ACHIEVING COLLABORATION: SYSTEM LEVEL SUPPORTS AND ACTIONS

Bette Reimer[1], Dan Reist[1] Brian Rush[2] and Roger Bland[3]

[1] Centre for Addictions Research of BC, University of Victoria
[2] Centre for Addiction and Mental Health
[3] Professor Emeritus, Department of Psychiatry, University of Alberta

INTRODUCTION

Implementing service delivery systems based on the bio-psycho-social model requires a collaborative approach. The model draws attention to the genetic, physiological, psychological, social and cultural elements that influence health. At its simplest, integration ensures a person receives care that addresses multiple needs in a coordinated and efficient way. Mental health and substance use problems seldom occur in isolation. They are frequently intertwined with each other and with general health problems. Quality care, in such circumstances, requires effective collaboration between mental health, substance use and general healthcare providers and often with professionals in education, child welfare and other human service systems.

Typically, however, all of these care providers are trained to recognize and respond to only one part of the person's needs. The care providers often work within programs that focus on addressing medical problems, mental health problems or substance use problems, but not all of them together. Still other programs focus on developing healthy institutions or healthy communities, if these issues are addressed at all. These different programs are usually arranged within parallel systems, each focused on a different strand of need and competing with each other for resources. Not surprisingly, the result is fragmented services that do not promote the well-being of the people they serve.

WHAT DOES INTEGRATION MEAN?

In the past several years, there have been numerous calls for integrated care, particularly for people with co-occurring problems. The discussions of integration are often confused by a lack of clarity related to language and concepts. The Substance Abuse and Mental Health Services Administration (SAMHSA) has identified three levels of integration (SAMHSA cf. Shortell et al., 2000):

- Integrated treatment involves communication and interaction between service providers to ensure that the multiple strands of a person's needs can be addressed. This may be as simple as enhanced referral that involves appropriate information sharing and follow-up.
- Integrated program involves the use of multidisciplinary teams or effective linkages between programs to ensure a person's diverse needs are addressed when the person accesses service for any particular need.
- Integrated systems involves an organizational structure to support an array of programs addressing different needs but linked through common system support functions (e.g., needs assessment, strategic planning, information management, funding and other management functions).

Integration at any of these levels can exist to varying degrees, and integration may involve various combinations of these levels. Integration at one level does not ensure integration at another level, but a lack of integration at the systems level can impede integration at the program or treatment level.

The research literature on integration is complicated by this complexity and lack of definitional clarity. The term 'integrated care' is both broadly and narrowly defined. Definitions range from requiring only interactions among providers to requiring shared treatment plans. Nevertheless, common among the definitions is the requirement of some communication or coordination between providers to meet the mental health, substance use or general health needs of people presenting for care (Butler et al., 2008). Operational methods used to increase communication and collaboration between care providers include:

- Various communication mechanisms (e.g., a formal care manager role, consultations on an as-needed basis, regularly scheduled case reviews, formal protocols for information sharing)
- Co-located services designed to facilitate communication between providers and to increase access for clients
- Shared medical records to provide a common information base

The challenge in assessing the evidence related to the effectiveness of integrated care is that integrated care models differ widely in terms of the elements included, and the research studies often do not clearly report on all of the elements. Nonetheless, keeping in mind the above distinctions is helpful in trying to understand and assess the evidence base.

IS COLLABORATIVE MENTAL HEALTH AND ADDICTIONS CARE AND SUPPORT WORTHWHILE?

All of the above material begs the question about the quality of the evidence concerning the actual value-add of working towards more collaborative mental health and addictions care and support. While a full review of this literature is well beyond the scope of this report the recent reviews that are available give insight into the answer to this question.

The outcome-oriented literature with respect to health service coordination/integration was recently reviewed by Rand Europe (2012) and concluded with a very cautionary note about our ability to clearly demonstrate the benefits of collaboration in terms of client and family-level health outcomes, client satisfaction and cost savings. They drew largely upon a comprehensive review of 85 primary studies that focused on the coordination of care within primary care or between primary care and other services (Davies et al., 2008), as well as a systematic review of 317 disease management initiatives conducted by Mattke et al. (2007).

A systematic review by Druss and von Esenwein (2006) examined six trials investigating interventions to improve the quality of medical care to persons with substance use and/or mental health problems. All trials investigated the effectiveness of integrating primary care into a specialty setting. The trials showed improved outcomes related to abstinence and general medical care. Some of the studies also demonstrated positive impacts on primary care linkage and in medical quality, and three studies found the programs to be cost-neutral as increases in outpatient expenditures were offset by declines in inpatient and emergency room use. Druss and von Esenwein conclude the studies covered by their review showed greater benefits on health and abstinence outcomes in populations with worse health or with medical co-morbidity at baseline. The authors suggest the impact of integrated services may be greatest for patients with co-occurring problems who are at greatest risk of service fragmentation.

In addition to the systematic review covered above, three prospective studies reported improved substance-related outcomes for integrated substance use care and medical care (Martens et al., 2008; Saitz et al., 2005; Friedmann et al., 2003).

Butler and colleagues (2008), in reviewing some of the above evidence, support the possibility of positive findings but suggest several other factors need to be taken into account. They note that all the

trials they reviewed took place in integrated health systems, and suggest this offered considerable advantage with respect to co-location and shared operational systems. Butler and colleagues (2008) suggest that individuals with mild to moderate mental health or substance-related problems can be best served in a primary care setting with integrated mental health and substance use specialty services; and studies show the impact of integrated services may be greatest for patients with co-occurring problems who are at greatest risk of service fragmentation (Druss & von Esenwein, 2006).

With respect to integrating specialty care into primary care settings, brief intervention for at-risk drinking has been studied extensively and positive outcomes have been reported. However, the evidence does not suggest that the model of care is associated with this result (Oslin et al., 2006). In addition, the meta-analysis by Butler and colleagues (2008) did not find any clear patterns to suggest that outcomes improve as the levels of either provider integration or integrated care processes increase. They argue the evidence does not permit distinguishing the effects of systematic care from those related to an integrated approach. Based on these findings, the authors stress that in order to understand the role of integrated mental health and substance use services in the primary care setting, it is necessary to isolate the effects of integration from the impact of other factors. For instance, many of the studies that tested integration also added staff and introduced a more structured approach to delivering mental health services.

Craven and Bland (2006) report the most comprehensive review of the literature specific to collaborative mental health care in the context of primary care. Several of their most salient conclusions were:

- Collaborative relationships between primary care physicians and mental health care providers require preparation, time and supportive structures. There appears to be a relationship between the quality of the implementation of the collaborative initiative and outcomes achieved.
- Co-location is important to both providers and patients
- The degree of collaboration does not appear in itself to predict clinical outcomes
- The pairing of collaboration with treatment guidelines appears to have a benefit over either intervention alone for patients with depressive disorders, especially the more severe cases.
- Systematic follow-up is one of the most powerful predictors of clinical outcomes for depressive disorders.
- Collaboration alone has not been shown to produce skill transfer or enduring changes in primary care physician knowledge or behaviours in the treatment of depression.
- Enhanced patient education about mental disorders and their treatment (usually by a health professional other than the primary care physician) was a component of many of the studies with good outcomes.
- Collaborative interventions established as part of a research protocol may be difficult to sustain once the funding for the study is terminated.

The literature on the outcomes associated with the integration of mental health and addiction services is also suggestive but far from conclusive in terms of benefits to client outcomes (see Rush & Nadeau, 2011, for a summary of the extant reviews of this literature (Drake and colleagues (1998, 2004, 2008); Donald et al., 2005; Cleary et al., 2008). All reviewers of this literature comment on the methodological challenges drawing firm conclusions, in large part because of the varying nature of the integration

strategies and both settings and populations under investigation. Cost savings associated with service-level integration efforts have not been well studied.

Another review (Health Systems Research and Consulting Unit, date???) cited the following list of evidence-informed service integration mechanisms for mental health and substance use services:

- Service information that is centralized and accessible to providers and the general public.
- Centralized intake and assessment, or at least a coordinated intake and assessment process with common, standardized tools and processes.
- Integrated, single records or protocols for sharing information.
- Shared best practice clinical guidelines/protocols.
- Interagency service delivery teams with formal contracts/agreements.
- Co-location of services/programs.
- Case management models (Intensive Case Management, Assertive Community Treatment).
- Boundary spanning positions (other case managers, system navigators).
- Protocols for sharing clients with multiple, complex needs.

Durbin et al., (2004) conducted a review of the five best-designed and resourced projects focused on system-level integration, including one project concerned with the structural integration of mental health and substance use services. They found no evidence of impact on 'client-level' outcomes (e.g., symptom reduction, quality of life, housing or work status), but acknowledged the many challenges in establishing the link from the system-level to such outcomes. That said, the major contribution of the review was that system-level integration strategies were positively and consistently related to improved *intermediate continuity-of-care outcomes.* In other words, when the outcomes examined were more proximally connected to the integration supports and strategies, the evidence was much stronger than observed for the more distal health outcomes *per se*. When they went on to examine the data for critical features that might help explain the associations, they concluded that system-level integration was more effective when characterized by stronger management arrangements, fewer service sectors involved and system-wide implementation of intensive case management and centralized access to services. Thus, there is some evidence supporting systems-level integration if it is targeted, relatively circumscribed and person-focused on access and navigation. There is also some evidence that system-level integration strategies can positively impact more proximal outcomes such as improved continuity-of-care (Durbin, et al., 2004) as well as process measures related to client engagement and the functioning of the collaborative process itself (e.g. trust, reciprocity, participation of key partners) (Rosenheck et al, 2003).

In summary, there is some evidence supporting collaborative mental health care in the context of primary care. However, interpretation of the overall body of evidence on collaboration and integration is challenged by methodological issues in much of the relevant research, especially related to co-occurring disorders, as well as the wide variation in the scope and nature of the collaborative or service integration initiatives being studied. More work needs to be done in the area of collaborative addiction care and support specifically (Chalk et al., 2011), although the evidence is quite strong with respect to collaborative screening, brief intervention and referral to treatment (SBIRT) and other forms of addiction consultation/liaison in health care settings (references). More economic evaluation also needs to be done concerning various collaborative initiatives related to mental health and addictions care and support, including cost offset, cost-effectiveness and cost-benefit studies. The inability to distinguish the

effects of systematic care from an integrated approach suggests it is likely the quality of the treatment provided that contributes to the improvements observed rather than integration per se. However, the design and quality of the trials are inadequate to show this definitively.

HOW DO WE ACHIEVE COLLABORATIVE MENTAL HEALTH AND ADDICTION CARE AND SUPPORT?

There is no shortage of literature discussing the many barriers and challenges to the development of collaborative care and support for people with mental health addiction problems, including concurrent disorders (Kates et al., 2011; Chalk et al., 2011; Rush & Nadeau, 2011). Many barriers are also identified with respect to health services integration generally, and collaborative primary care specifically (Rand Europe, 2012; Hutchison et al., 2011; Ivbijara, 2012). The list of challenges commonly includes current levels of funding and funding/remuneration models; time constraints; lack of preparation through education and training for collaborative practice; entrepreneurial culture of some professionals and organizations; attitudes, stigma and discrimination working with people with mental health and/or addiction problems; lack of incentives for change; lack of access to key types of services required for a particular collaborative approach; geographic disparities in accessing some services (e.g. psychiatrists; specialists in addiction medicine); lack of belief/confidence in the value to be added by collaboration; fear of change generally and absence of an opinion leader to kick start and sustain a change management process; to name some of the more salient factors.

A consistent feature of effective healthcare systems is strong and integrated primary care (Kates et al., 2012; DeGruy & Etz, 2010; Dickinson & Miller, 2010). Kates and colleagues (2012) argue achieving primary care transformation will require a supportive healthcare environment, including policies and structures at a system-wide level. An approach to primary care transformation known as the patient-centred medical home is emerging in the United States. Under this model, the primary care physician is not a gatekeeper but leads a team of professionals to provide the client with access to comprehensive care and keeps track of processes and progress. DeGruy and Etz (2010) stress the model is evolving and effectiveness depends on incorporation of the psycho-social factors of health (e.g., family and community contexts, health behaviours). Dickinson and Miller (2010) stress the importance of highlighting the core pillars of primary care (comprehensiveness, continuity, coordination and access to first contact) and argue behavioural healthcare is an integral part of comprehensive primary care and continuity is rooted in relationships built over time.

Given the plethora of collaborative models, including the many levels and degrees of service integration mentioned above, there is no clear recipe for creating collaborative services. Indeed the literature is quite clear on the complex, context-dependent nature of all collaborative activity and its planning, implementation and evaluation (e.g. Barnes et al, 2003). That said, many principles have been advanced including the need for a shared vision and concrete and realistic goals with consideration for the time and resources available; a working culture based on trust, respect, equitable decision-making; personal contact; use of research and practice-based evidence, and responsiveness to changing needs and local culture (Kates et al., 2011). A strong opinion leader or “champion” is often cited as the key ingredient in the process of change toward more collaborative services, as well as top-down management support and leadership (Rush & Nadeau, 2011).

A recent review of lessons learned and challenges in moving toward the integration of addiction services within health care settings (Chalk et al., 2011) brings home the point that, while there is general support among health care providers for broadening the base of treatment in this direction, successful initiatives must be grounded on the added value *to the health care provider* and not the addiction specialist or

program. For example, one can emphasize the benefits for health care providers in managing challenging patients or meeting performance or quality targets. It was also identified as critical not to "oversell" the ease of implementation but rather advocate a realistic, paced, and well-managed approach to implementation. Lastly, the literature on creating successful community partnerships (see Wildridge et al., 2004 for a comprehensive review) offers valuable information for planning and implementation of collaborative activity generally, as does some literature specific to collaboration (Fawcett et al., 2000). While this literature is closer to the area of community development and capacity building, it offers some important perspectives, for example, the need to incorporate technical assistance and resources in support of the collaborative process itself and the need to carefully document the process of change and, in particular, early successes.

Although each collaborative initiative is unique and content-dependent, some guidance for development and implementation may be derived from a "best practice" framework for organizing health care delivery systems for people with complex needs, including chronic mental health conditions. Hollander and Price (2008) articulated such a best practice framework derived from interviews with approximately 270 leading experts in the respective domains (the others being care for the elderly, persons with disabilities, and children with special needs), and focus groups with clients and family members. Their framework includes:

- *Philosophical and policy prerequisites* (e.g. shared belief in the benefits of a system of care; commitment to client-centered care and evidence-based decision making)
- *Best practices for organizing a system of continuing/community care*, including both administrative practices (e.g. integrated information systems) and clinical practices (e.g. standardized assessments, system-level case management, involvement of clients and families)
- *Linkage mechanisms* (e.g. across population groups, between hospitals and community services, linkages with primary health care and linkages with other social and health services including mental health and addictions).

Achieving collaboration requires system level support. The existing literature concerning integration and collaboration tends to focus at the program level, and consequently the evidence addressing system level integration is limited (Butler et al., 2008). Nevertheless, there is general acknowledgement that systems matter when implementing new approaches and innovations (Schmidt et al., 2012).

Ten principles commonly discussed in the literature

A recent systematic review found that while there is not a solid empirical base for specific integration strategies and processes, there are common principles associated with the integration of healthcare systems. Suter and colleagues (2009) suggest organizations that have integrated health systems have focused on many or all of these principles; and while strategies differ, there is consensus that multiple processes are required for successful integration. Moreover, the authors stress the social, economic and political context must be considered.

1. **Comprehensive services across the care continuum** involve cooperation among health and social care organizations, multiple points of access, and an emphasis on wellness, health promotion and primary care.
2. **Patient focus** combines a person-centred philosophy with a focus on needs, engagement and participation and a population-based approach to service planning and information management.

3. **Geographic coverage and rostering** reduces duplication of services and enhances accessibility while encouraging system responsibility for an identified population and maintaining the right of a person to seek service elsewhere.
4. **Standardized care delivery through inter-professional teams** across the continuum requires clear and accessible guidelines and protocols.
5. **Performance management** in which interventions linked to outcomes demonstrates a commitment to quality of services and continuous improvement.
6. **Information systems** track and report activities and enhance communication and information flow.
7. **Organizational culture and leadership** demonstrates commitment, vision and cohesiveness.
8. **Physician integration** provides a pivotal role for the design, implementation and operation of the system.
9. **Governance and organizational structures** engage diverse representation by all stakeholders and promote coordination across settings and levels of care.
10. **Financial management**, with sufficient funding to ensure sustainable change, provides equitable distribution for different services or levels of service (e.g., home care, primary care and long-term care) and promotes inter-professional teamwork and health promotion.

Five levers of change

One change model provides a structure within which to situate strategies to support collaboration and integration at the system level (Schmidt et al., 2012). The model includes 'top down' strategies such as funding and regulations and 'bottom up' strategies such as clinical processes and customer analysis. The following discussion is organized according to the 'five levers' of change outlined in the model.

Funding mechanisms influence both processes and outcomes. Directly assessing the impact of these mechanisms is critical to system development. One potential lever is to encourage partnerships between policymakers and practitioners to examine financial strategies with a view to supporting collaboration.

At present, funding models are not structured to support collaborative interdisciplinary approaches (Kates et al., 2011) and as such are an obstacle to achieving collaboration and integration. For instance, a number of activities associated with integrated and collaborative care, such as care management, consultations and other communication activities between providers, are not traditionally reimbursed under typical fee-for-service care structures. Kates and colleagues (2011) argue that addressing this challenge will require policy changes and appropriate payment mechanisms that facilitate collaborative practice.

DeGruy and Etz (2010) acknowledge discussions about funding and outcomes will likely be complex. For example, the authors raise the implications of a primary care partnership showing results of lower hospital admissions and higher primary care costs within the context of a funding structure favouring hospital admissions. In this instance, agreement may not be reached immediately on outcomes such as reduced admissions and increased ambulatory costs, however consensus may be reached on better health and the value of partnerships. While not directly addressing the funding issue, the groundwork would be set for future conversations on topics such as funding models that reward health outcomes.

Regulatory and policy changes are levers for system change and often complement funding changes (Schmidt et al., 2012). Assessing the effect of regulatory mechanisms is essential to collaboration at the system level. One possible lever is to encourage various stakeholders (e.g., provincial or territorial governments, health authorities, professional associations) to examine policy changes that would

support collaborative practices across the system. Systematic evaluation of policy innovations would allow for adjustments and successes to be shared (Kates et al., 2012).

Currently regulatory mechanisms tend to operate within the narrow parallel systems noted earlier rather than across these in a way that would support collaboration. One way forward is to encourage provincial professional associations to promote appropriate policy changes to support collaborative practices across professions (Kates et al., 2011).

Shared medical records and other documentation practices that promote information exchange among providers have been identified as factors that facilitate integration (Collins et al., 2010). However, issues related to privacy laws and regulations impede the sharing of information. Strategies for moving forward include a review of laws and regulations and the creation of standard protocols such as an informed consent form.

Effective communication and relationship building have been identified as key features of collaboration (Institute of Medicine, 2006). Evidence suggests enhanced channels of communication between providers are linked to improved quality and outcomes (Druss et al., 2001). Moreover, the development of relationships is a crucial factor in facilitating the transfer and acceptance of clients across the system (Collins et al., 2010). Examining the influence of relationships among stakeholders on system development is vital for system change. One possible lever is for funders and policymakers to identify and give priority to initiatives that build collaborative relationships and inter-organizational understanding.

Some mechanisms to enhance communication channels and build relationships include:

- Providing opportunities to strengthen personal contacts and build relationships among service providers, e.g., meet and greets, practice observations and training sessions (Kates et al., 2011; Collins et al., 2010),
- Encouraging the development of networks of service providers, information technology experts, researchers and consumers interested in collaborative mental healthcare to exchange ideas, share experiences and develop initiatives (Kates et al., 2011), and
- Promoting links among healthcare planners at provincial, territorial and regional levels, thereby increasing the likelihood of coordinated initiatives (Kates et al., 2011).

Operational structures and practices form the backbone of service delivery. Assessing processes and developing complementary strategies to support collaborative practices is critical for effective service delivery and system change. A systematic review, for example, concluded collaborative practice alone has not been shown to produce skill transfer or enduring change in primary care physician knowledge or behaviours. Service restructuring designed to support changes in practice patterns is also required (Craven & Bland, 2006). A potential lever is for funders and policymakers to encourage operational analyses as a way to identify issues and encourage multiple approaches to support collaboration.

Successful collaboration requires preparation, supportive structures, building on pre-existing relationships and time. Change should be gradual and introduced in steps (Craven & Bland, 2006). Following are some challenges related to collaboration at the operational level and some suggested supports to address them.

Practices and standards of care: One of the challenges of implementing collaborative and integrated models involves a cultural shift in practices and standards of care. For instance, implementing an integrated service may entail a shift from a focus on traditional mental health services to providing behavioural health services as a key component of a general health service

appointment (Collins et al., 2010). Strosahl (2005) proposes the standard of care should not be defined by the practice of specialty mental healthcare but rather from the practice of primary care.

Training and education: Lack of familiarity with collaborative practices (Kates et al., 2011) and limited knowledge of necessary skills (Collins et al., 2010; Watkins et al., 2001) have been cited as barriers to integration and collaboration. Suggested strategies to address these obstacles include cross-discipline education and skills training (Kates et al., 2011; Collins et al., 2010), such as professional development sessions on implementing practices such as screening, motivational interviewing, brief interventions and self-management tools. Other mechanisms include supports from provincial and territorial governments and health authorities (e.g., access to relevant materials, support for visits to existing projects), and steps by academic institutions to prepare students to work in collaborative models (Kates et al., 2011).

Technology: Collaborative models supported by technology such as telemedicine have "demonstrated their value in addressing limited access, as well as shortages of healthcare professionals in urban and rural settings" (Kates et al., 2011). An innovation such as telemedicine has the potential to provide ways to link service providers, enhance collaboration and provide consultation to underserved jurisdictions (Kates et al., 2011). Technology also offers other options for the delivery of primary care through applications such as web-based self-management tools and email exchange as an alternative to office visits (DeGruy & Etz, 2010). In addition to supporting the delivery of services, information technology has the potential to support providers in managing and planning services (Collins et al., 2010). Potential uses include evidence-guided algorithms to enhance collaboration, data collection and analysis, as well as managing and sharing client information (Kates et al., 2011). Sharing of client information can be maintained in either a paper-based or electronic system, although the capture and storage of information electronically is supported as a more thorough and efficient mechanism for timely access to information when more than one provider serves a patient (IOM, 2006). Protti (2009) argues it is increasingly hard to imagine integrative initiatives without a strong information management and technology component. However, organizational communication research consistently shows that working across functional boundaries and sharing knowledge is difficult. Reasons include knowledge is localized, embedded and invested in practice, and boundaries have developed over time and cannot easily be eliminated. Therefore, developing effective information and communication systems for integrated care requires taking the extra time to attend to the rationales for existing boundaries and practices. Moreover, it is necessary to pay attention to how technological changes will affect, and be affected by, the organization in which they become embedded.

Customer analysis is a fundamental step in learning about where current systems are falling short. Understanding the experience of people and involving them in their own care and in the design and evaluation of services and programs is a critical component of change in support of integration across the entire system (Kates et al., 2011). Some potential strategies include the following:

- Support individuals at the point of care where they are most comfortable (Collins et al., 2010).
- Take client preferences into account. Consumer choice about treatment modality may be important in treatment engagement in collaborative care (e.g., having the option to choose psychotherapy versus medication) (Craven & Bland, 2006).
- Plan around clients rather than the discipline of the service provider (Collins et al., 2010).
- Draw on the experience of individuals to identify ways to ensure quality improvement and address access and efficiency issues.

CONCLUSIONS AND RECOMMENDATIONS

The literature reviewed does not provide definite evidence related to the effectiveness of collaboration models, nor does it point to a specific approach of system-level integration to enhance collaboration.

Related to the effectiveness, it is likely individuals with mild to moderate mental health or substance-related problems may best be served in primary care settings with integrated specialty care as appropriate. In addition, the provision of such services in primary care increases the reach of mental health and substance use services to individuals who might not otherwise access them.

As for integrating primary care into specialty substance use care settings, the evidence shows some positive effects. Improvements are reported in outcomes related to substance use as well as mental and physical well-being. Individuals with particular vulnerabilities or co-occurring problems, who are at greatest risk of fragmented services, may be best served by this model.

While the evidence base for system level integration is limited, a consistent feature of effective healthcare systems is strong and integrated primary care. The literature does suggest several conceptual advantages of integrated health systems and common characteristics associated with such systems.

Analysis of the literature and evidence reviewed suggests a focus on the following three areas when seeking to increase integration and collaboration.

Comprehensive, person-centred approach

At its most fundamental, the intent of integration is to ensure a person receives care that addresses multiple needs in a coordinated and efficient way. A person-centred approach means helping individuals, families and communities make sense of the complexity of factors that influence, and continue to influence, their health and well-being. It also means helping them increase their capacity to manage these factors to achieve their goals and aspirations. The literature points to a person-centred philosophy with a focus on needs, engagement and participation as a characteristic of systems integration. Understanding the experiences of people is central to system change. Therefore, the involvement of consumers and their families in managing their health and in the design and evaluation of programs and services is a critical component of system level integration to support collaboration.

While a person-centred approach is central to achieving integration, it does not mean that interventions should focus only on the individual. The unique circumstances of each individual are influenced by a range of factors related to physical, social and political environments. The recognition of an array of contributing factors opens up a matrix of potential interventions to maximize the health of individuals, communities and populations. A key characteristic of systems integration is the provision of comprehensive services across the care continuum, including cooperation among health and social care organizations, multiple points of access, and an emphasis on wellness, health promotion and primary care. Therefore, an integrated system designed to promote the health and well-being of individuals will need to take a comprehensive approach and be structured to support interventions at multiple levels (e.g., individual, institutional setting, community).

Communication, relationships and trust

Effective communication and relationship building are important features of collaboration and are linked to improved quality and outcomes; and service delivery through inter-professional teams is associated with systems integration. Therefore, it is critical for funders and policymakers to identify and give priority to initiatives that build collaborative relationships and inter-organizational understanding and support an inter-professional team approach.

The literature points to primary care as foundational to an effective healthcare delivery system. In tandem with this, observers argue achieving strong primary care requires the support of an integrated system. Therefore, creating high quality primary care with enhanced collaboration will require attention to both human-focused and infrastructure elements.

Evolving an integrated infrastructure

Several elements of the systems infrastructure can either promote or impair integration. Careful attention must be given to continuously assessing the impact of current elements and evolving structures that promote effective system operations and lead to improved outcomes.

Regulatory and policy changes are levers for system change and often complement changes in funding mechanisms. Financial management is associated with integrated systems and includes equitable funding distribution for different services or levels of service and mechanisms to promote inter-professional teamwork.

Well-designed computerized information systems are also associated with integrated healthcare. Information systems support operational practices such as managing client records, tracking service utilization and outcomes, as well as supporting service delivery (e.g., self-management tools, email exchange).

Clarity around practices and standards of care helps build understanding and trust within integrated healthcare. The differences between traditional general healthcare and behavioural health services need to be addressed through cross-discipline education and professional development. The importance of client efficacy should be paramount in development of this cross-disciplinary understanding.

REFERENCES

Amato, L., Davoli, M., Perucci, C., Ferri, M., Faggiano, F. & Matick, R. (2005). An overview of systematic reviews of the effectiveness of opiate maintenance therapies: Available evidence to inform clinical practice and research. *Journal of Substance Abuse Treatment*, 28, 321-329.

Butler, M., Kane, R.L., McAlpine, D., Kathol, R.G., Fu, S.S., Hagedorn, H. & Wilt, T.J. (2008). *Integration of mental health/substance abuse and primary care*. Rockville, MD: Agency for Healthcare Research and Quality. http://www.ahrq.gov/clinic/tp/mhsapctp.htm

Chalk, M., Dilonardo, J., and Gelber Rinaldo, S. (2011). Purchasing integrated services for substance use conditions in health care serttings: An issue brief on lessons learned and challenges ahead. *Forum on Integration*. 1-36.

Cleary, M., Hunt, G. E., Matheson, S., Siegfried, N., Walter, G. (2008). Psychosocial treatment programs for people with both severe mental illness and substance misuse. *Schizophrenia Bulletin*. 34(2), 226-228.

Collins, C., Hewson, D.L., Munger, R. & Wade, T. (2010). *Evolving models of behavioral health integration in primary care* . New York: Milbank Memorial Fund. http://www.milbank.org/reports/10430EvolvingCare/EvolvingCare.pdf

Craven, M. & Bland, R. (2006). Better practices in collaborative mental health care: An analysis of the evidence base. *Canadian Journal of Psychiatry*, 51, 7S–72S.

Davies, G. P., Williams, A. M., Larsen, K., Perkins, D., Roland, M. and Harris, M. F. (2008). Coordinating primary health care: an analysis of the outcomes of a systematic review. *The Medical Journal of Australia*. 188(8), 65-68.

De Alba, I., Samet, J.H. & Saitz, R. (2004). Burden of medical illness in drug- and alcohol-dependent persons without primary care. *American Journal on Addictions*, 13(1), 33-45.

DeGruy, F.V. & Etz, R.S. (2010). Attending to the whole person in the patient-centered medical home: The case for incorporating mental healthcare, substance abuse care, and health behavior change. *Families, Systems & Health,* 28(4), 298–307.

Dickinson, W.P. & Miller, B.F. (2010). Comprehensiveness and continuity of care and the inseparability of mental and behavioral health from the patient-centered medical home. *Families, Systems & Health*, 28(4), 348–355.

Donald, M., Dower, J. & Kavanagh, D. (2005). Integrated versus non-integrated management and care for clients with co-occurring mental health and substance use disorders: A qualitative systematic review of randomised controlled trials. *Social Science & Medicine*, 60, 1371-1383.

Drake, R. E., Mercer-McFadden, C., Mueser, K. T., McHugo, G. J , Bond, G. R. (1998). Review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin.* 24, 589-608.

Drake, R. E., Mueser, K. T., Brunette, M. F., McHugo, G. J. (2004). A review of treatments for people with severe mental illnesses and co-occurring substance use disorders. *Psychiatric Rehabilitation Journal.* 27, 360-374.

Drake, R. E., O'Neal, E. L., Wallach, M. A. (2008). A systematic review of psychosocial research on psychosocial interventions for people with co-occurring severe mental and substance use disorders. *Journal of Substance Abuse Treatment.* 34, 123-138.

Druss, B.G. & von Esenwein, S.A. (2006). Improving general medical care for persons with mental and addictive disorders: Systematic review. *General Hospital Psychiatry*, 28(2), 145-153.

Druss, B.G., Rohrbaugh, R.M., Levinson, C.M. & Rosenheck, R.A. (2001). Integrated medical care for patients with serious psychiatric illness: A randomized trial. *Archives of General Psychiatry*, 58(9), 861–868.

Durbin, J., Goering, P., Streiner, D.L. and Pink, G. (2004). Continuity of care: Validation of a new self-report measure for individuals using mental health services. *Journal of Behavioral Health Services & Research*. 31(3), 279-96.

Friedmann, P.D., Zhang, Z., Hendrickson, J., Stein, M.D. & Gerstein, D.R. (2003). Effect of primary medical care on addiction and medical severity in substance abuse treatment programs. *Journal of General Internal Medicine*, 18, 1-8.

Glass, T.A. & McAtee, M.J. (2006). Behavioral science at the crossroads in public health: Extending horizons, envisioning the future. *Social Science & Medicine*, *62*(7), 1650–1671.

Hall, W., Teesson, M., Lynskey, M. & Degenhardt, L. (1999). The 12-month prevalence of substance use and ICD-10 substance use disorders in Australian adults: Findings from the National Survey of Mental Health and Well-Being. *Addiction*, 94(10), 1542–1550.

Health Council of Canada (2010). *Stepping it up: Moving the focus from health care in Canada to a healthier Canada*. Toronto. http://www.healthcouncilcanada.ca/tree/2.40-HCCpromoDec2010.pdf

Hutchison, B., Levesque, J.F., Strumpf, E. and Coyle, N. (2011). Primary health care in Canada: systems in motion. *Milbank Quarterly*, 89(2):256–288.

Institute of Medicine (2006). *Improving the quality of health care for mental and substance-use conditions*. Washington, DC: National Academies Press.

Ivbijaro, G. (Ed.) (2012). *Companion to primary care mental health*. Geneva: World Health Organization.

Kates, N., Mazowita, G., Lemire, F., Jayabarathan, A., Bland, R., Selby, P., Isomura, R. et al. (2011). The evolution of collaborative mental health care in Canada: A shared vision for the future. *Canadian Journal of Psychiatry*, 56(5), 1–10.

Kates, N., Hutchison, B., O'Brien, P., Fraser, B., Wheeler, S. & Chapman, C. (2012). Framework for advancing improvement in primary care. *Healthcare Papers*, 12(2), 8–21.

Kathol, R., Saravay, S.M., Lobo, A. & Ormel, J. (2006). Epidemiologic trends and costs of fragmentation. *Medical Clinics of North America*, 90(4), 549-572.

Kessler, R.C., Nelson, C.B., McGonagle, K.A., Edlund, M.J., Frank, R.G. & Leaf, P.J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 66(1), 17–31.

Kessler, R.C., Ormel, J., Demler, O. & Stang, P.E. (2003). Comorbid mental disorders account for the role impairment of commonly occurring chronic physical disorders: Results from the National Comorbidity Survey. *Journal of Occupational & Environmental Medicine*, 45(12), 1257-1266.

Lieber, C.S. (1998). Hepatic and other medical disorders of alcoholism: From pathogenesis to treatment. *Journal of Studies on Alcohol*, 59(1), 9-25.

Martens, J.R., Flisher, A.J., Satre, D.D. & Weisner, C.M. (2008). The role of medical conditions and primary care services in 5-year substance use outcomes among chemical dependency treatment patients. *Drug and Alcohol Dependence*, 98, 45-53.

Mattick, R., Breen, C., Kimber, J. & Davoli, M. (2009). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database of Systematic Reviews*, Issue 3.

Mattke, S., Seid, M., and Ma, S. (2007). Evidence for the Effect of Disease Management: Is $1 Billion a Year a Good Investment? *American Journal of Managed Care*. 13(12), 670-676.

Merikangas, K.R., Ames, M., Cui, L., Stang, P.E., Ustun, B., Von Korff, M. et al. (2007). The impact of comorbidity of mental and physical conditions on role disability in the US adult household population. *Archives of General Psychiatry*, 64(10), 1180-1188.

National Center for Health Statistics (2007). *Chartbook on trends in the health of Americans.* Hyattsville, MD. http://www.cdc.gov/nchs/data/hus/hus07.pdf

Olsin, D.W., Grantham, S. Coakley, E., Maxwell, J., Miles, K., Ware, J. et al. (2006). PRISM-E: Comparison of integrated care and enhanced specialty referral in managing at-risk alcohol use. *Psychiatric Services,* 75(7), 954-958.

Protti, D. (2009). Integrated care needs integrated information management and technology. *Healthcare Quarterly*, 13 (Spec Issue Oct), 24–29.

RAND Europe, Ernst and Young LLP. National Evaluation of the Department of Health's Integrated Care Pilots. Cambridge: *RAND Europe*; 2012 Mar.

Regier, D.A., Farmer, M.E., Rae, D.S., Locke, B.Z., Keith, S.J., Judd, L.L. et al. (1990). Comorbidity of mental disorders with alcohol and other drug abuse: Results from the epidemiologic catchment area (ECA) study. *Journal of the American Medical Association*, 264(19), 2511–2518.

Rosenheck, R. A., Resnick, S. G., and Morissey, J..P. (2003). Closing service system gaps for homeless clients with a dual diagnosis: Integrated teams and interagency cooperation. *Journal of Mental Health Policy and Economics*. 6, 77-87.

Rush, B., & Nadeau, L. (2011). Integrated service and system planning debate. In D.B. Cooper (Ed.), *Responding in mental health-substance use* (pp. 148–175). Oxford: Radcliffe Publishing Ltd.

Saitz, R., Horton, N.J., Larson, M.J., Winter, M. & Samet, J.H. (2005). Primary medical care and reductions in addiction severity. *Addiction*, 100(1), 70-78.

SAMHSA (Substance Abuse and Mental Health Services Administration) (2002). *Report to Congress on the prevention and treatment of co-occurring substance abuse disorders and mental disorders*. Washington, DC: Department of Health and Human Services. http://www.samhsa.gov/reports/congress2002/

Schmidt, L.A., Rieckmann, T., Abraham, A., Molfenter, T., Capoccia, V., Roman, P., Gustafson, D.H. et al. (2012). Advancing Recovery: Implementing evidence-based treatment for substance use disorders at the systems level. *Journal of Studies on Alcohol and Drugs*, *73*, 413–422.

Shortell, S.M., Gillies, R.R., Anderson, D.A., Erickson, K.M. & Mitchell, J.B. (2000). *Remaking health care in America: The evolution of organized delivery systems* (2nd ed). San Francisco, CA: Jossey-Bass.

Stang, P.E., Brandenburg, N.A., Lane, M.C., Merikangas, K.R., Von Korff, M.R. & Kessler, R.C. (2006). Mental and physical comorbid conditions and days in role among persons with arthritis. *Psychosomatic Medicine*, 68(1), 152-158.

Strosahl, K. (2005). Training behavioral health and primary care providers for integrated care: A core competencies approach. In W. O'Donohue, M. Byrd, N. Cummings & D. Henderson (Eds.) *Behavioral integrative care: Treatments that work in the primary care setting* (pp. 15-52). New York: Brunner-Routledge.

Suter, E., Oelke, N.D., Adair, C.E. & Armitage, G.D. (2009). Ten key principles for successful health systems integration. *Healthcare Quarterly*, 13 (Spec Issue Oct), 16–23.

Watkins, K., Pincus, H.A. & Tanielian, T. (2001). *Evidence-based care models for recognizing and treating alcohol problems in primary care settings*. Santa Monica, CA.

World Health Organization (1946). Constitution. Geneva. (Reprinted from basic documents, 1988). http://apps.who.int/iris/bitstream/10665/36851/1/924160252X.pdf

World Health Organization (2004). *Promoting Mental Health: Concepts, emerging evidence, practice: Summary report*. Geneva. http://www.who.int/mental_health/evidence/en/promoting_mhh.pdf