COVID-19 Lessons Learned and Best Practices:

Safety Protocols, Staff Support, and Contact Tracing

August 5, 2020
# Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introductions</strong></td>
<td></td>
</tr>
<tr>
<td>VNSNY Overview</td>
<td>David Rosales, EVP Chief Strategy Officer</td>
</tr>
<tr>
<td>Status of VNSNY COVID-19 Response</td>
<td>Susan Northover, SVP CHHA</td>
</tr>
<tr>
<td><strong>COVID care guidance and best practices:</strong></td>
<td></td>
</tr>
<tr>
<td>• VNSNY COVID Safety Protocols: 3 Pillars</td>
<td>Andria Castellanos, EVP Chief of Provider Services</td>
</tr>
<tr>
<td>• Transition to virtual visits: lessons learned</td>
<td>Dan Lowenstein, Vice President, Government Affairs</td>
</tr>
<tr>
<td>• Supporting our clinical workforce during COVID: the critical role of a Clinical Expertise Resource Team (CERT)</td>
<td></td>
</tr>
<tr>
<td><strong>Contact Tracing Tools and Tips:</strong></td>
<td></td>
</tr>
</tbody>
</table>
| • Overview of VNSNY’s Contact Tracing Tool, developed by our Analytics team using open-source code and available for use by any CHHA/Hospice | Tim Peng, Chief Data Analytics Officer  
Carlin Brickner, Director, Analytics  
Naomi Shinoda, Manager, Data Science |
| **Q&A**                                    |                                                    |

---

## VNSNY at a Glance

We are the one of the nation’s largest not-for-profit home and community-based health care organizations, serving New Yorkers for 127 years.

- **Our Mission**: To improve the health and well-being of people through high-quality, cost-effective healthcare in the home and community.
- **Our Vision**: To be the leading payer and provider of integrated, cost-effective home and community-based healthcare.
- **Powerful Dualities of Capabilities**
  - As a Provider: We bring 127 years of clinical expertise and experience.
  - As a Health Plan: With deep understanding of managing and financing care for complex conditions.

<table>
<thead>
<tr>
<th>VNSNY by the Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,000</td>
<td>Employees, including 1,500 nurses, 400 rehab therapists, 400 social workers, and 8,500 home health aids</td>
</tr>
<tr>
<td>44,000</td>
<td>Patient lives touched every day</td>
</tr>
<tr>
<td>50</td>
<td>Languages spoken by our staff members</td>
</tr>
<tr>
<td>$2+ BN</td>
<td>Annual revenues</td>
</tr>
<tr>
<td>$39M</td>
<td>Provided in 2019 in charitable care and community benefit programs to under and un-insured individuals</td>
</tr>
</tbody>
</table>
Where We Operate

VNSNY serves New York City, as well as the surrounding suburban counties in the NYC metro area.

VNSNY also services some upstate counties through its Medicaid Managed Long Term Care (‘nursing home without walls) program.

A lot has changed since our last NAHC COVID Town Hall

New York City: Number of Confirmed Cases Over Time

- NYC’s COVID epidemic peaked in early April
- VNSNY played an important role at the front lines of the crisis, caring for over 2,500 COVID-positive patients and supporting our local hospital partners
- As our local healthcare system begins to return to normal, we are also returning to normal operations, and preparing for a possible second wave, incorporating our lessons-learned
Part 1: COVID care guidance and best practices

- VNSNY COVID Safety Protocols: 3 Pillars
- Transition to virtual visits: lessons learned
- Supporting our clinical workforce during COVID: the critical role of a Clinical Expertise Resource Team (CERT)

VNSNY COVID Safety Protocols Today: 3 Pillars

1. PPE Protocols

   Universal Protocols for all patients
   - PPE:
     - Surgical mask
     - Face shield or goggles
     - Gloves
   - Face-coverings for patients and caregivers
   - In the home, distance (> 6 ft.) maintained from patient/caregiver, as possible, when not providing direct care

   ENHANCED PPE Protocols
   - If Patient or household member is COVID-positive/symptomatic
   - And/or for wound care or other procedures involving sprays or splashes
   - PPE: Universal PPE (above) + N95 respirator and gown

2. Staff/Patient Screening

   - All clinicians required to perform a self-assessment of COVID status/symptoms prior to visiting patients
   - CHHA and Hospice patients are screened:
     - Before the initiation of care to identify if a patient has positive testing or symptomology.
     - Prior to each in-person professional encounter, by phone prior to entering the home

3. Contact Tracing

   - If a VNSNY clinician tests positive or is symptomatic, all clinicians and patients with whom that clinician had contact within the three-day period prior to the staff being tested or becoming symptomatic or are notified.
   - If a patient tests positive or is symptomatic, all clinicians who had contact within the three-day period prior to the patient being tested or becoming symptomatic are notified.
Transition to Virtual Care: Lessons Learned

• At the peak of the, VNSNY put in place emergency protocols allowing for the substitution of in-person visits with virtually encounters where clinically appropriate.
• This experience enabled VNSNY to gain valuable insight into:
  1. Benefits of virtual home health care
  2. Requirements for virtual care to be successful
  3. Specific HHA clinical interventions that are best-suited to be delivered virtually
• By collaborating with the patient and the ordering provider, VNSNY was able to develop a plan that met the needs and requests of the patient for an optimal clinical and patient experience.
• In partnership with NAHC, we are using this experience to advocate for adequate reimbursement for virtual encounters under the Medicare Home Health benefit

Transition to Virtual Care: Lessons Learned

• We observed that clinicians continued to determine, in a great majority of instances, that in-person visits were required.
  – Even at the peak of the crisis, virtual encounters represented a small minority of encounters provided, reaching a peak of 12% of total visits in the month of April 2020
• The pattern of delivery for virtual visits appear to be distributed in balance with risk and clinical appropriateness.
  – The distribution of virtual encounters, as a proportion of all visits, varied widely across the diagnosis-driven clinical groupings.
  – Patients who received the greatest proportion of visits virtually were in the respiratory and behavioral health clinical groups, at 30% and 28% respectively in April.
  – Wound patients had amongst the lowest proportion of virtual encounters, peaking at 7% in April
Virtual Care: Our Requirements

In order to ensure effective delivery of virtual care, we established certain requirements on the part of the patient and the ordering physician

• **Patient (and caregiver, if applicable) requirements:**
  - Agree and formally consent to participation in clinically appropriate virtual encounters;
  - Have ready access to the technology to conduct the virtual encounter (typically a smart phone or camera-enabled laptop);
  - Be self-directing; and
  - Be capable of using the virtual-visit technology, with minimal guidance or instruction from the HHA clinician.

• **Ordering physician requirements:**
  - Agree to incorporation of virtual encounters into the patient’s comprehensive Plan of Care, where clinically appropriate. Any Plan of Care also included traditional in-person visits, as we believe in-person care is central to any home care delivery episode.

Virtual Care: Services Performed

Services that are typically amenable to virtual delivery would typically:

1. Require similar time to deliver virtually vs. in a home setting;
2. Allow for documentation of the same clinical milestones in the HHA’s electronic medical record; and
3. Achieve the same clinical goal as if the encounter had been delivered in an in-home setting.

**CAN be delivered virtually (examples):**
- Medication Management & Instruction
- Disease Management & Instruction
- Pain Management
- Home Exercise Program Follow-up
- Hospital Avoidance Tactics
- Speech-Language Pathology
- Review Diet Modification
- Safety Instructions
- Wound Evaluation and Caregiver/Patient competency
- Social Work intervention and Behavioral Health Strategies

**Better delivered in-person (examples):**
- Start-of-Care Admissions
- Most Wound Care or Surgical Site Care
- Vital Sign Monitoring requiring in-person assessment
- Administration of Insulin and other Injectable Medications
- Oral or Tracheal Suctioning
- Catheter Care
- Initiation of Rehabilitation Services
Supporting our Clinicians:
Clinical Expertise Response Team (CERT)

One week into the COVID crisis, VNSNY established a Clinical Expertise Response Team (CERT), staffed by RNs who were redeployed from other parts of the operation (7 days/week, 8am-5pm).

The CERT team has been critical to VNSNY's ability to support its distributed workforce during the pandemic. Key functions have included:

1. Answering calls from field clinicians with questions about COVID exposure and symptoms (for both the clinicians and their patients)
2. Responding to general inquiries about PPE and other patient management protocols
3. Providing telephonic outreach to VNSNY's personal care workers on the appropriate use of PPE in caring for the Covid-19 patient in the community (6,000 + calls)
4. Developing education material and education videos to proactively educate personal care workers on safe care in conjunction with PPE shipped to their homes
5. Tracking and trending test results for our staff entering SNF/ALF's (state requirement)
6. Tracking and trending staff test results for staff returning to the workplace
7. Developing extensive analytical tools to track and trend data
8. Investigating and validating any quality of care issues related to exposure or potential exposure to Covid-19 by the VNSNY staff

Part 2:

Contact Tracing Tools and Tips:

Overview of VNSNY’s Contact Tracing Tool (and available to you!)
What is visit-based contact tracing?

• Traditional Contact Tracing
  – Identify all contacts of patients with confirmed infectious disease
    • notify contacts about potential exposure
    • monitor symptoms
    • control disease spread
  – In practice, much of the effort is spent constructing a dataset of contacts

• Visit-based Contact Tracing
  – Utilize visit (encounter) data to track visit-based contacts of visit staff and home-bound patients
  – Unique opportunity for community-based healthcare providers vs. facility-based healthcare settings

VisitContactTrace

• A contact tracing tool designed to consume visit or encounter data
  – Developed by VNSNY Data Science team using open-source code
  – Available for use by any Home Care or Hospice (any community-based healthcare)
Visit Data – who visited whom when?

<table>
<thead>
<tr>
<th>patient_id</th>
<th>patient_name</th>
<th>staff_id</th>
<th>staff_name</th>
<th>visit_date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adam A</td>
<td>18</td>
<td>Richards, Linda</td>
<td>3/11/2020</td>
</tr>
<tr>
<td>1</td>
<td>Adam A</td>
<td>11</td>
<td>Taylor, Susie King</td>
<td>5/11/2020</td>
</tr>
<tr>
<td>1</td>
<td>Adam A</td>
<td>18</td>
<td>Richards, Linda</td>
<td>5/13/2020</td>
</tr>
<tr>
<td>2</td>
<td>Bea B</td>
<td>6</td>
<td>Dix, Dorothea</td>
<td>4/1/2020</td>
</tr>
<tr>
<td>3</td>
<td>Chris C</td>
<td>7</td>
<td>Sanger, Margaret</td>
<td>2/7/2020</td>
</tr>
<tr>
<td>3</td>
<td>Chris C</td>
<td>7</td>
<td>Sanger, Margaret</td>
<td>2/21/2020</td>
</tr>
<tr>
<td>3</td>
<td>Chris C</td>
<td>7</td>
<td>Sanger, Margaret</td>
<td>2/23/2020</td>
</tr>
<tr>
<td>3</td>
<td>Chris C</td>
<td>7</td>
<td>Sanger, Margaret</td>
<td>2/28/2020</td>
</tr>
<tr>
<td>3</td>
<td>Chris C</td>
<td>12</td>
<td>Baumfree, Isabella</td>
<td>3/5/2020</td>
</tr>
<tr>
<td>4</td>
<td>David D</td>
<td>20</td>
<td>Maxwell, Anna Caroline</td>
<td>2/27/2020</td>
</tr>
<tr>
<td>4</td>
<td>David D</td>
<td>2</td>
<td>Wald, Lillian</td>
<td>2/29/2020</td>
</tr>
<tr>
<td>4</td>
<td>David D</td>
<td>2</td>
<td>Wald, Lillian</td>
<td>3/2/2020</td>
</tr>
<tr>
<td>4</td>
<td>David D</td>
<td>2</td>
<td>Wald, Lillian</td>
<td>3/8/2020</td>
</tr>
<tr>
<td>4</td>
<td>David D</td>
<td>2</td>
<td>Wald, Lillian</td>
<td>3/15/2020</td>
</tr>
<tr>
<td>4</td>
<td>David D</td>
<td>2</td>
<td>Wald, Lillian</td>
<td>3/22/2020</td>
</tr>
<tr>
<td>5</td>
<td>Elizabeth E</td>
<td>20</td>
<td>Maxwell, Anna Caroline</td>
<td>2/22/2020</td>
</tr>
<tr>
<td>5</td>
<td>Elizabeth E</td>
<td>20</td>
<td>Maxwell, Anna Caroline</td>
<td>3/1/2020</td>
</tr>
</tbody>
</table>

What can VisitContactTrace do?

Use visit data to:

– explore how infectious disease can spread within visit-based services if appropriate precautions are not in place
– discover the visit-based contacts of any patient or visit staff member whose disease status is known to the user

What VisitContactTrace can NOT do:

– suggest causality
– confirm disease transmission routes
– consider contacts from outside of the visit delivery model (e.g. contact with family members or friends)
Getting Started with VisitContactTrace

VisitContactTrace was developed with the assumption that the end user of the application has already identified a patient or staff with suspected/confirmed infection.

The end user must then identify whether they defining
1. the **staff** as the index person, or
2. the **patient** as the index person

---

Scenario – visit staff tests positive

![VisitContactTrace Application](image)

Staff ID: Barton, Clara: 4
Reference Date: 2020-05-21
# of Days to Look back: 5
# of Days to Look forward: 3

All visits during 2020-05-16 through 2020-05-24 will be shown based on your inputs. The date range of visits available for this individual is 2020-02-04 to 2020-05-21.
VisitContactTrace Outputs

1. Network plots

2. Contact Listings
   (Primary, secondary, tertiary)

3. Visit Details

VisitContactTrace Output: Network plots

- Interactive plots
- Shows potential for disease spread
- Can search by patient or staff ID
- Hover over icons to see details such as patient/staff name
VisitContactTrace Output: Contact Listings

- Lists of people who may have been exposed to disease during the infectious period of the index person
- Can download as CSV file

<table>
<thead>
<tr>
<th>Contact type</th>
<th>If staff member is index person...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>The patients that the index staff member visited</td>
</tr>
<tr>
<td>Secondary</td>
<td>The staff members that visited the primary contact patients</td>
</tr>
<tr>
<td>Tertiary</td>
<td>The patients that were visited by the secondary contact staff members</td>
</tr>
</tbody>
</table>

VisitContactTrace Output: Visit Details

- All visit details associated with the data that you loaded
- Can download as CSV file
VisitContactTrace Screenshots
Introduction
This application allows you to conduct visit-level contact tracing for a patient or staff member known/suspected to have an infectious disease ("index person"). Based on the visit data you supply, this application will list all primary, secondary, and tertiary patient or staff contacts within a look-back time period for a given index person.

Instructions
- First choose whether you are starting with an index staff member or a patient by clicking the on the "Staff" or "Patient" tab.
- Choose the Staff ID (or Patient ID) of the index person.
- Choose the reference date, ideally this should be the date of symptom onset of the index person.
- Choose the number of days to look back from the reference date (e.g., the incubation period of the disease) and the number of days to look forward from the reference date.

© 2020 National Association for Home Care & Hospice
How to get started with VisitContactTrace

- Install R (open-source software) on computer
- Download/install VisitContactTrace R package
- Save your visit data in XLSX or CSV format
- Detailed instructions here: https://vnsny-bia.github.io/VisitContactTrace/
Using Your Own Data

- User-friendly data upload interface
  - Excel and csv formats supported
- “Try out demo data” feature to explore the application with a simulated contact dataset

Using Your Own Data

- Review your data
- Rename columns as needed directly in the interface
VisitContactTrace

• Please follow our GitHub repository for updates
  https://github.com/vnsny-bia/VisitContactTrace

• We would like to thank our BIA and many other VNSNY
  colleagues who participated in the testing and feature
  enhancements of the application

• VisitContactTrace development team
  – Rushabh Patel (main developer)
  – Naomi Shinoda
  – Carlin Brickner

Q & A
NAHC COVID-19
Information and Resources

nahc.org/covid19
nahc.org/covid19faqs

Contact Information

David Rosales
Executive Vice President and Chief Strategy Officer
David.Rosales@vnsny.org

Andria Castellanos
Executive Vice President and Chief of Provider Services
Andria.Castellanos@vnsny.org

Tim Peng
Chief Data Analytics Officer
Timothy.Peng@vnsny.org

Susan Northover
Senior Vice President, Patient Care Services
Susan.Northover@vnsny.org

Dan Lowenstein
Vice President, Government Affairs
Dan.Lowenstein@vnsny.org

Carlin Brickner
Director, Analytics
Carlin.Brickner@vnsny.org

Naomi Shinoda
Manager, Data Science
Naomi.Shinoda@vnsny.org
Join NAHC

NAHC is the leading trade association for home care and hospice professionals and we serve as the unified voice for the industry. Over the next ten years, the home care and hospice industry is expected to achieve unprecedented growth and NAHC will be there along the way to ensure your organization has the tools and resources needed to thrive.

Whether you’re a home care provider, a hospice administrator, or a technology company that provides services for the industry, there’s a place for you at NAHC.

Join your peers and fellow leaders as part of the NAHC community today! Learn more at http://nahc.org/join

Upcoming Events

2020 Home Care and Hospice Conference and Expo
October 18-20, 2020 | Tampa, FL