Understanding Co-Design

Alberta Health Services

Strategic Clinical Networks™

Inspiring solutions. Together.

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Introduction and purpose

Co-design is a term frequently used in Alberta Health Services (AHS). While most staff have a basic understanding of the concept, they may not be familiar with formal processes they can use to support co-design.

The purpose of this resource is to share co-design principles, approaches and resources successfully used by others, and outline how it can support the meaningful engagement of patient and family advisors in the Strategic Clinical Networks™ (SCN).

The resources in this document are meant to support the building of an initial understanding of co-design. This document does not provide an exhaustive list of co-design resources or examples of how the approach can be applied in different contexts. However, it is hoped that reading this document will encourage further exploration and sharing of other co-design resources and approaches used across our SCN family.

Background

Co-design actively involves multiple stakeholders (internal and external) in the planning to improve systems and services (Stratos Innovation Group, 2016). It is a participatory, reflective and adaptive process centering on participants as experts. It decentralizes decision-making and power to facilitate transformation (Sahagun & Holley, 2018).

The approach creates environments and develops products that are more responsive and appropriate to the needs of all stakeholders. In "true co-design" stakeholders:

- Participate, as equals, in decision-making
- Are involved in all stages of the co-design process
  (Victorian Council of Social Service, 2019)

> Co-design is a process used to create products, services and programs. It brings people in as 'design partners', giving a voice to those who are often excluded.
> (Victorian Council of Social Service)

Environmental scan

An environmental scan of AHS for co-design resources revealed many new initiatives report the use of the approach. Unfortunately, applications of their co-design processes have not been published.

A broader, external scan for co-design resources revealed some guiding principles and a step-by-step process to consider when using the approach. The scan also uncovered some examples of how co-design has been used to support healthcare planning and design.

Co-design principles

Boyd et al., 2012, in their work co-designing healthcare projects in New Zealand, identified and followed six principles to co-design. The first three principles captured and helped to build an understanding of the patient experience. The latter three principles focused on improving the patient experience.

1. **Engage:** Proactively establish and maintain meaningful relationships with patients (and staff) to understand and improve health services
2. **Plan:** Work with patients and staff to come up with ideas about the goals of the improvement work and how to go about doing it
3. **Explore:** Learn about and understand patient and staff experiences of services, and identify things that can be improved
4. **Develop:** Turn the ideas into specific improvements
5. **Decide:** Choose what improvements to make and how to make them
6. **Change:** Turn improvement ideas into action

According to Boyd et al. the core principles of co-design are **equity, understanding experiences and improving services** (Boyd, McKernon,, Mullin, & Old, 2012).

A co-design approach

The book, *The Power of Co*, provides a theoretical framework on how organizations can collaborate with stakeholders to address complex challenges and co-develop sustainable solutions. For those who prefer a more structured approach to planning, this resource may prove helpful to you in developing your co-design approach.

In the book, Vivien Twyford and her team explain the importance of sharing power, building trust, clear leadership and inclusive processes to collaborative governance. They present a five-step process (shown below) to engage and work with diverse stakeholders.

1. **Commit to collaborate:** This is where you make the choice to start a collaborative journey
2. **Co-define the dilemma:** Everyone sees a challenge or problem from a different perspective. In this step, you work together to understand and agree on the problem to be solved (taking all perspectives into consideration). You can then begin to work towards finding potential solutions.
3. **Co-design the process:** Open up the design process and allow multiple stakeholders to contribute to finding the best solution for all. This step focuses on getting everyone's perspectives on how you will work together as opposed to what you will work on.

4. **Co-create the solution:** Finding solutions to your shared problem that are better than any single person could create alone. In this step, stakeholders interact within a creative process to develop a solution(s) to the problem or challenge.
5. **Co-deliver actions:** Sharing the delivery and implementation of the solution. This builds ownership of the solutions and a momentum for implementation and change.

Fundamental to the approach developed by Twyford et al., 2012, is the need to be **appreciative, informative, deliberative and iterative** in your work with stakeholders. For more detailed instructions on applying this approach to co-design, consider reading *The Power of Co.*

Benefits of co-design

- **Higher customer and user satisfaction:** Increased knowledge of user needs improves the efficiency and effectiveness of products and services. Co-design results in higher quality products and services that better fit and support system, service and user needs. A shared understanding of the issues lead to better relations between the service provider and their customers, which often results in increased customer loyalty.

- **Generation of better ideas:** Collaboration of different stakeholders, organizations and disciplines lead to a high degree of innovation. Joint creativity has also been found to lead to the development of new, differentiated services with unique benefits and better value for users.

- **More efficient decision-making:** In co-design, because end-users are involved, there is often immediate validation of ideas or concepts, which supports fast and efficient decision-making. Additionally, co-design improves communication and builds a common understanding of the issue and potential solution(s) across all stakeholders.

- **Lower costs:** Co-design results in reduced product or service development time and more appropriate matching of products and services to user needs. Less waste is produced in the system as there is a reduced likelihood that the products and services developed will not be used.

- **Quality improvement:** Service providers hear from users about the challenges they encounter using the product or service. Co-design provides opportunity for both of these stakeholder groups to brainstorm effective solutions together.

- **Higher uptake:** As stakeholders design together, the levels of support and enthusiasm for innovation, change and uptake increases.

(Chisholm, n.d.; Steen, Manschot, & & De Koning, 2011)

Challenges with co-design

- **Organizational culture:** Sometimes the structure and culture of an organization are not well suited to co-design. In situations like this, balancing organization requirements and user needs may not be possible. Co-design is also unsuccessful in organizations where staff are not given access to resources to support implementation or power and decision-making remains with an elite few.
- **Staff resistance:** Staff resistance to new ways of thinking and operating inhibit co-design and while the organization's status quo is maintained, opportunities for growth are lost.
- **Agile or authoritative:** Finding the balance between remaining agile without affecting the organization's operations or the end-user's daily life can be difficult. There is no one formula that works in every context. Sometimes a decision needs to be made that meets the needs of the majority (or the most vulnerable) versus meeting the needs of everyone.
- **Engaging and retaining stakeholders:** Difficulty moving past gathering perspectives to actually co-designing and co-implementing solutions can lead to stakeholders becoming disengaged. Additionally, the inability to actively engage the right stakeholders early in the process may result in lack of stakeholder buy-in for proposed innovations.
- **Implementing and sustaining solutions:** With multiple stakeholders involved, balancing creative, big sky thinking with structured action and implementation plans can be challenging. There is risk of getting stuck in "analysis paralysis". Also, developing and implementing solutions in an environment where policy and service landscapes continuously change, and resources are diverted to competing priorities limits uptake of the innovation.
- **Establishing accountability and responsibility:** Undefined roles and responsibilities, unclear lines of communication and process for reporting to the executive level may lead to inconsistencies in responsibility and accountability for the work. It is important to discuss and agree on how the responsibility for implementation and communication will be shared.

(Chisholm, n.d.; Steen, Manschot, & & De Koning, 2011; Dimopoulos-Bick, Dawda, Maher, Verma, & Palmer, 2018; Zeng, 2018)
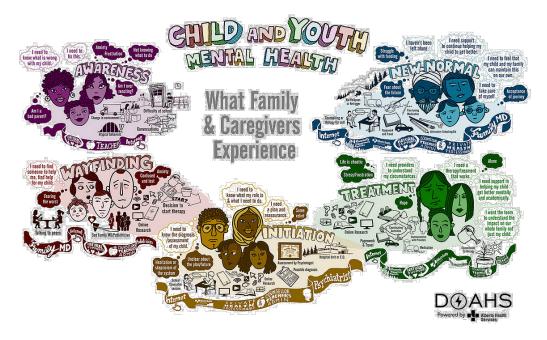
AHS applications of co-design

Redesigning youth mental health services – Addiction and Mental Health

The AHS Design Lab worked with AHS staff, community mental health organizations, education, and families to answer the complex question on how to simplify addiction and mental health supports between schools and healthcare professionals.

As part of this work, the Design Lab team interviewed multiple families to develop an understanding of their addiction and mental health journeys from their lived experience.

A journey map, which new families starting their journey have found to be a very valuable and an important resource, was created. To learn more about this work, you can speak with a [Design Lab](#) team member.

Illustrated by Aaron Russell

Improving food services for patients in long term care

Carewest Innovative Health Care is one of Calgary's largest public care providers. This group supports individuals to live more independent lives. Their spectrum of care includes long-term care, rehabilitation and recovery services, and community programs and services.

Carewest reached out to the AHS Design lab to explore how they might:

- simplify and improve their residents' menu
- provide staff with more time and support to provide fresh and healthy foods for their residents

To achieve this goal, the Design lab team:

- interviewed Carewest staff and residents to develop a shared understanding of the issues

Figure 2. Carewest Plated Meal. AHS Design Lab. Reprinted with permission.

- worked alongside staff at Carewest facilities to map the journey food took from its delivery, in raw form, to the plate
- facilitated an empathy building session where staff and leadership were treated to a taste test of food presently being served to residents every day

The empathy building session lit the spark of the need for transformation. Leadership, residents and staff worked together to change the residents' menu and dining experience. To learn more about this project, connect with the Design Lab team.

Calgary Zone Palliative Care Project

The Calgary Zone Palliative Care Project is a collaboration between palliative care stakeholders who aim to implement improvements to palliative care in the zone. This project applies a co-design approach to engagement, development and implementation. Its stakeholders include patients and their families, Primary Care Networks, Primary Health Care system partners, and healthcare providers. Although the project is in progress, the following is their co-design approach:

1. **Readiness assessment:** Work done with providers and leaders to prepare them for engaging with patients and other stakeholders. This work includes developing an understanding of how to manage power differentials to ensure engagement is truly collaborative and decision-making is shared.
2. **Building the partnership:** Personas (stories of persons who hold specific roles and are affected by the process) are shared. This helps the team develop a common understanding of the interests, barriers, challenges, opportunities etc. present. A team charter outlining the purpose for the project, rules for working together and the approach the team will take is then developed based on this shared understanding.
3. **Mapping:** Journey mapping is used to build a visual understanding of the paths that different stakeholders take. Once individual journey maps are completed, the maps are merged and meaningful moments along the common journey are identified. The meaningful moments identified present potential areas to be addressed.
4. **Design:** Interviews are held with the key stakeholders to validate the journey map and to compare identified meaningful moments with the evidence (converging and diverging). This process helps the team to determine what needs to be redesigned. Design sprints[1], based on meaningful moments, are carried out.
5. **Implementation:** Implementation is a two-stage process. The first stage is to determine the minimum requirements (standards) that need to be maintained by

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[1] A design sprint is a five-day process that uses a realistic product or service prototype to test its viability with end-users. This helps designers determine whether an idea will work by allowing them to collect clear data, in real time, from potential users before making expensive commitments.

all providers. The second stage is the customization of the improvement implementation to different environments or sites.

If you are interested learning more about this approach or in attending formal training in co-design you can contact Collaboration for Change Initiative (CCI)[2].

AHS resources

Co-design, in its purest form, moves beyond Patient and Family Centred Care to collaborating with patients as a partners in the design of healthcare solutions. It supports engagement at the farther end of the IAP2 spectrum. To learn more about how you can apply co-design in practice, feel free to connect with the following groups.

AHS Design Lab

The AHS Design Lab uses design thinking to kick start meaningful discussions and to tap into abilities and viewpoints that are often overlooked by conventional problem-solving practices. Using human-centered design, the team helps groups come up with creative ideas that are meaningful and focused on the end user.

This team offers a number of workshops and courses that provide tools to support you in co-designing healthcare solutions with multiple stakeholders or running health sprints and scrums.

Primary Health Care Integration Network

The Primary Health Care Integration Network has been using co-design to support their work in the development of Integrated Care Partnerships and effective strategies to address the opioid crisis in Alberta.

This team has modified the approach developed by Vivien Twyford et al., 2012, with the inclusion of human-centred design[3] tools to produce a *Co-design Playbook*. If you would like to learn more about the playbook and their experiences using co-design, contact a member of the Primary Health Care Integration and Innovation Team.

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[2] CCI is a coalition of 11 Alberta organizations (including AHS, IMAGINE Citizens, College and Association of Registered Nurses of Alberta, Alberta College of Family Physicians, the Government of Alberta) that have a commitment to improving primary health care.

[3] Human-centred design though similar to co-design is not synonymous to co-design. However, human-centred design activities and tools can be used to effectively support co-design.

Appendix 1

Co-design applications in healthcare: Case studies

Whittington Hospital Pharmacy

Whittington Hospital, one of the UK's busiest hospitals, employs 4,000 staff to provide care for more than 500,000 people across North London.

The Chief Pharmacist at the hospital observed frustration in patients collecting prescriptions. Patients entered the pharmacy often feeling unwell and anxious – and were further aggravated by long waiting times and poor communication. Previous efforts to improve the situation, such as user questionnaires, had resulted in poor levels of patient participation and provided no clear insights.

> Building a product for "everyone" is the best way to lose focus and speed.
>
> (Zeng, 2018)

In the Whittington Hospital case study, co-design was used to determine which improvement priorities needed to be addressed to reduce patient wait time and improve communication. The results of this approach were shortened queues of patients at the registration area, the introduction of prescription tracking, and the creation of areas for confidential consultations. This co-design approach was also seen to have a causal effect on improving patient satisfaction, boosting staff morale and an increasing sales at the pharmacy. This design model was consequently applied to improving other areas within the hospital (Design for Europe, n.d.).

Whittington Health Ambulatory Care Centre

The Whittington Health Ambulatory Care Centre allows patients to receive seamless, same-day acute treatment within the hospital. The centre is a dynamic space, which allows a range of different departments to support treatment of a wide spectrum of conditions for both children and adults.

The goal in developing this space was to create an environment where the needs of the patients came first, and the patient journey was coordinated and seamless. There was a desire to move away from a traditional model of health-

> The key to successful doctor-patient partnerships is to recognize that patients are experts too"—experts of their experiences, "their social circumstances, habits and behavior, attitudes to risk, values and preferences — and that both types of knowledge are needed in co-design.
>
> (Steen, Manschot, & & De

service delivery that often resulted in long waiting times and complex communal spaces to a friendly environment where patients' medical needs were met.

The result of this co-design initiative was the development of a non-traditional, shared, dynamic space that allowed for a range of departments with a wide spectrum of treatments for both children and adults. The space used innovative design concepts to ensure patients felt at home while the technical standards for their care were being met (Design Council , 2019).

Improving healthcare through the use of co-design

[Waitemata District Health Board](#) provides breast services at the North Shore and Waitakere Hospitals in New Zealand. Weekly surgical and oncology clinics were held at North Shore Hospital, and breast surgery was performed at both North Shore and Waitakere Hospitals. The breast service averaged more than 2,500 referrals per year and approximately 10 per cent of these resulted in a diagnosis of breast cancer.

In 2007, the Patient Co-design of Breast Service Project was set up to work alongside a sister project focused on improving the referral process and developing clinical guidelines for patients with breast disease. Its aims were to use an innovative co-design approach to understand patient experiences, make small, focused changes with patients, develop recommendations for changes in the service, and create a model for working with patients that could be used in other services.

> We believe that every system is perfectly designed to achieve the results it gets. In health care this traditionally involves a design process in which health care experts generate ideas and test them to see if they result in improvement. Many of these traditional design efforts have been unsuccessful because key experts - our patients - have been left out of the process.
>
> (IHI, 2019)

As a result of this approach, a number of improvements were made to the delivery of breast services, such as the development of a patient journey map, patient education, a communication guide and a co-design toolkit (Boyd, McKernon,, Mullin, & Old, 2012).

Technology isn't enough: National Health Service (NHS) near me

NHS Near Me is a video consulting service used in Scotland to provide outpatient consultations as close as possible to home. NHS Near Me appointments take place either at a patient's home or at a local NHS clinic. Patients see their consultant or other specialist by video link. Patients attending their appointment at a clinic may have a healthcare support worker or other NHS staff with them (NHS Highland, n.d.).

In creating NHS Near Me, the developers co-designed the service with stakeholders taking a whole-system approach. They used patient and public forums to collect ideas and feedback from users and recruited a patient group to co-design written materials.

Changes to the system were made in response to patient input. The team also enacted feedback from clinicians. All staff groups involved in outpatient services, such as appointment booking, system coding, reception functions, and clinical support, were also included in the system's design (Morrison, 2019).

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