



CHILDREN'S  
HEALTHCARE  
AUSTRALASIA

IHPA Activity based Funding  
Conference 2014

# Identifying opportunities for quality and efficiency improvements through benchmarking paediatric care in Australia

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President, CHA



# Overview

- The public hospital context
- About CHA
- CHA's benchmarking program
- Trends in activity & cost for paediatric services
- Opportunities for enhancing performance & efficiency in paediatric care



# About CHA...

A not for profit community of paediatric health services:

## **Vision:**

To enhance the health and wellbeing of children and young people.

## **Mission:**

To support children's hospitals and health services to achieve excellence in clinical care

- advocacy,
- networking to share knowledge & evidence underpinning best practice
- education & training
- benchmarking performance



# Who are our Members?



**Blue** = small

**Green** = medium

**Yellow** = large

# CHA's benchmarking program

- Annual
- Compares similar profiles
- Dashboard of clinical indicators
  - activity and cost by paediatric related DRGs and by complexity
- Annual snapshot for member hospitals
- Tailored individual reports; de-identified but facilitated discussion occurs with mutual agreement




# *A Child in Hospital*

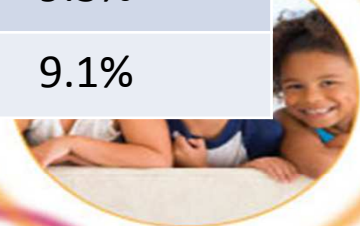
**ADMITTED PAEDIATRIC  
PATIENT CARE**



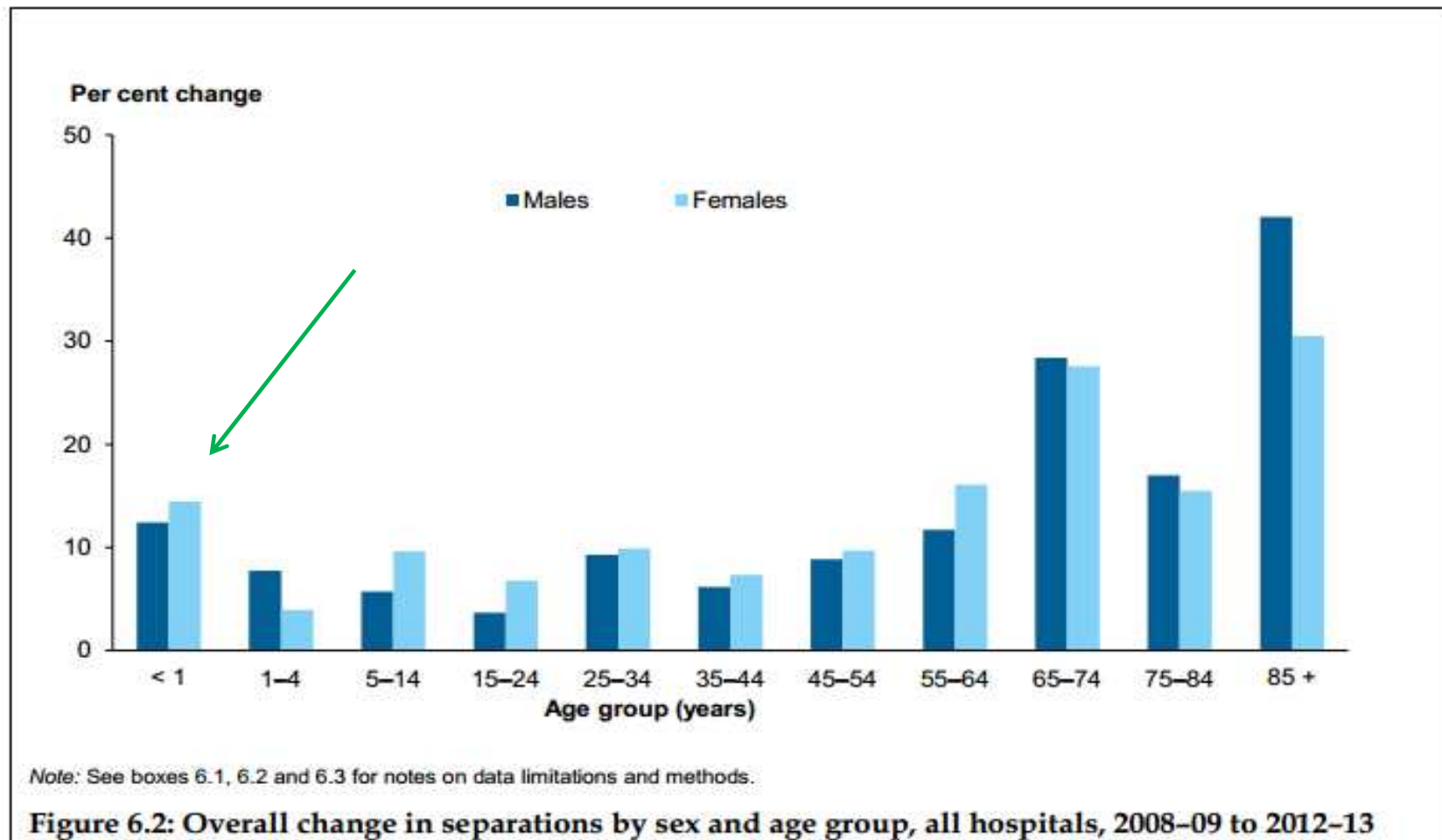
# Trends in paediatric separations



	Total Hospital Separations p.a (public & private)	Total Separations Child 0-18 years	Child Seps as % of Total
2009-10	8,531,160	606,171	7.1%
2010-11	8,533,655	790,651	9.3%
2011-12	9,256,169	857,372	9.3%
2012-13	9,373,526	854,290	9.1%

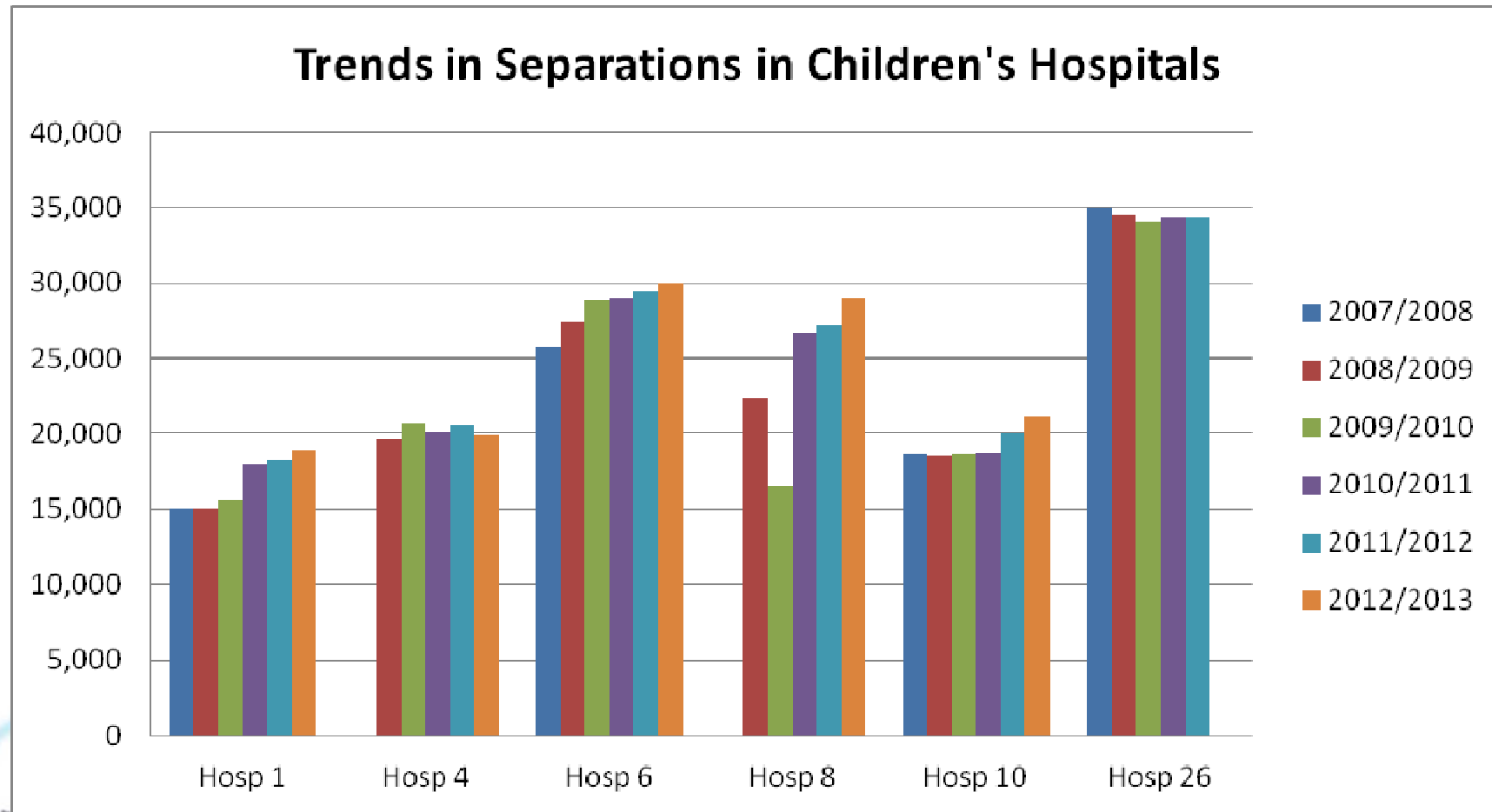


# Increases in hospital separations in past 5 years





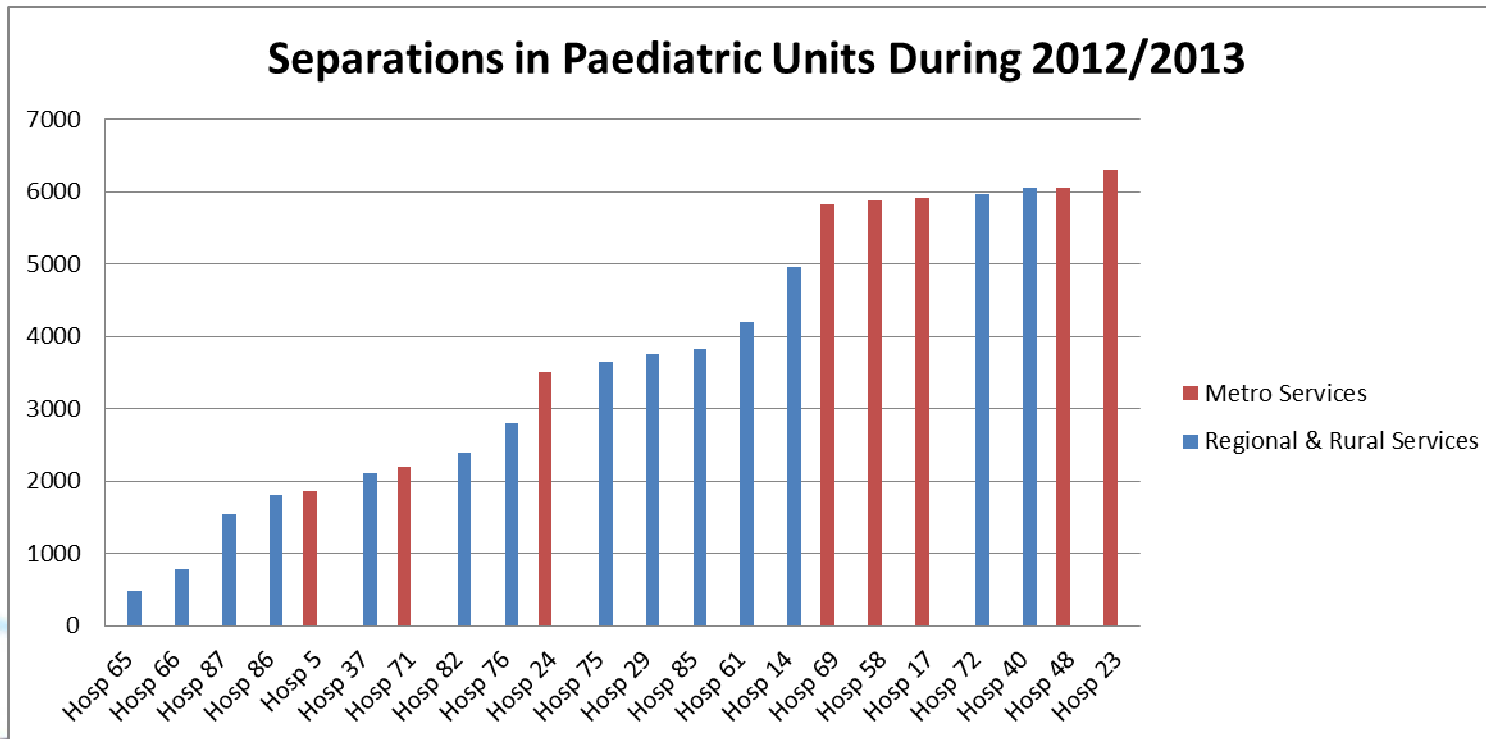
# Who cares for sick children? The children's hospitals



Source: CHA benchmarking data

# Who cares for sick children? The paediatric units

- Average separations for paediatric units in CHA: 3,700 but together paediatric units care for 70% of children admitted to hospital each year



Source: CHA benchmarking data

# Why are children in hospital?



Neonatal care

trauma



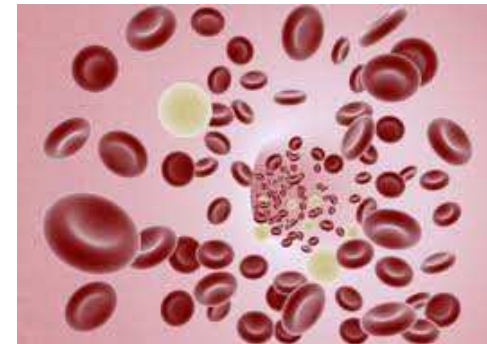
Mental Health



Endocrine & metabolic



Respiratory disorders



Neoplastic & blood disorders



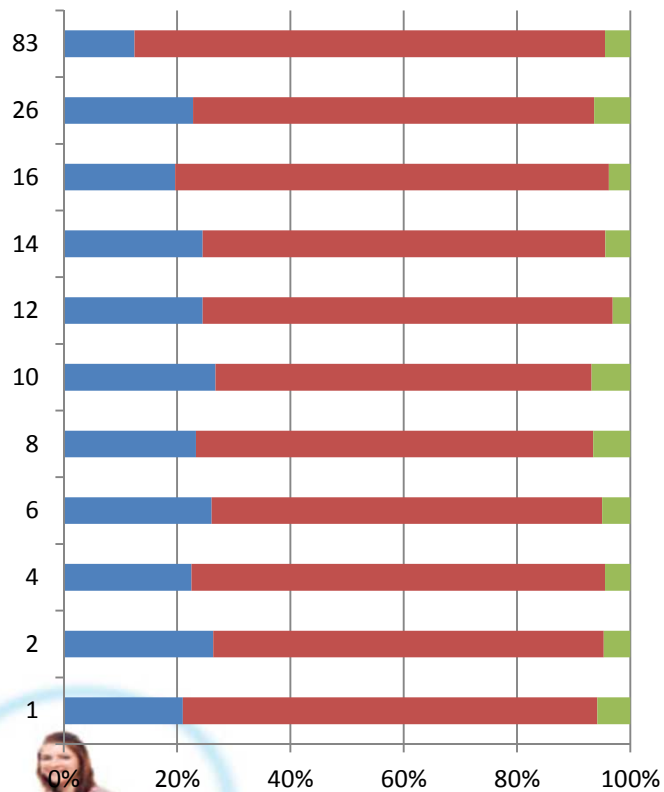
Ear Nose and Throat



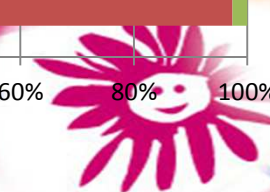
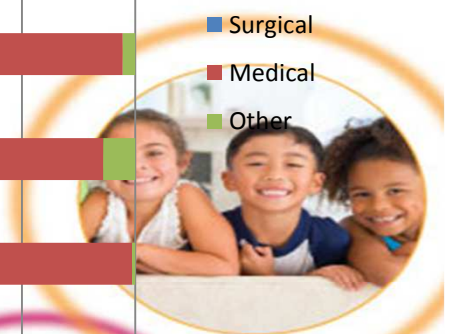
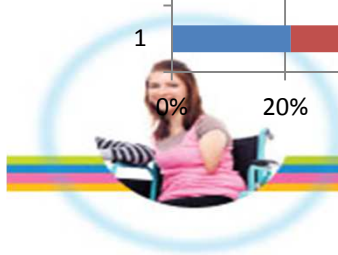
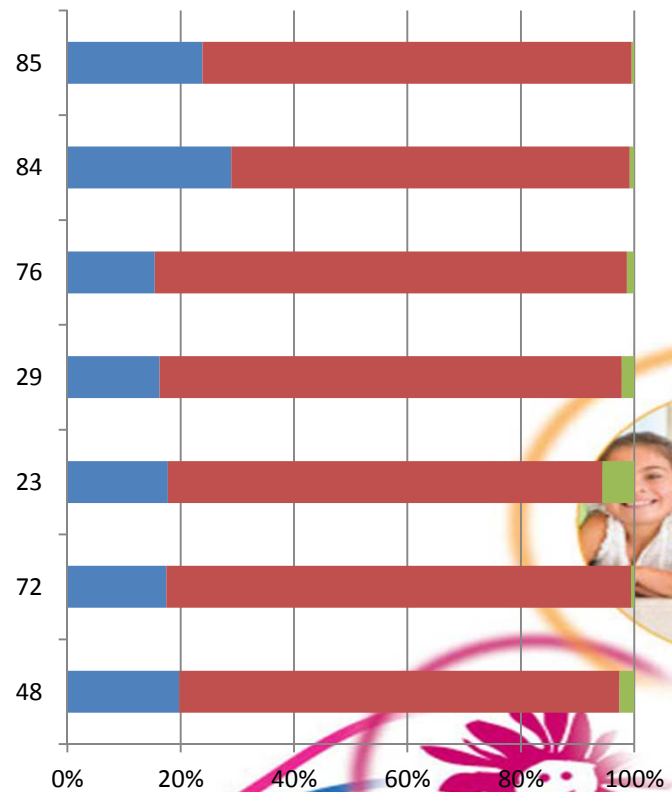
# Why are children in hospital?

## Proportion of Medical and Surgical activity 2011/12

### Large



### Medium



# Recognizing the Importance of Complexity for Children

- Children-chronic conditions hospitalised more in 2011-12.
- Chronic conditions accounted for increases in the number (56.2%), bed days (81.7%) and hospital charges ( 86.1%).
- Greatest increase in children whose chronic conditions were
  - Complex
  - Progressive
  - Affected 2 or more body systems
- Most prominent were:
  - CP (14.6%), Chromosomal (6.5%) and CHD (6.2%)
- Most common co-morbidities
  - Asthma (21.8%); dysrhythmias (6.6%) & obesity (6%)



Source: JG Berry Archives of Paediatric and Adolescent Medicine Dec 24 2012

# Differences in care for children

	Patient admitted to general hospital	Child admitted to paediatric ward of a general hospital	Child admitted to children's hospital
Casemix Index	0.99	1.07	1.22
% Same day	50.3	33.7	46.9
ALOS (dys)	3.3	2.9	2.91
ALOS (excl SD)	5.8	3.87	4.59
% Emergency	42.8	49.5	50.2
Average cost/cwt sep (\$)	5222	4395	4942



(Source Australian Institute of Health and Welfare 2013.  
Australian hospital statistics 2011–12 & CHA data set) 2011-12



# Comparative ED trends 2010/11-2011/12

	Public Hospital	CHA
Presentations	2.1% increase	n/a
Emergency patients (TR 2)	80%	85.2%
Urgent patients (Tr3)	65%	63%
Treated within time	69/72% (2.1% decrease)	78.1%
Percent treated under 4 hrs (NEAT)	65.5%	81.3%
Proportion ending in admission	29% (3.4% increase)	16.2%



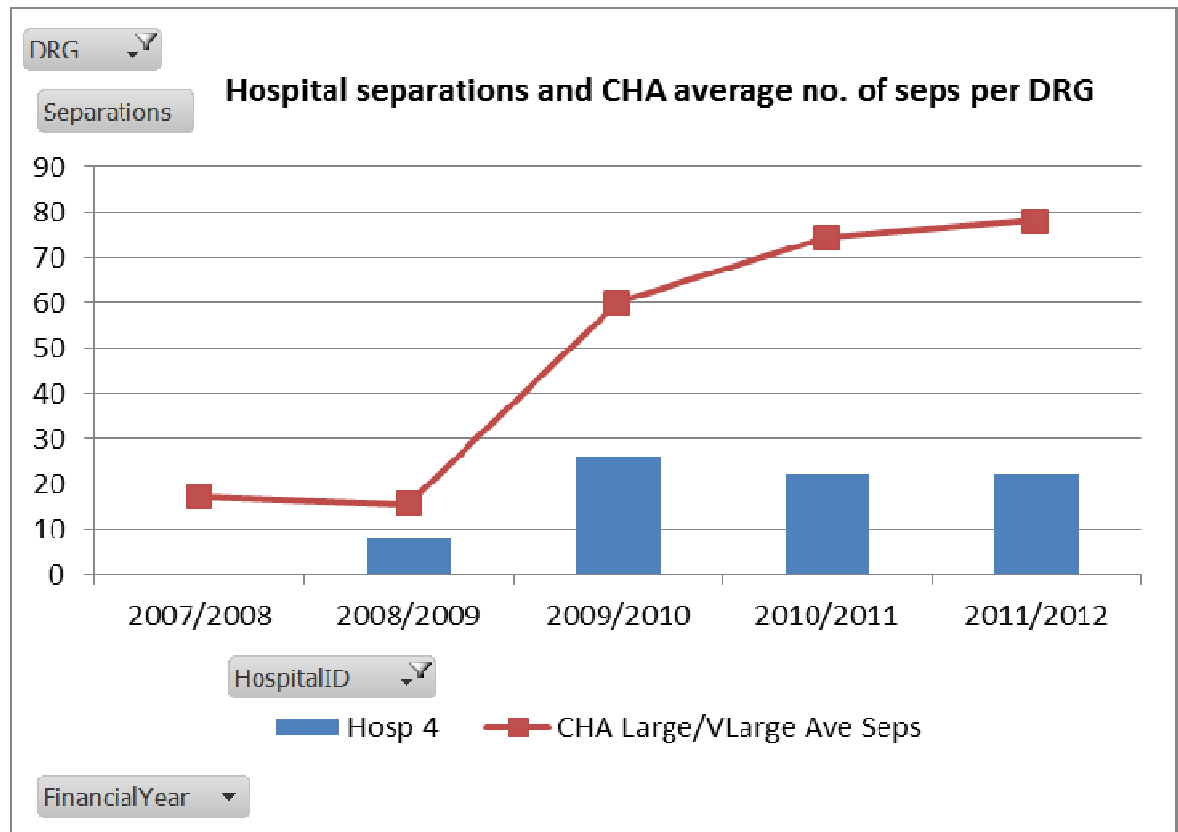
(Source Australian Institute of Health and Welfare 2010. Australian hospital statistics 2008–09 & CHA data set) 2011-12



# Trends in Complicated Appendicectomy: GO7A

Trend:

- Coding changes
- Uncomplicated vs complicated
- Underdiagnosis?
- More transfers?
- Changes in practice?



Trish Davidson, Childhood Appendicectomy: A surgical challenge, ANZ Journal of Surgery, 85(5):301, May 2014



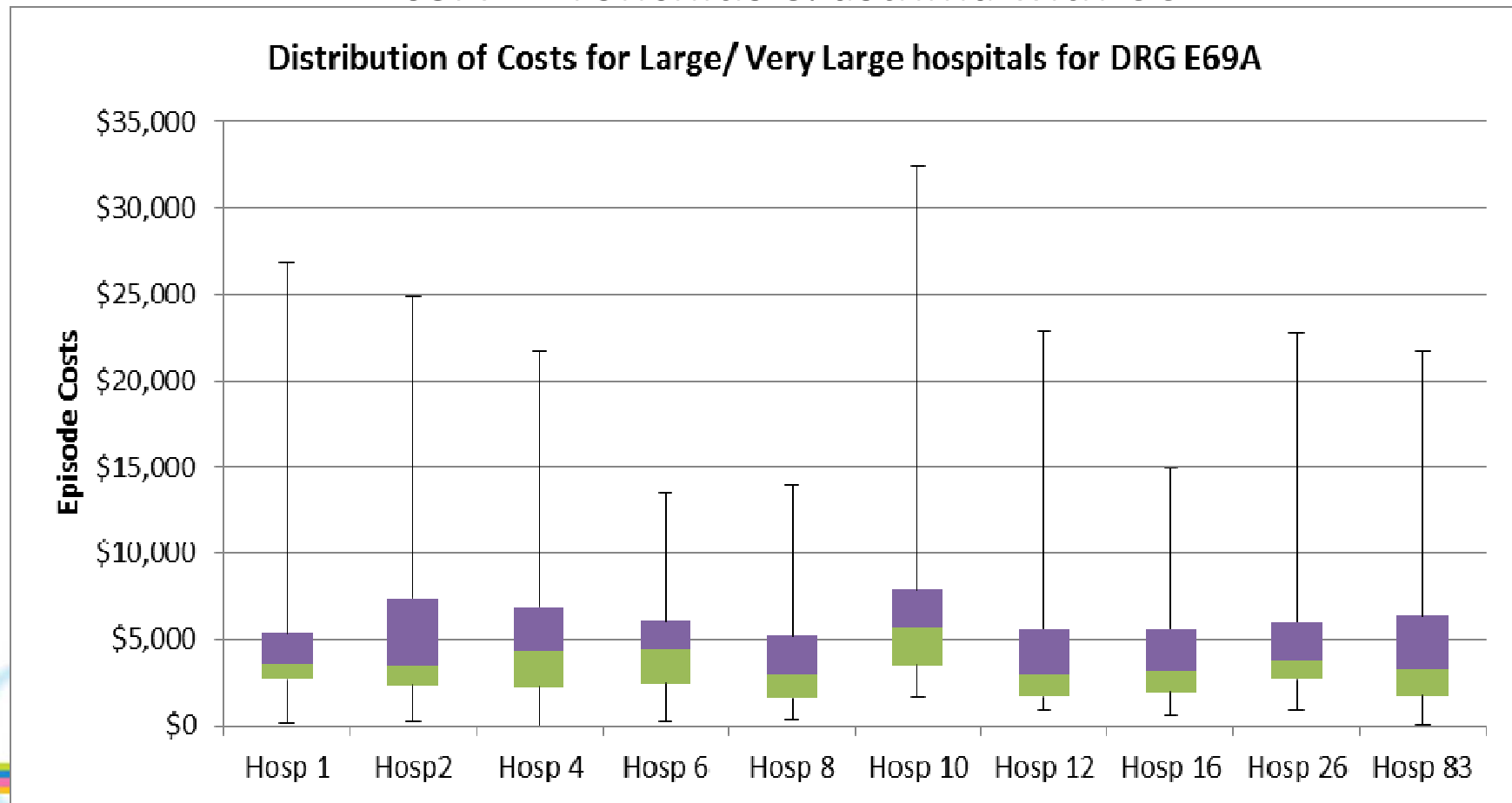
# Why do kids cost more?

- ✓ All Children require adult supervision
- ✓ All Children are vulnerable and need protection
  - ✓ Safe space
- ✓ Children need more support for interventions
  - ✓ E.g. Distraction, sedation
- ✓ Low volume dis-advantage, in stock, pricing, dosage and standardisation of care
- ✓ All sized care from neonates to adults e.g. beds, ET tubes, monitoring, forms etc
- ✓ Community expectations



# But there are still opportunities for cost efficiencies

Comparative cost distributions 2011-12:  
E69A – Bronchitis & asthma with CC



Source: CHA data based on Member hospitals

*How can we do better  
by our children?*

**OPPORTUNITIES FOR COST &  
QUALITY IMPROVEMENTS**



# How can we do better?

- Involving children & their families
- Common conditions
  - Reducing unwarranted variations in care
  - Reducing variations in cost
  - Agreed evidence based models of care
    - GP, ED & Hospitals
- Chronic Conditions
  - Effective hospital avoidance strategies
  - Improving integration & case management
- Reducing adverse events: medication errors



# Quality & efficiency Improvement through learning from peers

CEOs of children's hospitals

## CHA Special Interest Groups

CHA has 11 peer networking groups that discuss benchmarking data and opportunities for enhancing the safety, quality and value of paediatric care

Executives of Nursing

Network Leaders

Directors of Paediatric Units

Medication Safety

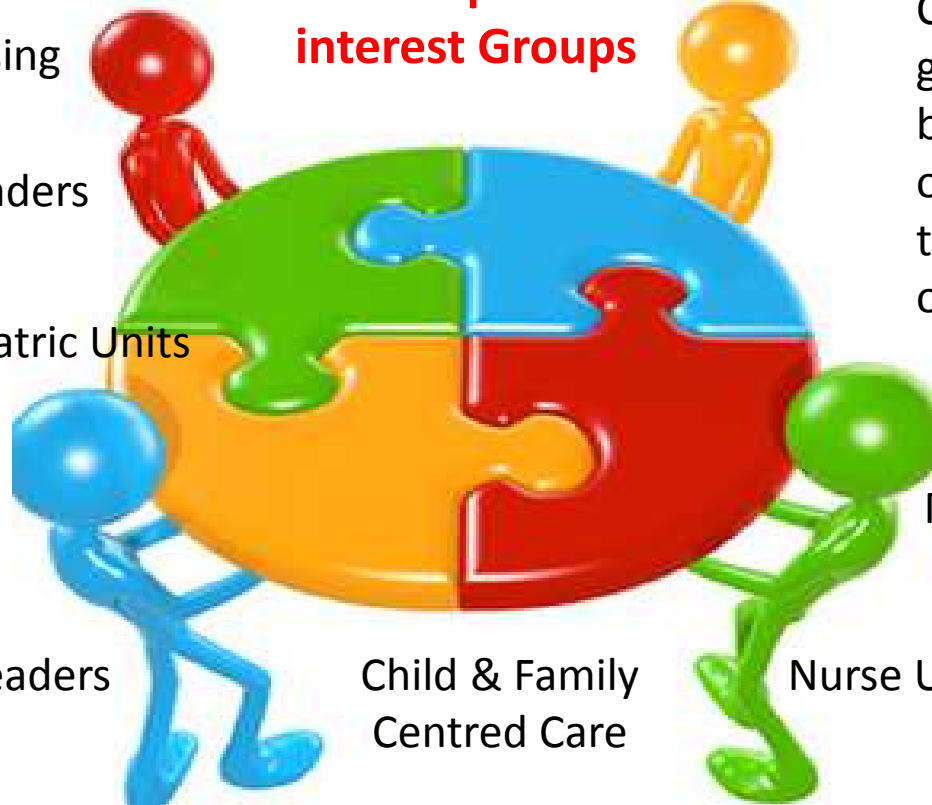
Mental Health

Allied Health Leaders

Child & Family Centred Care

Nurse Unit Managers

Leaders in Quality & Safety



## Acknowledgements

Thanks to all CHA members who provided data for benchmarking

Thanks to co-authors:

- Ralph Hanson, CHA Benchmarking Program Advisor
- Barb Vernon, CEO, CHA
- Julie Hale, Deputy CEO
- Beth McGaw, Benchmarking Program,



CHA

## References

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JG Berry Archives of Paediatric and  
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P Davidson, Childhood Appendicectomy:  
A surgical challenge, ANZ Journal of  
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CHA Benchmarking Program Reports:  
Activity & Costing Data 2011-12





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