

# **RESEARCH & INNOVATION IN EMERGENCY MEDICINE**

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IAEM Academic Committee

## **WORKING THROUGH AND BEYOND EMERGENCY DEPARTMENT OVERCROWDING SEMINAR**

Royal College of Surgeons in Ireland

14<sup>th</sup> November 2011

# Overview: Research Questions

1. What should be key performance indicators (KPIs) for Emergency Departments in Ireland?
2. Do we currently collect the minimum data set (MDS) elements required for the implementation of Emergency Department KPIs?
3. What are the effective interventions for reducing Emergency Department waiting times?

# DELPHI CONSENSUS PROCESS TO DEVELOP KEY PERFORMANCE INDICATORS FOR EMERGENCY DEPARTMENTS IN IRELAND

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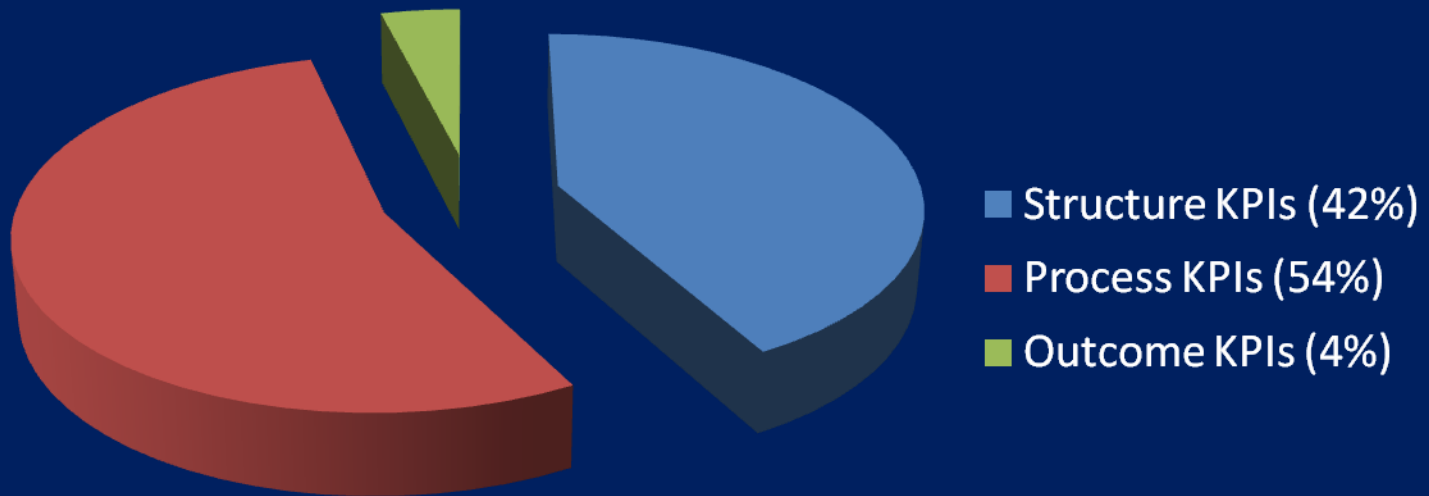
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# Delphi consensus study results

- First-round: 86% response rate
- Second-round: 88% response rate
- Third-round: 88% response rate

# Delphi consensus study results

## Donabedian framework



# Delphi consensus study results

KPI	Mean Likert rating (95% confidence interval)
Presence of dedicated Emergency Department clinical information system	4.7 (4.5 – 4.9)
Emergency Department compliance with minimum design standards recommended by the Irish Association for Emergency Medicine (IAEM)	4.7 (4.5 – 4.8)
Time from Emergency Department arrival to first electrocardiogram (ECG) in patients with suspected cardiac chest pain	4.7 (4.5 – 4.9)

# Delphi consensus study results

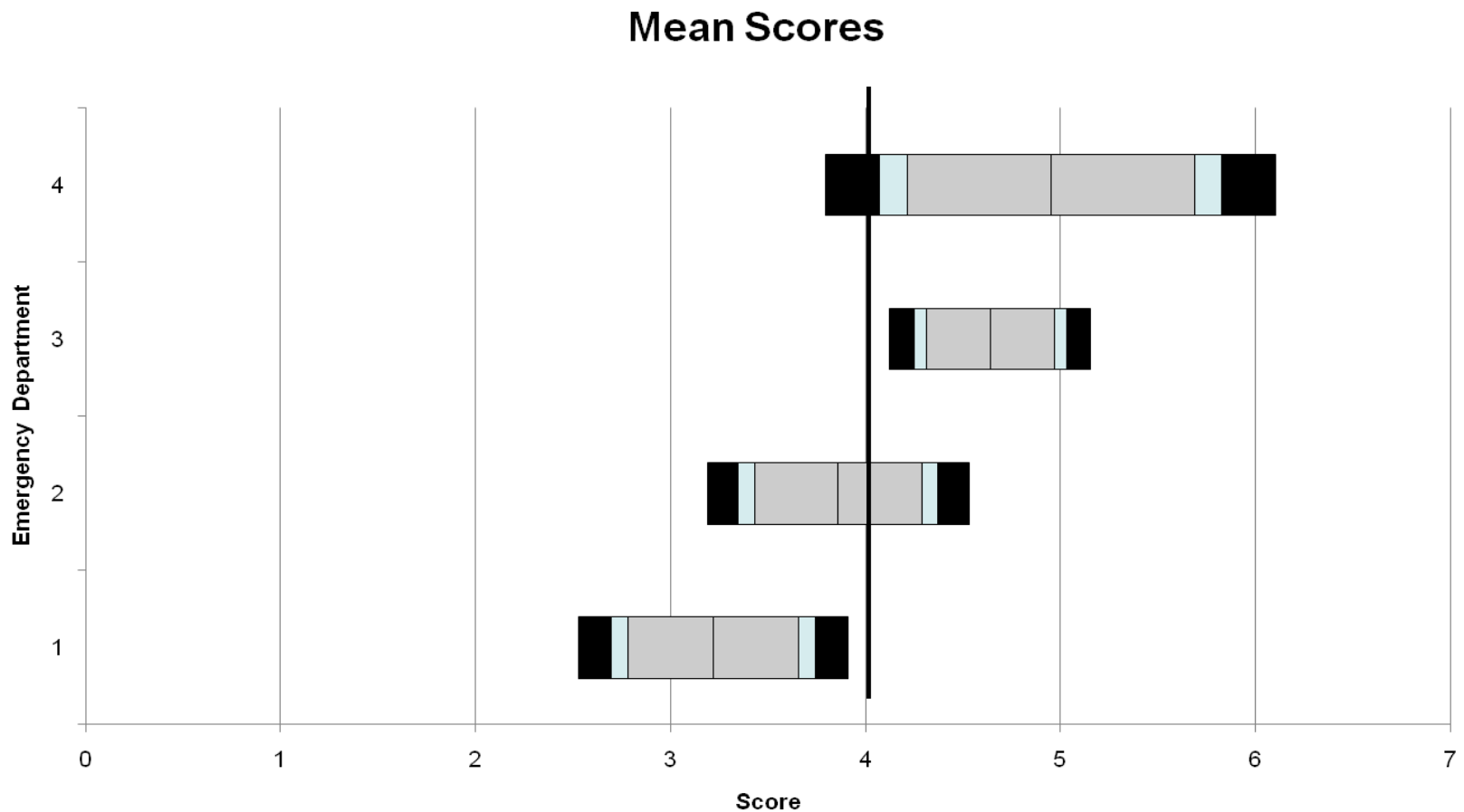
KPI	Mean Likert rating (95% confidence interval)
Time to antibiotics in children with suspected bacterial meningitis	4.6 (4.5 – 4.8)
Separate area to assess children in Emergency Departments seeing both adults and children	4.4 (4.2 – 4.6)
Time to analgesia in children with forearm fractures	4.4 (4.2 – 4.7)

# **THE AVAILABILITY & RELIABILITY OF MINIMUM DATA SET (MDS) ITEMS FOR EMERGENCY DEPARTMENT KEY PERFORMANCE INDICATORS: A PILOT STUDY**

Wakai A, McCabe A, Cummins FH, McCoy S,  
Cronin J, Anagor C, Bykova J, Sopus A, Glasheen J,  
Kelly J, Grant T, O'Sullivan R



# Minimum data set availability & reliability results



# Minimum data set availability & reliability results

Measure of MDS items	Result
Availability	Mean = 4.04 (range: 3.22 to 4.95)
Inter-observer agreement	kappa scores = 0.73 to 0.86
Intra-observer agreement	kappa scores = 0.77 to 0.96
Internal consistency	Cronbach's $\alpha$ = 0.95
Uniformity of reporting	Gini coefficient = 0.2 (range: 0.14 to 0.2)



## Interventions for reducing emergency department waiting time

### Protocol information

#### Authors

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Add Author

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**THANK YOU!**

