A framework for integrated primary/secondary health care governance in Australia: results of a systematic review

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ACKNOWLEDGEMENTS

This research is a project of the Australian Primary Health Care Research Institute, which is supported by a grant from the Australian Government Department of Health. The information and opinions contained in it do not necessarily reflect the views or policy of the Australian Primary Health Care Research Institute or the Australian Government Department of Health.

We would like to acknowledge the support of Dr Shelley Wilkinson (SW), Mater Health Services, as second reviewer for the systematic review.

CITATION

Nicholson C, Jackson C, Marley J. A framework for integrated primary/ secondary health care governance in Australia: results of a systematic review. APHCRI Centre of Research Excellence in Primary Health Care Microsystems, The University of Queensland, 2014

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Background

CURRENT SETTING & POLICY

In 2009 Australia's National Health and Hospitals Reform Commission Report first recommended significant governance change as an important element in increasing the effectiveness and efficiency of health care delivery.[1] In turn, regional service integration was one of the five key building blocks in Australia's First National Primary Health Care Strategy.[2] Federal government reforms in 2011 created meso-level organisations - Medicare Locals and Local Hospital Networks (LHNs) (in some jurisdictions Local Hospital Districts) For the goals of health reform to be realised these organisations must work together to achieve co-ordinated and integrated primary healthcare services. There is however a paucity of research evidence around successful strategies to deliver this objective.

The study will utilise the approach to effective regional health governance described following a review of regional governance arrangements internationally.[3,4] This approach documents nine essential elements required for optimal regional health approach between meso-level organisations – population focus, shared care priorities, planning, measurement, innovation, change management, professional development, integrated information communication technology (ICT), and incentives.[3,4]

WHY INTEGRATED CARE?

The aim of integrated care is to improve outcomes, particularly for complex chronic problems, by overcoming issues of fragmentation through co-ordination and linkage of services along the continuum by moving from episodic treatment of acute illness to coordinated care supporting those with chronic conditions.[5,6] Whilst the evidence on effectiveness on different forms of integration remains variable Ovretveit (2011) concluded clinical integration can improve quality and save money but this depends on the approach used , how well it is implemented and the environment it was introduced in.[7]

Integration in healthcare as taken different approaches internationally and its ability to deliver benefits varied. For the purpose of this paper the *breadth of integration* is vertical integration bringing together different levels of care - primary care and secondary care.

The *degree of integration* has been described by authors [8,9] as a continuum from linkage (identifying new needs and ways to work together within existing system and resources e.g. information sharing), co-ordination (explicit structures/ individuals are installed to coordinate benefits and care across systems) and full integration (control of resources to define new benefits and services that it controls directly e.g. multidisciplinary teams, pooled budgets). Full integration is most appropriate for users with high level needs (Figure 1). [8,10]

Within different models of integration are different integration processes defined as, structural integration (alignment of tasks, functions and activities of organisations and healthcare professionals); cultural integration (convergence of values, norms, working methods and approaches); and, social integration (role of social relationships between various actors). This paper focuses on structural integration processes.

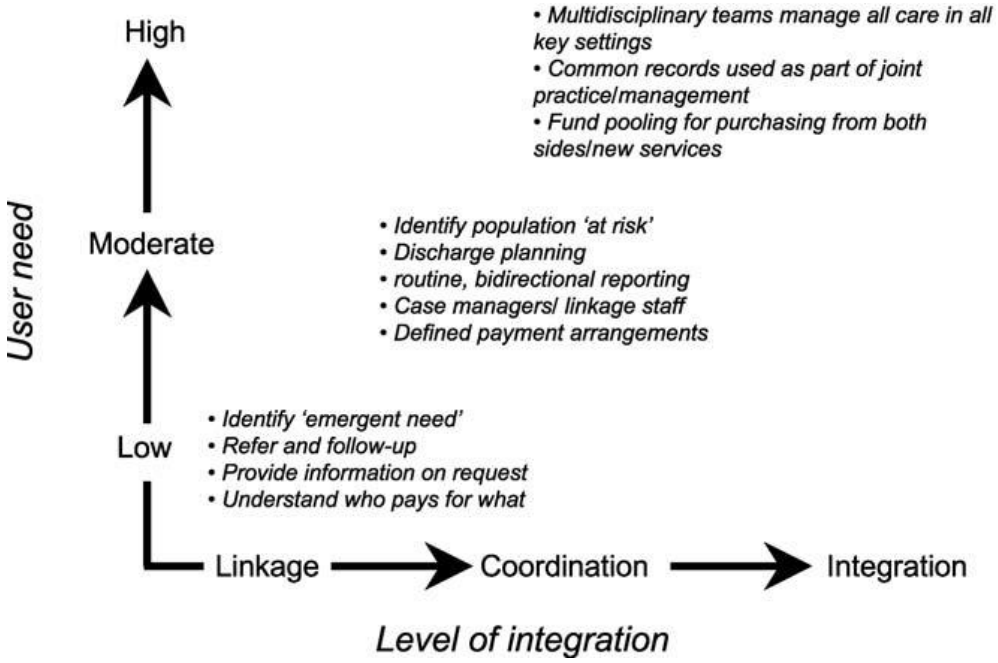

Figure 1: Levels of Integration and user need. Source: Leutz in Nolte & McKee [10]

WHAT ROLE INTEGRATED GOVERNANCE?

Fragmentation of health services, largely caused by the split between federal and state government funding responsibilities in Australia, has created a complex, rapidly changing, and often impersonal health system that is increasingly difficult and frustrating to navigate.[3] To ensure Australia's health system is sustainable, safe, fair, and agile enough to respond to changing health needs recommendations were made to change the governance model.[1] Governments have describe how public hospitals will be brought together with Medicare Locals via LHNs to coordinate and integrate primary health care services, jointly aiming to better coordinate services within sectors, however, the processes to integrate primary with secondary care have not been articulated.[4]

It is important to gain consensus about integration targets which must be put into a strategic framework and agreed by partners to fulfil common integration goals.[11] In turn, integration agendas must be underpinned by effective governance mechanisms that are appropriate to the undertaking, the stakeholders involved, and the scale of delivery.[12,13]

> 'Integrated Governance is a collation of systems, processes and behaviours by which healthcare organisations lead, direct and control their functions in order to achieve organisational objectives, safety and quality of service and in which they relate to patients and carers, the wider community and partner organisations'.[14]

For the goals of health reform to be realised meso-level organisations must work together to achieve co-ordinated and integrated primary/secondary healthcare services however there is a lack of evidence to suggest how this will be achieved. The aim of this work is to provide evidence to these organisations to inform their working together. The objective of this review is to synthesise the existing published literature and to identify predominant reoccurring themes noted in citations, to form a framework for integrated primary/secondary health care governance, applicable to an international community, which allow optimal linkage between meso-level organisations.[3,4] This information can be used to strengthen the link between evidence, policy development and program implementation.

RESEARCH QUESTIONS

For the goals of health reform to be realised new meso-level organisations in Australia must work together to achieve co-ordinated and integrated primary healthcare services however there is a lack of evidence to suggest how this will be achieved.

The aims of the study are to answer the following questions:

1. What are the policies/structures/procedures that contribute to sustainable clinical & organisational governance across the continuum of care?
2. What is the role of a shared e-portal in this governance framework?

The research will undertake a systematic review methodology.

Methods

SEARCH STRATEGY

A search of electronic databases was conducted using data specific search terms and validated methods for retrieval from PubMed (NCBI), MEDLINE (Ovid), CINAHL (Ebsco), the Cochrane Library (Wiley), Informit Health Collection (Informit), and web communication platform resources including, the Primary Health Care Research and Information Service (PHCRIS), the Canadian Health Services Research Foundation, European Foundation for Primary Care, European Forum for Primary Care, and Europa Sinapse. The search was conducted for studies published between 2006 and 2012 (and 2013 in-press on-line articles). Articles not published in the English language were excluded. The review also included the relevant 'grey' literature including policy documents, reports, program evaluation and similar documentation through websites including Australian Primary Health Care Research Institute, Australian Department of Health, The Nuffield Trust [15] and The King's Fund [16].

Search terms included words or phrases relating to; governance, integration, system, regional, collaboration, partnership, coordination, co-ordination and continuum. The search strategy for PubMed (Table 1) and was repeated for other databases. The reference lists of reviewed studies and review articles were also considered for further relevant studies.

Table 1: Search terms for database PubMed, platform NCBI

#1 governance[Text Word] Limits: Publication Date from 2006 to 2012 #2 Search integrat*[Text Word] OR regiona*[Text Word] OR system*[Text Word] OR partnership*[Text Word] OR coordinat*[Text Word] OR co-ordinat* OR continuum[Text Word] Limits: Publication Date from 2006 to 2012 #1 AND #2 #3 ("Health Services"[Mesh]) OR "Decision Making, Organizational"[Mesh]) OR "Efficiency, Organizational"[Mesh]) OR "Models, Organizational"[Mesh]) OR "Comprehensive Health Care"[Mesh]) OR "Delivery of Health Care, Integrated"[Mesh]) OR "Patient-Centered Care"[Mesh]) OR "Health Care Reform"[Mesh]) OR "Managed Care Programs"[Mesh]) OR "Program Evaluation"[Mesh]) OR "Quality Assurance, Health Care"[Mesh] Limits: Publication Date from 2006 to 2012 #1 AND #3

Studies were included if they made reference to integrated health care, and either governance or system reform. We included studies undertaken in any country (no specifications required) and any study type (e.g. systematic reviews, comparative studies, randomised controlled trials, descriptive studies, intervention studies, narrative reviews).

All searches were designed and conducted in collaboration with an experienced search librarian. All citations were imported into an electronic bibliographic database (Endnote Version X5).

STUDY SELECTION AND SCREENING

One reviewer (CN) assessed all citations by title and abstract for potential relevance to the review. If there was doubt to the relevance of the study or the abstract did not contain sufficient information for a decision it remained on the list. Results of screening were recorded in Excel spreadsheets. Full-texts for all potentially relevant articles (n=117) were reviewed by two reviewers (CN and SW). To be included in the next review process papers had to be published in English, make reference to an aspect of integrated primary/secondary health care, and provide evidence of implementation. Outcomes were collected to demonstrate studies identified some impact from implementation, however, they were not synthesised for the purpose of this paper. A screening assessment was used to guide selection of relevant studies and results recorded for comparison purposes. If the reviewers were unable to reach a decision about whether to include or exclude, a third reviewer (CJ) was asked to review the article and make a decision. Articles meeting the eligibility criteria were included for data extraction (n=21). (Figure 2) [17]

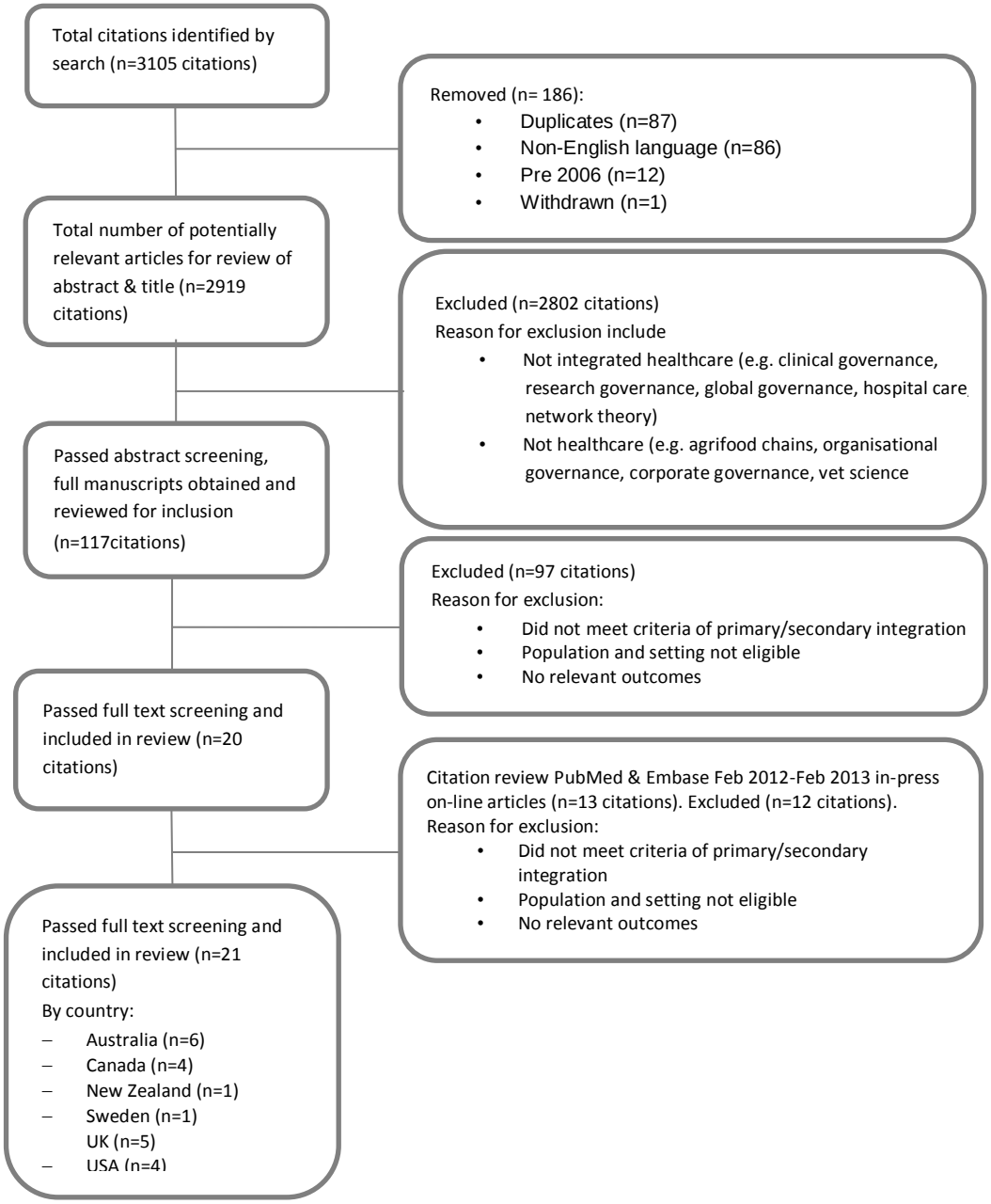

Figure 2: Process of systematic review

Seven quality criteria for qualitative research were applied.[17] Assessment of quality was not a criterion for exclusion however it gave insight into methods and limitations used for data collection and analysis in qualitative studies.

DATA EXTRACTION

A data extraction form was created to assist in systematically identifying main themes, methods, study design and setting. The main themes related to the key questions and included data collection on description of model characteristics (jurisdictions/sectors and/or organisations involved; duration/timeframe); measure(s) of effectiveness; reported outcomes; impact on patients/ providers/ policy makers/ the system; and, reported barriers and enablers. Based on clinical and methodological expertise, one researcher (CN) was assigned to extract data from the eligible articles and the second (SW) reviewed the completed abstraction form alongside the original article for accuracy and completeness. Disagreements were settled by consensus or by obtaining a third reviewer's opinion if the first two investigators could not reach consensus. Data were entered into an excel spreadsheet.

DATA SYNTHESIS AND ANALYSIS

Utilising research synthesis by configuration top down synthesis allowed individual findings to be organised thematically and previously unseen connections translated into a concept of theory. [18] Data was thematic analysed [19], organising data according to recurrent themes identified in the studies and key elements supporting integrated primary/secondary healthcare governance models were summarised. Text was free coded and a synthesis matrix was developed based on the themes. (Table 3) This matrix was used to sort the data allowing it to be recorded, synthesised and compared.

Results

The search strategy identified a total of 3105 abstracts and titles, of which twenty-one studies met the inclusion criteria (Figure 2). The twenty-one papers included six from Australia, four from Canada, five from the UK, four from the United States (US), one from NZ, and one from Sweden. There were eleven case studies, one cross-sectional study, six reviews (including one perspective and one viewpoint) and three systematic reviews. All studies met 3 or more of the seven quality criteria for qualitative research, however only 5 of the 21 studies met all.[17] A description of each of the papers (n=21) is shown in Table 2.

Table 2: Descriptions of included studies (ordered alphabetically)

Author	Baker GR, MacIntosh-Murray A, Porcellato C, Dionne L, Stelmacovich K, Born K.[20]
Year	2008
Country	USA
Participants	Intermountain Healthcare (IHC)- more than 200 facilities throughout Utah and Idaho, provides care across the continuum (except for long-term care) in 21 hospitals, over 80 out-patient clinics, counselling centres, home health agencies and over 100 medical group practices providing non-hospital services, and health plan.
Time	30 year evolution
Design	Case study
Purpose	Using Intermountain Healthcare (IHC) as a case example to identify and define elements of health care systems capable of improvement with a view to helping to inform strategic investments in improvement capability in Ontario.
Methods	Descriptive- qualitative
Outcomes/ main findings	The journey to a system capable of quality improvement requires: – Structural integration – Developing a critical understanding of health care costs – Linking the study of variation to leadership of improvement – Developing a strategic focus on improvement – Enabling the improvement of quality and cost with information systems – Developing improvement knowledge and skills – Clinical service integration strategy focusing on a data-driven analysis and prioritisation of key value-added processes and to the reorganisation and realignment of the system around a set of high priority clinical areas. – Prioritisation criteria using data to redesign and focus the system – Development teams map key clinical processes using EB guidelines – Integration of process models into information systems (generate list of desired outcomes) – Develop educational material – Align incentives for clinical integration

Author	Connor M, Kissen G. [21]
Year	2010
Country	UK
Participants	Primary care, community health services, socials services & acute care
Time	Sept 08 – Feb 10
Design	Case study
Purpose	Describe the strategy for delivering integrated care in Trafford on a whole-systems basis.
Methods	Descriptive- qualitative.
Outcomes/	Elements of the programme moving forward are:

main findings	– Develop and integrated care record – daily data streaming for GP clinical software systems – Multidisciplinary primary/secondary clinical standards published and adopted. – Monitoring the patient experiences and patient representatives on clinical panels – Workforce development- service design around population need; team composition; and telehealth. – Surgical redesign – Education and development of clinicians and managers to deliver QI in MDT environment (Intermountain Advanced Training Programme). – Patient coordination of referrals – Creation of an integrated care trust with community providers and health care trust. GPs role in strategic decision making and governance that preserves independent status

Author	Cumming J. [22]
Year	2011
Country	NZ
Participants	Health system; District Health Boards; PHOs (n=36); Alliances (n=9)
Time	1980's - 2010
Design	Narrative review
Purpose	To describe New Zealand's continuing policy challenge to reduce fragmentation and achieve more 'integrated' care.
Methods	Descriptive-qualitative.
Outcomes/ main findings	The paper takes as its starting point the view that achieving integrated care needs to be supported by a coherent set of methods and models on the funding, administrative, organisational, service delivery and clinical levels. The paper describes how fragmentation in financing, planning, funding, and service delivery have contributed to poorly co-ordinated care in New Zealand; discusses how integrated care was to be supported by recent major reforms to the health system and whether such reforms have succeeded or not in achieving more integrated care for service users; and discusses the challenges New Zealand still faces in achieving more integrated care over the next few year. The paper concludes that although key financing, planning, funding and service delivery reforms aimed at delivering more integrated care to service users have succeeded in integrating planning and funding functions, few changes have occurred in the ways in which services are provided to users. It is only now that significant attention is being paid to changing how services are actually delivered in order to achieve more integrated care change is occurring slowly.

Author	Featherstone I, Keen J. [23]
Year	2012
Country	UK
Participants	Secondary & primary care
Time	3 month period
Design	Cross-sectional
Purpose	To understand how an integrated electronic health record system was used by health care staff in the treatment and management of diabetes patients.
Methods	Observational. Descriptive-qualitative.
Outcomes/ main findings	Observations of the use of an integrated electronic health record during patients' consultations with health care staff were conducted over a three month period. Twelve patients were followed through their consultations with a range of health

	care staff at a secondary care Diabetes Centre and in primary care settings. A thematic analysis of the observation data was undertaken. The integrated electronic health record system had been implemented across the primary and secondary care interface and was used by many, but not all, clinicians involved in the care of patients with diabetes. In some areas of care it enabled health care staff to access more accurate and detailed information to inform their clinical decision-making. Issues including negotiating rules for accessing patient records and duplication of recording in paper record systems had not been resolved consistently across services. The findings offer suggestive evidence that a shared electronic health record can support more integrated care. Unresolved issues in implementing the system across all services and settings highlight the governance problems that can arise when systems are developed locally but are then extended across organisational and professional boundaries.

Author	Fraschetti RJ, Sugarman M. [24]
Year	2009
Country	USA
Participants	Secondary care & medical group primary and specialist physicians
Time	15 years
Design	Case study
Purpose	To describe how shared governance and decision-making have helped an integrated health care network thrive.
Methods	Descriptive- qualitative
Outcomes/ main findings	Shared governance has played a crucial role in building a tightly integrated system and helped promote the trust necessary to effectively integrate physician and hospital operations. Integrating governance is essential to the long-term success of hospital-physician partnerships.

Author	Ham C. [25]
Year	2010
Country	UK
Participants	Torbay, Birmingham and Northumbria – NHS Trusts, PCTs and clinical leaders
Time	2000-2010
Design	Case study
Purpose	Progress made in adapting the experience of Kaiser in three pilot sites in England
Methods	Descriptive- qualitative
Outcomes/ main findings	Three sites were chosen who had adapted learning's from Kaiser in relation to populations they served. They have drawn on the work of Kaiser Permanente in various ways, including improving care for people with long term conditions, achieving closer integration of primary and secondary care and health and social care, and strengthening the role of clinical leaders. The model emphasizes: – The integration of care and directly providing care both inside and outside hospitals. – Focus on chronic care rather than primary care and secondary care. Diseases are tackled by stratifying the population according to risk and adopting a population management approach that combines an emphasis on prevention, self-management support, disease management, and case management for highly complex members. – Population management is one of the factors that enable Kaiser to avoid inappropriate use of hospitals. This is summarised in the philosophy that 'unplanned hospital admissions are a sign of system failure'.

	– Kaiser's much lower use of beds in comparison with the NHS is driven by the active management of patients in hospital. This is achieved through the use of care pathways for common conditions – Chronic care and short hospital stays are underpinned by the provision of self-management support to members. Self-management support takes the form of the provision of information and patient education programmes, increasingly supported by information technology

Author	Harris M, Greaves F, Patterson S, Jones J, Majeed A. [26]
Year	2012
Country	England
Participants	General practices, acute care trusts, PCTs, mental health car trusts, community health trusts, local authorities, voluntary sector organisations. Total pop. 550,000; focus of paper on >75yrs with diabetes
Time	2011-2012
Design	Case study
Purpose	Describes Integrated Care Pilot objectives, facilitating processes and planned impact; organisational and financial challenges that face policy makers in implementation
Methods	Descriptive- qualitative
Outcomes/ main findings	Aim was for the pilot was to become a 'beacon' for delivering integrated care; improve the patient experience; decrease emergency admissions (30%) and nursing home admissions(10%); reduce the cost of care by 24% over 5 years. These were to be addressed through patient risk stratification (specifically risk of unplanned admission); proactive care planning and case management; improved emergency response in the community; and, improved sharing od medical information between service providers. Mechanisms to achieved these were through; – Newly established financial and governance arrangements – An IT tool to extract and use data from general practices, acute care trusts community services, social care and mental health care trusts, and – Newly developed multi-disciplinary groups to discuss and manage most complex and keep out of hospital.

Author	Hutchison B, Levesque JF, Strumpf E, Coyle N. [27]
Year	2011
Country	Canada
Participants	Primary health care and linking to secondary care
Time	2000-2010
Design	Narrative review
Purpose	Policy analysis examines primary health care reform efforts in Canada during the last decade.
Methods	Descriptive- qualitative. Descriptive information from published and gray literature and from a series of semi-structured interviews with informed observers of primary health care in Canada.
Outcomes/ main findings	Primary health care in Canada has entered a period of potentially transformative change. Key initiatives include support for interprofessional primary health care teams, group practices and networks, patient enrolment with a primary care provider, financial incentives and blended-payment schemes, development of primary health care governance mechanisms, expansion of the primary health care provider pool, implementation of electronic medical records, and quality improvement training and support

Author	Jackson CL, Marley JE. [28]
Year	2007
Country	Australia
Participants	General practice, community health, allied health professionals and hospitals.
Time	2003-2007
Design	Case study
Purpose	To describe two examples where establishing a university general practice has shown excellence in community service, met the goal of research through the evaluation of new models of care and delivered multiprofessional teaching.
Methods	Descriptive- qualitative
Outcomes/ main findings	An innovative team approach and integration of care across sectors can deliver high-quality comprehensive care in disadvantaged areas while providing teaching and research opportunities and community service. Academic general practice departments are committed to supporting and evaluating such models. A governance infrastructure that encourages strong partnerships across health care sectors is essential.

Author	Jackson CL, Askew DA, Nicholson C, Brookes PM. [29]
Year	2008
Country	Australia
Participants	Primary and secondary care
Time	2006-08
Design	Case study
Purpose	To describe the Primary Care Amplification Model which offers a means to harness the change agenda by 'amplifying' the strengths of established general practices around a 'beacon' practice.
Methods	Descriptive- qualitative
Outcomes/ main findings	‘Beacon' practices can provide a mustering point for an expanded scope of practice for primary care, integrated primary/secondary service delivery, interprofessional learning, relevant local clinical research, and a focus on local service innovation, enhancing rather than fragmenting the collective capacity of existing primary care.

Author	Jackson C, Nicholson C. [30]
Year	2008
Country	Australia
Participants	Primary and secondary care
Time	2000-2007
Design	Case study
Purpose	To describe a proven model for successful, reproducible health service integration
Methods	Descriptive
Outcomes/ main findings	The Service Integration Framework provides clinicians and healthcare organisations with a proven approach for developing and maintaining sustainable service integration to maximise efficient accessible care delivery in an increasingly complex health environment. It has as its core: - a specific service integration change management methodology; and - key foci around clinical practice, training and professional development, information and communication technology, and appropriate clinical and organisational governance

Author	Jackson CL, Nicholson C, Doust J, Cheung L, O'Donnell J. [12]
Year	2008
Country	Australia
Participants	Primary and secondary care

Time	1990-2006
Design	Systematic review
Purpose	To identify sustainable governance arrangements for health care organisations undertaking integrated health service delivery based on best available evidence.
Methods	Systematic review of the literature, supported by key informant interviews as an integrative process.
Outcomes/ main findings	Identified three models for integrated health care governance with a demonstrated ability to be sustained in the medium term. Common themes that emerged as the logical starting point for more ambitious integrated governance arrangements regionally were: the need for a clear separation between governance and operational management; and the need for local communities with the vision, leadership and commitment to extend health service integration. Careful measurement of the process, impact and outcomes of such activities was often overlooked. Key enablers included shared goals, common clinical tools and team based approach to service delivery, appropriate financing, suitable infrastructure and a client/community focus.

Author	Jackson CL, Nicholson C, McAteer EP. [3]
Year	2010
Country	Australia
Participants	Primary & secondary care
Time	2009
Design	Narrative review
Purpose	To describe a regional governance model able to ensure the responsive, inclusive, appropriate health care delivery system.
Methods	Descriptive - viewpoint.
Outcomes/ main findings	Describes regional framework with key roles and responsibilities including: integrated service planning across the region; promotion of integrated clinical care models in agreed local priority areas; service innovation to deliver patient- and family-centred care; review of reports from the hospital and primary care sectors about gaps in service and proposed changes, and strong support for appropriate and flexible local health service delivery; promotion of local information communication technology and e-connectivity; establishment of an appropriate health workforce for the region; engagement with local communities to improve service provision and to allocate funds appropriately; support for updates in practice and professional development needed to implement changing health agendas; and collation of local health data across the care continuum

Author	Ovretveit J, Hansson J, Brommels M. [31]
Year	2010
Country	Sweden
Participants	Health and social care organisations
Time	2008-2009
Design	Case study
Purpose	Reports on the development of an integrated health and social care organisation in Sweden combining service provision, purchasing and political governance for a defined population.
Methods	Longitudinal study
Outcomes/ main findings	A combination of influences contributed to the development of the new organisation. The initial structural macro-integration facilitated, but did not of itself result in better clinical care coordination. Other actions were needed to modify the

	specialised systems and cultures which the organisation inherited. The study design was not able to establish with any degree of certainty whether better patient and cost outcomes resulted, but it did find structural and process changes which make improved outcomes likely. The study concludes that coordinated actions at different levels and of different types were needed to achieve care coordination for patients.

Author	Paulus RA, Davis K, Steele GD. [32]
Year	2008
Country	USA
Participants	Hospitals, health plan, primary care and specialist physicians
Time	2005-2008
Design	Case study
Purpose	The capacity to create value through innovation is facilitated by an integrated delivery system focused on creating value, measuring innovation returns, and receiving market rewards. This paper describes the Geisinger Health System's innovation strategy for care model redesign.
Methods	Descriptive-qualitative
Outcomes/ main findings	Geisinger's clinical leadership, dedicated innovation team, electronic health information systems, and financial incentive alignment each contribute to its innovation record. Although Geisinger's characteristics raise questions about broad applicability to non-integrated health care organizations, its experience can provide useful insights for health system reform.

Author	Peskett S. [14]
Year	2009
Country	UK
Participants	Commissioners and providers implementing the UK Government's Independent Sector Programme
Time	2007-2009
Design	Narrative review
Purpose	Reveals the challenges of commissioning, particularly assessing governance arrangements and identifying organisational attributes of high quality health care providers.
Methods	Descriptive. Discussion paper
Outcomes/ main findings	Working within the principles of integrated governance a framework was developed to guide the work in supporting independent healthcare providers. The framework includes eight domains of governance with the overarching organisational facilitative environment of appropriate leadership, culture and ethics. It could be used as a management tool for ensuring that appropriate systems and processes are in place for the governance of all organisational activities. Improvement, Innovation, and Change; Resource Management; Learning Management, including internal systems for staff development; Risk Management, important factor in patient safety; Audit and Information Management; Partnerships, including patient and public involvement; Research; and Training. There are many models of governance but the principles should be the same for whatever the size of the organisation and whatever model is adopted. In healthcare it is important that clinical quality remains at the heart of the organisation's aims.

Author	Powell Davies G, Williams A M, Larsen K, Perkins D, Roland M, Harris MF. [33]
Year	2008
Country	Australia
Participants	Primary health care and services interfacing with primary health care
Time	Jan 1995- March 2006
Design	Systematic review
Purpose	To identify the types of strategy used to coordinate care within primary health care (PHC) and between PHC, health services and health-related services in Australia and other countries that have comparable health systems, and to describe what is known about their effectiveness; to review the implications for health policy and practice in Australia
Methods	Systematic review
Outcomes/ main findings	Reforms in governance, funding and patient registration in primary health care would provide a stronger base for effective care coordination

Author	Rittenhouse DR, Shortell S, Fisher ES. [34]
Year	2009
Country	USA
Participants	PCMH - primary health care; ACO - full continuum of care
Time	2009
Design	Narrative review
Purpose	Describe the challenges to implementation of the Primary Care Medical Home and 'accountable care organisation' (ACO) model in the US.
Methods	Descriptive. Perspective
Outcomes/ main findings	Need to align incentives and measurement to work in collaboration in primary care. Key to developing a system responsible for providing, coordinating and integrating across the health system are accreditation systems, common set of primary care indicators to measure performance and payment mechanisms to align incentives.

Author	Smyth L. [13]
Year	2009
Country	Canada
Participants	Health care services across organisational and provider boundaries
Time	2006-2009
Design	Narrative review
Purpose	Experiential perspective of what worked well and what could be improved when integrating healthcare services across organizational and provider boundaries. Governance emerged as a key determinant of project progress and successful change.
Methods	Descriptive. Literature review and case study.
Outcomes/ main findings	Literature and experience in working across boundaries have established the need for integration of governance when integrating health services. This will require a new way of thinking, new approaches and a new framework.

Author	Suter E, Oelke ND, Adair CE, Armitage GD. [35]
Year	2009
Country	Canada
Participants	Health system
Time	1998-2006
Design	Systematic review

Purpose	To summarise the current literature on health system integration focusing on definitions, processes and impact of integrated health service delivery systems.
Methods	Systematic review
Outcomes/ main findings	Identified 10 universal principles of successfully integrated healthcare systems which may be used by decision-makers to assist with integration – Comprehensive services across the continuum – Patient focus – Geographical coverage (population focus) – Standardised care delivery through interprofessional teams – Performance management – quality, evaluation and continuous improvement – Information systems – enhance communication and information flows – Organisational culture and leadership – Physician integration – single point of entry – Governance structure – coordination across settings and levels – Financial management

Author	Wedel R, Kalischik RG, Patterson E, Brown S. [36]
Year	2007
Country	Canada
Participants	Primary health care, community and hospital
Time	2003-2006
Design	Case study
Purpose	The Taber Integrated Primary Healthcare Project was a three-year primary healthcare renewal initiative involving rural physicians and the Chinook Health Region in Taber, Alberta, Canada. The goal of the project was to improve healthcare services delivery through integration of the services provided by the physician group and the health region in one rural community
Methods	Descriptive- qualitative
Outcomes/ main findings	Four main enablers emerged as fundamental to the integration process: community assessment and shared planning; evidence-based, interdisciplinary care; an integrated electronic information system; and investment in processes and structures that support change. The outcome of the project has been the implementation of a new model of healthcare delivery that embraces an integrated collaborative team approach in delivering population-based, primary healthcare. Importantly, the TIPHP has influenced regional healthcare policy related to primary healthcare renewal strategies and partnerships.

All studies were evaluations of the process of integrated governance and service delivery structures, rather than of service effectiveness. The evaluations included case reports (n=17) and qualitative data analysis (n=4). Ten studies (UK n=4, Australia n=2, NZ n=1, Sweden n=1, Canada n=2) addressed policy change, four from the US addressed business issues, and seven (Australia n=4, Canada n=2, UK n=1) addressed issues of clinical integration. The relationship between these drivers was not examined.

Table 3: Elements of the integrated the governance model identified in published papers

	Author	Country	Year	Population focus	Shared clinical priorities	Joint planning	Measurement (data as QI tool)	Innovation	Change management	Professional development	Integrated ICT	Incentives	Other
1	Baker et al [20]	USA	2008	✓	✓		✓		✓	✓	✓	✓	
2	Conner et al [21]	UK	2010	✓	✓	✓			✓	✓	✓		Patient engagement
3	Cumming [22]	NZ	2011	✓		✓						✓	
4	Featherstone et al [23]	UK	2012		✓						✓		
5	Fraschetti et al [24]	USA	2009			✓	✓		✓		✓	✓	
6	Ham [25]	UK	2010	✓	✓	✓	✓	✓	✓	✓	✓	✓	Patient engagement
7	Harris et al [26]	UK	2012	✓	✓	✓			✓		✓	✓	
8	Hutchinson et al [27]	Canada	2009			✓							
9	Jackson et al [28]	Aust.	2007	✓	✓	✓	✓	✓	✓	✓	✓		
10	Jackson et al [29]	Aust.	2008		✓	✓	✓	✓	✓	✓	✓		
11	Jackson et al [30]	Aust.	2008		✓	✓			✓	✓	✓	✓	
12	Jackson et al [12]	Aust.	2008	✓	✓	✓			✓		✓	✓	
13	Jackson et al [3]	Aust.	2010	✓	✓	✓	✓	✓	✓	✓	✓	✓	Community engagement
14	Ovretveit et al [31]	Sweden	2010	✓	✓	✓	✓		✓		✓	✓	Community engagement
15	Palus et al [32]	USA	2008	✓	✓	✓	✓	✓	✓		✓	✓	Patient engagement
16	Peskett [14]	UK	2009		✓	✓	✓	✓	✓	✓			Patient & public engagement
17	Powell-Davies et al [33]	Aust.	2008			✓				✓	✓	✓	
18	Rittenhouse et al [34]	USA	2009	✓			✓		✓			✓	
19	Smyth [13]**Error! ookmark not defined.**	Canada	2009		✓	✓	✓		✓		✓	✓	
20	Sutter et al [35]	Canada	2009	✓	✓	✓	✓		✓	✓	✓	✓	Patient engagement
21	Wedel et al [36]	Canada	2007	✓	✓	✓		✓	✓	✓	✓	✓	Community engagement

This systematic review identified ten elements necessary for integrated primary/secondary health care governance across a regional setting (Table 4).[17] The specific interventions related to each element from the literature are summarised below. Comparisons of how each element worked differently across settings was not included in this review.

Table 4: Elements of the integrated governance models identified in published papers (n=21)

Element	Interventions shown to be effective	n= *
Joint planning	Joint strategic needs assessment agreed; formalising relationships between stakeholders; joint boards; promotion of a community focus and organisational autonomy; guide for collective decision making; multi-level partnerships; focus on continuum of care with input from providers and users.	18
Integrated information communication technology	Systems designed to support shared clinical exchange i.e. Shared Electronic Health Record; a tool for systems integration linking clinical processes, outcomes and financial measures.	17
Change management	Managed locally; committed resources; strategies to manage change and align organisational cultural values; executive and clinical leadership; vision; commitment at meso and micro levels.	17
Shared clinical priorities	Agreed target areas for redesign; role of multi-disciplinary clinical networks/clinical panels; pathways across the continuum.	16
Incentives	Incentives are provided to strengthen care co-ordination e.g. pooling multiple funding streams and incentive structures, such as equitable funding distribution; incentives for innovative and development of alternative models.	15
Population focus	Geographical population health focus.	13
Measurement – using data as quality improvement tool	Shared population clinical data to use for planning, measurement of utilisation focusing on quality improvement and redesign; collaborative approach to measuring performance provides transparency across organisational boundaries.	12
Continuing professional development supporting the value of joint working	Inter-professional and inter-organisational learning opportunities provide training to support new way and align cultures; clearly identifying roles and responsibilities and guidelines across the continuum.	11
Patient/community engagement	Involve patient and community participation by use of patient narratives of experience and wider community engagement.	8
Innovation	Resources are available and innovative models of care are supported.	7

* Number of studies reporting the specified element

KEY ENABLERS AND BARRIERS

Integration is about relationships between people [24,25] which need to be nurtured and valued if integration is to be meaningful and sustained. This review noted a number of key enablers to achieving this including leadership, a vision that remains centre stage focusing on patient

safety and quality care and commitment to partnership. However, in undertaking integration initiatives a number of significant barriers were also identified. Firstly, the most significant is the existence of conflicting aspirations of different parts of the system and the need to balance the interests and values of all stakeholders involved in the continuum of care. Additionally, to determine a governance model that serves the interest of the community while preserving the autonomy of individual organisations is a challenge which needs to be addressed. Secondly, macro-level reforms alone are insufficient to deliver integrated care as they need to be linked to meso-level and micro-level reforms. Finally, a feature of much of this work has been the failure to document, evaluate and share lessons learnt in trying to effect change. [17]

LIMITATIONS

There are a number of limitations of this type of study. Firstly, retrieval of qualitative studies form biomedical databases remains a challenge particularly for an area not widely published. We did use a wide combination of search terms to optimise the reach and searched grey literature and on-line resources to maximise our reach. Secondly, the definition of integrated healthcare governance is a very broad heading and there is variation internationally. We used a broad search strategy to account for this and the testing of these elements in different settings may yield further validity to both the concept and the definition. Finally, we only reviewed papers published in English and may missed potentially relevant titles and articles published in other languages.

Determining quality for complex literature, particularly qualitative research is challenging as no hierarchy of study design exists [37] and author interpretation may cause bias. Qualitative synthesis is the most difficult to describe and is, potentially, the most controversial, since it is dependent on the judgement and insights of the reviewers. We included one reviewer who had no prior experience in this area of research to manage potential bias. [17]

Discussion

Many countries are looking to integrated care to help deliver more cost effective high quality care. Various examples of successful primary/secondary care integration are reported in the literature and all have focused on a combination of some, if not all, of the ten elements described and there appears to be agreement that multiple elements are required to ensure successful and sustained integration efforts. This review builds on previous systematic reviews [12,33,35] which individually all identify some of the elements but not all. Also, whilst there is no one model to fit all systems, these elements provide a focus for setting up integration initiatives which need to be flexible to be adapted to local conditions and settings.

There are some significant items in taking integrated primary/secondary care governance forward. In relation to joint planning how do we make it meaningful – what structure can manage risk across the continuum, who is accountable, how do we measure 'success'? The adoption and use of shared electronic health records will cost before it pays but is pivotal to managing performance and quality across the continuum – how do we link clinical improvement across disparate systems? Within the change process how do we link macro, meso and micro reform? We suggest the ten elements as a starting point along with a realistic synthesis evaluation of the process, as we cannot know what we do not measure. Finally, how do we incentivise integrated care? Pooled funds and sharing in savings seem like a good idea but in, for example, Australia, New Zealand and Canada, complex funding divides between primary and secondary care systems continues to be a significant barrier. Looking forward, what the system needs now is political will, leadership at macro, meso and micro level, and willingness to invest and share risk in determining new models' fit for the future.

What is critically missing is empirical evidence that integration at scale across primary/secondary care provides the clinical, financial and system benefits it aspires to and how the elements described help achieve this. Another limitation of the literature is the lack of reported perceptions of the impact or experience of integrated service development from patients, health professionals or policy makers. The lack of research in this area is one that needs to be addressed urgently given the drive and expectation of integrated care in the future.

Implications for Policy

RECOMMENDATIONS

We recommend:

1. It is essential to gain consensus about integration targets which must be put into a strategic framework and agreed between partners to fulfil common integration goals. The focus should be on the ends not the means – what people want and need in terms of care and support and how services are put into place to achieve these outcomes. Macro-level structural reforms alone are insufficient to deliver integrated care as they need to be linked to meso-level and micro-level reforms. In turn, integration agendas must be underpinned by effective governance mechanisms that are appropriate to the undertaking, the stakeholders involved, and the scale of delivery.
2. No one single model of integrated care fits all systems, however the elements described provide a focus for setting out integration initiatives which need to be flexible to be adapted to local conditions and settings. The elements described form a framework for integrated primary/secondary health care governance, applicable to an international community, which allow optimal linkage between meso-level organisations. This information can be used to strengthen the link between evidence, policy development and program implementation. There are examples of successful projects based in primary care organisations, some in partnership between non-government organisations, local government and primary care, and others led by hospitals working closely with colleges, primary and community services. It is this variety of schemes tailored to meet local need that needs to be supported.
3. Further research is needed to provide empirical evidence that integration at scale across primary/secondary care provides the clinical, financial and system benefits it aspires to and how the elements described can help achieve this. The lack of research in this area is one that needs to be addressed given the drive and expectation of integrated care in the future.
4. We need to document, evaluate and share lessons learnt in trying to effect change. Within the change process how do we link macro, meso and micro reform? We suggest the ten elements as a starting point along with a realistic synthesis evaluation of the process, as we cannot know what we do not measure.
5. Finally, looking forward, what the system needs now is a political mandate articulating desired outcomes for patients and families, leadership at macro, meso and micro level to support system change, and willingness to invest and share risk in determining new models' fit for the future.

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