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Trauma Systems; *What's relevant for New Zealand?*

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Presentation Outline

- Recent NZ Reviews & Initiatives
- NZ specific trauma data
- Suggestions to enhance NZ Trauma System
- Summary

Recent NZ Reviews & Initiatives

- RACS NZ Trauma System Review
- NASO Air Ambulance Co-design Project
- Request for Proposals for Air Ambulance Services
- National Air Desk Review
- Revision of NZ Standard 8156: Ambulance & Paramedicine Services



NZ Trauma & Aeromedical Systems are at a critical junction

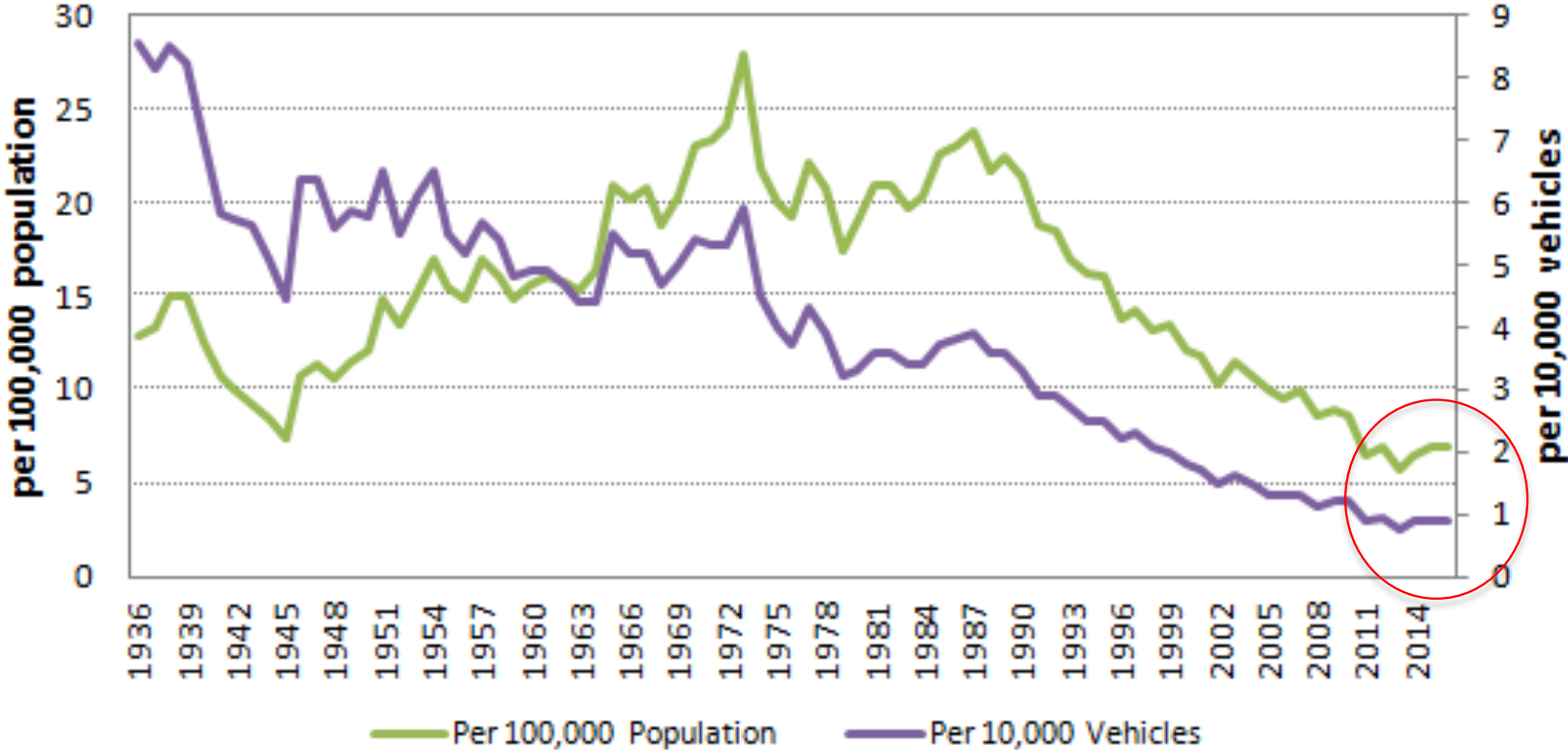
Previous Reviews & Outcomes

- 1998. “Roadside to Bedside” NZ MoH
 - Goals outlined but Framework not fully established
- 2009. Quality Improvement Committee Min Report
 - Establish NZ National Trauma System
- 2012. Major Trauma National Clinical Network
 - Establish formal trauma structure and system in NZ
 - Establish NZ Major Trauma Registry
 - Trauma specific guidelines and plans

NZ Trauma Context

- Good data from ACC, NZTA and NZMTR
- Leading cause death NZ <45yrs
- MVC 5th leading cause of death Males (Maori & NM)
- 52% of major trauma was road traffic related
- TBI occurred in 38% of all major trauma cases
- 16/17 344 deaths <30/7 post MVC, 284 prehospital
- MVA social cost 2016 \$3.79B (\$4.2M per fatality)
- Road toll increased last year (378 cf 327)

Road deaths per 10,000 vehicles and per 100,000 population 1936 to 2016



**12% Increase
2014-2016**

RACS NZ Trauma System Review

- UN Decade of Road Safety Action 2010-20 Strategy
 - 5th Pillar of Road Safety: *Post Impact Care*
 - Strategic Priority NZTA Centre of Excellence for Road Safety
- Commissioned by NZTA & MTNCN
- RACS Trauma Verification Program
 - First ever National Trauma Verification Review
- 27 November- 01 December 2017
- Report recently provided to NZTA



Fundamentals of a Trauma System

- Injury Prevention
- Prehospital Care
- Acute Care Facilities
- Post-hospital Care
- Leadership
- Professional Resources
- Education and Advocacy
- Information Management
- Finances
- Research & Technology
- Disaster Prep & Response

Success of a trauma system is largely determined by the degree to which it is supported by public policy.

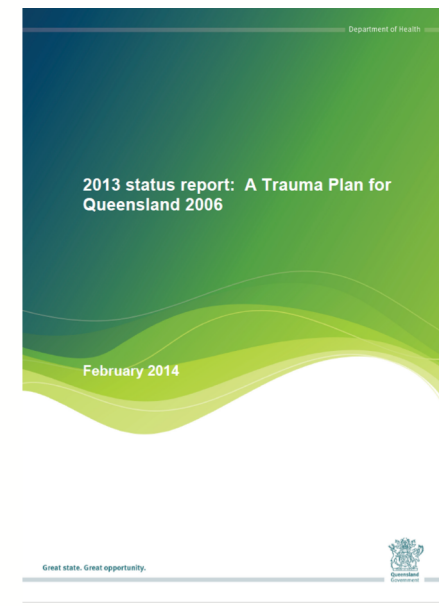
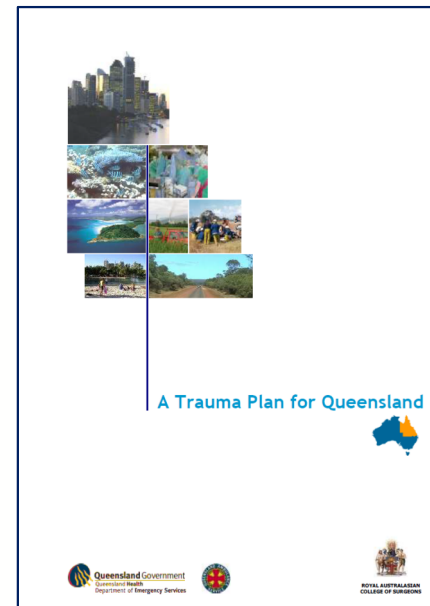
Benefits of a Trauma System

- Many studies (USA & Victoria)
- Decreased mortality (15-25%)
- Reduction in the number & severity of injuries
- Improved outcomes for survivors
- Saves money
- Reduced community impact



What's relevant for New Zealand?

- Policy and Leadership
- Strategic Planning
- Governance
- System Coordination
- Funding



Policy and Leadership

- Trauma; A National Health Priority
- *Post Crash Response* included in all national road safety strategies eg Safer Journey
- MTNCN.
 - Enhance representation for trauma in NZ Health System
 - Greater advocacy, support, authority & responsibility.
- NASO
 - Rationalisation of the aeromedical network
 - Standards for aeromedical services and clinical crewing

Strategic Planning

- NZ Health System should align trauma related planning with other related organisations & injury prevention
- Align trauma related planning across all regions/DHB (NTP)
- Disaster Management
 - Recognition of role of MTNCN in National Disaster Plans
 - Modelling/exercising of retrieval & trauma services in MCI
 - Incorporate aeromedical tasking and 3 x ACC into NDP
- National Rehabilitation Strategy
- Multidisciplinary Mx of elderly trauma and at risk Groups

Governance

- MTNCN (Governance/leadership/collaboration)
 - Collaborate with HQSC (Incidence/trends/performance)
 - Enhance and support NZMTR (local data/\$/training/minor)
 - Set collaborative research agenda
 - Designation of levels of trauma hospitals
 - Minimum criteria, resourcing and standards for each level
 - Monitor and support 4 Regional Trauma Committees
 - Designate roles and responsibilities for RTC
 - Establish National Trauma Mortality Review Committee

Trauma System Coordination

- Further refine Triage and Destination Policies
- Coordination of Regional critical care beds
- Coordination of specialist services across sites
- (AIM) One Major Trauma Hospital/region
- Systematic national review of TBI management
- Improve integration of acute rehabilitation services
- Central coordination, tasking and oversight of all aeromedical platforms and teams

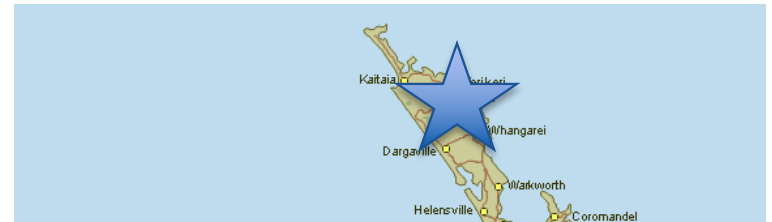
Retrieval System Coordination

- Interdependency of Retrieval and Trauma Systems
 - Systems are synergistic in improving outcomes
- Most fatalities are Pre Hospital (284 of 344 in 17_18)
- Importance of coordinated out of hospital trauma care
 - Rapid identification of significant injury (Pre & IHT)
 - Specialist level oversight (selective)
 - Targeted, tiered, patient specific clinical response
 - Patient centred destination determination



Retrieval System Clinical Care

- Recent advances in PHRM (U/S, Blood, procedures)
- Better balance between Speed and Skills
- Regional, medically staffed retrieval capability 24/7.
- Primary, Interhospital, fixed and rotary wing response
- Close proximity to Tertiary Major Trauma Hospitals
- Standardised retrieval training and equipment
- Integrated & transparent clinical governance (Trauma)



Funding

- Too complex; needs simplified
- MoH. Fund separately and regionally
- Trauma incidence incorporated (populn)
- ACC fund trauma programmes
- Standardise aeromedical funding & billing

Summary

- Significant gains in NZ Trauma System >2012
- National prioritisation and political leadership
- High cost/Low volume services; rationalise
- Real opportunity to evolve further;
 - Equity of access
 - Consistent and quality services



THANK YOU.

“A great wind is blowing, and that gives you either imagination or a headache.”

Catherine the Great