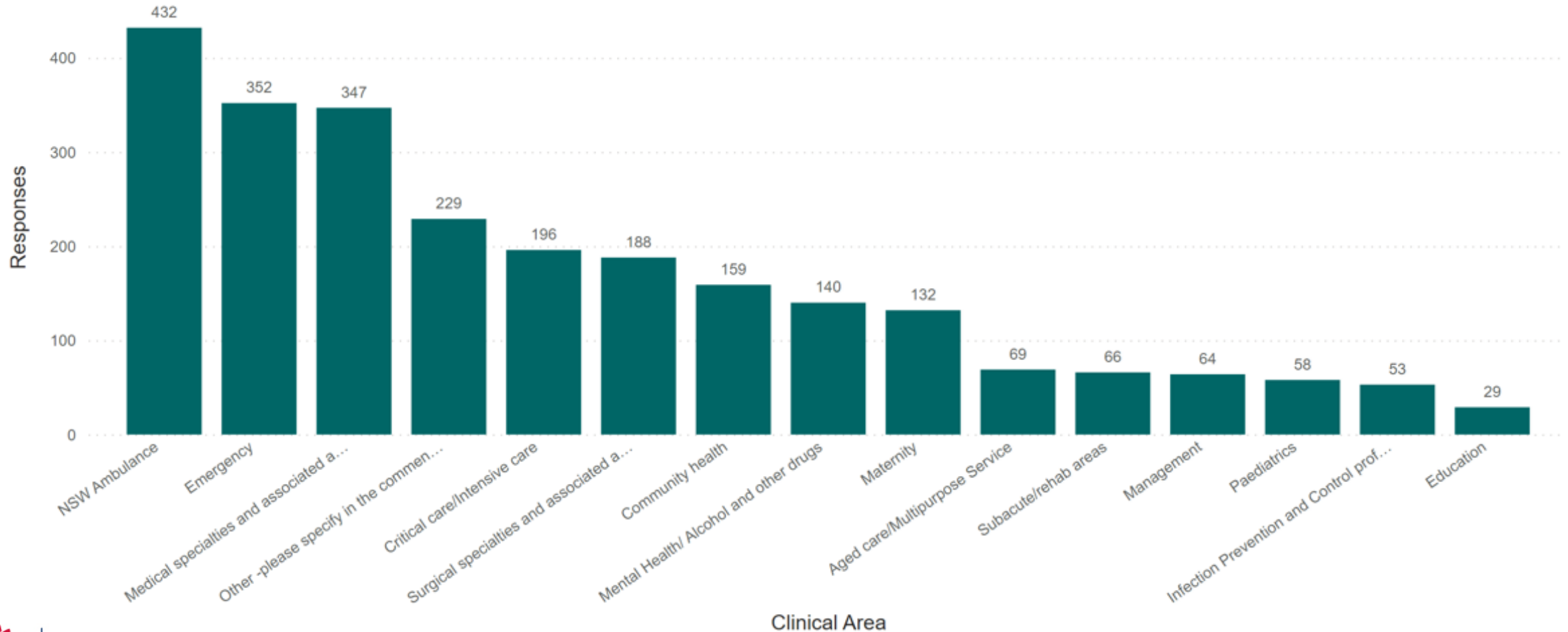
On a typical shift when you do use a respirator, how long would you typically wear the same respirator for before changing it?



- 41% 2-4 hours
- 33% less than 2 hours
- 27% more than 4 hours



# Frequency of respirator use by profession



# Fit testing

- Almost all survey respondents (96%) had completed at least one quantitative fit test prior to the survey



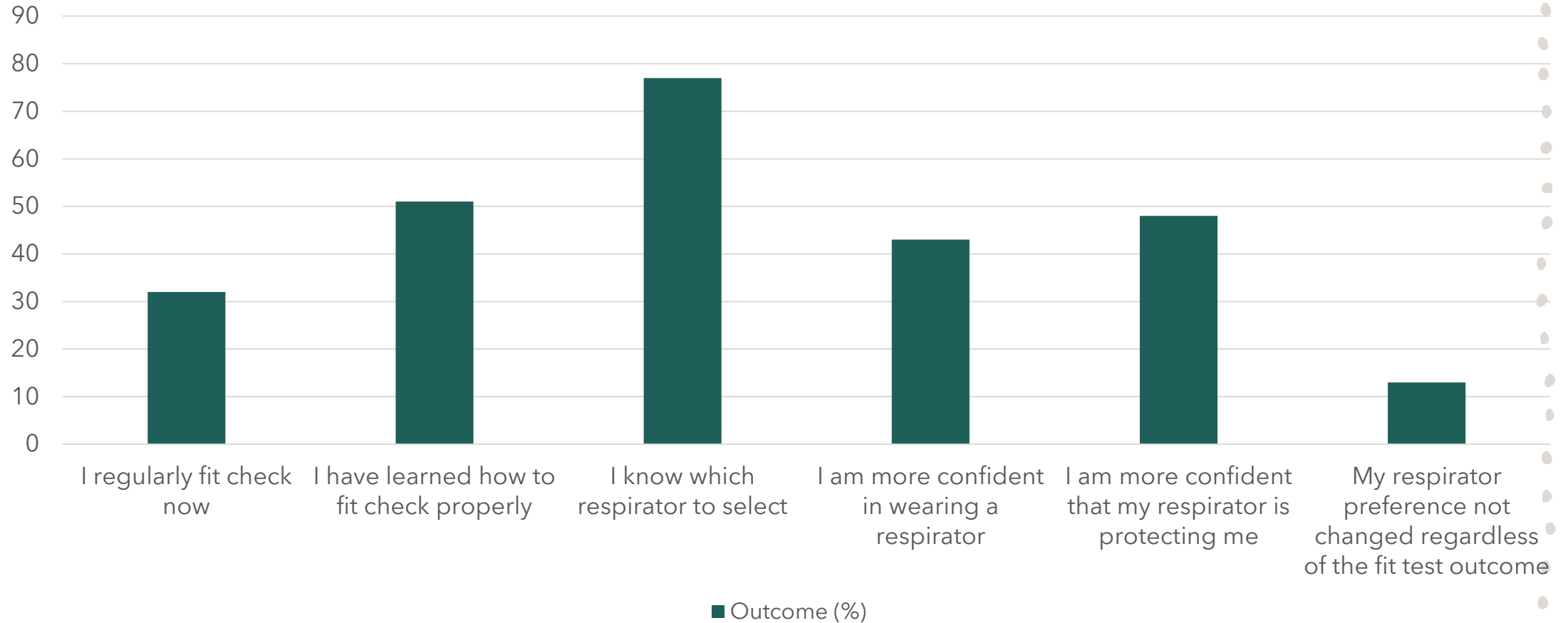
# Fit check training

Eighty-one percentage (n=2024) respondents noted that they had completed fit check training.

Given fit check training is incorporated as part of the fit testing process, the variation in response may be due to the misinterpretation of the question

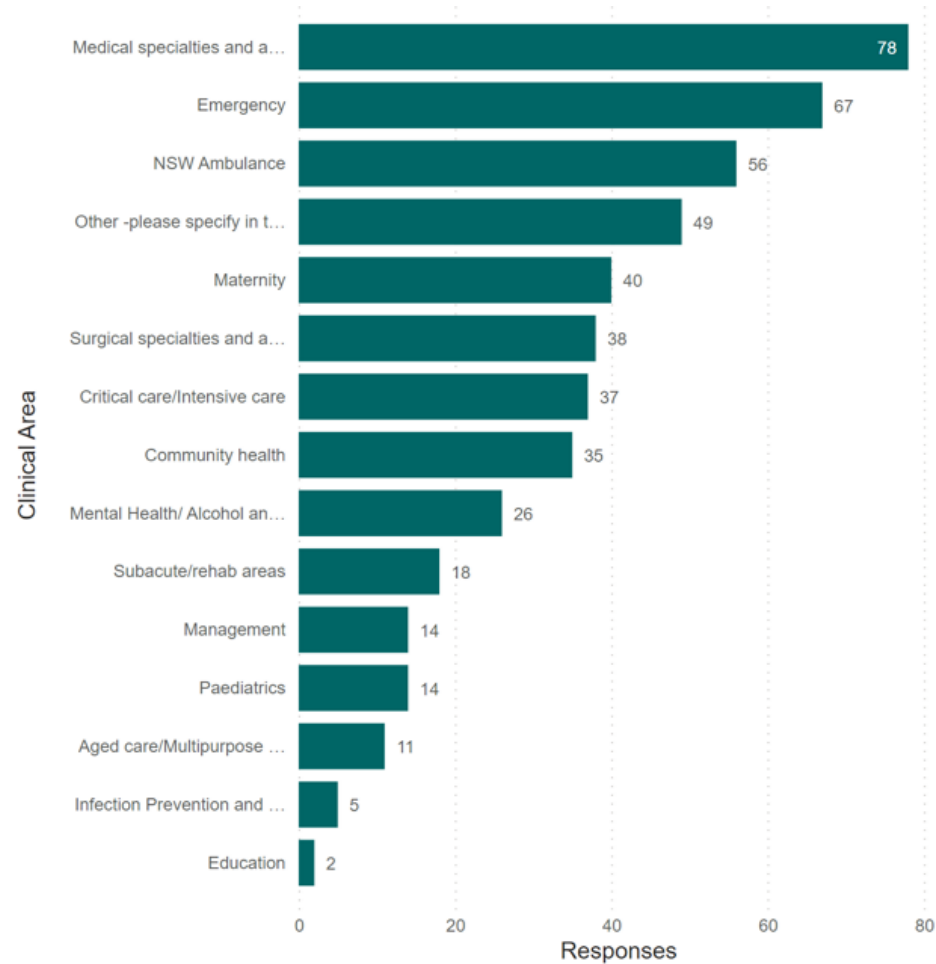


# Fit test outcome

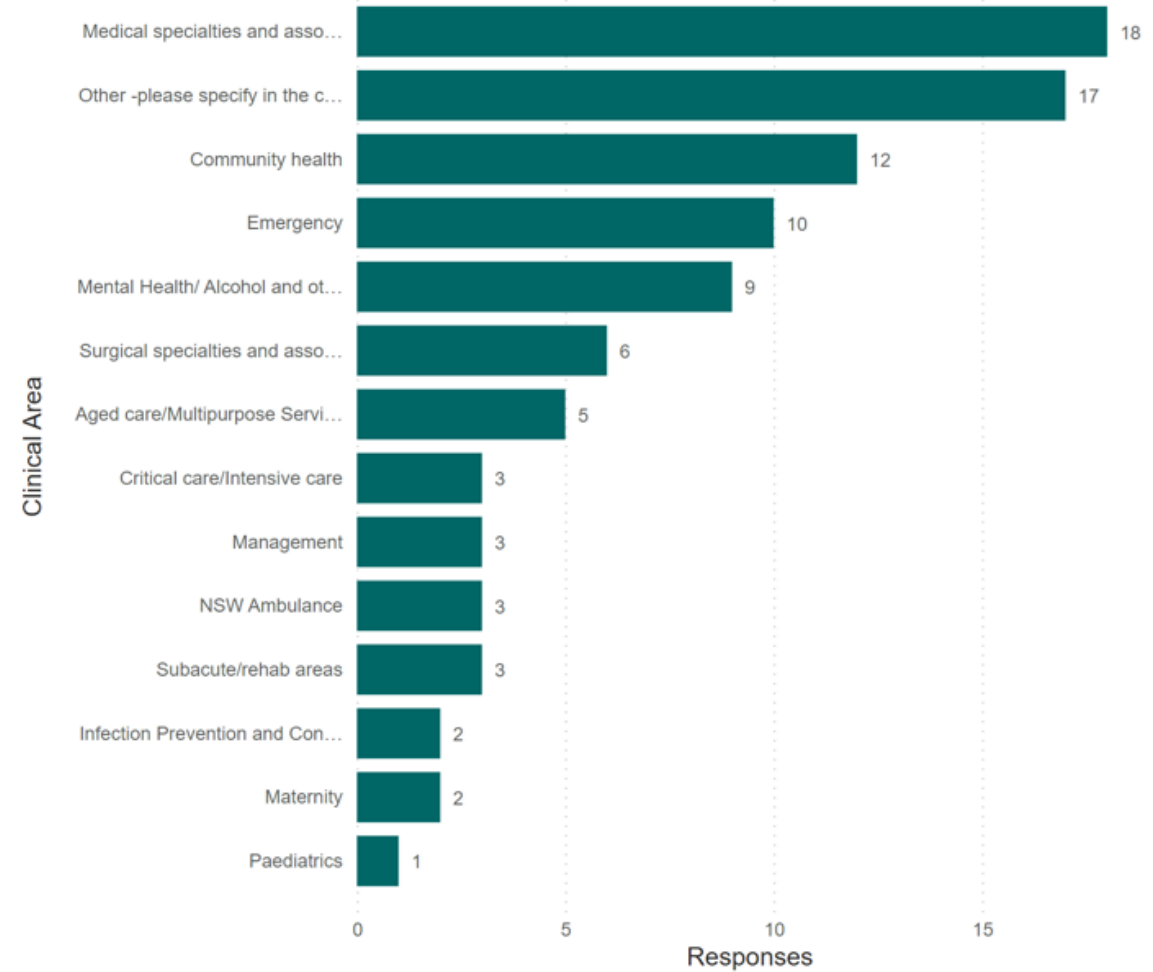


# Clinical area not completed

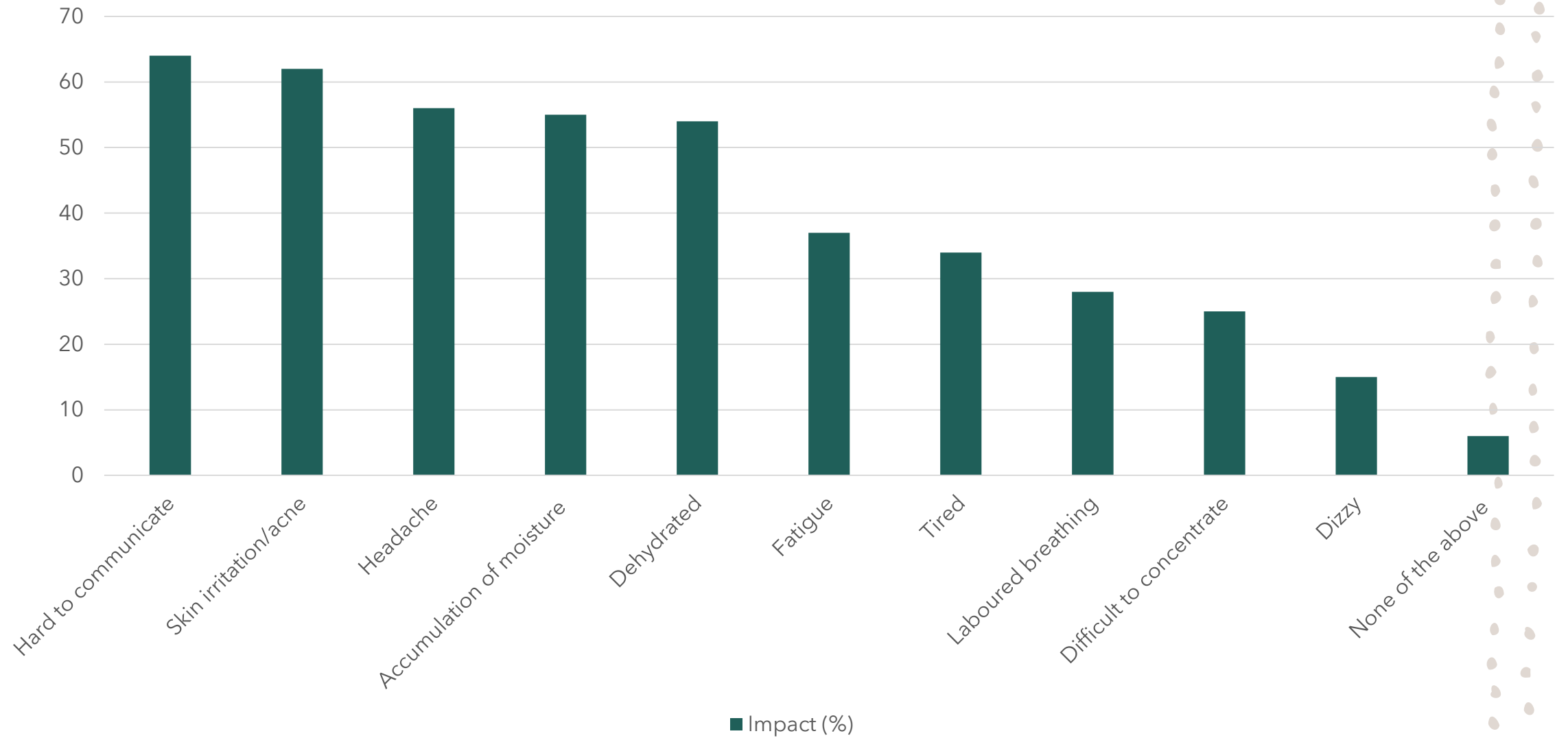
## FIT CHECK



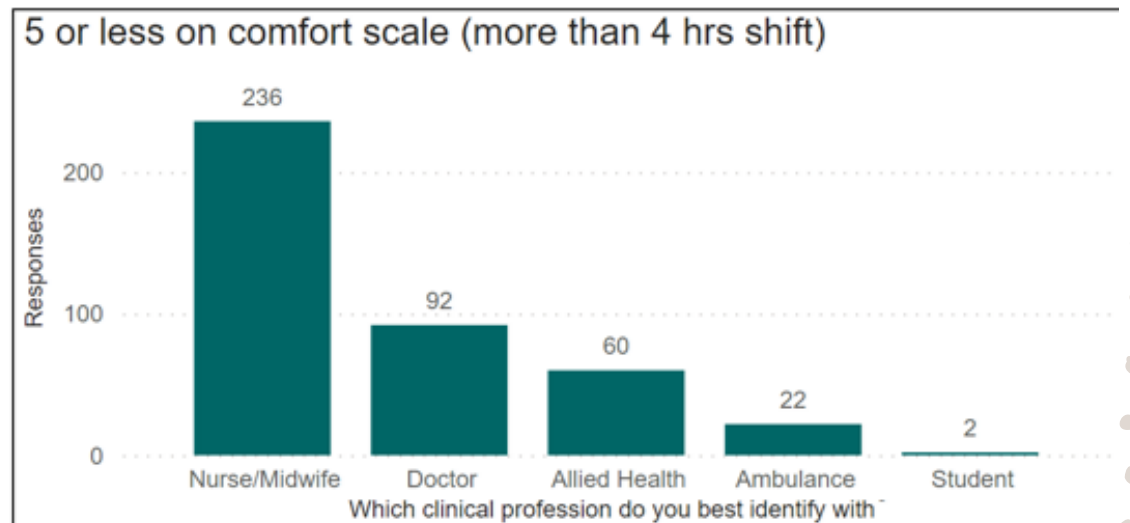
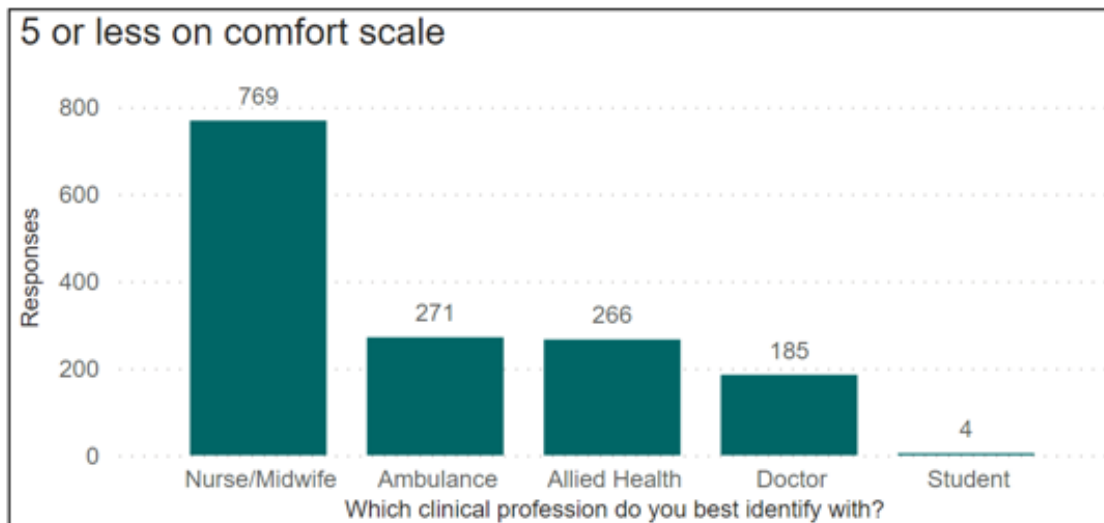
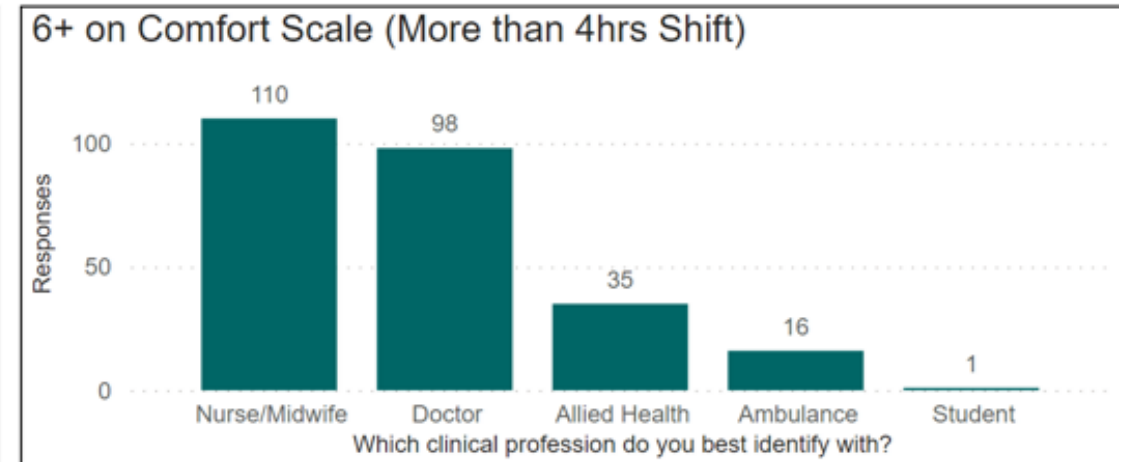
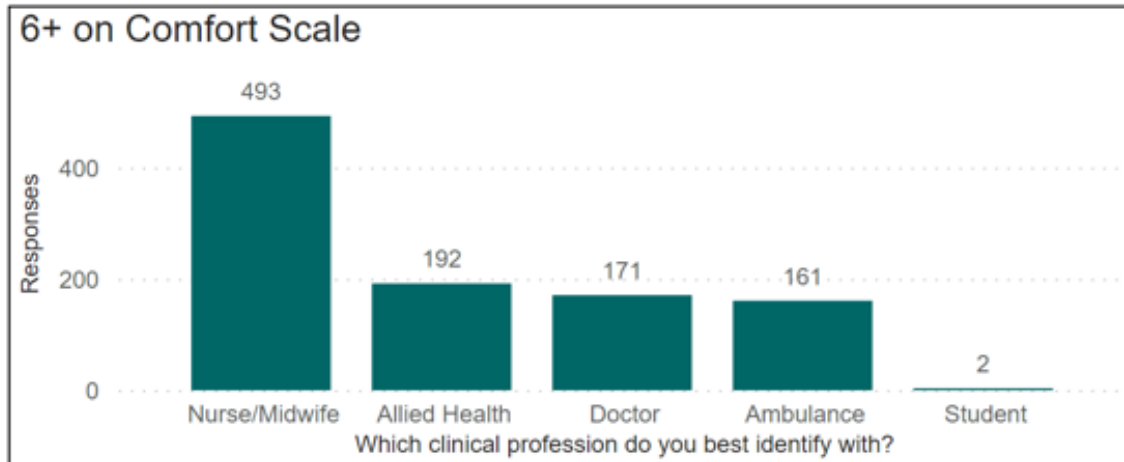
## FIT TEST



## Impact of wearing a respirator (%)

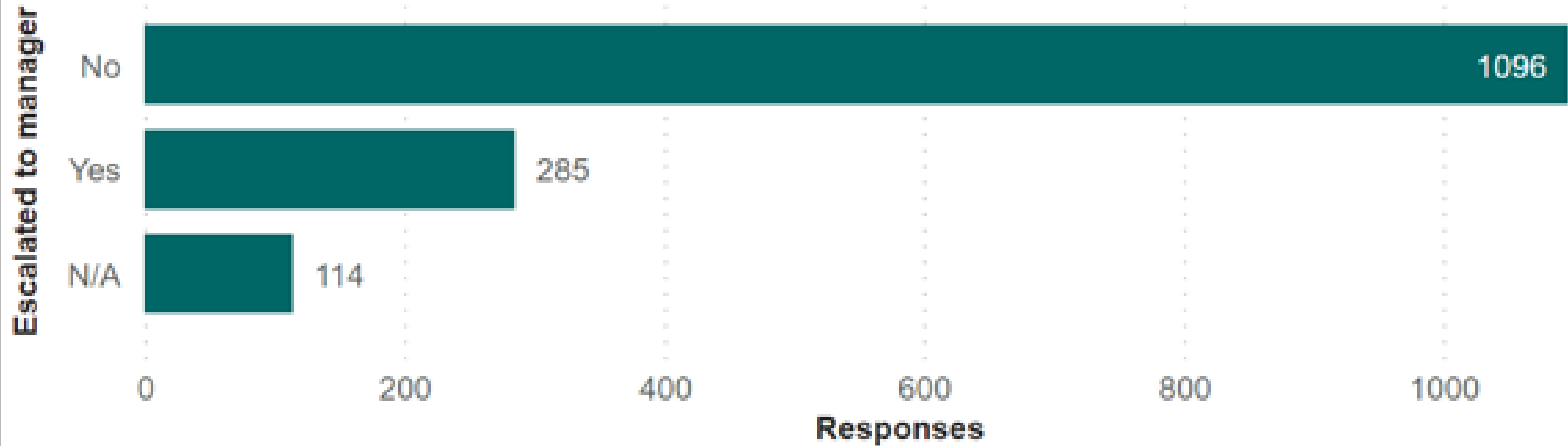


# On a scale of 1-10, how comfortable is it to wear your selected respirator?





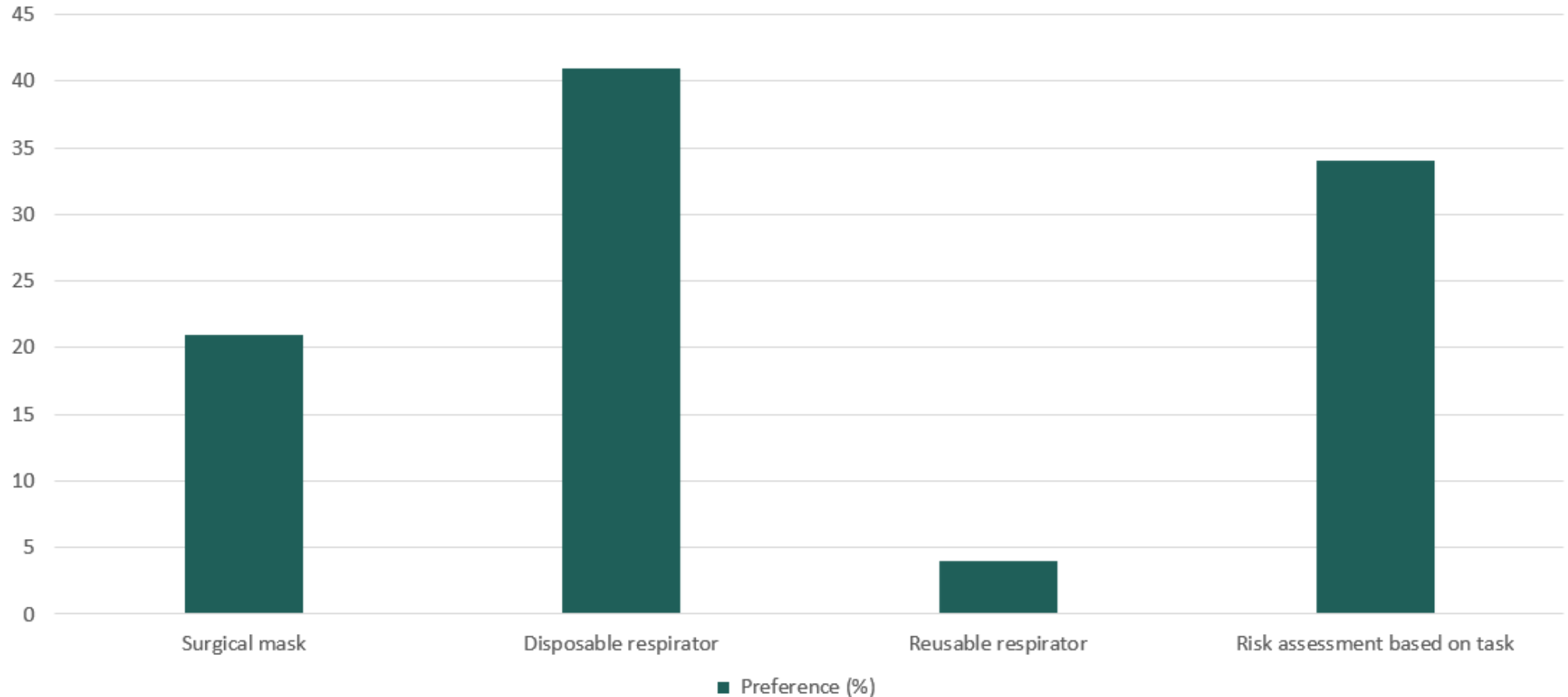
Have you escalated this issue to your manager or supervisor? (5 or less on Scale)



# Pressure injury prevention strategies(%)

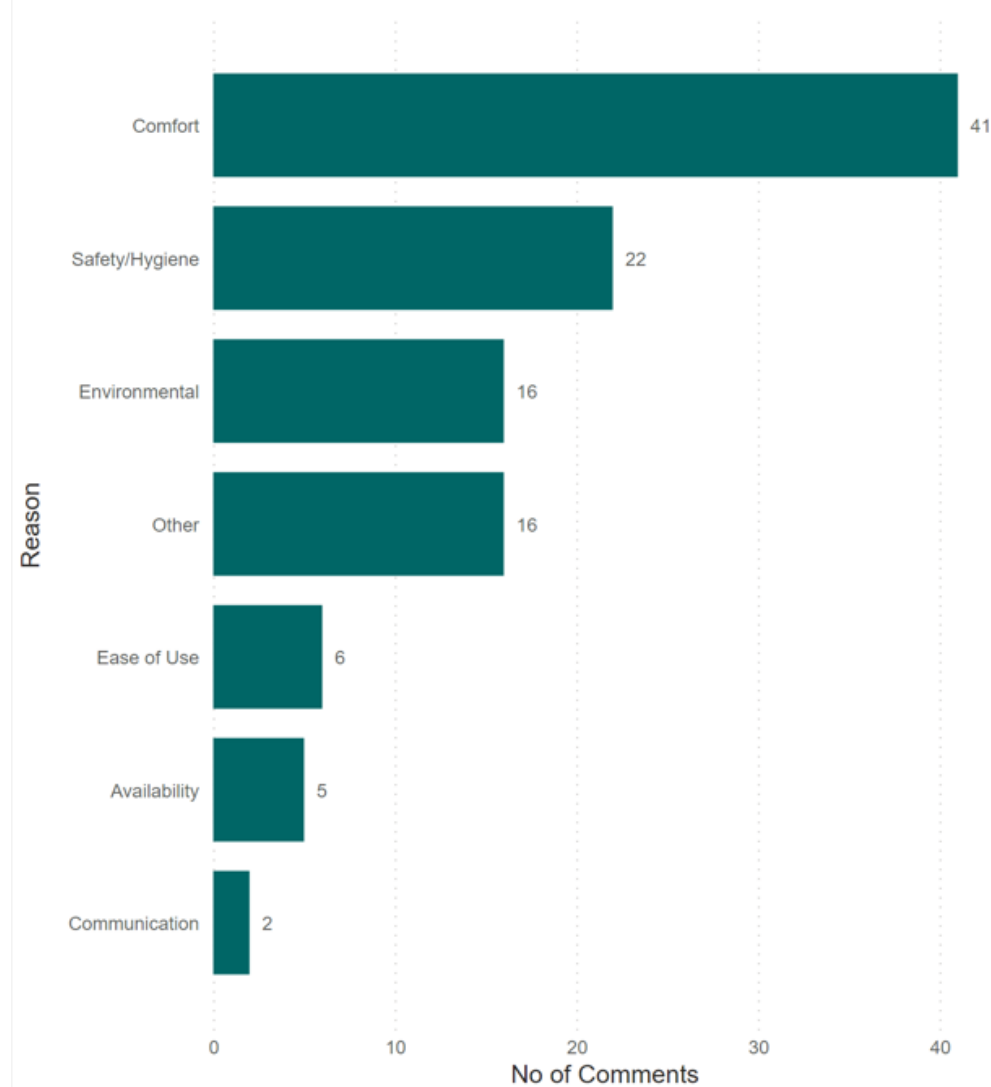


If you are looking after a patient with ARI (non-COVID), what would you prefer to use?

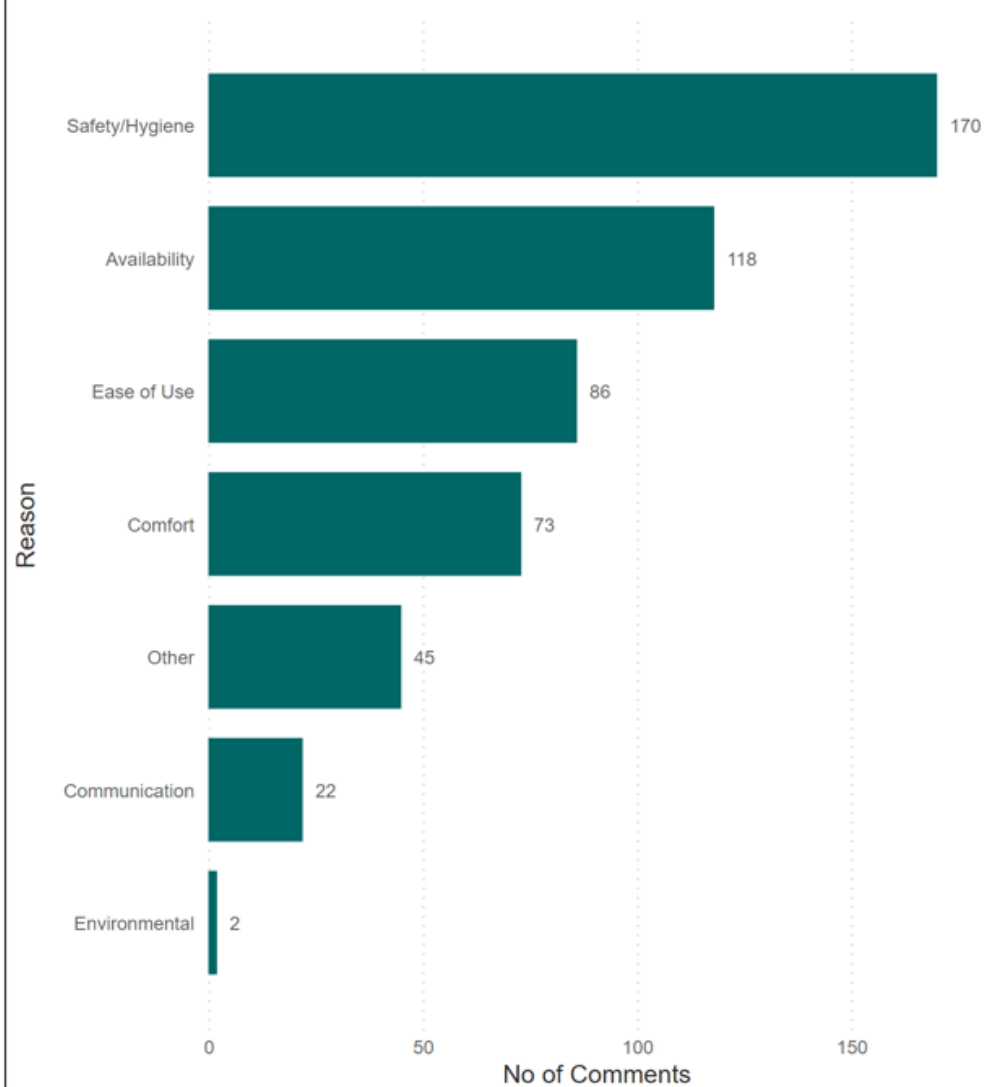


# Reusable vs disposable

Prefers Re-useable Respirators



Prefers Disposable Respirators





# Summary

- Despite somewhat less favorable ratings on comfort and communication, health workers are in favor of respiratory protection
- A focus on tolerance of respirators and strategies to address adverse effects from prolonged respirator use must be considered when implementing policies and procedures





# Summary

- Resources must be allocated to improve the design, breathability, and sustainability of a respirator along with education and training on how to use respiratory protection safely and effectively.

Thank you

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Website address – [Clinical Excellence Commission](#)

## Reference

Jain S, Dempsey K, Clezy K, Bradd P. Evaluation of health worker acceptance and tolerance of respirators in clinical practice-An Australian perspective. Am J Infect Control. 2023 Jul 16:S0196-6553(23)00504-7. doi: 10.1016/j.ajic.2023.07.003. Epub ahead of print. PMID: 37454930.