

**Supplementary file 2_Consolidated framework for Implementation Research (CFIR):
Constructs and domains [14]**

CFIR DOMAIN	CFIR CONSTRUCT NAME and DEFINITION
I. Innovation <i>The “thing” being implemented</i>	
	A. Innovation Source The group that developed and/or visibly sponsored use of the innovation is reputable, credible, and/or trustable
	B. Innovation Evidence Base The innovation has robust evidence supporting its effectiveness
	C. Innovation Relative Advantage The innovation is better than other available innovations or current practice
	D. Innovation Adaptability The innovation can be modified, tailored, or refined to fit local context or needs
	E. Innovation Trialability The innovation can be tested or piloted on a small scale and undone
	F. Innovation Complexity The innovation is complicated, which may be reflected by its scope and/or the nature and number of connections and steps
	G. Innovation Design The innovation is well designed and packaged, including how it is assembled, bundled, and presented
	H. Innovation Cost The innovation purchase and operating costs are affordable
II. Outer setting <i>The setting in which the Inner Setting exists, e.g., hospital system, school district, state</i>	
	A. Critical Incidents Large-scale and/or unanticipated events disrupt implementation and/or delivery of the innovation
	B. Local Attitudes Sociocultural values (e.g., shared responsibility in helping recipients) and beliefs (e.g., convictions about the worthiness of recipients) encourage the Outer Setting to support implementation and/or delivery of the innovation
	C. Local Conditions Economic, environmental, political, and/or technological conditions enable the Outer Setting to support implementation and/or delivery of the innovation
	D. Partnerships & Connections The Inner Setting is networked with external entities, including referral networks, academic affiliations, and professional organization networks
	E. Policies & Laws Legislation, regulations, professional group guidelines and recommendations, or accreditation standards support implementation and/or delivery of the innovation
	F. Financing Funding from external entities (e.g., grants, reimbursement) is available to implement and/or deliver the innovation
III. Inner Setting <i>The setting in which the innovation is implemented, e.g., hospital, school, city.</i>	

	<p>A. Structural Characteristics</p> <p><i>1. Physical Infrastructure</i> Layout and configuration of space and other tangible material features support functional performance of the Inner Setting</p>
	<p><i>2. Information Technology Infrastructure</i> Technological systems for tele-communication, electronic documentation, and data storage, management, reporting, and analysis support functional performance of the Inner Setting</p>
	<p><i>3. Work Infrastructure</i> Organization of tasks and responsibilities within and between individuals and teams, and general staffing levels, support functional performance of the Inner Setting</p>
	<p>B. Relational Connections There are high quality formal and informal relationships, networks, and teams within and across Inner Setting boundaries (e.g., structural, professional)</p>
	<p>C. Communications There are high quality formal and informal information sharing practices within and across Inner Setting boundaries (e.g., structural, professional)</p>
	<p>D. Culture There are shared values, beliefs, and norms across the Inner Setting</p>
	<p><i>1. Human Equality-Centeredness</i> There are shared values, beliefs, and norms about the inherent equal worth and value of all human beings</p>
	<p><i>2. Recipient-Centeredness</i> There are shared values, beliefs, and norms around caring, supporting, and addressing the needs and welfare of recipients</p>
	<p><i>3. Deliverer-Centeredness</i> There are shared values, beliefs, and norms around caring, supporting, and addressing the needs and welfare of <u>deliverers</u></p>
	<p><i>4. Learning-Centeredness</i> There are shared values, beliefs, and norms around psychological safety, continual improvement, and using data to inform practice</p>
	<p>E. Tension for Change The current situation is intolerable and needs to change</p>
	<p>F. Compatibility The innovation fits with workflows, systems, and processes</p>
	<p>G. Relative Priority Implementing and delivering the innovation is important compared to other initiatives</p>
	<p>H. Incentive Systems Tangible and/or intangible incentives and rewards and/or disincentives and punishments support implementation and delivery of the innovation</p>
	<p>I. Mission Alignment Implementing and delivering the innovation is in line with the overarching commitment, purpose, or goals in the Inner Setting</p>
	<p>J. Available Resources Resources are available to implement and deliver the innovation</p>

	1. Funding Funding is available to implement and deliver the innovation
	2. Space Physical space is available to implement and deliver the innovation
	3. Materials & Equipment Supplies are available to implement and deliver the innovation
	K. Access to Knowledge & Information Guidance and/or training is accessible to implement and deliver the innovation
IV. Individuals domain <i>Individuals – the roles and characteristics of individuals</i>	
Project Roles:	A. High-level Leaders Individuals with a high level of authority, including key decision-makers, executive leaders, or directors
	B. Mid-level Leaders Individuals with a moderate level of authority, including leaders supervised by a high-level leader and who supervise others
	C. Opinion Leaders Individuals with informal influence on the attitudes and behaviours of others
	D. Implementation Facilitators Individuals with subject matter expertise who assist, coach, or support implementation
	E. Implementation Leads Individuals who lead efforts to implement the innovation
	F. Implementation Team Members Individuals who collaborate with and support the Implementation Leads to implement the innovation, ideally including Innovation Deliverers and Recipients
	G. Other Implementation Support Individuals who support the Implementation Leads and/or Implementation Team Members to implement the innovation
	H. Innovation Deliverers Individuals who are directly or indirectly <u>delivering</u> the innovation
	I. Innovation Recipients Individuals who are directly or indirectly <u>receiving</u> the innovation
Characteristics subdomain: <i>Project characteristics</i>	
	A. Need The individual(s) has deficits related to survival, well-being, or personal fulfillment, which will be addressed by implementation and/or delivery of the innovation
	B. Capability The individual(s) has interpersonal competence, knowledge, and skills to fulfill Role
	C. Opportunity The individual(s) has availability, scope, and power to fulfill Role
	D. Motivation The individual(s) is committed to fulfilling Role

V. Implementation Process <i>The activities and strategies used to implement the innovation</i>	
	A. Teaming Join together, intentionally coordinating and collaborating on interdependent tasks, to implement the innovation
	B. Assessing Needs Collect information about priorities, preferences, and needs of people
	<i>1. Innovation Deliverers</i> Collect information about the priorities, preferences, and needs of deliverers to guide implementation and delivery of the innovation
	<i>2. Innovation Recipients</i> Collect information about the priorities, preferences, and needs of recipients to guide implementation and delivery of the innovation
	C. Assessing Context Collect information to identify and appraise barriers and facilitators to implementation and delivery of the innovation
	D. Planning Identify roles and responsibilities, outline specific steps and milestones, and define goals and measures for implementation success in advance
	E. Tailoring Strategies Choose and operationalize implementation strategies to address barriers, leverage facilitators, and fit context
	F. Engaging Attract and encourage participation in implementation and/or the innovation
	<i>1. Innovation Deliverers</i> Attract and encourage deliverers to serve on the implementation team and/or to deliver the innovation
	<i>2. Innovation Recipients</i> Attract and encourage recipients to serve on the implementation team and/or participate in the innovation
	G. Doing Implement in small steps, tests, or cycles of change to trial and cumulatively optimize delivery of the innovation
	H. Reflecting & Evaluating Collect and discuss quantitative and qualitative information about the success of implementation and/or the innovation
	<i>1. Implementation</i> Collect and discuss quantitative and qualitative information about the success of implementation
	<i>2. Innovation</i> Collect and discuss quantitative and qualitative information about the success of the innovation
	I. Adapting Modify the innovation and/or the Inner Setting for optimal fit and integration into work processes