EFFECTIVE MEDIHOTELS: BUILDING CONNECTIONS FOR PATIENTS AND HOSPITALS

Western Australian hospitals are the heart of our advanced health system; assessing, testing and treating, they provide answers to the sometimes fearful moments in the journey between life and death. Our hospitals assure safety as highly skilled professional carers deploy complex knowledge to provide the best possible life for each of us. But as highly skilled, technologically-rich environments providing individual attention to each person who presents for care, they are very expensive to operate. So hospitals continue to evolve to maximize the number of people who can gain access to the range of clinical care they need. Across the nation, public hospitals have changed from largely caring for people in wards to diagnosis and treatment centres, where almost half of expenditure (43%) is now for patients not occupying a bed. (Productivity Commission 2016).

Medihotels offer new access to specialist acute clinical services for rural Western Australians before and/or after hospital treatment for people who do not require admission for their care. As providers of accommodation medihotels will provide day-to-day living support for patients while they access clinical care at nearby hospitals. For hospitals medihotels provide an opportunity for earlier discharge for some patients, and better access for monitoring, testing and treatment and early recovery or rehabilitation near the hospital. Medihotels also offer an opportunity for Perth public hospitals to reduce length of stay (and costs) for some patients, to closer to the national average, while optimising efficiency and the use of hospital resources(Victorian Department of Health 2010).

Securing the potential of medihotels is entirely dependent on assuring patient safety. This paper outlines some simple governance arrangements to establish and report on patient safety in medihotels. Consultations with a range of clinicians, development of clinical pathways and protocols will need to underpin the effective operation of each medihotel. Transparency in pricing, using the range of funding options available, is critical to ensuring the people who need the service can gain access to it. The W.A. government will also require confidence that facilities and staffing arrangements sustain patient safety. Well-defined clinical, hospital, governance and financial relationships are required to form a strategic network to assure safety for vulnerable Western Australians seeking care.

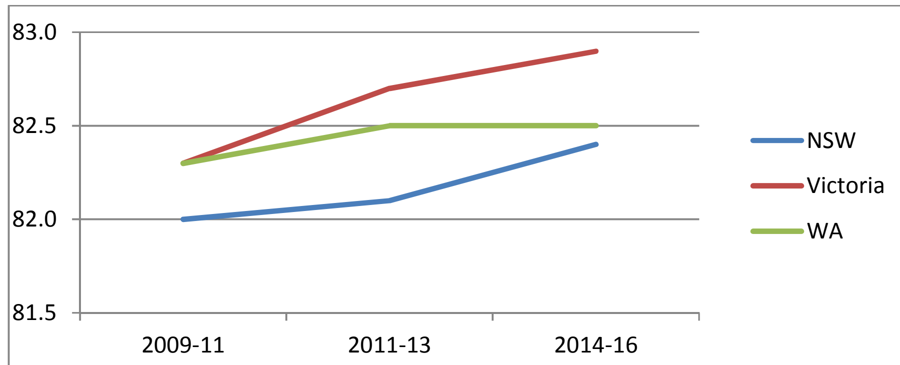
Finally the paper considers models for enhancing health literacy used in Britain, Norway and the USA and suggests their adaption and adoption for medihotels. But first, what can medihotels provide to improve the health of Western Australians?

CHALLENGES

WA public health services enable Western Australians to experience good to excellent health at all age levels. Public hospitals achieve high standards of care and some of the highest rates of day-only treatment in Australia. But despite recent hospital developments, demand for public acute healthcare is greater than bed capacity, for a range of reasons. Life spans for most Western Australians remain at the national average of 82.5 years but below Victorian lifespans(ABS 2017). Rural and remote people have some of the lowest life expectancies in the nation and require better access to clinical services to share the benefits of the healthy lives of most Western Australians. Improving health literacy is necessary to reduce the anticipated burden of disease. How can medihotels assist in achieving these goals and improve the outcomes patients, taxpayers and the W.A. Government seek?

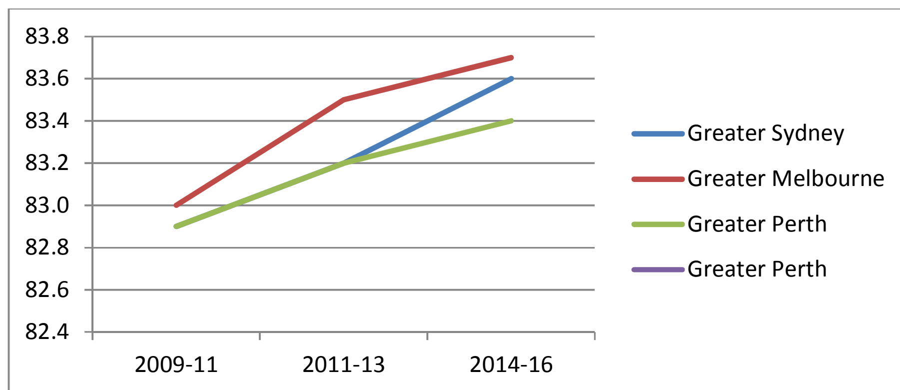
Western Australian average lifespans have remained steady since 2011 while NSW and Victoria have improved.

Figure 1 Lifespans 2011-2016, NSW, Victoria and W.A. (years of age)



When compared to residents of greater Sydney and Melbourne, greater Perth residents have experienced improvements but not at the same rate as Sydney and Melbourne residents.

Figure 2 Lifespans 2011-2016, Greater Sydney, Melbourne and Perth (years of age)



Source: ABS 3302055001DO002 2014-2016 Life tables, States, Territories and Australia, 2014-2016

Western Australians in different locations have significantly differing lifespans with 3.5 to 4 year lifespan differences between people living in the W.A. outback and inner city Perth(ABS 2017). W.A. outback resident lifespans were equal to the Northern Territory with only outback Queensland showing a poorer result for 2009-13. Rural Western Australians continue to have life spans below the national average.

Table 1 Lifespans of Western Australians by region, 2011-2016 (years of age at death)

	2009-11	2011-13	2014-16
Perth Inner	83.6	84.2	84.0
Greater Perth	82.9	83.2	83.4
WA Wheat Belt	81.2	81.4	81.7
WA Outback (North)	77.6	78.6	78.5
WA Outback (South)	79.5	80.2	80.0
Rest of WA	80.9	81.4	81.1
Total WA	82.3	82.5	82.5
Australia	81.9	82.1	82.5

Source: ABS 3302055001DO002 2014-2016 Life tables, States, Territories and Australia, 2014-2016

Access to primary and secondary health care for rural and remote Western Australians is difficult. Perhaps as a consequence, Western Australians are a high hospital use population and the three lowest socio-economic groups, indigenous, rural and remote Western Australians have some of the highest public hospital use in the nation. WA has higher rates of hospital admissions per 1000 population than the national average, NSW or Victoria (AIHW 2017b). Rates of admission for indigenous people are almost triple the NSW rates (1,699 per 1000 population compared to 569 per 1000 population) and 75% higher than the national average. Yet for indigenous people the sameday admissions for indigenous people fall when dialysis is removed to the second lowest in the nation(AIHW 2017a). However cancer diagnosis for bowel, lung, breast and cervical cancer are at or below national incidence(SCRGSP 2017).

Same day separations per 1,000 population, selected states and national average, 2						
2015-16	**NSW**	**Vic.**	**Q'ld**	**WA**	**SA**	**Australia**
Same day	183	251	264	257	208	229
Overnight	146	147	166	150	154	152
Total	329	398	430	407	362	381
ATSI						
Sameday	345	472	573	1,378	578	702
Overnight	224	222	370	321	273	270
Total	569	694	943	1,699	851	972
Sameday minus dialysis	124	195	189	127	143	157

Source: AIHW *Admitted patient care 2015–16: Australian hospital statistics.* 2017,

Access to health services can affect health status with people living in rural and remote areas having poorer health status and higher levels of disease risk factors than those living close to major medical facilities in cities(SCRGSP 2017). Western Australians who live outside the metropolitan area have worse health than city residents (Coory M D 2013; Ho K M 2008; Tomlin 2013). Inner city people close to the best health facilities have the best health(Australian Health Policy Collaboration 2017). The length and quality of life for Western Australians diminishes with each 5km distance they live away from tertiary hospitals.

Access to appropriate affordable accommodation near major hospitals is one of the major impediments to reversing health problems for country people[1]. For WA adults who live outside Perth:

- Coronary heart disease is the largest single cause of death in Australia. Patients in rural hospitals who need invasive cardiac care are commonly transferred to Perth. Monitoring a group of 57% men, 10% aboriginal and 33% women, the study concluded that further attention to cardiac care in rural Western Australia is required. (Blokker BM. Janssen JH. van Beeck E. 2010)
- ICU patients from Royal Perth were followed for 16 years and seriously ill patients from rural and socioeconomically disadvantaged areas had significantly higher long-term mortality than patients from the most socioeconomically advantaged areas, over and above the background effects of age, comorbidities, severity of acute illness, Indigenous status, and geographical accessibility to essential services(Ho K M 2008).The authors concluded better access to intensive healthcare follow-ups would have reduced mortality.

[1] Samera L J. "Rural patients travel for health care." *Medical Journal of Australia* 201(10) 17 November 2014 also Walker, Bruce F., Stomski, Norman J., Price, Anne, and Jackson-Barrett, Elizabeth. 2014. "Indigenous People in the Pilbara About the Delivery of Healthcare Services." *Australian Health Review* 38 (1): 93-98 and Kerr R. 2008. "Medihotel Survey " *Health Consumers Council WA Newsletter, 16 October 2008*.

- Examining nearly 20 years of data on patients with colorectal cancer, it was found that, if the first admission was to a WA country hospital the chances of survival were poorer than city people accessing colorectal surgery. But it was found that when a city hospital was the first admission, country and city patients had similar prospects for survival - that is if country patients travelled to Perth for surgical treatment when it was required.(Hall SE. Holman CD. Platell C. Sheiner H. Threlfall T. Semmens J. 2005; Hall 2004)
- Similarly the outcomes for West Australian lung and breast cancer patients over a 12 year period were examined. The study showed that lung and breast cancer patients treated in rural hospitals had higher death rates than patients treated in public or private hospitals in Perth. (Hall 2004)
- A NSW study found that optimal treatment for the leading cause of cancer deaths, lung cancer, was associated with access to specialist thoracic surgical intervention. Patients with access to specialist care through residence or health insurance had the highest chance of survival. (Currow D C You H Aranda S McCaughan B C Morrell S Baker D F Walton R and Roder D M. 2014)
- Patients from WA who had a stroke in 1995 were followed for 5 years and it was found that 18.3% of patients went on to have further strokes. However while rural patients were only 18% of initial stroke patients, they formed a disproportionate 27% of all patients who had further strokes. Diabetes was a complicating factor. (Lee AH. Yau KK. Wang K. 2004)
- Significant differences exist in the injury hospitalisation and mortality rates between rural and urban residents, with rural injury rates 150% higher than urban injury rates. A NSW study found that all rural men had higher injury rates, death rates and more hospitalisations than their city brothers, but rural men aged over 70 and rural men aged between 20-34 years were particularly endangered. (Mitchell RJ. Chong S. 2013)
- Another study noted that access to inpatient dental surgery was worse for rural people. They found that "people living in highly accessible metropolitan areas have a 3 times greater chance of being hospitalised for this procedure than those from the remote and rural areas." (George 2011)
- A national study of farming families found elevated risk factors for Cardio-Vascular Disease including the prevalence of psychological distress and obesity, abdominal fat deposits, body fat percentage and metabolic syndrome in older (age > 50 years) participants.(Brumby S. Chandrasekara A. McCoombe S. Kremer P. Lewandowski P. 2012)

Reported obesity rates for Western Australians are the highest of any Australian state with 24.3% of adults and children obese and 11.6% overweight(SCRGSP 2017). This predicts an escalation of demand for access to public hospitals with 30% death rate increases, 60-120% increase in rates of diabetes, renal failure, and liver disease and 20% increase in respiratory disease and a 10% increased risk of cancer for every 5 point increase in Body Mass Index (BMI)(Whitlock G 2009) Advice from London and other European cities supports the view gained from the Australian Health Tracker(Australian Health Policy Collaboration 2017) that for each station along the main train lines average life expectancy drops by 1 year(Otgaar 2016).

Two options suggest themselves-

- improving access for rural and socio-economically disadvantaged patients to required clinical services and
- improving patient-specific health literacy.

NEW OPTIONS, NEW PATHWAYS

Overcoming the tyranny of distance requires a multi-dimensional strategic approach incorporating a range of options potentially including broader clinical pathways, better connectedness based on and around the patient (Productivity Commission 2017), funding reform (Submission ANON-JEBP-PEBF-X), improvements in patient-focussed health literacy, and the strategic development of partnerships based on the best interests of the patient, health system effectiveness and the taxpayer.

Western Australians accessing appropriate care

As a new platform for patients to access care, medihotels enhance the range of options open to patients, potentially improving access and aiding flexibility for both hospitals and patients. Medihotels offer the opportunity to improve efficiency in hospitals while providing better access to clinical care for people challenged in the current system. Connectedness between patients, clinicians and hospitals has been found wanting(Productivity Commission 2017). Clinical guidelines and pathways offer a more structured platform to address issues of missed care or follow up. Medihotels offer a place where rural people can access diagnostic and screening services, pre-acute specialist access through outpatient clinics or private medical appointments. Similarly patients having tests, after surgery, consultations or physiotherapy can access the hospital from the medihotel without being inpatients (as at the Gaustad Hotel at the Rikshospitalet University Hospital, Oslo).

The need for a medihotel was identified for Pilbara patients from 3 language groups who missed specialist clinical care because they were "unable to secure adequate accommodation for themselves and any carer when needing to leave country to undergo medical care. The importance of secondary healthcare interventions was highlighted, particularly health promotion initiatives that improved diet and exercise levels and reduced substance abuse."(Walker 2014)

In 2004, the Reid Review of WA metropolitan health services recommended medihotels be established at tertiary hospitals north and south of the river.(Reid 2004) The Reid Review estimated up to 10% of patients in public hospitals would benefit from access to a medihotel based on a review of Rockingham patients. (Reid 2004)(page 54, recommendations 19 &32)

In 2008, the National Health and Hospitals Reform Commission (NHHRC) found "the inability of many patients to access a comprehensive range of sub-acute services represents a significant "missing link" in the care continuum. This service gap seriously erodes the effectiveness of other services, such as acute hospital care, as well as causing poorer outcomes for patients." (NHHRC 2008)(page 145) Sub-acute care includes rehabilitation and medihotels.

Developing effective medihotels

So medihotels in Western Australia are anticipated to provide another supportive step in the continuum of care for a wide range of patients. However, the range and nature of medihotel services is yet to be defined in the minds of Western Australians. Similarly clinicians welcome the concept but look for patient safety in the transition points from inpatient care, to hospital-based outpatients care and then community-based clinical involvement.

Making a difference & Achieving the goals

Medihotels offer an opportunity to improve patient access to a range of clinical services, if Governance arrangements for medihotels are primarily focussed on the benefit to W.A. patients and taxpayers. Safety and security for patients when discharged to a medihotel will need to be assured. Evaluation of service effectiveness from the functional, financial, clinical, population health and patient perspective is necessary to substantiate the medihotels effectiveness in W.A. Initially this will require some centralised oversight and establishing a basic level of reporting aligned with goals and objectives. Clinical consultation and planning tailored to patient requirements, clinically and individually, will need to precede the operation of medihotel services aligned with a simple system of certification for required safety and quality standards. Similarly negotiations over the price for patients and hospitals, public and private, health insurers and the Commonwealth are important to the scale and usefulness of medihotels. A range of financial arrangements are available but require negotiation, cost analysis and consultation. The cost of patient accommodation for hospitals ideally would be a function of the Efficient Price. The key element of hospitality for vulnerable people away from home should be present at the heart of a medihotel ideally fostering connectedness and a level of community (as the Cancer Council and Ronald McDonald House famously achieve).

Effectiveness for medihotels for the health system will be:

- Acceptance by hospital-based and community-based clinicians
- An identified part of the clinical pathway (Healthpathway) or continuum of care for a range of patients
- Connected and documented to diagnosis-specific clinical elements of patient pathways
- Cost effective in the delivery of support and accommodation services
- Supporting more cost-efficient public healthcare delivery for patients who are single, living with disabilities, or from rural and remote areas
- Operating within a regulatory environment that ensures guest safety, security and support pre- or post-acute care
- Can be identified as having saved money for the public health system
- Hosting guest/patient-centred healthcare information hubs to improve health literacy for patients and their families and
- Supporting decanting and crisis overflow for public hospitals.

In the first few years Communications between hospitals, medihotels and patients will need to be actively developed to review and improve medihotel and clinical arrangements, consider policies arising from any readmissions to hospitals and strategies for any post-discharge reversals. The effectiveness of medihotels to assist hospitals optimise their efficiency by partnering to support both the hospitals and patients achieve better outcomes should be monitored by WA Health.

Safety, affordability and clinical confidence will need to be evident to all Western Australians.

Health Literacy "The Teachable moment"

Medihotels can also be the place where patients can learn about their disease(s), their causes and options for future health improvement, at their own pace. Immediately after diagnosis, investigations or a hospital stay patients are uniquely focussed on their changed circumstances and their inevitable mortality. This can be the moment when patients will engage with advisors who can personalise the available medical information and the actions they can take.

Many people fail to be moved by brochures especially those with poor health literacy. Using medical librarians, nurses, volunteers and health educators, patients and their families can ask questions and gain personal understanding, in their own time. Time to understand, calibrate and decide on lifestyle changes is not always available during appointments with specialists or on the wards. For many rural Western Australians access to primary care and developing a relationship with a trusted general practitioner is difficult. WA has some of the worst doctor to population figures in Australia. Country men are particularly disadvantaged accessing health advice.

A medihotel information hub would build on the examples of the Maggies Centres in Britain, the Planetree Centres in the USA and the 'Know Your Disease 'hubs in the Rikshospitalet in Oslo and elsewhere in Norway. These centres provide information, support and advice in comfortable unhurried domestic setting where patients feel less vulnerable and uncomfortable.

Based on international experience it is expected that at WA medihotels, people will have time to receive the advice they have found difficult to receive at home. Providing health education services at a medihotel brings preventative services directly to the people who require them. While patients are accommodated in a medihotel near the premier medical services of our State, there is time for them to engage with outreach educators from the clinical units, deepening the engagement and patients' commitment to a healthier future. This would be part of the clinical pathway linked to hospital and community health providers.

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