

# Queensland Ambulance Service



Dr Denise Bunting  
Clinical Research Coordinator



Information Support, Research & Evaluation Unit

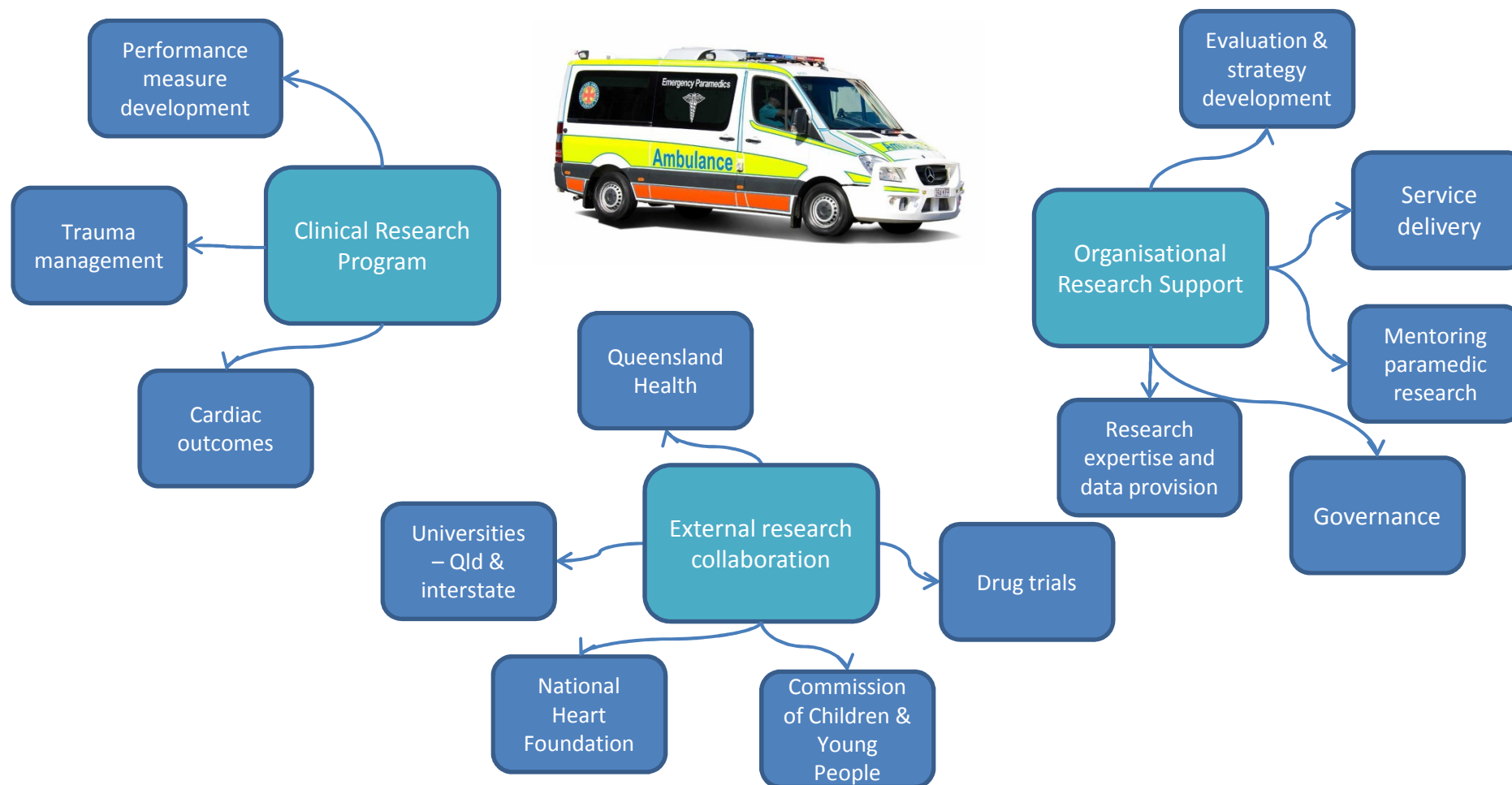


# Overview

- Who we are and what we do
- Pre-hospital research
- Data sources
- Data linkage
- Opportunities



# Information Support, Research & Evaluation



# Why is research important for the QAS?

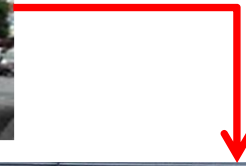
- Support and inform QAS decision making
  - clinical practice, service delivery, operations & policy development
- Develop the prehospital health profession
  - interaction of industry, paramedics & academics
- High quality research → evidence-based prehospital care







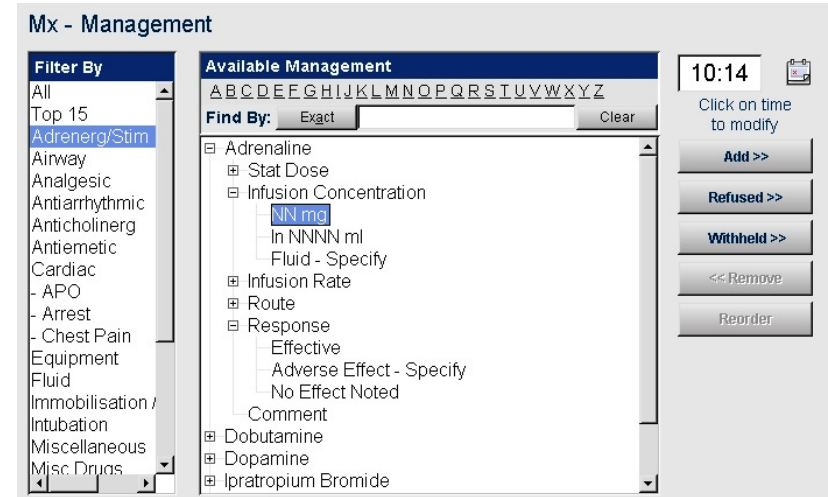
# Patient journey





# Data Sources

- VACIS (Clinical data set)
- QACIR (Incident-based data)
- SHE (Workforce Incidents)
- DCARF (Death & Cardiac Arrest)
- STEMI Data Capture
- Surveys (Purposive)
- Time limited special collections







# Patient outcomes

- Better understanding of patient journey and health trajectory (pathway)
- How changes in clinical procedures/protocols affect patient outcomes
- Impact of operational policies
- Impact of clinical interventions



# Data linkage

- Emergency Department Data Collection (EDIS)
- Queensland Hospital Admitted Patient Data Collection (QHAPDC)
- Registry of Births, Deaths and Marriages (Deaths)

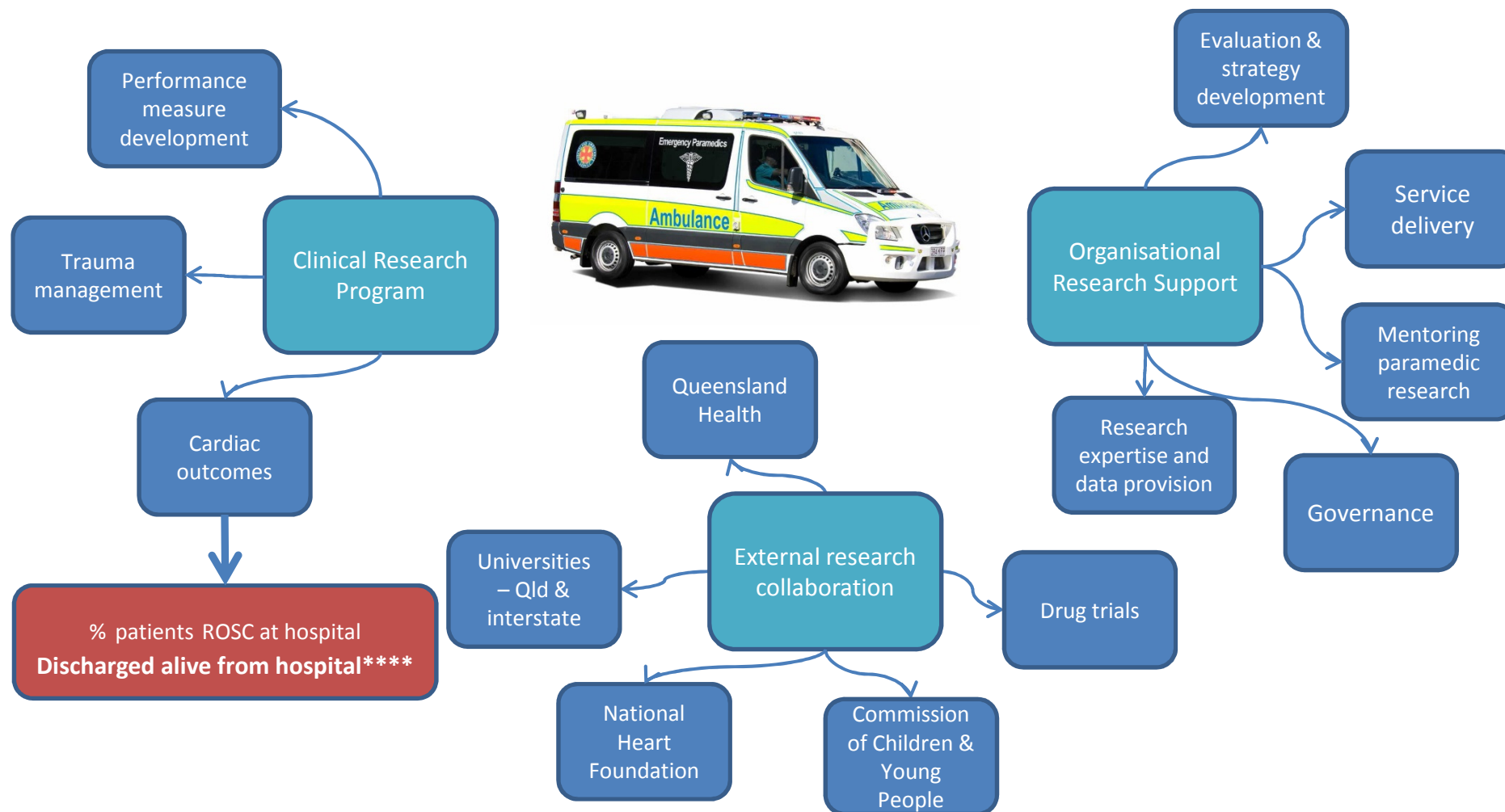


# QAS Data Linkage

- Internal reporting
- External collaboration
- Master linkage file
- Research opportunities



# Information Support, Research & Evaluation

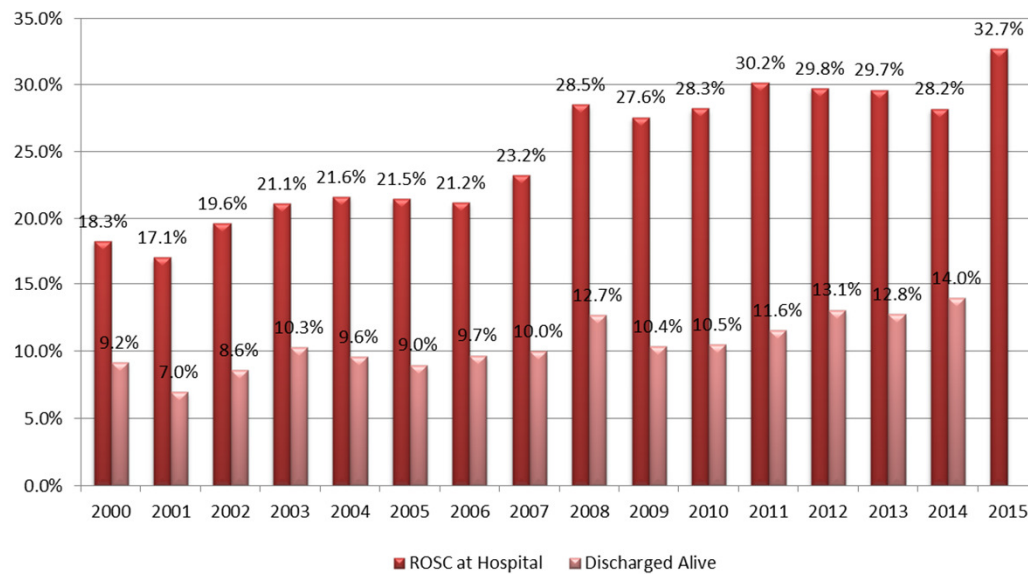




# Cardiac Outcomes

- KPIs - Internal reporting and Report on Government Services (ROGS)

OHCA Survival



# Quality of life?



# New Cardiac Outcomes

- QAS OHCA Registry
  - 2013 and 2014 calendar years – EDIS, QHAPDC and Qld Death Registry (individual patient level)
  - Australian Resuscitation Outcomes Consortium (Aus-ROC)
  - Annual linkage planned
- Paramedic academic studies – QHAPDC and DR
  - PhD – long term study (2002 – 2014) on adult out of hospital cardiac arrest
    - Description of trends over time of demographic characteristics, interventions and outcomes by incidence rates
    - Evaluation of the impact of changes in resuscitation guidelines and clinical interventions on patient outcome
  - Masters
    - Paramedic skill level and survival to discharge
      - CCPs more than doubled survival to discharge
      - Relationship between adrenaline administration and poorer patients outcomes



# Patient non-transport (2013-2014)

1. QAS non-transport (Event 1) and a subsequent (within 48hrs) ED presentation (Event 2)
  - Triage category, Mode of arrival, Departure status, Admitted patients
2. ED presentation (Event 1) and a subsequent (within 48hrs) QAS non-transport (Event 2)
  - Triage category, Mode of arrival, Departure status, Admitted patients
3. Death registry
  - Within 48hrs
  - Within 30 days
  - > 30 days







- Beyond the Emergency
  - Representation - # times presented to QAS over 12 month period



# External collaboration

- SPOT-ON (hospital avoidance strategy)
  - QAS transport to most appropriate location for care based on their clinical presentation
  - Clinical pathways guide to assist QAS and GPs
  - Integrated care solution for lower acuity patients



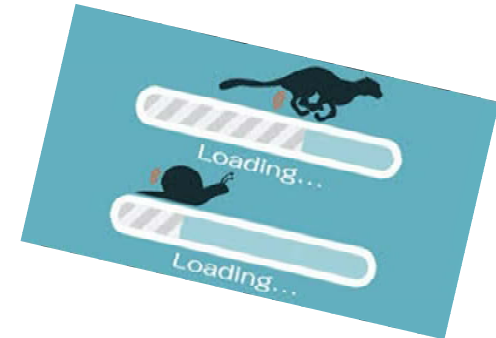
# Master Linkage File

- Ongoing access to patient outcomes
- Facilitate routine (linked) data provision
  - Trauma Register
  - Qld Cardiac Outcome Registry
- Timely and efficient provision of linked data for project research
- Temporal analysis
  - Healthcare utilisation
  - Patients' health status
- Identify cohorts
  - Benefits to individual patients
  - Broader health system
  - Communities
- Information continuity – single patient record!



# Resource for research and better health outcomes

- Enhance system performance assessment
- Enable improved decision making
- Improved service planning
- Development of new patient-based performance indicators
- Care coordination – clinical integration





# Any questions?

[QAS.Research@ambulance.qld.gov.au](mailto:QAS.Research@ambulance.qld.gov.au)

