

AWARD NUMBER: W81XWH-17-1-0262

TITLE: Triangle of Healthy Caregiving for Spinal Cord-Injured Veterans

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CONTRACTING ORGANIZATION: Veterans Affairs New Jersey Healthcare System
385 Tremont Ave East Orange, NJ 07018

REPORT DATE: August 2019

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

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REPORT DOCUMENTATION PAGE		Form Approved OMB No. 0704-0188
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1. REPORT DATE August 2019	2. REPORT TYPE Annual	3. DATES COVERED 15JUL2018 - 14JUL2019
4. TITLE AND SUBTITLE Triangle of Healthy Caregiving for Spinal Cord-Injured Veterans		5a. CONTRACT NUMBER W81XWH-17-1-0262
		5b. GRANT NUMBER
		5c. PROGRAM ELEMENT NUMBER
		5d. PROJECT NUMBER
6. AUTHOR(S) Carol Gibson-Gill, MD		5e. TASK NUMBER
E-Mail: Carol.Gibson-Gill@va.gov		5f. WORK UNIT NUMBER
		8. PERFORMING ORGANIZATION REPORT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Veterans New Jersey Healthcare System 385 Tremont Ave East Orange, New Jersey 07018		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012		10. SPONSOR/MONITOR'S ACRONYM(S)
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited		
13. SUPPLEMENTARY NOTES		
14. ABSTRACT Spinal cord injury (SCI) is a debilitating injury that results in chronic paralysis, impaired functioning and drastically altered quality of life (QOL). The Department of Veteran Affairs (VA) is the single largest spinal cord injury (SCI) comprehensive healthcare provider in the nation serving approximately 450 newly injured veterans and active duty service members annually. In addition to requiring specialized clinical healthcare, SCI often results in physical limitations which heightens the role caregivers in SCI healthcare management. In spite of the presence of a caregiver, accessing SCI specialty care may be further challenged with development of complexities evident in chronic SCI, the effects of aging, transportation costs, or the distance to the VA hospital or outpatient services, therefore, methods to facilitate improved access are crucial. The "Triangle of Healthy Caregiving for SCI Veterans" is a patient-centered intervention which incorporates SCI Veterans' caregivers into the VA SCI healthcare team (HCT) and extends into the homes of SCI Veterans using real-time clinical video teleconferencing (CVT). CVT facilitate video-clinic visits, which include clinical evaluations, therapy (physical/occupational), or supportive services (e.g., social work). SCI Veterans' propensity to multiple secondary complications makes a healthy partnership crucial for the success of keeping better health and functional outcomes as well as quality of life. The goal of the current study is to qualitatively assess the acceptability and utilization of the "Triangle of Healthy Caregiving for SCI Veterans" intervention with SCI Veterans, caregivers, and healthcare teams to modify, improve, and refine the "Triangle of Healthy Caregiving for SCI Veterans" intervention. Research Problem: The direct or indirect impact of the "Triangle of Healthy Caregiving for SCI Veterans" intervention has not yet been determined. The proposed project will qualitatively assess SCI Veterans', their caregivers' and VA healthcare team's perspectives and experiences in the "Triangle of Healthy Caregiving for SCI Veterans" to determine the benefits, challenges and outcomes for everyone involved in the intervention.		

15. SUBJECT TERMS					
NONE LISTED					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE	Unclassified	105	USAMRMC
Unclassified	Unclassified	Unclassified			19b. TELEPHONE NUMBER <i>(include area code)</i>

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1. INTRODUCTION:

Spinal cord injury (SCI) is a debilitating injury that results in chronic paralysis, impaired functioning and drastically altered quality of life (QOL). SCI Veterans' propensity to multiple secondary complications makes a healthy partnership crucial for the success of keeping better health and functional outcomes as well as quality of life. In spite of the presence of a caregiver, accessing SCI specialty care may be further challenged with development of complexities evident in chronic SCI, the effects of aging, transportation costs, or the distance to the VA hospital or outpatient services, therefore, methods to facilitate improved access are crucial. The "Triangle of Healthy Caregiving for SCI Veterans" is a patient-centered intervention which incorporates SCI Veterans' caregivers into the VA SCI healthcare team (HCT) and extends into the homes of SCI Veterans using real-time clinical video teleconferencing (CVT). CVT facilitate video-clinic visits, which include clinical evaluations, therapy (physical/occupational), or supportive services (e.g., social work). The goal of the current study is to qualitatively assess the acceptability and utilization of the "Triangle of Healthy Caregiving for SCI Veterans" intervention with SCI Veterans, caregivers, and healthcare teams to modify, improve, and refine the "Triangle of Healthy Caregiving for SCI Veterans" intervention. The direct or indirect impact of the "Triangle of Healthy Caregiving for SCI Veterans" intervention has not yet been determined.

2. KEYWORDS: .

Spinal Cord Injury, SCI, Veterans, Clinical Video Technology, Quality of Life, Department of Veterans Affairs, VA, Caregiving

3. **ACCOMPLISHMENTS:** *The PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction.*

What were the major goals of the project?

List the major goals of the project as stated in the approved SOW. If the application listed milestones/target dates for important activities or phases of the project, identify these dates and show actual completion dates or the percentage of completion.

Study Aim(s):

The research team hopes to assess the acceptability and utilization of the "Triangle of Healthy Caregiving for SCI Veterans" by evaluating these three specific aims and will integrate the findings to prepare a summary of the findings for dissemination:

1. Evaluate SCI Veterans experiences in the "Triangle of Healthy Caregiving for SCI Veterans".

2. Evaluate the SCI Veterans caregivers' experience receiving support in the "Triangle of Healthy Caregiving for SCI Veterans".
3. Evaluate the VA healthcare team's experience delivering healthcare and providing supportive services using the "Triangle of Healthy Caregiving for SCI Veterans".

SOW: Important Milestones and Percentage of Completion

PROPOSED START DATE Aug 30, 2017

Site 1:	VA New Jersey Health Care System (VANJHCS) East Orange Campus 385 Tremont Avenue, East Orange, NJ 07018
	PI: Carol Gibson-Gill, MD

Phase I (SCI Veterans/Telehealth Coordinators Observations and Installations)	Timeline	% Completion
<i>Major Task 1: Preparing to launch study</i>	Months	
Initiate weekly research team meetings to plan study kick-off, management and logistics	1-3	100%
Research team and consumer volunteers study kick-off and planning meeting	1-3	100%
Submit for WOC	1-3	100%
Finalize consent form & human subjects' protocol	1-3	100%
Submit to VANJHCS IRB application	1-4	100%
Submit for Military 2 nd level IRB review (ORP/HRPO)	5-9	100%
Initiate staff training	3-12	100%
Milestone Achieved: Local IRB Exemption/R&D Approval	4-5	ANNUAL
Milestone Achieved: HRPO/ACURO Approval	9-10	100%
Phase I (SCI Veterans/Telehealth Coordinators and Observations of Enrollment)		
<i>Major Task 2: Qualitative review of enrollment and installation into the "Triangle of Healthy Caregiving for SCI Veterans"</i>		
Research team weekly meetings to address study management, procedures, and logistics	Weekly	"Ongoing"
Meet with consumer volunteers to review CVT enrollment and installation interviews and observation instruments	10-11	100%
Conduct 2 in-depth interviews with VANJHCS Telehealth Coordinators	11-12	100%
Finalize SCI Veterans semi-structured interview questions	17	100%
Conduct 10 observations of <i>SCI Veteran patient enrollment</i> in the "Triangle of Healthy Caregiving for SCI Veterans"	11-16	100%
Conduct 10 observations of SCI Veteran home installation of the CVT equipment/devices	11-16	100%
Milestone achieved: Qualitative review of enrollment and installation into the "Triangle of Healthy Caregiving for SCI Veterans" completed	11-16	100%
Conduct qualitative data analyses	11-16	"Ongoing"

Phase III (SCI Clinicians Focus Group)		
<i>Major Task 5: Conduct 1 focus group with VANJHCS virtual healthcare team professionals</i>		
Research team weekly meetings to address study management, procedures, and logistics	Weekly	"Ongoing"
Meet with consumer volunteers to review focus group script	27	100%
Finalize focus group script	27-29	100%
Screen and consent VANJHCS virtual healthcare team professionals	27-29	100%
Conduct focus group with VANJHCS virtual healthcare team professionals	27-29	100%
Milestone Achieved: <i>focus group with VANJHCS virtual healthcare team professionals</i>	27-29	100%
Conduct qualitative data analyses	27-29	"Ongoing"
Phase I (SCI Veterans/Telehealth Coordinators and Observations of Installations)		
<i>Major Task 2: Qualitative review of enrollment and installation into the "Triangle of Healthy Caregiving for SCI Veterans"</i>		
Conduct 10 observations of SCI Veteran patient enrollment in the "Triangle of Healthy Caregiving for SCI Veterans"	11-16	100%
Conduct 10 observations of <u>SCI Veteran home installation</u> of the CVT equipment/devices	11-16	100%
Milestone achieved: <i>Qualitative review of enrollment and installation into the "Triangle of Healthy Caregiving for SCI Veterans" completed</i>	11-16	100%
Conduct qualitative data analyses	11-16	"Ongoing"
Phase II (Semi-structured Interviews for Veterans)		
<i>Major Task 3: Semi-structured interviews with 35-40 SCI Veterans enrolled in the "Triangle of Healthy Caregiving for SCI Veterans" program</i>		
Research team weekly meetings to address study management, procedures, and logistics	Weekly	"Ongoing"
Meet with consumer volunteers to review SCI Veterans semi-structured interviews	16-17	100%
Finalize SCI Veterans semi-structured interview questions	17	100%
Recruit and consent 35-40 SCI Veterans to participant in semi-structured interviews	17-22	75%
Complete 35-40 SCI Veterans to participant in semi-structured interviews	18-22	50%
Milestone(s) to Achieve: <i>Semi-structured interviews with 35-40 SCI Veterans enrolled in the "Triangle of Healthy Caregiving for SCI Veterans" program completed</i>	18-22	"Ongoing"
Conduct qualitative data analyses	17-26	"Ongoing"

What was accomplished under these goals?

For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings, developments, or conclusions (both positive and negative); and/or 4) other achievements. Include a discussion of stated goals not met.

	Timeline	Significant Results or Key Outcomes
Major Task 1: Preparing to launch study phases		
Coordinate research staff training	As needed	Ongoing – staff is provided training for each phase of the project to maintain adequate research quality.
Submit amendments, adverse events and protocol deviations as needed	As needed	Ongoing
Phase I (SCI Veterans/Telehealth Coordinators Observations and Installations) Qualitative review of enrollment and installation into the “Triangle of Healthy Caregiving for SCI Veterans”		
Conduct 10 observations of SCI Veteran patient <u>enrollment</u> in the “Triangle of Healthy Caregiving for SCI Veterans”	11-16	- All (10) SCI veterans Observation of enrollment has been completed. - The observations of enrollment resulted in the development of a Clinical CVT Enrollment Guide for the Telehealth Coordinating Team. This will address the clinical inconsistencies identified during data collection phase. The Clinical CVT Enrollment Guide can be utilized to standardize the enrollment protocol for Clinical Video Technology “on Demand” VA Video Connect used by VA Clinical staff members. This guide is completed, can be used to train new staff and it can be used by non-VA programs delivering healthcare via CVT to patients in their homes directly from facilities
Initiate Qualitative Data Analyses	11-16	- Data management and planning data analyses is ongoing.
Conduct 10 observations of SCI Veteran <u>home installation</u> of the CVT equipment/devices	11-16	- All (10) SCI veterans Observation of installations have been completed. - The observations of installation resulted in the development of a Clinical CVT Installation Guide for the Telehealth Coordinating Team. This will address the clinical inconsistencies identified during data collection phase. The Clinical CVT Installation Guide will be utilized to standardize the installation protocol for Clinical Video Technology “on Demand” VA Video Connect used by VA Clinical staff members. This guide is completed and can also be used to train new staff.
Phase II (Semi-structured Interviews for Veterans)		
Major Task 3: Semi-structured interviews with 35-40 SCI Veterans enrolled in the “Triangle of Healthy Caregiving for SCI Veterans” program		
Meet with consumer advisory volunteers to review SCI Veterans semi-structured interviews questions	16-17	-Research team has met with the community advisory board (CAB) volunteers to gain an understanding of their perceptions (including benefits and challenges) and experiences of participating in the Triangle of Healthy

		<i>Caregiving program.</i>
<i>Finalize SCI Veterans' and Caregivers' semi-structured interview questions</i>	<i>17</i>	<i>-Research staff was able to develop open-ended questions, closed-ended questions and outcome measures that will facilitate successful one on one semi-structured interviews with SCI veterans (n=35-40). -Research staff was trained on data collection methods for conducting one on one semi- structured interviews.</i>
<i>Recruit 35-40 SCI Veterans to participant in semi-structured interviews</i>	<i>17-22</i>	<i>-Recruitment for conducting the 35-40 SCI Veteran semi-structured interviews is in progress. -We are still recruiting to conduct the 25-30 SCI Veteran semi-structured interviews.</i>
<i>Complete 35-40 SCI Veterans to participant in semi-structured interviews</i>	<i>18-22</i>	<i>-(21) SCI Veteran semi-structured Interviews have been completed.</i>
Phase II (Semi-structured Interviews for Caregivers)		
Major Task 4: Semi-structured interviews with 25-30 caregivers of SCI Veterans enrolled in the "Triangle of Healthy Caregiving for SCI Veterans" program		
<i>Meet with consumer volunteers to review caregiver semi-structured interview questions</i>	<i>19-20</i>	<i>-Research team has met with the community advisory board (CAB) volunteers to gain an understanding of their perceptions (including benefits and challenges) and experiences of participating in the Triangle of Healthy Caregiving program.</i>
<i>Finalize caregivers semi-structured interview questions</i>	<i>19-24</i>	<i>-Research staff was able to develop open-ended questions, closed-ended questions and outcome measures that will facilitate successful one on one semi-structured interviews with SCI Veteran caregivers (n=25-30). -Research staff was trained on data collection methods for conducting one on one semi- structured interviews.</i>
<i>Recruit and consent 25-30 caregivers to participant in semi-structured interviews</i>	<i>19-24</i>	<i>-The research team has begun the recruitment of the SCI Veteran Caregivers. To date we have recruited nine.</i>

Description shall include pertinent data and graphs in sufficient detail to explain any significant results achieved. A succinct description of the methodology used shall be provided. As the project progresses to completion, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments.

Goals/Milestones

Phase I (SCI Veterans/Observations of Installations)

Major Task 2: 2019 Goal-

Qualitative review of **installation** into the “Triangle of Healthy Caregiving for SCI Veterans

- ✓ Phase I data collection which involved SCI Veteran Semi-structured Interviews. These interviews were conducted to gain an understanding of the perceptions about the “Triangle of Healthy Caregiving for SCI Veterans” program using Clinical Video Technology in the provision and the ways that impacts the delivery of healthcare. By doing this, the research team was able to identify that there was no actual manual of procedures for installing CVT into the homes of SCI Veterans involved in the Triangle of Healthy Caregiving for SCI program which led the research team to begin working to develop a standardized manual of procedures (MOP) installation guide.

Phase II (Semi-structured interviews for SCI Veterans)

- ✓ **Major Task 3: 2019 Goal-** Number of Subjects enrolled: “In-progress”
Recruit and consent goals are to attain 35-40 SCI Veterans to participate in semi-structured interviews the recruitment actions currently are:
Participants screened: 31
Participants enrolled: 30
Participants completed: 22

Goals not met: Our intentions were to complete all 35-40 SCI Veteran Interviews by now, however, due to a delay in preparation of the training for conducting Phase II interviews, the initiation of the SCI Veteran interviews was delayed.

What opportunities for training and professional development has the project provided?

If the project was not intended to provide training and professional development opportunities or there is nothing significant to report during this reporting period, state “Nothing to Report.”

Currently the manual of procedures developed as a tool for Enrolling and Installing CVT for SCI Veterans allows the SCI/D telehealth program to have a systematic approach for the use of the developed MOP as a part of their training for newly hired staff. This approach also assists our SCI veterans with a greater understanding of how CVT to Home can be integrated into their healthcare.

Describe opportunities for training and professional development provided to anyone who worked on the project or anyone who was involved in the activities supported by the project. “Training” activities are those in which individuals with advanced professional skills and experience assist others in attaining greater proficiency. Training activities may include, for example, courses or one-on-one work with a mentor. “Professional development” activities result in increased knowledge or skill in one’s area of expertise and may include workshops, conferences, seminars, study groups, and individual study. Include participation in conferences, workshops, and seminars not listed under major activities.

The following trainings were provided and completed in Year 2- Continuing Education Research Workshops which included VA Grants 101 and VA Research Audit Preparation.

How were the results disseminated to communities of interest?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how the results were disseminated to communities of interest. Include any outreach activities that were undertaken to reach members of communities who are not usually aware of these project activities, for the purpose of enhancing public understanding and increasing interest in learning and careers in science, technology, and the humanities.

At the Annual Research fair held at VA New Jersey Healthcare system, which educated staff, veterans and visitors we were able to have a booth where participants stopped by to learn about the project.

What do you plan to do during the next reporting period to accomplish the goals?

If this is the final report, state "Nothing to Report."

Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives.

The Research Team has decided to continue the ongoing processes of the Qualitative semi-structured interviews for SCI Veterans and their Caregivers as directed in Phase II. Please see the chart below with further details.

STATEMENT OF WORK

PROPOSED START DATE Aug 30, 2017

Site 1:	VA New Jersey Health Care System (VANJHCS) East Orange Campus 385 Tremont Avenue, East Orange, NJ 07018
	PI: Carol Gibson-Gill, MD

Phase II (Semi-structured Interviews for Veteran Caregivers)	
<i>Major Task 4: Semi-structured interviews with 25-30 caregivers of SCI Veterans enrolled in the "Triangle of Healthy Caregiving for SCI Veterans" program</i>	19-24
Recruit and consent 25-30 caregivers to participant in semi-structured interviews	19-24
Complete 25-30 caregivers to participant in semi-structured interviews	19-24
Milestone to Achieved: <i>Semi-structured interviews with 35-40 SCI Veterans enrolled in the "Triangle of Healthy Caregiving for SCI Veterans" program completed</i>	19-24
Conduct qualitative data analyses	19-28
Major Task 6: Triangulate Qualitative Data, Practice Recommendations and Dissemination	30-36
Research team weekly meetings to address study	Weekly

management, procedures, and logistics	
Meet with consumer volunteers to review study findings and plan dissemination efforts	30-33
Review of coding, triangulation of data sources, strategies for identifying other key patterns and findings for dissemination efforts	30-36
Develop practices policy recommendations	30-36
Disseminate findings at national professional meetings (e.g., abstracts, presentation, publications)	30-36
<i>Milestones Achieved: Analyses completed; Practice Recommendations developed; Findings disseminated at professional meetings and publications</i>	30-36

4. **IMPACT:** Describe distinctive contributions, major accomplishments, innovations, successes, or any change in practice or behavior that has come about as a result of the project relative to:

What was the impact on the development of the principal discipline(s) of the project?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how findings, results, techniques that were developed or extended, or other products from the project made an impact or are likely to make an impact on the base of knowledge, theory, and research in the principal disciplinary field(s) of the project. Summarize using language that an intelligent lay audience can understand (Scientific American style).

This study has provided greater insight on the complexities of implementing virtual care for veterans as well as clinical staff. Understanding the process of enrolling and installing software/equipment for use by veteran's and caregiver helped our research team identify gaps and implement effective changes. The unexpected outcome was the creation of the MOP which will assist with training of future staff. We would be able to use this information to assist other programs who are interested in implementing CVT to home. This ground level work will provide other clinical providers with tools and lessons learned to be able to affectively implement CVT as part of their clinical practice.

Describe how the findings, results, or techniques that were developed or improved, or other products from the project made an impact or are likely to make an impact on other disciplines.

Nothing to Report

What was the impact on technology transfer?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe ways in which the project made an impact, or is likely to make an impact, on commercial technology or public use, including:

- *transfer of results to entities in government or industry;*
- *instances where the research has led to the initiation of a start-up company; or*
- *adoption of new practices.*

“Nothing to Report”

What was the impact on society beyond science and technology?

If there is nothing significant to report during this reporting period, state “Nothing to Report.”

Describe how results from the project made an impact, or are likely to make an impact, beyond the bounds of science, engineering, and the academic world on areas such as:

- *improving public knowledge, attitudes, skills, and abilities;*
- *changing behavior, practices, decision making, policies (including regulatory policies), or social actions; or*
- *improving social, economic, civic, or environmental conditions.*

“Nothing to Report”

- 5. CHANGES/PROBLEMS:** *The PD/PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction. If not previously reported in writing, provide the following additional information or state, “Nothing to Report,” if applicable:*

Changes in approach and reasons for change

Describe any changes in approach during the reporting period and reasons for these changes. Remember that significant changes in objectives and scope require prior approval of the agency.

“Nothing to Report”

Actual or anticipated problems or delays and actions or plans to resolve them

Describe problems or delays encountered during the reporting period and actions or plans to resolve them.

Changes that had a significant impact on expenditures

Describe changes during the reporting period that may have had a significant impact on expenditures, for example, delays in hiring staff or favorable developments that enable meeting objectives at less cost than anticipated.

“Nothing to Report”

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Describe significant deviations, unexpected outcomes, or changes in approved protocols for the use or care of human subjects, vertebrate animals, biohazards, and/or select agents during the reporting period. If required, were these changes approved by the applicable institution committee (or equivalent) and reported to the agency? Also specify the applicable Institutional Review Board/Institutional Animal Care and Use Committee approval dates.

Significant changes in use or care of human subjects

“Nothing to Report”

Significant changes in use or care of vertebrate animals

“Nothing to Report”

Significant changes in use of biohazards and/or select agents

“Nothing to Report”

6. PRODUCTS: *List any products resulting from the project during the reporting period. If there is nothing to report under a particular item, state “Nothing to Report.”*

- **Publications, conference papers, and presentations**

Report only the major publication(s) resulting from the work under this award.

Journal publications. *List peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Identify for each publication: Author(s); title; journal; volume: year; page numbers; status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

Journal of Medical Internet Research (JMIR)

Books or other non-periodical, one-time publications. *Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings*

of a one-time conference or in the report of a one-time study, commission, or the like. Identify for each one-time publication: author(s); title; editor; title of collection, if applicable; bibliographic information; year; type of publication (e.g., book, thesis or dissertation); status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).

“Nothing to Report”

Other publications, conference papers and presentations. Identify any other publications, conference papers and/or presentations not reported above. Specify the status of the publication as noted above. List presentations made during the last year (international, national, local societies, military meetings, etc.). Use an asterisk (*) if presentation produced a manuscript.

Gibson-Gill C, Williams J, Fyffe D. Triangle of Healthy Caregiving for Spinal Cord-Injured Veterans. JMIR Res Protoc (forthcoming). doi:10.2196/14051
<http://dx.doi.org/10.2196/14051>

-Effectively Addressing Challenges for Successful Implementation of Healthcare Delivery Using Clinical Video Technology (CVT) at a VA SCI/D Center to be presented at HSRD/QUERI National Conference 2019

-Triangle of Healthy Caregiving for Spinal Cord Injured Veterans- Poster presented at VA New Jersey Healthcare System VA Research Week: May 14, 2019

-Identifying unspoken challenges of using Clinical Video Technology for SCI Veterans & Caregivers- to be presented at the 2019 American Congress of Rehabilitation Medicine 2019 research conference- pending review

- **Website(s) or other Internet site(s)**

List the URL for any Internet site(s) that disseminates the results of the research activities. A short description of each site should be provided. It is not necessary to include the publications already specified above in this section.

“Nothing to Report”

- **Technologies or techniques**

Identify technologies or techniques that resulted from the research activities. Describe the technologies or techniques were shared.

“Nothing to Report”

- **Inventions, patent applications, and/or licenses**
Identify inventions, patent applications with date, and/or licenses that have resulted from the research. Submission of this information as part of an interim research performance progress report is not a substitute for any other invention reporting required under the terms and conditions of an award.

“Nothing to Report”

- **Other Products**
Identify any other reportable outcomes that were developed under this project. Reportable outcomes are defined as a research result that is or relates to a product, scientific advance, or research tool that makes a meaningful contribution toward the understanding, prevention, diagnosis, prognosis, treatment and /or rehabilitation of a disease, injury or condition, or to improve the quality of life. Examples include:
 - *data or databases;*
 - *physical collections;*
 - *audio or video products;*
 - *software;*
 - *models;*
 - *educational aids or curricula;*
 - *instruments or equipment;*
 - *research material (e.g., Germplasm; cell lines, DNA probes, animal models);*
 - *clinical interventions;*
 - *new business creation; and*
 - *other.*

-Virtual Care Enrollment Guide has been developed as a result of this study.
-Virtual Care Installation Guide has been developed as a result of this study.

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

Provide the following information for: (1) PDs/PIs; and (2) each person who has worked at least one-person month per year on the project during the reporting period, regardless of the source of compensation (a person month equals approximately 160 hours of effort). If information is unchanged from a previous submission, provide the name only and indicate “no change”.

Example:

Name:	Mary Smith
Project Role:	Graduate Student
Researcher Identifier (e.g. ORCID ID):	1234567
Nearest person month worked:	5
Contribution to Project:	Ms. Smith has performed work in the area of combined error-control and constrained coding.

Funding Support:

The Ford Foundation (Complete only if the funding support is provided from other than this award.)

Name: Carol Gibson-Gill, MD
Project Role: Principal Investigator
Nearest person month worked: 12 Months
Contribution to Project: Dr. Gibson-Gill has performed in the role of overseer in all aspects of the research project. Her responsibility is to oversee all aspects of the project taking place at the Veterans Administration New Jersey Healthcare System (VANJHCS). She has participated in regular study conference calls to monitor the overall study progress (e.g., development of the focus group/in-depth interview script), provided methodological and content about VA SCI veterans throughout each stage of the study.
Funding Support: Spinal Cord Injury - Qualitative Research Award, Log #SC160198

Name: Denise Fyffe-Thomas PhD
Project Role: Co-Investigator
Nearest person month worked: 12 Months
Contribution to Project: Dr. Fyffe is a Senior Research Scientist at the Kessler Foundation and has and will continue to serve as the Co-Investigator for the study. Dr. Fyffe has devoted 20% of her effort throughout the award period to the proposed research activities. Dr. Fyffe has participated in regular study meetings to monitor the overall study progress along with Dr. Carol Gibson-Gill with the study site. She has conducted the in-depth interviews with the CVT administrative technicians (Telehealth Coordinators); supervise the enrollment procedures and home-observations of the CVT device and equipment installations at SCI Veterans homes. Dr. Fyffe assisted as an oversight in the training of the Research Assistant in qualitative data collection, management and quality control. Dr. Fyffe moderated the Clinician focus group. She also is the head of coordinating and perform the qualitative analyses.
Funding Support: Spinal Cord Injury - Qualitative Research Award, Log #SC160198

Name: Joyce Williams, LCSW
Project Role: Co-Investigator
Nearest person month worked: 12 Months
Contribution to Project: Ms. Williams is the Spinal Cord Injury and Disorders Coordinator for the VA NJ Healthcare Systems. She provides therapeutic services for spinal cord veterans through psychosocial assessment and on-going case management for our veterans and caregivers support groups. She utilizes the virtual care technologies actively in the care she delivers to the veterans and their caregivers. She has been actively involved in tracking participant enrollment, working with the Research Assistant to maximize participation while ensuring data integrity for information gathered from medical records, interviews, and focus groups. She will work along with the Research Coordinator to coordinate recruitment at the VA NJ SCI Center

Funding Support: Spinal Cord Injury - Qualitative Research Award, Log #SC160198

Name: Yasheca Ebanks-Williams, MS, CCRC

Project Role: Research Coordinator

Nearest person month worked: 12 Months

Contribution to Project: Mrs. Ebanks-Williams manage study data collection, including tracking participant enrollment, working with the Research Assistant to maximize participation while ensuring data integrity for information gathered from medical records, interviews, and focus groups. Mrs. Ebanks-Williams coordinated the recruitment at the study site, engaged in qualitative data collection, maintaining data quality analyze qualitative data for emerging themes, draft codebooks, also in the development of dissemination material and professional publications. Mrs. Ebanks-Williams also has assisted in training the Research Assistant in data collection methods.

Funding Support: Spinal Cord Injury - Qualitative Research Award, Log #SC160198

Name: Nicole Jones, BS

Project Role: Research Assistant

Nearest person month worked: 12 Months

Contribution to Project: Ms. Jones was responsible for the recruitment of the CAB members and Phase I data collection. Ms. Jones also assisted with preparation of dissemination of study findings per phase, as well as the transcribing of study audio files.

Funding Support: Spinal Cord Injury - Qualitative Research Award, Log #SC160198

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

If the active support has changed for the PD/PI(s) or senior/key personnel, then describe what the change has been. Changes may occur, for example, if a previously active grant has closed and/or if a previously pending grant is now active. Annotate this information so it is clear what has changed from the previous submission. Submission of other support information is not necessary for pending changes or for changes in the level of effort for active support reported previously. The awarding agency may require prior written approval if a change in active other support significantly impacts the effort on the project that is the subject of the project report.

"Nothing to Report"

What other organizations were involved as partners?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe partner organizations – academic institutions, other nonprofits, industrial or commercial firms, state or local governments, schools or school systems, or other organizations

(foreign or domestic) – that were involved with the project. Partner organizations may have provided financial or in-kind support, supplied facilities or equipment, collaborated in the research, exchanged personnel, or otherwise contributed.

Provide the following information for each partnership:

Organization Name:

Location of Organization: (if foreign location list country)

Partner's contribution to the project (identify one or more)

- *Financial support;*
- *In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff);*
- *Facilities (e.g., project staff use the partner's facilities for project activities);*
- *Collaboration (e.g., partner's staff work with project staff on the project);*
- *Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site); and*
- *Other.*

Kessler Foundation Inc.

120 Eagle Rock Avenue,

Suite 100

East Hanover, NJ 07936

Collaborator Denise Fyffe-Thomas is the Co-Investigator for this study.

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: *For collaborative awards, independent reports are required from*

BOTH the Initiating Principal Investigator (PI) and the Collaborating/Partnering PI. A duplicative report is acceptable; however, tasks shall be clearly marked with the responsible PI and research site. A report shall be submitted to <https://ers.amedd.army.mil> for each unique award.

QUAD CHARTS: *If applicable, the Quad Chart (available on <https://www.usamraa.army.mil>) should be updated and submitted with attachments.*

9. APPENDICES: *Attach all appendices that contain information that supplements, clarifies or supports the text. Examples include original copies of journal articles, reprints of manuscripts and abstracts, a curriculum vitae, patent applications, study questionnaires, and surveys, etc.*

Please see the attached documents (i.e.... Study questionnaires, surveys administered, Virtual Care Enrollment and Installation Guide, and International Planetree Conference accepted abstract for your review.)



Triangle of Healthy Caregiving for Spinal Cord-Injured Veterans



Log #: SC160198 Award #W81XWH-16-SCRIP-QRA

PI: Carol Gibson-Gill, M.D.

Org: Veterans Affairs New Jersey Health Care System (VA NJHCS) Award Amount: \$527,245.00

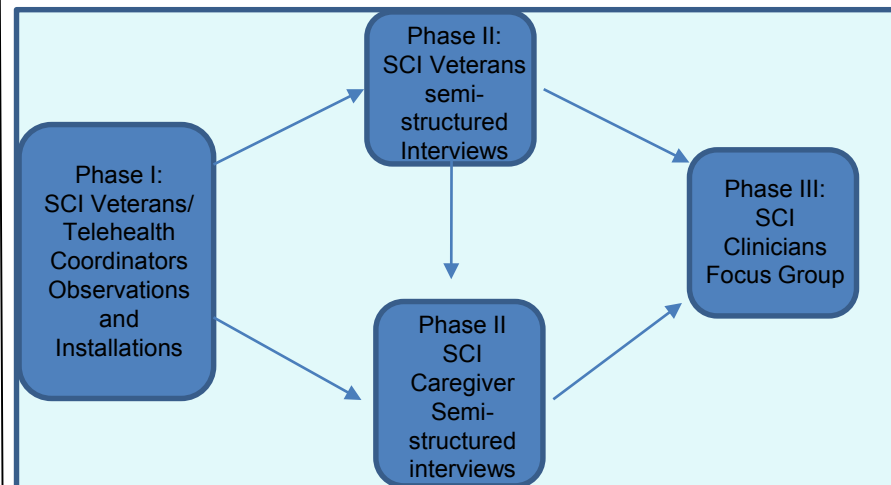
Study Aim(s)

The research team hopes to assess the acceptability and utilization of the “Triangle of Healthy Caregiving for SCI Veterans” by evaluating these three specific aims and will integrate the findings to prepare a summary of the findings for dissemination:

1. Evaluate SCI Veterans experiences in the “Triangle of Healthy Caregiving for SCI Veterans”.
2. Evaluate the SCI Veterans caregivers’ experience receiving support in the “Triangle of Healthy Caregiving for SCI Veterans”.
3. Evaluate the VA healthcare team’s experience delivering healthcare and providing supportive services using the “Triangle of Healthy Caregiving for SCI Veterans”.

Approach

Using a community-based participatory design, three qualitative data collection methods (i.e., medical chart reviews, semi-structured interviews and focus groups) will be implemented over sequential phases of qualitative data collection.



Accomplishments: All phase I observations completed. **Phase I** Manual of Procedures development is completed. **Phase II** SCI Veteran semi-structured Interviews & SCI Veteran Caregiver recruitment is in progress.

Timeline and Cost

Activities	CY	17	18	19	20
Observations and Installations					
-Complete Phase II Veterans semi-structured interviews					
-Complete Phase II Caregivers semi-structured interviews					
Complete SCI clinicians focus groups					
Evaluation focus groups					
Estimated Budget (\$524,245.00)		\$137,006	\$253,233	91,338	45,668

Updated: 8/15/2018-8/14/2019

Goals/Milestones

CY17 Goal — Prepare to launch the study

- ✓ Initiated research team meetings to plan study procedure and develop the content of the data collection instruments
- ✓ Standardized study operating procedures for each phase of the study

CY18 Goals — Initiated Phase I data collection (which involves Telehealth Coordinator Interviews & Observations of Enrollment and Installations)

- ✓ Completed Phase III Clinician (Virtual Healthcare Team) Focus Group
- ✓ Qualitative Data Analyses- Ongoing
- ✓ Completed all Phase I observations of Enrollments (10) and Installations (10).
- ✓ Completed Phase I data collection, data cleaning, analysis and dissemination.

CY19 Goals—

- ✓ To complete Phase II data quality checks so they are in place for Phase II Subject Recruitment and data collection
- To complete all (35-40) Phase II-Veterans semi-structured interviews
- To complete 50% of Phase II Caregivers semi-structured interviews (25-30)

Comments/Challenges/Issues/Concerns

- “Nothing to Report” for this quarter

Budget Expenditure to Date

Actual Expenditure \$266,646.87

Study #ID: _____

Date: _____

Phase I: Observation of CVT Enrollment and Equipment Installations of Devices

Good Morning/Afternoon,

Today I am here to see if you would be interested in getting/upgrading CVT equipment.

Is it ok with you if our research team observes how I enroll you in to the seamless care program?

☐ Yes

☐ No

Is it ok for me to have the team members **[insert names]** come in and review the consent form with you?

☐ Yes

☐ No

Triangle of Healthy Caregiving for Spinal Cord Injured Veterans
Observations of VHA Virtual Care *Enrollment* Checklist
(IRB #: 01425)

☐ **Verified** ☐ **Unverified**

Study ID #: _____

Phase I: Observations of VHA Virtual Care Enrollment

[tc] TC: ☐ [1] TC_01 ☐ [2] TC_02 ☐ [3] TC_other

[loc] Location: ☐ [1] Inpatient ☐ [2] Outpatient ☐ [3] Over the Phone ☐ [4] via CVT

[pobs] Primary Observer: ☐ [1] DF ☐ [2] YE ☐ [3] NJ

[sobs] Secondary Observer: ☐ DF ☐ YE ☐ NJ

☐ Encounter #1:

[statime1] start time: ____: ____ am/pm

[endtime1] End time: ____: ____ am / pm

[date_1] Date: _____

[otc_e1] Outcome of Encounter:

☐ Enrollment was successful

☐ Veteran accepted CVT care

☐ Veteran declined CVT care

☐ Enrollment was unsuccessful

Reason:

☐ Encounter #2:

[statime2] start time: ____: ____ am/pm

[endtime2] End time: ____: ____ am / pm

[date_2] Date: _____

[otc_e2] Outcome of Encounter:

☐ Enrollment was successful

☐ Veteran accepted CVT care

☐ Veteran declined CVT care

☐ Enrollment was unsuccessful

Reason:

☐ Encounter #3:

[statime3] start time: ____: ____ am/pm

[endtime3] End time: ____: ____ am / pm

[date_3] Date: _____

[otc_e3] Outcome of Encounter:

☐ Enrollment was successful

☐ Veteran accepted CVT care

☐ Veteran declined CVT care

☐ Enrollment was unsuccessful

Reason:

Instructions:

Before beginning the observations,

- the primary and secondary observers should first introduce themselves to the veteran being observed. This introduction should include not only an introduction to the research team, but the purpose of the observations.
- the observers should then take a moment to introduce the study and review the consent script with the Veteran.

[virtual] Current VHA Virtual Care Modalities of Veteran
(mark that apply):

- ☐ [1] Jabber
- ☐ [2] BL Tablet
- ☐ [3] Vital Tablet
- ☐ [4] MyHealtheVet
- ☐ [5] Home Telehealth
- ☐ [6] VA Video Connect (VVC)
- ☐ [7] None

[reas] Reason for Encounter (mark all that apply):

- ☐ [1] Upgrade to VVC
- ☐ [2] Virtual Care Enrollment
- ☐ [3] Returning Device
- ☐ [4] Enrolling in MyHealtheVet

[who_obs] Who is being observed?

- ☐ [1] Veteran
- ☐ [2] Caregiver

A. BEFORE VETERAN ENCOUNTER

STEPS TAKEN BEFORE VETERAN ENCOUNTER		NOTES/OBSERVATIONS
Before Veteran encounter	Identifying Veteran (1.1) [vetid]	Telehealth coordinator identifies potential Veteran for enrollment using: ☐ [1] Provider consult/referral ☐ [2] Admissions List ☐ [3] Outpatient Appointment ☐ [4] During Morning report ☐ [5] Seamless care list ☐ [777] Not Observed ☐ [999] Not Applicable
	Checking New SCI Veteran's CVT Equipment (initial evaluation) (1.2) [idcv]	Telehealth coordinator checks CPRS chart: ☐ [1] For enrollment in HBPC ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] For previous provider technology consults ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] For any enrollment in MyHealtheVet ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [4] For any technology the Veteran may already have ☐ [777] Not Observed ☐ [999] Not Applicable
	Gathering encounter materials (1.3) [mat]	If Veteran does not have technology, telehealth coordinator prepares to educate Veteran on available VHA Virtual Healthcare modalities by gathering: ☐ [1] "Individuals' request for a copy of their own health information" [for myhealthevet] ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] "Clinical Video Telehealth into the home Information Sheet" [for VVC] ☐ [777] Not Observed ☐ [999] Not Applicable
	Confirming Known Veteran Information (1.4) [confinfo]	☐ [1] Telehealth Coordinator identifies the Veteran email address ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] If Veteran is a new VANJHCS SCI patient , telehealth coordinator adds Veteran information to seamless care spreadsheet ☐ [777] Not Observed ☐ [999] Not Applicable

	Other (1.5) [bpe_oth]	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable	[bpe_oth]
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Proceed to next page for During Veteran Encounter steps

B. DURING VETERAN ENCOUNTER

STEPS TAKEN DURING VETERAN ENCOUNTER		NOTES/OBSERVATIONS
During Veteran encounter	Education on VHA Virtual Healthcare Modalities (2.1) [edvc] ☐ [1] Telehealth Coordinator educates Veteran on the benefits and current modalities of CVT (i.e. MyHealthVet, VVC) ☐ [777] Not Observed ☐ [999] Not Applicable	[edvc_n]
	Checking enrollment criteria (2.2) [enroll] Telehealth Coordinator verifies that the Veteran meets the following enrollment criteria: ☐ [1] Veteran is interested in using CVT in home ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] Veteran can use device or has a caregiver willing to assist ☐ [777] Not Observed ☐ [999] Not Applicable	[enroll_n]
	Assessing Compatibility of personal device (2.3) [asscomp] ☐ [1] Telehealth coordinator asks Veteran if he/she has any device or technology capable of CVT ☐ [777] Not observed ☐ [999] Not applicable	[asscomp_n]
	Other (2.4) [dpe_other] ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable	

If Veteran has own device turn to page 5

If Veteran does not have own device turn to page 7

VVC: PERSONAL DEVICE

STEPS TAKEN DURING VETERAN ENCOUNTER

NOTES/OBSERVATIONS

During Veteran encounter	Providing VVC information (3.1) [vvcinfo]	☐ [1] Telehealth Coordinator reviews the "Clinical Video Telehealth into the home Information Sheet" with the Veteran ☐ [777] Not observed ☐ [999] Not applicable ☐ [2] Telehealth coordinator provides information on applications that need to be downloaded ☐ [777] Not observed ☐ [999] Not applicable	[vvcinfo_n]
	Obtaining email address (3.2) [obem]	☐ [1] Telehealth coordinator informs Veteran that email address is needed to use VVC ☐ [777] Not observed ☐ [999] Not applicable ☐ [2] If they have their own email address, telehealth coordinator confirms email address with Veteran ☐ [777] Not observed ☐ [999] Not applicable ☐ [3] If Veteran does not have email, telehealth coordinator offers assistance in setting up email address during encounter ☐ [777] Not observed ☐ [999] Not applicable	[obem_n]
	Follow Up (3.3) [dpefu]	☐ [1] Telehealth coordinator schedules a follow up session to install software and test connectivity ☐ [777] Not observed ☐ [999] Not applicable	[dpefu_n]

	Other (3.4) [dpe_other2]	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ [777] Not observed ☐ [999] Not applicable	
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Proceed to Page 9 for MyHealtheVet Authentication Steps

VVC: IPAD

STEPS TAKEN DURING VETERAN ENCOUNTER

NOTES/OBSERVATIONS

During Veteran encounter	Determining interest (4.1) [det_interest]	☐ [1] The Telehealth Coordinator offers an iPad mini to facilitate CVT in to the Veteran's home ☐ [777] Not observed ☐ [999] Not applicable	[det_interest_n]
	Educating on device (4.2) [edd]	The telehealth coordinator educates the Veteran on: ☐ [1] how to use the control buttons on the device (i.e. power up, volume up/down) ☐ [777] Not Observed ☐ [999] Not applicable ☐ [2] how to create the passcode to unlock the device ☐ [777] Not Observed ☐ [999] Not applicable ☐ [3] how to enter the passcode into the device ☐ [777] Not Observed ☐ [999] Not applicable ☐ [4] how to navigate the home screen and locate the applications that would be useful to the Veteran ☐ [777] Not Observed ☐ [999] Not applicable ☐ [5] how to log into email account to receive all emails on device ☐ [777] Not Observed ☐ [999] Not applicable ☐ [6] how to use the VMR application for video visits ☐ [777] Not Observed ☐ [999] Not applicable ☐ [7] Where to find emails with the VVC link for video visits ☐ [777] Not Observed ☐ [999] Not applicable ☐ [8] how to open and log into MyHealthVet ☐ [777] Not Observed ☐ [999] Not applicable ☐ [9] the uses of MyHealthVet ☐ [777] Not Observed ☐ [999] Not applicable	[edd_n]
	Confirming interest (4.3) [intre]	☐ [1] Before ordering iPad, telehealth coordinator confirms that the veteran is interested and would like to use device for CVT ☐ [777] Not observed ☐ [999] Not applicable	[intre_n]

During Veteran Encounter	Obtaining email address (4.4) [conem]	☐ [1] Telehealth coordinator confirms email address ☐ [777] Not observed ☐ [999] Not applicable ☐ [2] If Veteran does not have own email address, telehealth coordinator makes a note to generate a static link once the iPad has been ordered ☐ [777] Not observed ☐ [999] Not applicable	[conem_n]
	Other (4.5) [dpe_other3]	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable	

Proceed to Page 9 for MyHealtheVet Authentication Steps

MYHEALTHEVET

STEPS TAKEN DURING VETERAN ENCOUNTER

NOTES/OBSERVATIONS

During Veteran encounter	Veteran with existing MyHealthVet account (5.1) [mhev]	If Veteran uses myHealthVet or Jabber at other VA health care systems: ☐ [1] Telehealth Coordinator asks for permission to authenticate Veteran at VA New Jersey Healthcare System ☐ [777] Not Observed ☐ [999] Not applicable ☐ [2] Veteran agrees to allow account to be authenticated and shares VAID with Telehealth Coordinator ☐ [777] Not Observed ☐ [999] Not applicable	[mhev_n]
	Enrolling Veteran in MyHealthVet (5.2) [mheven]	☐ [1] Telehealth Coordinator educates Veteran on the functions of MyHealthVet ☐ [777] Not Observed ☐ [999] Not applicable ☐ [2] If interested the Veteran signs the "Individuals Request for a copy of their own health information" consent sheet ☐ [777] Not Observed ☐ [999] Not applicable ☐ [3] Telehealth coordinator obtains email address to link Veteran's MyHealthVet ☐ [777] Not Observed ☐ [999] Not applicable	[mheven_n]
	Other (5.3) [mhev_other]	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable	

Proceed to Page 10 for after Veteran encounter steps

C. AFTER VETERAN ENCOUNTER

STEPS TAKEN AFTER VETERAN ENCOUNTER

NOTES/OBSERVATIONS

After Veteran encounter	Documenting (6.1) [doc]	After the encounter the telehealth coordinator documents the results of the encounter in CPRS by way of virtual care consult note: ☐[1] Documents if Veteran is a good candidate for CVT to home ☐[777] Not Observed ☐[999] Not applicable ☐[2] Documents if Veteran is interest in CVT to home ☐[777] Not Observed ☐[999] Not applicable ☐[3] Documents if device needs to be ordered for Veteran ☐[777] Not Observed ☐[999] Not applicable ☐[4] Documents if MyHealtheVet enrollment was or was not completed ☐[777] Not Observed ☐[999] Not applicable	[doc_n]
	MyHealtheVet Authentication (6.2) [mheva]	☐[1] The Telehealth Coordinator will send the completed “Individuals Request for a copy of their own health information” consent sheet to be scanned into the Veteran CPRS chart ☐[777] Not Observed ☐[999] Not applicable ☐[2] The Telehealth Coordinator then authenticates the Veteran’s MyHealtheVet account ☐[777] Not Observed ☐[999] Not applicable ☐[3] Telehealth Coordinator sends Veteran a secure message to ensure that MyHealtheVet account was successfully linked to the VA New Jersey Health Care team ☐[777] Not Observed ☐[999] Not applicable	[mheva_n]
	Ordering Device (6.3) [order]	☐[1] SCI provider puts in a CVT consult and designates the telehealth coordinator on the consult ☐[777] Not Observed ☐[999] Not applicable ☐[1] Telehealth Coordinator receives consult then orders the Veteran tablet in the ROES system ☐[777] Not Observed ☐[999] Not applicable	[order_n]

After Veteran encounter	Storing Veteran information (6.4) [store]	☐ [1] Veteran information is added to the seamless care list which is saved on the clinical sharepoint ☐ [777] Not observed ☐ [999] Not applicable	[store_n]
	Other (6.5) [ape_n]	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable	

D. VETERAN ENCOUNTER FOLLOW UP

VETERAN ENCOUNTER FOLLOW UP		NOTES/OBSERVATIONS
Veteran encounter follow up	Setting up Initial Connection (7.1) [setup_ic]	☐ [1] Telehealth Coordinator determines the best time to schedule an initial connection with the Veteran ☐ [777] Not Observed ☐ [999] Not applicable ☐ [2] Telehealth coordinator creates an appointment using the intrafacility appointment in CPRS and adds to the clinical calendar ☐ [777] Not Observed ☐ [999] Not applicable
	Completing Enrollment (7.2) [pfu]	If VVC iPad was ordered: ☐ [1] The telehealth coordinator will check ROES to ensure that device was successfully shipped ☐ [777] Not Observed ☐ [999] Not applicable ☐ [2] The telehealth coordinator will follow up with Veteran 1 week following device being shipped to confirm successful delivery and to schedule a time to complete the initial connection ☐ [777] Not Observed ☐ [999] Not applicable If enrollment was not completed during initial encounter: ☐ [3] The telehealth coordinator will follow up with Veteran 1-2 weeks later to complete enrollment in CVT or MyHealtheVet ☐ [777] Not Observed ☐ [999] Not applicable ☐ [4] Telehealth Coordinator will then document successful enrollment in Veteran chart ☐ [777] Not Observed ☐ [999] Not applicable

	Other (7.3) [pefu_other]	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ [777] Not observed ☐ [999] Not applicable	
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Triangle of Healthy Caregiving for Spinal Cord Injured Veterans
Observations of VHA Virtual Care *Installation* Checklist
(IRB #: 01425)

☐ **Verified** ☐ **Unverified**

Study ID #: _____

Phase I: Observations of VHA Virtual Care Installation

[tc_i] TC: ☐ [1] TC_01 ☐ [2] TC_02 ☐ [3] TC_other

[loc_i] Location: ☐ [1] Inpatient ☐ [2] Outpatient ☐ [3] Over the Phone ☐ [4] via CVT

[pobs_i] Primary Observer: ☐ [1] DF ☐ [2] YE ☐ [3] NJ [sobs_i] Secondary Observer: ☐ [1] DF ☐ [2] YE ☐ [3] NJ

☐ Encounter #1:

☐ Encounter #2:

☐ Encounter #3:

[statime_i1] start time: ____: ____ am / pm

[endtime_i1] End time: ____: ____ am / pm

[date_e1] Date: _____

[otc_e1] Outcome of Encounter:

☐ Installation was successful

☐ Installation was unsuccessful

Reason:

[statime_i2] start time: ____: ____ am / pm

[endtime_i2] End time: ____: ____ am / pm

[date_e1] Date: _____

[otc_e2] Outcome of Encounter:

☐ Installation was successful

☐ Installation was unsuccessful

Reason:

[statime_i3] start time: ____: ____ am / pm

[endtime_i3] End time: ____: ____ am / pm

[date_e1] Date: _____

[otc_e3] Outcome of Encounter:

☐ Installation was successful

☐ Installation was unsuccessful

Reason:

Instructions:

Before beginning the observations,

- the primary and secondary observers should first introduce themselves to the veteran being observed. This introduction should include not only an introduction to the research team, but the purpose of the observations.
- the observers should then take a moment to introduce the study and review the consent script with the Veteran.

[virtual_i] Current VHA Virtual Care Modalities of Veteran
(mark that apply):

- ☐ [1] Jabber
- ☐ [2] BL Tablet
- ☐ [3] Vital Tablet
- ☐ [4] MyHealtheVet
- ☐ [5] Home Telehealth
- ☐ [6] VA Video Connect (VVC)
- ☐ [7] None

[reas_i] Reason for Encounter (mark all that apply):

- ☐ [1] Upgrade to VVC
- ☐ [2] Virtual Care Enrollment
- ☐ [3] Returning Device
- ☐ [4] Enrolling in MyHealtheVet

[who_obs_i] Who is being observed?

- ☐ [1] Veteran
- ☐ [2] Caregiver

A. BEFORE VETERAN ENCOUNTER

STEPS TAKEN BEFORE VETERAN ENCOUNTER		NOTES/OBSERVATIONS
Before Veteran encounter	Preparing for an over the phone installation (1.1) [prep]	☐ [1] If Veteran is using personal device, telehealth coordinator sends email link for VVC virtual room ☐ [777] Not Observed ☐ [999] Not Applicable Before contacting the Veteran, the telehealth coordinator: ☐ [2] goes to a secure room for confidentiality ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] opens CPRS ☐ [777] Not Observed ☐ [999] Not Applicable
	Other (1.2)	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable

B. DURING VETERAN ENCOUNTER

STEPS TAKEN DURING VETERAN ENCOUNTER		NOTES/OBSERVATIONS
During Veteran Encounter	Preparing for video visit (2.1) [prepvv]	☐ [1] The telehealth coordinator calls the Veteran at the scheduled time ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] Telehealth coordinator reminds Veteran of reason for call ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] The telehealth coordinator confirms scheduled initial connection time is still convenient for the Veteran ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [4] Telehealth coordinator prompts Veteran to turn on device ☐ [777] Not Observed ☐ [999] Not Applicable
	Personal device set up (2.2) [pdsu]	☐ [1] Telehealth coordinator reviews the "Clinical video telehealth into the home information sheet" with the Veteran ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] If Veteran is using an Apple device, the telehealth coordinator provides instructions on how to download the application "VA Video Connect" from the app store ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] Telehealth coordinator confirms the email address that the link for the video visit was sent to ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [4] locates email containing link in Outlook inbox and clicks link to join chat room ☐ [777] Not Observed ☐ [999] Not Applicable

During Veteran Encounter	VVC Tablet/personal device education (2.3) [tab_edu]	Telehealth coordinator educates Veteran on: ☐[1] how to use the control buttons on the device (i.e. power up, volume up/down) ☐[777] Not Observed ☐[999] Not applicable ☐[2] how to create the passcode to unlock the device ☐[777] Not Observed ☐[999] Not applicable ☐[3] how to enter the passcode into the device ☐[777] Not Observed ☐[999] Not applicable ☐[4] how to navigate the home screen and locate the applications that would be useful to the Veteran ☐[777] Not Observed ☐[999] Not applicable ☐[5] how to open and log into MyHealthVet ☐[777] Not Observed ☐[999] Not applicable ☐[6] the uses of MyHealthVet ☐[777] Not Observed ☐[999] Not applicable	
	Practice using device (2.4) [prac]	Telehealth coordinator has veteran/caregiver demonstrate ☐[1] Using the control buttons on the device (i.e. power up, volume up/down) ☐[777] Not Observed ☐[999] Not applicable ☐[2] Inputting passcode ☐[777] Not Observed ☐[999] Not applicable ☐[3] Navigating home screen ☐[777] Not Observed ☐[999] Not applicable ☐[4] Properly identifying important applications ☐[777] Not Observed ☐[999] Not applicable ☐[5] how to open and log into MyHealthVet ☐[777] Not Observed ☐[999] Not applicable	

During Veteran Encounter	Connectivity test (2.5) [connt_test]	☐ [1] Telehealth coordinator creates static link using the excel sheet provided by the VA ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] Telehealth coordinator copies and pastes the static link into google chrome ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] Telehealth coordinator then enters provider name into the webpage that loads ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [4] Telehealth coordinator presses connect ☐ [777] Not Observed ☐ [999] Not Applicable	
	In the virtual chat room (2.6) [virtchrm]	☐ [1] Telehealth coordinator confirms the location and contact information of relatives/caregivers who can be contacted in the event of an emergency ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] Telehealth coordinator confirms the address of the Veteran ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] Telehealth coordinator prompts the Veteran to ask any questions regarding using the application, email link or VVC iPad ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [4] Telehealth coordinator addresses any clinical needs the Veteran may have ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [5] Telehealth coordinator confirms the audio/video quality of the video conference before ending the phone call ☐ [777] Not Observed ☐ [999] Not Applicable	

	Other (2.7)	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable	
--	------------------------	---	--

C. AFTER VETERAN ENCOUNTER

STEPS TAKEN AFTER VETERAN ENCOUNTER		NOTES/OBSERVATIONS
After Veteran Encounter	Ending video visit (3.1) [endvv]	☐ [1] Telehealth coordinator closes out of chatroom ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [2] If any problems were encountered during the installation, telehealth coordinator schedules a time to follow up with the Veteran ☐ [777] Not Observed ☐ [999] Not Applicable ☐ [3] Telehealth coordinator documents the results of the video visit in the Veteran's chart using a "CVT 2 Home Note" title ☐ [777] Not Observed ☐ [999] Not Applicable
	Other (3.2)	☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ [777] Not observed ☐ [999] Not applicable

TROUBLESHOOTING

TROUBLESHOOTING STEPS

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

☐[777] Not observed

☐[999] Not applicable

ID NUMBER: _____
Date: ____/____/____

Interviewer Initials _____
☐ Verified ☐ Unverified

Phase II: Semi-Structured Interviews with Veterans Questionnaire Packet

[pint] Primary Interviewer: ☐ [1] DF ☐ [2] YE ☐ [3] NJ

[sint] Secondary Interviewer: ☐ [1] DF ☐ [2] YE ☐ [3] NJ

[loc] Location: ☐ [1] Inpatient ☐ [2] Outpatient ☐ [3] Over the Phone ☐ [4]
via CVT

[p_virtual] **Previous** VHA Virtual Care Modalities of Veteran
(mark all that apply):

- ☐ [1] Jabber
- ☐ [2] BL Tablet
- ☐ [3] Vital Tablet
- ☐ [4] MyHealtheVet
- ☐ [5] Home Telehealth
- ☐ [6] None

[virtual] **Current** VHA Virtual Care Modalities of Veteran
(mark all that apply):

- ☐ [1] Jabber
- ☐ [2] BL Tablet
- ☐ [3] Vital Tablet
- ☐ [4] MyHealtheVet
- ☐ [5] Home Telehealth
- ☐ [6] VA Video Connect (VVC)
- ☐ [7] None

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

Veteran Questionnaire Packet

Contents

A. Background 3

B. Veteran History 5

C. Home and Employment..... 7

D. SCI History 16

E. Health Status..... 18

F. Bladder and Bowel Management..... 22

SCI-FI 25

G. Techonology Use 25

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

Demographic Form

Introduction:

This next questionnaire is going to ask you some background questions, including information like your age and marital status, information about your injury, and information about your military background.

As a reminder, you may refuse to answer any question you aren't comfortable answering.

A. Background

[DEM_A1] age

What is your age? _ _ years

777 = Don't know

999 = Refused

[DEM_A2] sex

Would you identify yourself as...?

- 1 Male
- 0 Female
- 77 Don't know
- 99 Refused

[DEM_A3] brthpl

In what country were you born?

- 1 United States
- 2 Other Country → Complete **[DEM_A3a]**
- 77 Don't know
- 99 Refused

[DEM_A3a] brthpl_yrus

What year did you move to the United States?

_ _ _ _
7777 = Don't know, 9999 = Refused

[DEM_A4] lang

What language do you mainly speak at home?

- 1 English
- 2 Spanish
- 3 Other language → Complete **[DEM_A4a]**
- 77 Don't know
- 99 Refused

[DEM_A4a] lang_oth

Please specify which other language: _____

ID NUMBER: ____

Date: ____/____/____

Interviewer: ____

[DEM_A5] hisp

Are you of Hispanic, Latino, or Spanish origin or descent?

- 1 Yes
- 0 No
- 77 Don't know
- 99 Refused

[DEM_A6] race

We would like to know how you describe yourself racially. Do you consider yourself to be...? Mark all that apply.

- 1 American Indian or Alaska Native
- 2 Asian
- 3 Black or African American
- 4 Native Hawaiian or Other Pacific Islander
- 5 White or Caucasian
- 6 Other → Complete **[DEM_A6a]**
- 77 Don't know
- 99 Refused

[DEM_A6a] race_oth

Please specify which other race: _____

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

B. Veteran History

[DEM_B1] brch

In which branch or branches did you serve while on active duty? Mark all that apply.

- 1 Army
- 2 Navy
- 3 Air Force
- 4 Marine Corps
- 5 Coast Guard
- 6 Other (e.g. the Public Health Service, the Environmental Services Administration, the National Oceanic and Atmospheric Administration, U.D. Merchant Marine)
- 77 Don't Know
- 99 Refused

[DEM_B2] dtsrzd

When did you serve on active duty in the U.S. Armed Forces? Mark all that apply.

- 1 September 2001 or later
- 2 August 1990 to August 2001 (includes Persian Gulf War)
- 3 May 1975 to July 1990
- 4 Vietnam era (August 1964 to April 1975)
- 5 February 1955 to July 1964
- 6 Korean War (July 1950 to January 1955)
- 7 January 1947 to June 1950
- 8 World War II (December 1941 to December 1946)
- 9 November 1941 or earlier
- 10 Other/Specified/Special circumstance → Complete [DEM_B2a]
- 77 Don't Know
- 99 Refused

[DEM_B2a] dtsrzd_com

Please note any additional comments mentioned by the participant about the dates served:

ID NUMBER: ____

Date: ____/____/____

Interviewer: ____

[DEM_B3] oefoif

Did you deploy in support of Operation Enduring Freedom (OEF) 2007-2014 or Operation Iraqi Freedom (OIF) 2003-2010?

- 1 Yes
- 0 No
- 77 Don't Know
- 99 Refused

[DEM_B4] combat

Did you ever serve in a combat or war zone?

(NOTE: persons serving in a combat or war zone usually receive combat zone tax exclusion, imminent danger pay, or hostile fire pay)

- 1 Yes
- 0 No
- 77 Don't Know
- 99 Refused

[DEM_B5] rank

What was the last rank held when you separated from the military?

- 1 E1-E4
- 2 E5-E6
- 3 E7-E9
- 4 Warrant/Chief Warrant Officer
- 5 O1-O3
- 6 O4-O6
- 7 O7-O10
- 77 Don't Know
- 99 Refused

[DEM_B6] dcstat

What was your discharge status? (if applicable)

- 1 Honorable
- 2 General Under Honorable Conditions
- 3 Other than Honorable
- 4 Bad Conduct Discharge
- 5 Dishonorable
- 6 Uncategorized
- 77 Don't Know
- 88 Not applicable (still active)
- 99 Refused

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

C. Home and Employment

[DEM_C1] marstat

What is your marital status?

- 0 Single
- 1 Married
- 2 Divorced/widowed/separated
- 3 Living with partner
- 77 Don't know
- 99 Refused

[DEM_C2] restyp

What type of residence are you currently living in?

- 1 At a private residence ("at home"; includes house, apartment, condo, etc.)
- 2 Nursing home/long-term care facility
- 3 Group Living (TL unit, dorm/military/boarding school or home/boy's ranch, religious order resident)
- 4 Hotel/Motel (includes YWCA, YMCA)
- 5 Other rehabilitation or long-term
- 6 Homeless
- 7 Assisted Living (provides supervision or assistance with ADLs, monitoring or coordination of services)
- 8 Other → Complete [DEM_C2a]
- 77 Don't know
- 99 Refused

[DEM_C2a] retype_oth

Please specify other type of residence: _____

[DEM_C3] pplres

Does anyone live at home with you?

- 1 Yes → Complete [DEM_C3a1-4]
- 0 No → Skip to [DEM_C4]
- 77 Don't know
- 99 Refused

[DEM_C3a] pplres_nm

How many people live at home with you? _ _

77 = Don't know, 99 = Refused

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

If more than 5 people live with the participant:

We will be asking you some questions about the key 5 people who live with you

[DEM_C3a1] pplres_nam1

What is the name of the first person who lives with you?

[DEM_C3a2] pplres_sex1

What is that person's sex?

1	Male	77	Don't know
0	Female	99	Refused

[DEM_C3a3] pplres_age1

How old is that person?

____ 777 = Don't know 999 = Refused

[DEM_C3a4] pplres_rel1

What is that person's relationship to you?

1	Spouse	8	Brother	16	Other relative
2	Son	9	Sister	17	Friend
3	Daughter	10	Nephew	18	Boarder, renter
4	Son-in-law	11	Niece	19	Paid employee
5	Daughter-in-law	12	Cousin	20	Other unrelated
6	Grandchild	13	Uncle	77	Don't know
7	Parent	14	Aunt	99	Refused
		15	Great-grandchild		

[DEM_C3b] pplres_els2

Does anyone else live with you?

1	Yes → Complete [DEM_C3b1-4]
0	No → Skip to [DEM_C4]
77	Don't know
99	Refused

[DEM_C3b1] pplres_nam2

What is the name of the second person who lives with you?

[DEM_C3b2] pplres_sex2

What is that person's sex?

1	Male	77	Don't know
0	Female	99	Refused

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _ _

[DEM_C3b3] pplres_age2

How old is that person?

_ _

777 = Don't know

999 = Refused

[DEM_C3b4] pplres_rel2

What is that person's relationship to you?

1	Spouse	8	Brother	16	Other relative
2	Son	9	Sister	17	Friend
3	Daughter	10	Nephew	18	Boarder, renter
4	Son-in-law	11	Niece	19	Paid employee
5	Daughter-in-law	12	Cousin	20	Other unrelated
6	Grandchild	13	Uncle	77	Don't know
7	Parent	14	Aunt	99	Refused
		15	Great-grandchild		

[DEM_C3c] pplres_els3

Does anyone else live with you?

- 1 Yes → Complete **[DEM_C3c1-4]**
- 0 No → Skip to **[DEM_C4]**
- 77 Don't know
- 99 Refused

[DEM_C3c1] pplres_nam3

What is the name of the third person who lives with you?

[DEM_C3c2] pplres_sex3

What is that person's sex?

- | | | | |
|---|--------|----|------------|
| 1 | Male | 77 | Don't know |
| 0 | Female | 99 | Refused |

[DEM_C3c3] pplres_age3

How old is that person?

_ _

777 = Don't know

999 = Refused

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

[DEM_C3c4] pplres_rel3

What is that person's relationship to you?

1	Spouse	8	Brother	16	Other relative
2	Son	9	Sister	17	Friend
3	Daughter	10	Nephew	18	Boarder, renter
4	Son-in-law	11	Niece	19	Paid employee
5	Daughter-in-law	12	Cousin	20	Other unrelated
6	Grandchild	13	Uncle	77	Don't know
7	Parent	14	Aunt	99	Refused
		15	Great-grandchild		

[DEM_C3d] pplres_els4

Does anyone else live with you?

- 1 Yes → Complete [DEM_C3d1-4]
- 0 No → Skip to [DEM_C4]
- 77 Don't know
- 99 Refused

[DEM_C3d1] pplres_nam4

What is the name of the fourth person who lives with you?

[DEM_C3d2] pplres_sex4

What is that person's sex?

- | | | | |
|---|--------|----|------------|
| 1 | Male | 77 | Don't know |
| 0 | Female | 99 | Refused |

[DEM_C3d3] pplres_age4

How old is that person?

_ _

777 = Don't know

999 = Refused

[DEM_C3d4] pplres_rel4

What is that person's relationship to you?

1	Spouse	8	Brother	16	Other relative
2	Son	9	Sister	17	Friend
3	Daughter	10	Nephew	18	Boarder, renter
4	Son-in-law	11	Niece	19	Paid employee
5	Daughter-in-law	12	Cousin	20	Other unrelated
6	Grandchild	13	Uncle	77	Don't know
7	Parent	14	Aunt	99	Refused
		15	Great-grandchild		

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_C3e] pplres_els5

Does anyone else live with you?

- 1 Yes → Complete [DEM_C3e1-4]
- 0 No → Skip to [DEM_C4]
- 77 Don't know
- 99 Refused

[DEM_C3e1] pplres_nam5

What is the name of the fifth person who lives with you?

[DEM_C3e2] pplres_sex5

What is that person's sex?

- | | | | |
|---|--------|----|------------|
| 1 | Male | 77 | Don't know |
| 0 | Female | 99 | Refused |

[DEM_C3e3] pplres_age5

How old is that person?

_ _ 777 = Don't know 999 = Refused

[DEM_C3e4] pplres_rel5

What is that person's relationship to you?

- | | | | | | |
|---|-----------------|----|------------------|----|-----------------|
| 1 | Spouse | 8 | Brother | 16 | Other relative |
| 2 | Son | 9 | Sister | 17 | Friend |
| 3 | Daughter | 10 | Nephew | 18 | Boarder, renter |
| 4 | Son-in-law | 11 | Niece | 19 | Paid employee |
| 5 | Daughter-in-law | 12 | Cousin | 20 | Other unrelated |
| 6 | Grandchild | 13 | Uncle | 77 | Don't know |
| 7 | Parent | 14 | Aunt | 99 | Refused |
| | | 15 | Great-grandchild | | |

[DEM_C4] edu

How far did you get in school?

- 1 Grade 6 or less
- 2 Grade 7-12 (without graduating high school)
- 3 Graduated high school or high school equivalent
- 4 Part college
- 5 Graduated 2-year college
- 6 Graduated 4-year college
- 7 Part graduate/professional school
- 8 Completed graduate/professional school
- 77 Don't know
- 99 Refused

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

[DEM_C5] emp

Are you currently employed?

- 1 Yes → Complete **[DEM_C5a-c]**
- 0 No → Skip to **[DEM_C6]**
- 77 Don't know
- 99 Refused

[DEM_C5a] emptim

Are you employed...?

- 1 Full-time
- 2 Part-time
- 3 Other → Complete **[DEM_C5a1]**
- 77 Don't know
- 99 Refused

[DEM_C5a1] emptim_oth

Please specify other type of employment: _____

[DEM_C5b] emptle

What is your title? _____

[DEM_C5c] empainj

Are you employed in the same type of work as before your injury?

- 1 Yes
- 0 No → Complete **[DEM_C5c1]**
- 77 Don't know
- 99 Refused

[DEM_C5c1] empainj_des

Please list previous occupation: _____

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

[DEM_C6] emprof

What is the occupation you have held for the longest time?

If you are retired, what was the occupation you held for the longest time before you retired?

- 1 Professional, Technical, & Related (teacher/professor, nurse, lawyer, physician, engineer)
- 2 Manager, Administrator, or Proprietor (sales manager, real estate agent, or postmaster)
- 3 Clerical & Related (secretary, clerk, mail carrier)
- 4 Sales (salesperson, demonstrator, agent, broker)
- 5 Service (police, cook, hairdresser)
- 6 Skilled Crafts & Related (carpenter, repairer, telephone line worker)
- 7 Equipment or Vehicle Operator & Related (driver, railroad brakeman, sewer worker)
- 8 Laborer (helper, longshoreman, warehouse worker)
- 9 Farmer (owner, manager, operator, tenant)
- 10 Member of the military
- 11 Homemaker
- 12 Other → Complete **[DEM_C6a]**
- 13 Student
- 77 Don't know
- 99 Refused

[DEM_C6a] emprof_oth

Please describe other occupation: _____

[DEM_C7] income

We'd like to get some information about your total household income (income from all sources, including child support, alimony, disability, SSI, unemployment) before taxes in the last year. We do not need to know the specific amount, just the range that best captures your household income based on all these sources, and your answers are confidential.

Which income range best represents your total household income?

[read out answer choices]

- 1 Less than \$25,000
- 2 \$25,000 – \$49,999
- 3 \$50,000 – \$74,999
- 4 \$75,000 or more
- 77 Don't know
- 99 Refused

[DEM_C8] skillcare

Are you receiving skilled care in the home(i.e. bowel and bladder care)?

- 1 Yes → Complete **[DEM_C8a]**
- 0 No → Skip to **[DEM_C9]**
- 77 Don't know
- 99 Refused

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_C8a] provcare

Who is providing the skilled care (i.e. bowel or wound care)?

- 1 VA Paid Agency
- 2 Out of Pocket
- 3 Private Insurance
- 4 Family caregiver *Complete [DEM_C8b]*
- 5 Other → *Complete [DEM_C8a1]*
- 77 Don't know
- 88 N/A, no care provided
- 99 Refused

[DEM_C8a1] provcareoth

Please specify the other person/institution providing skilled care

[DEM_C8b] caregivecomp

Does your caregiver receive any VA compensation for performing skilled care (i.e., bowel or wound care) for you?

- 1 Yes
- 0 No
- 77 Don't know
- 88 N/A No caregiver
- 99 Refused

[DEM_C9] caregiv

Do you have an unpaid caregiver?

- 1 Yes → *Complete [DEM_C9a-b]*
- 0 No → *Skip to [DEM_C10]*
- 77 Don't know
- 99 Refused

[DEM_C9a] caregivrel

What is your caregiver's relationship to you?

- | | | |
|-------------------|---------------------|--------------------|
| 1 Spouse | 8 Brother | 16 Other relative |
| 2 Son | 9 Sister | 17 Friend |
| 3 Daughter | 10 Nephew | 18 Boarder, renter |
| 4 Son-in-law | 11 Niece | 19 Paid employee |
| 5 Daughter-in-law | 12 Cousin | 20 Other unrelated |
| 6 Grandchild | 13 Uncle | 77 Don't know |
| 7 Parent | 14 Aunt | 99 Refused |
| | 15 Great-grandchild | |

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_C10] aidatt

Are you currently receiving VA Aid and Attendance?

VA Aid and Attendance is monetary compensation provided by the regional Veterans Benefits Administration to pay for assistance around the home

- 1 Yes
- 0 No
- 77 Don't know
- 99 Refused

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

D. SCI History

[DEM_D1] injyrs

How long have you been injured?

_____ years

777 = Don't know

999 = Refused

[DEM_D2] injlvl

What is your neurological level of injury?

- | | | | | | | | | | |
|---|-------|----|------------|----|-----|----|---------|----|-------|
| 1 | C0/C1 | 7 | C7 | 13 | T5 | 19 | T11 | 25 | L5 |
| 2 | C2 | 8 | C8 | 14 | T6 | 20 | T12 | 26 | S1 |
| 3 | C3 | 9 | T1 | 15 | T7 | 21 | L1 | 27 | S2 |
| 4 | C4 | 10 | T2 | 16 | T8 | 22 | L2 | 28 | S3 |
| 5 | C5 | 11 | T3 | 17 | T9 | 23 | L3 | 29 | S4/S5 |
| 6 | C6 | 12 | T4 | 18 | T10 | 24 | L4 | | |
| | | 77 | Don't know | | | 99 | Refused | | |

[DEM_D3] asia

What is your ASIA classification?

- 1 Known: A - Complete - no motor or sensory function is preserved in the sacral segments
- 2 Known: B - Incomplete - sensory but not motor function is preserved below the neurological level and includes the sacral segments S4-S5.
- 3 Known: C - Incomplete - motor function is preserved below the neurological level, and at least half of the key muscles below the neurological level have a grade of less than 3.
- 4 Known: D - Incomplete - motor function is preserved below the neurological level, and at least half of the key muscles below the neurological level have a grade of 3 or more.
- 5 Known: E - Normal - motor and sensory function are normal.
- 6 Unknown: Complete - no motor or sensory function below the level of the lesion.
- 7 Unknown: Incomplete - motor or sensory function preserved below the level of lesion
- 77 Don't know
- 99 Refused

[DEM_D4] injmduty

Were you injured during...?

- 1 Active service
- 2 Active duty – but on leave
- 3 After military service
- 77 Don't know
- 99 Refused

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_D5] injetio

How were you injured?

- | | | | |
|---------|-----------------------------|----|-----------------------------------|
| 1 | Motor vehicle accident | 13 | Spinal Cord Tumor |
| 2 | Fall | 14 | Spinal Stenosis |
| 3 | Diving | 15 | Toxic |
| 4 | Other Sport(s) | 16 | Genetic |
| 5 | Gunshot wound / violence | 17 | Post Radiation |
| 6 | Myelitis | 18 | Spondylitis |
| 7 | Poliomyelitis | 19 | Inflammatory (not MS) |
| 8 | AVM | 20 | Metabolic |
| 9 | DJD/arthritis | 21 | Surgery |
| 10 | Epidural abscess or another | 22 | Other vascular changes (not AVM) |
| abscess | | | → Complete [DEM_D5a] |
| 11 | Osteomyelitis | 23 | Other → Complete [DEM_D5a] |
| 12 | syrinx/syringomyelia | 77 | Don't know |
| | | 99 | Refused |

[DEM_D5a] ninetieth

Please describe how you were injured: _____

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

E.Health Status

[DEM_E1] htlgen

In general, would you say that your health is Excellent, Very Good, Good, Fair, or Poor?

- 1 Excellent
- 2 Very good
- 3 Good
- 4 Fair
- 5 Poor
- 77 Don't know
- 99 Refused

[DEM_E2] hlthrate

Compared to 1 year ago, would you rate your health as Much better now, Somewhat better, About the same, Somewhat worse, or Much worse?

- 1 Much better now
- 2 Somewhat better than a year ago
- 3 About the same
- 4 Somewhat worse
- 5 Much Worse
- 77 Participant doesn't know
- 99 Refused

[DEM_E3] hcsrce

Where do you mainly seek your healthcare? Mark all that apply.

- 1 VA SCI Center/Hospital
- 2 VA Non-SCI hospital
- 3 VA Community-based Outpatient Clinic (CBOC)
- 4 Civilian/Private outpatient clinic
- 5 Other type of outpatient clinic → **Complete [DEM_E3a]**
- 77 Don't know
- 99 Refused

[DEM_E3a] hcsrce_oth

Please describe other type of clinic: _____

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_E4] hospt

In the last 12 months, have you been hospitalized overnight?

1 Yes → **Complete [DEM_E4a]**

0 No → **Skip to [DEM_E5]**

77 Don't Know

99 Refused

[DEM_E4a] hospt_spec

To which hospital were you admitted, how many nights did you stay and what was the primary reason?

	Location of stay (VA vs. non-VA facility)	# of Days	Reason	Code
[DEM_E4a1]	[Hospt_spec1L]	[Hospt_spec1ND]	[Hospt_spec1R]	[Hospt_spec1C]
[DEM_E4a2]	[Hospt_spec2L]	[Hospt_spec2ND]	[Hospt_spec2R]	[Hospt_spec2C]
[DEM_E4a3]	[Hospt_spec3L]	[Hospt_spec3ND]	[Hospt_spec3R]	[Hospt_spec3C]
[DEM_E4a4]	[Hospt_spec4L]	[Hospt_spec4ND]	[Hospt_spec4R]	[Hospt_spec4C]
[DEM_E4a5]	[Hospt_spec5L]	[Hospt_spec5ND]	[Hospt_spec5R]	[Hospt_spec5C]
[DEM_E4a6]	[Hospt_spec6L]	[Hospt_spec6ND]	[Hospt_spec6R]	[Hospt_spec6C]
[DEM_E4a7]	[Hospt_spec7L]	[Hospt_spec7ND]	[Hospt_spec7R]	[Hospt_spec7C]
[DEM_E4a8]	[Hospt_spec8L]	[Hospt_spec8ND]	[Hospt_spec8R]	[Hospt_spec8C]
[tothosp] Total number of Hospitalization(s) *				
[totdayhosp] Total number of Days Hospitalized *				

[DEM_E5] optapt

When was your last outpatient appointment? _____

[DEM_E6] outptloc

Where was your last outpatient appointment? _____

ID NUMBER: ____

Date: ____/____/____

Interviewer: ____

[DEM_E7] otptaptrea

What was the reason for your last outpatient appointment? _____

[DEM_E8] hthins

What type of healthcare insurance do you currently have?

Mark all that apply

- 1 Private Insurance
- 2 Medicare
- 3 Medicaid
- 4 Tricare (Private insurance provided for by the DoD for retired military)
- 5 Worker's Compensation
- 6 VA Health Care
- 7 Other Government (e.g. Bureau of Indian Affairs; Crippled Children's Services; Dept of Voc Rehab)
- 8 No Pay (indigent, no resources)
- 9 Private funds (e.g. self-pay; hometown fund raisers)
- 10 Other, unclassified (e.g. SCI system patient care funds, Homebound, Victim's assistance funds, etc.)
- 77 Don't know
- 99 Refused

Next, I'm going to ask some health-related questions using different time frames, please listen to the time frame for each question. I will start with questions that ask about conditions within the last 12 months.

[DEM_E9] slpprob

In the past 12 months, how often have you experienced sleep problems, including problems falling asleep and staying asleep?

- 0 Never or less than monthly
- 1 Monthly (3 days a month or less)
- 2 Weekly (1 to 4 times a week)
- 3 Daily or almost daily (5 to 7 days a week)
- 77 Don't know
- 99 Refused

[DEM_E10] fall

In the last 12 months, how many times have you fallen?

- 0 Never
- 1 1 to 2 times
- 2 3 to 5 times
- 3 More than 5
- 77 Don't Know
- 99 Refused

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_E11] uti

In the last 12 months, how many times have you had a urinary tract infection (UTI) that required treatment with antibiotics?

- 0 None
- 1 1 to 2 times
- 2 3 to 5 times
- 3 More than 5 times
- 77 Don't know
- 99 Declined

[DEM_E12] wound

In the last 12 months, have you had a pressure injury with open/broken skin? That is, there was an opening in the skin – not just a red patch.

- 1 Yes
- 0 No
- 77 Don't know
- 99 Declined

[DEM_E13] pain

Now I'm going to ask about your pain level in the past 4 weeks. Using a 0-10 scale with 0 being no pain and 10 being pain so severe you couldn't stand it, what has been your usual level of pain over the past 4 weeks?

0	1	2	3	4	5	6	7	8	9	10	99
---	---	---	---	---	---	---	---	---	---	----	----

[DEM_E14] painint

During the past 4 weeks, how much did pain interfere with your normal work including both work outside the home and housework or usual activities? Would you say Not at all, A little bit, Moderately, Quite a bit, or Extremely?

- 0 Not at all
- 1 A little bit
- 2 Moderately
- 3 Quite a bit
- 4 Extremely
- 77 Doesn't know
- 88 N/A, no pain in the last 4 weeks
- 99 Refused

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

F. Bladder and Bowel Management

BLADDER MANAGEMENT

Interviewer, please tailor the language to your participant when describing bladder and bowel emptying.

The next couple of questions deal with emptying your bladder and bowel (*urinating and defecating, pee and poop*). We ask these questions because research has found that these issues are important to our health.

[DEM_F1] bldrhlp

Do you need help to manage emptying your bladder?

- 1 Yes
- 0 No
- 77 Don't Know
- 99 Refused

[DEM_F2] bldrmgmt

How do you manage your bladder?

- 0 No Program
- 1 Indwelling catheter (e.g. foley catheter or suprapubic catheter)
- 2 External collector (e.g. condom catheter)
- 3 Intermittent Catheterization (e.g. self-cath)
- 4 Diaper/Disposable Brief
- 5 Liroconite/ileostomy
- 6 Other → **Complete [DEM_F1a]**
- 77 Don't know
- 88 Refused

[DEM_F2a] bldrmgmt_oth

Please specify another bladder management: _____

[DEM_F3] bldrincont

On average in the past 3 months, did you experience incontinence daily, weekly, monthly or not at all?

Incontinence is defined as the complaint of any involuntary leakage of urine

- 0 None
- 1 Yes, daily
- 2 Yes, weekly
- 3 Yes, monthly
- 77 Don't know
- 88 Not applicable (Non content urinary diversion)
- 99 Refused

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

[DEM_F4] bowlhlp

Do you need help to manage emptying your bowel?

- 1 Yes
- 0 No
- 77 Don't Know
- 99 Refused

[DEM_F5] bowlmgmt

How do you manage your bowels?

- 1 VA Paid Bowel Program
- 2 Self-Paid Bowel Program
- 3 Managed independently
- 4 No bowel Program
- 77 Don't know
- 99 Refused

[DEM_F6] or stim

Are you taking any oral stimulants to regulate your bowels?

- 1 Yes
- 0 No
- 77 Don't Know
- 99 Refused

[DEM_F7] bowlincont

In the last 4 weeks, on average how often have you had any bowel incontinence? Incontinence is defined as the involuntary leakage of solid or liquid stool.

- 0 Less than once a month or never
- 1 1 to 4 times a month
- 2 1 to 6 times a week
- 3 Daily
- 77 Don't know
- 99 Refused

ID NUMBER: ____

Date: ____/____/____

Interviewer: ____

[DEM_F8] asst

Next, I am going to ask you to describe the amount of assistance and time out of bed in a typical 24-hour day.

[DEM_F8a] past

How many hours of Paid assistance do you have in a typical 24-hour day (for nursing home and Long-Term Care (LTC) residents, code as 24 hours of paid care)

[DEM_F8b] nudist

How many hours of Unpaid Assistance do you have in a typical 24-hour day (only include hours of physical assistance)

[DEM_F8c] outbd

In a typical day, how many hours are you out of bed? (routine naps taken in bed are counted as part of hours in bed)

[DEM_F9] trsprt

What mode of transportation do you usually use for travel outside the home for regular activities, such as work, appointments, or shopping?

- 0 None
- 1 Private car, truck, or van
- 2 Public transportation
- 3 Taxicab
- 4 Special transit for people with disabilities
- 5 Personal mobility device
- 6 VA Travel
- 7 Other → *Complete [DEM_F9a]*
- 8 Walk
- 77 Don't know
- 99 Refused

[DEM_F9a] trsprt_oth

Please specify other mode of transportation: _____

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

SCI-FI

Introduction:

This series of questions are going to ask about your ability to perform certain tasks. For each question, you will be asked to choose the response that is most like you, and to choose the response that best describes your ability to do each activity WITHOUT help from another person, but USING the equipment or devices you normally use.

The answer choices for these questions will be “Without any difficulty,” “With a little difficulty,” “With some difficulty,” “With much difficulty,” or “Unable to do,” and I can repeat these as many times as you need.

As a reminder, you may refuse to answer any question you’re not comfortable answering.

Screening

Please select the response that best describes you.

1. Is your injury described as paraplegia or tetraplegia?	☐ ₁ Paraplegia	☐ ₂ Tetraplegia		
2. Do you walk some or all of the time?	☐ ₀ No	☐ ₁ Yes		
3. What type of wheelchair do you use most often?	☐ ₀ None – I do not use a wheelchair at all	☐ ₁ Manual Wheelchair	☐ ₂ Power Wheelchair	☐ ₃ Both manual and power wheelchairs, equally

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Basic Mobility

Please select the response that best describes your ability to do each activity WITHOUT help from another person but USING the equipment or devices you normally use (e.g., transfer boards, lifts, hospital bed).

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. Are you able to sit in a chair with a firm seat and a back when you can use your arms for support?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
2. Are you able to sit in a chair with a firm seat and a back, when you can't use your arms for support?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
3. When sitting, are you able to reach down to pick up a shoe from the floor while using one arm for support?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
4. Are you able to get out of a chair into bed?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
5. When transferring into bed, are you able to get your legs onto the bed?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
6. When sitting on the edge of my bed, I can lean forward to reach for something...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
7. When you are in bed, are you able to turn your lower body?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
8. When in my bed, I can roll from my back onto my belly...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
9. Are you able to get up off the floor from lying on your back without help?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
Total Raw Score						
Standardized (T-Scale) Score						

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

Basic Mobility Raw Score	T-Scale	Standard Error
0	31.97	5.43
1	35.85	4.31
2	36.74	4.09
3	38.33	3.78
4	39.4	3.58
5	41.15	2.96
6	41.98	2.82
7	42.9	2.61
8	43.75	2.41
9	44.61	2.16
10	45.29	2.05
11	45.94	1.94
12	46.54	1.86
13	47.11	1.81
14	47.66	1.77
15	48.18	1.75
16	48.7	1.74
17	49.21	1.73
18	49.73	1.74
19	50.24	1.74
20	50.77	1.75
21	51.3	1.76
22	51.84	1.78
23	52.4	1.8
24	52.97	1.83
25	53.58	1.87
26	54.21	1.91
27	54.89	1.97
28	55.61	2.03
29	56.38	2.11
30	57.22	2.22
31	58.16	2.37
32	59.23	2.63
33	60.28	2.69
34	61.66	2.86
35	63.75	3.21
36	68.48	4.81

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Self-Care: Tetraplegia

Please select the response that best describes your ability to do each activity WITHOUT help from another person but USING the equipment or devices you normally use (e.g., shower/bath adaptations, dressing devices).

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. When sitting up, are you able to bring your hand to your mouth?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
2. Are you able to wash your face with a washcloth?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
3. I can wash my hands at a sink with soap and water...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
4. Are you able to comb your hair?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
5. Are you able to dress your upper body?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
6. Are you able to wash and dry your body?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
7. Are you able to inspect your skin for breakdown?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
8. I can put on my socks...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
9. Are you able to cut your toe nails?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Total Raw Score						
Standardized (T-Scale) Score						

☐ Not Administered – this set of items is not applicable

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

Self-Care, Tetraplegia Raw Score	T-Scale	Standard Error
0	27.97	5.03
1	31.65	4.19
2	32.39	4.11
3	33.5	3.88
4	34.66	3.6
5	36.82	2.92
6	37.98	2.78
7	39.06	2.62
8	40.11	2.44
9	41.07	2.29
10	41.94	2.2
11	42.75	2.12
12	43.52	2.06
13	44.25	2
14	44.96	1.96
15	45.66	1.92
16	46.33	1.89
17	47	1.87
18	47.66	1.84
19	48.32	1.83
20	48.98	1.81
21	49.64	1.8
22	50.3	1.8
23	50.97	1.8
24	51.66	1.81
25	52.35	1.83
26	53.07	1.85
27	53.81	1.89
28	54.58	1.94
29	55.4	2
30	56.27	2.08
31	57.22	2.2
32	58.31	2.42
33	59.38	2.47
34	60.84	2.68
35	62.75	2.96
36	67.64	4.76

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Self-Care: Paraplegia

Please select the response that best describes your ability to do each activity WITHOUT help from another person but USING the equipment or devices you normally use (e.g., shower/bath adaptations, dressing devices).

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. I can put on my socks...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
2. Are you able to tie your shoelaces?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
3. Are you able to dress your lower body?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
4. Are you able to cut your toe nails?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
5. Are you able to pull on trousers? [Note to interviewer: This item refers to regular, NON-adaptive trousers.]	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
6. I can check the skin on my bottom...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
7. Are you able to inspect your skin for breakdown?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Check the box that is most like you.	No difficulty	A little difficulty	Some difficulty	A lot of difficulty	Can't do	
8. How much difficulty do you currently have cleaning yourself after a bowel movement?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
9. How much difficulty do you currently have pulling up and fastening your pants after a bowel movement?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Total Raw Score						
Standardized (T-Scale) Score						

☐ Not Administered – this set of items is not applicable

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Self-Care, Paraplegia Raw Score	T-Scale	Standard Error
0	36.67	5.39
1	42.16	3.22
2	43.38	3.11
3	44.75	2.79
4	45.85	2.52
5	46.85	2.2
6	47.64	2.06
7	48.35	1.94
8	48.99	1.85
9	49.58	1.78
10	50.14	1.73
11	50.66	1.68
12	51.17	1.65
13	51.65	1.63
14	52.13	1.61
15	52.59	1.6
16	53.05	1.59
17	53.51	1.59
18	53.96	1.59
19	54.42	1.59
20	54.88	1.59
21	55.35	1.6
22	55.82	1.61
23	56.31	1.62
24	56.81	1.64
25	57.32	1.66
26	57.85	1.68
27	58.41	1.71
28	59.01	1.75
29	59.64	1.8
30	60.33	1.87
31	61.1	1.96
32	61.99	2.15
33	62.91	2.2
34	64.17	2.44
35	65.84	2.75
36	70.09	4.39

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

Fine Motor Function: Tetraplegia

Please select the response that best describes your ability to do each activity WITHOUT help from another person but USING the equipment or devices you normally use (e.g., wrist/hand splints, cuff).

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. Are you able to make and receive calls on a cell phone?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
2. Using both of my hands together, I can turn the pages of a book...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
3. Are you able to pick up a small object (e.g. pack of gum)?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
4. Are you able to pick up a piece of paper?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
5. Are you able to open mail?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
6. Are you able to wring out a wet washcloth?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
7. I can turn the knob on a door...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
8. Are you able to remove something from your back pocket?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Total Raw Score						
Standardized (T-Scale) Score						

☐ Not Administered – this set of items is not applicable

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _

Fine Motor Function, Tetraplegia Raw Score	T-Scale	Standard Error
0	25.73	4.49
1	29.44	3.54
2	30.11	3.64
3	31.18	3.43
4	32.43	3.12
5	33.82	2.66
6	34.85	2.48
7	35.79	2.32
8	36.65	2.18
9	37.45	2.07
10	38.2	1.99
11	38.91	1.91
12	39.58	1.86
13	40.23	1.81
14	40.86	1.78
15	41.48	1.76
16	42.08	1.74
17	42.69	1.74
18	43.29	1.73
19	43.89	1.73
20	44.51	1.74
21	45.13	1.76
22	45.77	1.78
23	46.44	1.82
24	47.15	1.89
25	47.9	1.96
26	48.75	2.09
27	49.74	2.3
28	51.25	3.01
29	52.14	2.99
30	53.69	3.27
31	55.58	3.57
32	61.54	5.81

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Fine Motor Function: Paraplegia

Please select the response that best describes your ability to do each activity WITHOUT help from another person but USING the equipment or devices you normally use (e.g., wrist/hand splints, cuff).

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. Are you able to change the bulb in a table lamp?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
2. Are you able to remove something from your back pocket?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
3. Are you able to water a houseplant?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
Check the box that is most like you.	No difficulty	A little difficulty	Some difficulty	A lot of difficulty	Can't do	
4. How much difficulty do you currently have holding a screw and screwing it in tight with a manual screwdriver?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
5. How much difficulty do you currently have pounding a nail with a hammer to hang a picture?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
6. How much difficulty do you currently have removing wrappings from small objects?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
7. How much difficulty do you currently have opening medications or vitamin containers (e.g., childproof containers, small bottles)?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
8. How much difficulty do you currently have reaching behind your back to put a belt through a loop?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
Total Raw Score						
Standardized (T-Scale) Score						

☐ **Not Administered – this set of items is not applicable**

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Fine Motor Function, Paraplegia Raw Score	T-Scale	Standard Error
0	30.56	4.47
1	35.4	2.75
2	37.09	2.61
3	38.33	2.45
4	39.4	2.28
5	40.37	2.1
6	41.22	2
7	41.98	1.92
8	42.69	1.86
9	43.35	1.81
10	43.98	1.77
11	44.58	1.74
12	45.16	1.72
13	45.73	1.71
14	46.29	1.7
15	46.84	1.69
16	47.39	1.69
17	47.93	1.69
18	48.48	1.69
19	49.04	1.7
20	49.61	1.72
21	50.19	1.74
22	50.79	1.77
23	51.42	1.82
24	52.09	1.88
25	52.80	1.95
26	53.58	2.06
27	54.46	2.21
28	55.53	2.54
29	56.55	2.63
30	57.94	2.89
31	59.79	3.21
32	64.95	5.16

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

Ambulation

Please select the response that best describes your ability to do each activity WITHOUT help from another person but USING the equipment or devices you normally use (e.g., walker, cane, brace).

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. I can take a step with each foot...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
2. I can change direction by turning around while walking...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
3. Are you able to walk for 5 minutes outside?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
4. Are you able to go for a walk of at least 15 minutes?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
5. Are you able to jump up and down?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
6. Are you able to run or jog for 10 minutes?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Total Raw Score						
Standardized (T-Scale) Score						

☐ **Not Administered – this set of items is not applicable**

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Ambulation Raw Score	T-Scale	Standard Error
0	42.45	6.31
1	50.70	2.17
2	51.71	2.13
3	52.93	1.83
4	53.81	1.72
5	54.65	1.53
6	55.35	1.49
7	56.03	1.46
8	56.67	1.45
9	57.29	1.45
10	57.91	1.46
11	58.55	1.48
12	59.21	1.52
13	59.88	1.56
14	60.67	1.64
15	61.58	1.78
16	62.92	2.27
17	63.49	2.28
18	64.89	2.54
19	65.73	2.72
20	67.72	3.2
21	68.56	3.38
22	69.97	3.55
23	70.85	3.67
24	74.50	4.58

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

Manual Wheelchair

Please select the response based on your ability to do each activity WITHOUT any devices or equipment or help from another person.

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. From the floor, I can get into my manual wheelchair...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
2. I can stop my manual wheelchair...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
3. In my manual wheelchair, I can lock the brakes...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
4. I can push my manual wheelchair up a curb...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
5. I can push my manual wheelchair up a ramp...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
6. I can push my manual wheelchair in a busy hallway with a lot of people...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
7. Are you able to propel your wheelchair on a rough gravel driveway?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
8. I can put my manual wheelchair into the car...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
9. Are you able to get in and out of a car from a wheelchair?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
10. In my manual wheelchair, I can cross the street at a traffic light...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Total Raw Score						
Standardized (T-Scale) Score						

☐ Not Administered – this set of items is not applicable

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _ _

Manual Wheelchair Raw Score	T-Scale	Standard Error
0	31.30	4.75
1	35.78	3.18
2	36.92	3.11
3	37.99	3.00
4	39.07	2.82
5	40.21	2.52
6	41.07	2.41
7	41.89	2.31
8	42.68	2.22
9	43.42	2.14
10	44.13	2.09
11	44.80	2.04
12	45.46	2.00
13	46.09	1.97
14	46.71	1.95
15	47.32	1.93
16	47.92	1.91
17	48.52	1.91
18	49.11	1.90
19	49.70	1.90
20	50.28	1.90
21	50.87	1.91
22	51.46	1.92
23	52.06	1.93
24	52.66	1.95
25	53.27	1.98
26	53.89	2.00
27	54.52	2.04
28	55.17	2.08
29	55.83	2.12
30	56.52	2.18
31	57.25	2.25
32	58.01	2.33
33	58.81	2.41
34	59.69	2.52
35	60.66	2.65
36	61.88	2.96
37	62.95	3.06
38	64.37	3.27
39	66.01	3.46
40	70.20	4.77

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Power Wheelchair: Tetraplegia

Please select the response based on your ability to do each activity WITHOUT any devices or equipment or help from another person.

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. When sitting in my power wheelchair, I can put my feet on the foot plates...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
2. When sitting in your power wheelchair, are you able to lift a backpack from your lap and place it on a table?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
3. When sitting in my power wheelchair, I can bend forward to pick something off the floor...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
4. In my power wheelchair, I can lean forward to reach for something in front of me...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
5. In my power wheelchair, I can sit without losing my balance...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
6. For this question, hooking means to hold your arm to the wheelchair to keep your balance. I can hook my arm on my power wheelchair...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
7. Are you able to remove your seat cushion?	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
8. I can move my power wheelchair down a ramp...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
9. I can move my power wheelchair onto a power lift...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
10. In my power wheelchair, I can move on flat surfaces...	☐ ₄	☐ ₃	☐ ₂	☐ ₁	☐ ₀	
Total Raw Score						
Standardized (T-Scale) Score						

☐ Not Administered – this set of items is not applicable

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Power Wheelchair, Tetraplegia	T-Scale	Standard Error
0	21.16	5.18
1	23.27	5.19
2	23.62	5.11
3	24.55	5.12
4	26.10	5.23
5	27.32	5.02
6	28.13	4.90
7	29.23	4.77
8	30.66	4.65
9	31.57	4.60
10	32.32	4.44
11	33.27	4.26
12	34.44	4.07
13	35.50	4.02
14	36.18	3.92
15	37.02	3.76
16	38.07	3.54
17	39.33	3.28
18	40.08	3.22
19	40.87	3.14
20	41.70	3.02
21	42.60	2.86
22	43.34	2.80
23	44.11	2.73
24	44.85	2.68
25	45.57	2.62
26	46.29	2.60
27	47.02	2.58
28	47.75	2.58
29	48.42	2.56
30	49.16	2.59
31	49.93	2.64
32	50.79	2.80
33	51.40	2.73
34	52.30	2.84
35	53.34	3.02
36	55.27	4.00
37	55.03	3.38
38	56.32	3.62
39	58.02	3.87
40	63.25	5.55

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Power Wheelchair: Paraplegia

Please select the response based on your ability to do each activity WITHOUT any devices or equipment or help from another person.

Check the box that is most like you.	Without any difficulty	With a little difficulty	With some difficulty	With much difficulty	Unable to do	Item Score
1. When sitting in my power wheelchair, I can put my feet on the foot plates...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
2. When sitting in your power wheelchair, are you able to lift a backpack from your lap and place it on a table?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
3. When sitting in my power wheelchair, I can bend forward to pick something off the floor...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
4. After reaching the floor, I can come back up to sit in my power wheelchair...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
5. In my power wheelchair, I can lean forward to reach for something in front of me.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
6. For this question, hooking means to hold your arm to the wheelchair to keep your balance. I can hook my arm on my power wheelchair...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
7. In my power wheelchair, I can sit without losing my balance...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
8. Are you able to remove your seat cushion?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
9. Are you able to remove your wheelchair armrests?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
10. In my power wheelchair, I can move on flat surfaces...	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	
Total Raw Score						
Standardized (T-Scale) Score						

☐ **Not Administered – this set of items is not applicable**

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

Power Wheelchair, Paraplegia	T-Scale	Standard Error
Raw Score		
0	25.64	5.56
1	28.71	5.28
2	28.65	5.15
3	29.40	4.89
4	31.56	4.52
5	33.48	4.35
6	33.98	4.26
7	34.72	4.08
8	35.81	3.79
9	37.76	3.24
10	38.48	3.19
11	39.24	3.11
12	40.05	2.96
13	41.06	2.69
14	41.73	2.61
15	42.44	2.52
16	43.11	2.44
17	43.75	2.36
18	44.35	2.31
19	44.94	2.26
20	45.50	2.22
21	46.05	2.19
22	46.59	2.17
23	47.12	2.16
24	47.65	2.15
25	48.18	2.14
26	48.71	2.15
27	49.25	2.17
28	49.80	2.19
29	50.33	2.21
30	50.93	2.25
31	51.54	2.32
32	52.23	2.45
33	52.77	2.43
34	53.56	2.55
35	54.44	2.71
36	55.99	3.49
37	55.97	3.08
38	57.18	3.28
39	58.72	3.49
40	63.94	5.36

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

G. Techonology Use

These next questions ask about how you use technology.

[DEM_G1] use

Which of the following device/devices do you use?

(mark all that apply)

- 1 Cell phone / flip phone
- 2 Smartphone (can access the internet)
- 3 Portable Media Player (iPod, Kindle Fire, Smart TV, Alexa, etc.)
- 4 Tablet/iPad
- 5 Laptop/Computer
- 6 Other, Unclassified → **Complete [DEM_G1a]**
- 77 Don't know
- 88 N/A does not use technology → **END QUESTIONNAIRE**
- 99 Refused

[DEM_G1a] use_oth

Please specify other device used: _____

[DEM_G1b] primdev

Which device do you use most often?

- 1 Cell phone / flip phone
- 2 Smartphone (can access the internet)
- 3 Portable Media Player (iPod, Kindle Fire, Smart TV, Alexa, etc.)
- 4 Tablet/iPad
- 5 Laptop/Computer
- 6 Other, Unclassified
- 77 Don't know
- 88 N/A does not use technology
- 99 Refused

[DEM_G1b1] primdev_oth

Please specify other device used: _____

Interviewer, for the remaining questions replace the [device] with the type of device that was identified in DEM_G1a

[DEM_G1c] develop

Do you need help from another person to use the [device]?

- 1 Yes → **Complete [DEM_G1c1]**
- 0 No → **Skip to [DEM_G1d]**
- 77 Don't know
- 88 N/A, does use technology
- 99 Refused

ID NUMBER: _ _ _ _

Date: _ _ / _ _ / _ _ _ _

Interviewer: _ _

[DEM_G1c1] devhlp_amt

How much assistance do you need?

- 1 Little (e.g. setting up the device)
- 2 Moderate (e.g. opening applications)
- 3 A lot (e.g. guidance)
- 4 Completely dependent
- 77 Don't know
- 88 N/A, does not use technology

[DEM_G1d] astdevuse

Do you use an assistive device to operate your [device]?

- 1 Yes → **Complete [DEM_G1d1-2]**
- 0 No → **Skip [DEM_G2]**
- 77 Don't know
- 88 N/A, does not use technology
- 99 Refused

[DEM_G1d1] astdev

Which of the following assistive devices do you use to operate a your [device]? You may choose up to 5. (read list)

- 0 No assistive devices
- 1 Brace or Splint
- 2 Modified or onscreen keyboard
- 3 Adapted Mouse
- 4 Trackball
- 5 Bluetooth Joystick
- 6 Speech recognition
- 7 Head pointing infrared device/technology
- 8 Other, unclassified
- 9 Eye tracking device
- 77 Don't know
- 88 N/A, does not use a computer
- 99 Refused

[DEM_G1d2] astdev_freq

Which assistive device do you use most frequently? _____

[DEM_G2] internet

Do you use the internet?

- 1 Yes → **Complete [DEM_G2a-c]**
- 0 No → **Skip to [DEM_G6]**
- 77 Don't know
- 99 Refused

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

[DEM_G2a] intnthlp

Do you need help from another person to access the internet?

- 1 Yes → **Complete [DEM_G2a1]**
- 0 No → **Skip to [DEM_G2b]**
- 77 Don't know
- 88 N/A, does not access the internet
- 99 Refused

[DEM_G2a1] inthlp_amt

How much assistance do you need?

- 1 Little (e.g. setting up the device)
- 2 Moderate (e.g. opening applications)
- 3 A lot (e.g. guidance)
- 4 Completely dependent
- 77 Don't know
- 88 N/A, does not access the internet

[DEM_G2b] devinter

Which device(s) do you use to access the internet?

Mark all that apply

- 1 Smartphone (can access the internet)
- 2 Portable Media Player (iPod, Kindle Fire, Smart TV, Alexa, etc.)
- 3 Tablet/iPad
- 4 Laptop/Computer
- 5 Other, Unclassified
- 77 Don't know
- 88 N/A does not access the internet
- 99 Refused

[DEM_G2b1] devinter_oth

Please specify other device used: _____

[DEM_G2c] intprimdev

Which of the following devices do you primarily use to access your email or the internet?

- 1 Smartphone (can access to internet)
- 2 Portable Media Player (iPod, Kindle Fire, Smart TV, Alexa, etc.)
- 3 Tablet/iPad
- 4 Laptop/Computer
- 5 Other, Unclassified → **Complete [DEM_G2c1]**
- 77 Don't know
- 88 N/A, does not access the internet
- 99 Refused

[DEM_G2c1] intprimdev_oth

Please specify other device used: _____

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_G3] intaces

Do you access email or the internet daily, weekly, monthly or not at all?

- 1 Uses a computer but never uses the internet and never uses email
- 2 Daily (5-7 Days every week of the month)
- 3 Weekly (less than 5 days per week and more than 3 days per month)
- 4 Monthly (3 days or less per month)
- 77 Don't know
- 88 N/A, does access the internet
- 99 Refused

[DEM_G4] inttme

On average, how many hours per day do you spend on the internet (across all devices)?

- 1 0-2 hours
- 2 2-4 hours
- 3 4-6 hours
- 4 6+hours
- 77 Don't know
- 88 N/A, does not access the internet
- 99 Refused

ID NUMBER: _ _ _ _ _

Date: _ _ / _ _ / _ _ _ _ _

Interviewer: _ _

[DEM_G5] interreas

What do you access the internet for?

	Yes [1]	No [0]	Don't know [77]	N/A, does not access internet [88]	Refused [99]
[DEM_G5a] ssa <i>Log into my Social Security Account</i>	☐	☐	☐	☐	☐
[DEM_G5b] sma <i>Log into my Social Media Accounts and online forums (e.g. Facebook, Instagram, act.)</i>	☐	☐	☐	☐	☐
[DEM_G5c] purch <i>Make purchases (e.g. clothing purchases, houseware purchases etc.)</i>	☐	☐	☐	☐	☐
[DEM_G5d] bank <i>Perform banking or financial transactions (e.g. wiring money, opening new accounts etc.)</i>	☐	☐	☐	☐	☐
[DEM_G5e] gps <i>Get directions or traffic info (e.g. GPS)</i>	☐	☐	☐	☐	☐
[DEM_G5f] health <i>Track health or fitness via apps or websites</i>	☐	☐	☐	☐	☐
[DEM_G5g] medcare <i>Manage or receive medical care</i>	☐	☐	☐	☐	☐
[DEM_G5h] voiceasst <i>Use a voice activated assistant</i>	☐	☐	☐	☐	☐
[DEM_G5i] classweb <i>Take classes, webinars or read/watch tutorials</i>	☐	☐	☐	☐	☐
[DEM_G5j] rate <i>Review, rate or comment on products, services or stores</i>	☐	☐	☐	☐	☐
[DEM_G5k] apps <i>Download or purchase apps</i>	☐	☐	☐	☐	☐

ID NUMBER: _ _ _ _ _

Date: _ _ _ / _ _ _ / _ _ _ _ _

Interviewer: _ _

	Yes [1]	No [0]	Don't know [77]	N/A, does not access internet [88]	Refused [99]
[DEM_G5l] newsent <i>Access news, entertainment or informative sites</i>	☐	☐	☐	☐	☐
[DEM_G5m] emailim <i>Read and send emails/IMs</i>	☐	☐	☐	☐	☐
[DEM_G5n] sendph <i>View and send photos</i>	☐	☐	☐	☐	☐
[DEM_G5o] vidchat <i>Video/Audio chat with family and friends</i>	☐	☐	☐	☐	☐
[DEM_G5p] game <i>Games</i>	☐	☐	☐	☐	☐
[DEM_G5q] work <i>For work related activities</i>	☐	☐	☐	☐	☐
[DEM_G5r] wrdproc <i>For word processing (e.g. Google Docs)</i>	☐	☐	☐	☐	☐
[DEM_G5s] watchvideo <i>Watching Videos and TV Shows (e.g. Netflix, Hulu, YouTube etc.)</i>	☐	☐	☐	☐	☐
[DEM_G5oth] Other <i>Please specify other reasons for accessing the internet</i>					

ID NUMBER: _____

Date: ____/____/____

Interviewer: ____

The next set of questions are going to ask you about your opinions towards using the device that you like to use most often. As you recall you stated that it was [device from G1a]

[DEM_G6] devopn

	Not at all [1]	A little [2]	Some [3]	A lot [4]	Don't know [77]	N/A, does not use technology [88]	Refused [99]
[DEM_G6a] I like using my [device]	☐	☐	☐	☐	☐	☐	☐
[DEM_G6b] I'm afraid of using my [device]	☐	☐	☐	☐	☐	☐	☐
[DEM_G6c] I think using my [device] is very difficult	☐	☐	☐	☐	☐	☐	☐
[DEM_G6d] I think my [device] makes my life easier	☐	☐	☐	☐	☐	☐	☐
[DEM_G6e] devopn5 I'm worried about messing up my [device]	☐	☐	☐	☐	☐	☐	☐
[DEM_G6f] devopn6 I think it's too hard to control what my [device] does	☐	☐	☐	☐	☐	☐	☐
[DEM_G6g] devopn7 It's easier to learn new things by using my [device]	☐	☐	☐	☐	☐	☐	☐
[DEM_G6h] devopn8 Using my [device] allows me to interact with family and friends	☐	☐	☐	☐	☐	☐	☐

Triangle of Healthy Caregiving for Spinal Cord Injured Veterans
Phase 3: Semi-structured interview

DATE: __ __/__ __/__ __ __ __

INTERVIEWER: __ __

Opening Statement (Reminders and Objective)

Thank you for agreeing to participate in this research project. I'm [NAME] and I will be facilitating our conversation. This is [NAME] who will be our co-facilitator today she will be helping us by taking notes throughout the interview. Before we start, I'd like to review a few things:

At this VA SCI center, we offer clinical video technology (CVT), to our SCI Veterans and their caregivers. The objective of this interview is to learn about your experiences and perspectives using clinical video technology.

As a reminder, CVT uses videoconferencing technologies for SCI Veterans and their Caregivers to connect with their clinical providers. You may be using other technologies as part of the SCI Virtual Health Care Program, such as MyHealthVet and Secured Messaging, but for this study we are focusing only on the clinical video technology (CVT). We know that access to healthcare when living with an SCI can be difficult depending on transportation and other issues and this can negatively impact our SCI Veterans and their families.

This interview will help us understand your opinions about the ways the VA Clinical video technology affects your access to healthcare resources for SCI Veterans. We will talk about the ways this technology can help manage your daily needs, access resources, medical care and rehabilitation.

There are no right or wrong answers. It is really important that you express yourself openly. We want to learn about your experiences using VA CVT. We will audio-record this session to ensure accuracy in writing up our report. Your responses will not be linked with your name because what is shared within this interview is confidential and private.

We are pleased that you have taken the time to speak with us today.

Before we begin, do you have any questions?

OK, I'm going to start the recorder now.

If you've changed your mind and are no longer comfortable being recorded, we would ask you to please let us know at this time. Thank you.

[INTERVIEWER: TURN ON AUDIOTAPE]

[INTERVIEWER PROBES TO ALL OPEN-ENDED QUESTIONS:

**"Please tell me more about that" "And then what?" "How did that happen?" and "Anything else?"
Use sub-questions and probes following each open-ended question to elicit more detail from the respondent.]**

DATE: __ __ / __ __ / __ __ __ __

INTERVIEWER: __ __

Interview Questions

1. Tell me how you first learned about clinical video technology here at the VA?
 - a. [PROBE] Do you recall the person who introduced clinical video technology to you?
 - b. How did they pitch the idea to you about using CVT?
 - c. Why did you think you wanted /did not want to use CVT?
 - d. Do you recall the first time you interacted with the VA team using CVT?
 - e. Why do you think that you were approached with this technology?
2. How familiar were you with the CVT equipment (and technology) when you first started using clinical video technology?
 - a) If participant has used multiple VA devices, [ask] participant to compare their experiences accessing care across the different devices.
3. Who do you contact to schedule clinical appointments?
 - a) What is the logistics? How do you set up clinical appointments?
 - b) [PROBE] How do you set up your CVT appointments?
 - c) What are some of the challenges you face?
4. Tell me about your experience using clinical video telehealth with the interdisciplinary team at VANJHCS
 - a. What kind of device do you use when you are accessing clinical video telehealth (e.g., cell phone; iPad; computer)?
 - i. What do you like about the device that you use to access clinical video telehealth?
 - ii. What would like to change about the device that you use when you access clinical video telehealth?
 - b. Who do you usually contact when you use the VA clinical video telehealth device?
 - c. Why do you usually use VA clinical video telehealth system?
 - i. Wound care
 - ii. Bladder care
 - iii. Bowel care
 - iv. Social services issues
 - v. Education of family or paid caregiver
 - vi. Other reasons (e.g., counseling/therapy)
 - d. Which other disciplines at VA New Jersey do you see using CVT outside of the SCI Team?
 - i. Do you initiate these visits or does the provider?

Triangle of Healthy Caregiving for Spinal Cord Injured Veterans
Phase 3: Semi-structured interview

DATE: __ __/__ __/__ __ __ __

INTERVIEWER: __ __

- ii. [PROBE] Is it the SCI providers that initiate these visits or does the non-SCI provider initiate this visit?
 - e. How long have you been using the device?
 - f. How long did it take you to get comfortable with using the device?
 - g. When did you officially start using VA equipment or your own personal equipment (e.g., cell phone)?
 - h. Do you use CVT with providers outside of VA New Jersey?
 - i. [PROBE] Which specific clinical providers?
 - i. How often do you use CVT?
 - i. Who initiates the CVT visit? You or the SCI team?
 - ii. How many times have you initiated CVT in the last 3 months?
 - iii. Do you see the important value on you having CVT?
 - iv. [PROBE] Percentage of veteran initiated vs SCI team initiated
- 5. What do you like the about using the clinical video telehealth system?
 - a. Transportation
 - b. Clinical care
 - c. Easy access to care/Convenience
 - d. Cost
 - e. Other
- 6. Have you had any difficulty using the clinical video telehealth?
- 7. What strategies do you use to help you troubleshoot any problems that you may have with the clinical video telehealth system?
- 8. Do you have any recommendations to new SCI Veterans or their caregivers who may be starting to use the clinical video telehealth system?
 - a. At what point in an SCI Veteran's care is the best time to have a conversation about clinical video telehealth?
 - b. Who do you think would be the best person or people to walk you through this process?
 - c. What information do you think is important for them to tell patients and caregivers before they start to use clinical video telehealth?
 - d. What should they know about signing up and getting enrolled in clinical video telehealth?
 - e. What can we do better?

Triangle of Healthy Caregiving for Spinal Cord Injured Veterans
Phase 3: Semi-structured interview

DATE: __ __/__ __/__ __ __ __

INTERVIEWER: __ __

9. How do you feel about involving your caregivers in your CVT care via the triangle of Healthy Caregiving?
10. How do you feel about incorporating CVT into your clinical care?

DATE: __/__/____

INTERVIEWER: __ __

[REFUSERS patients who refused to be enrolled in CVT]

Ref.1 For those who refused, why?

Ref. 2 Do you use technology in other areas of your life? (e.g. accessing internet, smart phones)

a. If Yes

- a. Do you have any difficulty or problems accessing the internet?
- b. What difficulties do you encounter using your devices?

b. If No

- a. Why don't you use technology?
- b. Do you see a value in using technology in your life?
- c. What are barriers you face with using technology?

Ref. 3 Do you use MyHealtheVet, Secured Messaging or Home telehealth?

- a. [PROBE MHeV] What do you primarily use it for?
- b. What benefits do you find with using these services?
- c. What are some of the disadvantages of using these services?

What are some of the factors that impact veteran and caregiver use of CVT?

[PROBE] Do you think [factors] is a factor?

[FACTORS]

Age
Privacy
Cost
Convivence
Personal touch

How do you feel that the healthcare team could better consider age as a factor when including CVT into your healthcare?

If yes, how so?

If yes, what suggestions do you have for the healthcare providers?

J. Wrap Up

Triangle of Healthy Caregiving for Spinal Cord Injured Veterans
Phase 3: Semi-structured interview

DATE: __ __/__ __/__ __ __ __

INTERVIEWER: __ __

[elscom]

J.1. Is there anything else you would like to tell us about using clinical video teleconferencing at the VA?

Session Description

Spinal cord injury (SCI) can be a devastating and disabling medical condition with significant impact on the health and quality of life of those living with SCI and their caregivers. Additionally, access to care can be very challenging. The “Triangle of Healthy Caregiving” is a patient-centered model of care built upon the value of a fluid exchange of communication between the patient, provider and their family caregiver to promote a seamless delivery of healthcare. This care extends directly into the patients’ home using clinical video technology. After our presentation, participants will understand the potential benefits of utilizing a similar intervention at their own institutions. Our presentation will share the voices of the clinicians, caregivers and veterans involved with the intervention. By the end of our presentation, participants will be capable of implementing key elements of this intervention to provide a seamless care experience for patients and caregivers at their institutions.

Learning Objectives

1. Understanding the importance of increasing access to rehabilitative care for the SCI/D veterans and their caregivers
2. Understanding the voices of the veterans, caregivers and clinicians currently involved in the “Triangle of Healthy Caregiving for SCI Veterans” intervention.
3. Understanding the benefits of CVT as a patient-centered intervention to improve access to clinical rehabilitation in the homes of SCI patients and their caregivers.

2019 HSR&D/QUERI National Conference, “Innovation to Impact: Research to Advance VA’s Learning Healthcare Community” (late July, pending meeting approval) metro DC or Baltimore area

Abstract DRAFT (350 word limit)

Title:

Effectively Addressing Challenges for Successful Implementation of Healthcare Delivery Using Clinical Video Technology (CVT) at a VA SCI/D Center

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Objectives

The goal of this presentation is to highlight the challenges and tools that can be developed to successfully implement CVT in healthcare systems. VA New Jersey Health Care System's (VANJHCS) Spinal Cord Injury & Disorders (SCI/D) SCI healthcare team (HCT) is one of the leading SCI/D Centers in the use of CVT to deliver healthcare to veterans and their caregivers via their model of care called "The Triangle of Healthy Caregiving".

Methods

This qualitative study was designed to conduct in-depth interviews with telehealth coordinators, observations of CVT enrollment and installation and a focus group with SCI interdisciplinary rehabilitative care team.

Results

Preliminary findings indicate the complexities of coordinating a successful CVT program with SCI Veterans and their caregivers. The need to develop implementation tools to assist with troubleshooting challenges before, during and after CVT enrollment, installation and encounters were highlighted across telehealth coordinators, SCI Veterans, caregivers and healthcare team. The benefits of CVT in the delivery of SCI/D care were also described, including: 1) improve accessibility by SCI Veterans and their caregivers to address issues in a timely fashion; 2) provide caregivers with timely educational and support services.

Conclusions

CVT is a useful critical clinical tool that is integral to the delivery of care for SCI Veterans and caregivers and as well as overall clinical workflow for the SCI/D clinical team. Troubleshooting enrollment and installation issues takes up a large proportion of clinical telehealth coordinator time before, during and after encounters. Tools needed to address the challenges of troubleshooting will help facilitate delivery of seamless care and reduce burden on the telehealth coordinators, clinical providers and veterans.

Impacts

The "Triangle of Healthy Caregiving for SCI Veterans" builds on interactive, inter-disciplinary healthcare relationships that exist between the SCI Veteran, their caregivers, and the VA SCI HCT. SCI Veterans' propensity to multiple secondary complications makes a healthy partnership crucial for the success of keeping better health, functional outcomes, and overall QOL while living in their homes.

Identifying Unspoken Challenges of Using Clinical Video Technology for SCI Veterans & Caregivers

Measurable Learning Objectives

1. Upon completion, participants will be to describe steps involved in the enrollment and installation of CVT for Veterans living with SCI/D and their Caregivers from VA to their homes.
2. Upon completion, participants will be able to understand the challenges and possible solutions associated with successful implementation of CVT to Veterans living with SCI/D and their Caregivers in their homes
3. Upon completion, participants will be able to understand the complexities of healthcare delivery using CVT to SCI/D Veterans and their Caregivers.

Objective

To examine the benefits and challenges of implementing clinical video technology (CVT) as a patient-centered intervention to improve access to clinical rehabilitation in the homes of Veterans living with an SCI and their Caregivers.

Design

This cross-sectional qualitative study conducted in-depth interviews with telehealth coordinators, observations of the installation and enrollment of Veterans living with an SCI in VA clinical video technology (CVT) and a focus group with SCI interdisciplinary rehabilitative care team.

Setting

Interviews, observations and focus group were conducted at VA New Jersey Healthcare Service SCI/D Center.

Participants (or Animals, Specimens, Cadavers)

Two telehealth coordinators were interviewed; 15 Veterans who are living with an SCI and 2 caregivers were recruited to participate in the observations of their enrollment and installation of CVT; 10 SCI rehabilitation providers participated in a focus group.

Interventions

Not applicable.

Main Outcome Measure(s)

Telehealth coordinator interviews were summarized to capture the steps involved before, during and after the enrollment and installation of CVT to home for Veterans and their Caregivers. Observation data were coded to identify facilitators and barriers of enrollment and installation of CVT. Focus group discussions captured key elements of healthcare delivery using CVT to home by SCI providers.

Results

Preliminary findings indicate the complexities of coordinating a successful CVT program with SCI Veterans and their caregivers. The need to develop implementation tools to assist with troubleshooting challenges before, during and after CVT enrollment, installation and encounters were highlighted across telehealth coordinators, SCI Veterans, caregivers and healthcare team. The benefits of CVT in the delivery of SCI/D care were also described, including: 1) improve accessibility by SCI Veterans and their caregivers to address issues in a timely fashion; 2) provide caregivers with timely educational and support services.

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CVT is a useful critical clinical tool that is integral to the delivery of care for SCI Veterans and caregivers and as well as overall clinical workflow for the SCI/D clinical team. Troubleshooting enrollment and installation issues takes up a large proportion of clinical telehealth coordinator's time before, during and after encounters. Tools needed to address the challenges of troubleshooting will help facilitate delivery of seamless care and reduce burden on the telehealth coordinators, clinical providers and veterans.