

# MAJOR TRAUMA AUDIT NATIONAL REPORT 2016

**PRESENTED BY:  
DR CONOR DEASY,  
NATIONAL CLINICAL LEAD**

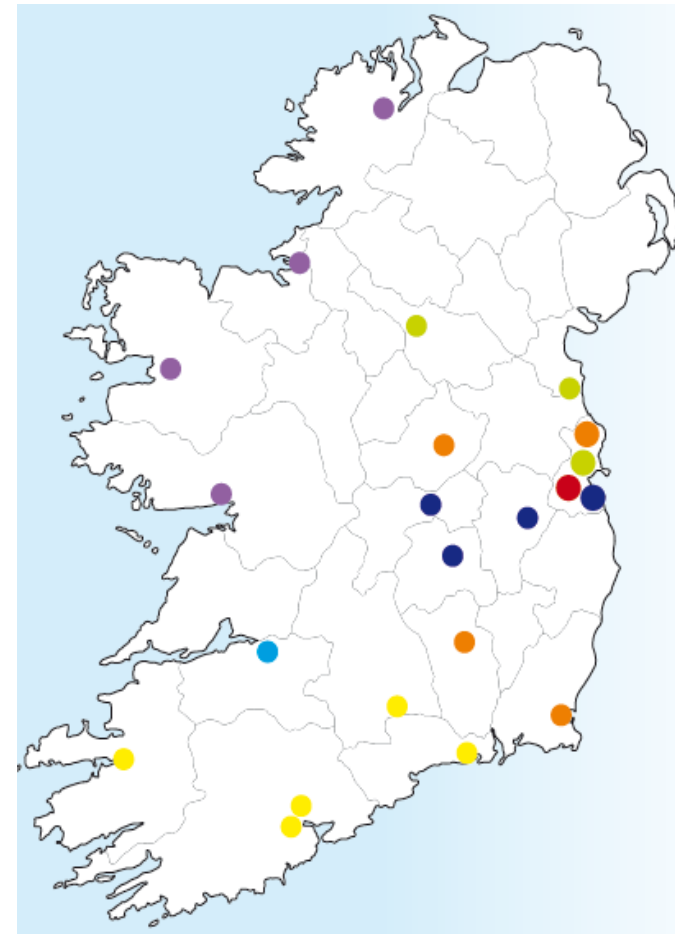
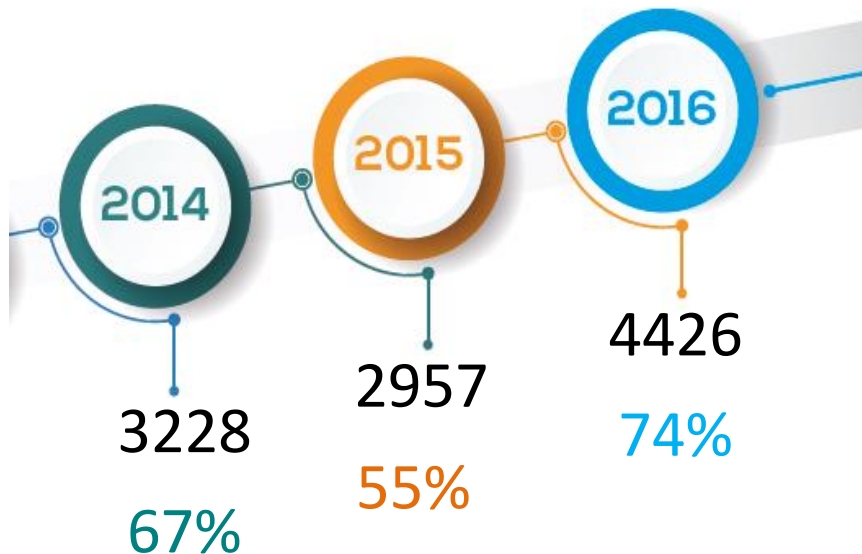
## MAJOR TRAUMA AUDIT National Report 2016



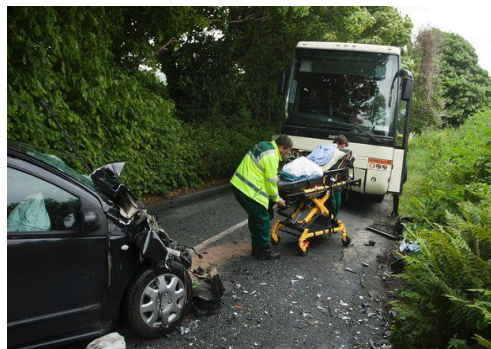
Established in Ireland in  
2013

2014- 22 hospitals

2015- 24 hospitals



**Data accreditation 96%**



**Who are major trauma patients?**

**Those suffering life threatening or life changing injury.**

# The changing face of major trauma





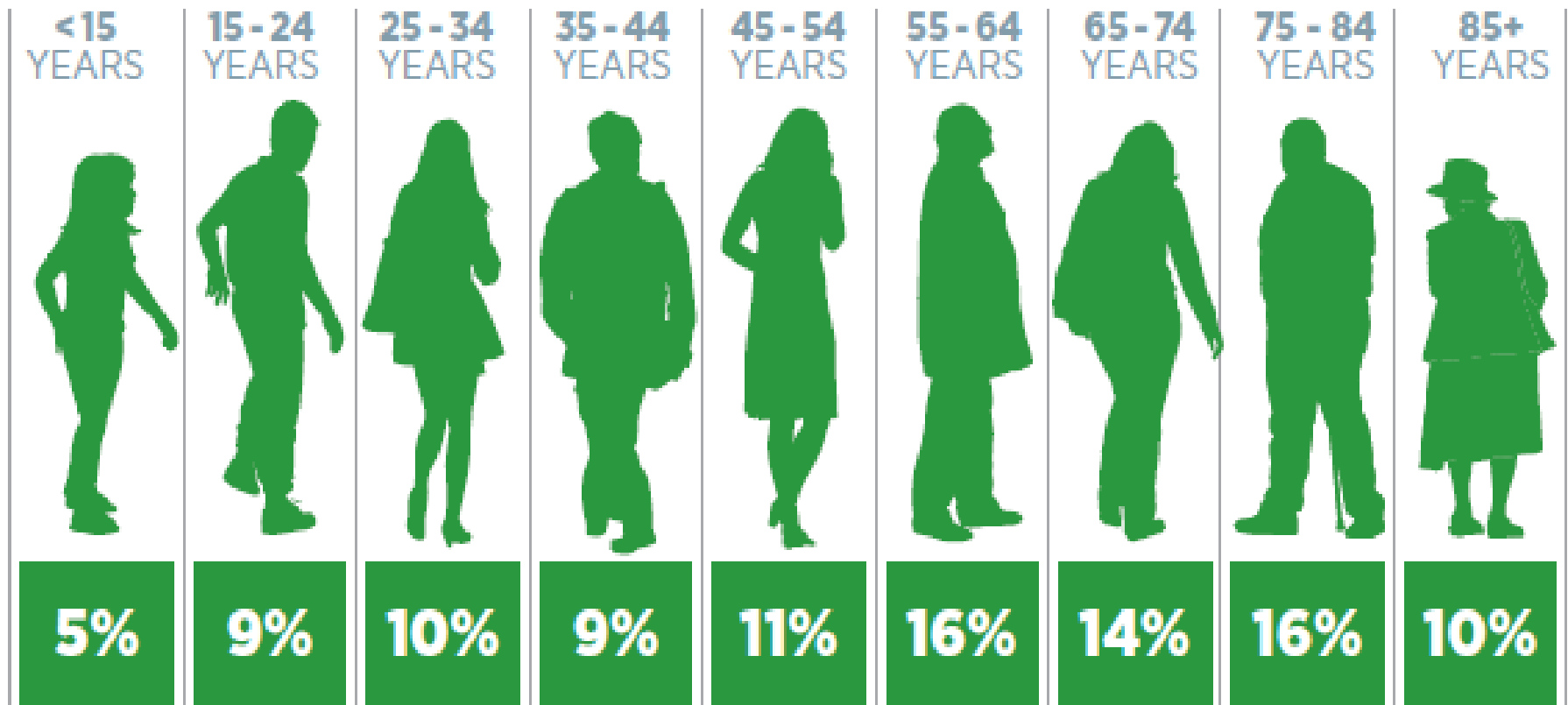
### **Major Trauma in the 90s**

- Median age 36.1 yrs
- 0-24yrs = 40%
- 60% RTA
- 5% 'low falls'

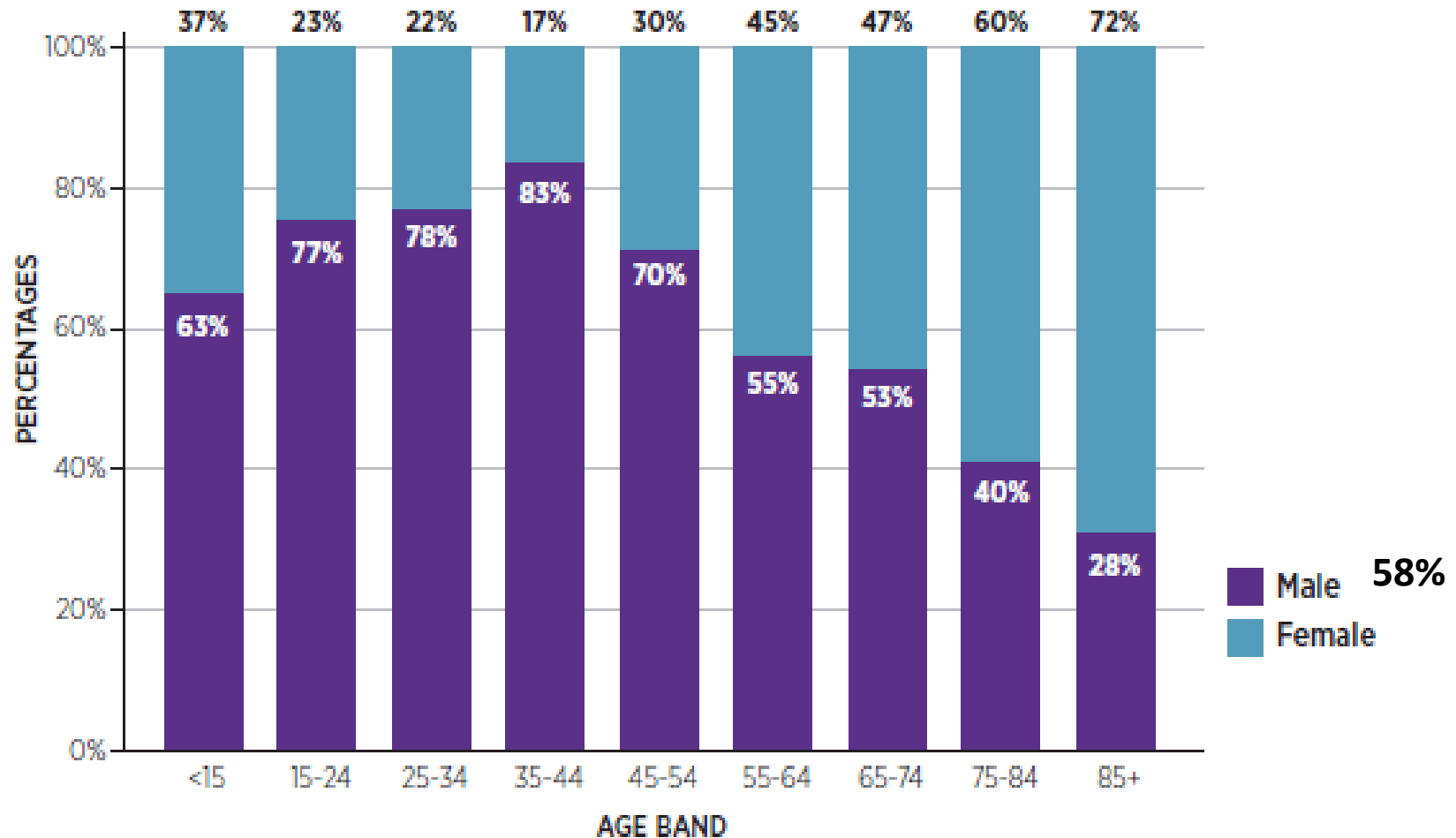


### **Major Trauma now**

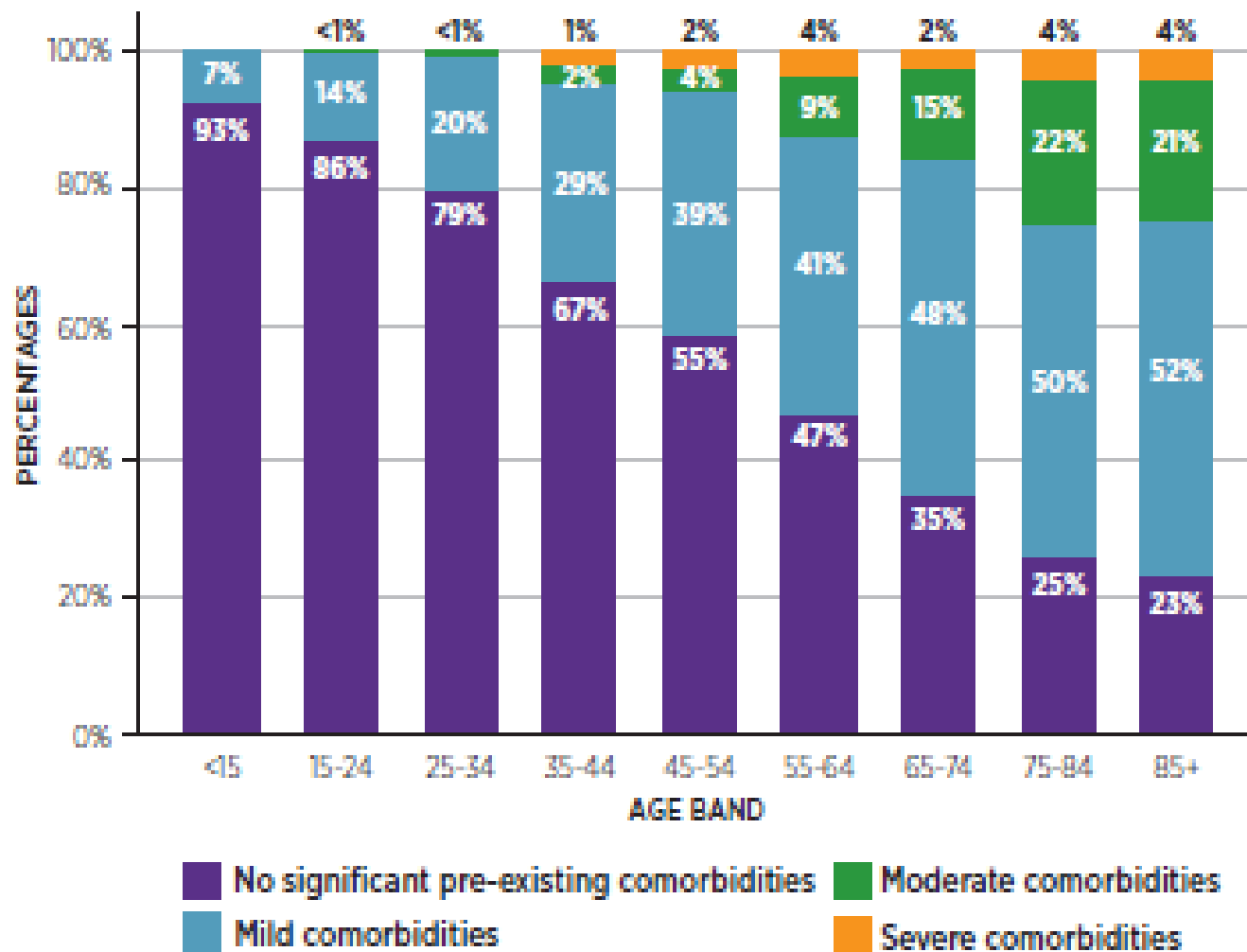
- Median age 59 yrs
- >65 yrs = 40%
- 18% RTA
- 51% 'low falls'



**FIGURE 5: GENDER BREAKDOWN OF MAJOR TRAUMA PATIENTS BY AGE BAND (N=4,426)**



**FIGURE 6A: CO-MORBIDITIES OF MAJOR TRAUMA PATIENTS BY AGE BAND (n=4,400) <sup>1\*</sup>**

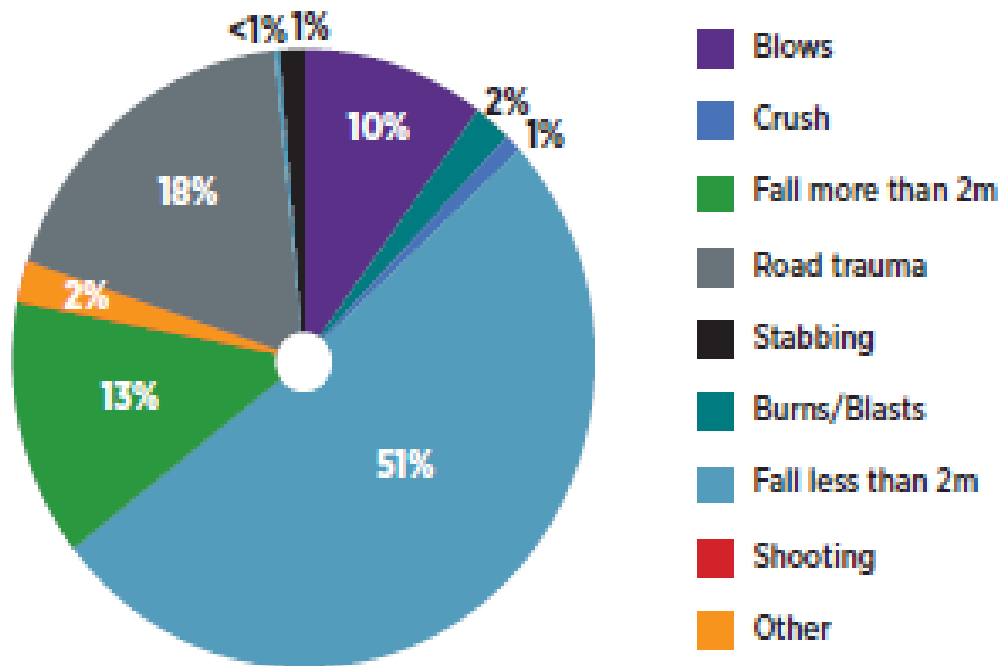




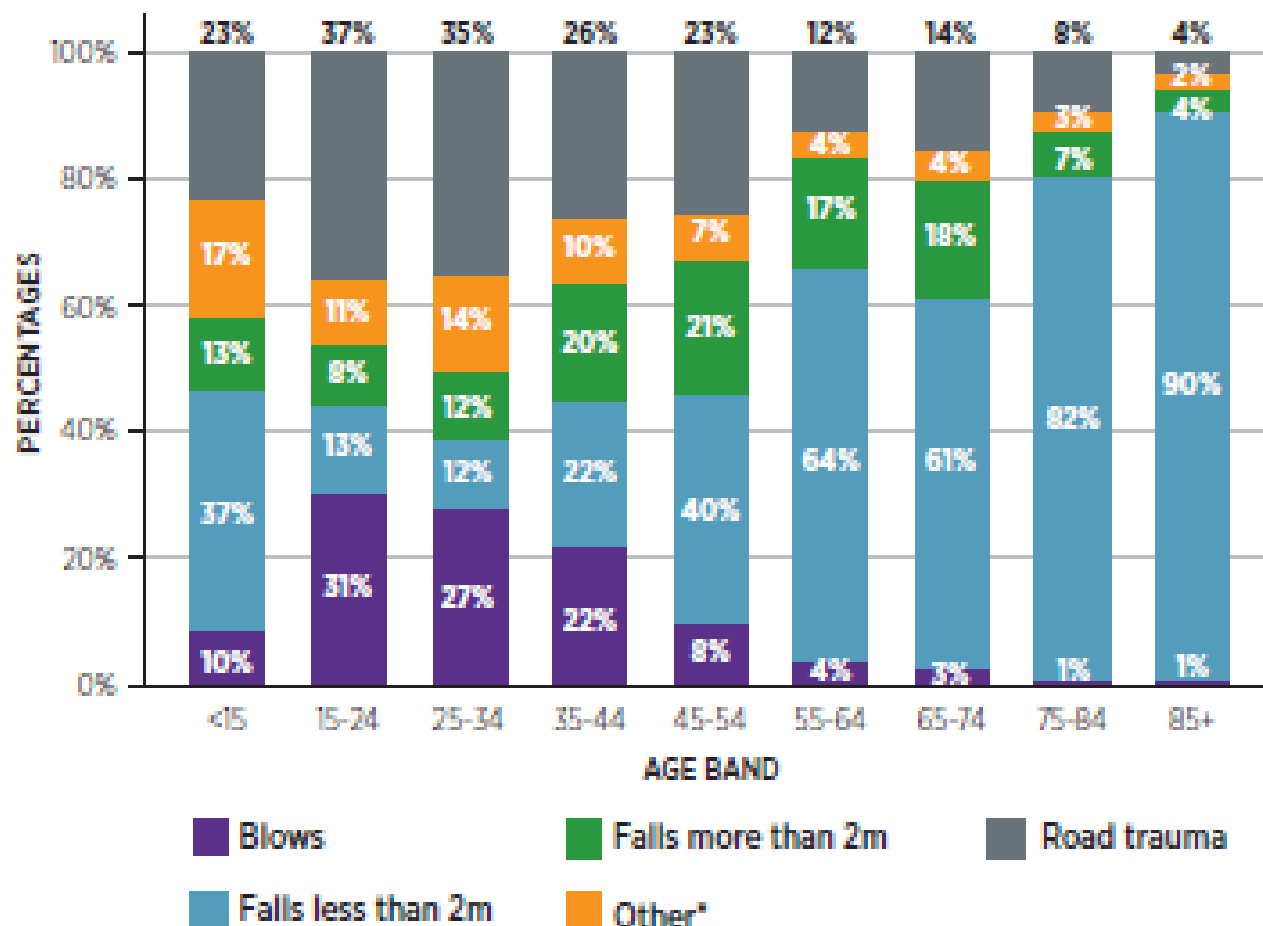
**How were they injured?**



**FIGURE 7: MECHANISM OF INJURY (N=4,426) <sup>ii</sup>**



**FIGURE 7A: MECHANISM OF INJURY BY AGE BAND (N=4,426) <sup>II</sup>**



**FIGURE 10: PLACE OF INJURY (N=4,426) <sup>IV</sup>**

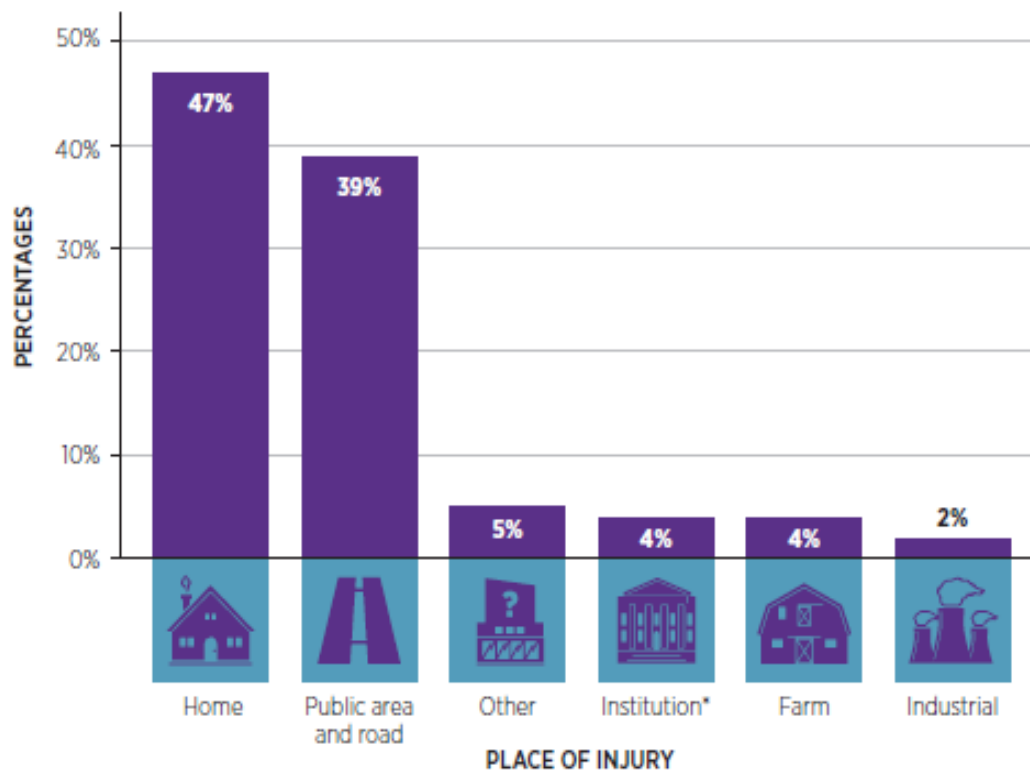


FIGURE 17: MODE OF ARRIVAL TO HOSPITAL (n=3,194)\*

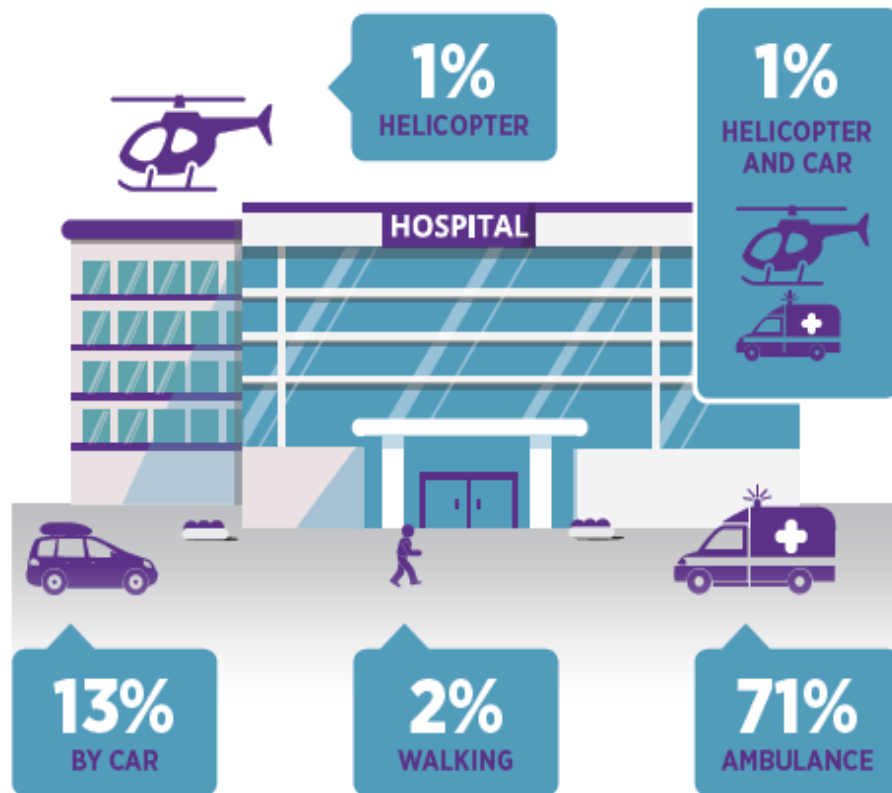
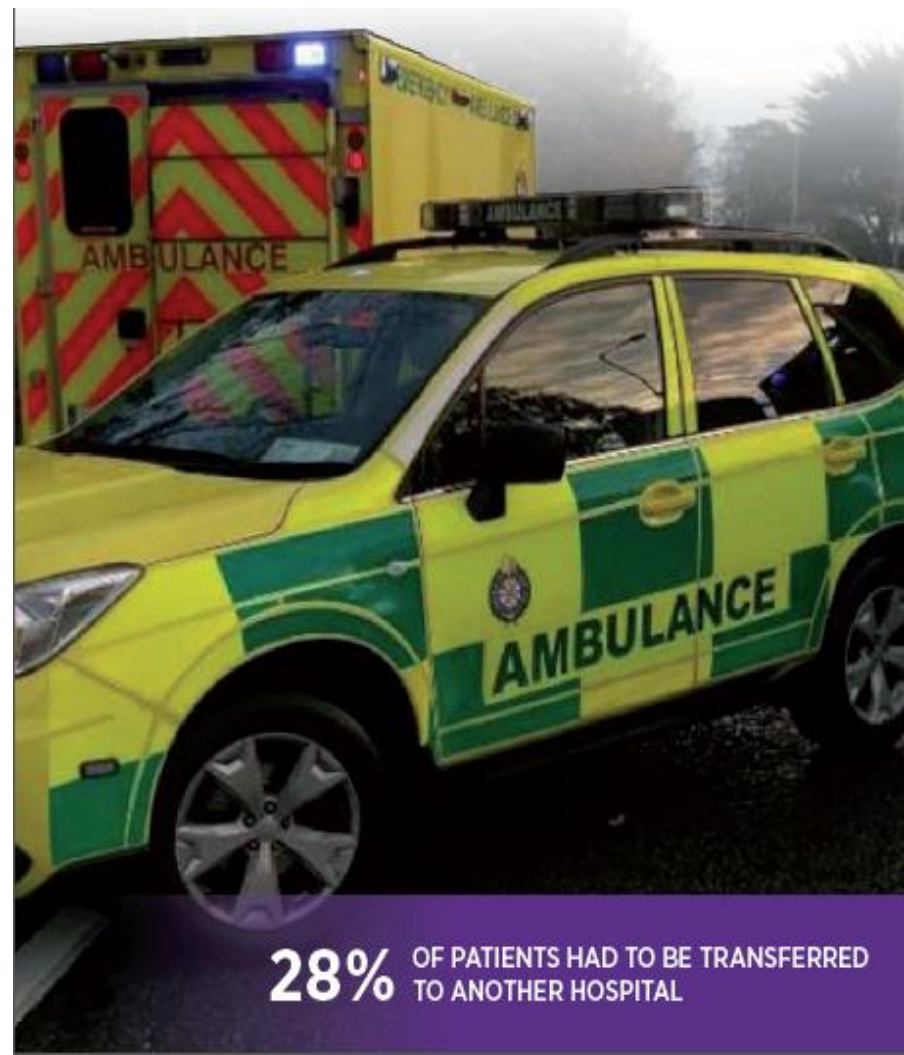
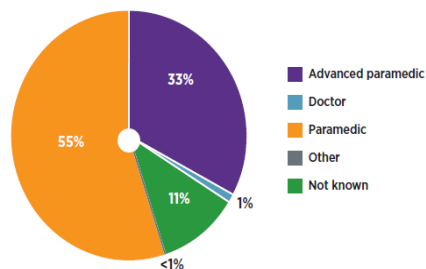


FIGURE 18: MOST SENIOR PRE-HOSPITAL HEALTHCARE PROFESSIONAL (n=2,317)\* \*\*

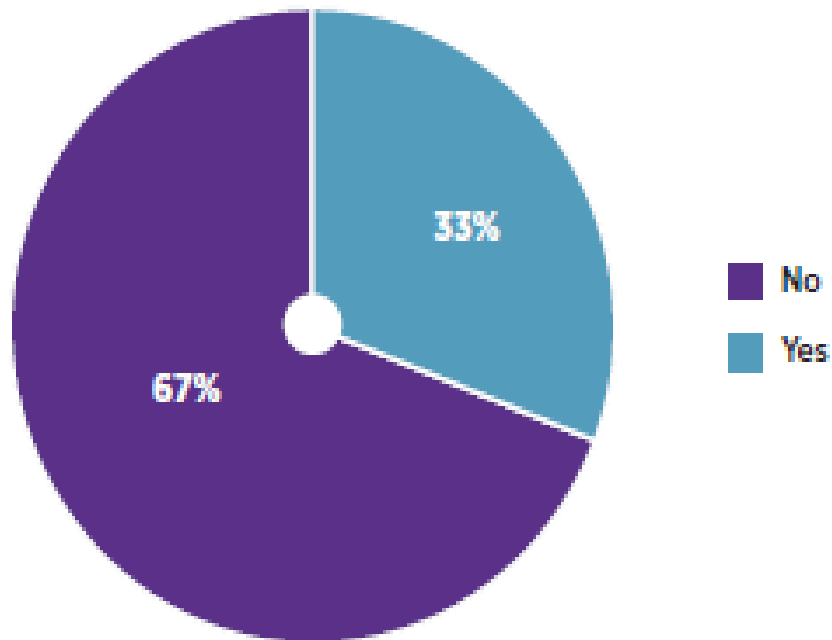


**28%** OF PATIENTS HAD TO BE TRANSFERRED TO ANOTHER HOSPITAL



**8%** OF MAJOR TRAUMA PATIENTS WERE  
RECEIVED BY A TRAUMA TEAM

**FIGURE 30: TIME TO CT SCAN WITHIN ONE HOUR (n=251)\***



## INJURIES SUSTAINED

FIGURE 8: INJURIES SUSTAINED BY BODY REGION (N=6,524)

All injuries<sup>1</sup> recorded: 6,524

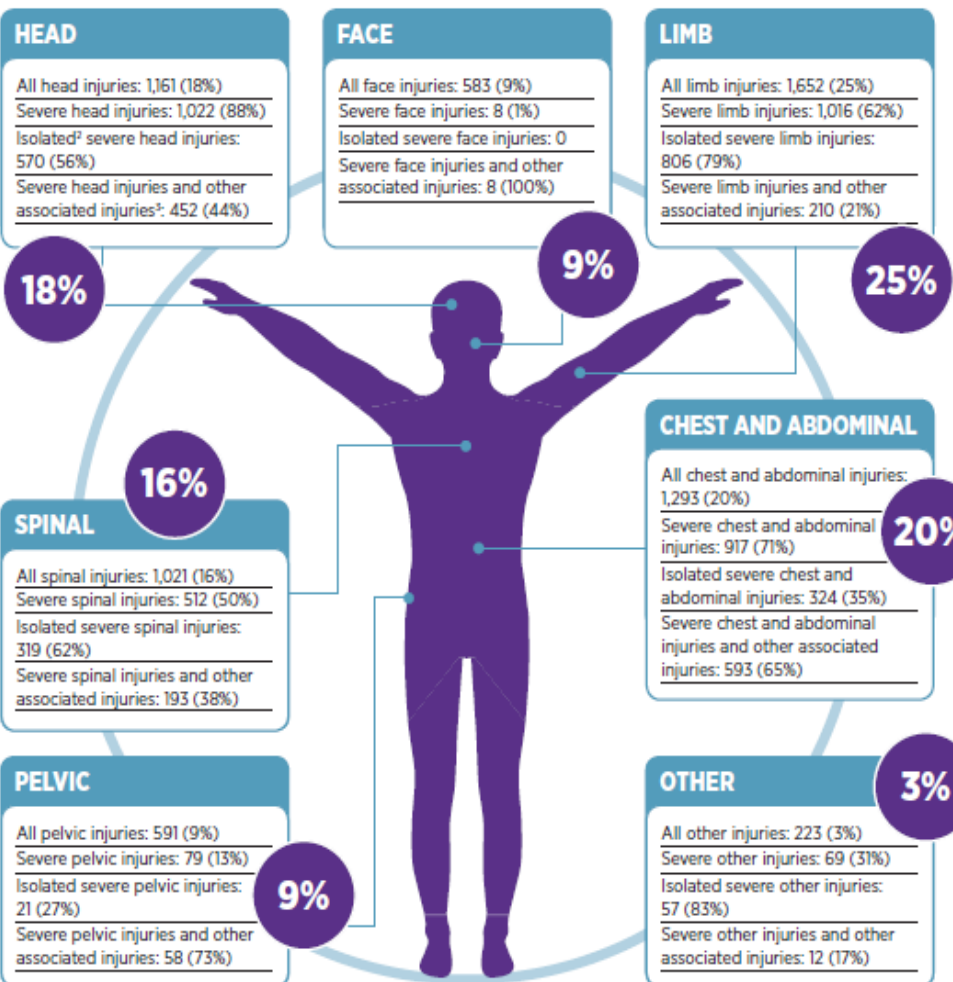


FIGURE 25: SURGICAL INTERVENTION BY BODY REGION (n=1,219)\*

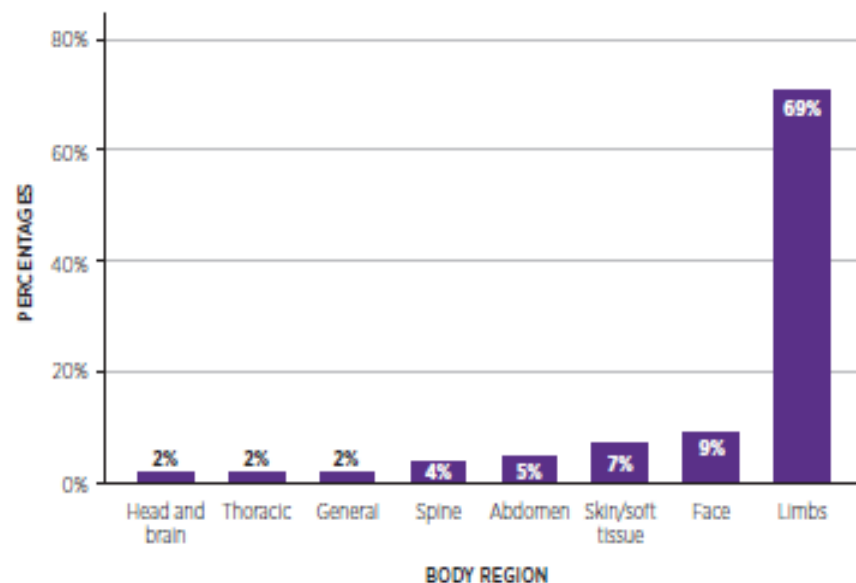


FIGURE 9: INJURY SEVERITY SCORE (ISS) (N=4,426)

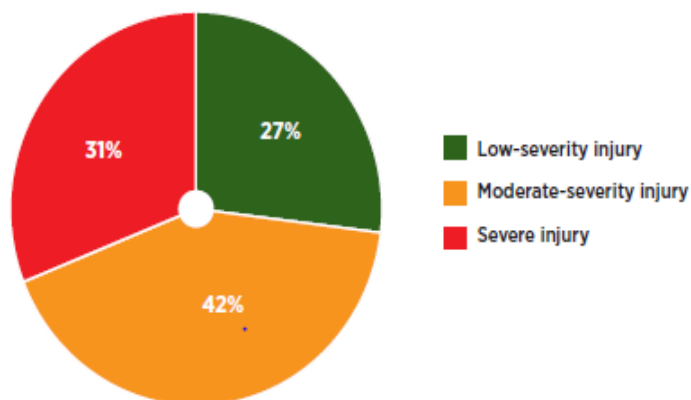


FIGURE 9A: INJURY SEVERITY SCORE (ISS) BY AGE BAND (N=4,426) <sup>III</sup>

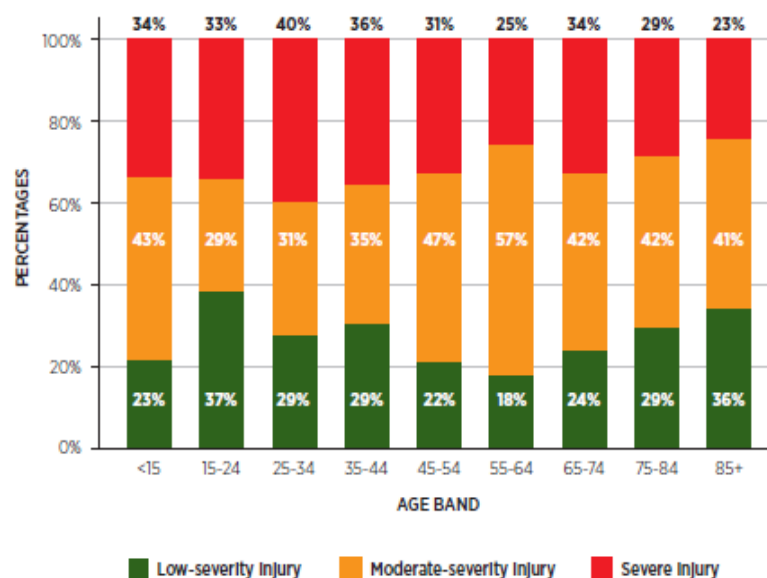
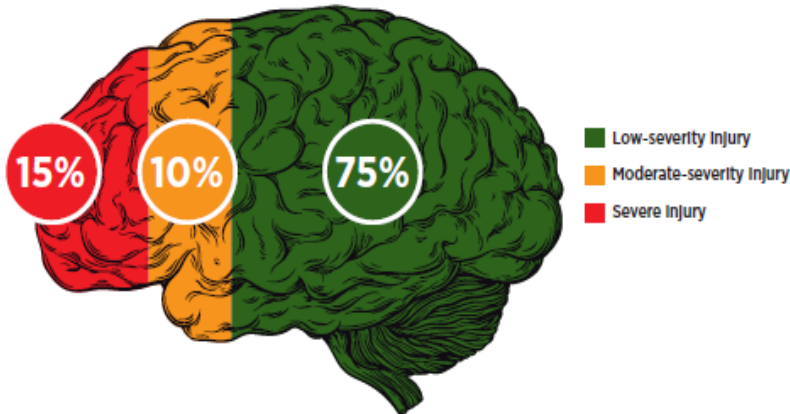


FIGURE 16: HEAD INJURY SEVERITY (AIS 3+) (n=1,000)\*



\* Patients with missing information on GCS (n=22) are excluded

FIGURE 16A: HEAD INJURY SEVERITY BY AGE BAND AND GCS (n=1,000)\*

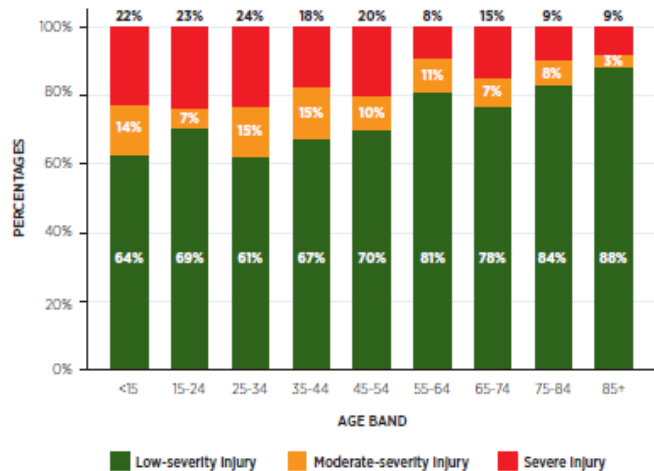


FIGURE 16B: CAUSE OF INJURY IN PATIENTS WITH SEVERE TBI TOTALS (n=155)

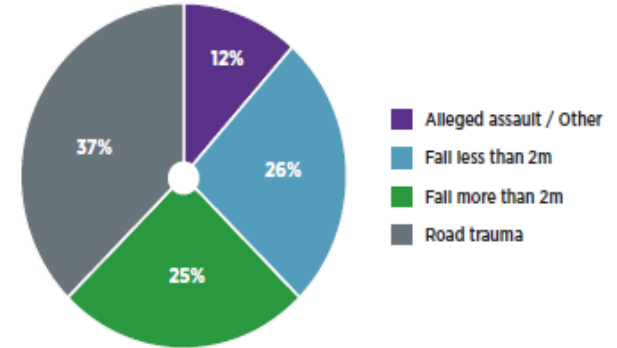
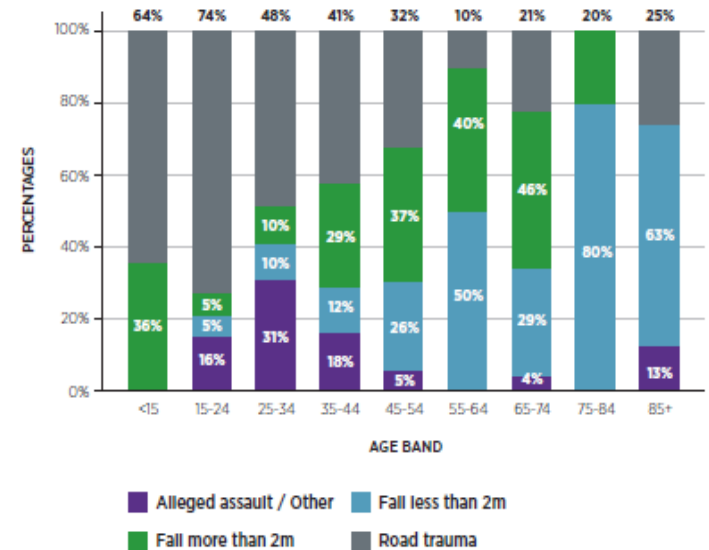


FIGURE 16C: CAUSE OF INJURY IN PATIENTS WITH SEVERE TBI BY AGE BAND (n=155) <sup>1</sup>



**45% of patients with severe TBI not treated at Neurosurgical Centre**  
**11% of patients with severe TBI brought directly to a Neurosurgical Centre**

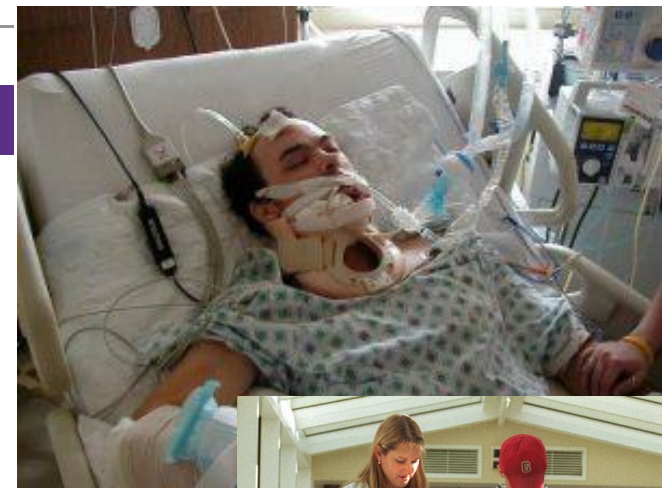
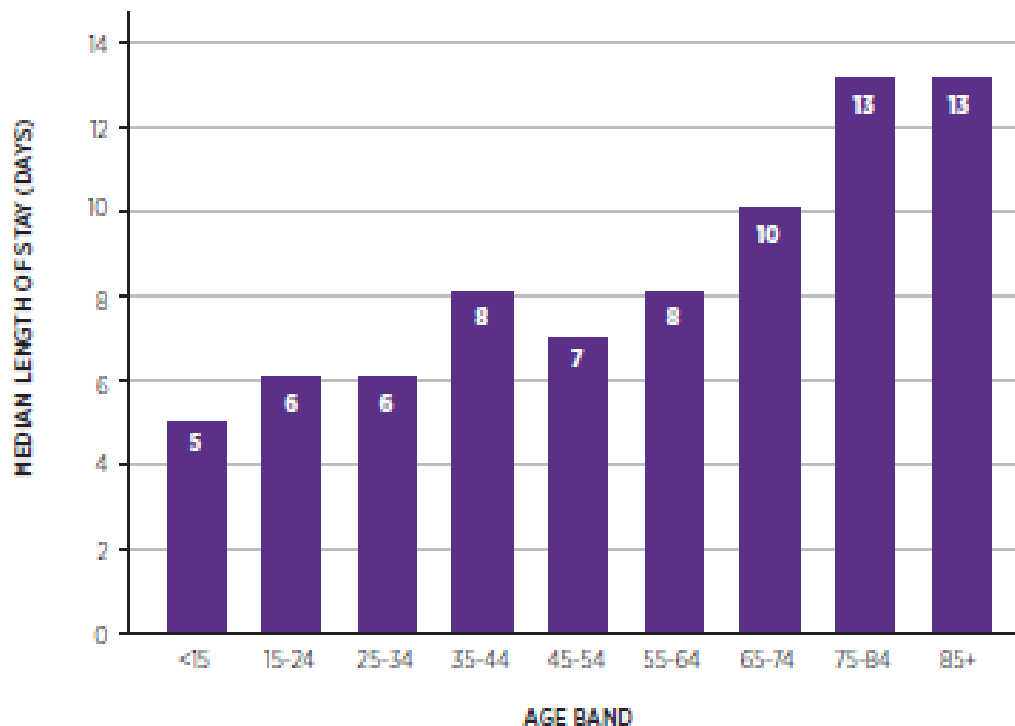
**TABLE 8: HOSPITAL LOS FOR MAJOR TRAUMA PATIENTS**

LOS for all major trauma patients	Median (IQR) 9 (5-17)
LOS for major trauma patients if ISS>15	Median (IQR) 10 (5-22)

**TABLE 7: ICU LOS**

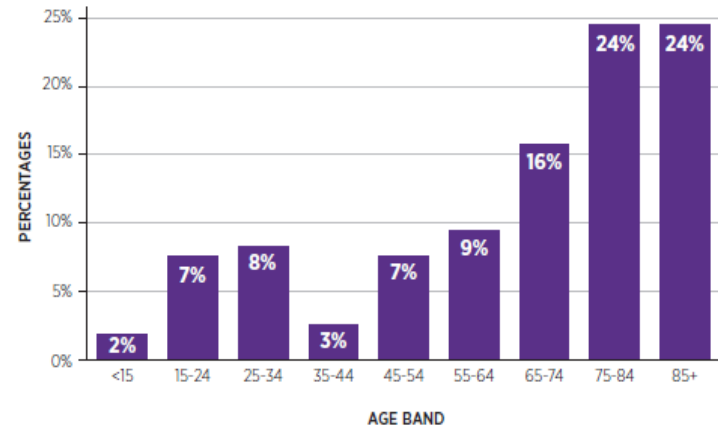
	ICU LOS FOR ALL MTA PATIENTS	ICU LOS FOR MTA PATIENTS ISS>15	ICU LOS FOR MTA PATIENTS WITH SEVERE TBI
N	758	478	120
Median (IQR)	3 (1-8)	4 (2-9)	5 (1-12)
ICU bed days	4,843	3,713	911

**FIGURE 31: HOSPITAL LENGTH OF STAY BY AGE BAND (N=4,426)**

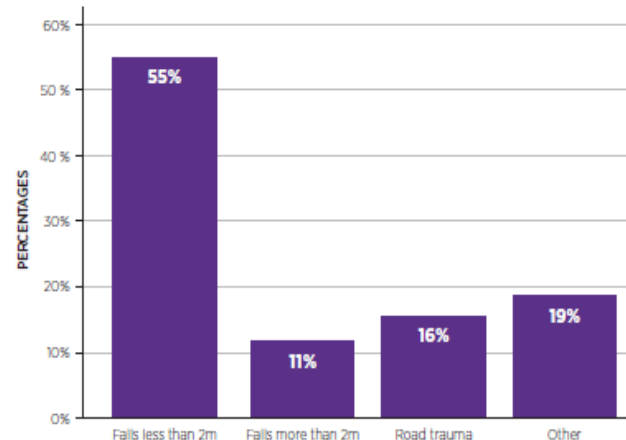




**FIGURE 32: MORTALITY BY AGE BAND (n=193)**



**FIGURE 34: MORTALITY BY MECHANISM OF INJURY (n=193) \*\***



Older patients are more likely to die and suffer higher levels of disability than younger major trauma patients with a similar injury severity score (ISS).

FIGURE 37: GLASGOW OUTCOME SCALE BY AGE BAND (N=4,426) <sup>100</sup>

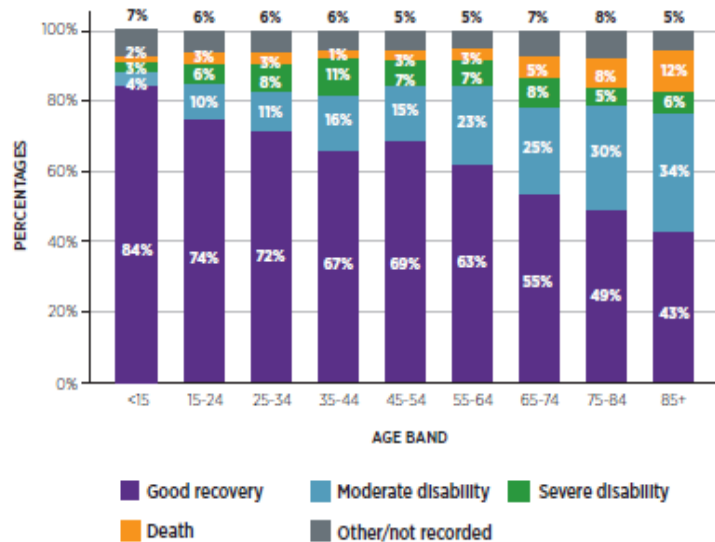
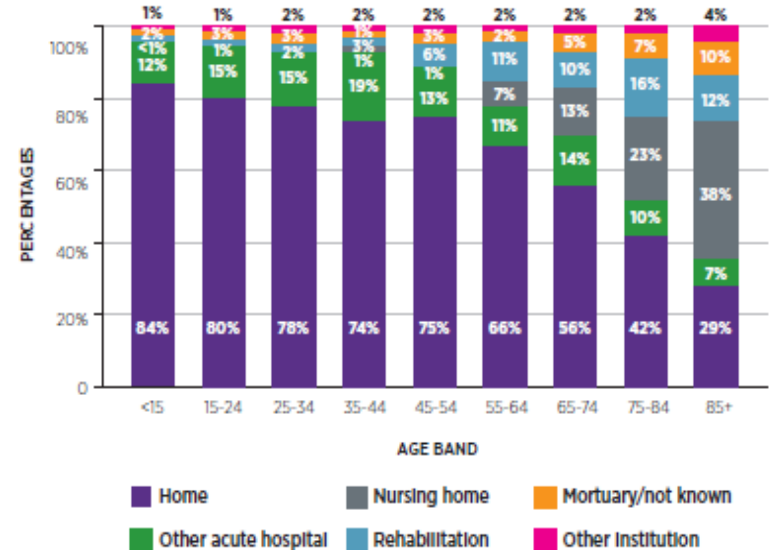


FIGURE 38A: DISCHARGE DESTINATION BY AGE BAND (N=4,413)



Only 62% of major trauma patients were discharged directly home. Older patients are less likely to be discharged home and more likely to be discharged to rehabilitation or long-term care compared to younger patients.

## REPORT HIGHLIGHTS 2016

### 26 PARTICIPATING HOSPITALS

### COMPLETENESS

74% of MTA cases captured in 2016

### PATIENT AGE PROFILE

55% of patients were aged between 15 and 64 years

### MOST COMMON INJURY LOCATION

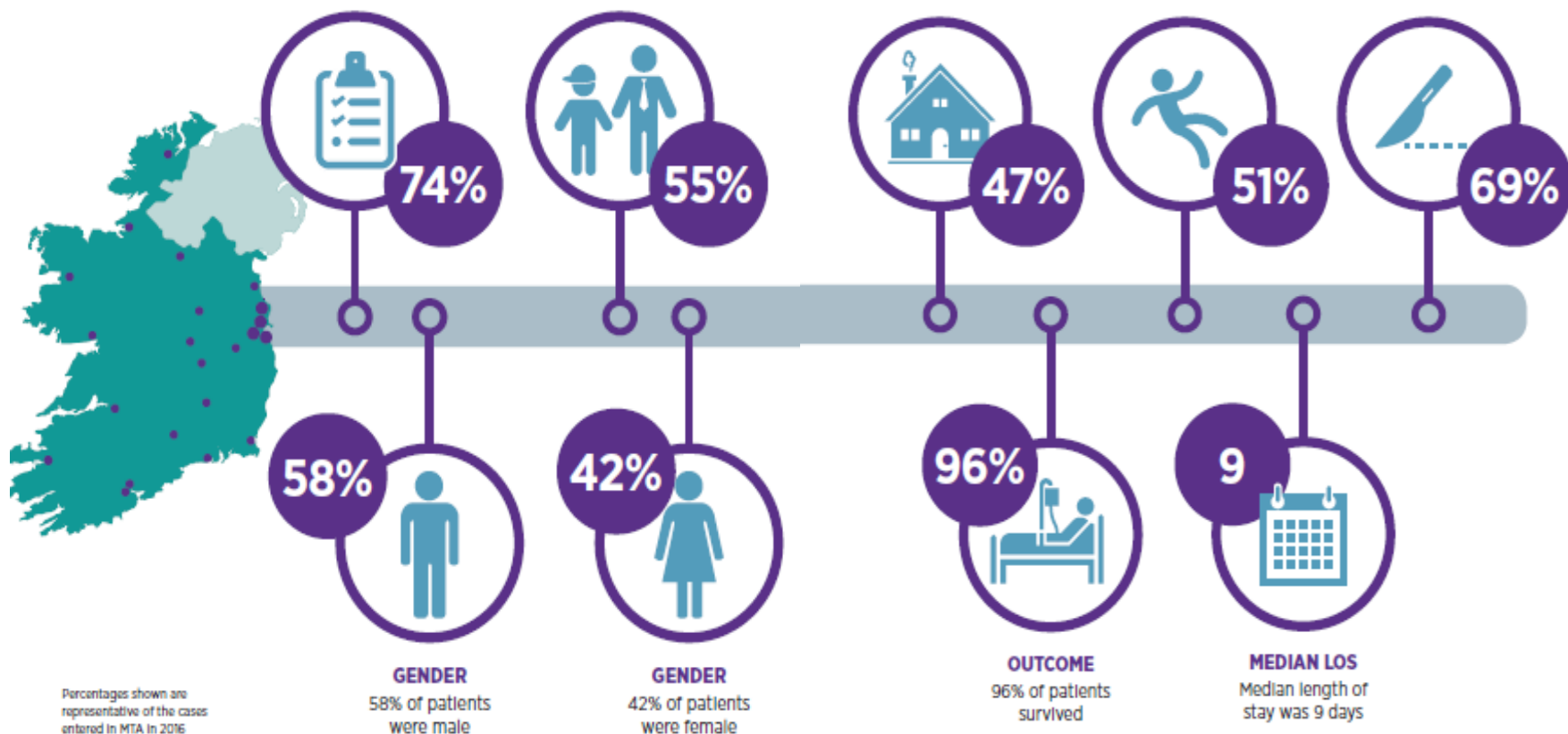
47% of patients sustained an injury in their own home

### MOST COMMON MECHANISM

51% of patients had a 'low fall' of less than 2 metres

### SURGERY

69% of patients who had surgery had surgery on a limb/s



## KEY RECOMMENDATIONS

### INFORMING TRAUMA POLICY:

- Reconfiguration of trauma services is required to provide timely, appropriate and optimal care to major trauma patients to ensure the right patient is brought to the right hospital for the right treatment at the right time.
- A national definition and a standard on what should constitute a trauma team and activation criteria for such a team are required.
- Pre-hospital carers and emergency medicine professionals should exercise a high level of suspicion of major trauma in older patients with low-energy mechanism injuries.
  - To support this approach to care:
    - Clinical assessment and triage tools should be adapted to suitably assess older patients.
    - Education programmes for pre-hospital carers and emergency medicine professionals should include care for the older patient with low-energy mechanism injuries.

### DATA QUALITY:

- MTA is an NCEC-accredited audit and the participating hospitals must support the resourcing of data collection for this audit. Data completeness of at least 80% and data accreditation of 95% are required to ensure good data quality and reporting.
- NOCA will work with the Healthcare Pricing Office, TARN and hospitals to adjust the annual hospital denominators to reflect accurately the level of completeness of individual hospitals' data.
- Functional and quality-of-life measures should be included in the future development of the audit.

# National MTA Contacts

Dr. Conor Deasy- National MTA Clinical Lead

[Conor.deasy@hse.ie](mailto:Conor.deasy@hse.ie)

Louise Brent National MTA & IHFD Audit Coordinator

[Louisebrent@noca.ie](mailto:Louisebrent@noca.ie) 0871159892



+353 1 4028577



[mta@noca.ie](mailto:mta@noca.ie)



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