A night-time photograph of a city street. In the background, a large red billboard for Coca-Cola is visible, featuring the classic script logo and the word 'Enjoy'. To the right, a signpost holds several signs, including a rainbow flag and a sign that says 'BAD' in large, bold letters. The street is illuminated by streetlights, and a building with a sign that reads 'HOTEL CAPITAL' is visible on the left. The overall scene is dark with some artificial light sources.

**The acceptability of peer administered  
naloxone to reduce the morbidity and  
mortality associated with opioid overdose  
among family members of opioid users.**

**Anthony Jackson  
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# Presentation Outline

- Introduction
- Survey objectives
- Background Literature
- Method
- Results
- Conclusions

# Introduction

- Collaboration with Family Drug Support (FDS)
- Final project submitted to the Graduate School of Government, University of Sydney
- Used to inform KRC's planned trial of peer administered Narcan®
- Acknowledgements
  - Mr Tony Trimingham
  - Dr Ingrid van Beek

# Survey objective

- To determine the opinions of FDS members, as key stakeholders, on the acceptability of implementing a peer administered Narcan® program for the prevention of opioid overdose

# Background Literature

- There were 374 deaths attributed to opioids in 2005 among those aged 15 to 54 years in Australia. Of this total, approximately one third of deaths occurred in New South Wales (n=133).
- There was a sharp decrease in the number of heroin deaths in Australia each year after 1999 (1116 deaths in 1999)[\[1\]](#) and this figure has remained relatively stable since.
- Opioid overdose and death, in many cases, is not sudden [\[3\]](#), [\[4\]](#). and frequently occurs when other people are present [\[5\]](#),[\[6\]](#).

[\[1\]](#) Phillips, B & Burns, L. (2008) NSW Drug Trends, Findings from the Illicit Drug Reporting System (IDRS) Australian Drug Trends Series No. 20 National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia, p82.

[\[2\]](#) Degenhardt, L., Day, C., Dietze, P., Pointer, S., Conroy, E., Collins, L & Hall, W. (2005), 'Effects of heroin shortage in three Australian States', *Addiction* vol 100 p908

[\[3\]](#) Darke S., Ross, J., Zador, D & Sunjic, S. (2000), 'Heroin-related death in New South Wales, Australia, 1992-1996', *Drug and Alcohol Dependence*, vol 60(2) p141-150

[\[4\]](#) Darke, S & Zador, D. (1996), 'Fatal heroin overdose: a review', *Addiction*, vol 91 (12), p 1767.

[\[5\]](#) Kelly, A., Kerr, D., Dietze, P., Patrick, I., Walker, T. & Koutsogiannis, Z. (2005) 'Randomised trial of intranasal versus intramuscular naloxone in prehospital treatment for suspected opioid overdose', *Medical Journal of Australia*, vol 182 pg 26.

[\[6\]](#) Darke S., Ross, J & Hall W. (1996), 'Overdose among heroin users in Sydney, Australia: 11. Responses to overdose' *Addiction*, vol 91 (3) pp 413-417.

# Background Literature

- Relying on people present at overdoses to call an ambulance has its limitations.
- Only 10% of those present at fatal overdoses call an ambulance and death occurs in 79% of overdoses without intervention.[\[1\]](#)
- The major reasons why help from ambulances is not called for are:
  - fear of police involvement because of the illegal status of heroin use and those present may be on parole or have outstanding warrants[\[2\]](#),
  - the cost of ambulance intervention and prior unpleasant
  - or off-putting experiences with hospital staff.[\[3\]](#)

[\[1\]](#) Darke, S & Zador, D. (1996), 'Fatal heroin overdose: a review', *Addiction*, vol 91 (12), p 1767

[\[2\]](#) Baca, C & Grant, K. (2005), 'Take-Home naloxone to reduce heroin death', *Addiction*, vol 100, p1825

[\[3\]](#) Lenton, S & Hargraves, K. (2000), 'Should we conduct a trial of distributing naloxone to heroin users for peer administration to prevent fatal overdose', *Medical Journal of Australia*, vol 173, p 260

# Background Literature

- Naloxone hydrochloride (Narcan®) is a short acting opioid antagonist that reverses the effects of opioids such as heroin. In Australia, it is available by prescription and is only approved for administration by authorised personnel.[\[1\]](#)
- In many overseas jurisdictions, Narcan® is provided to drug users, their family or friends. Known as peer administration, relevant people are trained in the recognition of overdose, administration of Narcan® and resuscitation with the intention that they intervene (and administer Narcan®) if they are present at an overdoses.
- In Australia, Commonwealth[\[2\]](#) and NSW government strategy[\[3\]](#) has identified the need for peer administration of Narcan® to be further examined. However, no direct action taken to date .

[\[1\]](#) Lenton, S & Hargraves, K. (2000), 'Should we conduct a trial of distributing naloxone to heroin users for peer administration to prevent fatal overdose', Medical Journal of Australia, vol 173, p 260

[\[2\]](#) Commonwealth Department of Health and Aging. (2001), 'National Heroin Overdose Strategy'

[\[3\]](#) NSW Department of Health. (2006), 'NSW Heroin Overdose Prevention and Management Strategy'

# Background Literature

- Peer administration programs are operating in the United States, Italy, the United Kingdom and Germany. In the United States 40% of Needle and Syringe Programs (52/131) were delivering Narcan® to drug users, families members or friends in 2007. [\[1\]](#)
- It is estimated that up until February 2006, 900 lives have been saved worldwide through peer administration of Narcan® [\[2\]](#).
- Exploratory research has demonstrated that:
  - drug users support the approach [\[3\]](#)
  - Trained laypersons are as proficient as medical clinicians in responding to overdose, including the appropriate administration of Narcan® [\[4\]](#)

[\[1\]](#) Des Jarlais, D., McKnight, C., Goldblatt, C & Purchase, D. (2009), 'Doing harm reduction better: syringe exchange in the United States', *Addiction*, vol 104 (9), p 1443

[\[2\]](#) Kerr, D., Dietze, P., Kelly, A & Jolley, D. (2008), 'Attitudes of Australian heroin users to peer distribution of naloxone for heroin overdose: Perspectives on Intranasal administration', *Journal of Urban Health*, vol 85(3), p 352.

[\[3\]](#) Kerr, D., Dietze, P., Kelly, A & Jolley, D. (2008), 'Attitudes of Australian heroin users to peer distribution of naloxone for heroin overdose: Perspectives on Intranasal administration', *Journal of Urban Health*, vol 85(3), p 352

[\[4\]](#) Green, T., Heimer, R., & Grau, I. (2008), 'Distinguishing signs of overdose and indication for naloxone: an evaluation of six naloxone training and distribution programs in the United States', *Addiction*, vol 103 p 979.

# Background Literature

- Exploratory research has demonstrated that:
  - Governments in jurisdictions overseas are willing to change regulations to allow the administration of Narcan® by peers or bystanders
  - It is feasible to provide training programs and the distribution of Narcan® through outreach and needle and syringe programs and that this response has resulted in those trained using their skills in emergency situations [\[5\]](#), [\[6\]](#).
  - Narcan® has no abuse potential and is an extremely safe drug. Concern about provision to and administration by third parties from a medical liability perspective has a very low risk-high benefit ratio [\[7\]](#).
  - There is an increasing body of knowledge on program models that could be adapted or replicated [\[8\]](#).

[\[5\]](#) Doe-Simkins, M., Walley, A., Epstein, A & Moyer, P. (2009), 'Saved by the Nose: Bystander-Administered Intranasal Naloxone Hydrochloride for Opioid Overdose' *American Journal of Public Health*, vol 99 (5), p 788

[\[6\]](#) Seal, K., Thawley, R., Gee, L., Bamberger, J., Kral, A., Ciccarone, D., Downing, M & Edlin, B. (2005) Naloxone Distribution and Cardiopulmonary Resuscitation Training for Injecting Drug Users to Prevent Heroin Overdose Death: A pilot Intervention Study *Journal of Urban Health*, vol 82(2), p 303.

[\[7\]](#) Maxwell, S., Bigg, D., Stanczykiewicz, K & Carlber-Racich, S. (2006), 'Prescribing Naloxone to Actively Injecting Heroin Users; A program to Reduce Heroin Overdose deaths' *Journal of Addictive Diseases* vol 25(3) p93.

[\[8\]](#) Piper, T., Rudenstine, S., Stancliff, S., Sherman, S., Nandi, V., Clear, A. & Galea, S. (2007), 'Overdose prevention for injecting drug users; Lessons learned from naloxone training and distribution programs in New York City', *Harm Reduction Journal*, vol 4(3).

# Method

- A one-point-in-time survey of members of the Family Drug Support (FDS) service plus those accessing their online resources was conducted between April and June 2010
- Survey population - members of the FDS who received a bi-monthly newsletter plus those who access the FDS online resources (n=670)
- Convenience sample-non-random group that consisted of those who self-selected to undertake the survey

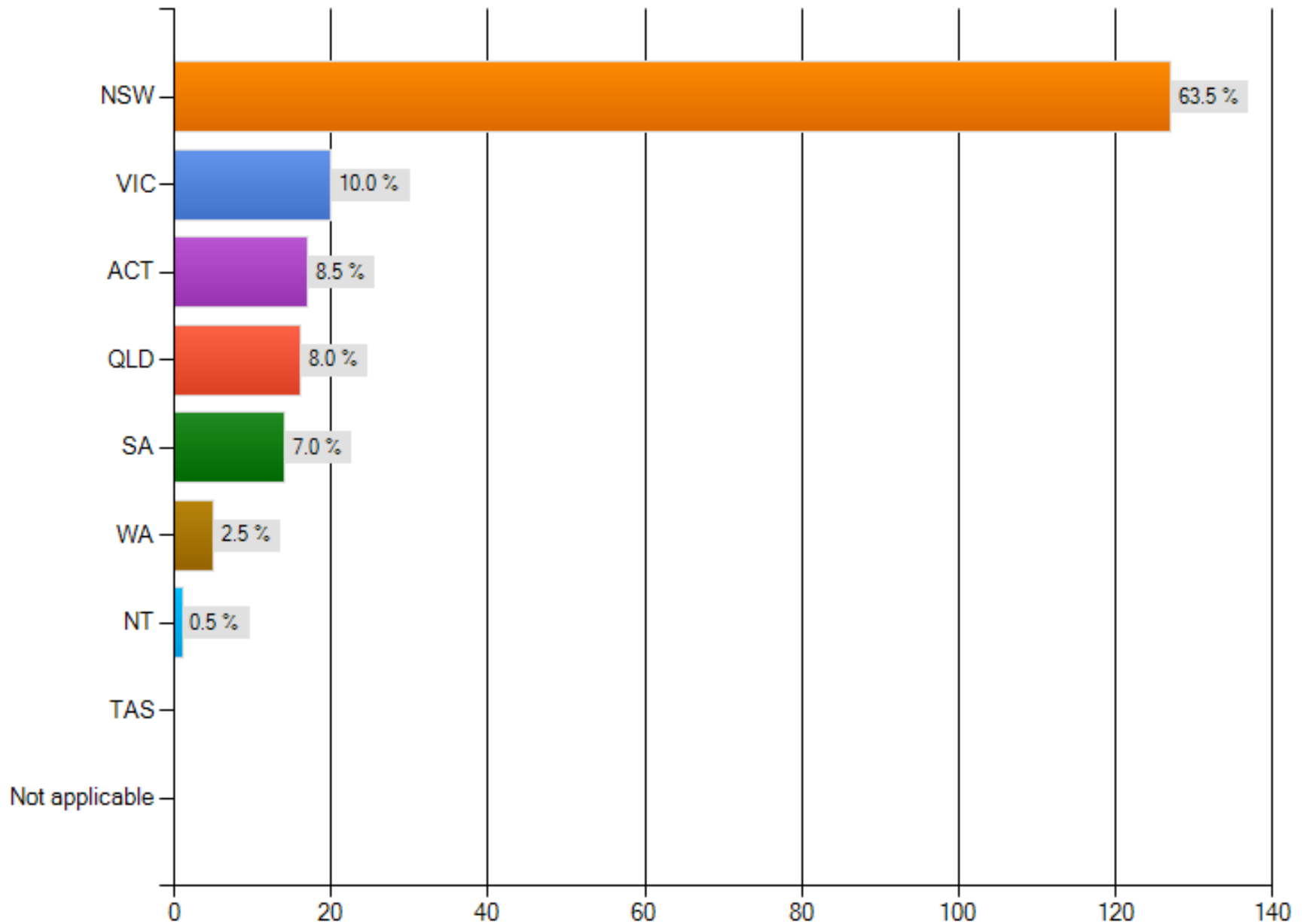
# Method

- “paper” letter to members inviting participation – supplied with a copy of survey to post or directing them to an online survey
- “E” letter to members with hyperlink to an on-line survey
- Data was collated and presented in terms of proportional responses. Qualitative data was analysed, summarised and presented as either common or divergent themes

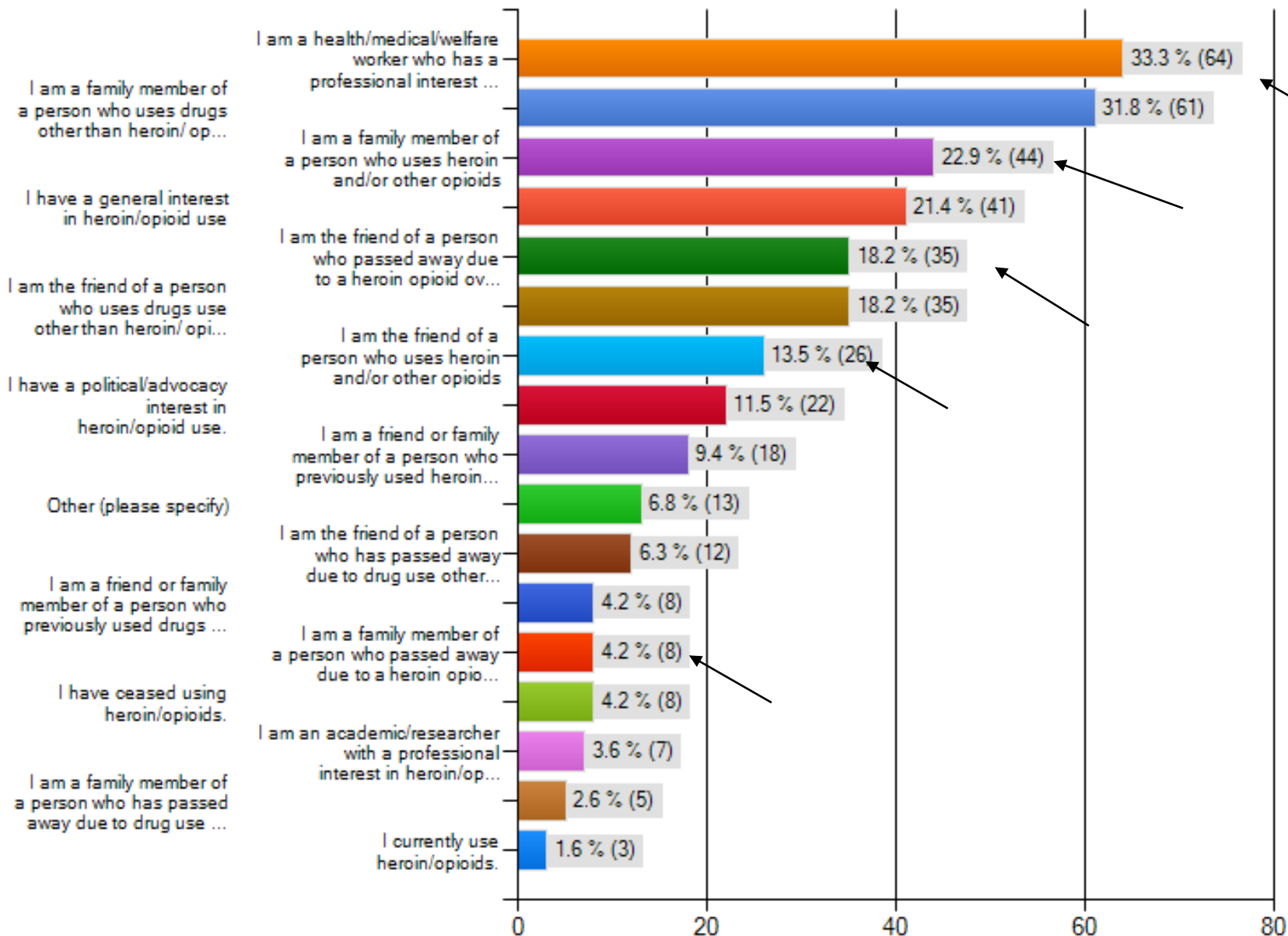
# Results - Demographics

- 200 responses
- 75%
- Average age 56.15 ( =55.2, =59.1)
- 63.5% (n= 127) from NSW (see table 1)

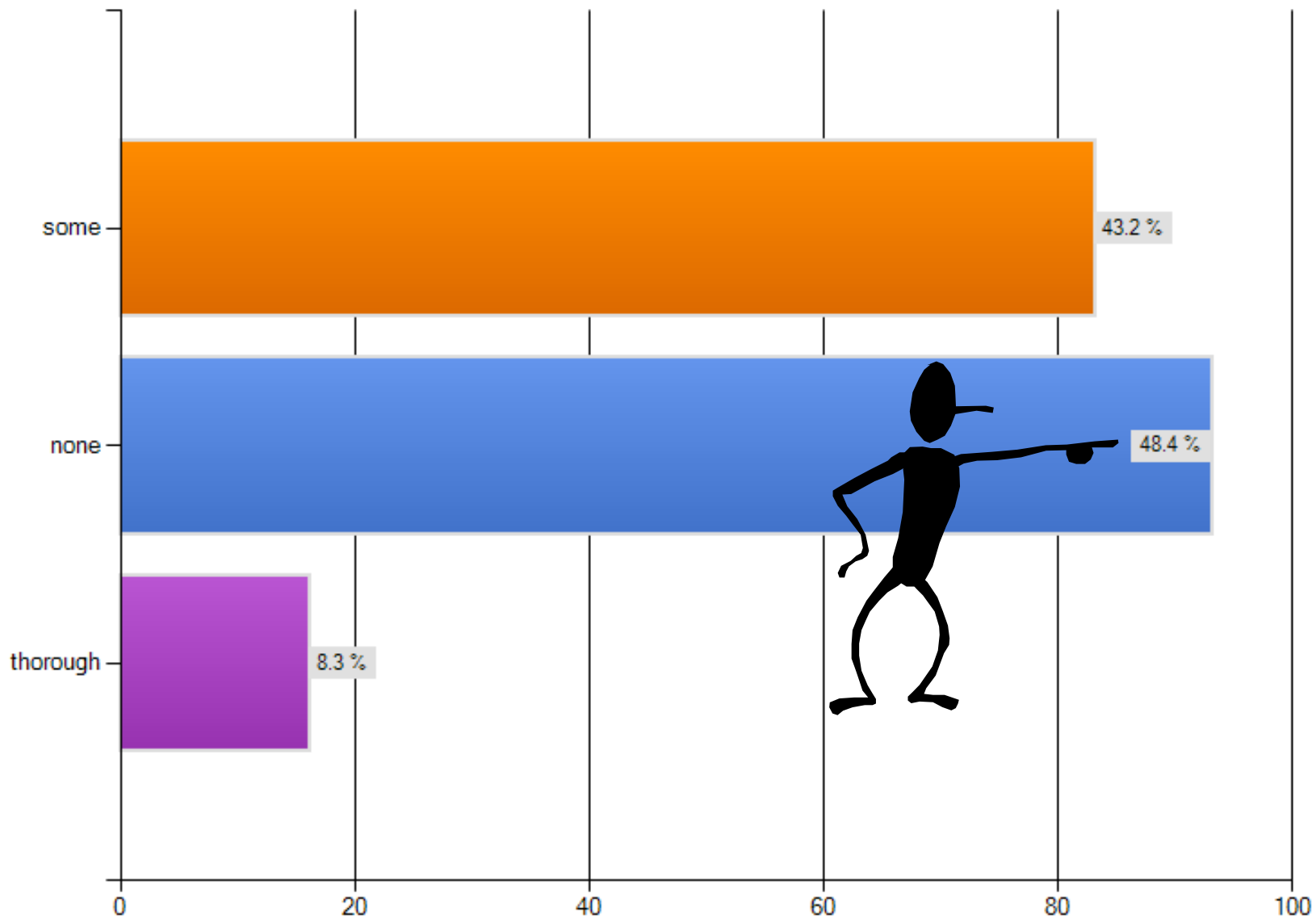
## Which Australian state or territory do you live in?



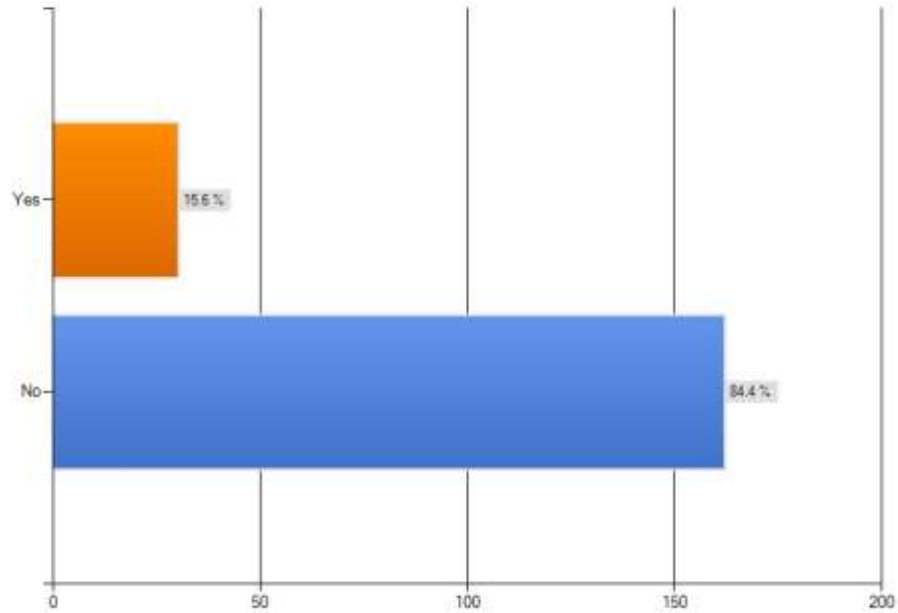
## Association with heroin/opioid use. More than one response may be applicable.



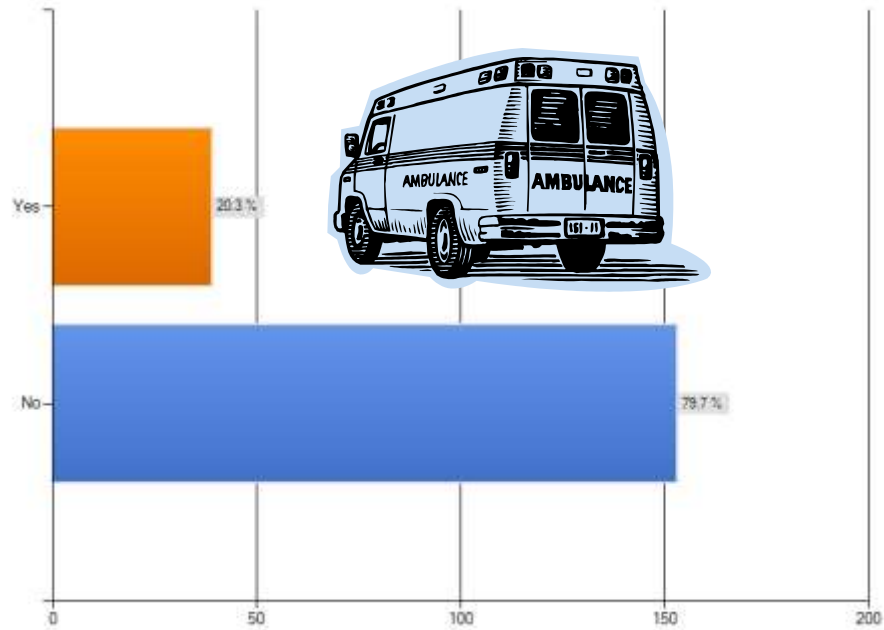
# Knowledge of family or drug user peer administration of Narcan®?



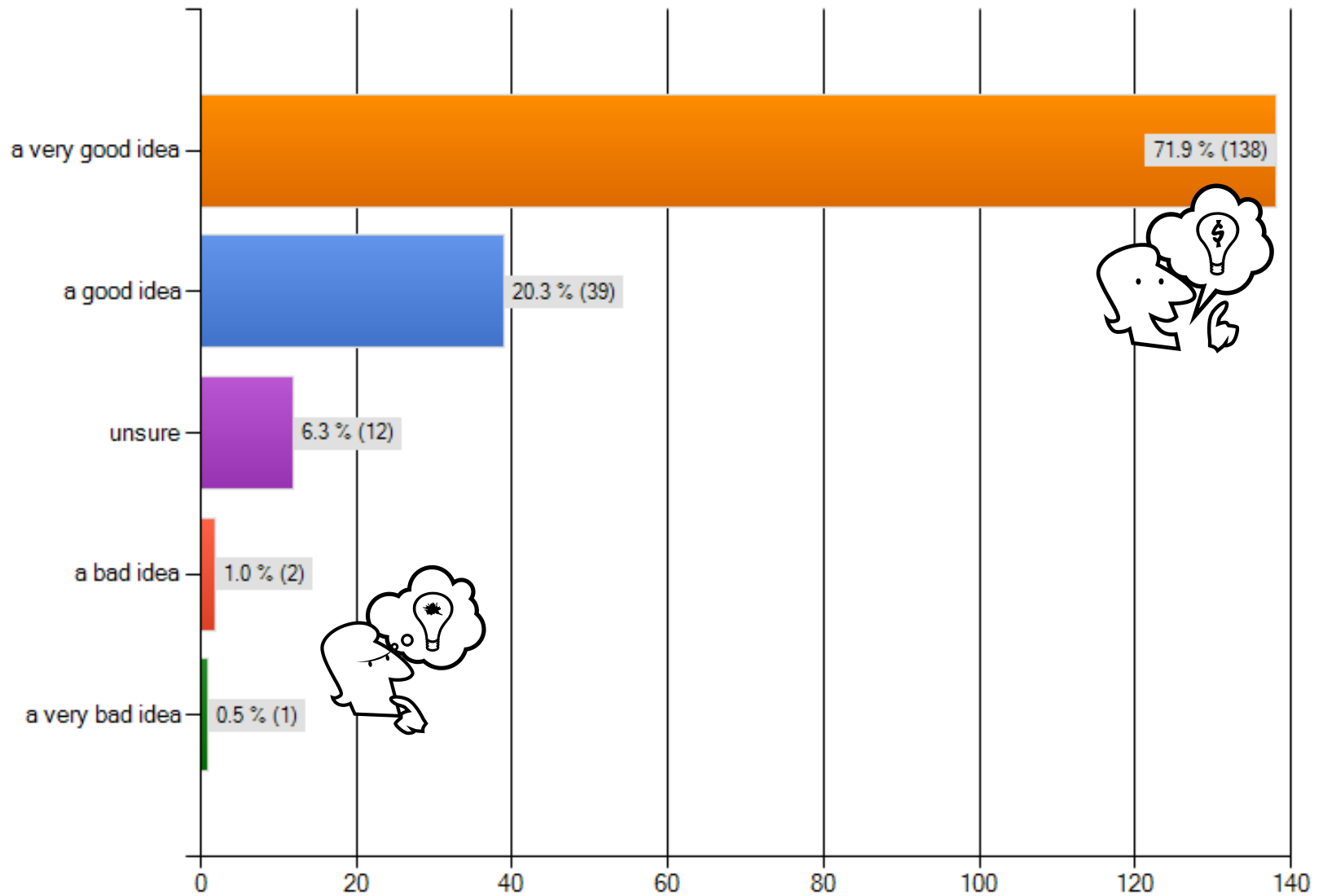
Have you assisted in resuscitation when a friend or relative has had a heroin/opioid overdose?



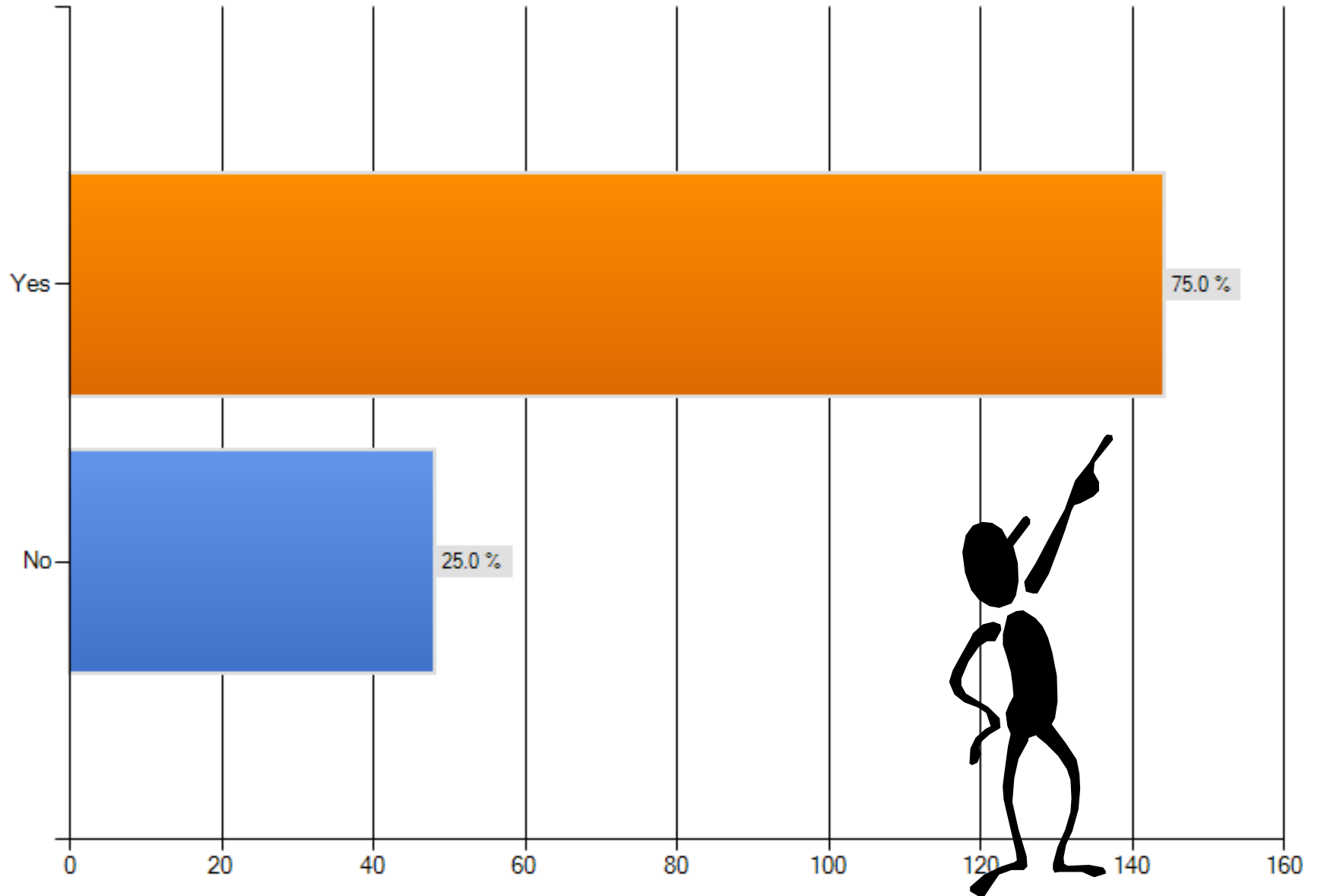
Have you called an ambulance in such circumstances?



# Do you think training friends or relatives in the administration of Narcan® is a good idea?



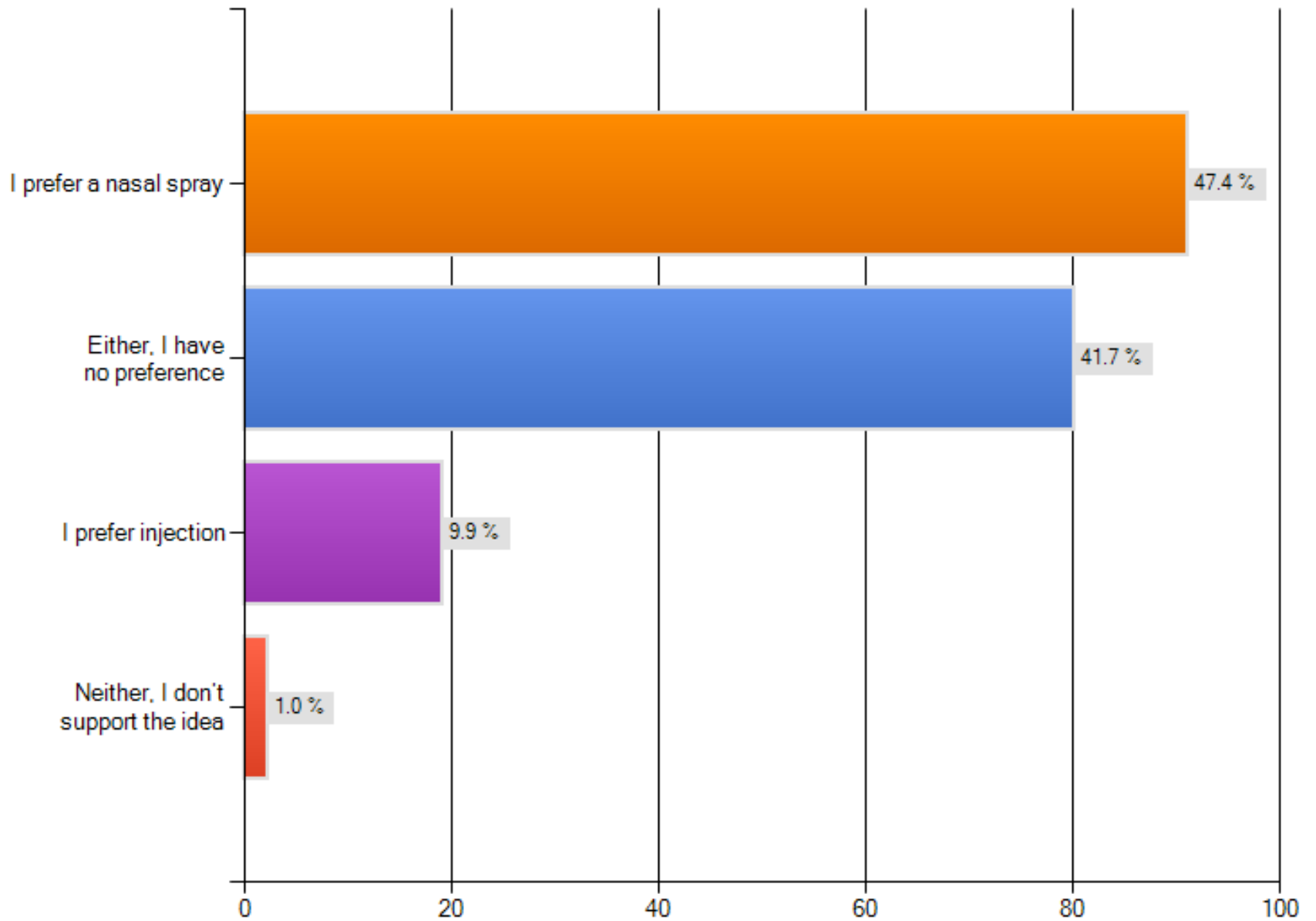
# Willingness to participate in training in heroin/opioid overdose management including the administration of Narcan®.



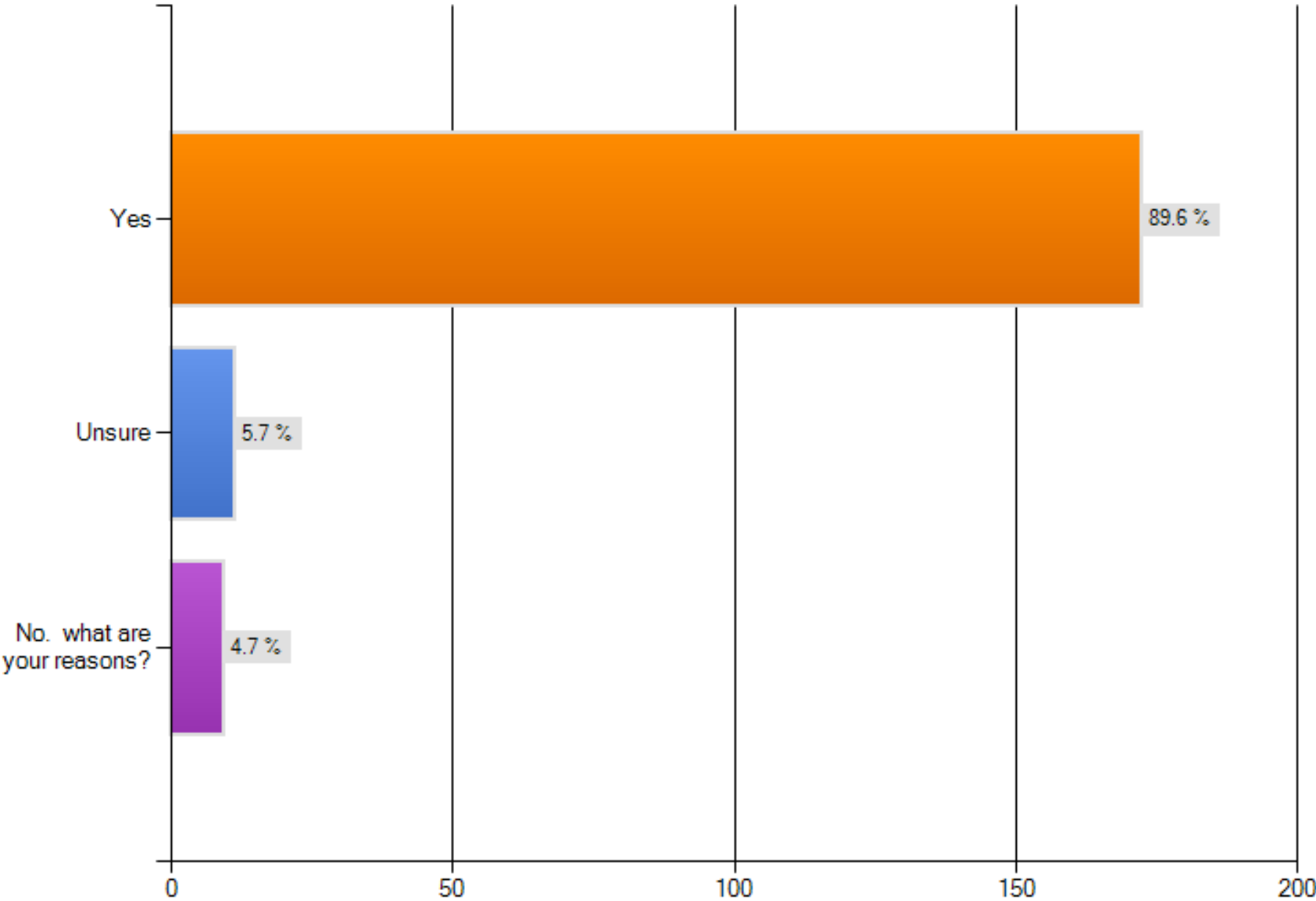
# Why participate in training?

- It would reduce death or injury due to delays to treatment (95.3%)
- It would free up ambulance services to attend other medical emergencies (62%)
- It would reduce the harmful physical and psychological impact of personally experiencing a drug overdose (59.3%)

## Nasal spray or injection?



**Support for drug users or their peers to be trained in responding to an overdose situation and provided with Narcan® so that they could administer it in such a situation.**



# Concerns

- 15 respondents had no concerns.
- 23 respondents identified the need/importance of adequate training and education including ongoing support.
- 16 respondents raised concerns about accurately identifying opioid OD vs other aetiology.

# Concerns

- 9 respondents raised concern about legal ramifications
- 7 respondents were concerned with how the person revived may react with particular reference to aggression management.
- 18 respondents raised concerns about coping with the emotional effects of administering Narcan<sup>®</sup> as part of a resuscitation response
  - 4 feared that this would cloud judgement and 14 were concerned about coping afterwards if their response failed.

# Conclusions

- Respondents strongly supported the concept where family members were trained in responding to opioid overdose including the administration of Narcan<sup>®</sup>
- There was a high degree of willingness to participate in training.
- Training would need to address certain concerns

# Conclusions

- The preferred route of administration of Narcan<sup>®</sup> was by nasal spray over injection but almost as many respondents had no preference either way
- Respondents had limited direct exposure to opioid overdose
- There was strong support given to the concept of providing training/ of Narcan<sup>®</sup> to drug users so that they could administer it in an opioid overdose situation?