

Creating a successful health pathway to support the integration of patient care

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health
pathway

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Abstract

Purpose – HealthPathways (HPW) is an online health information portal which provides general practitioners (GPs), guidance on the assessment, management and referral of a range of conditions linked to local resources. However, there is a lack of understanding of the acceptance of pathways within primary health. The paper aims to discuss this issue.

Design/methodology/approach – This qualitative study identified baseline factors that promote the successful implementation of HPW in a major local health district (LHD) in Australia. The development, implementation and acceptance of Diabetes HPW were evaluated. A total of 16 semi-structured interviews were conducted with 12 stakeholders and 4 GPs. Interviews were digitally recorded, transcribed and analyzed qualitatively using a thematic analysis approach.

Findings – Four major themes were identified that promote the integration of care in the region through utilizing HPW: engagement, sustainability, transparency and accountability. Several factors identified as “enablers” or “barriers” are described at micro and macro levels of the healthcare system.

Originality/value – By combining the perspectives of both stakeholders and end-users, this qualitative evaluation of the localized HPW has identified relational and structural factors that promote the successful implementation of HPW to facilitate the integration of care in this LHD. Furthermore, this study provides other implementers with a comprehensive evaluation of the HPW development.

Keywords Partnership working, Care partnerships, Integrated pathways, Integrated care

Paper type Research paper

Introduction

HealthPathways (HPW) is a password-protected web-based portal that provides general practitioners (GPs) and their teams with guidance on clinical assessment and management of medical conditions, relevant to local services and resources (McGeoch, McGeoch and Shand, 2015; McGeoch, Sycamore, Shand and Simcock, 2015). HPW differs from other websites as it provides locally relevant information that is established by an iterative and collaborative process between healthcare professionals, management, funders, clinical editors and technical writers.



HPW evolved in 2008 as part of changes toward an integrated healthcare system in the Canterbury region of New Zealand. It has contributed to the delivery of more care in the community by developing primary and community services, and has supported people to take greater responsibility of their health. By aiming to ensure that patients are treated by the most appropriate service in their local health context and supporting primary care capacity, it has reduced the growth in demand on secondary and tertiary care (HealthPathways Community, Canterbury District Health Board and Streamliners NZ, 2016). HPW has been associated with an improvement in referral quality, more equitable referral triage and more transparent management of demand for secondary care (McGeoch, McGeoch and Shand, 2015; McGeoch, Sycamore, Shand and Simcock, 2015; Dickins *et al.*, 2018; Lee *et al.*, 2018).

Based on the apparent success of HPW implementation in New Zealand, it has been recently adopted within the Australian context as an aid to improve the integration of patient care across the health system. HPW is now being implemented at 22 sites across Australia, 9 regions in New Zealand and 1 in the UK (HealthPathways Community, Canterbury District Health Board and Streamliners NZ, 2016). Implementation of the Australian HPW programs is supported by the New Zealand-based technical communications company, Streamliners.

HealthPathways South Western Sydney

HealthPathways South Western Sydney (SWS) is a joint initiative, co-funded between South Western Sydney Local Health District (SWSLHD) and South Western Sydney Primary Health Network (SWSPHN) and is available free for all health professionals in SWS. It has been operating since 2015 and more than 400 health professionals (including 59 GPs) have been involved in work groups and reviewing pathways. To date, there are over 500 localized health pathways developed. The HPW SWS program team includes two clinical editors with one of them GP. Implementation of the HPW SWS programs has been supported by the New Zealand-based technical communications company, Streamliners Ltd.

The HPW SWS program team has access to all online programs and is receiving training in their use. The project website is live and includes a public information point. A pathway assessment and selection process has been developed and implemented to determine the schedule for pathway development. This includes implementing macro and micro options to identify strategic pathway development areas:

- consultation with Clinical Quality Council;
- review of strategic plan and approaching clinical streams regarding how HPW;
- can assist in achieving the identified strategic priorities;
- review of SWSPHN Strategic Plan;
- distribution of GP survey to identify priority clinical presentations; and
- matching pathway priorities to identified chronic diseases common within the local health district (LHD).

The results across various regions shows a positive attitude of health professionals toward use of HPW (McGeoch, McGeoch and Shand, 2015; McGeoch, Sycamore, Shand and Simcock, 2015; Stravens *et al.*, 2016; Holland *et al.*, 2017). However, there is limited evidence on the effectiveness of HPW in Australia. Within Australia, some impacts include: referral quality improvement, process redesign leading to improved access to specialist care and reduction in the patient wait time (Mansfield *et al.*, 2016; Gray *et al.*, 2017; McDonald, 2013, 2016; HealthConsult Pty Ltd, 2016a, b, c). It has been identified that HPW must be first initiated and implemented at the regional level in order for the process to be effective (Australian Medicare Local Alliance, 2014).

The above multi-organization steering groups were established to work collaboratively to a common purpose – a success measure for any integrated system. This study is part of a larger, mixed-methods study (Chow *et al.*, 2018). This paper focusses on the qualitative element which will appraise the development, implementation and acceptance of HPW, specifically in Type 2 Diabetes Mellitus (T2DM) at different levels of the health system.

Description of the care practice. The study LHD operates New South Wales State Government funded tertiary care hospitals, public outpatient services and public community health services, covering a region with 1m populations. The affiliated Primary Health Network (PHN) was established by the Commonwealth Government with the key objectives to increase the efficiency and effectiveness of medical services, and improve the coordination of patient care by working directly with GPs, primary/secondary care providers and hospitals. In 2015, the LHD and the PHN together launched their implementation of HPW using already fully localized, T2DM pathways. As these pathways had already been in use for over one year, they were considered to be an ideal group of pathways to evaluate for the purposes of this 2017 study.

This study was conducted and supported by the Integrated Care Collaboration Research and Evaluation Implementation Working Group which was established in early 2015 to provide oversight and coordination of research and evaluation in relation to integrated health programs endorsed by the NSW State Health Plan: Toward 2021 (NSW Ministry of Health, 2014), and the NSW Health Integrated Care Evaluation Framework (NSW Ministry of Health, 2016). Membership of this Working Group includes stakeholders across multiple tiers of the health system: consumers, government (Federal, State and Local), non-government organizations and private enterprise. The researchers allocated to conduct this study have no direct relationship with the HPW SWS program team. This will avoid any bias for the evaluation.

Implementation process. The meeting documents of the Diabetes Pathways Working Group were used as a data source to identify how the Diabetes Pathway was developed and how it was implemented in SWS. The summary from these documents indicated that Diabetes Pathways was developed as there was no clear role of GPs in treating and managing this group of patients and there were issues related to referrals to allied health and other specialists. Issues with clinical governance of patients attending for insulin script renewals without review or follow-up were also reported. The health service needs identified from the Diabetes Working Group were engagement and management of patients with Diabetes, communication with GPs and specialist and providing further education and service awareness. A Clinical Working Group (CWG) was established to support the HPW development. Members of the CWG include consumers, a GP lead, Staff Specialist lead and project officer. The consumers and GP played a vital role in this co-production of the HPW. The CWG supported by the project officer conducted a series of literature search, stakeholder consultations and drafting of the HPW. The HPW had also undergone user testing prior to the final publication. Thus, the Diabetes Pathway was developed to provide a tool to provide clear information for GPs to ensure that patients would be engaged with specialist team, diabetes service and receive care from the multidisciplinary teams. Patients would then be aware of the specific services and sought information regarding insulin pump malfunction and troubleshooting.

This qualitative study is part of an overall HPW evaluation in the LHD (Chow *et al.*, 2018), which used a programmatic approach and multi-methods (Creswell and Plano Clark, 2011) including literature reviews, site visits, semi-structured interviews (stakeholders and GPs) and surveys (GPs and patients) (Table I). This study provided insight into the details of delivery of integrated healthcare using HPW, together with preliminary analysis of the lessons learnt for the implementation of HPW in a metropolitan region in Australia and

Table I.

The overall mixed-method approach for the programmatic evaluation of T2DM pathways implementation

Description	Timeline	Stakeholders
Literature review	September 2016–December 2017	na
Online survey	April–June 2017	General practitioners
Anonymous paper survey	April–November 2017	Patients attending diabetes clinics
Semi-structured interviews	January–May 2017 (interviews) October–December 2017 (analysis)	Staff across organizations who have been involved in the management and governance of the pathways
Semi-structured interviews	June–September 2017 (interviews) January–March 2018 (analysis)	General practitioners
Extract and analysis of Web server utilization data which were collected and analyzed to create the overall results	February–May 2018	na
Review working groups and program meeting documents	February–May 2018	na

increased understanding of the practical issues for implementation of Diabetes HPW working with patients, GPs and other healthcare providers (Chow *et al.*, 2018). The specific aim of this qualitative component is to better understand the development, implementation and acceptance of T2DM pathways within primary health in the LHD. Importantly, it aims to identify elements that both assist in creating a successful HPW and potential barriers to achieving this goal in order to facilitate the integration of patient care.

Theory and methods

This qualitative study was conducted in a number of health organizations, General Practices and Diabetes Clinics across the LHD from February to September 2017. Ethical approval for this study was granted by the SWSLHD Human Research Ethics Committee (HREC reference No. LNR/15/LPOOL/587).

Participant recruitment and selection

A study included a purposive sample of stakeholders and healthcare practitioners/providers. For GP participants, an initial online survey was distributed to all registered GPs and general practices across the LHD (Chow *et al.*, 2018), (estimate of 930 GPs/400 practices on PHN's database in February 2017). Those who indicated they were willing to be contacted by a research team member, and who fulfilled certain criteria – such as influx of patients with Diabetes Mellitus, familiarity with HPW and use of Diabetes pathways for patient management – were invited to participate in an individual semi-structured interview to discuss their perceptions, suggestions and acceptability of the pathways. The GP participants were offered financial reimbursement equivalent to their clinical time, capped to 1 h per interviewee. For the other stakeholders (staff involved in the development and implementation of HPW), an invitation for a semi-structured interview was sent out to all of those participants identified across partnering organizations, given their involvement in the governance and day-to-day management of the HPW program. In total, 12 stakeholders and 4 GPs were recruited in this study.

Data collection and analysis

In total, 16 semi-structured interviews were conducted by two researchers, digitally recorded, transcribed and then de-identified. The analysis assumed a background of realism for this qualitative research, and thus viewed the interview transcriptions as reports of the

experiences of the participants when dealing with HPW. The analysis was conducted by experienced qualitative researcher and checked for consistency by others in the research team.

Preliminary analysis commenced by identifying participants' responses to the interview questions grouped within the following framework: a focus on implementing an HPW and a focus on creating a successful HPW. Data that referred to the "move" from the concept to practical application of the integration of care were also identified. In the first major analytical round, the different concerns of participants were identified within each major section, and then grouped together according to their central focus. In the second round of analysis, an inductive approach was employed to conduct an analysis that elicited common themes amongst the empirical data collectively describing participant responses pertinent to each focus. Each theme described an important pattern in individuals' experiences in relation to the general aims of this research project. Finally, interpretive themes overarching the delimited foci were identified (Braun and Clarke, 2006).

Results

A total of 16 interview transcripts with stakeholders ($n = 12$) (i.e. general managers, chief executive officers, service/project managers and Working Groups participants – including GPs) and GPs ($n = 4$) (as end-users) were analyzed. From the stakeholders' interviews and in cross analysis with the documents' review from the Working Groups, it became apparent that various steps are involved in the development and implementation of HPW. For this LHD steps are illustrated in Figure 1.

The qualitative evaluation identified the following four core themes linking different aspects of the establishment and implementation of the HPW program: engagement, transparency, sustainability and accountability. Each theme describes an important outline in the participants' experiences, attitudes and perspectives in relation to the general aims of this project, as well as their beliefs when interacting with HPW. In the following sections, short excerpts from these interviews are included. A summary of the key findings under each core theme is presented below, followed by the analysis of HPWs' development, implementation and acceptance to see the impact at the macro/micro-levels of the health systems, implications toward referral process and the learnt barriers to the success of HPW.

Major qualitative themes

Engagement. The theme of engagement refers to how different members at both the organizational (macro) and individual (micro) levels of the healthcare system are actively involved in creating and maintaining partnerships that facilitate the effective implementation of HPW in the LHD:

[...] It was a lot more about engaging across different stakeholders and just [...] having more conversations and having more relationship building to say this is how we are going to work together. (Member of the working group)

Common agreement on the strategic goal of integrating patient care led this project. Stakeholders came from many professional groups such as managers, doctors and allied health professionals, as well as from different government, local and commercial organizations. Participants from these groups were involved in assessing predesigned pathways, current best practice, service provision and the local context to formulate pathways suitable for utilization in this LHD. GPs collaborated throughout this process to address both the needs of their patients and what they themselves require to deliver a high standard of healthcare. Formal partnerships between organizations (i.e. commercial agreements and memoranda of understanding) and informal partnerships created within the Working Groups relied upon engagement as the underlying principle to facilitate this project.

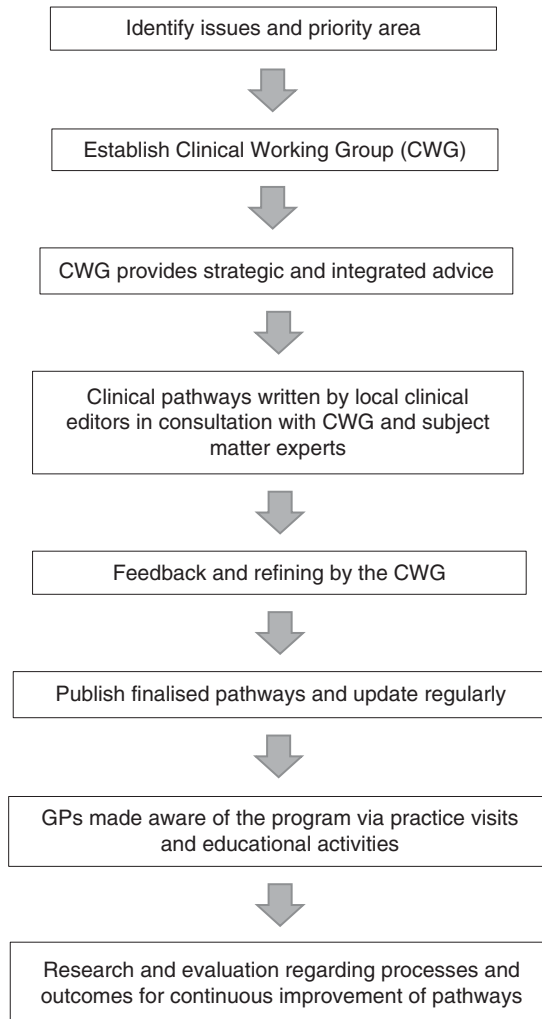


Figure 1.
Steps involved in the
development and
implementation
of HPW

Transparency. Participants perceive the process of implementing HPW has caused the relationships between organizations to become more transparent. Organizational aims, values and processes are made visible; trust and understanding develop within partnerships consequent upon the common agreement on the strategic value of the integration of patient care, in particular with the opening of communication lines between GPs and tertiary level healthcare:

A lot follows when there is a green light [...] to actually planning and mapping out [...] then engaging people around this. (General Manager)

Improved lines of communication are viewed as proof of the viability of relationships between different healthcare sectors:

At a management level it's been a proof that something tangible can come out of integrating between acute and primary care. (a stakeholder)

The shared governance of HPW between the LHD and PHN facilitated this. Shared governance, however, posed challenges (or barriers) that arose from unclear reporting responsibilities across organizations by people contracted to an individual organization.

Pathways development also required identification of healthcare services within the LHD. The effective implementation of HPW demanded the standardization of services and their clear delineation in the LHD, especially with regard to the referral pathways. Disregarding the importance of clear and effective referral processes was perceived to hinder the productive utilization of a pathway, and thus to act as a barrier to HPW implementation. The effectiveness of HPW to facilitate and improve the transparency of communication and provide accessible information for end-users was considered an important baseline factor for successful implementation.

Accountability. Accountability refers to how the relationships created between participants affect the provision of health services as a consequence of implementing HPW:

It comes back to a high standard of care, which involves teamwork, and also your patients need to trust the services that are provided. (a GP end-user)

Organizational and individual stakeholders' shared commitment to identifying best practice and developing local pathways is an important enabler. Some stakeholders suggest that standardization and consistency across the LHD are desirable attributes of a system committed to providing integrated care. The implementation of HPW provides a means to achieving this aim. Shared governance of this project makes organizations accountable for their mutual obligations to provide services and the ongoing sustainability of HPW. Stakeholders' commitment to their engagement in this project and the agreed aims upon which the HPW project has been implemented suggests that accountability is an important enabler for the project, and contributes to its success.

Sustainability. Sustainability describes factors that promote the ongoing and efficient delivery of health services as a consequence of the HPW program:

Systems have got embedded, people are buying into it, and it's mushrooming. So I see that as a good return on investment. (Member of the Program Team)

The decision to use an "off-the-shelf" product, HPW, enabled the implementation of a strategy to integrate healthcare. Less time was needed for start-up, with resources and skills made available to facilitate the development of the program and its continuation. The flexibility of the program to adapt to the local context with pathway development is also perceived as an important enabler for the sustainability of the program. GPs perceive local content to be an important strength of HPW that contributes to their utility:

It's GP lead, in terms of identifying what pathways are needed and the acute system provides feedback on [...] our escalation points and referral options for general practitioners. (Member of the working group)

The ongoing development of more pathways and regular updating of existing pathways are perceived as factors contributing to sustainability. Thus adequate staffing resources, time and funding require continued commitment from organizations to this program; however, a potential lack of commitment, especially with the provision of inadequate funding, is perceived as a barrier to sustainability. The state-wide release of HPW is also regarded as a possible factor that might support the LHD and PHN to support the program. Overall, sustainability is regarded as an important baseline factor for implementing a successful HPW program.

Appraising the impact/s of implementing pathways

This qualitative study asked participants to comment on how the implementation of HPW should be investigated in order to assess its impact or success. This section examines participants' responses in terms of the structural arrangements of healthcare – the organizational or macro-level and the end-user or micro-level. Overall, both stakeholders and GP end-users recognize the necessity for the provision of good referral services, keeping existing pathways up to date and developing new pathways if patient care is to be integrated within the health system.

Macro-level. Four general areas impacting on macro/organizational aims of introducing HPW are the standardization of patient care; adequacy of project management and implementation; acceptability through usage of pathways; and efficiency of referrals.

It is important for healthcare organizations to standardize patient care processes to successfully streamline the use of services and to decrease inappropriate referrals of patients to acute care services. One stakeholder comments:

The critical success factor, I think you have as much standardisation of services across a region as you can [...] [in order that] the pathway would be launched a lot quicker. (Member of the working group)

This reinforces the significance of the establishment and maintenance of partnerships to facilitate pathway development, and having an agreed motive for pathway development between organizations to set a course for the successful implementation of HPW.

The second area focusses on how well the program execution is performed: evaluating the adequacy of project planning and management of implementation:

[...] knowing your priority areas and having data that supports that [...] maybe engage the performance unit and planning unit. (Member of the Program Team)

In addition, managers would like to know if the people employed to facilitate the introduction of pathways are effective. Investigating what pathways are used, and whether clinicians adhere to the pathways provides a means to assess their acceptability, and hence their success. One suggestion was to use metrics-based approaches such as number of clinicians accessing the website, percentage of use and time online. A barrier to implementation, however, is the perceived lack of engagement of specialist physicians in pathway production, thus “bottlenecking” pathway development and detracting from the potential to successfully implement pathways.

Another organizational focus addresses the efficient utilization of services by investigating patient referrals. From these interviews, suggested indicators are based on whether GPs are using standardized care models. Their use would impact through a reduction in inappropriate or unnecessary referrals to the emergency departments and specialized district services; an improvement in referral quality; and reviewing the numbers of investigations or patient tests. This hard-end point, in the longer term, is anticipated to demonstrate an impact on preventable hospitalizations but it is recognized this may be difficult to measure at an early stage.

Finally, the services provided at the endpoint of referrals impact on pathway utility. Clinics must supply the services that are expected when GPs or specialists refer patients and employ sufficient staff to deliver what is required e.g.:

We need more staff to implement more clinics or more services for patients. (Member of the working group)

Meeting the needs of end-users highlights the issues of transparency and of accountability for the services that are provided:

[W]e got some feedback from some of the GPs that wasn't the case at a certain clinic [...] I spoke to the director, [who] made sure those processes were implemented. (Member of the Program Team)

Micro-level. In order to evaluate the success of HPW at the micro/individual level, three main areas were identified: investigating technological access and metrics-based approaches; assessment of HPW impact on GPs' needs; and HPW impact on GPs' patient management.

Comments about measuring GPs' access to HPW revealed contrasting perceptions from interview participants about whether the utility of counting hits on the HPW website to measure time GPs spend using it, or mapping how the website is explored act as objective measures of use. While some participants favored this approach, one stakeholder asked whether measuring "access" is equivalent to measuring something's amount of success? HPW is a technological innovation that makes information available at the point of care for GPs but some participants report that small or single GPs do not have access to appropriate technology in their practices, immediately making HPW inaccessible. This poses a potential barrier integrating care within the system.

Interview and survey methods may also be utilized to assess the role HPW plays within a patient consultation as a form of information technology by measuring real-time accessibility, and whether it fits in naturally as part of the interaction of a consult. This is directed to uncovering the impact of HPW on how GPs deliver patient care. One GP states:

I think it's something that we're going to use [...] I think it needs to be incorporated in practice.
(a GP end-user)

GP participants note the time needed to access HPW during a consultation and its ease of use. They state there is a need for more information about how to use HPW, such as a "Help Page" inside the program. Stakeholders suggest the provision of high quality, electronic referral templates would be highly regarded by GPs. A GP participant concurs:

That's how I'd use it, that section I'd use for direct referrals. (a GP end-user)

It is the majority's consensus that the GPs as end-users of HPW are provided with up-to-date, evidence-based information that is designed to fit two needs: first, to learn about and employ an appropriate, standardized referral pathway to smoothly transfer a patient's care across the healthcare system; and second, for the GPs to have information that increases their confidence in treating a patient with an unfamiliar condition. This is confirmed by all of the GP participants; as an example, one GP states:

I do find them quite useful if they are up to date, if they are simple to use [...] [HealthPathways] is something for us to fall back on [...] because we don't know everything [...] it's good that our patients can get the services that they need within their region. (a GP end-user)

Discussion

The idea of implementing HPW in Australia came in order to address similar issues in New Zealand as part of the Canterbury Initiative. The relatively broad uptake of HPW in Australia, following its success in New Zealand, highlights HPW as a program that is seen to be very relevant to the Australian health context. There are few studies reporting on the implementation of HPW in an Australian context. This study responds to the call for research evaluating its implementation (Chow *et al.*, 2018; Mansfield *et al.*, 2016; Gray *et al.*, 2017).

The quantitative arm of this study appraised the development, implementation and acceptance of HP (specifically in T2DM) at different levels in a large metropolitan LHD in Australia by using a multi-methods approach, allowing the collective analysis of different data and improves the consistency of the observations (Chow *et al.*, 2018). This qualitative paper reported the process evaluation which provides additional evidence about what facilitates the successful implementation of HPW and identifies barriers that hinder its

success. Researchers anticipated the interview protocol would elicit an overall discussion about the strengths and limitations of HPW, as opposed to only about the T2DM pathways; in particular, its usability and utility, and suggested improvements or factors that might contribute to its success. An inductive approach was employed to conduct an analysis that extracted common themes amongst the qualitative data.

Collaboration between individuals and organizations has strengthened the development and implementation of the HPW program. Engagement and transparency have demonstrated the significance of establishing collaborative partnerships to implement HPW. How HPW have impact at the macro or organizational level and at the micro-level of the end-user, the GPs, is central to evaluating their influence on the integration of patient care. At the governance level, HPW is a strategic tool utilized to integrate care. For the GPs as end-users, what HPW does is to provide information to smooth patient referral through the healthcare system, and may be used as an evidence-based educational tool (Lee *et al.*, 2018). Implementing HPW successfully must neither neglect their sustainability, nor how organizations and end-users are both made accountable in order to improve and smoothly integrate patient care.

Shared governance of this program makes both the partnering organizations accountable for their mutual obligations to provide services and the ongoing sustainability of HPW, financially, in leadership and engagements. This has evidenced with the successfully co-designed and commissioning of over 500 localized health pathways since its inception in 2015. The program has also expanded to provide online education content, a practice software repository which has addressed the GPs' feedback for ease the timely access to the program. Additionally, a companion site for consumers has also been launched and work has commenced in translating the pathways content into patient factsheets (with more than 200 factsheets now available in multiple languages and formats).

Limitations of this study included that the study only covered one LHD but not a wider distribution of population. The study design was dependent on volunteer participation for the qualitative arm of the study: stakeholder and GP interviews, requiring financial incentive. Despite a number of strategies to encourage the participation of GPs, the recruitment of GPs to take part in interviews was a challenge for the research team. Moreover, the study focus was on T2DM, which resulted in low numbers of possible participants for the semi-structured interviews.

Even though there were consumers in the CWG steering the development of the HPW, the involvement of patients in the co-production can be enhanced. This is a significant element as patient involvement is a core principle of integrated care. The consultation and engagement of local support groups run in the community, such as Diabetes Australia, should be included in the development of the Diabetes HPW as the resolution is often beyond clinical services.

Given the increasing interest across worldwide healthcare systems to consider methods for integrating the various parts of systems, this study aims to identify opportunities to improve a current HPW program. The multi-organization steering groups which were established to support the implementation and maintenance of the HPW suggested a desire across the system to work collaboratively to a common purpose – a success measure for the integrated system.

While the paper sums up key points of the process, it does not address integration but only referral onwards. In the step of referral, there are many other issues that support integration such as sharing of key information so the patient does not have to repeat, which tests inevitably get repeated, ineffective triage systems within new services the patient might be referred to, etc. Broader scope for evaluation of multiple pathways to identify the best ways of ensuring sustainability and uptake of the program, whether HPW is meeting the needs of the client group, the GPs and the specialist, identify outcomes related to the effect on patient care, and provide lessons for other regional health service interventions.

Limitations of this study included that the study only covered one region/LHD but not a wider distribution of population. Therefore, it does not provide evidence for national and international generalizability. The study design was dependent on volunteer participation, requiring vast dynamic engagement (need for incentives). Despite a number of strategies of engaging the GPs, the uptake of the GP interview has been a challenge for the research team. The challenge of adequate sample size and purposive sample characteristic has a significant impact on the results for this study. Moreover, the study focus was on T2DM, which resulted on low numbers for GPs online survey uptake and translated into even lower numbers of possible participants for the semi-structured interviews. This study only provides a process evaluation.

One of the background aims of this study was to identify the lessons learnt and develop research questions based on the study experience so they are more generalizable for all systems looking at this. Further research is underway to investigate and explore the health outcomes and impact of HPW on the community and the patient experience when GP uses the HPW. The information from the concept to practical application of this integration of care will add to the evidence to support the strategies to meet the significant challenge across worldwide health systems.

Conclusion

This qualitative study provides an insight into the development and implementation of T2DM HPW across different levels of the health system in the LHD. The feedback and experiences from implementation and utilization of the HPW across different levels of the health system and program implementation provide the end-user (namely GPs) with an overall informed perspective on the acceptability of the HPW, what the general consensus is on its applicability and a transparent view on the impacts that the HPW may have on its day-to-day use in the Australian Health system. Furthermore, this study provides a qualitative set of outcomes to inform a broader mixed-methods evaluation of HPW and its potential to further develop and implement.

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