



# CENTRAL WEST SINGLE PRACTICE SERVICE MODEL

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## Central West Single Practice Service Model

### Abstract

**Aims and objectives:** This paper describes the design and operations of the Queensland Central West Single Practice Model of health care organisation; examines its place within contemporary models of rural health care organisation; identifies its implications for the structure of rural health care delivery and examines its generalisability to other contexts.

**Method/Design:** The study has undertaken an analysis of selected national and international literature concerning the structure of rural health care delivery; policy analysis of the social, political and economic contexts in which the model has been developed; structural and systemic analysis of the model and the rural health care system within which it operates and analysis of the perspectives of key informants engaged in and delivering the model.

**Results:** The study found that the Central West Single Practice builds upon the success of the Queensland Rural Generalist Pathway for post graduate medical education and service delivery. It has provided a means by which all the hospitals in the region could be integrated within a cohesive hub and spoke service and education model and has demonstrated an effective mechanism for training future workforce and integrating public and private practice, made explicit through a contractual system. It has developed means by which local rural generalist service needs may be balanced with advanced skills requirements of the cluster as a whole. The study documents the impact of the model upon recruitment and retention, finance, workflow management and education of clinicians.

**Conclusions:** The Central West Single Practice model has been demonstrated as an effective mechanism for the structure and delivery of rural health admitted and non-admitted services in a remote Queensland district. It has the potential to be extended to other districts within Queensland and elsewhere in rural Australia

# Central West Single practice service model

## Background

Rural and remote health services in Australia face particular challenges with respect to workforce. The provision of health services requires the availability of a skilled workforce of physicians, nurses, allied health professionals and ancillary staff. Many rural areas however experience difficulties in recruiting and retaining such a workforce (Humphries et al, 2009).

The reasons for this are complex and inter-related. Rural health care provision can be isolated and demanding. The smaller number of practitioners with variable and or complementary skills often requires long hours of work on punishing rosters. There can be an absence of professional and colleague support. A relatively narrow range of clinical activity can fail to provide the professional challenge that practitioners seek and limited physical and clinical capacity will often see interesting and extending clinical activity transferred to larger centres. Where practices require privately derived income, the scale of the population served and its socio-economic profile will often mean that there is insufficient revenue to support the practice.

These challenges have been exacerbated in more recent times by drought, mining downturn, external market shocks and changes in the demography and expectations of the medical workforce. An increasing number of medical graduates are women who, like younger male graduates have an expectation of greater time to devote to family activities, and medical graduates generally indicate a desire for an improved work/home balance. More recent medical graduates appear less willing to make the substantial personal and financial commitment that is required to establish a private practice, especially where there may not be a market from which they could recover their investment should they choose to leave.

The impact upon the provision of health services of the continuing difficulties in recruitment and retention is substantial. It can lead to discontinuities in services and in some cases, service closures. It frequently leads to impoverished business systems for chronic disease management. It can lead to serious problems in continuity of care and underdiagnoses of serious conditions. Health services incur substantial costs in the employment of locums, reducing funds available for other high priority activities (Humphries et al, 2009). Frequently health services have had to rely upon International Medical Graduates (IMGs) many of whom have been prepared to stay only until they meet registration requirements, and who have require substantial additional support to adjust to cultural contexts.

The establishment from 2005 of the Queensland Rural Generalist Pathway (QRGP) was a transformational development for rural medical workforce in Queensland. It provided a mechanism whereby medical graduates have been supported and encouraged to take up rural appointments within Queensland Health which utilised both general practice and advanced skills. It provided them with access to a structured training program through the Australian College of Rural and Remote Medicine (ACRMM) or the Royal Australian College of General Practice (RACGP) and access to advanced standing within the state health industrial system. At the time of writing, the QRGP has 110 trainees/fellows working rurally and has had a cumulative 425 intern commencements (Cunningham Centre, 2015). This, together with the significant increase in medical graduate

numbers from Australian Universities has increased the possibility of recruiting an appropriately skilled medical workforce for rural Queensland.

Increasing the number of possible medical recruits to health services does not however fully address the requirements for a sustainable health service. The workforce requires an organisational framework which can manage the administrative and non-clinical aspects of care. It requires a sustainable financing model such that the resources required for service delivery can be assured and efficiently managed. It requires a service framework which can order the relationship between service elements to ensure continuity of care. It requires an education framework which will support clinicians in obtaining and maintaining skills in a relatively sparse professional network. It also requires a clinical governance framework which will place quality and safety at the centre of professional and organisational practice.

The Central West Single Practice Model provides a framework within which the QRGF operates in one large rural and remote region. It provides the organisational structure within which the other systems (service planning, service administration, financing, education and clinical support) are brought into alignment to create overall system sustainability.

## **The Central West Context**

The Central West Health and Hospital Service (CWHHS) district covers an area of 385,000 sq. kilometres, approximately 22% of the state of Queensland. It serves a resident population of 12,405 people which can double in the winter tourism season. The population is thinly distributed across the district. Longreach (3,356) and Barcaldine (1,655) and Winton (954) are the largest towns and smaller communities are located in smaller towns and on isolated pastoral properties. The district has experienced severe drought for four years which has placed considerable strain upon the community.

The district is served by a thirty one bed acute hospital located in Longreach. Smaller hospitals are located in Barcaldine, Alpha, Blackall, and Winton. These facilities are managed directly by the Central West Health and Hospital Service. General Practices are located in Longreach, Barcaldine, Winton, Alpha and Blackall.

The town General Practices operate as private General Practice services, though in the cases of Winton and Blackall and Alpha, they are owned in a transitional arrangement by Central West Health (CWH). Community Health services are provided by CWH in Longreach and remote area nurse led Primary Health Clinics are provided in Aramac, Birdsville, Bedourie, Boulia, Isisford, Jericho, Jundah, Muttaborra, Tambo and Windorah. Longreach General Practice provides outreach medical services to Isisford: Blackall General Practice to Tambo; and Barcaldine General Practice to Alpha, Aramac, Jericho and Muttaborra Primary Health Clinics. RFDS doctors service Jundah, Windorah out of Charleville and Birdsville Bedourie and Boulia out of Mt Isa.

The district has experienced many of the difficulties of rural and remote communities in maintaining health service infrastructure in relatively inhospitable conditions and where service volumes struggle to provide sufficient incentive for private health providers.

The Central West Single Practice Service model evolved as a means of maintaining and extending medical services across the district. In doing so it was required to address the availability of workforce for primary health care as well as secondary treatment and acute inpatient care.

## **Evolution of the model**

The model of medical officer employment for rural Queensland had provided a level of stability and predictability over many years. This model is based upon the Medical Superintendent with Right of Private Practice (MSRPP) system, which was formalised in 1989 and supported by an industrial award. This is essentially a retainer model which ensured that a clinician is available for duties in public hospitals with a specified span of responsibilities but not specified hours. It grants independent private practice rights with no claim by the Health Service upon private income. MSRPPs are provided with a practice setting and entitlements such that the positions could be well remunerated and attractive for clinicians. The public hospital system was dependent upon the model remaining effective as a means of attracting and retaining the medical workforce, and the model was heavily reliant upon the attractiveness of rural private practice.

The effectiveness of the model came under significant pressure around 2000. There was a significant decline in the availability of medical officers willing to engage in the MSRPP model in remote locations and also larger centres with secondary services. This meant that in many places there was no effective private practice. A survey of MSRPP medical officers found that the system was recruiting very few Australian graduates and the system was becoming almost entirely reliant upon international medical graduates (IMG). A number of rural medical services were facing the prospect of closure when long standing clinicians left practices and could not be replaced. These emerging workforce difficulties were identified as being related to changes in the make-up of the medical workforce and the expectations of new medical graduates; in particular the increase in female graduates who had greater expectations of work and family balance; a growing unwillingness of graduates to commit themselves long term to a particular rural practice and an increase in specialisation such that graduates were less willing to commit themselves to office based general practice.

The Queensland Rural Generalist Pathway (QRGP) was developed in response to the potential crisis associated with the threat to the viability of the MSRPP model. It facilitated training in advanced skills for graduates and their appointment to relatively senior posts in rural hospitals. It also was focused upon realising the career goals and aspirations of graduates (Queensland Health, 2015). The QRGP contributed to an improvement in the ability to attract rural proceduralists to the Central West and to other rural and remote areas of Queensland. Graduates through the QRGP were able to be appointed to positions in places such as Longreach Hospital with accreditation as General Practitioners with advanced skills training in obstetrics, emergency medicine or anaesthetics. A limitation however was the viability of general practice in such places.

The development of the Longreach Single Practice model arose from the general context of the vulnerability of the MSRPP model and the difficulties associated with the disjunction between the public and private provision of rural medical services. Public and private medical services were separately structured and financed, but the MSRPP model bridged the two and assumed that both were viable. Difficulties arose when either became not viable because of demand, workforce or funding issues. In the case of Longreach the difficulties associated with recruitment to hospital

medical positions created clinical governance risks but also threatened the viability of the private general practice. Similar issues existed at Barcaldine, Blackall and Winton where retiring doctors could not be replaced and services became largely dependent upon locums.

The initial solution trialled in Longreach was for the private General Practice to enter into a contract to supply medical workforce to the hospital. An experienced clinician chose to leave the employ of the hospital and take on ownership of the General Practice. He entered into an arrangement whereby his privately owned practice would take responsibility for the supply of medical staff to the Health and Hospital Service in Longreach. This had some initial success in that the total number of clinicians was increased. It foundered however when the private practice lost significant personnel. The arrangement could not recruit the number of clinicians required and was vulnerable in the face of quite modest staff movements. Also, the employment conditions for Rural Generalists were beyond that which could be met through a general practice. This reflected the extended role that they would play within the health care system with respect to sub-specialties of practice.

In 2009 this contractual arrangement came under pressure. With the leaving of a principal of the practice there was the real prospect that both the private and the public health service could not be sustained. Queensland Country Practice (QCP) became actively involved with the then Health District in undertaking service and workforce design. Options were developed for a sustainable medical workforce which was essential for the operations of both the public and private businesses. The preferred model developed entailed the provision of medical workforce for both the public and private sectors by the public health service. A General Practice Management Company (GPMC) was to be established which was a private entity and would be responsible for the business operations of the General Practice. It would contract with the Central West Health and Hospital Service for the supply of medical workforce; the contract to define the responsibilities of both parties as well as the allocation of risk and financial arrangements.

## **The Contract**

While the initial contract was a labour supply contract and was between the General Practice and Queensland Health, the new contract was concerned with management of chronic disease and performance, and the shared medical workforce. This contract was between the GPMC and CWH. A renegotiation in 2014 made explicit the sharing of information records as part of the contract.

The experienced senior clinician who had purchased the private general practice returned to the hospital as a Senior Medical Officer (SMO) and took responsibility for the management of all medical services. The GPMC was established as a separate legal entity which provided the practice management and back of house services required to manage a successful private practice.

This was a complex proposal which challenged accepted practice which assumed the rigid separation of public and private responsibilities. While there was precedent for the supply by private sector organisations of services to state bodies, there was little precedent for the supply by the public sector of services to private organisations, and there was significant opposition from within Queensland Health. The proposed contract for the supply of medical services was subjected to a detailed technical and legal analysis and audit. Critical consideration was given to the business case supporting the development. While this process took considerable time, the contract eventually

approved has the continued endorsement of all parties and is considered a rigorous basis upon which the services can be based and potentially extended to other areas.

The contract specified in the first instance a 50/50 revenue split between the HHS and the GP Management Company, with a view to this moving to 60/40 over time as the number of doctors, occasions of service and revenue increased. This compares with models for splitting income of between 60 and 70% of total billings for professional remuneration in corporate medical practices. The lower agreed income split in the contract recognises the lower throughput, generally longer consultations and higher service costs experienced in remote areas.

The model has subsequently been extended to other parts of the HHS district through the incorporation of the Barcaldine facility within the model and the purchase by the HHS of the at risk private medical clinics in Winton, Alpha and Blackall. In cases where private General Practices have not been sustainable, the HHS has purchased or assumed the management of local GP practices while progressively encouraging the establishment of privately owned General Practice Management Companies with which it can contract to provide medical services.

There has been a further rationalisation of services in Longreach whereby hospital based outpatient services which are MBS billable under COAG Sec 19(2) (COAG, 2007), have been progressively moved out of the hospital to the General Practice. While this has had an initial financial cost to the HHS because of the loss of billings, it has ensured greater viability for the General Practice. A further iteration of the model involved the provision of a bulk billed walk in medical clinic which is located physically separate from but proximate to the general practice.

In order to work the model has required a robust contract which specifies the responsibilities of the parties; but beyond this it has required a partnership between CWH and the GPMC. The partnership is based on mutuality, whereby each party is committed to the success and sustainability of the other. Thus, the GPMC has been willing to give priority clinician attention to the hospital when this has been required and CWH has forgone primary care billings revenue in order that the GPMC would increase viability

The development of the model has been opportunistic in that it has responded to the challenges posed by a particular situation and has addressed these in a way which has taken advantage of the particular personnel and circumstances that were available. It has also however been a careful and considered approach to the development of a competent business model for both public and private services.

## **Essential elements of the model**

The Single Service Model represents a response to the specific issues associated with rural and remote medical services provision. The critical elements of the Central West Single Practice model are:

***There is a shared medical workforce within the district.***

By combining the medical presentations for both public and private medical services and the associated revenue for both a critical mass of activity is achieved and the viability and sustainability

of both public and private services is enhanced. This has been critical in maintaining a district hospital and also a viable primary health care service based on general practice.

For complex patients and those with chronic diseases, continuity resides in the system rather than in the individual doctor who may have been the sole care provider for many years. Clinicians have access to both GP and hospital records which improves continuity of care and reduces opportunities for error associated with clinical handovers.

Clinical business systems support the workforce to be effective, including computerised records, common administrative systems and formal accreditation such as AGPAL. Management of the business systems is devolved to more specialised people. This includes doctors as medical administrators responsible for clinical business systems working with business owners including incorporated businesses, private individuals or doctor business persons. The rest of the doctors provide medical services without direct encumbrance by business profitability concerns.

***Medical staff are flexibly deployed across the primary health care and acute care sectors dependent upon their skill sets and the service requirements.***

The model optimises the skills available as a consequence of the QRGP. Each of the cohort of rural generalist doctors (RGDs) is expected to acquire and maintain an advanced skill training (AST) to supply the extras skills needed by rural GPs to manage patients as close to home as possible. The focus has been on DRANZCOG and JCC Anaesthetic ASTs given the absolute imperative to maintain birthing services at Longreach. In the Single Practice Model all ASTs held by any doctor in the district are made available across the district (Rimmer, 2013).

CWH employs all medical staff on a “whole of district” basis such that doctors have a district wide responsibility as well as their responsibility to their individual locale. Telehealth allows application of an AST across the district and the doctor with that AST has a responsibility to share that extra knowledge. In order to facilitate free movement of doctors with the focus on the work most needing to be done there is a strong preference for an all Salaried Medical Officer (SMO) model.

The contract specifies the numbers and availability of staff required to provide General Practice services. The pool of staff is deployed to meet the required rosters and also to meet the advanced skills requirements of the hospital.

***General Practice Management Companies exist as private sector entities and are responsible for the delivery of general practice services and for billing eligible services. Where necessary, these entities may be owned on a transitional basis by the HHS.***

The organisational management of General Practice is outside the experience and expertise of the public Health and Hospital Service. These responsibilities are located in organisations which have the skills and also an incentive towards their efficient conduct.

***Clinical governance operates across the full range of public and private services***

The clinical Goal Statement of the HHS is that:

*Residents of Central West Region will have access to modern, evidence based, patient centred clinical care delivered by appropriately skilled clinicians, in a timely fashion, as close to home as is safe.*

*The patient experience will inform all aspects of practice from system design to the individual clinical decision*

“As close to home as is safe” is defined by the service capability of the most appropriate facility closest to the patient’s home.

Clinicians are challenged to deliver services closer to the patient’s home by the use of current and evolving technologies and workforce models. Evidence based clinical services are assured by mechanisms specific to each of the clinical disciplines with reference to their wider clinician community and state and national quality assurance mechanisms. Clinical skills are assessed and normed against published national standards

The Single Practice Model has allowed CWH to pursue an **integrated care model** across primary and secondary services so that the patient experience is enhanced by a simple model of funding, continuity of care for patients across the care continuum is enhanced and the potential for adverse events associated with problems in communication and handover reduced.

***An education and training strategy underpins the service provision to ensure the continuing sustainability of the workforce strategy***

The Single Practice Model has been designed from its inception as a teaching service which attracts a particular type of student and graduate who is committed to rural practice and to working with patients across the service continuum. The service provides teaching places to medical students, junior city hospital doctors on formally organised teaching rotations, registrars and rural generalists, as well as nursing and allied health students.

An important aspect of the education model is the presence of the Director of Clinical Training (DCT) as educational champion. This position is occupied by an experienced clinician who has had a long experience with the community and the health services. There is a guaranteed availability of support for clinician learning which includes the use of information technology as required. Distance is not a barrier to being part of the clinical team. The pervasive learning culture includes nursing and allied health staff, 4<sup>th</sup> and 6<sup>th</sup> year medical students, nursing and allied health students as well as physicians (Douyere, 2015).

Peer-to-peer learning is built into the quality assurance processes as well as the education model. Education is vertically integrated such that everyone is expected to be a teacher and a learner. This is given practical expression through a weekly breakfast education session led by rotating clinicians, including students and registrars, in which all members of the team participate, including those at a distance by videoconference. Formal clinical handover and robust case discussions take place each morning at each hospital, involving all members of the team present, including physicians, nurses and allied health professionals. James Cook University medical program has a strong emphasis on rural origin student selection and extended rural placement feeding the medical workforce pipeline (Ray et al, 2014). The newly established AGP organisation for North West Queensland (Generalist Medical Training) has the pipeline concept embedded from the start.

The distinguishing features of the model and its variations from traditional models is summarised in Table 1.

**Table 1: Distinguishing Features of the Single Practice Model**

System	Dominant Model	Central West Single Practice Model
<b>Workforce</b>	<p>General Practice workforce largely privately employed</p> <p>Hospital workforce state employed through HHS</p> <p>Medical Superintendent with Right of Private Practice (MSRPP) overlaps public and private employment</p> <p>Limited Allied Health staff employed in private primary care services, more commonly employed in hospital out-patient and community health services and the Medicare Local.</p> <p>Separate service structures and employment arrangements can determine vocational groups that are employed and limits the exchange between health professionals including between GPs, practices, practice nurses, nurse practitioners, midwives, PHC nursing staff and community health nurses</p>	<p>Single employer of all clinical staff. Provides clinicians on contract to private general practice.</p> <p>Clinicians rostered through public and private services as per contract.</p> <p>Potential for interprofessional care teams including medical, nursing and allied health staff, utilising clinicians from general practice, community health and acute settings</p> <p>The single employer of clinical staff is able to access the broad range of skills of GPs, practices, practice nurses, nurse practitioners, midwives, PHC nursing staff and community health nurses as required.</p>
<b>Health Purchasing System</b>	<p>Reimbursement through Medicare of scheduled fee for defined primary care activity (principally medical)</p> <p>Co-payments by consumers for gap between schedule and price charged by practitioner. Co-payments are essential for the survival of rural General Practices.</p> <p>State funds cost of hospital inpatient services and other agreed costs, to a capped amount. (Block funded for rural services)</p> <p>Private Health Insurance reimbursement of members for inpatient and non-medical primary care services depending upon the level and type of cover</p>	<p>HHS receives block funding which is principally directed to acute care but can be utilised flexibly to address health needs.</p> <p>Medicare MBS payments are received by the HHS for eligible services provided through the Bilk Billing Clinic and the General Practice. Payments are assigned by the clinician to the HHS as their employer.</p> <p>Management fee is paid under the contract to the General Practice Business for the provision of management and administrative services associated with the practice.</p> <p>Walk-in General Practice services are bulk billed and do not attract co-payments. Traditional General Practice services attract co-payments except for concessional patients.</p> <p>In small towns where there is no GP service, the HHS is interim</p>

		<p>provider but is planning to exit these arrangements by mid-2016, in favour of GP Management Companies. Centres beyond townships are serviced by nurse led clinics with visiting GPs provided from the nearest town.</p>
<b>Business infrastructure</b>	<p>General Practice privately owned and operated</p> <p>Hospital inpatient, emergency, out-patient and community health services owned and managed by the HHS for the state.</p> <p>Ancillary services may be owned privately, by Local Government or by non-government organisations' private providers.</p>	<p>General Practice to progressively become privately owned by a General Practice Management Company and operated with clinical staff provided by means of a contract between the privately owned General Practice Management Company and the HHS</p> <p>Hospital inpatient, emergency, out-patient and community health services owned and managed by the state through the HHS.</p> <p>Ancillary services may be owned privately, by Local Government or by non-government organisations.</p>
<b>Service Infrastructure</b>	<p>Disjunction between primary health care services which are principally provided through private general practice or by medical superintendents with right of private practice, and ambulatory acute and acute inpatient services which are state government provided.</p> <p>Preventive health services provided by not-for-profit organisations, local government, and general practice. Focus and level of coordination variable depending on local context.</p> <p>Restorative health services provided through hospital out-patient clinics, private general practice and private clinics, with varying levels of coordination. In practice there is little system coordination.</p> <p>Chronic care management provided through hospital out-patient clinics, community health services and general practice usually in isolation.</p> <p>Some service coordination may be brought about through the Clinical Chapter of the PHN in the future.</p>	<p>Acute inpatient services provided for defined clinical capacity by HSS hospital. Patients outside scope are transferred to a range of hospitals with capacity for higher acuity consistent with the Clinical Services Capability Framework and the credentialing of doctors.</p> <p>Preventive health services provided by the community health team, not-for-profit organisations, local government, and general practice.</p> <p>Restorative health services and chronic care management provided through hospital out-patient clinics, private general practice. Continuity of care facilitated by shared patient record and rostering of clinicians across care providing entities.</p> <p>Generalist proceduralists serve the entire district depending upon their advanced skills, while being appointed to a specific hospital location.</p> <p>Outlying centres have HSS appointed primary care clinicians who are part of the integrated service structure and are supported by the broader clinical team.</p>

<p><b>Capital Infrastructure</b></p>	<p>General Practice facilities privately owned and operated</p> <p>Hospital inpatient, emergency, out-patient and community health services owned and maintained by the state through the HHS.</p> <p>Ancillary health facilities may be owned privately, by Local Government or by non-government organisations.</p> <p>Capital planning has tended to be ad hoc and political.</p>	<p>General Practice facilities leased (including from the HHS) and privately operated</p> <p>Hospital inpatient, emergency, out-patient and community health services owned and maintained by the state through the HHS.</p> <p>Ancillary health facilities may be owned privately, by Local Government or by non-government organisations.</p> <p>Master planning and strategic infrastructure plan to be developed in the context of the Health of the West population health planning.</p>
<p><b>Education and Training</b></p>	<p>Education and training authorities provide accredited training for clinicians and practitioners across multiple disciplines.</p> <p>Education and training providers have separate agreements with private and public health service providers for the provision of field practicums.</p> <p>Graduates of the RGP are placed within eligible hospitals consistent with their service profile and clinical profile.</p>	<p>Education and training authorities provide accredited training for clinicians and practitioners across multiple disciplines. MICRRH JCU has co-located, joint appointments and shared infrastructure.</p> <p>Education and training providers have an agreement with the HHS for the provision of field practicums across the service continuum.</p> <p>Graduates of the RGP are placed within the HHS with the understanding that their proceduralist role will be available to the entire district and that their primary care role will be available within a defined geographic area but will be utilised across the public and private sectors.</p>
<p><b>Organisational Governance</b></p>	<p>Private General Practice services are owned and operated by private individuals or corporations. Their organisational and corporate structures vary depending upon their legal status.</p> <p>Public health services are owned and operated by Queensland Health and managed through Health and Hospital Services which are established by statute. HHSs have Boards of Management which are responsible under the Health Act for their governance.</p>	<p>A single organisation is responsible for the supply and management of all clinical services consistent with the contractual specification of responsibilities.</p> <p>Private providers of general practice services are responsible for the non-clinical aspects of general practice management.</p>
<p><b>Clinical Governance</b></p>	<p>Each service is separately responsible for quality and safety. Creates potential clinical governance risk at points of hand-over and where service system elements and providers intersect.</p> <p>Each service separately accredited with an appropriate accreditation body.</p>	<p>Clinical quality and safety is principally the responsibility of the HHS as the employer of the majority of the clinical staff. The GPMC employs some nursing and allied health staff and so is closely involved in clinical governance. Consistent practices operate across the service continuum; clinical practice guidelines are consistent and</p>

	<p>administrative systems supporting clinical practice such as client records and reporting systems are consistent.</p> <p>While service elements may be separately accredited according to service type, quality coordinator and clinical governance committee is common across the services and a consistent approach is taken to systems and processes for quality assurance in the accreditation processes.</p> <p>Each GPMC is required under the contract to maintain its accreditation.</p>
<p><b>Information management</b></p> <p>Each service maintains separate client records which are owned by the service/practice.          Issues arise for the transfer of clinical information between services which can cause difficulties for continuity of care.          Issues may arise with respect to ownership of records where there are discontinuities in the ownership of private services.</p>	<p>As all medical staff are employees of the HHS, clinical information generated by them is owned by the HHS and all clinical staff are authorised to access this underpinned by tight privacy guidelines. Progressively developing a common patient records system which will follow the patient wherever they receive services within the single practice model and which can be accessed by clinicians as required.</p>

## **Outcomes associated with the model**

It is too early in the development of the Single Practice Model to assess its effectiveness, though early indications are positive. The following describes the anticipated outcomes of the model. It is anticipated that the Model will:

### ***Optimise the total quantum of health resources available to the area***

In circumstances where primary care resources are generated by episodic clinician activity, competition between public and private providers acts to limit the available resources for health care within a community. The Single Practice model, while it may face potential difficulties through limited workforce availability, eliminates the competition for clinician resources. The impact of the model has been to increase the availability of primary care clinicians from 5 FTE across the district in 2012 to 18 FTE in February 2016. There is a constant presence of senior medical students across the region, contributing to services while learning.

In addition, significant cost savings achieved as a result of reduced locum costs have meant that the increased FTE is cost neutral. This has stabilised the workforce and the clinical model, and have also permitted increased service activity. The cost of medical care is consistent with the locum based costs of the past because more services are being provided. Blackall has approximately 50% more doctor days; Longreach has 25% more doctor days in the General Practice and doctor support to theatre has doubled. Alpha has had a 100% increase in medical clinics.

It is believed that further significant cost savings will be achieved through improved patient care and avoidance of adverse events, though these have not as yet been quantified. Improved continuity of care is expected to reduce error through improved information transfer. Effective early intervention and timely treatment are expected to avoid costs associated with delayed more costly interventions. It is believed that the investment now to better manage health in the community will reduce future acute presentations and hospitalisation costs.

### ***Dramatically improve the recruitment and retention of medical practitioners***

The Single Practice Model has led to an increase in the clinician work force from 5 EFT (1 MSRPP plus 7.8 primary care clinicians, including locums and rotating JMOs) in 2009 to 18 senior doctors plus 4 JMOs in 2015. This has come about be by the provision of a working environment which provides greater professional and management support, more varied and challenging workplace experiences and appropriately remunerated positions and which generates additional revenue.

### ***Optimise the use of the Advanced Skills Training of Rural Generalists***

It is anticipated that greater stability in the workforce will lead to a more effective utilisation of ASTs, It has been possible in the model to make optimal use of obstetric and emergency medicine advanced skills. Theatre utilisation has increased and staff skills in internal medicine, mental health and Indigenous health have been utilised.

As a consequence of the model, there has been a 60% increase in service delivery from the Longreach Hospital and a 100% increase in the utilisation of telemedicine from the hospital. After an initial period in which there was an increase in external referrals associated with addressing waiting

lists and a backlog of assessments, there has been a reduction in the use of retrieval services as internal capacity and utilisation of advanced skills has increased.

***Optimise the use of the Advanced Skills Training of Rural Generalists*** a shared workforce enables both GP and acute/surgical services to be available, either of which independently is less viable and more costly. Services could not have been maintained in Longreach independently and this was increasingly the case in smaller centres.

The development of a core of sustainable services in major towns has made possible outreach to smaller centres. Remote area nurse led clinics have changed from being one person plus relief to two person services supported by relieving arrangements and continuity of doctor is becoming feasible with regular medical staff support which was not possible when core services were dependent upon locum services.

#### ***Improve continuity of care***

Utilising the same clinical team for primary care, ambulatory acute and acute inpatient services places the patient rather than locus of care at the centre of attention. Clinicians have developed a knowledge of the health needs of patients which is carried across care settings. This is aided by increased continuity in medical staff through the reduced use of locum services. A single patient record means that irrespective of care location, institutional memory of client histories including continuing and chronic conditions, treatment and medication regimes are preserved and acted upon.

The Single Practice Model enhances continuity of care by developing system responsibility and team capability.

#### ***Increase local self-sufficiency and reduced demand for tertiary referrals and for retrieval***

By increasing the scale and competence of the clinician group, CWH has been able to ensure that the medical and surgical interventions which could be performed locally are retained and in many cases enhanced within the district. Inter hospital transfers after an initial increase, have been reduced. This has meant that patients are increasingly treated within their own communities and retain social and personal supports during treatment; skills and competence of local clinicians are exercised and retained; and unnecessary retrievals are avoided. This avoids significant cost and allows retrieval services to focus on higher priority interventions.

#### ***Increase acuity of the care available locally.***

The development of the Single Practice Model has meant the extension of the medical and surgical competence of the local workforce. Greater continuity of clinicians and increased professional support has meant that the health service has been able to extend its activities in general surgery and endocrinology. It is well placed to take on increased acuity in surgery undertaken by rural generalists and endoscopy.

### ***Increased capacity for clinical governance spanning all services***

By placing the patient at the centre of care the Single Practice Model makes it possible to have quality and safety systems which span the patient's engagement with the health care system, whether this be in a primary care, secondary treatment or chronic and continuing care service. The Executive Director of Medical Services has responsibility for standards of care across the continuum. Clinical Practice Guidelines are consistent between primary care and acute services and where appropriate are common. Mechanisms for case reviews and clinical audits are consistent. The Director of Clinical Training is responsible for the training of medical staff across the primary care and acute setting and quality improvement through education.

### **Discussion: The Single Practice Model and systems alignment**

An approach to understanding the dynamics of health care organisation is in terms of complex inter-related systems. A system in this context refers to regularly interacting or interrelating groups of activities. These are constructs; ways of organising and talking about the world, which place an emphasis upon relationships between elements. It is possible to describe multiple intersecting or overlapping systems (Duckett and Willcox, 2011). For the purposes of describing the Central West Single Practice Model, a number of reasonably discrete but related systems can be identified as follows:

***Health planning system:*** Consists of organisations and process associated with the development of health care plans. Includes Medicare Locals (previously), now Primary Health Networks, individual and institutional health care providers and to varying degrees, State and Commonwealth Health Departments. It has made possible overarching single processes such as population health care planning, strategic and service planning as manifest in the Health of the West plan.

***Health service delivery system:*** Consists of those organisations engaged in the delivery of publicly and privately provided health care services including public hospitals and community health services, and Local Government and publicly funded not-for-profit health care. Privately provided health care services include private hospitals and aged care services and primary health care services, principally General Practice.

***Clinical services system:*** Consists of the full range of patient services delivered through the health services delivery system. This includes primary, secondary treatment and tertiary referral services, diagnostics and ancillary services which are delivered across home based, centre based and institutional settings.

***Workforce system:*** Consists of the health workforce and the organisations and processes involved in the development and maintaining of the workforce. This includes undergraduate and postgraduate education and training providers and industrial arrangements.

***Health purchasing system:*** Consists of the arrangements and structures involved in the financing and purchasing of health care. This includes State funding arrangements, consumer payments, health insurance arrangements and Commonwealth Medicare payments.

In an optimal health care arrangement, these systems would be aligned and focused upon meeting the identified health care needs of a community. The population health needs of a community would

be well understood. The clinical services required to meet the defined population health needs would be in place; the workforce required to deliver the services identified would be available and in place; the service delivery infrastructure would reflect the service profile; and there would be sufficient funds provided in an efficient manner for the purchasing of these services.

As Humphreys, Wakerman et al (2008) have noted, successful rural health models are characterised by macro-scale environmental enablers (supportive health policy, federal–state relations, and community readiness) and five essential service requirements (workforce organisation and supply; funding; governance, management and leadership; linkages; and infrastructure). Service sustainability depends on ensuring that key systemic service requirements are met at the local level in ways that accord with, and are supported by, the broader macro-scale environmental enablers.

Table 2 indicates some of the qualities required in a well aligned health care system.

**Table 2: Systemic alignment in a well-functioning System.**

Success criteria	Current system alignment	CW HHS alignment
<b>There is a well understood health needs profile of the community</b>	There is a disjunction between health services planning for state and commonwealth services planning and private health services provision generally sits outside population health planning. Discontinuities in authorised bodies (Divisions of General Practice/Medicare Locals/Primary Health Networks) for population health planning impacts upon outputs.	CWH has responsibility for planning both primary care services through its extended network and for community health and acute care services. CWH is a co-owner of the Primary Health Network with South West Health and North West Health. The PHN is independent and will take a leading role in population health planning. This will build upon the work done this for the region by CWH through partnering with other providers and Councils (Health of the West) (CWH, 2014).
<b>There is a clinical service profile which reflects health needs.</b>	Service profile is partly based upon presentations but is also determined by historical practice and sunk costs, especially with respect to capital. Clinical service profile is also impacted in a major way by the availability of a clinical workforce. Where appropriate clinicians are not available, services are limited	Pooling of service demand, workforce and funding allows a capacity to focus upon priority service needs. Increased total service demand and the development of an enlarged clinical team enhances workforce recruitment and focus upon priority service needs.
<b>There is in place a workforce capable of delivering the required health services</b>	Severe limitations are experienced in recruiting a qualified rural and remote workforce. Workforce capacity is affected by availability of funds, relative isolation of clinicians and the capacity of	Systemic arrangements enhance the capacity to identify service needs and attract and retain a qualified workforce to meet those needs. Critical elements are optimising of available total funds,

	the service delivery system to provide professional practice and development opportunities.	teaching and professional development opportunities, utilisation of advanced practice skills, and increased administrative and colleague support.
<b>There is a service administration system capable of managing the effective delivery of services</b>	Fragmentation of the service delivery system between public and private, primary care, and ambulatory acute services and Commonwealth and State funded components, impacts upon the capacity to provide an integrated service and creates impediments to the recruitment of a sustainable workforce.	A single health administration reduces discontinuities in service for consumers, optimises available resources and provides greater administrative support for clinicians. The population size and the scale of presenting cases make it possible to reach a critical mass for administration purposes where there is a single service model.
<b>There is adequate funding available which is provided in an efficient manner.</b>	Health purchasing is undertaken from two major sources which have contradictory organising principles. Discontinuities between MBS fee for service funding and State based block funding of hospital services creates difficulties in service continuity and creates an impediment to workforce optimisation.	While operating within the formal constraints of State and Commonwealth program allocation and acquittal systems, the Single Practice reduces competition between public and private providers and so maximises the total resource available to meet presenting health needs.
<b>There are partnership relationships with undergraduate and postgraduate education providers</b>	Competition for student placements from multiple institutions without local co-ordination; rural intention not considered. Registrar allocation not provided consistently by RTPs	Formal partnership with Mount Isa Centre for Rural and Remote Health, Joint appointments, infrastructure and teaching resources adjunct academics, appropriate student flow. New RTO for NWQ Generalist Medical Training committed to dispersed model of registrar training focussed on meeting community needs.

There is great potential for systems misalignment within the Australian health care system. This is in part because of the disaggregated nature of the over-arching system with a range of entities, structures, and accountabilities in operation. In particular, the separation of public and private health services delivery which is reinforced through separate and competing delivery organisations, and separate purchasing arrangements supported by a jurisdictional divide between the Commonwealth and States contributes to misalignment (Duckett and Willcox, 2011).

Thus it is possible, and indeed common, for service delivery structures to not reflect health needs analysis and planning. Clinical services may be compromised by limited funds available and unsympathetic purchasing rules. The capacity to provide a skilled and available workforce may distort service availability and impact upon service viability.

Workforce, particularly in rural and remote Australia, is often the key systemic element which when out of alignment, can cause the greatest disruption to health services provision. The alignment of workforce skills with health needs analysis may determine whether the services provide accord with population health needs. The availability of a workforce of appropriate skill and quantity impacts immediately upon clinical output and also upon revenue, since very often, finance is directly tied to workforce output.

***The Central West Single Practice Model may be described as forcing back into alignment component sub-systems of the health care system which had become seriously out of alignment.***

The lack of available workforce threatened the viability of both the public and private health care provision. Clinical services were becoming limited by and determined by the skills of those clinicians who were available. The purchasing system was becoming distorted by an expensive use of locum staff and reduced revenue coming to general practice.

The fundamental difficulty which had to be addressed was that of providing a sustainable medical workforce to support both public and private health care. The two are intrinsically related. In a rural area, a well-functioning hospital requires that there be a viable primary care service. Where this is not the case, additional demand is inevitably transferred to the hospital either in the form of low complexity presentations or as high complexity presentations which could have been appropriately addressed in general practice at an earlier stage.

The establishment of the Single Practice Model has had implications for each of the identified component systems, as is identified in Table 2. It has changed the health care delivery system in a way which has enhanced viability and sustainability. The increased scale, diversity and capability of the clinical group has made possible a closer alignment with the health needs of the district; services can be provided on the basis of need rather than staff availability. The model has optimised the total revenue available for health care in the district by ensuring that an optimal scale and efficient service is available in both the public and private sphere.

## Conclusion

The Central West Single Practice model shows promise as an effective response to the challenges inherent in providing health services in rural and remote Queensland. It has been an effective response to the decline in the viability of the dominant MSRPP model. It is an adaptive model which has evolved over time to deal with emerging problems and it will continue to evolve as circumstances change.

While the model has developed through a problem solving approach to workforce issues, it has achieved a robustness because it has addressed a number of systemically related problems related to:

*Service planning:* What are the health care needs of the community being served?

*Service design:* What are the critical service elements which are required and what is their relationship?

*Clinical profile:* Within the service framework, what are the clinical activities which are required and what are the skills, infrastructure and resources required to provide these? What clinical governance arrangements are required to ensure quality and safety?

*Workforce:* What is the profile of the workforce required to deliver the identified services and what is required to sustain this workforce over time?

*Service system management:* What organisational and administrative structures are required to sustain service delivery?

*Resourcing:* How might the total resources available for health care be optimised and how should these resources be apportioned?

*Education and training:* How might the present and future workforce be prepared for the demands of clinical practice and the specific requirements of rural and remote practice?

To the extent that the Single Practice model is able to provide a systemic response to these issues, it is a model which could be adapted for application across rural and remote Queensland and potentially elsewhere in rural Australia.

In order to be able to address these issues in the current context and to be able to take the model forward through future adaptations, a number of capacities have been critical:

**Leadership:** At State service system level, within the Hospital and Health Service Board, at a health service administration and clinical management level and amongst clinicians, it has been important that responsibility has been taken to solve problems, analyse the implications of possible solutions and act in an authoritative way. Queensland Country Practice in its service design work, Central West Health Board and management in their willingness to manage risk associated with non-traditional responses and clinical managers within the health services (public and private) in managing for appropriate clinical outcomes, have displayed essential leadership, and Mount Isa Centre for Rural and Remote Health for partnering and securing resources to support the model locally.

**Flexibility:** It has been essential that approaches have been modified to respond to changed circumstances. The initial contract whereby the private general practice supplied clinical staff for the public hospital became non-viable and had to be reversed. The unexpected collapse of some general practices in smaller centres required that the HHS assume transitional management responsibility while extending the single practice model to these centres.

**Creativity:** The capacity to think laterally and to develop solutions and partnerships outside traditional models has been important in developing new and innovative service design and management systems.

**Collaboration:** The model has required a partnership between CWH and the GPMC and with MICRRH. These partnerships are based on mutuality, whereby each party is committed to the success and sustainability of its partner. Thus, the GPMC has been willing to give priority clinician attention to the hospital when this has been required and CWH has forgone primary care billings revenue in order that the GPMC would increase viability.

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