Where will sustainability come from?

Ian Wright
GCFO Mater Misericordiae Limited
Where will sustainability come from?

Is there a link with innovation
or
is it people and process
The Sisters of Mercy established the Mater Hospital in 1906 to care for the sick and needy of Brisbane.

As a Catholic not-for-profit ministry of Mercy Partners, Mater Group is committed to meeting the healthcare needs of our community through an integrated approach to our health, education and research services, which is focused on delivering the highest quality care for our patients.

Mater Group comprises:

- Mater Health,
- Mater Education,
- Mater Research,
- Mater Foundation and,
- Holy Cross Laundry

in addition to the Corporate Services and Back Office functions.
**Mater Research**
Mater Research is an internationally recognised leader in medical research, which connects its findings from bench to bedside, translating medical research into clinical practice to deliver better outcomes for our patients and the wider community. Established in 1998 with a primary focus in cancer research, the world-class institute has since expanded to include research within fields including immunology, mental health, maternity studies, diabetes and obesity.

**Mater Education**
Mater Education is a nationally accredited, independent, hospital based Registered Training Organisation—the only one of its kind in Queensland. It offers a range of courses for students, through to highly experienced practicing clinicians.

**Mater Foundation**
By delivering on our aim to improve healthcare through the strategic and consistent integration of our health, education and research services, all of which are supported by Mater Foundation, who link community and philanthropic support to Mater.
Mater Health

Mater Health comprises all of 7 hospitals and 3 healthcare services.

These services combine to help Mater offer comprehensive healthcare which is delivered through a framework of medically-led clinical streams:

- cancer care services;
- medical/chronic disease services;
- mothers, babies and women’s health services;
- neurosciences and,
- surgical/acute services

**Mater hospitals** (for our insured patients):
- Mater Children’s Private Brisbane
- Mater Mother’s Private Brisbane
- Mater Private Hospital Brisbane
- Mater Private Hospital Redland
- Mater Private Hospital Springfield

**Mater hospitals** (for our non-insured patients):
- Mater Hospital Brisbane
- Mater Mother’s Brisbane

**Mater health centres**
- Mater Health Centre Brookwater
- Mater Health Centre Hope Island
- Mater Health Centre Redland

**Mater Pathology collection centres:**
- 25 Mater Pathology collection centres.

**Mater Pharmacies**
- Mater Pharmacies at Hospital locations.
Where will sustainability come from?

Is there a link with innovation
or
is it people and process
Sustainability,

The ability to be maintained at a certain rate or level.

Financial Sustainability is aka -Financial health- has been defined as “the likelihood that the…organization might continue to produce…over time”
(Ashley and Faulk, 2010, p. 45)

The balance between resource availability and utilisation in a Healthcare setting.

The availability of funding whether – Government, Health fund or individual

To provide/deliver healthcare services to meet the needs of the target population.
Population Healthcare need = Healthcare Funding X Healthcare Processes X Healthcare People
Healthcare Funding $X$
Healthcare Processes $X$
Healthcare People

Population
Healthcare need

Innovation

$=$
Healthcare Funding X
Healthcare Processes X
Healthcare People

Innovation

Population Healthcare need =

Basically fixed unless we reconsider our National priorities
Healthcare Funding
It is generally accepted that there is a finite cap on health spending as we also need resources for:

- Education
- Justice (Policing)
- Defence
People and Process
Getting the basics right

- Expenditure controls
- Debtor management
- Cash flow
- Activity management and forecasting
- Informed Business Decisions
- Procurement
- Legacy System replacement to enterprise Systems linked across the organisation

This is not innovation this is purely ‘People and Process’.
Mater is progressing a number of initiatives to integrate care which will easily scale and support a long term approach to population health, including but not limited to:

• Mater Mothers Hospital GP Shared Care Alignment Program is a collaboration between Mater and local Primary Health Networks throughout Queensland. The program has been adapted locally in Emerald, Ipswich, Brisbane North, Brisbane South (Beaudesert, Redlands & Logan) and the Gold Coast. The program has formed the basis of the local GP CPD program in Women’s Health and we currently have over 1100 GPs ‘aligned’ with Mater Mothers Hospital to share maternity care.

• Mater Aged Care in an Emergency provides care management for frail older persons within Aged Care Facilities supporting the Aged Care providers to ensure care is being delivered in the most appropriate setting. Data demonstrates a significant reduction in length of stay, reduced readmissions in 30 days, increased Advanced Care Planning, provider satisfaction across the continuum (hospital, aged care and general practice) and families/carer reported satisfaction. This has led to the development of the Older Person Centred Care Team which will case manage all older and/or frail people coming to Mater.

• Mater, the Australian Digital Health Authority and a large general practice in Brisbane South is commencing a Virtual consults initiative based on international models which we will use to inform our future models of care in the outpatient setting.

• The Mater General Practice Liaison Program advocates, mediates and enables in order to improve patient journeys through integration between general practice and hospital based care settings. Focus areas of the work include development of pathways for access and strategies for improved communication, capacity building and partnership development. The program works locally and across the parts of Queensland, and has been shown to contribute to reduced waiting time for specialist outpatient services, improved safety and quality at transfer and supported co-design of new models of care.
Mater is progressing a number of initiatives to integrate care which will easily scale and support a long term approach to population health, including but not limited to:

• Mater at Home is a mobile multidisciplinary health care service which provides preventative, acute and restorative care in a person’s place of residence, with the aim to assist them to remain independent and with optimum function and wellness in their environment. The service provides acute and subacute care to patients of all age groups with a variety of conditions through Hospital in the Home (HITH), post-acute and transition care programs. The service also provides preoperative home visits and post-operative rehabilitation in the home, facilitating early discharge and improved functional outcomes. Through federal and state government grant programs, Mater at Home is a provider of preventative health programs to individuals and groups attending community centres.

• The Mater/University of Queensland (UQ) Centre for Integrated Care & Innovation has a State, national and international reputation around its core business which is to:
  – develop, implement and evaluate with partners innovative models which aim to integrate acute, primary and community healthcare services that meet the needs of the community, patients and the system;
  – provide evaluation and research consultancy for projects and programs aimed specifically at integrating health services; and,
  – promote and participate in research as part of the programs/projects we undertake across Mater.

• The Mater Research Institute-UQ Centre for Health System Reform and Integration draws researchers and end-users (academics, consumers, clinicians, and service organisations) together far earlier and more powerfully than in traditional research translation models. The model fosters working together from the outset to frame relevant research questions, create research designs that map ‘real-world’ environments, and commit to both implementing the research and utilizing its findings in the broader health service community.
Hospital Digitisation (ieMR)
The ieMR Program
integrated electronic Medical Record
Queensland Health
the journey so far

State-wide build – one system, 20 million patients
eMR visible at all live sites – six large public hospitals
Standardised data capture across all hospitals
Patient centric solution
All clinicians can see all patient information at all times
at any Qld Health ieMR location

The achievements:
- electronic clinical information is available at each patient
  presentation, at any ieMR hospital
- Major clinical benefits in patient care populations for
  haemodialysis, paediatric care and other specialised services
  between tertiary adult and children’s hospitals and referral
  centres
- the ieMR is emergency proofing the health infrastructure –
  particularly the far north – that frequently experience natural
  disasters

Providing care to the population of Queensland

Case Study

The situation
- Brisbane – Friday 1st May 2015
  - Major storm, heavy rain and flood warnings for SE Qld
  - People across the city told to get home early and stay
    away from flood waters

The patients
- 2pm – North Lakes Haemodialysis satellite site
  - site located north of Edmonton
  - 50 patients in usual haemodialysis treatment
  - 5pm – continuing rain, rising flood water – staff and
    patients with prospect of being flooded in

The plan
- NUM phoned Dr Helen Healy at Royal Brisbane &
  Women’s Hospital to discuss disaster plan for patients
  - ieMR – records reviewed by Dr Healy and NUM
  simultaneously:
  - Identified patients that required medications to get
    through night
  - Plan to contact state emergency centre and activate a
    medication drop
  - Emergency evacuation plan

The outcome
- 7pm – dialysis treatments finishing – water receding,
  some roads opening
  - All patients, except one, could get home
  - ‘Team review of ieMR results’ in need for urgent
    medicine drop
  - 1 patient transferred to local Qld Health facility for
    night care and medications

The ieMR future
- Digital public hospital builds – initially
  at two hospitals – late 2015
- Roll-out continuing to many more
  hospitals across Qld – 2016+

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New functionalities introduced as part of the Digitalisation of Queensland Hospitals include:

**SurgiNet**
Providing surgical management, theatre and equipment scheduling, case tracking and perioperative nursing care documentation.

**FirstNet**
A comprehensive information management system for the emergency department.

**Care Delivery**
Providing clinicians with access to various forms of documentation to automate workflow processes for each clinical role in the care team, including structured documentation and automatically generated notes which aggregate chart information across varied care settings.

**Enterprise Scheduling Management (ESM)**
Designed to monitor and manage the wait lists for specialist outpatient clinics.

**Reporting**
Providing clinicians and non-clinical staff with real time access to a wide selection of reports drawn from up-to-date, electronic patient information.

**Order, Entry and Results Reporting (OERR)**
Supporting clinicians to request diagnostic pathology and radiology tests for the patient, and receive, review and endorse results directly inside the patient’s electronic record.

These new functionalities are changing the way staff approach their day-to-day work.
eHealth and St Stephen’s Hervey Bay digital hospital will deliver key benefits to patients and visitors, healthcare professionals and the wider community.

Benefits
At St Stephen's Hospital in Hervey Bay, a higher level of quality and safety will be introduced and medication errors will be minimised via robust decision support features. Most importantly, care will be oriented toward patient needs, patient satisfaction, and exceptional patient outcomes.

Patients
Our eHealth digital hospital provides the following benefits to patients:

- An increase in patient safety through a reduction in medical and clinical adverse events
- Improved communications between the patient and the carer
- Reduction in length of stay due to improved operational efficiency
- Rapid intervention during critical periods of care facilitated by real time alerts and reminders
- Improved medications management
- Access to modern day electronic media and social information

Healthcare Professionals
The eHealth digital hospital provides the following benefits to healthcare professionals:

- A work environment attractive to care providers
- Reduction in transcription, legibility and omission errors
- Enhanced ability for clinicians to coordinate care because of simultaneous access to the electronic record
- Reduced time locating/collecting patient information
- Decreased number of avoidable clinical incidents
- Reduction in the number of unnecessary administrative tasks, meaning clinicians will have more time to communicate with patients about their care and needs

• Enabler to the improvement of the patient pathway, safety and quality of service
• High cost investment that needs to be carefully managed
• Inevitable progress
Health Need
We have to attack Population Healthcare need side of the equation

And innovate the hell out of it.

The number of Australians aged 65 or older, relative to the number of ‘working age’ people.

<table>
<thead>
<tr>
<th>Year</th>
<th>Currently</th>
<th>In 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Now</td>
<td>by 2020</td>
<td>by 2050</td>
</tr>
<tr>
<td>4.4%</td>
<td>144.6%</td>
<td></td>
</tr>
</tbody>
</table>

The increase in Australian public debt relative to GDP, as a consequence of the ageing population.

Sources: OECD, Fiji

Population Shares by Age
Per cent of total population

- 0-14
- 15-64
- 65+

Sources: ABS, RBA
Support people in taking responsibility for their own health

The factors driving this shift and the shape it takes are different in the different depending on location, age and affluence.

Empowering people to take responsibility for their own health supports:

- A shift towards an approach that prioritises prevention.
- Improving health literacy of the population to create the conditions in which preventative techniques can flourish.
- Enables communities to play a role in healthcare provision, for example with end-of-life care, which can free up resources for acute care provision.
Build greater acceptance by the community of ICT in healthcare provision

ICT plays a major role in the delivery of healthcare in a hospital environment, but this needs to be expanded into the home. The rise of the ‘smart wearables’, remote access, video apps and clinical ‘Help desks’ allows for the greater provision of hospital in the home environment, for:

- Chronic disease management
- Difficult pregnancies
- Elderly return to a home environment.

This is not just telehealth, but active in-home management of appropriate conditions. The challenge is gaining acceptance from both patients and clinicians of such technologies as an acceptable form of healthcare delivery.

Only by fostering such a cultural shift will the possible benefits from these technologies be realised by Hospital services and its patients.
West Moreton and Philips launch innovative MeCare program
27 Oct 2016

West Moreton Hospital and Health Service and Philips launch MeCare, a personalised connected health management program for high needs patients in Australian communities

Revolutionary population health management model of care offers independence to patients who suffer complex chronic illness.

Brisbane, Australia – Royal Philips (NYSE: PHG, AEX: PHI), together with West Moreton Hospital and Health Service (WMHHS) and Queensland Health have launched a connected health program using the latest health data technologies called MeCare to deliver proactive, continuous and integrated patient care for Australians with complex chronic illness who, consequently have reduced quality of life and require frequent hospitalisations. This is the first program in Australia and Asia Pacific helping the high acuity complex chronic population.

MeCare aims to improve the health and quality of life for individuals from the West Moreton community with chronically poor health, while providing significant economic benefits also to the hospital and health system. The program is tackling the challenges of increased expectations to improve self-management, be treated closer to home, an aging population and increased pressure on the hospital system by transforming the delivery of care supported by connected health technology.

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Allocate resources to promote health rather than treat illness

Radically shifting resources towards upstream prevention, rather than treatment, of illness.

This long term approach is difficult to prosecute as:
- Required short term benefits are often limited,
- Crosses many government departments, including;
  - Education,
  - Communities and
  - Justice.
- Crosses funding boarders between Primary and Secondary healthcare
  (State and Federal)

The pressure on health service budgets is going to continue into the future. Allocating resources towards prevention and promotion of health will save a lot of money in the long run and future-proof health services against long-term reduction in budgets.

Currently only spends 1.43% of all health spending on prevention and public health. Future planning should consider increasing this to a much higher proportion of healthcare spend.
Government per capita expenditure on public health services in US dollars in selected OECD countries.
Data source: OECD statistics

<table>
<thead>
<tr>
<th>Country</th>
<th>Per capita (US dollars, 2010)</th>
<th>Share of GDP</th>
<th>Share of current expenditure on health</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>US dollars, 2010</td>
<td>Percentage</td>
<td>Percentage</td>
</tr>
<tr>
<td></td>
<td>Rank</td>
<td></td>
<td>Rank</td>
</tr>
<tr>
<td>Canada</td>
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<td>Norway</td>
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<td><strong>16</strong></td>
<td><strong>0.15</strong></td>
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</table>

Government expenditure on public health in 2013 for OECD Member countries using three different measurements: per capita expenditure, per cent share of GDP and per cent share of current expenditure on health.
Data source: OECD statistics
Figure 1.1: The structure of the Australian health-care system, and its flow of funds
Questions
Per person expenditure by individuals (that is, averaged over the whole population) grew at an average of 4.0% per year from 2004–05 to 2014–15 (Table 3.11). In 2014–15, per person expenditure by individuals grew by 1.9%, less than half the annual average growth rate. Expenditure on benefit-paid pharmaceuticals declined by 6.6% in 2014–15. In contrast, expenditure on hospitals grew by 10.6%.
Figure 3.1: Total health expenditure, by source of funds as a proportion of total health expenditure, 2004–05 to 2014–15

Source: Table 3.2.
**YLD** - Non-Fatal burden is expressed as years lived with a disability (). YLD measures the proportion of health life lost due to living with a disease in a given year.

**YLL** – Fatal burden which is expressed as years of life lost, measures the years lost between the age at which a person dies and the number of years they could have potentially lived.

**DALY** – Non-fatal and fatal burden are added together to produce a single summary measure called disability-adjusted life years.

*Source: Australian Burden of Disease Study 2011: Table S3.1.1.*
Source: Department of Health 2015c.