TRANSPARENCY OF DATA TO OPTIMIZE CLINICAL PRACTICE

Vision

The Data Transparency flagship program will use a variety of clinical, administrative and other health services data to measure and understand clinical variation and practice. The innovative technologies developed as part of this program will support reflection and personalised professional improvement for health professionals, enable appropriate consumer-focussed referrals and drive efficiencies in the health system.

DHCRC flagship programs are large multi-participant collaborative research programs designed to deliver systemic impact across the health sector by focus on areas of demonstrated industry need.

Variation in Care

The Australian health landscape is characterised by complex arrangements including a mixture of public and private funding, blurred lines of jurisdictional responsibility, multiple providers and a variety of regulatory regimes, all of which have resulted in variations in clinical practice. The Australian Atlas of Healthcare Variation Series provides statistics identifying variation across Australia for specific health indicators[1]. For example, rates of cardiac stress tests and imaging vary up to 10-fold across local areas and are higher in major cities than in other areas, as depicted in the Figure 1[2].
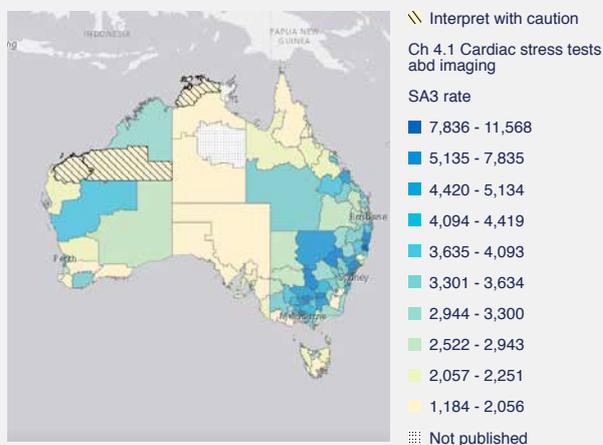
While some geographical variations can be explained, there is evidence of how unwarranted variation impacts patient health outcomes, morbidity and mortality. Although static reports are available on a few specific health indicators, there are limited tools to enable clinicians to incorporate performance-based metrics in real time in their practice.

For example, there is growing evidence that planned caesarean section before 39 weeks' gestation increases short term risks, including neonatal respiratory problems and infections in the first five years of life.

The Atlas found that in 2015, between 42% and 60% of planned caesarean sections performed before 39 weeks did not have a medical or obstetric recommendation (Figure 2).
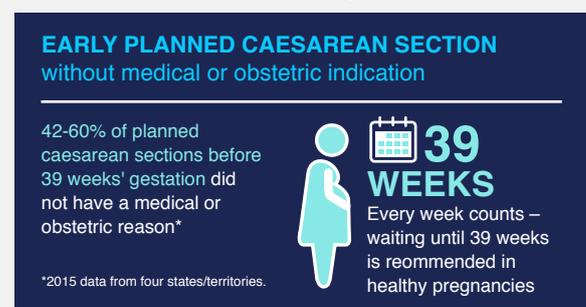

Figure 1. Cardiac Stress Tests and Imaging

Interpret with caution

Ch 4.1 Cardiac stress tests abd imaging

SA3 rate

- 7,836 - 11,568
- 5,135 - 7,835
- 4,420 - 5,134
- 4,094 - 4,419
- 3,635 - 4,093
- 3,301 - 3,634
- 2,944 - 3,300
- 2,522 - 2,943
- 2,057 - 2,251
- 1,184 - 2,056
- Not published

EARLY PLANNED CAESAREAN SECTION
without medical or obstetric indication

42-60% of planned caesarean sections before 39 weeks' gestation did not have a medical or obstetric reason*

*2015 data from four states/territories.

39 WEEKS
Every week counts – waiting until 39 weeks is reommended in healthy pregnancies

Figure 2. Neonatal and Paediatric Health Atlas[3]

1   *https://acsqhc.maps.arcgis.com/home/index.html.*

2   *https://acsqhc.maps.arcgis.com/apps/MapJournal/index.html?appid=3ab37623e35047328c6604c1a2823445#.*

3   *https://acsqhc.maps.arcgis.com/apps/MapJournal/index.html?appid=5d50ba02c97c4c5181f7ec1aa9c97d4a#.*

Drivers for Change

There is increased momentum in the healthcare transparency movement which is being driven by the need to improve healthcare performance, quality and cost for a wider audience. The value of data sources as drivers for healthcare transparency is beginning to be acknowledged by governments world-wide, particularly through initiatives to increase transparency around the cost of care for consumers. Although significant progress has been made towards healthcare transparency, there are still many untapped innovations for utilising digital health to improve quality and equity of care by increasing transparency. The primary care sector is expected to be central to the healthcare transparency movement, if a means of effectively presenting cost and quality information to consumers can be developed.

Research and Innovation

Building on extensive consultations and workshops with our industry partners and domain experts, the DHCRC will develop a number of cutting-edge projects to improve healthcare transparency. We will develop high impact technologies that will transform interactions between consumers and the health sector. A fundamental component of this program will be to enable consumers to improve their health outcomes by increasing the visibility of cost and performance data and to mobilise actionable insights for use by health professionals, organisations and policy makers.

Key Innovations

Build capacity for practice analytics

This innovation will harness complex data sets such as health services data, safety and quality metrics, outcome metrics and siloed electronic health data and develop novel solutions that will enable consumers, clinicians, payers and providers to understand performance of services, teams and individuals and use this knowledge to improve practice and outcomes.

Create data-driven systems linking practice with performance improvement

The focus here will be on the use a variety of clinical and administrative data to influence clinician behaviour, particularly in relation to self-reflection and improvement of their own performance. The innovation will bring together researchers from a range of disciplines to solve technological and service-related research problems.

Develop tools to support informed referrals for clinicians

The research will focus on design and evaluation of digital technologies to harness information around practice including volume, out of pocket costs and performance to assist clinicians in making appropriate referrals in collaboration with consumers. This in turn will impact the quality of care, equity of access and a more transparent environment that will enable consumers to improve their health outcomes in a cost effective way.