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Quality of Cause of Injury Information in Routinely Collected Hospital Data

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NATIONAL CENTRE FOR CLASSIFICATION IN HEALTH, AUSTRALIA

Hospitalised Injury Data in Australia

- Detailed information around causes of hospitalised injuries are important for injury prevention
- Causes of injury routinely collected in hospital administrative dataset
- Clinical coders translate clinical documentation into coded data



Classifying Causes of Injury

- In Australia, hospital morbidity data are coded using the ICD-10-AM Fifth Edition
- Coded external cause data describes:
 - The causes of injury, poisoning and adverse events
 - The place of occurrence
 - The activity at the time of injury
 - Detail on any object involved
 - Role and intent of the injured person



Quality of Coded Data

- Data quality refers to the accuracy and completeness of data recorded
- ICD coded data designed for statistical reporting, thus requires the use of 'dump' categories (Other/unspecified)
- 'Dump' categories tell us little meaningful information for injury prevention
- High quality injury data system = Minimal use of dump categories



Background to Current Project

- ICD-10-AM Third Edition 2002/03 revisions
- ARC-Linkage funding to investigate quality of coded cause of injury data
- Collaboration of NCCH, NISU, IPCA and State Health Departments
- This presentation reports on findings from first phase of project



Aims of Presentation

- Examine the level of detail available regarding causes of injury in Australian morbidity data
- Examine the proportional use of ‘dump’ categories across different causes of injury
- Identify reasons for poor quality cause of injury data
- Recommendations for injury researchers



Methodology

Case Selection: All hospital separations with:

- Injury as the PDx (S00-T98)
- External cause (V00-Y98)

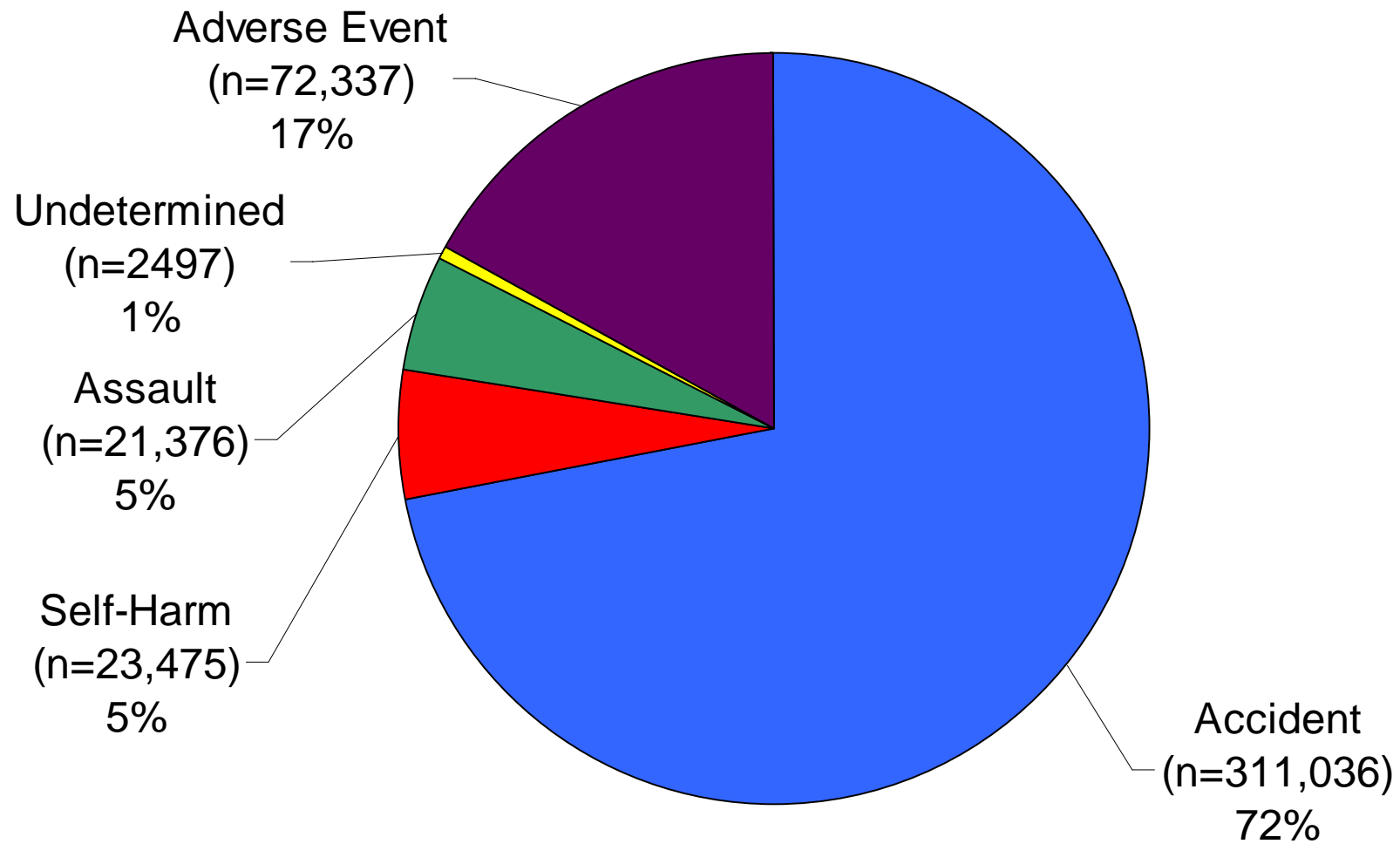
Data years: 2002-2003

Participants:

- 6.6 million separations in 2002/03
- 431,819 cases with injury as PDx
 - Males n=245,983; Females n=185,828
 - Average age = 43 years (SD=26.3)
 - Average LOS = 3.8 days (SD=9.0)



Broad Causes of Hospitalised Injury



Specificity of Intent Blocks

34,235 cases with cause of accident not available!

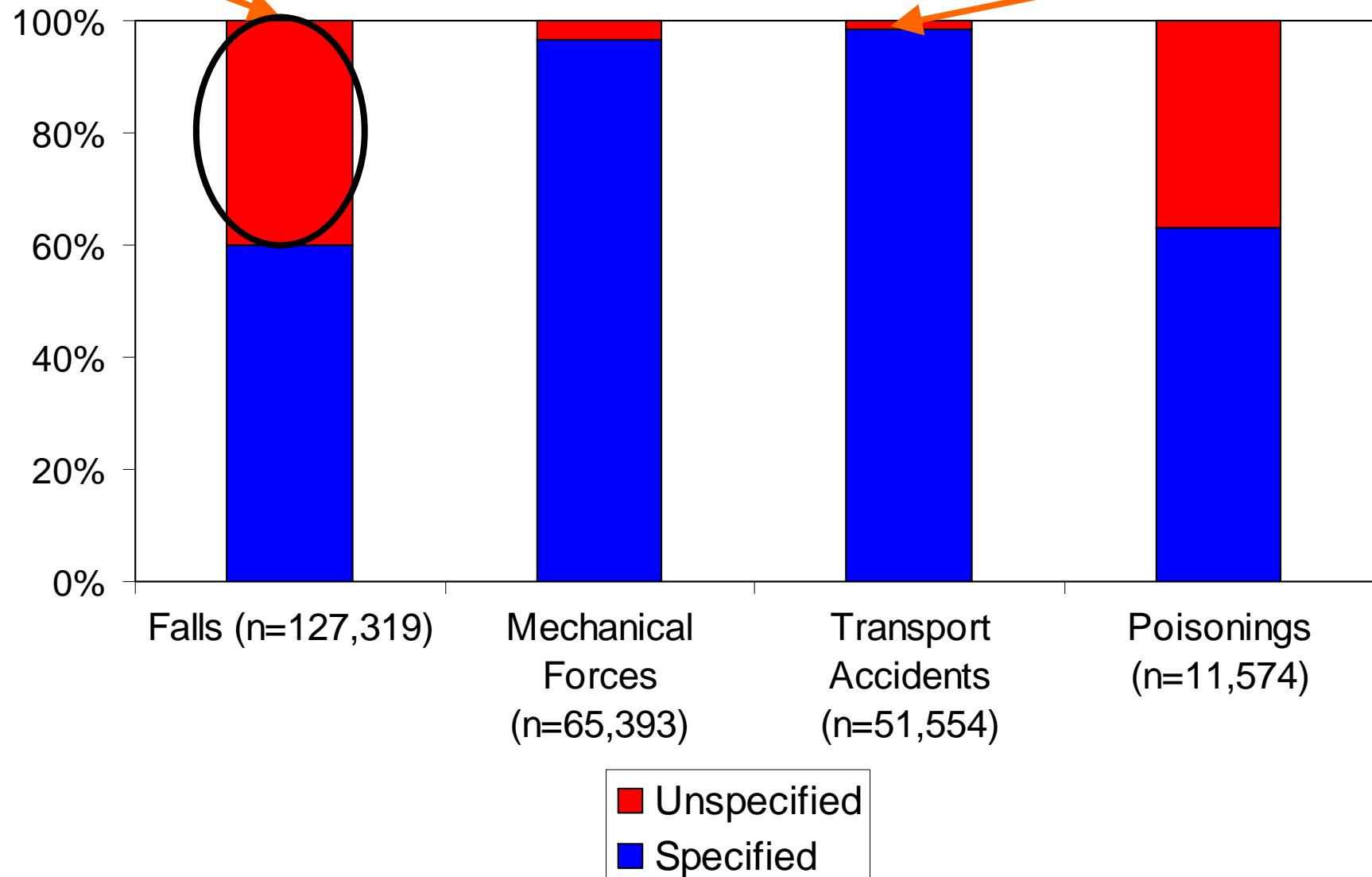
21,986 cases with cause of adverse event not available!



Specificity of Most Common Causes of Accidents

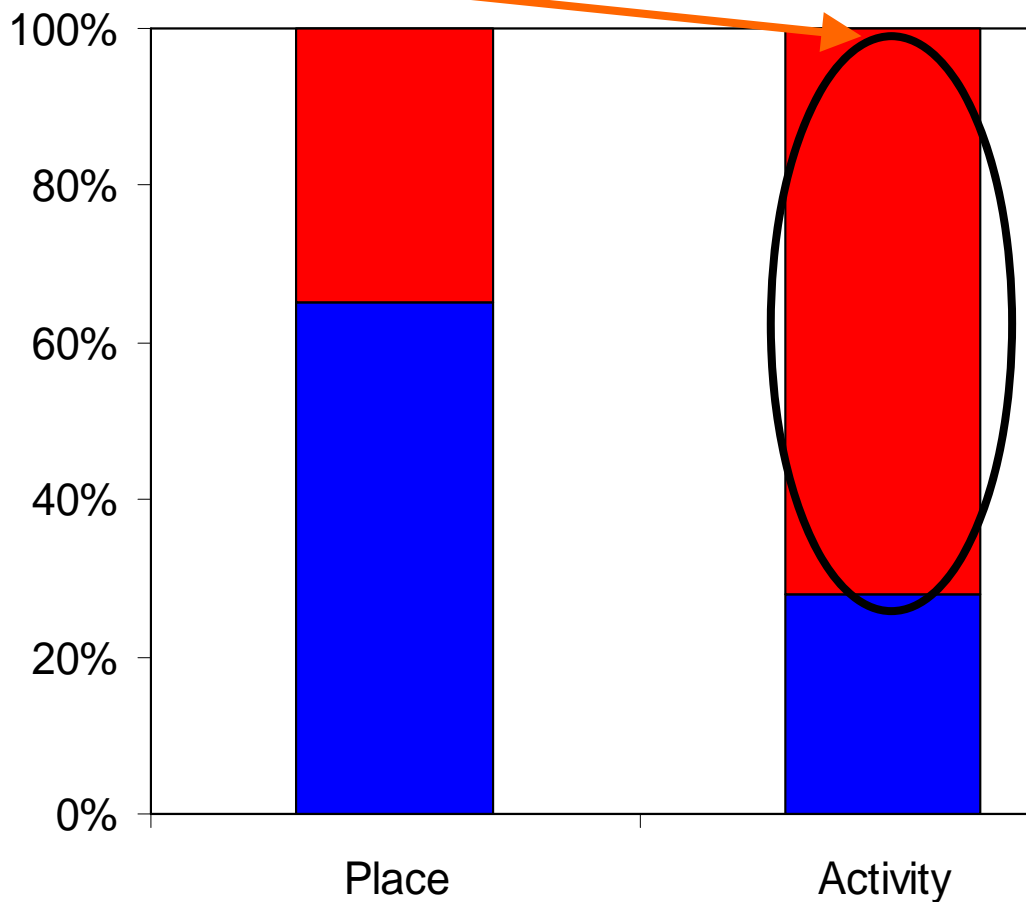
50944 cases with cause of fall not available!

Only 1.5% of transport accidents are undefined



257,988 cases with activity not available!

Specificity of Place and Activity Codes

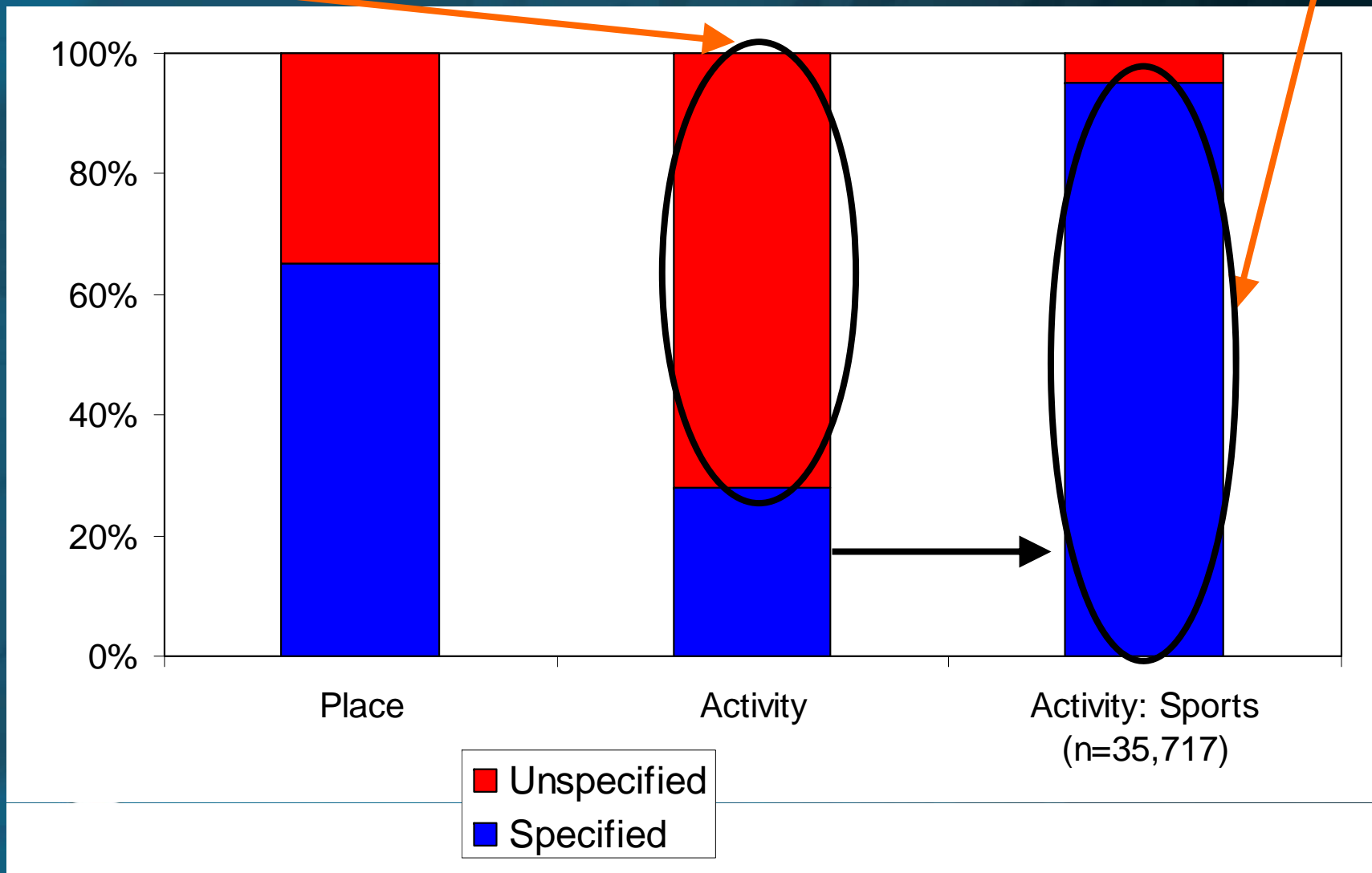


■ Unspecified
■ Specified

257,988 cases with activity not available!

Specificity of Place and Activity Codes

If activity=sports, 95% had type of sport defined



Reasons for Poor Specificity

- Lack of clinical documentation on injury circumstances
- Lack of ICD codes to describe injury circumstances
- Coding errors



Recommendations for Researchers

- Code ranges – Ensure you select appropriate codes to capture data of interest
- Consider which ‘dump’ category your data may be ‘lost’ to
- Consider how data was collected, compiled and coded *before* interpreting statistical output



Have Your Say!

- Get involved in biennial update process of ICD-10-AM through NISU
- Injury researcher survey

http://www.hlth.qut.edu.au/ph/ncch/research_survey_participant_information.html



Further Information

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