

**YEAR:** FY2021 **PROJECT TITLE:** National Teleneurology Program (NTNP) **OBJECTIVE:** Teleneurology is a patient-centered, innovative approach to expanding timely access to ambulatory neurological care to rural Veterans by developing a national teleneurology program to support medical centers' outpatient neurology needs.

## INTERVENTION

- Target spoke facilities: VA Medical Centers (VAMC) that have no or insufficient neurology services and serve a large proportion (>50%) of rurally residing Veterans (as per the Rurality calculator).
- NTNP outpatient care system providing both longer term and interim (gap coverage) neurological services to spoke facilities/CBOCs including: 1) video telehealth consultation and follow-up visit in the ambulatory neurological care setting (both at VAMCs and CBOCs) or the Veterans' homes; 2) E-Consults from spoke VAMC providers for post-stroke/TIA specific questions; 3) Nurse Education Consultation and follow-up for headache (including Whole Health principles); 4) Outpatient ambulatory tele-EEG services; 5) Pilot of interim coverage for urgent questions (Wilmington, DE).
- Additional program enhancements to address identified neurological care resource needs in FY21 included a patient education nurse clinic for headache pilot and neurology brownbag series provided by Teleneurologists based on topics chosen by spoke sites.



## STRATEGIES

**REACH (PATIENT) –**

- Audit and provide feedback – Quarterly quantitative data to NTNP leadership and to sites; post-implementation check-ins.
- Develop and organize quality monitoring systems – Use VA Central Data Warehouse (CDW) administrative data to track program-, site-, and Veteran-level metrics.

**ADOPTION (PROVIDER/SETTING) –**

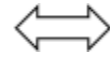
- Develop and organize quality monitoring systems - Tracked utilization of available NTNP clinic slots at participating facilities using a Veterans Integrated Service Network Support Services Center (VSSC) report.
- Purposely reexamine the implementation/Identify early adopters - Early Implementation Interviews (EIs) with site staff 3 months post-implementation asked about adoption by clinical/administrative staff.
- Promote adaptability - Sites adapted existing processes to adopt program.
- Facilitation/Audit and provide feedback - NTNP/Eval team were responsive to site-identified barriers & strategies (e.g., feed back data to sites) to increase adoption locally.

**IMPLEMENTATION (PROVIDER/SETTING) –**

- Develop a formal implementation blueprint – Created Implementation Plan in the form of a standard checklist (see Appendix F).
- Assess for readiness and identify barriers and facilitators – Measured sites' progress on and completion of pre-implementation activities during weekly calls, updated Implementation Plan as needed.
- Capture and share local knowledge – Collected feedback on first 3 months of implementation in EIs with spoke site staff (e.g., facility leadership, administrators, telehealth staff, schedulers, referring providers; see next point).
- Purposely reexamine the implementation/Tailor strategies – NTNP leadership reviewed site Early Implementation Summaries; NTNP interviews identified implementation barriers/facilitators, adaptations, and resource investments employed to address challenges at spoke sites.

**MAINTENANCE (IND + PROVIDER/SETTING) –**

- Purposely reexamine the implementation – Monitor utilization data to detect changes and adjust scheduling as needed; EIs and quarterly check-in calls with sites post-implementation to discuss maintenance.
- Conduct education meetings - Site teams suggested follow-up meetings at sites to reintroduce program to local staff.



## OUTCOMES

**REACH (PATIENT) –**

- In FY21, NTNP completed 836 initial neurology consults for 820 unique patients at 12 sites, 58.1% were for rural Veterans.
- 5,700 community care neurology (CCN) consults completed at 12 sites.
- Top 3 provisional diagnosis categories for NTNP referrals were headache (24.2%), movement disorder (16.3%), & (neurologic) symptoms (14.8%).
- TN consult patients were slightly younger (59 vs. 62 years, p < 0.001) & more likely to be female (15% vs. 12%, p = 0.03) than CCN patients.

**ADOPTION (PROVIDER/SETTING) –**

- As of 9/2021, NTNP was active in 12 VAMCs.
- At 10/12 sites, 90% of slots offered were scheduled at the end of FY21; 2/10 are working with NTNP to address adoption barriers (e.g., provider awareness of the program, scheduling practices).
- Barriers: Differences in referral consultation processes across sites and the need to create new or modify existing processes to integrate NTNP referrals.
- Facilitator: perceived need for increased access to Veteran neurology care at the site-level.
- Eval team shared quarterly reports based on site feedback that utilization/outcomes data would facilitate adoption by local staff.

**IMPLEMENTATION (PROVIDER/SETTING) –**

- Facilitators: Support from NTNP leadership & provision of organized information to sites; virtually embedded teleneurologists at sites alleviated inefficiencies of interfacility consults and improved communication and continuity of care; creation of site-specific Teams channels; team-building among clinical members through TN team activities and a clear shared purpose.
- Barriers: New system-wide telehealth scheduling software complicated implementation, requiring tech. support across sites; lack of space & staff shortages to facilitate video telehealth appointments at some sites.
- Variation across sites: Proportion of NTNP consults completed via video telehealth ranged from 2.7% (Boise) to 90.9% (Huntington).

**MAINTENANCE (IND + PROVIDER/SETTING) –**

- All sites plan to continue NTNP and view it as sustainable once initial implementation and integration is completed.
- Lack of staff/space to facilitate video telehealth appointments is a concern for site sustainability.
- Pre-/post-implementation trend data to be reported in FY22. (see pg 2)



## PRIMARY EFFECTIVENESS OUTCOMES

- Effectiveness outcomes were measured by assessment of 1) time to schedule and complete consultations (CDW data), 2) Veteran experience and satisfaction (phone interviews, surveys), and 3) referring provider experience and satisfaction (surveys).
- TN was significantly faster than CCN to schedule consults (mean 8.5 vs. 26.9 days, p < 0.001) and complete consults (mean 40.0 vs. 89.5 days, p < 0.001).
- Veterans had high satisfaction with NTNP and would recommend NTNP to another Veterans (both measured mean 6.3 on 1-7 scale).
- Veterans reported positive technical and communication experiences (82-90% agreed/strongly agreed, across relevant items) and that telehealth reduced distance to needed care (75% agreed/strongly agreed).
- Veteran reports of whether they were offered a choice of TN (vs. other local care options including CCN) ranged from 10% (Black Hills) to 77% (Boise).
- Referring providers reported high ratings (scale 1-10) to 3 key questions on whether the consult addressed their question (site-level mean ranged from 7.9-10.0), had a clear plan (range 8.1-9.7), and their overall satisfaction (range 8.1-9.6).

## **CROSS-CUTTING ISSUES AND CONTEXT**

- Difficulties implementing a new telehealth scheduling package (TMP) that was unrelated to NTNP affected initial program start-up. The complexity and variation in both consult management and scheduling processes was surprising, both between sites and within a given site, despite VHA system-wide efforts to standardize the referral coordination process via the Referral Coordination Initiative (RCI) and other national directives. This variation represented most of the challenges in the program's first year and continues to impact NTNP scheduling times at certain sites. Sites that had more fully implemented RCI were more efficient in implementing NTNP consult management processes.
- There was considerable variation in local approaches to implementation of CCN consults. This impacted reach and adoption as it was not always clear that Veterans were being offered the full range of options (TN or CCN). Some sites reported if a Veteran had been hospitalized at a non-VA facility, they felt this meant CCN follow-up was an improvement to continuity, regardless of TN availability/preferences.
- (See pg 2 for additional context)