Implementing a Web-Based, Intelligent Care Coordination Solution for Behavioral Health Services

Challenges Facing the Access & Coordination of Behavioral Services in Canada

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Executive Summary

As Canada’s population ages, the need for mental and behavioral health services continues to increase. It is estimated that in 2009, almost 20 percent of adults in Canada had suffered from a mental health condition at some point in their lives. Mental illness is a significant source of comorbidity in the chronically ill, particularly for patients with diabetes or cardiovascular disease. Diabetes patients, for instance, are twice as likely to suffer from depression as the general population. Mental illness is also associated with higher rates of substance abuse. Twenty percent of people over 55 suffer from a mental disorder. Yet, less than 3% of older adults report seeing a mental health professional for their problems. In 2010, approximately 23 million people ages 12-64 reported symptoms of substance use disorders, while only 11 percent received treatment at a specialty facility.¹

Ensuring patients have timely access to clinically appropriate, coordinated and cost-effective behavioral health services requires standardized clinical documentation and an affordable, intelligent resource matching care coordination technology that is shared among general health providers, care managers and behavioral health providers.

Growing demand for behavioral health services will increase pressure on physicians, care managers and discharge planners to coordinate care transitions for behavioral health patients. Coordinating care for behavioral health patients faces unique challenges for physicians and care managers and behavioral health providers:

1. Mental health and addictions disorders are frequently intertwined with other co-existing health conditions such as diabetes, hypertension, heart disease and kidney & liver failure.
2. The current mass of disconnected behavioral health care delivery arrangements requires numerous patient interactions with different providers, organizations, and government agencies.² Very few of these providers share technology platforms which allow flow of patient information and referrals.
3. As a result, a diverse array of providers often fail to detect and treat (or refer to other providers to treat) these co-occurring problems and also fail to collaborate in the care of these multiple health conditions—placing their patients’ health and recovery in jeopardy.³

This poor communication and lack of shared information among clinicians blocks knowledge about which behavioral health programs are most clinically appropriate and available for a patient and how a chronic medical condition should be factored into the patient’s behavioral health care transitions.

¹Behavioral Health Roundtable: Summary of Findings; Office of the National Coordinator for Health Information Technology, U.S. Dept of Health & Human Services, September 2012
³Ibid
Adoption of health IT is critical to support care coordination, patient engagement and access to care, and ultimately health reform. However, behavioral health clinicians currently have limited adoption of interoperable information systems. In a study prepared for Canada Health InfoWay in collaboration with McKinsey and Company indicated that the total incremental cost of creating a nationally integrated EHR system by 2017 would be in the neighbourhood of $10–$12 billion. An additional $4 billion would be needed to provide integrated systems to allied health professionals working in long-term care facilities, home care, public health and mental health. Behavioral health providers are often challenged to implement health IT solutions due to prohibitive EHR costs, lack of IT support staff and concerns over federal privacy laws for behavioral health patient information.

A large regional health system in British Columbia, Canada, recognized the pressing need and opportunity to better coordinate care transitions for its behavioral health patients. In 2006, supported with funds from Canada Health Infoway, the Vancouver Island Health Authority (VIHA) built a web-based patient flow solution to optimize coordination of care for its at-risk mental health and addictions patients across a full range of clinical and community-based providers. This successful patient flow solution has been in place for over 6 years and provides several lessons learned for North American providers seeking to better coordinate care for behavioral health patients.

Profile in Coordinating Behavioral Health Care Transitions: Vancouver Island Health Authority BRIDGES Project

**Challenge:** Serving a population of over 765,000, the Vancouver Island Health Authority (VIHA) was struggling to coordinate care transitions for its most serious, at-risk mental health & addictions patients – patients with serious episodic mental illness, serious and persistent mental illness, severe addictions and psycho-geriatric patients. Many of these patients suffered from multiple, chronic medical co-morbidities, further complicating their care management.

Contending with what VIHA leaders described as a “Broken Health Record”, making mental health & addiction services (MHAS) referrals to any of the 135 MHAS care management, inpatient or community-based programs in the region was a laborious process, often resulting in delayed admissions, lengthy times to access programs and sub-optimal patient placements. The referring clinician was faced with accessing documentation and completing forms that were unique to each MHAS program. As an example, for 31 of the region’s MHAS programs, there were 81 different types of referral forms available, with little or no standardized clinical documentation shared among them.

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4 Canadian Medical Association Journal - March 23, 2010
5 ibid
6 ibid
7 Canada Health Infoway is a federally-funded non-profit organization charged with development and adoption of the pan-Canadian EHR. The VIHA Bridges project was funded under the Infoway Innovation and Adoption stream.
8 Based on interview with Dr. Ken Moselle, Enterprise Information Architect @ the Vancouver Island Health Authority; February 25th, 2013.
10 Strata PathWays – a Bridge Just Far Enough – within a Fully Cross-Continuum Next Gen EHR?”, Dr. Ken Moselle Enterprise Information Architect, VIHA, October 27th 2011.
Referring clinicians lacked knowledge of the full array of MHAS programs available for their patients and had to rely on their own personal “database” of MHAS providers, based on prior experience with referrals. For each referral, the referring clinician’s office would spend time on the phone with MHAS providers, tracking down program availability and completing the referral documentation.

**Solution: The Bridges Project** – In 2006, the VIHA launched the “Bridges” project, which was a partnership between VIHA, Canada Health Infoway, Strata Health Solutions and Cerner. The Bridges project developed and implemented EHR-based synoptic reporting and clinical decisions support tools to optimize continuity and coordination of care within Mental Health & Addictions Services (MHAS). The web-based Mental Health & Addictions patient flow solution now accelerates the matching and placement of at-risk mental health clients across a full range of clinical and community resources. In real-time, clinicians see service availability and wait times and the tool intelligently matches assessed client needs with the complete array of mental health and addictions’ resources. The tool also provides tight controls over information sharing through the network of providers.¹¹

Bridges project leaders were committed to creating a “client-centered” clinical documentation template, which asked and answered the question: “What is the minimum data set of critical patient information needed to manage, navigate and refer any MHAS patient at any stage in their illness or condition along the MHAS continuum?” The Bridges project engaged an array of providers spanning the behavioral health continuum to collaboratively design one streamlined and standardized clinical documentation & referral template that could be used for all mental health & addictions referrals in the region. One “clinical vocabulary” was used in the new clinical documentation template. Instead of selecting from among 80+ referral forms, providers now use one comprehensive electronic template in Strata Health’s PathWays solution to build client profiles for the behavioral health referral package. The Bridges solution eliminates the need for the clinician to do a separate piece of documentation to make a referral (which, in the VIHA pre-Bridges experience, often resulted in very sparse, cryptic referrals – which produced delays). The Bridges solution packages the documentation to support the referral. The intelligent resource-matching capability of PathWays then targets the referral and the flow of information – but it does not require the clinician to do any more documentation.

The second critical aspect to the Bridges project was the implementation of an intelligent, clinical decision support tool that matched MHAS patients to the most appropriate referral destination, based on the patient’s clinical needs, geographic preferences and real-time availability to programs. No longer were referring clinicians required to consult their personal databases or lists for possible MHAS referral options – all 135+ mental health & addiction services providers were electronically captured in PathWays. Using PathWays, referring providers have full transparency into the array of potential behavioral health providers available for their patients. This transparency and intelligent resource matching significantly improves the quality and timeliness of care transitions for behavioral health patients and results in more efficient patient flow.

¹¹Canada Health Infoway Press Release; “Spotlight on Results: Vancouver Island Authority Mental Health & Addiction Services Bridges
While hospitals in the VIHA region had implemented Cerner EHR systems, other providers in the region used a variety of health IT systems and some MHAS providers did not have an EHR or a health IT system. A web-based decision support solution, such as PathWays, allowed for interoperability among multiple EHR and health IT systems. Since PathWays is a web-based platform, MHAS providers without an IT system could also receive and send intelligent referrals as well as obtain system-level reports on referral patterns.

**Outcomes:** Six years after the Bridges project was implemented, clinicians and behavioral health providers in the VIHA have fully adopted and utilize the single “client-centered” clinical profile template and the PathWays intelligent resource matching solution. Numerous improvements have been identified in the areas of access, quality & productivity for Mental Health & Addiction Services:

**Improved Quality of Care Coordination:**
- Promotes clinical interoperability with improved continuity and coordination of care through access to shared information across services
- Optimizes care provision in a distributed care model
- Increases effective management of client safety-risk issues by shifting to synoptic reporting from largely free-text based documentation
- Improves capacity to judge appropriateness of clients referred for services in real time

**Better and Timely Access to Care:**
- Supports more appropriate timing in the initiation of care, especially for high need/high risk clients
- Reduces the likelihood of inappropriate referrals, using client/service matching logic to guide choices
- Improves the transition of clients between care providers by informing decision-making and care coordination
- Increases transparency of system bottlenecks by capturing intervals along the referral process

**Increased Productivity:**
- Reduces the time to process incoming referrals through synoptic reports that provide clinicians up front with the requisite information about client need and risk, enabling eligibility decisions to be made without time-consuming follow up
- Optimizes flow between services, resulting in shortened length of stay
- Leverages existing technologies to streamline data capture via integration

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12Canada Health Infoway Press Release; “Spotlight on Results: Vancouver Island Health Authority Mental Health & Addiction Services Bridges
**Lessons Learned:** There are several lessons learned from the VIHA Bridges design & implementation of a web-based, intelligent care coordination solution that are applicable to behavioral health providers, care managers and clinicians across Canada:

1. Creating a streamlined, clinical documentation template for behavioral health patients that focuses on the minimum data set of critical patient information needed to manage, navigate and refer patients along the mental health & addiction services continuum is the first critical step in building a coordinated care solution among behavioral health providers – as demonstrated by the Bridges project, this can be done! The client-service matching logic utilized in the Bridges solution enables intelligent service system navigation across the full array of hospital, ambulatory and community-based services.

2. Strong, visionary leadership is needed to support the collaborative architecture and design of a single behavioral health clinical documentation template. Ensuring that clinicians can quickly see how a clinical documentation template creates patient clinical profiles that generate high quality, efficient & timely referrals will support the collaborative design & implementation effort.

3. An EHR system is a valuable asset that can be leveraged in a patient flow & care coordination solution for behavioral health patients – but it is not a requirement to achieve significant improvements in care transitions, so long as a standardized clinical documentation template and an e-referral and intelligent resource matching technology solution is available to enable clinicians to enter clinical information directly.

4. Web-based decision support tools (such as PathWays) can provide affordable inter-operability among an array of heterogeneous EHR & health care IT systems, and can also allow providers without EHRs to readily participate in e-referral and intelligent resource matching solutions.

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