



INTEGRATION OF VIRTUAL CARE SERVICES INTO A VA SPINAL CORD INJURY & DISORDERS SYSTEM OF CARE: HUB & SPOKES NETWORK

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BACKGROUND:

Spinal Cord Injury /Disorders (SCI/D) patients often have complex medical and psychosocial health care needs. Health care may consist of rehabilitative (after initial injury), medical-surgical (i.e. pressure injury management, neurogenic bowel and bladder management, spasticity etc.) behavioral (individual/family), and vocational support.

Additionally, there are care management challenges in this population which include:

- A) Limited availability of Specialized Care in community settings, notably in rural areas
- B) Majority of SCI/D trained clinicians practice at medical centers, usually located in large cities.
- C) Primary/other providers may not be comfortable in provision of care for patients with SCI/D
- D) Facility's physical environments may not be optimal in accommodating powered or manual chair mobility devices. With these limitations, veterans are not interested to establish primary/continuity care services in residing community and travel several hours and sometimes hundred of miles for their desired care.

To solve this problem, the VA SCI&D system of care created a Hub and Spokes Model that can help coordinate the care of our veterans in the community.

MODEL:

Veterans Affairs (VA) SCI&D Hub [Specialty] & Spoke [Primary] Care Models:

- Interprofessional Practice (IP) Specialists at Hub coordinate with dedicated local providers at Spokes Facilities to provide integrated health care including wellness-illness continuum.
- Goal: consistent, uniformed, efficient, enhanced- quality, improved agile healthcare¹.
- Richmond Network: McGuire VA Medical Center (Richmond, VA) serves as Hub Center for 14 participating Spoke Facilities in the Mid -Atlantic region.

Virtual Care Services Offered:

- Clinical Video Telehealth- Modality: Facility- to- Facility & Home/Mobile Video Service - Brings Specialist to Primary Provider at Spoke Site & Veterans Home Setting
- Electronic -Consultation (E-Consults) & Interfacility Consults – utilized for Pre-Admission Screening; Transition of Care – communicate updates to health care treatment plans during patient's acute care stay & return to community
- Store and Forward- Pressure Injuries Digital Images, are captured by Patient Site or Client/ Caregiver and uploaded into Electronic Health Record for Review by Wound Specialty Team.
- Secure Messaging (Patient Portals) - bidirectional information exchange patient and provider, for care planning, visit summaries, bladder /bowel/spasticity diary worksheets sent, home evaluation, pre-visit health history data collection.

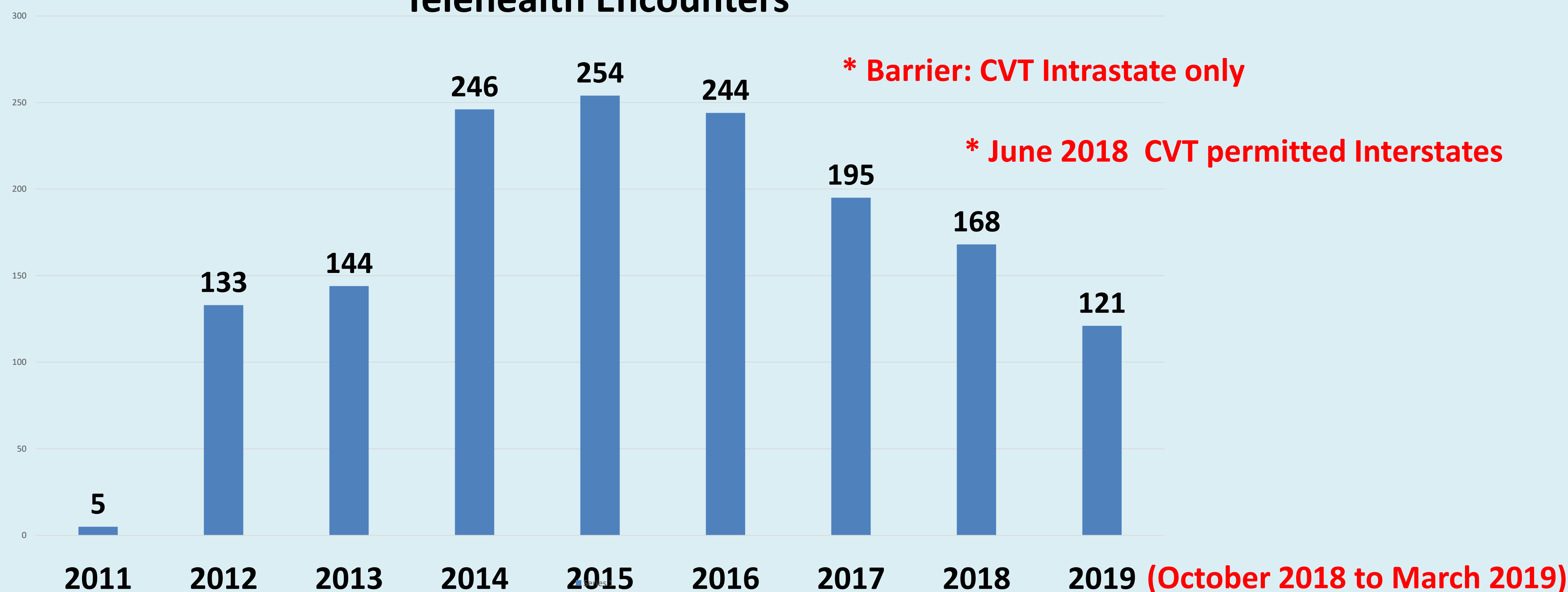
RESULTS:

Initial data revealed an increase in utilization of Telehealth since 2011. Our observation:

- Facilitated communication between Hub and Spokes providers which led to improved care coordination when veterans return in the community.
- Improved timeliness of services rendered in the community since team identifies the needs prior to veteran's return in the community. However, further observation and data analysis remains a continued commitment.
- Although this doesn't replace a face to face encounter, our team embraced this technology in our Hub and spokes network of care.

Reference: Elrod, J. K., & Fortenberry, J. L. (2017). The hub-and-spoke organization design revisited: a lifeline for rural hospitals. *BMC health services research*, 17(Suppl 4), 795. doi:10.1186/s12913-017-2755-5

Telehealth Encounters



NON-VA CENTER - New SCI / Provider

CVT (Veteran's computer)
Secure Messaging

Preadmission Planning:

- Identify rehab goals and needs
- Set expectations on what we can offer
- Meet the Team prior to transfer.

Community Based Outpatient Clinic

Patient/PCP

E Consult
CVT

- Care coordination
- Follow-up

VA SCI CENTER
Specialty Care

SCI SPOKE

Patient and PCP/Local SCI

E Consult
CVT
Store & Forward

- Consultation
- Preadmission Planning
- Admission and Discharge
- 3 month Post-Rehab Follow-up
- Specialty follow-up

HOME: Patient & Caregiver

E Consult
CVT
Store & Forward
Secure Messaging

- Assess Rehab needs
- Preadmission Planning
- Follow-up:
 - 3 month post rehab
 - Spasticity/Bladder/Bowel Diaries/Wounds
- Home Care: RN with IPAD in home → SCI Provider/ Pharmacy /Rehab / Respiratory/Nursing/ Nutrition/Psychology
- Multiple Sclerosis/Amyotrophic Lateral Sclerosis

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