

Coordinated Approach to Continuity, Attachment and Panel in Primary Care

A Common Vision for Alberta's Quality Improvement Organizations

Several Alberta organizations and programs have mandates that include clinical quality improvement as one aspect of their responsibility. Collectively, we strive to work efficiently toward common ends that are based in evidence and of priority to our funders. While our mandates differ we sometimes work on related issues. To promote coordination on these issues it can be useful to document a common vision of our desired ends.

This document is the result of one such undertaking. It expresses our collective approach, experience and expertise to the related issues of continuity, attachment and panel in the context of primary care. The document serves as a basis for developing standardized tools and approaches, standardized messages to stakeholders and to inform the discussion with our respective funders.

Contributors

The following programs and groups contributed to this document. Collectively we support and are seeking to enable the direction expressed.

- Access Improvement Measures (AIM)
- Alberta College of Family Physicians (ACFP)
- Alberta Health Services (AHS)
- Alberta Medical Association (AMA)
- Health Quality Council of Alberta (HQCA)
- PCN Evolution
- Physician Learning Program (PLP)
- Practice Management Program (PMP)
- Toward Optimized Practice (TOP)
- University of Alberta, Department of Family Medicine

Purpose

The purpose of this document is to improve understanding of the related concepts of continuity, attachment, panel and roster and to consider their interaction with access and teamwork.¹

¹There are two important exclusions to this document. First, space precludes tackling the complex issues of “how” to implement. The contributors individually and collectively have developed and continue to develop tools and systems to aid in implementation (see [Appendix A: Panel and Continuity Resources in Alberta](#)). Second, this document does not attempt any examination of financial or governance arrangements that may be used in support of these objectives. Those considerations are beyond the mandate and expertise of the collective contributors.

Continuity

Continuity of care as described in the literature is a multidimensional concept with inter-related components and variable terminology. The main dimensions of continuity are described in [Appendix B](#).

Continuity as referred to in this document is primarily *relational continuity* and *longitudinal continuity*.

Benefits of Continuity

Relational continuity – an ongoing relationship between a provider and a patient – should be a key objective of the primary care system.¹ Evidence shows that patients who consistently see the same primary-care physician have better outcomes and lower costs.²⁻⁷ Evidence is less available, but experience suggests the same is true for non-physician providers. Studies suggest that relational continuity is a predictor of quality of care⁸ and has been shown to improve satisfaction for patients.^{2,9} The collaborators' experience is that relational continuity also increases satisfaction for providers. Most people naturally seek continuity with a primary care provider. High performing primary care practices and clinics share both the goal and achievement of high continuity.¹⁰

Why continuity improves care is not fully understood. It is, however, clear that a continuous relationship impacts the behaviour of both the patient and provider such that:

- Providers better understand the patient's needs and are better able to implement long-term strategies
- Patients are more likely to follow treatment advice and undertake self-management activities^{11,12}

While episodic care may be equally effective for transient illness, continuous care is clearly better for chronic diseases.^{7,13-16} Continuity is a critical tool in a system where chronic disease represents most of the burden of illness.

Continuity and the Physician's Evolving Role

Historically the family physician was the sole mainstay of primary care. In the emerging primary care paradigm physicians are now joined by numerous other providers offering supplemental services. Primary care has become a team undertaking. This requires a new balance.

On one hand, in the patient-centered care team, patients benefit substantially from services provided by non-physician professionals. They can and should engage directly with these providers for those services. As much as possible that patient should have continuity by service to the specific individuals on that team. The physician needs to be part of a coordinated effort, not at arm's length.

On the other hand, primary care teams must have a physician component. Physicians are trained specifically to deal with undifferentiated illness and acute exacerbations; this service is most often provided by physicians. Continuity to a specific physician for these services is still critical.

Furthermore, Alberta data indicate that continuity to a single primary care physician is strongly associated with better outcomes as represented by reduced emergency department visits and hospitalizations.¹⁷ Qualitative research on continuity with Alberta patients suggests that an ongoing,

trusting relationship with a single provider is critical from a patient perspective.¹⁸ While this may not always be a primary care physician – it may be a specialist or nurse practitioner – it is usually a family physician.

Patients are best served when physicians are supported and engaged. The process of deploying and encouraging additional primary care services should integrate and not replace a continuous relationship with a physician.

Continuity to the Team

Continuity to the team is closely related to the concept of longitudinal continuity. “Continuity to the team” can be a problematic term in that it is used for no less than three different practices.

First, continuity to the team is sometimes used to describe the practice of offering interchangeable providers of the same service. As noted above, although this improves access to “some” providers, this is not ideal. Access to a group of physicians working together supports longitudinal continuity but NOT relational continuity. Evidence suggests it is best to also encourage continuity to a specific provider.

Second, continuity to the team is also used to describe the practice of offering access to the first available service (e.g., in a clinic with multiple service types). The intent is to avoid the historical bottlenecks created by having every patient seen first by a physician. Channeling patients with undifferentiated illness to another service may be unsafe and unhelpful. Proactive engagement and care planning with patients are more effective ways to redirect demand to the correct service. Furthermore, even if the substitute service is an appropriate service for the problem, there is a risk that rapid access (i.e., to a substitute provider) is at the expense of continuity.

Finally, continuity to the team can also refer to aligning the patient to a multidisciplinary team of providers who are working in close coordination with each other. As noted above, this is ideal. To achieve this requires attention to scope and role, team communications, processes for panel management, attachment, and access.

Addressing scope, role and communications are beyond the scope of this document. However, this document will address some of the implications for attachment, panels and panel management, rosters, and access.

Discontinuity and Teamwork

Continuity is limited by provider availability, skill set, and patient choice. No individual can provide all aspects of primary care at all times and some patients choose not to pursue continuity. As a result, care becomes distributed across a group of providers and is known as discontinuity.

Mitigating discontinuity is a second key objective of a primary care system. This can be achieved through teamwork and coordination. The stronger the teamwork among the patient's providers, the better the outcome.¹⁹⁻²² In fact, there is a hierarchy of results. When a patient can't see his/her usual provider (relational continuity), the second best choice is a provider who works in close coordination with the primary provider (longitudinal and management continuity regardless of who the provider is). Third best is a provider with access to the same medical record (informational continuity only). Least effective is for the patient to see another provider with no connection to the

primary provider. Consequently, it is not only important to maximize continuity but to manage the inevitable discontinuity. The best alternative to continuity to the individual provider is continuity to a coordinated group of providers.

Primary care systems should be structured to **encourage continuity to both individual and groups**. These should be treated as synergistic not antagonistic objectives.

Substitution and Supplementation

There are two methods of addressing insufficient access and the potential discontinuity that may result – substitution and supplementation. Substitution occurs when the desired provider is not available. The patient needs another provider who offers the same service who is usually of the same profession. Supplementation occurs when the patient benefits from a different set of skills. In this case the patient needs another provider who offers a different service and is typically from a different profession or discipline. In both cases teamwork and coordination mitigate the effects of discontinuity.

It is important to note that “service” is not synonymous with “profession.” For example, either a nurse or a social worker may function as a mental health therapist. Continuity would be diminished if the patient saw them interchangeably. On the other hand, if the same patient sees a different nurse for chronic disease management (CDM) this does not break continuity for her/his mental health service. Continuity exists as a function of the service provided rather than the professional affiliation.

When substitution is necessary the objective is to reconnect the patient to the original provider in subsequent encounters. This is not possible without a panel (see below). When supplementation is used the objective is to create a sustained relationship with a new provider. This relationship should be as continuous as possible for that service for as long as the service is required (sometimes indefinitely). Subsequent encounters for a supplemental service need not involve the original provider (although it is important for these parallel services to share information and coordinate their work). For example, when a patient is linked to a chronic disease management service provided by a nurse, that patient should directly access that nurse without first seeing another provider.

The balance required for supplemental services is to create the minimum number of relations to provide the appropriate care. This frequently involves cross training so that those with specialized skills can also meet common needs. A very typical example is the cross-training between CDM nurses and dieticians. Most chronic disease patients with uncomplicated diet issues can be managed by the CDM nurse without adding another provider relationship. This is better for the patient (continuity), easier for the system (fewer unique bookings) and better for the provider (dietician is able to focus on patients with the greatest need thereby operating at “top of practice”).

In summary, best results occur when the patient sees his/her usual providers for the appropriate services and those providers have a close working relationship with each other. If substitution is required it is important that the “usual” or “most responsible” provider is fully informed about the substitute visit and care provided.

Attachment, Panels and Rosters

It is important to understand the concepts of attachment, panels and rosters as foundational to continuity. Attachment is the expression of a continuous relationship between patients and their providers. Panels and rosters are inventories of attachment. Continuity requires attachment but attachment does not guarantee continuity. It is the collaborators' view that implementation of attachment, panel or rosters without attention to continuity, will reduce the potential benefits of attachment. These concepts apply in urban and rural settings and all payment models however the specific tactics may be amended based on each situation.

Panel Management

Attachment is ideally not a static "one time" event resulting in a list of patients and an assignment of accountability. The limitation of this approach in Alberta is illustrated by the fact that the Performance Diligence Indicator Program did not produce enduring "validated panels." Furthermore, simple assignment of patients to a list misses the more important target of continuity in all its important dimensions. Attachment is ideally the product of an ongoing *panel management* process and panel management in itself enables high quality primary care.²³ A Panel Identification Guide²⁴ has been produced in recognition of the importance of panel management.

Attachment

The objective of maximizing continuity leads to the concept of attachment. Attachment is simply the designation of the usual provider for a given service. Historically attachment has often been a tacit understanding. However to effectively manage this relationship it should be discussed, documented and confirmed by both patient and provider.^{25,26} Without an explicit arrangement, it follows that patients are less likely to seek continuous care and providers are less likely to undertake long-term care strategies. This would forgo the proven benefits of continuity including increased quality of care and reduced costs to the patient, provider and system.

Attachment at Multiple Levels

Like continuity, attachment occurs at multiple levels. For example, a patient can be attached to a given provider, to a group of providers, to a clinic and to a primary care network (PCN). These attachments are not mutually exclusive. In fact it is best to encourage attachments at each level so that the patient experiences the best possible continuity and any discontinuity is purposefully managed.

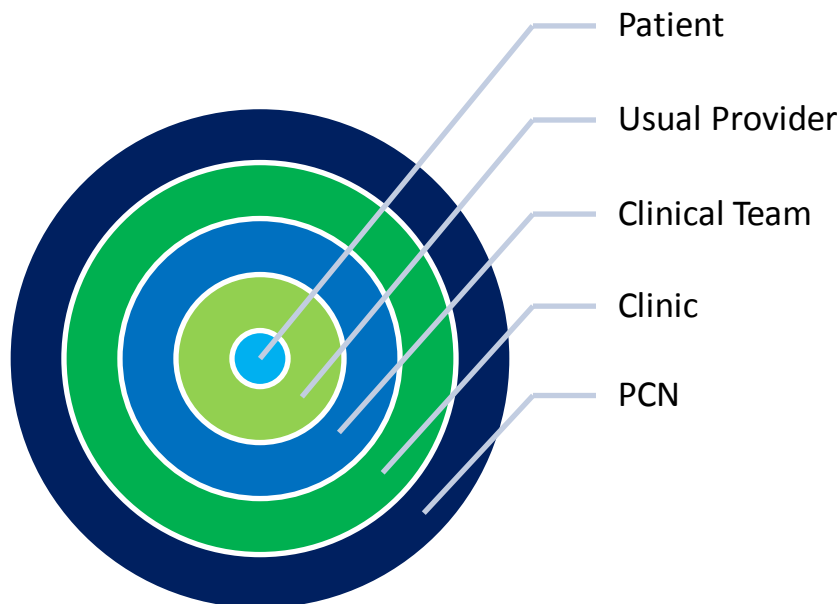


Diagram 1: Patient Attachment at Multiple Levels

Attachment to a “health home,” commonly referred to as a “medical home,” should not be viewed as a substitute for attachment to a specific physician, nurse, or other provider. Nor is attachment to an individual provider a substitute for attachment to a “home” clinic. Patients should be encouraged to seek care from their preferred providers when possible and stay within their home clinic when a preferred provider is not available.

Managing Attachment vs. Measuring Attachment

The benefits of attachment derive from the way the relationship promotes continuous care. Management of attachment maximizes this value. The “four cut method”²⁴ was originally created to allow providers a quick start to managing attachment.

With an increased understanding of the importance of attachment, there has been increased attention to measuring attachment. Measurement helps to test strategies to manage attachment and to promote improvements. The four cut method was found to be a useful tool for approximating attachment for the purpose of measurement. The HQCA has used a similar attachment algorithm for analytical purposes. Both are a proxy for and not a substitution for actual attachment which ultimately reflects a confirmed relationship between the patient and provider.

Measurement alone does NOT result in improvements. *“You can’t fatten the pig by weighing it.”*² In particular, applying the four cut method as a measurement tool is not the same as applying it in the context of implementing attachment management. To maximize the benefits of continuity and attachment, providers and teams still need processes to document and verify relationships with each patient on an on-going basis.

² Traditional saying

Panel/Roster

Managing a set of attachment relationships leads to the concepts of panels and rosters. Although sometimes used interchangeably it is useful to distinguish between the two terms. Typically “panel” is defined as the set of patients attached to a specific provider. “Roster” is usually defined as the set of patients attached to a provider group such as a clinic, PCN, or primary care home. Like continuity and attachment, there is a hierarchy of groupings. Panels are not mutually exclusive. A patient can be paneled to more than one service type. For example, an individual patient may be simultaneously paneled to a primary care physician and a CDM nurse.

Ideally each patient is paneled to a single provider for a given service. Likewise patients should be rostered to single primary care home although they may be rostered at more than one level (e.g., rostered to a specific clinic and to a PCN that supports that clinic).

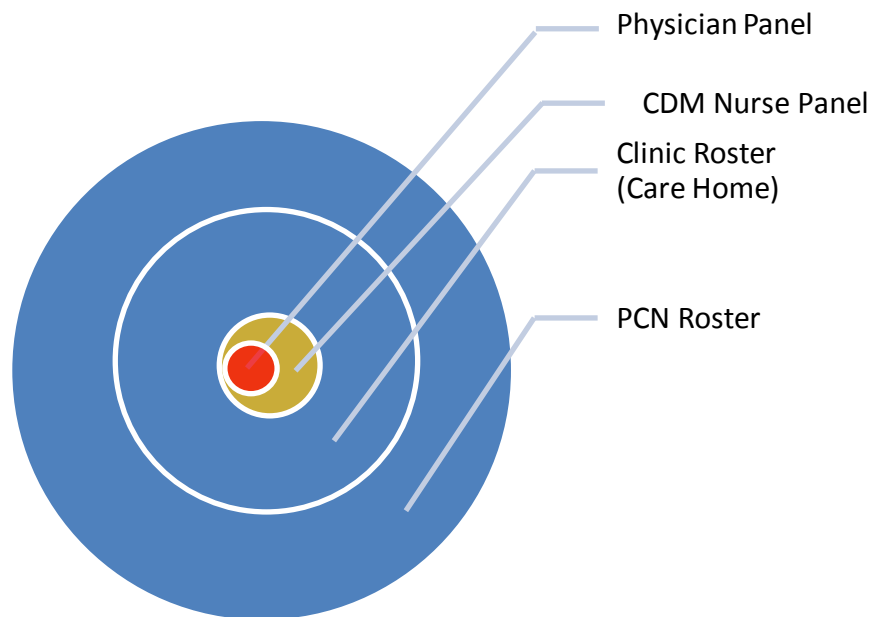


Diagram 2: Patients on Panels and Rosters at Multiple Levels

Appropriate Panel Size

One of the least well understood issues is that of appropriate panel size. A given set of patients will generate a predictable amount of work (demand). A given provider can offer a predictable amount of service (supply). If the demand of a panel exceeds the supply of the provider, the demand cannot be met by that provider. Instead, the demand is “deflected” to other providers of that type or those patients do not receive the relevant service. This undermines the benefit of attachment, reduces continuity and therefore raises costs and results in worse outcomes. In addition, some of those deflections result in demand for more expensive levels of services such as emergency department care and avoidable acute care admissions.

A common response to excess demand is to defer service (i.e., extend waits for appointments or create a waitlist). This only appears to allow a provider to manage a larger panel. **Delay never**

increases supply. It will change which patients get deflected (those who can't or won't wait). There is sometimes a perception that it reduces demand (patients who don't truly need services). However experience shows that delay actually increases overall demand (patients seeing multiple providers for the same cause). Delay cascades into waits for service for all patients and often results in worse clinical outcomes.²⁷

The mathematics of supply and demand is as inflexible as gravity. Too large of a panel results in demand that is greater than the available service which leads to wait times,²⁸ deflections, increased costs and worse outcomes.²⁹⁻³¹

Panels and Teams

As discussed in continuity, when a patient needs services from multiple providers the quality of the resulting care is in direct relation to how closely the providers are organized. The more integrated the team, the better the results. Attention to management continuity and integration of care is required.

This has a significant implication for panels. Specifically, the more the panels overlap, the easier it is for the team to work together. Consider a hypothetical clinic with four physicians and four chronic-disease nurses. If the panels are divided so that each nurse has some patients in common with every physician and each physician has some patients in common with every nurse there are sixteen (four x four) "teamlets" that need to work together. On the other hand, if the patients are divided so that each nurse shares patients with one specific physician there are only four teamlets. Experience shows that fewer teamlets will be less time consuming to establish and maintain and will produce better results.

It is best to organize systems to encourage as little overlap between teamlets as possible, and within those teamlets, as much overlap between the providers as possible. This is the third definition of "continuity to team" that was discussed above.

Access

Ultimately the objective is to enable Albertans to have the best possible access to care. Access can be limited by geography, hours of operation and wait times. Of the three, wait times have by far the largest impact on Albertans.³² Wait times are caused when demand exceeds supply or, more commonly, when natural variation in supply and demand is not well managed. A full discussion of the relationship between supply, demand and wait times is beyond the scope of this paper. See the AIM website for further details.³

Hierarchy of Access

A synthesis of the literature suggests the hierarchy of continuity gives rise to a hierarchy of access, given that "continuity of care and access are closely intertwined."¹⁰ Best outcomes result from access to the usual provider for a given service. Next best is access to another provider for the same service on the immediate team. Third best is access to the same clinic or health home. Least desirable but sometimes necessary is access to another provider with no linkages to the usual provider. Improved access to the usual provider inherently improves continuity to that provider.

³ <http://www.albertaaim.ca/>

Ideally primary care systems should measure and optimize access at multiple levels. While any access is better than no access, the incremental benefit of access to usual providers is considerable. Measuring access to “first available” is not a substitute for measuring access to “usual” provider.

Tradeoffs in Access

As with continuity, tradeoffs in access are unavoidable. For example, increasing hours of operation or adding sites improves collective availability but risks diluting provider continuity. The dilution risk occurs because the window in which each provider is available now represents a smaller percentage of the collective availability. If not well managed the natural distribution of patient encounters will make each patient less likely to see their own provider. On the other hand, improved availability makes it less likely that any given patient will seek care at different venues such as emergency departments. The correct “balance” is highly variable to the population needs and provider capability. Measurement and analysis of access data should be used to customize availability to the local situation. These are important aspects of effective panel management.

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Appendix A: Panel and Continuity Resources in Alberta

Organization	Website and Resources
	<p>www.albertaaim.ca</p> <ul style="list-style-type: none"> Panel Reference Articles Collaborative Information
	<p>www.acfp.ca</p> <ul style="list-style-type: none"> Patient's Medical Home Resources
	<p>www.albertahealthservices.ca</p>
	<p>www.albertadoctors.org</p>
	<p>www.hqca.ca</p>
	<p>www.albertapl.ca</p>
	<p>www.albertadoctors.org/services/physicians/pmp</p>
	<p>http://www.albertapci.ca</p>
	<p>www.topalbertadoctors.org</p> <ul style="list-style-type: none"> EMR Tip Sheets; vendor specific Quality Improvement Guide Programs and Support Clinical Practice Guidelines
	<p>www.familymed.med.ualberta.ca/Home/index.cfm</p>

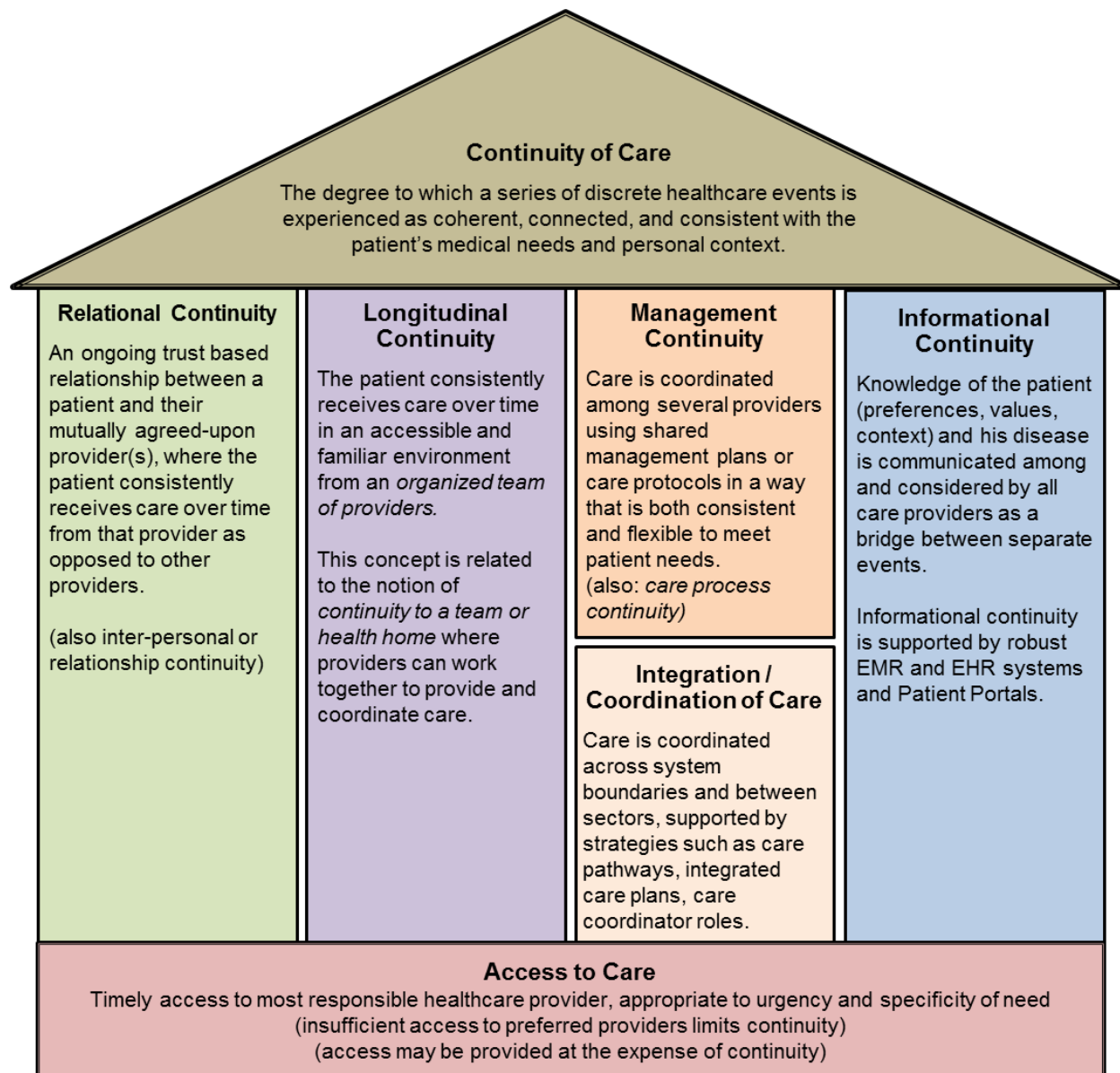
Appendix B: Dimensions of Continuity

From a patient perspective continuity has been described as the degree to which a series of discrete healthcare events is experienced as coherent, connected and consistent with the patient's medical needs and personal context.^{33,34} Continuity of care as described in the literature is a multidimensional concept with several inter-related components and variable and overlapping terminology. Four main components of continuity are identified:^{7,8,13,33,35-38}

- 1. Relational continuity:** There is an ongoing relationship between a patient and his/her mutually agreed-upon physician or provider and the patient consistently receives care over time from that physician or provider as opposed to other providers. (also - *inter-personal or relationship continuity*)
- 2. Longitudinal continuity:** The patient consistently receives care over time in an accessible and familiar environment from an organized team of providers (also continuity to a team or to a medical home).
- 3. Management continuity:** Care is coordinated among several providers using shared management plans or care protocols in a way that is both consistent and flexible to meet patient needs. (also - *care process continuity*).

Integration of care and coordination of care are closely related to management continuity but refer to care as coordinated across system boundaries and between weakly connected sectors or the providers within³⁹ and is supported by strategies such as care pathways, integrated care plans and care coordinator roles.

- 4. Informational continuity:** Knowledge of the patient (such as preferences, values, context) and his/her disease is communicated among and considered by all care providers as a bridge between separate care events. Informational continuity is greatly supported through optimal use of electronic medical records (EMRs), electronic health records (EHRs) and patient portal systems.



Sources: 7,8,13,33-39

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- University of Alberta, Department of Family Medicine

For additional information, or to provide feedback about this document, contact TOP by email at top@topalbertadoctors.org or 1.866.505.3302.