



CONCENTRIC



CONnecting and Coordinating an Enhanced Network for TRansitions in Care: A New Model for Spinal Cord Injury Care



ANNUAL REPORT 2022



Executive summary

Dear Partners,

Happy New Year!

Adjust

The past year was a year to adjust to the "new normal" created by the Covid-19 pandemic, the unwanted emergence of new variants that continue to plague us and the continued transition to Connect Care within the province of Alberta.

Create

CONCENTRIC had the main goal of creating an evidence-based, standardized, provincial transitions in care (TiC) model i.e. the CONCENTRIC model. During the year, the Concept Design working group, which made a first attempt at this, generated recommendations which resulted in the creation of 5 new working groups to further develop them into the CONCENTRIC model.

Decide

In preparation for launching the CONCENTRIC model, final decisions regarding the suitable implementation framework to adopt, the health indicators relevant for setting an evaluation baseline and tool to evaluate the care and support received by persons with SCI were made by the team during the year.

Present

Emphasis was placed on knowledge transfer and creation of avenues for stakeholder input and engagement throughout the year. In line with these objectives, the project held its first Annual Education Day which was a virtual event with about 265 people in attendance. Also, two webinars were conducted, five posters were presented, a manuscript was submitted for review and two others are currently underway.

Survey

Several surveys were conducted during the year to obtain feedback and input of stakeholders. The first was the completion of the second round of Delphi to prioritize existing tools to evaluate SCI care and support. Other surveys included that prepared to evaluate the SCI Education Day event, the Concept Design working group and to rate feasibility of recommendations made for successful care transitions.

Modify

One area of the project that was considerably stalled by the pandemic was the Indigenous Strategy. Thankfully, with the collaboration of one of our Indigenous partners and input from other partners and contributors, a new direction has been charted and the strategy is currently back on track.

Update

The year concluded with a virtual General Meeting. Partners were presented an update on the project and new working groups created for the next phase of the project. Indication of interest in joining the working groups was opened up at the meeting and later by email to the broader SCI stakeholder group.



All that is reflected in the subsequent pages of this report were made possible by the relentless commitment and invaluable contributions of all of our partners. Every contribution has been helpful in moving the project towards achieving the end goal of a positive TiC experience for all SCI stakeholders within the province of Alberta and beyond.



Looking at what we have achieved this year, we appreciate you all for all your sacrifices and look forward to your continued participation in the project.

Thanks.

Concentric Team

VISION

Creating a community of SCI stakeholders committed to learning and working together to improve transitions in care for persons with spinal cord injury

MISSION

To design, implement and evaluate an improved, evidencebased and standardized provincial model of care with clear transition strategies for persons with spinal cord injury





YouTube Channel

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This report provides an update on activities, accomplishments and challenges encountered between October 2021 and October 2022 and reveals plans for the coming year ending October 2023.

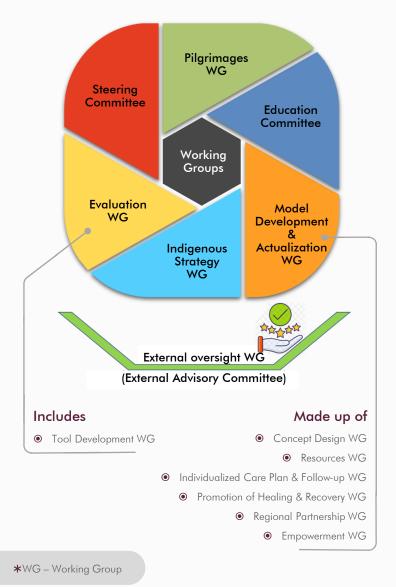
Figures

Working groups overview **Project Recap** Case for CONCENTRIC Year highlights Zoom log-on time tracking for 2022 Education Day Participant breakdown at start of 2022 Education Day Location breakdown for participants at 2022 Education Day Newly proposed working groups Tool development working group proposed plan Survey excerpts Rating the SCI Annual Education Day 2022 Health indicators for evaluation Response summary for feasibility survey Breakdown of respondents for feasibility survey Indigenous strategy journey map **CONCENTRIC** engagement cycle **Engagement-Activities mapping** 2023 expectations

Tables

Top 10 occupation of Education Day 2022 registrants Essential topics Additional SCI topics Engagement activities

Working groups overview



Sponsors & Partners



Canadian Institutes of Health Research Instituts de recherche en santé du Canada



SCI Research Chair



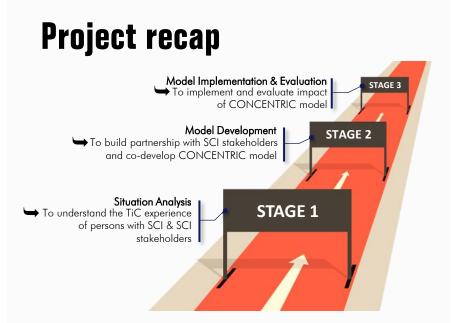








- University of Alberta, Faculty of Medicine & Dentistry
- University of Calgary, Department of Clinical Neurosciences
- University of Calgary, W21C



Previous year recap...

Working Groups

- 4 inaugurated - 1 dissolved
- 3 still active

TiC Experience

49 Interviews completed - 27 with persons with SCI & - 22 with SCI stakeholders

Analysis & Findings

- Findings presented to stakeholders - 6 Themes, 8 Statements generated

Evaluation

Stage 1 evaluation completed Modified delphi 1st round completed

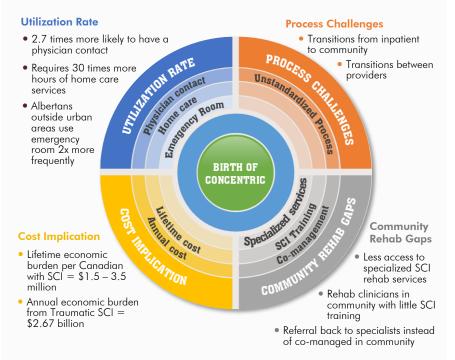
Knowledge Transfer

5 presentations

TiC Model [CONCENTRIC]

Model designing begins – 5 Sessions completed

Case for CONCENTRIC



Completion Rate:



Date recap

Official Start Date April 2019

Ethics Approval Date January 2020

Official End Date March 31, 2024 Stage 1 Start Date March 2020

Stage 1 End Date March 2021

Stage 2 Start Date June 2021

Year highlights

Second Round of Modified-Delphi

Engaging SCI stakeholders to prioritize identified tools for evaluating SCI care & support

Professional Needs Assessment

Identifying topics of interest and most rated ones among SCI care providers

Webinars

NOV

2021

Presentations on SCI Model of care delivery & National Standard of Canada for Integrated People-Centred SCI Rehab Program CONCENTRIC Evaluation To Logistics, rec working grou were conside

Mid-Term Report

Project's half and report s

SCI Annual Education Da

First Education 5 sessions, 6 265 particip

MAR May 2022



Feasibility Survey

JAN

FEB

2022

Engaging SCI stakeholders to rate feasibility of achieving identified recommendations for successful transitions in the short, medium or long-term

Concept Design Working Group

Final Co-creation session held and tasks completed

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uired expert personnel & up to oversee the process ered & concluded

-time mark reached ubmitted to CIHR

y

on Day held with speakers and over ants in attendance

5 New Working Groups

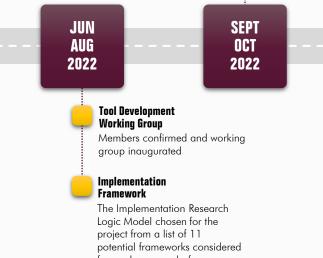
Request for membership in working groups that would drive the 2nd phase of Stage 2 sent out

Conference Presentations

Four posters presented at The 61st International Spinal Cord Society Annual Scientific Meeting

Annual General Meeting

Project update provided to CONCENTRIC partners



from a larger pool of 110 frameworks

SCI ANNUAL EDUCATION DAY



First SCI Annual Education Day held virtually on 17 March 2022

06

Six speakers presented on five most-rated topics selected from a list of 28 SCI topics

265

Number of unique Zoom accounts recorded during the Virtual Education Day Event

Event's two-fold goal

- 1. To build knowledge relevant to improving the care of persons with SCI
- To facilitate the development of a community of practice among persons with SCI, provincial SCI clinicians and community partners

For three hours, care professionals made presentations to increase learning on health challenges and best practices relevant to the care of persons with SCI.

Presentations ran for 25 to 30 minutes with additional 10 minutes of questions that were read out at the end of each session.

The event attracted 216 registrations, 138 google invites and 265 Zoom account logins [maximum of 183 and minimum of 111 log-ins recorded per time] (See Fig. 5).

95% of SCI stakeholders in attendance were from within Alberta with the majority located in the Calgary Zone (59%).

Session topics were determined through a Professional Education Needs Assessment Survey sent out in November 2021.

Session Topics & Speaker[s]:

[*click on title for slides] 🔒

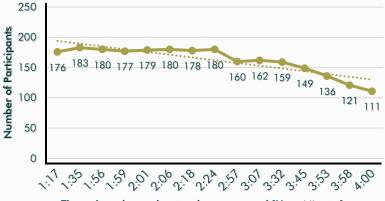
- Prognosis after SCI – Chester Ho, MD
- Mental Health & SCI – Marc Ross, PhD
- Common Shoulder Injuries
 Mary McEwen, PT
- Neuropathic Pain following SCI – David J. Allison, Ph.D
- Neurorecovery/Neuromodulation

 Richdeep Gill, MD PhD +
 Aaron Phillips, PhD

Session recordings accessible via <u>CONCENTRIC's</u> YouTube Channel



SCI Annual Education Day 2022 Statistics



Time when change in attendance occurred [Hour:Minutes]

Figure 5: Zoom log-on time tracking for 2022 Education Day

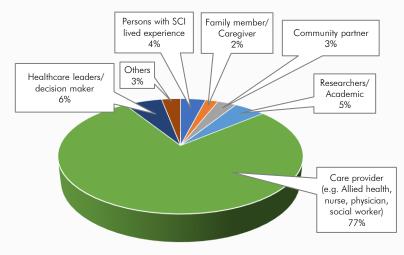
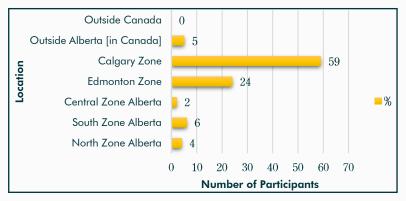


Figure 6: Participant breakdown at start of Education Day 2022 (Poll filled by 106 participants)

SCI Annual Education Day 2022 Statistics



Location breakdown for participants in attendance at the 2022 Education Day (n=100)

Top 10 Occupations of 2022 Education Day Registrants

Occupation	Number Registered
OT	50
Nurse	45
Physiotherapist	39
Therapy Assistant	10
Social Worker	9
AHS Leader/Clinical Leader	8
Clinical Nurse Educator	6
Psychologist	5
Respiratory Therapist	4
Retired	4

Professional needs assessment survey for SCI Annual Education Day 2022

Essential tonics



Total number of respondents

Respondent breakdown

Physiotherapist - 14 Nurse - 13 Occupational Therapist - 13 Administrator/ Manager - 4 Physician - 4 Others - 4 Nurse Practitioner - 3 Social Worker - 3 Recreation Therapist - 2 Researcher - 2 Person with lived

experience of SCI - 1 Psychologist - 1

Essential topics			
	Autonomic dysreflexia		
	Bladder management		
	Bowel management		
	Pressure injury prevention and management		
	Deep vein thromboembolism (DVT) and PE prevention/management		
\checkmark	Mental health issues		
\square	Expected functional outcomes/prognostication/ISNCSCI		
	Spasticity		

Additional SCI topics

	Wheelchair seating		
	Research update		
	Existing clinical practice guidelines		
	Respiratory management and Sleep apnea		
\checkmark	Pain management		
	Sexual health		
	Bone health, osteoporosis		
	Physical fitness		
\checkmark	Neuro-recovery therapies and research		
	Neuro-modulation, e.g. functional electrical stimulation (FES) cycling, diaphragm pacing, spinal cord stimulators		
	Robotics, gait training		
Ø	Overuse injuries, e.g. shoulder pain/rotator cuff impingement, Limb preservation and posture		
	Preventive care after SCI including age appropriate screening and barriers to screening		
	Aging after SCI		
	Vocational rehabilitation		
	Environmental control, Home modification		
	Heterotopic ossification		
	Nutrition, dietary and weight management		
	Transition in care from rehab to home		
	Overview of additional medical complications, e.g. syringomyelia, pneumonia, metabolic complications, thermoregulation, orthostatic hypotension		

★ 🗹 Topics chosen for the Education Day

ANNUAL GENERAL MEET<mark>ING</mark>

Objectives

- 1. To provide stakeholders project update
- To introduce and request for membership in newly proposed working groups for Stage 2

The **3rd annual General Meeting** of the project was held virtually on the 19th of October 2022.

Before the meeting, CONCENTRIC partners were provided a copy of the report for the Concept Design Working Group and documents relevant to the working groups who would further develop their work.

Five newly proposed working groups (WG) were presented to partners at the meeting (See Fig 8). These include;

- 1. Resources WG
- 2. Individualized Care Plan & Follow-up WG
- 3. Promotion of Healing & Recovery WG
- 4. Regional Partnership WG
- 5. Empowerment WG

Following the meeting, an email with membership indication form was sent out to partners to allow those who couldn't attend the meeting to also indicate their interest in one or more of the new working groups.

In total, including partners who indicated interest at the meeting (10), **26 stakeholders have indicated interest in the working groups**.

Partners currently undergoing Connect Care transitions are yet to be approached to obtain their interest in the working groups. This would be done in 2023. Virtual General

meeting with 28 stakeholders in attendance



Five new working

groups proposed and explained



Total recommendations distributed across 5 working groups



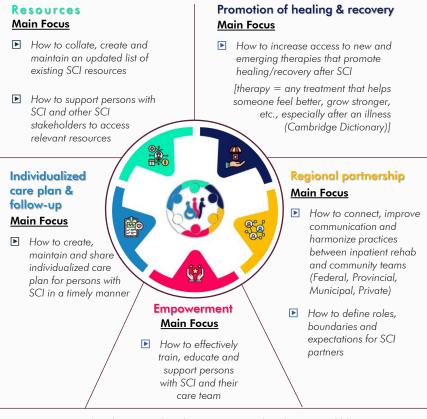


Figure 8: Newly proposed working groups introduced at General Meeting

For statements associated with each working group, click link below or scan QR-Code



CONCENTRIC Statements

Dissolved in the past year

Concept Design Working Group

Thirty six (36) SCI stakeholders representing 4 different stakeholder groups, including persons with SCI, worked together to make a first attempt at utilizing Stage 1 findings to develop a TiC model for the province of Alberta.

Stage 1 of the project focused on obtaining the actual transitions in care (TiC) experience of persons with SCI and those involved in their care using semi-structured interviews.

Using the U-Process Theory, the working group met to **transform Stage 1 findings into recommendations for a TiC model called the CONCENTRIC model**. A total of 9 sessions were conducted between June 2021 and February 2022.

The working group **generated the ideal TiC state** which was converted into video animations.

The final output of the group was organized under **6 themes with 15 associated statements** that indicated key domains recommended for successful TiC.

Five of the 6 themes would be utilized by new working groups in the second phase of Stage 2.

The working group **completed their task on 16 February 2022** and has since been dissolved and evaluated.

The **working group's report** was distributed to CONCENTRIC partners and available via the <u>project's website</u>

Further Information: • Ideal TiC state animations • Concept Design WG report • Concept Design WG

Completed task for the year

SCI Education Day Planning Committee

The working group, inaugurated in September 2021, is made up of 13 SCI stakeholders across Alberta.

The core task for the committee is planning, organizing and coordinating the Annual SCI Education Day event.

The first Education Day was scheduled to hold in 2021 but was postponed due to Covid-19 disruptions and its toll on the care team. The **first event thus took place virtually on the 17th of March 2022** and with great success.

The team has since suspended meetings (starting March 2022) till later in the year when plans for the second Education Day would start. It is hoped that the **2023 Education Day would be hybrid** instead of just virtual.

Currently recruiting members

Model Development & Actualization Sub-Working Groups

Five new working groups were introduced at the General Meeting in October 2022 (see list on page 16).

The main task for the working groups is to utilize the recommendations from the Concept Design WG and **provide actionable steps to incorporate together into a TiC model called the CONCENTRIC model.**

Request for indication of interest in one or more of the working groups was sent out on October 24, 2022.

Inauguration of the working groups would take place in the coming months.





Currently Active

Evaluation Working Group

The working group (WG) has two primary tasks and are focused on six outcome domains;

Primary Tasks

- To determine how and evaluate the processes involved across all stages of the entire Concentric Project.
- To decide how and evaluate the effectiveness of the TiC model (CONCENTRIC model) that is developed

Outcome Domains

- Transition in Care
- Ochanges in Health
- Changes in Function
- O Changes in Quality of Life
- Changes in System Stakeholder's Experience
- Improvements in Preventable Complication Rates

Tasks completed by the WG include

- Second Round of Delphi (to prioritize tools for evaluating the project's six outcome domains) – January 2022
- Evaluation of SCI Annual Education Day 2022 April 2022
- Evaluation of the Concept Design WG April 2022
- Identification of potential health indicators for model effectiveness comparison – (see section on Pre-Implementation Planning)



Key Outcomes from Meetings



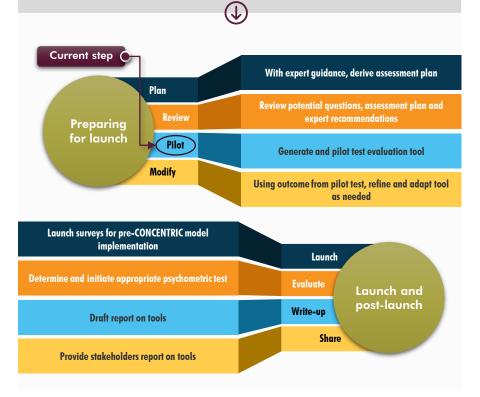
Active Sub-Working Group

Tool Development Working Group

This working group was put together and **inaugurated on the 8th of June 2022** following consensus on developing a new single evaluation tool for four of the six outcome domains for the project.

The expected outcome of the work of the group is an **evaluation tool validated with the SCI population** that would be administered by the individual person with SCI.

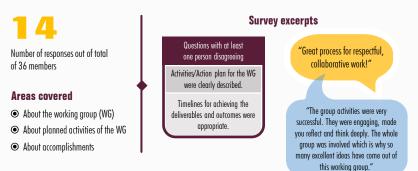
Working with psychometric experts, the **proposed plan for the working group** with the current step are captured in the image below



Completed Surveys

Concept Design Working Group Evaluation

Goal To evaluate the working group processes, activities and experience so as to make real-time improvements in subsequent working groups



SCI Annual Education Day Evaluation

Goal To evaluate the event sessions, topics and stakeholder experience and use learnings to improve the outcome of subsequent Education Day events.

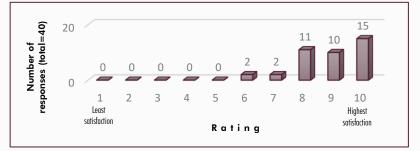


Number of responses out of over 200 participants that attended



Total number of survey questions

Rating the overall event from 1 to 10 with 1 as least satisfaction and 10 as highest satisfaction



[Pre-]Implementation Planning

The project is currently in the second phase of Stage 2 which focuses on developing the CONCENTRIC model (i.e. a standardized, evidence-based, provincial TiC model).

In addition to developing the CONCENTRIC model, three main pre-implementation considerations are concurrently being made.

The considerations are summarized in the right box and expounded below

Pre-implementation Considerations

- Implementation framework to guide the process of translating research into practice
- Survey (to obtain stakeholder input)
- Health indicators to set evaluation baseline

Implementation Framework

Decision on the **appropriate framework** was made in August 2022 based on its

- Ease to comprehend
- Inclusion of multiple levels and
- Accounting for multiple actors.

The decision led to the selection of the Implementation Research Logic Model

Health Indicators

Currently, health services data are being analysed to set a baseline reflecting what obtains before implementing the CONCENTRIC model.

Shown in the image below are the potential variables considered and their respective outcome measures



•Number of visits/stays •Distance travelled for care •Cost [per visit, per person with SCI]

Average length of stay

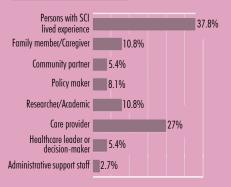
Feasibility Survey [January 2022]

SCI stakeholders were asked to rate how feasible it is to achieve identified recommendations for successful transitions in the short, medium or long-term

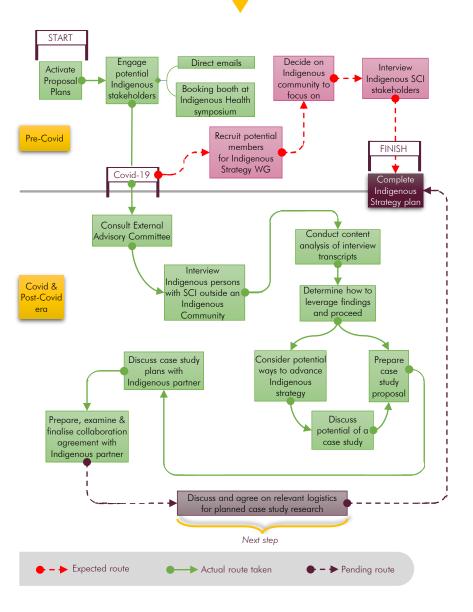
Response summary

Feasibility	Total Number of Statements
Less than 1 year	10
Between 1- 3 years	3
Greater than 3 years	1
Inconclusive	1

Breakdown of respondents (n=37)



Indigenous Strategy Journey Map



CONCENTRIC Engagement Cycle & Approach Breakdown

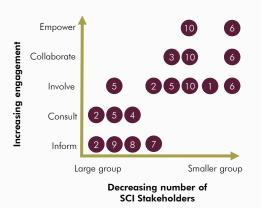
The project adopted a community-based participatory research approach. The approach emphasized the need to ensure stakeholder input across all stages of the project.

The various ways stakeholders were engaged in the project is summarized below and expounded using the IAP2 Spectrum of Public Participation.

Code	
	Adopted Activity
1	Case clinic
2	General meeting
3	Brainstorming session
4	Lunch & learn
5	Prioritization exercise
6	Small team meeting
7	Digital animation
8	Webinar
9	Website/YouTube Channel/ One-pagers/Report
10	Working group meeting
	3 4 5 6 7 8 9

Engagement-Activities mapping

(using IAP2 Spectrum of Public Participation)





As reflected in the chart on the bottom left:

- Amount of time required from stakeholders to participate in the project increases from the inform level to the empower level
- Required level of engagement determined the number of stakeholders that could be meaningfully engaged
- A larger number of stakeholders were engaged at the inform level and decreased as engagement progressed towards the empower level

Knowledge Transfer Activities

October 2021

Webinar on Spinal Cord Injury Models of Care Delivery







November 2021

November 2021

Webinar on National Standard of Canada for Integrated People Centred SCI Rehab Program





November 2021	Presentation to SMART Network on how to promote successful transitions in care for people with Spinal Cord Injuries
February 2022	Presentation to The Neurosciences, Rehabilitation & Vision Strategic Clinical Network (NRV SCN) leadership

A poster presentation at the 9th National Spinal Cord Injury Conference of the Canadian Spinal Cord Injury Rehabilitation Association



Understanding the services available for persons with traumatic SCI in Alberta, Canada: A mixed methods study

Poster Presentations at The 61st International Spinal September 2022 Cord Society Annual Scientific Meeting, Vancouver

 Designing a New Model of Care to Improve Transitions in Care for People Living with Spinal Cord Injury in Alberta: A Multi-stakeholder Engagement Strategy informed by the U-process Theory

Developing a spinal cord injury transitions model of care in Alberta

CONCENTRIC stakeholder engagement: Translating research into practice

CONCENTRIC Outcome Measurement: Determining the Most Appropriate Tool/s

Others

Manuscripts

Narrative analysis paper looking into understanding the health pilgrimages of persons with SCI in Alberta by integrating their narratives with that of their family members and care providers. (*in progress*)

Mixed-methods paper aimed at describing the current services available for people with traumatic SCI in Alberta and understand how the services promote community participation. (*submitted* – **under review**)

Reflexive thematic analysis paper focused on describing barriers and facilitators to a good transitions experience using the experience of persons with SCI in Alberta and other stakeholders involved in their care. (*in progress*)

Year Challenges

A key challenge this year was **Connect Care Transition**. Engagement with stakeholders involved in the transition had to be suspended to avoid adding to their workload or causing avoidable distraction during the transition.

Space is made however for subsequent involvement of these stakeholders in the project as things ease off.

WALE 1 WALE 2 WA

V vi

While COVID-19 restrictions have largely been lifted, site visitations are still on hold till things stabilize better and some of the **challenges resulting from the pandemic** are rectified.

Prior to completion of the second round of modified Delphi for prioritizing existing evaluation tools, the need to create a new tool was not anticipated.

After observing that there were **too many tools**, **no consistent one used with the SCI population and none were validated with the SCI population**, the need to create a single evaluation tool validated with the SCI population became necessary.



2

2023 Expectations

The project is currently at the final phase of Stage 2. It is expected in the new year that Stage 2 will close and Stage 3 will kickoff.

Key expectations for the coming year include;

New Working Groups **Evaluation Tool for** Persons with SCI Launch of all new working groups created to identify Launching the and recommend CONCENTRIC structures, processes and Evaluation tool for outcomes to organize into persons with SCI and the CONCENTRIC model beginning the process of testing its psychometric properties Evaluation Tool for **Caregivers & Care Providers** Site Visitations Developing and launching the CONCENTRIC Evaluation tool for Caregivers & Care Providers Indigenous Strategy Completion of the Indigenous Strategy process **CONCENTRIC Model** Creation and implementation Pre-implementation Evaluation of the first version of the Completion of baseline evaluation CONCENTRIC TiC Model using health services data

Thank You

We couldn't have achieved this year's feats without the generosity, contribution and sacrifices made by our sponsors and partners.

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