



Non-VA Medical Care Coordination (NVCC)

The NVCC Initiative aimed to create standardized front-end business processes for Non-VA Medical Care.

Transactional Systems Program

VISN 11 VA Center for Applied Systems Engineering (VA-CASE)

*NVCC: From
Pilot Phase to
National
Deployment*

[Non-VA Medical Care Coordination \(NVCC\)](#)

Introduction

In March 2010, the Under Secretary of Health chartered a Managing Variation Workgroup to identify both business and clinical areas where organizational variation should be reduced or eliminated. In response to the variation in non-VA care, the Chief Business Office Purchased Care (CBOPC) partnered with the VA-Center for Applied Systems Engineering (VA-CASE) to develop a future state process that would improve the efficiency and effectiveness of non-VA care by reducing process variation and improving care coordination.

The major objectives of the NVCC Initiative were to improve care coordination, create standardized business processes for the non-VA care referral process, and maximize integration of the front-end of the fee process and claims processing software, Fee Basis Claims System (FBCS).

To achieve the project objectives, NVCC was piloted across four national VAMC sites. Future state processes were developed by non-VA care staff from three VISN 11 Medical Centers and Subject Matter Experts (SMEs) from various Fee Units across the country. In January 2011, the NVCC Pilot was implemented at three VISN 11 VAMC sites: Indianapolis, IN; Saginaw, MI; and Ann Arbor, MI. In June 2011, a fourth pilot site was activated in El Paso, TX. The NVCC Pilot concluded in September 2011.

VA-CASE supported the pilot by creating and maintaining standardized referral templates, developing and analyzing quality and timeliness metrics, completing the Voice of the Veteran Survey, and providing ongoing technical support. This report provides an overview of the expertise VA-CASE provided on the NVCC Initiative.

The Non-VA Medical Care Coordination (NVCC) Pilot

Pilot Methods

The NVCC Initiative implemented standardized business processes, and VA-CASE developed corresponding tools, to support clinical care coordination of non-VA health care services and to standardize Non-VA Medical Care Programs across the enterprise. The four standardized process areas monitored by VA-CASE included:

Standardized Business Processes

1. Referral Review
2. Authorization Entry
3. Appointment Management
4. Clinical Documentation & Closure

An important goal of the NVCC pilot was to assess and report on the effectiveness of these implemented process improvements. For each of the four business processes, VA-CASE developed quality and timeliness performance metrics (17 total) to monitor strategic steps within the future state process. VA-CASE developed, monitored, and reported on NVCC performance metrics for all four pilot sites. Performance was tracked for 60 days, beginning from the date the

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non-VA care referral was entered into the Computerized Patient Record System (CPRS). Performance data was extracted from multiple sources, including:

- Veterans Integrated System Technology Architecture (Vista);
- Computerized Patient Record System (CPRS); and
- Fee Basis Claims System (FBCS).

VA-CASE provided summaries of the NVCC Pilot results by evaluating performance within each metric and identifying trends and correlations where applicable. Results were communicated to the pilot facilities each month via a stoplight report, wherein areas of concern and steps necessary to achieve improvement were discussed. A green light was used if performance was equal to or better than the target; a yellow light was used if performance was within 10% of the target; and a red light was used if performance was outside the 10% threshold (see Figure 1).

	Target	Referral Submission Month			
		Mar-11 ³	Apr-11	May-11	Jun-11
● Equal to or better than target ● Within +/- 10% of target ● Greater than +/- 10% of target					
Performance Results					
1. Referral Review					
1.1. % of Referrals Submitted Using Appropriate Templates	90%	25 of 30 ● 83%	42 of 50 ● 84%	49 of 50 ● 98%	44 of 50 ● 88%
1.2. % of Administrative Reviews Completed <i>within Tracking Period</i> ¹	90%	22 of 24 ● 92%	43 of 43 ● 100%	43 of 46 ● 93%	38 of 40 ● 95%
1.3. % of Clinical Reviews Completed <i>within Tracking Period</i> ¹	90%	27 of 28 ● 96%	49 of 49 ● 100%	45 of 47 ● 96%	46 of 48 ● 96%
1.4. % of Approval/Denial Decisions Made <i>within 7 Days</i>	90%	29 of 30 ● 97%	47 of 50 ● 94%	44 of 50 ● 88%	44 of 50 ● 88%
1.5. Average # of Days from Referral Submission to Decision <i>within Tracking Period</i> ¹	5.0	2.9	3.0	2.1	4.0
2. Authorization Entry					
2.1. % of Auths Entered into FBCS <i>within Tracking Period</i> ¹	90%	10 of 21 ● 48%	22 of 39 ● 56%	38 of 44 ● 86%	34 of 35 ● 97%
2.2. % of Auths Entered <i>within 4 Days of Approval</i>	90%	5 of 21 ● 24%	12 of 39 ● 31%	28 of 44 ● 64%	31 of 33 ● 94%
2.3. Average # of Days from Referral Submission to Auth Entry <i>within Tracking Period</i> ¹	7.0	12.8	8.4	4.9	2.9
2.4. % of Auths Entered into FBCS After Care Provided <i>within Tracking Period</i> ¹	10%	4 of 10 ● 40%	2 of 22 ● 9%	1 of 38 ● 3%	0 of 33 ● 0%
3. Appointment Management					
3.1. % of Auths with Appts Scheduled in VISTA Appt Mgmt <i>within Tracking Period</i> ¹	90%	17 of 21 ● 81%	41 of 42 ● 98%	44 of 45 ● 98%	33 of 35 ● 94%
3.2. Average # of Days from Referral Submission to Scheduling Date <i>within Tracking Period</i> ^{1,4}	14.0	4.6	8.8	7.8	5.2
3.3. % of Referrals with Date of Appt <i>within 30 Days of Submission</i> ²	90%	14 of 21 ● 67%	34 of 42 ● 81%	32 of 45 ● 71%	21 of 35 ● 60%
3.4. Average # of Days from Referral Submission to Date of Appt	30.0	19.5	18.8	26.1	39.9
3.5. % of Appts Scheduled that Result in No Shows or Cancellations <i>within Tracking Period</i> ¹	10%	4 of 20 ● 20%	6 of 39 ● 15%	6 of 41 ● 15%	2 of 28 ● 7%
4. Clinical Documentation & Closure					
4.1. % of Referrals Closed <i>within 30 Days of Appt Date</i>	90%	19 of 21 ● 90%	35 of 38 ● 92%	35 of 42 ● 83%	24 of 34 ● 71%
4.2. Average # Days from Appt Date to Closure <i>within Tracking Period</i> ¹	30.0	5.6	5.8	6.2	8.2
4.3. Average # Days from Referral Submission to Closure <i>within Tracking Period</i> ¹	60.0	16.3	20.3	19.4	23.6

Figure 1: Example Stoplight Report Used to Communicate Results to Pilot Facilities

Pilot Results

The performance metrics revealed important insight into the effectiveness of the process changes. Several pilot facilities experienced significant improvement in quality and timeliness in multiple areas, such as referral review and authorization entry.

Improvements in several of the NVCC processes were accomplished at each pilot site:

- Three of the pilot sites experienced a decrease in the average number of days from referral submission into CPRS to the authorization entry into FBCS: a) Indianapolis – 77% (from 29.4 days to 6.9 days); b) Saginaw – 73% (from 12.8 to 3.5 days); and c) El Paso – 54% (9.0 to 4.2 days). [Figure 2]
- Three of the pilot sites experienced a decrease in the average number of days from the referral submission to the scheduling of a Veteran's appointment: a) Indianapolis – 76%

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(from 36 days to 8.5 days); b) Ann Arbor – 36% (16.0 to 10.2 days); and c) El Paso – 21% (23.9 to 18.9 days). [Figure 3]

- Three of the pilot sites experienced a decrease in the average number of days from the date the referral was entered in CPRS to the Veteran's appointment date: a) Indianapolis – 45% (from 54.6 days to 30.3 days); b) Ann Arbor – 26% (34.8 to 25.7 days); and c) El Paso – 12% (32.1 to 28.2 days). [Figure 4]

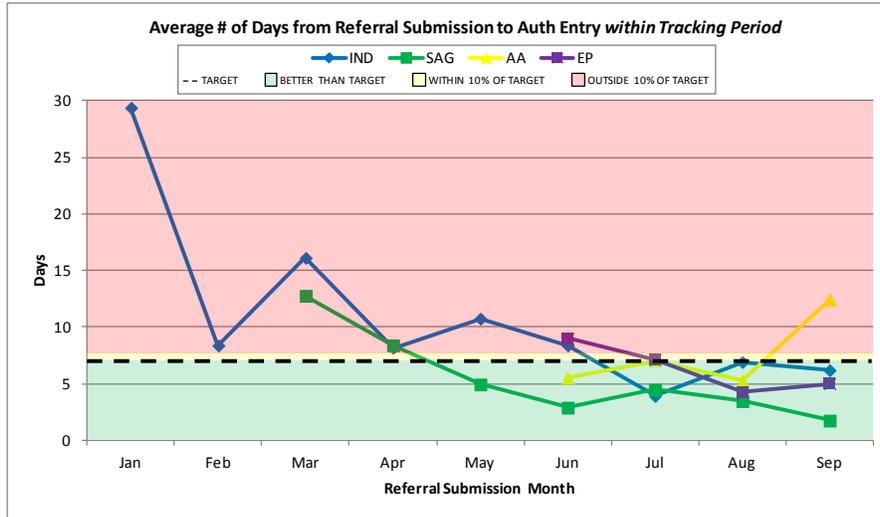


Figure 2: Average Days from Referral Submission to Auth. Entry

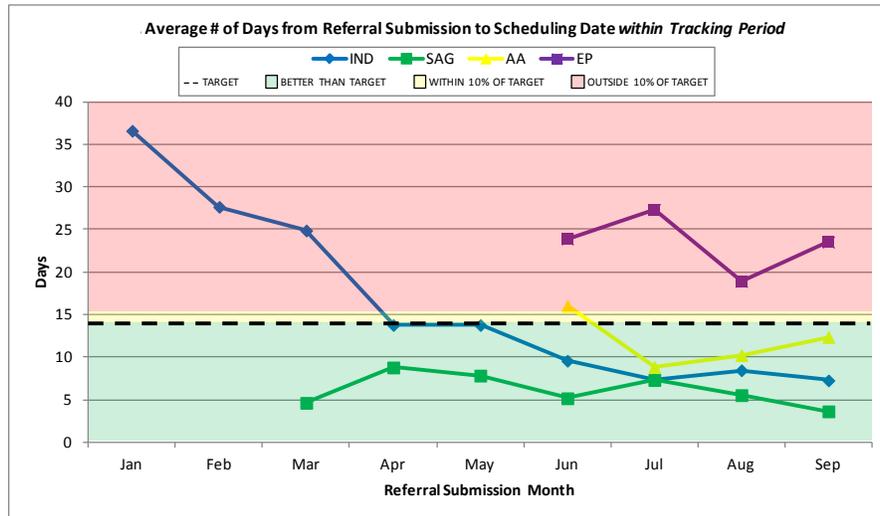


Figure 3: Average Days from Referral Submission to Scheduling Date

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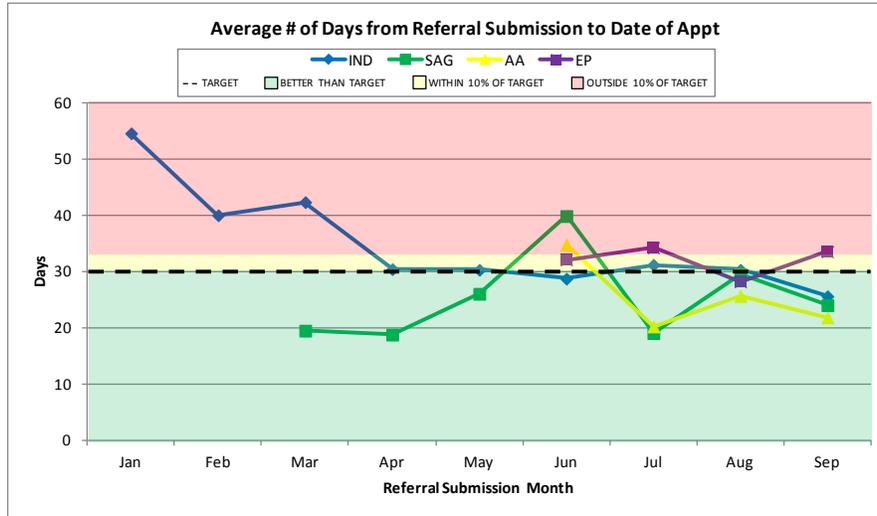


Figure 4: Average Days from Referral Submission to Appointment Date

Pilot Impact

Performance metrics indicated that significant improvements were made in the quality and timeliness of many VA services across the four pilot sites. At the conclusion of the pilot, however, there were still process issues and variation from site to site, including the use of VistA Appointment Management, the scanning of medical records into VistA Imaging, and the practices used to close referrals. Recommendations for mitigating these issues were developed by VA-CASE.

Additionally, the Clinical Informatics Team collaborated with CBOPC to develop 30 Non-VA Care CPRS referral templates and 4 Non-VA Care CPRS progress note templates. In an effort to monitor facility usage of and adherence to these new progress notes in accordance with Standard Operating Procedures (SOPs), progress notes were tracked and reported during each month of the pilot.

Figure 5 represents the number of new NVCC templated progress notes that were created during each month of the pilot. Three out of four pilot facilities used this progress note during the pilot, with usage steadily increasing, peaking, then decreasing. The reason for the steady decline was unknown; however, this was an area where VA-CASE suggested that training may be needed. El Paso did not implement this progress note.

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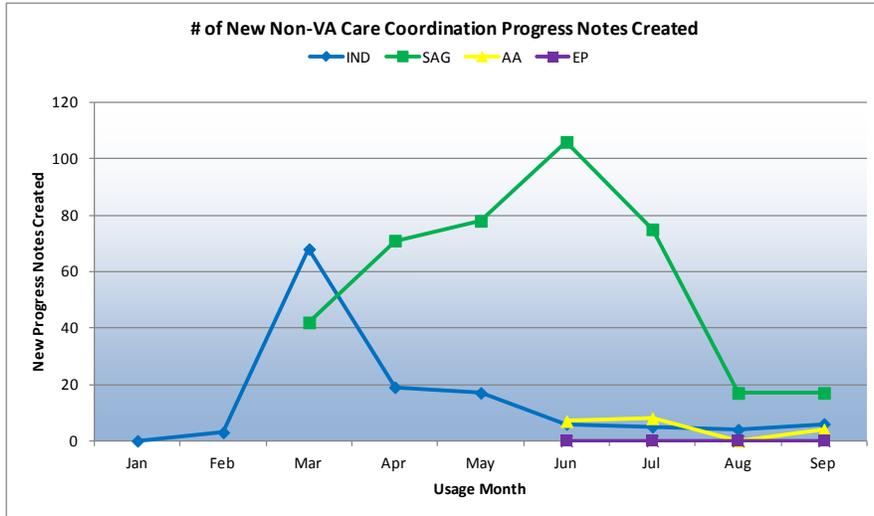


Figure 5: Number of New Non-VA Care Coordination Progress Notes Created, By Month

Figure 6 represents the number of new Non-VA Hospital Notification progress notes that were created during each month of the pilot. All four pilot facilities used this progress note during the pilot. At Indianapolis, Saginaw, and Ann Arbor, usage steadily increased and sustained throughout the duration of the pilot. In El Paso, usage steadily increased, then sharply decreased in September. Both Indianapolis and Saginaw had a delayed start with usage of this note, with both facilities starting to use the note approximately 4 months after their implementation of the NVCC pilot.

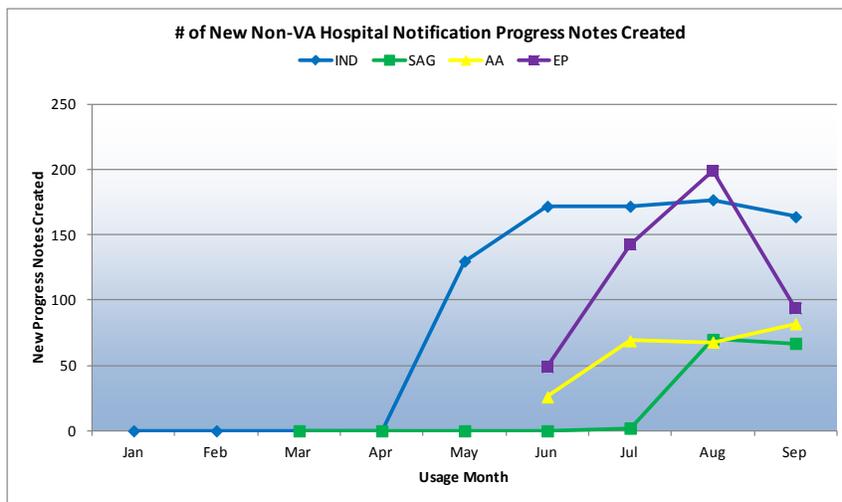


Figure 6: Number of New Non-VA Hospital Notification Progress Notes Created, By Month

Based on these overall pilot outcomes, CBOPC decided to nationally deploy NVCC in FY12. A deployment plan was developed, and national implementation began in October 2011. VA-CASE provided CBOPC with recommendations for future evaluations of the NVCC national deployment, and the VA-CASE Clinical Informatics Team served in FY13 as the national Clinical Application Coordinators to provide assistance and support to the 21 deployment sites

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for the creation, installation, and use of the Non-VA Care CPRS referral templates and templated progress notes.

The Voice of the Veteran Survey

As part of the NVCC national deployment plan, VA-CASE partnered with CBOPC to conduct the Voice of the Veteran (VOV) survey in FY12. The purpose of the survey was to assess Veteran satisfaction with receiving non-VA care through the NVCC process as compared to obtaining non-VA care through the fee basis processes implemented prior to NVCC.

Survey Methods

In order to assess differences in satisfaction among Veterans receiving non-VA care, a survey was developed and mailed to a unique population of 8,000 Veterans enrolled at one of 19 NVCC VISN champion facilities. The survey population was divided into two independent groups: 1) Veterans who received non-VA care through the NVCC process, and 2) Veterans who received non-VA care through fee basis processes implemented prior to NVCC. The NVCC national deployment schedule was set up so that April 2012 represented an approximate half-way point for nation-wide implementation. As such, April 2012 represented the boundary for which VISNs were categorized into one of the two groups. VISNs that implemented NVCC prior to April 2012 fell under Group 1 (Veterans who received non-VA care through the NVCC process). VISNs that implemented NVCC April 2012 or later fell under Group 2 (Veterans who received non-VA care through fee basis processes implemented prior to NVCC).

In collaboration with the VISN 11 Data Warehouse team, an FBCS report template was developed for the purpose of extracting a list of Veterans from each NVCC champion facility who received non-VA care during the specified time period. The FBCS reports from the 19 participating VISNs were then used to create a sample of Veterans for each champion facility. Table 1 shows a high-level sample size summary, identifies the number of NVCC champion facilities within each of the two groups, and indicates the number of Veterans surveyed within each group.

Table 1: High-Level Sample Size Summary

# Participating VISNs		19
Group 1	Activated NVCC Prior to April	8
Group 2	Activated NVCC April or Later	11
# Samples Obtained		8000
Group 1	From VISNs with NVCC Activated	4000
Group 2	From VISNs without NVCC Activated	4000

The survey utilized a 5-point Likert scale by which Veterans were asked to rate their level of satisfaction with various aspects of the non-VA care processes. The survey questions, which were approved by the Office of Management and Budget (OMB), were as follows:

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1. I was given an opportunity by VA staff to ask questions about my non-VA care.
2. VA staff explained what to expect regarding my appointment with a non-VA care provider.
3. I was given an opportunity to see my non-VA care provider of choice.
4. VA staff considered my personal wants and needs.
5. Overall, it was not difficult to schedule a non-VA care appointment.
6. Did a VA staff member contact you after your non-VA care appointment?
 - a. If "YES", answer Q7 and skip Q8. If "NO", skip Q7 and answer Q8.
7. I liked that a VA staff member contacted me after my non-VA care appointment.
8. I would have liked a VA staff member to contact me after my non-VA care appointment.
9. Overall, I was satisfied with my non-VA care experience.

Survey Results

The overall survey response rate was 37% (2990 out of 8000), which exceeded the required response rate needed to maintain the desired 95% confidence level and 2% margin of error. The actual confidence level and margin of error associated with the higher response rate was 97% and 2%, respectively.

Results of the VOV survey were summarized using statistical hypothesis testing to detect a difference in response between the two survey groups. Statistical hypothesis testing is a method of making decisions using data. For this survey, the question was whether or not there was a significant difference in responses from Veterans that received care from Group 1 vs. Group 2. Significant was defined using an accuracy level of 95%. The end result from the hypothesis testing confirmed there was no statistically significant difference between survey responses when comparing Group 1 vs. Group 2.

This indicated that, as of July 2012, the implementation of the NVCC process had not impacted the level of Veteran satisfaction in their experience of receiving non-VA care. The results could indicate that, in the future, the NVCC process will not significantly alter the level of Veteran satisfaction with their experience of receiving non-VA care. Alternatively, this could be due to the relatively short period of time during which Group 1 had utilized the NVCC process and, therefore, had not fully implemented or integrated all the NVCC SOPs.

It is important to note that overall Veteran satisfaction was high whether or not the NVCC process was used. Groups 1 and 2 had an overall satisfaction level of 1.82 and 1.78, respectively. The highest satisfaction level among all the questions was Question 7 ("I liked that a VA staff member contacted me after my non-VA care appointment"). Groups 1 and 2 scored 1.50 and 1.48, respectively. This suggests that Veterans appreciated being contacted after their non-VA care appointments, and this practice should continue and spread to increase Veteran satisfaction. The lowest satisfaction level was with Question 3 ("I was given an opportunity to see my non-VA care provider of choice"). Groups 1 and 2 scored 2.54 and 2.57, respectively. This suggests that Veterans were not satisfied with the vendor selection process and would have liked to be involved at a greater level.

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Survey Impact

Based on VOV survey results, VA-CASE recommended reconnecting with the VISN champion facilities to develop a clear understanding of the current state of the NVCC implementation process, and described the potential benefits of issuing a future Veteran satisfaction survey. While the overall outcome of the VOV survey revealed no difference in the level of satisfaction between the two survey groups, future surveys could measure satisfaction trends over a longer period of time. Then, results from this earlier survey could provide a baseline measure to compare against a second survey issued in the future to assess the level of change after the NVCC process has been fully integrated into the delivery of non-VA care at the VISN champion facilities. This survey was conducted at the near mid-way point for national implementation of NVCC. Additional insight possibly could be obtained by issuing this survey a second time in the future after the NVCC champion facilities have had a chance to settle in with the new processes.

Conclusion

VA-CASE supported the NVCC Pilot by creating standardized referral templates, developing and monitoring quality and timeliness metrics, and completing the Voice of the Veteran Survey. The success of the NVCC Pilot inspired CBOPC to deploy the program on a national level. Additionally, the VA-CASE Clinical Informatics Team served as the national Clinical Application Coordinators, providing assistance and support to the 21 nationwide deployment sites for the creation, installation, and use of the Non-VA Care CPRS referral templates and templated progress notes. Through these efforts and other efforts in partnership with CBOPC, VA-CASE continues to identify and reduce or eliminate organizational variation across the VHA.