

Value-based primary care in Australia: how far have we travelled?

Paresh Dawda^{1,2}, Angelene True², Helen Dickinson³, Tina Janamian⁴, Tracey Johnson⁵

Health care systems across the developed world face a similar challenge: determining how to maximise value for their population. Value can be captured in various ways. Early definitions of value-based health care typically combined measures of effectiveness and efficiency with value defined as health outcomes per dollar spent.¹ Since then, the definition of value has broadened to include personal value (appropriate care to achieve patients' personal goals) and societal value (contribution of health care to social participation and connectedness). The Economist Intelligence Unit evaluated value-based health care across 25 countries against four domains: enabling context, policies and institutions; measuring outcomes and costs; integrated and patient-focused care; and outcome-based payment approaches.² These domains identify the enabling units from experiential learning during value-based health care implementation. We use them in this article as the evidence base required for enabling value-based health care.

In 2016, Oliver-Baxter and colleagues argued that Australia should orient its primary health care services towards a value-based approach to measurement and accountability.³ In this article, we explore the subsequent progress against this aspiration. We conducted PubMed and Google searches with a combination of search strings and synonyms for value-based health care in primary care and attempted to identify relevant Australian articles (by limiting via PubMed medical subject headings and/or review of abstracts) that were published during the period 2016–2021. In doing so, we noted a lack of peer-reviewed accounts of value-based health care in primary care, but also some progress captured in reports and practice-based accounts identified through our own personal knowledge and signposting by opinion leaders in the field. To critically consider how far value-based health care in Australian primary care has travelled, we consider 11 initiatives and programs that we identified ([Supporting Information](#)). We chose these initiatives for three reasons: they incorporate Australian primary care, they meet the strategic intent to provide value-based health care, and they relate to the four domains used by The Economist Intelligence Unit.

Enabling context, policies and institutions

For value-based health care to be realised, it needs to be supported by aligning structures and processes and buy-in from policymakers, clinicians and managers. There are many overseas examples of its implementation, including in primary care.^{4,5} We identified that while Australia lacks a strategic national framework, some more local initiatives have started to develop. We consider a selection of these here.

New South Wales value-based health care initiative

NSW Health has progressed a value-based health care initiative at scale,⁶ aimed at achieving the Quadruple Aim — improving health outcomes, enhancing efficiency, and improving patient

Summary

- In this article, we discuss how the value-based health care concept has matured across recent years, and consider how it can be achieved in the primary health care sector.
- We provide illustrations of related initiatives across the four domains of value-based health care, highlight the need for cultural transformation and reorientation of the system, and call for a national framework and agreed plan of action.

and provider satisfaction.⁷ This approach seeks to not only enhance patient experience and population health while reducing costs, but to do it in a way that helps the workforce avoid burnout and dissatisfaction. The NSW initiative has four programs — leading better value care, integrated care, commissioning for better value, and collaborative commissioning — and provides a whole-system context and a state-level policy to support value-based health care.⁸

Collaborative commissioning

Collaborative commissioning is broadly described as a program of initiatives that brings together health care funders, to partner in efforts that incentivise local autonomy and accountability to deliver community outcomes that matter to consumers.⁹ It is a whole-of-system approach involving Local Health Districts and Primary Health Networks that are responsible, via new structures called patient-centred co-commissioning groups, for improving health outcomes for the local community and balancing high priority population needs with appropriate care across all populations. Collaborative commissioning seeks to pool funds to support an integrated care pathway across all levels of health care and all sectors. Examples of the models of care include: cardiology in the community, addressing poorly managed diabetes, and urgent care for frail and older people.⁸

HealthPathways

A key facet of value-based health care is using evidence-based pathways of care. HealthPathways (<https://www.healthpathwayscommunity.org>) is an online evidence-informed clinical and referral information portal for general practitioners to use at the point of care. Early adopter sites evaluated HealthPathways as having positive effects on system integration.¹⁰ It is now accessible by primary care across Australia, although publicly available data on its utility are not available.

Measuring outcomes and costs

To measure outcomes and costs, disease registries, processes and systems are fundamental to value-based health care. These require connected and interoperable electronic health records.

Australia generally lacks data to measure the effectiveness of quality and safety in primary care.¹¹ The Australian Institute of Health and Welfare is responsible for creating a national

data asset but, while foundational work is underway, there is limited reporting in the public domain. More specifically, a quality improvement incentive program for general practice (the Practice Incentives Program Quality Improvement [PIP QI] Incentive) was introduced in 2019.¹² It captures ten national measures that are largely focused on smoking, cardiovascular disease and diabetes. The limited focus of these measures and the small pool of funding provided to practices mean that the PIP QI Incentive is yet to incentivise practices to clean up data and use coding.

MedicineInsight (<https://www.nps.org.au/medicine-insight>) is a longitudinal general practice data platform supporting quality improvement and post-marketing surveillance of medicines. It has strengths and weaknesses, and opportunities identified for the future direction of this program include linkages to other databases.

Many Primary Health Networks have agreed to participate in forming Primary Health Insights (<https://www.primaryhealthinsights.org.au>), a collaborative data warehouse for PIP QI Incentive data. However, each Primary Health Network retains control of its own data, meaning that even this solution is not a true national archive of relevant data. Without enrolment or other key patient identifiers, data collected on patients attending multiple practices will be stored in data repositories and a detailed national picture will remain a far-off aspiration.

A subset of Primary Health Networks has adopted POLAR (<https://polargp.org.au>) as their preferred data extraction tool. They have used the system's epidemiological tools to produce insights and reports, for example, on risk of emergency department presentation,¹³ the impact of the bushfires that ravaged much of Australia in the summer of 2019–2020, and the impact of COVID-19 on medication use, mental health and practice attendance. With fewer than a third of Primary Health Networks using POLAR, this remains a significant but non-representative data source.

Delivering value-based health care critically involves achieving outcomes that matter to patients. Patient-reported measures can be condition specific or population specific, and may help to address social determinants of care such as loneliness. Patient-reported measures are increasingly being used in tertiary care,¹⁴ but there is limited use in general practice other than some very specific condition-specific measures relating to mental health. That said, the health system is beginning to expand utility and support the entire system to implement patient-reported measures which should be clinically led.

Lumos (<https://www.health.nsw.gov.au/lumos>) is a more ambitious program of work that links anonymised general practice data to secondary care and tertiary care datasets to provide insights into patient journeys across the care pathway. These insights are translated into knowledge and interventions aimed at improving outcomes for people with undiagnosed chronic conditions.¹⁵

The initiatives that we have explored here are promising early enablers of value-based health care, but the health system still lacks some important registries, processes and systems. These include: national disease registries; a systematised collection of outcome measures (with standardisation) to facilitate meaningful understanding of unwarranted variation; and a means of costing care pathways across the health system, including out-of-pocket costs incurred by consumers and other hidden costs.

Integrated and patient-focused care

A key component of value-based health care is to move away from silos and the fee-for-service provision that is typically organised around medical specialties.² Instead, value-based health care aims to create integrated systems that focus on the patient as the organising principle of service delivery.¹⁶ Truly achieving integrated and patient-focused care requires authentic consumer engagement. The system recognises this, and the number of tools and guides to support co-design is growing, but significant barriers and challenges remain.¹⁷

National health reform agreements have ensured that all states and territories have set aside small budgets for pilot programs of integrated care which are managed at the state level.¹⁸ Some pilot programs, such as those centred on the Gold Coast and in Ipswich in Queensland, have attempted to create a continuum of care between general practice and secondary care systems. Despite an intention to drive primary and secondary systems closer together, many of the pilot programs have funded state public health providers to develop models of care to address challenges with frequent attenders or early discharge of patients with complex care needs. Multidisciplinary teams were established to oversee patients with escalating risk, and care pathways were developed to reduce chances of hospital admissions. These steps have better met the needs of high-cost frequent hospital attenders. Progress has also been made in generating algorithms to detect patients with rising risk of hospital admission, but these investments have not addressed longstanding gaps in communication between primary and tertiary care.¹⁹ Primary care's lack of access, under current funding models, to allied health, specialist physician and nursing support required to stabilise patients at home means that these trials have created more hospital employment rather than draw in primary care expertise. Calculation of savings and returns from these pilot programs is underway. Risk sharing of any returns with those who have contributed to such savings is not yet on the drawing board.

Dental Health Services Victoria, a public health service, has implemented a value-based health care framework and identified five key lessons on the transition to value-based health care.²⁰ One of these was to understand why value-based health care is necessary from a provider perspective to engage the workforce for change. Clinicians had a drive and desire to improve outcomes, but frustrations included the feeling of not being enabled to make change and seeing repeated interventions that do not translate into improvement.²¹ Clinicians were engaged through an authentic co-design approach with consumers.²⁰

Health Care Homes

The federal government ran the Health Care Homes trial. This program recruited patients with complex and chronic conditions into an intervention that included enrolment, shared care planning, and a payment model based on patient risk stratification with the intent to stimulate team-based care and remove limitations of fee-for-service funding. The trial's interventions were based on the principles of patient-centred medical homes that were central to North America's shift towards value-based health care. The lessons are reported in another article in this Supplement.²²

Workforce innovation

A coordinated team-based approach to care delivery is a component of value-based health care.²³ A national medical

workforce strategy has been developed²⁴ but a comprehensive health workforce strategy is lacking and specific issues for rural and regional areas are yet to be addressed. Practice nursing has been established and grown since the start of the new millennium, but barriers remain in permitting practice nurses to work to the top of their licence and concerns exist about the future capacity of the nursing workforce in general practice.²⁵ Some primary care providers have adopted nurse practitioners, but competition for these roles means their rate of pay is not commensurate with Medicare rebates offered, leaving most general practices out of the race when looking to secure such positions.

New roles emerging in Australian general practice include the medical practice assistant and the non-dispensing pharmacist in general practice. Some Primary Health Networks have introduced non-dispensing pharmacists in pilot programs, and evaluation reports show promising results, but sustainable business models to employ pharmacists under the current fee-for-service funding model are needed.²⁶ Workforce engagement with and acceptability of value-based health care is achievable with authentic co-design processes, as identified in the example from Dental Health Services Victoria that we have discussed.

Outcome-based payment approaches

Apportioning budgets and resources in an equitable manner to different populations that require diverse services is one mechanism of achieving value-based health care. In this type of approach, services are funded based on outcomes achieved rather than activity performed. In such models, appropriateness and coordination of care are incentivised and low value care is disincentivised. Various bodies, including the Royal Commission into Aged Care Quality and Safety, have called for changes to primary care funding towards an approach more aligned with value-based health care.²⁷ Alternative payment models are seen as an opportunity to support primary care in rural and remote Australia and were a feature of the Health Care Homes trial that we have described.

The Coordinated Care Trials were a series of experiments testing coordination of care for people with multiple service needs, using individual care plans purchased through capped funds that were pooled from existing programs. They improved health and wellbeing within existing resources and demonstrated that: pooling of funds between governments is possible, and providers can cooperate at a local level to design and develop a radically new approach to health care in Australia; the Australian health care system can develop and implement world-class information management and care planning systems; and major cultural shifts away from the traditional rivalry between players and towards cooperation are possible.²⁸

The Diabetes Care Project was a trial in which one of the interventions studied was flexible funding based on risk stratification and payments for quality improvement support.²⁹ Intermediate clinical indicators, adherence to recommended clinical process, and patient satisfaction were better and more patient centred, but there were no statistically significant changes in affordability or out-of-pocket costs for patients.

All funding models have advantages and disadvantages. The way forward is a blended payment that incorporates a mix of payment mechanisms — a model that balances the desired benefits of the different approaches and minimises the risk of unintended consequences.³⁰

The next steps in the value-based health care journey

Australia's health care system performs well when compared with other countries,³¹ but when viewed through the value-based health care lens of outcome per capita cost it ranks as the third most expensive country after the United States and the Netherlands.² The primary care sector has made only small advances towards value-based health care and evidence in the Australian context is lacking. The implementation of value-based health care in Australia needs to be considered and, in doing so, evidence on its benefits and information on its implementation needs to be collated. Frameworks for implementation describe the need to firstly understand the shared needs of a population, and then employ solution design, integration of learning teams, measurement of outcomes and costs, and expanding partnerships.³² Other health systems have also described the need for a common language for value-based health care, and for building capacity and capability in the workforce.³³ We have seen various initiatives across the four domains of value-based health care, and the 10-year primary care plan incorporates elements of value-based health care (eg, by supporting nurses and pharmacists in primary care, and expanding the use of telehealth and genomics) but lacks a clear implementation plan.³⁴

Ultimately, a shift towards value-based health care needs a cultural transformation and re-orientation of the whole system, which is possible and achievable. We are seeing elements of this in some jurisdictions, including NSW, but Australia needs to adopt a value-based health care primary care strategy that incorporates lessons from NSW and overseas. Australia needs to use a value-based health care framework to identify strengths and gaps, and then align policy frameworks towards value-based health care. It also needs a strong implementation plan to strengthen primary care and thereby support value-based health care for the whole health system.

Open access: Open access publishing facilitated by University of Canberra, as part of the Wiley - University of Canberra agreement via the Council of Australian University Librarians.

Competing interests: No relevant disclosures.

Provenance: Commissioned; externally peer reviewed. ■

© 2022 The Authors. *Medical Journal of Australia* published by John Wiley & Sons Australia, Ltd on behalf of AMPCo Pty Ltd.

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

- Porter ME, Teisberg EO. Redefining health care: creating value-based competition on results. Boston: Harvard Business School Press, 2006.
- The Economist Intelligence Unit. Value-based healthcare: a global assessment. London: The Economist Intelligence Unit, 2016. <https://eiupeerspectives.economist.com/healthcare/value-based-healthcare-global-assessment-1> (viewed Apr 2022).
- Oliver-Baxter J, Brown L, Dawda P. Should the healthcare compass in Australia point towards value-based primary healthcare? *Aust Health Rev* 2016; 41: 98-103.
- PwC. Value based healthcare. London: PwC, 2021. <https://www.pwc.com/m1/en/publications/documents/value-based-healthcare.pdf> (viewed Apr 2022).
- Mjaset C, Ikram U, Nagra NS, Feeley TW. Value-based health care in four different health care systems. *NEJM Catal Innov Care Deliv* 2020; 10 Nov. <https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0530> (viewed Apr 2022).
- Koff E, Lyons N. Implementing value-based health care at scale: the NSW experience. *Med J Aust* 2020; 212: 104-106.e1. <https://www.mja.com.au/journal/2020/212/3/implementing-value-based-health-care-scale-nsw-experience>
- Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med* 2014; 12: 573-576.

- 8 NSW Health. Value based healthcare. Sydney: NSW Health, 2021. <https://www.health.nsw.gov.au/Value> (viewed Apr 2022).
- 9 NSW Health. Collaborative commissioning. Sydney: NSW Health, 2021. <https://www.health.nsw.gov.au/Value/Pages/collaborative-commissioning.aspx> (viewed Aug 2021).
- 10 Gray JS, Swan JR, Lynch MA, et al. Hunter and New England HealthPathways: a 4-year journey of integrated care. *Aust Health Rev* 2018; 42: 66-71.
- 11 Russell LM, Dawda P. Patient safety in primary care: more data and more action needed. *Med J Aust* 2015; 202: 72-73. <https://www.mja.com.au/journal/2015/202/2/patient-safety-primary-care-more-data-and-more-action-needed>
- 12 Australian Government Department of Health. PIP QI Incentive guidance. Canberra: Department of Health, 2019. https://www1.health.gov.au/internet/main/publishing.nsf/Content/PIP-QI_Incentive_guidance (viewed Aug 2021).
- 13 Pearce C, McLeod A, Rinehart N, et al. POLAR Diversion: using general practice data to calculate risk of emergency department presentation at the time of consultation. *Appl Clin Inform* 2019; 10: 151-157.
- 14 NSW Agency for Clinical Innovation. Patient reported measures: formative evaluation 2017. Sydney: ACI, 2018.
- 15 Correll P, Feyer A-M, Phan P-T, et al. Lumos: a statewide linkage programme in Australia integrating general practice data to guide system redesign. *Integr Healthc J* 2021; 3: e000074.
- 16 Shaw S, Rosen R, Rumbold B. What is integrated care: an overview of integrated care in the NHS. London: Nuffield Trust, 2011. <https://www.nuffieldtrust.org.uk/research/what-is-integrated-care> (viewed Apr 2022).
- 17 Dimopoulos-Bick T, Dawda P, Maher L, et al. Experience-based co-design: tackling common challenges. *J Health Des* 2018; 3: 86-93.
- 18 Council on Federal Financial Relations. Addendum to National Health Reform Agreement 2020–2025. Canberra: Commonwealth of Australia, 2020. https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2021-07/NHRA_2020-25_Addendum_consolidated.pdf (viewed Jan 2022).
- 19 Russell LM, Doggett J, Dawda P, Wells R. Patient safety — handover of care between primary and acute care. Policy review and analysis. Canberra: Commonwealth of Australia, 2013. <https://prestantiahealth.com/extranet/sites/default/files/2018-11/handover-of-care-between-primary-and-acute-care-report.pdf> (viewed Jan 2022).
- 20 Raymond K, Hedge S. Dental Health Services Victoria: journey to value based healthcare. Canberra: Deeble Institute for Health Policy Research, 2020. https://ahha.asn.au/sites/default/files/docs/policy-issue/perspectives_brief_no_7_dhsv_journey_to_value_based_health_care_3.pdf (viewed Apr 2022).
- 21 Cole D, McKee S. Case study on value based health care — how Dental Health Services Victoria is transforming oral healthcare [webinar]. <https://www.youtube.com/watch?v=rbPI4GLQdKM&feature=youtu.be> (viewed Jan 2022).
- 22 True A, Janamian T, Dawda P, et al. Lessons from the implementation of the Health Care Homes program. *Med J Aust* 2022; 216 (10 Suppl): S19-S21.
- 23 Porter ME, Lee TH. Integrated practice units: a playbook for health care leaders. *NEJM Catal Innov Care Deliv* 2021; 1 Jan. <https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0237> (viewed Apr 2022).
- 24 Australian Government Department of Health. National Medical Workforce Strategy 2021–2031. Canberra: Commonwealth of Australia, 2022. <https://www.health.gov.au/sites/default/files/documents/2022/03/national-medical-workforce-strategy-2021-2031.pdf> (viewed May 2022).
- 25 Heywood T, Laurence C. The general practice nurse workforce: estimating future supply. *Aust J Gen Pract* 2018; 47: 788-795.
- 26 Kosari S, Deeks LS, Naunton M, et al. Funding pharmacists in general practice: a feasibility study to inform the design of future economic evaluations. *Res Social Adm Pharm* 2021; 17: 1012-1016.
- 27 Royal Commission into Aged Care Quality and Safety. Final report: care, dignity and respect. Volume 1: summary and recommendations. Canberra: Commonwealth of Australia, 2021. https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-volume-1_0.pdf (viewed Apr 2022).
- 28 Esterman AJ, Ben-Tovim DI. The Australian coordinated care trials: success or failure? *Med J Aust* 2002; 177: 469-470. <https://www.mja.com.au/journal/2002/177/9/australian-coordinated-care-trials-success-or-failure>
- 29 Leach MJ, Segal L, Esterman A, et al. The Diabetes Care Project: an Australian multicentre, cluster randomised controlled trial [study protocol]. *BMC Public Health* 2013; 13: 1212.
- 30 Dawda P. Bundled payments: their role in Australian primary health care. Canberra: Australian Healthcare and Hospitals Association, 2015. https://ahha.asn.au/sites/default/files/docs/policy-issue/bundled_payments_role_in_australian_primary_health_care_1.pdf (viewed Jan 2022).
- 31 Schneider E, Shah A, Doty MM, et al. Mirror, mirror 2021: reflecting poorly. Health care in the U.S. compared to other high-income countries. Washington: The Commonwealth Fund, 2021. <https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly> (viewed Jan 2022).
- 32 Teisberg E, Wallace S, O'Hara S. Defining and implementing value-based health care: a strategic framework. *Acad Med* 2020; 95: 682-685.
- 33 Hurst L, Mahtani K, Pluddemann A, et al. Defining value-based healthcare in the NHS: CEBM report. Oxford: University of Oxford, 2019. <https://www.cebm.ox.ac.uk/resources/reports/defining-value-based-healthcare-in-the-nhs> (viewed Apr 2022).
- 34 Australian Government Department of Health. Future focused primary health care: Australia's Primary Health Care 10 Year Plan 2022–2032. Canberra: Department of Health, 2022. <https://www.health.gov.au/resources/publications/australias-primary-health-care-10-year-plan-2022-2032> (viewed Apr 2022). ■

Supporting Information

Additional Supporting Information is included with the online version of this article.