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# Addressing the 'Other and Unspecified' Problems with Injury Morbidity Data

**Presenter:** Kirsten McKenzie

## Research Team

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# Background to Project

- In response to concerns raised by injury researchers, the ICD-10-AM external cause chapter had significant revisions from ICD-10-AM Third Edition
- Collaboration of NCCH, NISU, IPCA and State Health Departments
- ARC-Linkage funded study to investigate quality of coded cause of injury morbidity data



## Aims of Presentation

- Provide background regarding injury surveillance and data quality
- Describe the level of detail available on causes of injury in Australian morbidity data
- Explain factors affecting quality of cause of injury data according to clinical coders
- Report data users' views of quality of available data sources for injury surveillance



# Context for Research

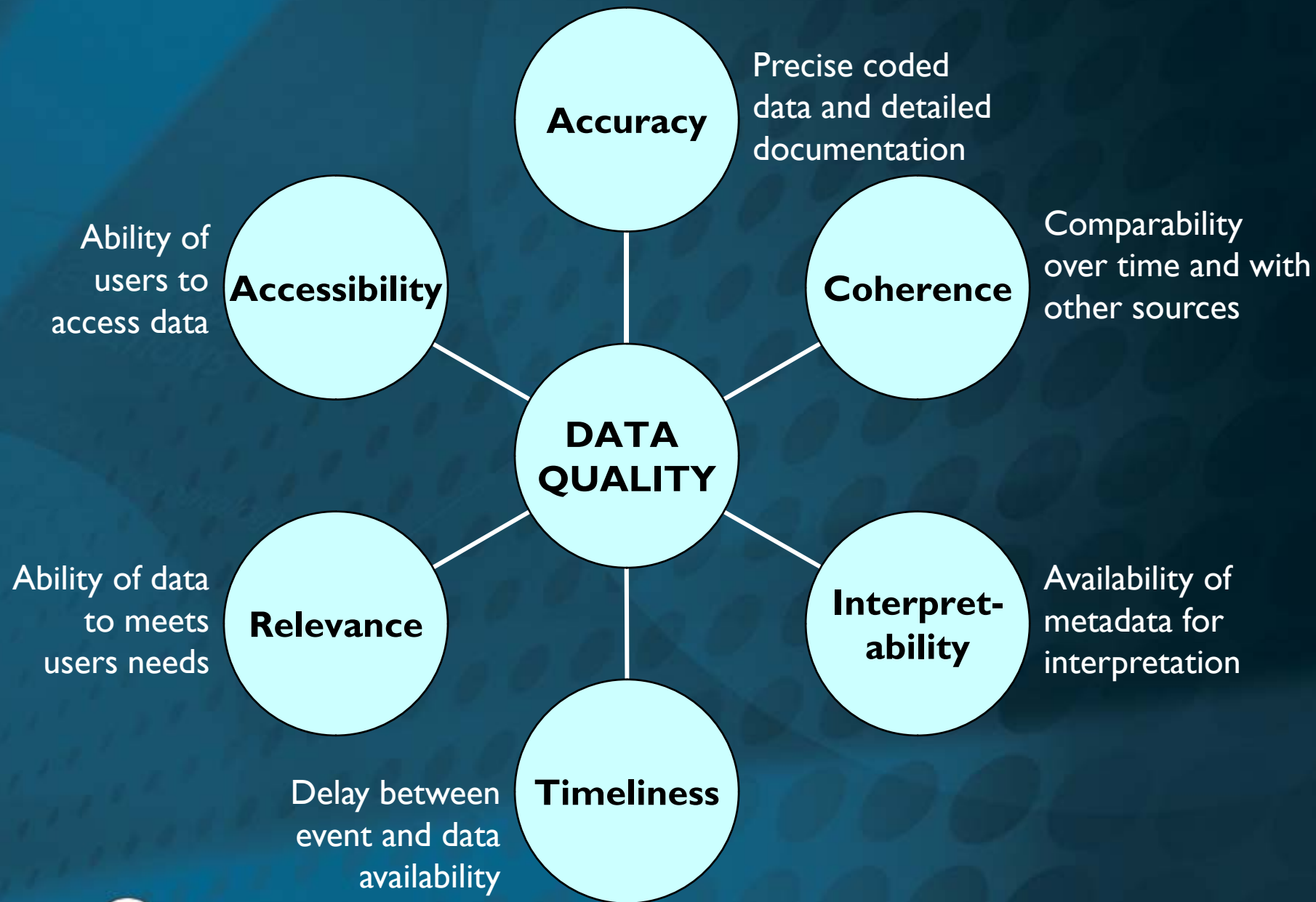
- Injuries are a leading cause of morbidity and mortality in Australia
- Important public health decisions are made on the basis of national morbidity and mortality data
- Errors based on invalid data affect health policy priorities and impact on population health
- Significant national and international interest in developing high quality injury surveillance systems



# Classifying Causes of Injury

- ICD system of classifying external causative factors is relevant to injury prevention activities – focus on identifying, understanding, modifying causative factors
- Coded external cause data can provide valuable information regarding:
  - 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





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From: ABS - 3317.0.55.001 - Information Paper: External Causes of Death, Data Quality, 2005.

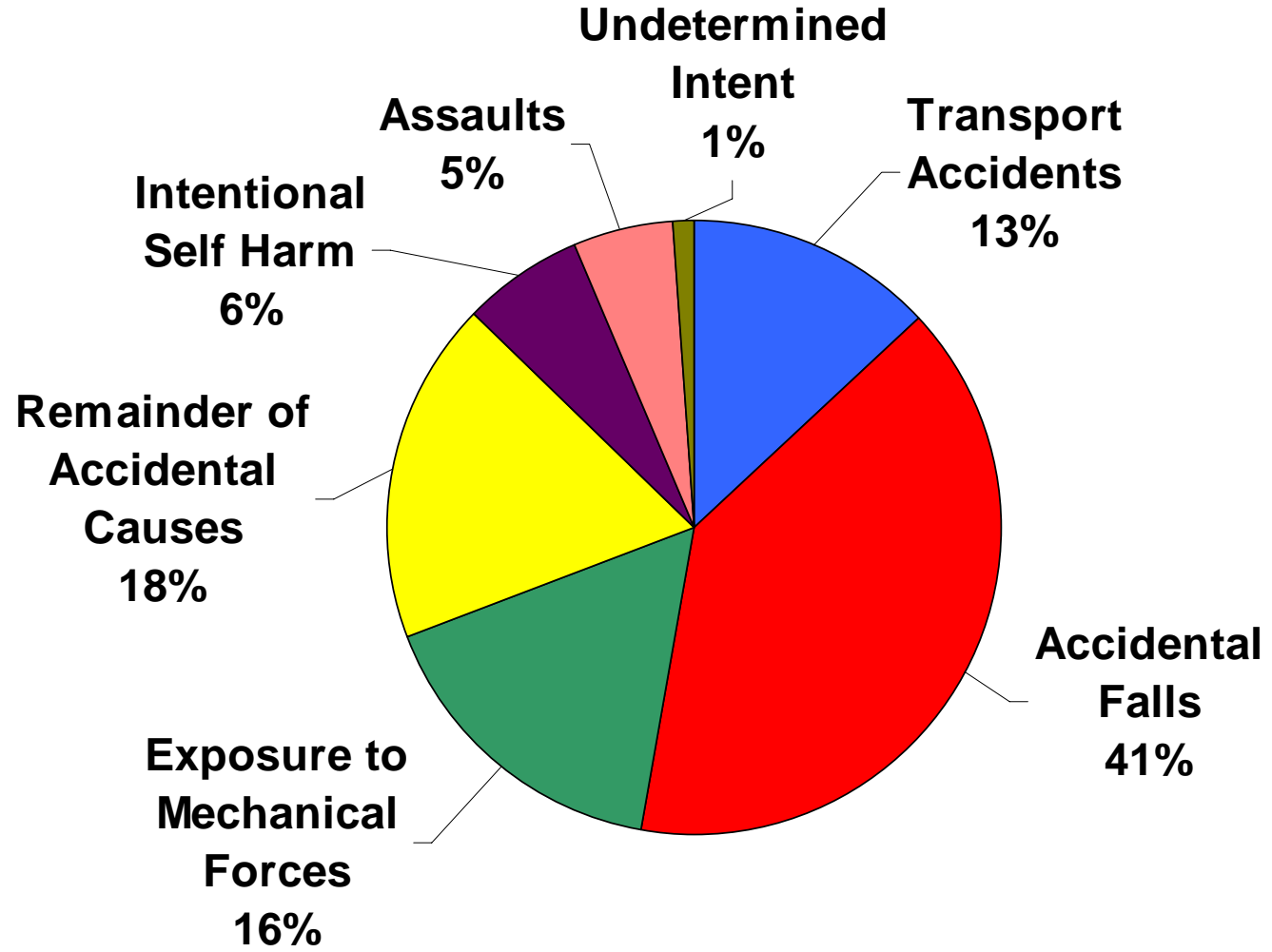
# Phases of Research

- ➔ Phase 1: Analysis of national morbidity data
- ➔ Phase 2: Survey of clinical coders
- ➔ Phase 3: Survey of injury researchers
  - Phase 4: Medical record review (July-Oct 2007)
  - Phase 5: Educational workshops (2008)





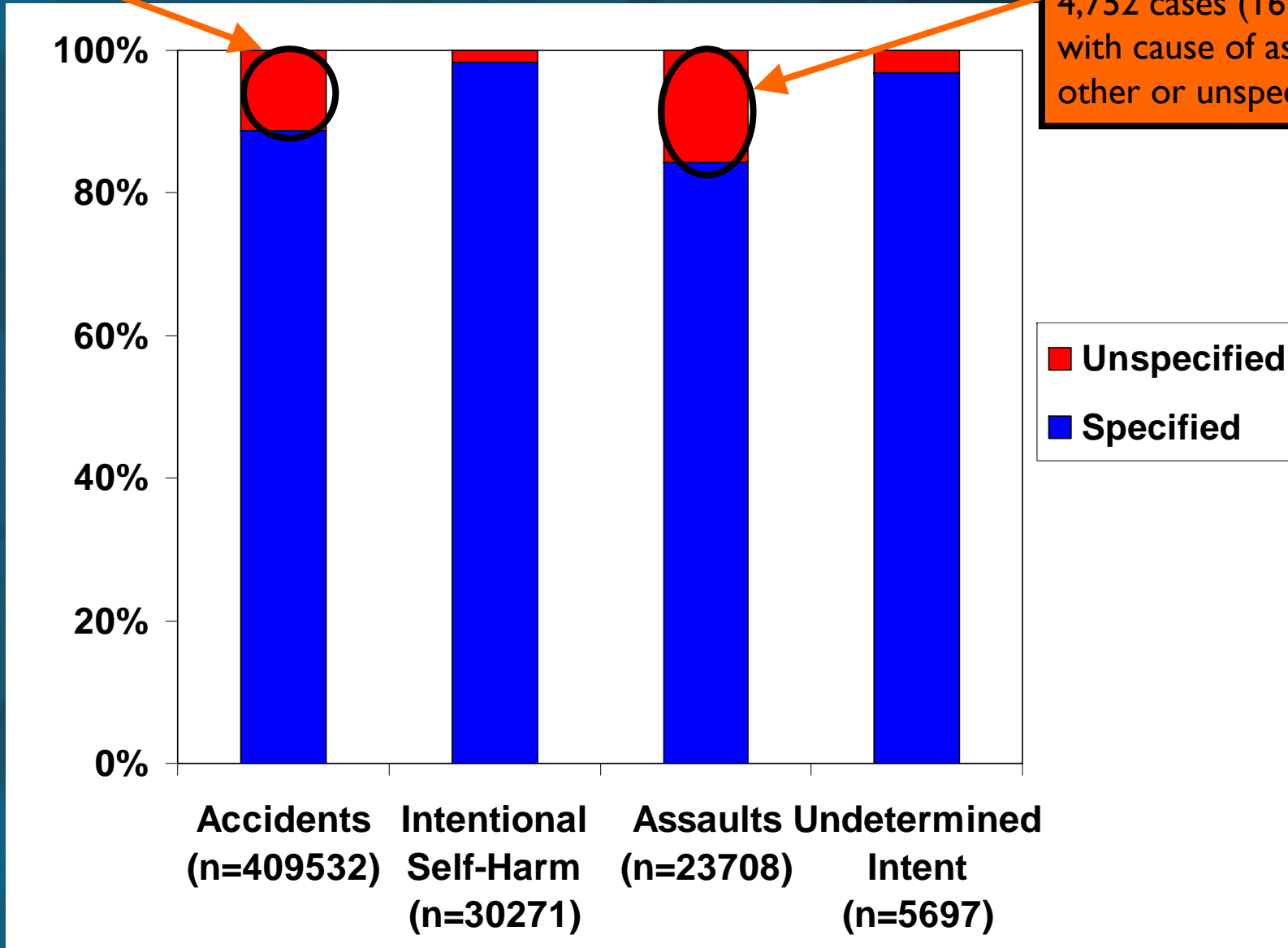
# Broad Causes of Hospitalised Injury 2004/05



# Specificity of Data by Intent

45,896 cases (11%) with cause of accident other or unspecified

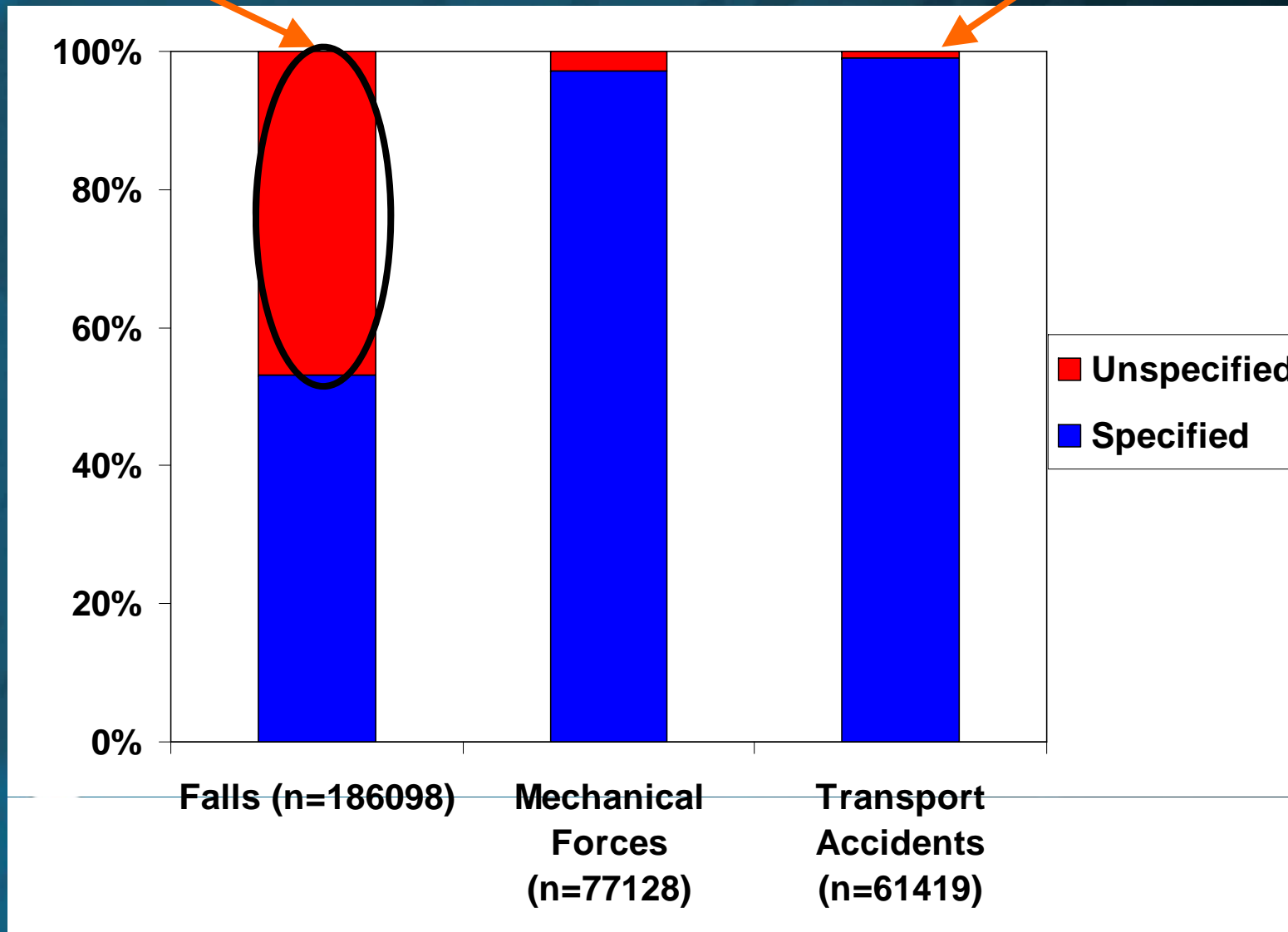
4,752 cases (16%) with cause of assault other or unspecified



# Specificity of Most Common Causes of Accidents

87,211 cases with cause of fall unspecified

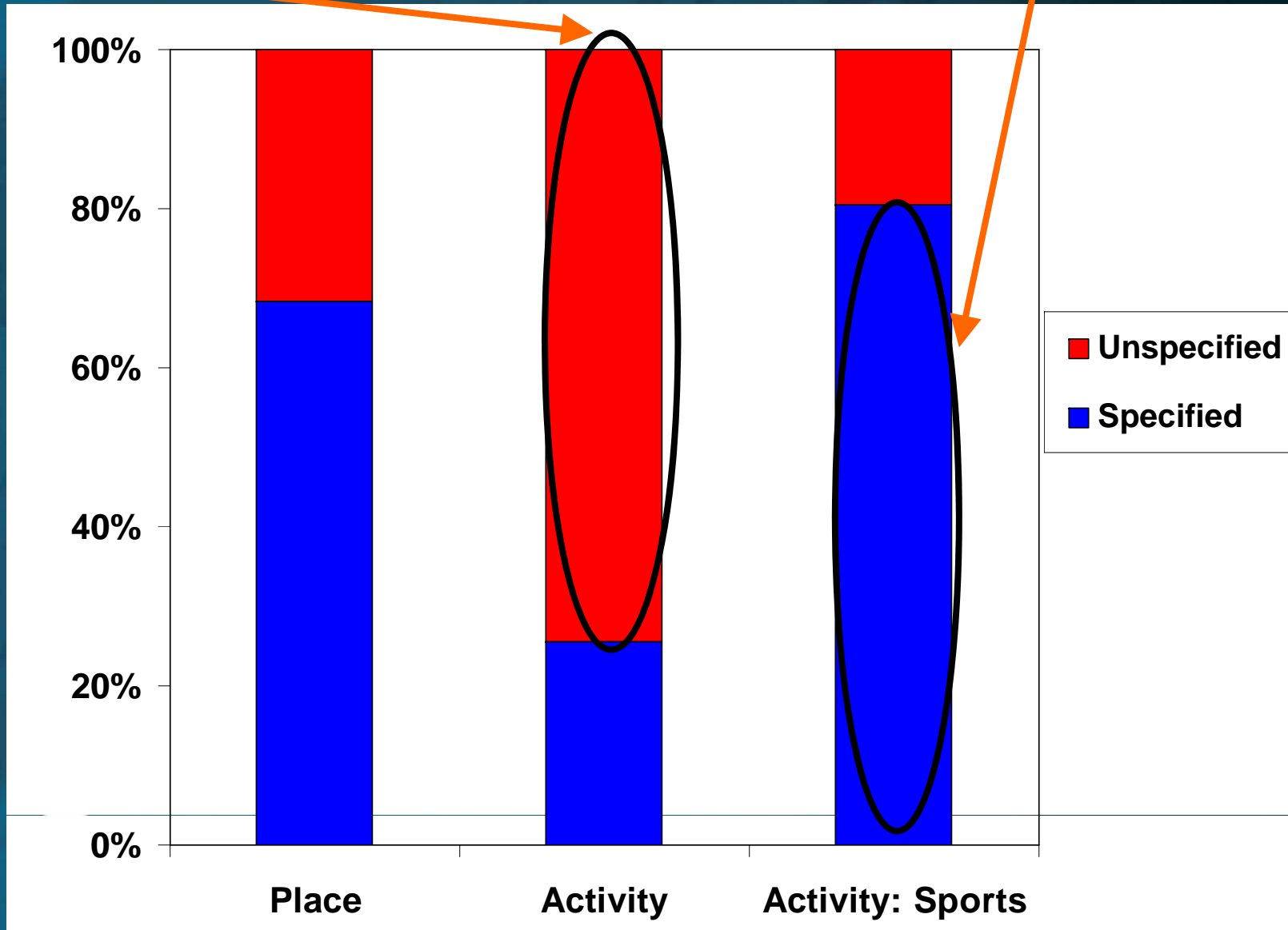
Only 1% of transport accidents have unspecified cause



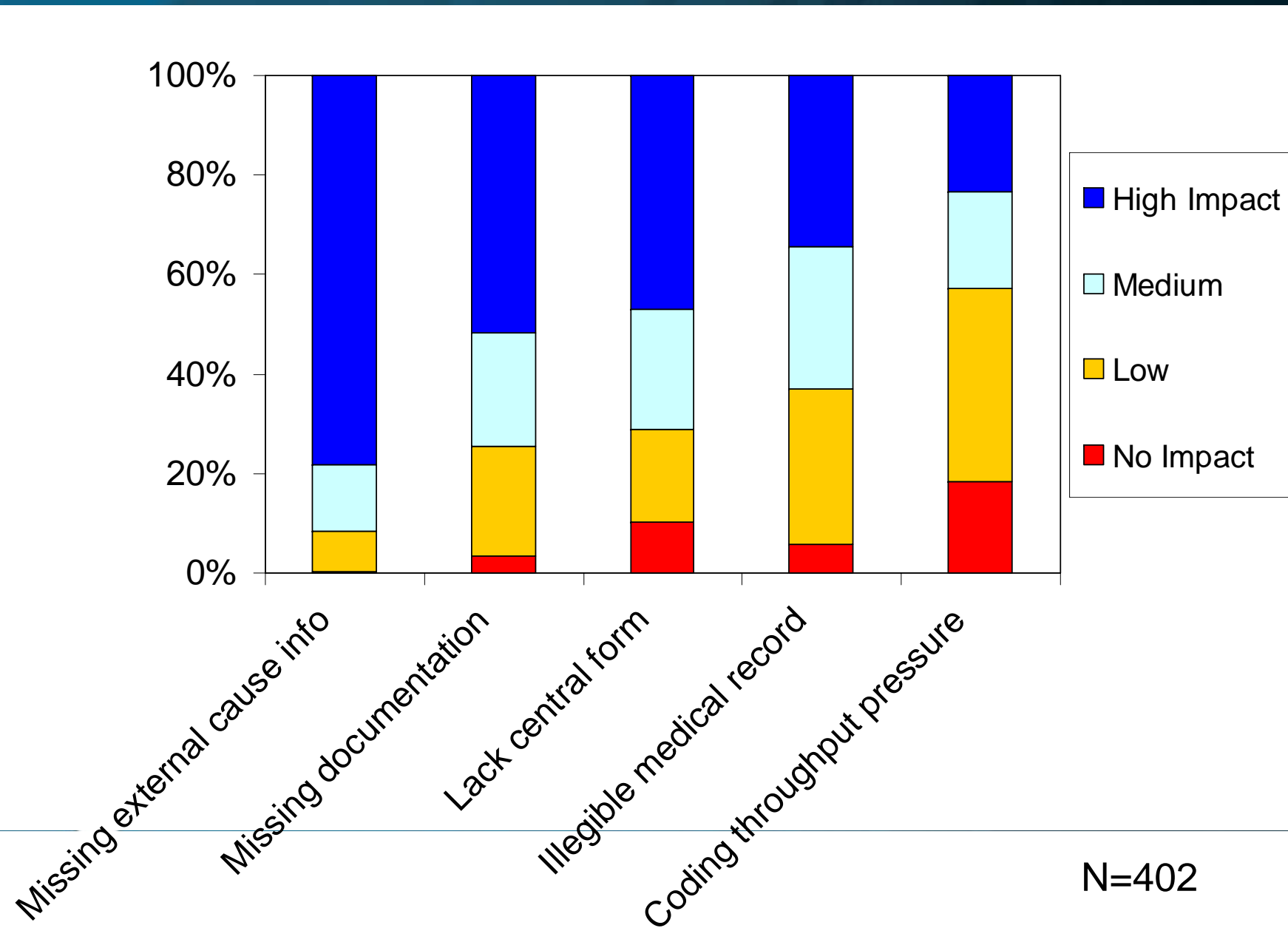
# Specificity of Place and Activity Codes

348,816 cases with activity unspecified

If activity=sports, 80% had type of sport defined



# Coders' Views: Factors Affecting Coding Quality



# Coders' Views: Improving External Cause Coding

Coders asked what measures could significantly improve external cause coding:

1. Improving ED documentation (86% high impact)
2. Using a structured form for collecting external cause information (78% high impact)
3. Standardise coding system in ED (58% high impact)



# Coders' Views: Quality of Source Documentation

Sources of documentation on injury causes:

- Best source of information: Ambulance reports 57% indicating good source
- Poorest source of information: Discharge summaries 56% indicating poor source or no information



# Injury Researchers: Type of Injury Data Used

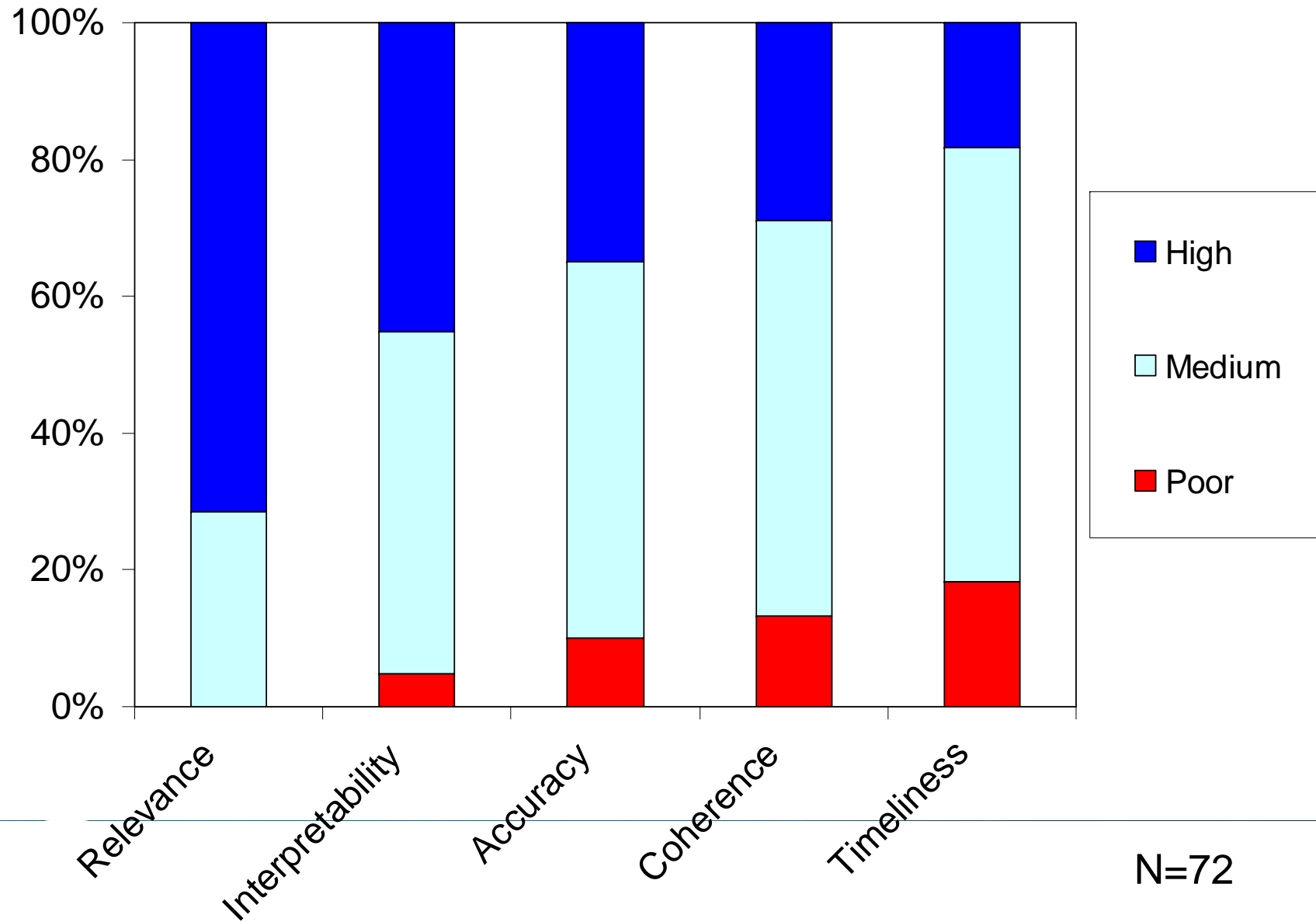
Type of injury data used:

1. Hospital morbidity data 58%
2. Mortality data 56%
3. Emergency department data 38%
4. Police data 28%
5. Health survey data 26%

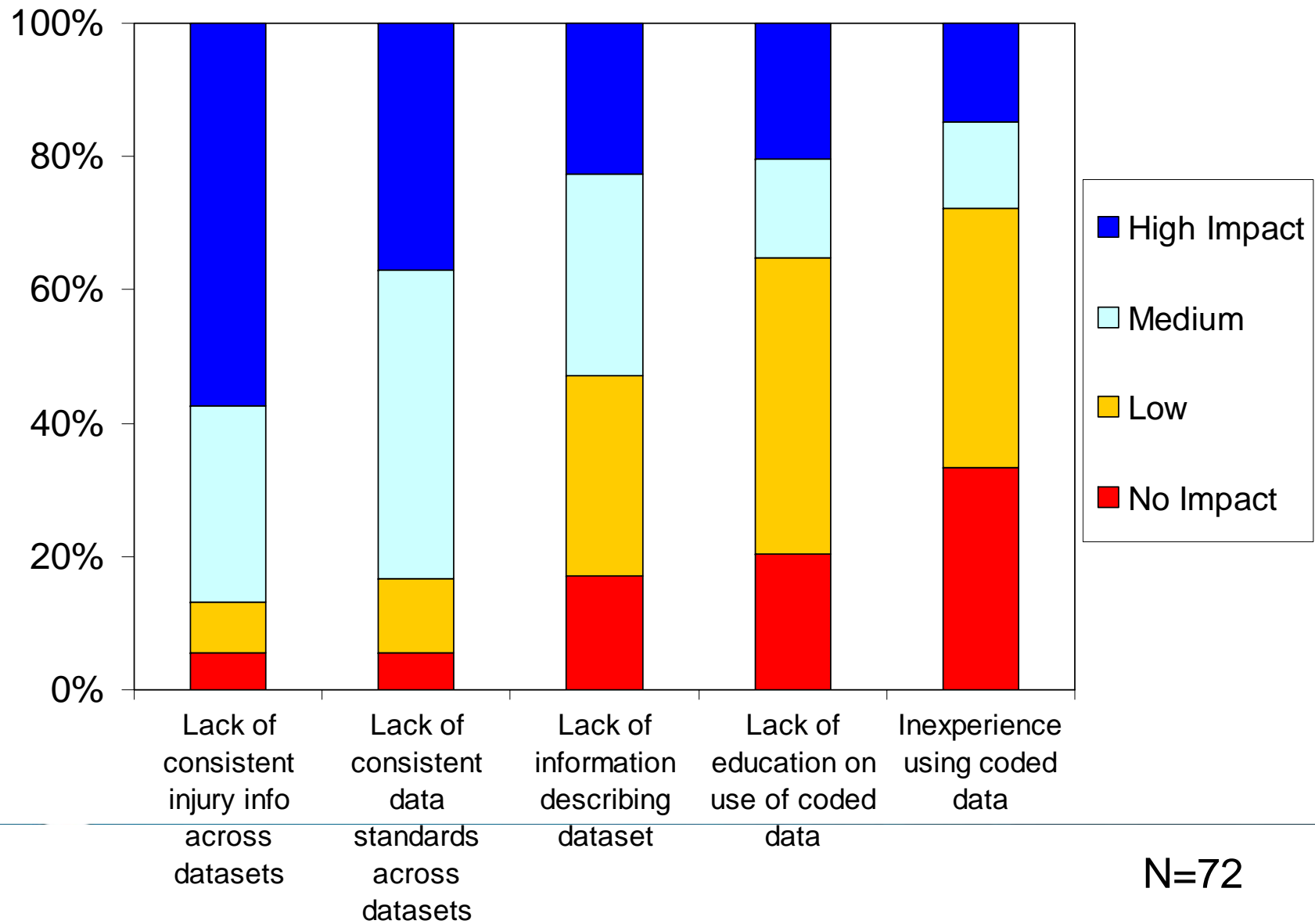




# Injury Researchers: Quality of Hospital Data



# Injury Researchers: Factors Affecting Ability to Use Data



# Summary

- Increased appreciation of value of morbidity data for injury surveillance and prevention research
- Lack of comprehensive research to validate the quality of coded injury data
- Large number of 'other or unspecified' codes particularly for place of occurrence and activity
- Coders indicated issues with lack of causation information, recommending the use of a central form for external cause and better ED records



## Summary (continued)

- Hospital data most commonly used injury data source for injury researchers
- Injury data users considered hospital data to be highly relevant for their purposes, but had some reservations regarding accuracy, coherence, and timeliness
- Most significant issue affecting injury data users ability to use data was lack of consistency of data across different sources



# Next Phases of Research

- Medical record audit to assess accuracy of coded data and comprehensiveness of information in medical records
- Educational workshops for coders, clinicians, injury researchers integrating findings from each phase of study



# Further Information

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