

Ambulance for the Future

Professor Peter Cameron MBBS, MD(Research), FACEM, FIFEM, FRCEM(hon)

Academic Director Emergency and Trauma Centre

The Alfred Hospital

Health Services Research, Monash University

Melbourne Australia

Main Points

- We must identify what the role of ambulance is
 - Hierarchy of priorities
- Governance of ambulance results in lack of integration with community/hospital care
- Emergency dispatch not integrated with Ambulance
- Funding distorts priorities of the service

Twentieth Century – the rise of the Hospital

Ivory Towers

Divorced from community care

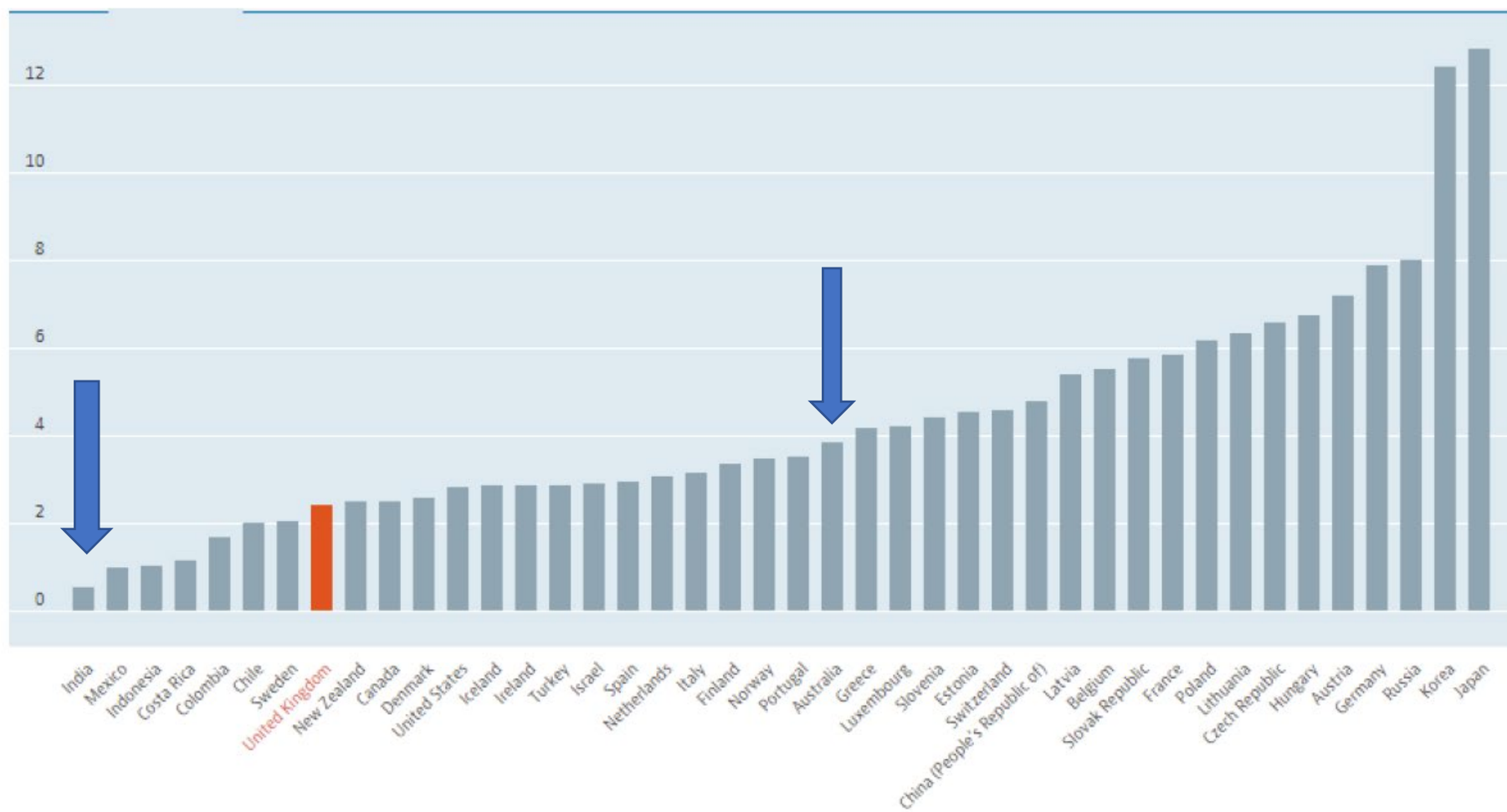
Multiple funders for different health sectors

Research and education centred on
institution



Huge Differences in Hospital bed numbers

OECD (2021). Hospital Beds per 1000 Inhabitants.



Images of ED Crowding are common –
interminable problem.....



Despite 20 years of publications on ED crowding and now Ambulance Ramping.....

- Current situation untenable
 - Pt safety risk
 - Documented 20 years ago
- No consensus on problem or solution
 - What is acceptable?
 - Should we change our model of care?

Possible Solutions

- Current models of care push pts to centralised, institutionalised care
 - At the same time – we have reduced access to inpatient care
- What percentage of patients need institutional care?
- Expansion of community care?
- Remote management?
- Role of AI algorithms
- KPIs to drive change??

The problem with KPIs to drive change



Virtual Care?

- The Emperor with no clothes?



Diversion rate

- 70-75% diversion rate
 - Includes 10% who present over next 7 days
 - Very few of the re-presentations resulted in admissions to ward
 - High patient satisfaction

Residential Aged Care

- How many pts need to come to ED?
 - <50%
- Can be increased further with
 - Integrated outreach
 - Mobile XR/CT
 - Good advanced care planning



community



Fundamentals for change

- Funding model
 - Currently rewards activity not problem resolution
 - Currently does not reward prevention
 - Capitation model?
- Public awareness of costs of hospitalisation
- Public awareness of dangers of hospitalisation



Costs

- In Australia
 - Return ambulance ~\$AUD 2000
 - Overnight stay \$AUD 2-5000
 - Multiday stay \$ AUD10-20,000
- Outpatient virtual Consult and follow up
 - \$AUD 500

Funding models for Prehospital push towards hospital care

- Paramedic – safest/fastest to transport pt
 - Litigation
 - Time
 - Cognitive load
- Structures for ongoing care need to be in place
- Skills of paramedics?
- POC tests?

Clinical Pathways

- For each emergency condition – deconstruct
 - What management is needed
 - Assessments/monitoring
 - Investigations
 - Treatments
 - Follow ups
 - Risks
 - What cost would there be to community vs hospital care

Clinical Pathways

- “Command Centres” in Health Services
 - Track and coordinate pts irrespective of location
 - Intelligent/remote monitoring
 - Agreed alert systems
 - Hospital attendance only for services that cant be delivered remotely
 - Tight Scheduling of procedures
- Remote input by super specialties

Conclusion

- Time for revolution in health care
- Deinstitutionalise healthcare
- Prehospital/Hospital/Rehab/community paradigm is so last century
- Currently very few health systems are set up to optimally manage the community needs
- Very few consumers understand the unnecessary cost of our current model....
- AV governance model needs to look like a modern health service