

ER on Demand: Northwell Brings Telehealth Home

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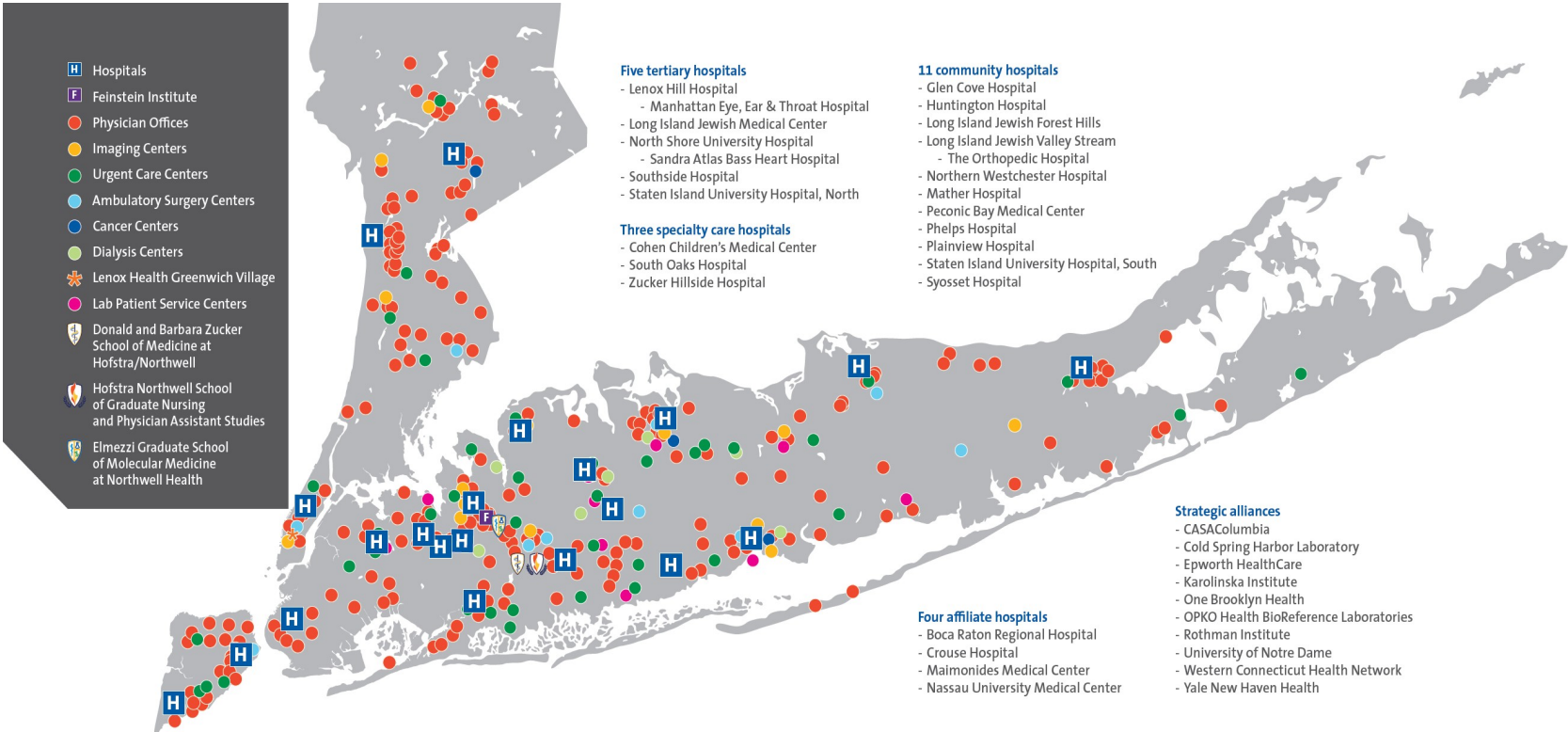


Northwell Health®
Emergency Medicine

Today's Agenda

1. Overview Northwell Health
2. Northwell CEMS COVID Response
3. EMS Telemedicine
 - Integration with FDNY
 - Process & Workflows
4. Evolution of EMS/Emergency Telemedicine
5. The Future of Emergency Telemedicine

Northwell Health Network



SIZE

- 23 hospitals
- 2 nursing/sub-acute facilities
- >750 ambulatory locations
- >16,000 nurses
- ~15,000 affiliated physicians
- ~4,000 employed physicians

SCOPE

- Full continuum of care
- Broad geographic coverage
- Service area of 8 million people
- Continuously growing footprint
- More than 4 million annual patient encounters
- 30% inpatient share

ECONOMIC IMPACT

- 68,000 employees
- Largest private employer in NYS
- Major academic and research center
- \$12 billion revenue
- "A" rated

National Recognition



The only health care provider in New York State, one of eight health systems nationwide and one of only 10 New York-based organizations to be recognized on the *Fortune* Top 100 listing.



Five Northwell Health hospitals received top-50 national rankings in 18 adult and 9 pediatric clinical specialties in *US News and World Report's* 2020-21 Best Hospitals listing.



Made the list for the eighth straight year and moved to the top spot in the 2020 DiversityInc rankings for Hospitals and Health Systems one year after placing second.



Two additional Northwell Health hospitals earned Magnet status from the American Nurses Credentialing Center in 2020. Eight Northwell Health hospitals now hold Magnet designations from the ANCC.

Northwell Health Center for Emergency Medical Services (CEMS)

Quick Facts



Operating Area

1,498 square miles

Population of 11 million+ people



Communications Center
IAED ACE Accreditation
Emergency Medical Dispatch
Centralized Transfer Center
Clinical Call Center



93 Ambulances

CAAS Accredited

173,750 Responses*

126,323 Transports*



1 Helicopter

CAMTS Accredited

494 Transports*



Emergency Medicine Service Line

by the numbers



18 EMERGENCY DEPARTMENTS

- 1 QUARTEINARY ED
- 5 TERTIARY EDs
- 11 COMMUNITY EDs
- 1 FREESTANDING ED

- 850,000 ANNUAL ED VISITS
- 400 EMERGENCY MEDICINE PHYSICIANS ON STAFF
- 150 ADVANCED CLINICAL PROVIDERS



CENTRAL OPERATIONS

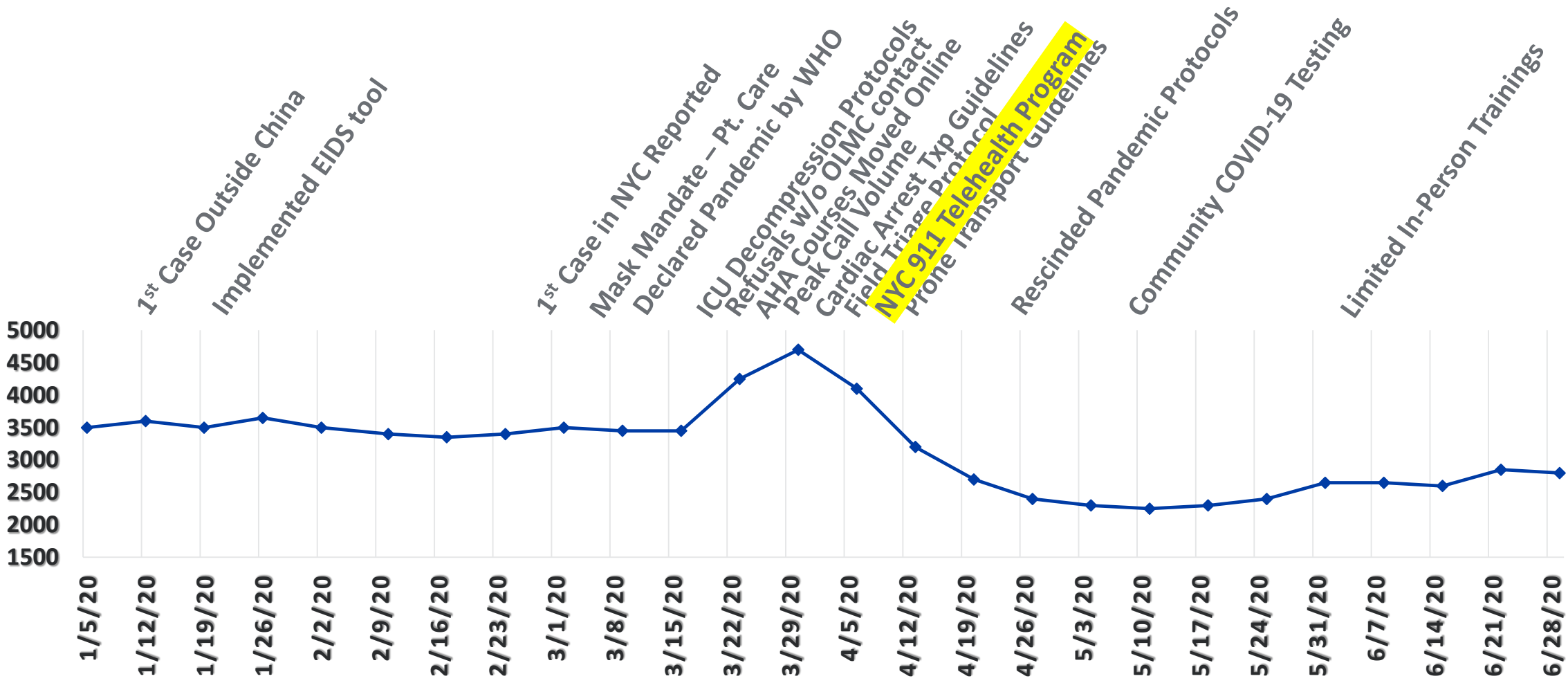
- CLINICAL OPERATIONS
- FINANCIAL SERVICES
- ADMINISTRATION
- PROVIDER RELATIONS
- BUSINESS DEVELOPMENT

New York City – March 2020



Northwell Health CEMS COVID Response

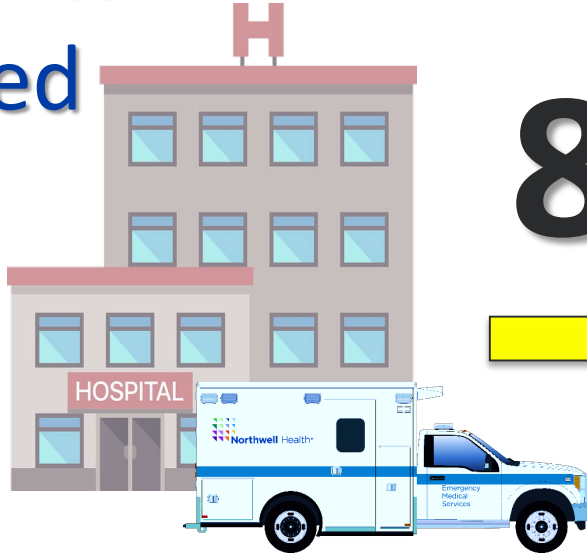
Countermeasure Timeline



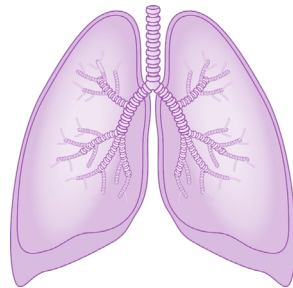
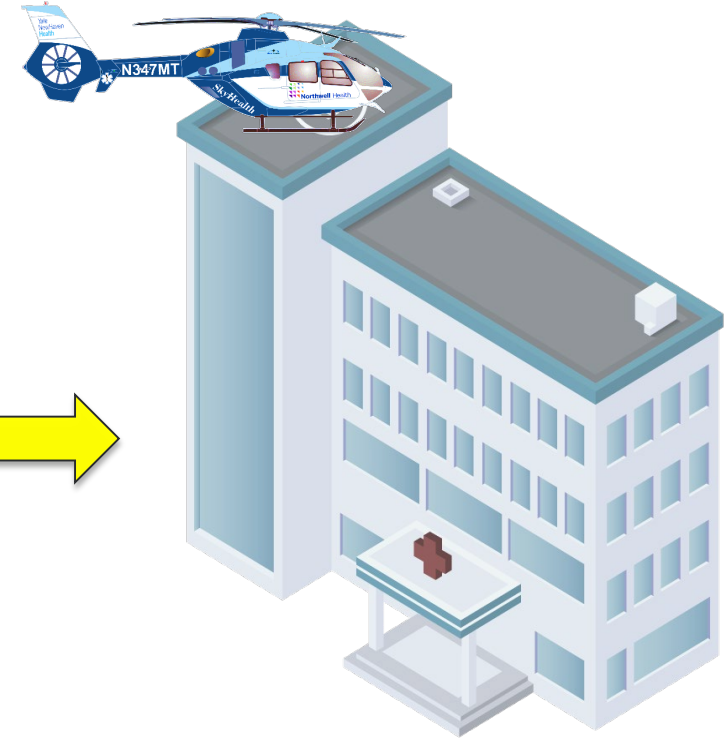
Northwell Health CEMS COVID Response

Interfacility Hospital Load Balancing

Patients
Moved



810+



241 On Mechanical Ventilators

↑ 171% Increase From 2019

EIDS Screening/Use of Protocol 36

- CEMS implemented EIDS Tool 1/22/2020

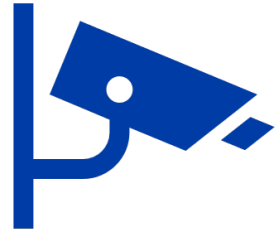
Medical Director–approved additional questions:

- ☐ Do you (the patient) have a fever, cough, or shortness of breath? (If Yes - Positive Screening)

- ☐ Has a clinician diagnosed or suspect the patient to have CoVID-19? (If Yes - Positive Screening)

- The CEMS FDNY TeleHealth program implemented protocol 36 at Level 1
 - First FDNY call received March 31, 2020

EIDS Screening/Use of Protocol 36



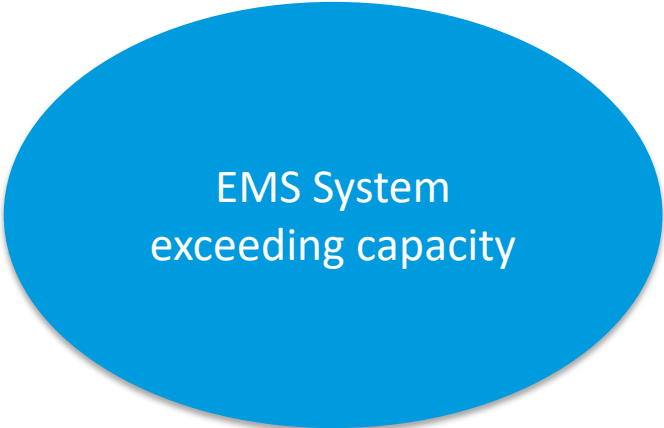
CEMS officially implemented protocol 36 at Level 0
(surveillance) 4/6/2020




Research paper published by Northwell team in the
journal of Prehospital Emergency Care on utility of
using EIDS screening

- Population studied 3,443
- Limited to patients that were treated at a Northwell Hospital
- 5% of patients who screened negative on EIDS tested positive for COVID-19
- 66% of patients who screened positive on EIDS tested positive for COVID-19
- **Conclusion:** EIDS use moderately able to identify COVID-19 positive patients

Why send callers to Telehealth?

A blue oval containing the text "EMS System exceeding capacity".

EMS System
exceeding capacity

A green oval containing the text "Hospital system exceeding capacity".

Hospital system
exceeding capacity

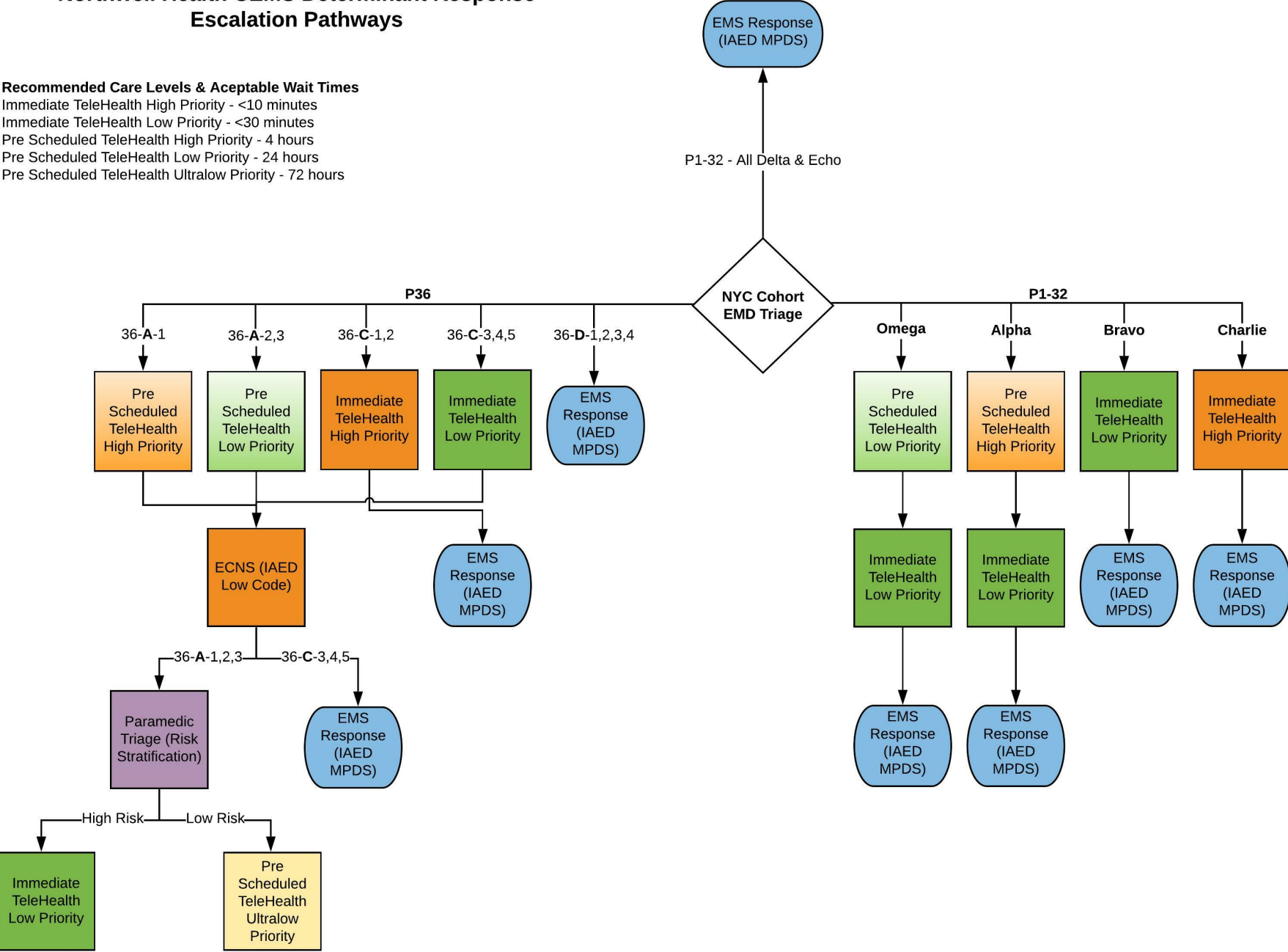
An orange oval containing the text "Urgent care centers overwhelmed".

Urgent care centers
overwhelmed

Northwell Health CEMS Determinant Response Escalation Pathways

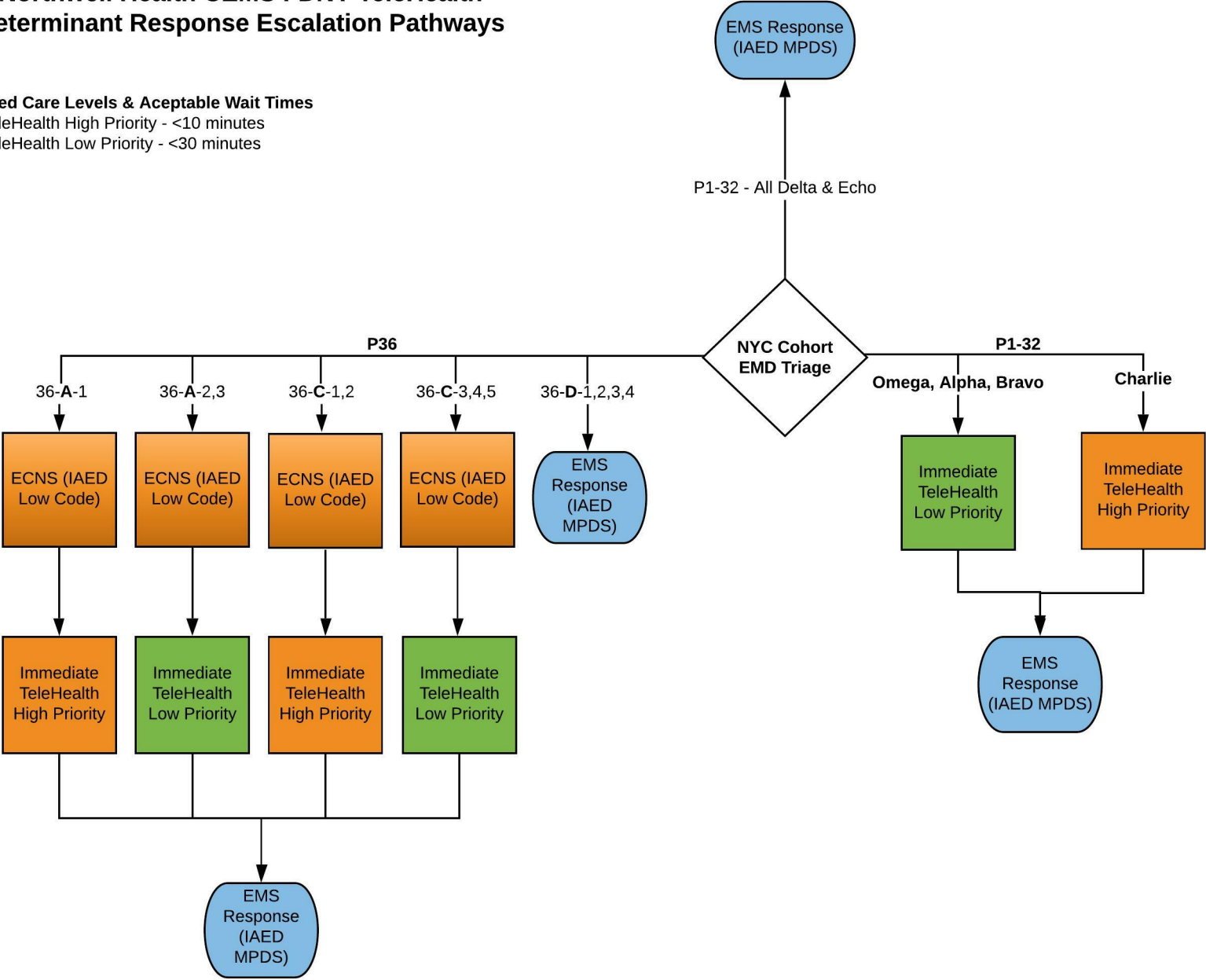
Recommended Care Levels & Acceptable Wait Times

- Immediate TeleHealth High Priority - <10 minutes
- Immediate TeleHealth Low Priority - <30 minutes
- Pre Scheduled TeleHealth High Priority - 4 hours
- Pre Scheduled TeleHealth Low Priority - 24 hours
- Pre Scheduled TeleHealth Ultralow Priority - 72 hours



**Northwell Health CEMS FDNY TeleHealth
Determinant Response Escalation Pathways**

Recommended Care Levels & Acceptable Wait Times
Immediate TeleHealth High Priority - <10 minutes
Immediate TeleHealth Low Priority - <30 minutes



Key Technologies

CAD

 Inform CAD

 TRITECH

IMS

 IMS

REDCap

 REDCap®

Amwell

 amwell

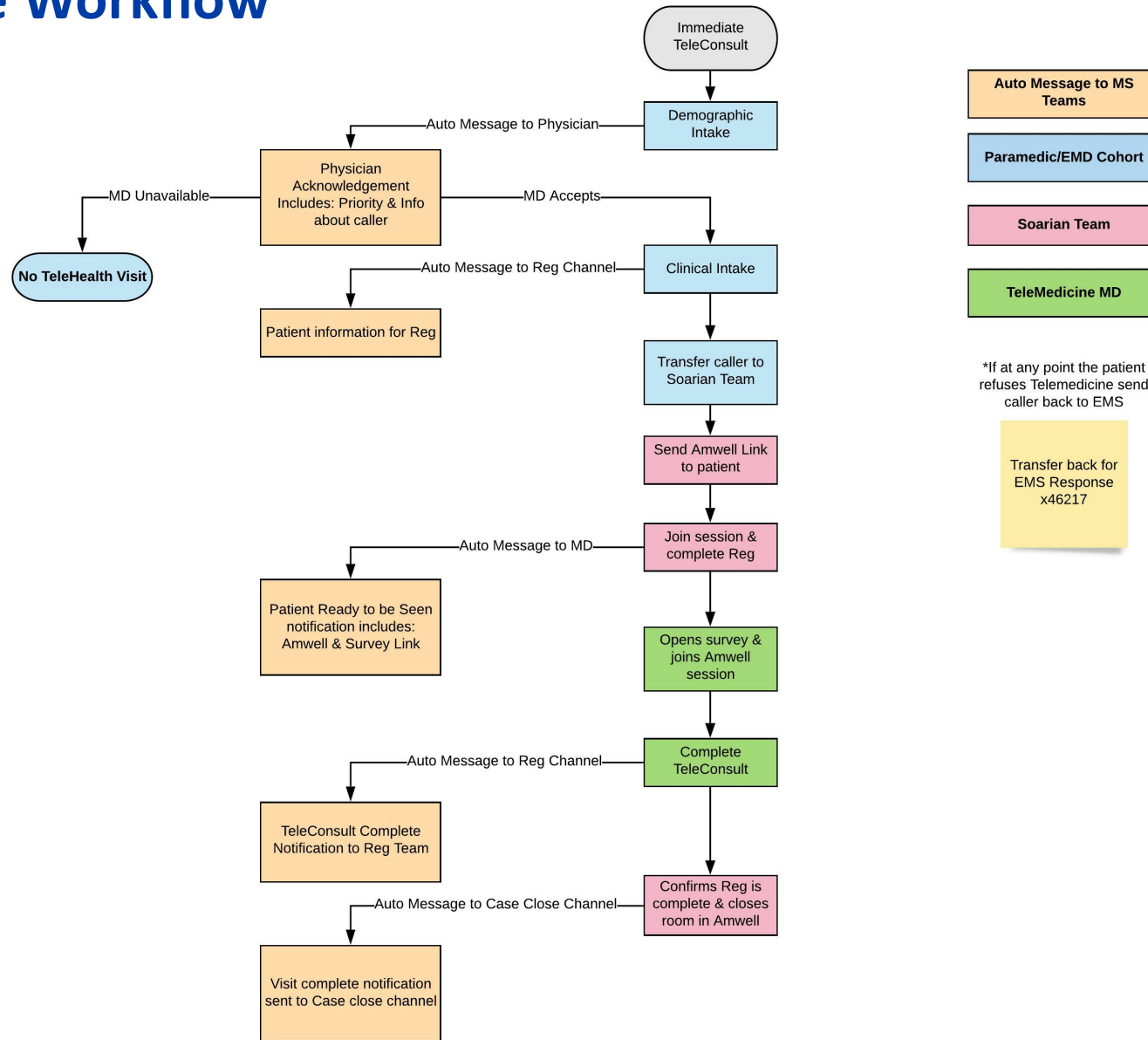
MS Teams



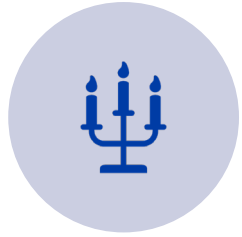
MS Power Automate



EMS Telemedicine Workflow



Barriers & Solutions



FAITH



RESOURCES



TIME



TECHNOLOGY



BILLING

...Where do we go from here?



Northwell Emergency Telehealth Services (NETS)



NETS Vision & Program

Our Vision

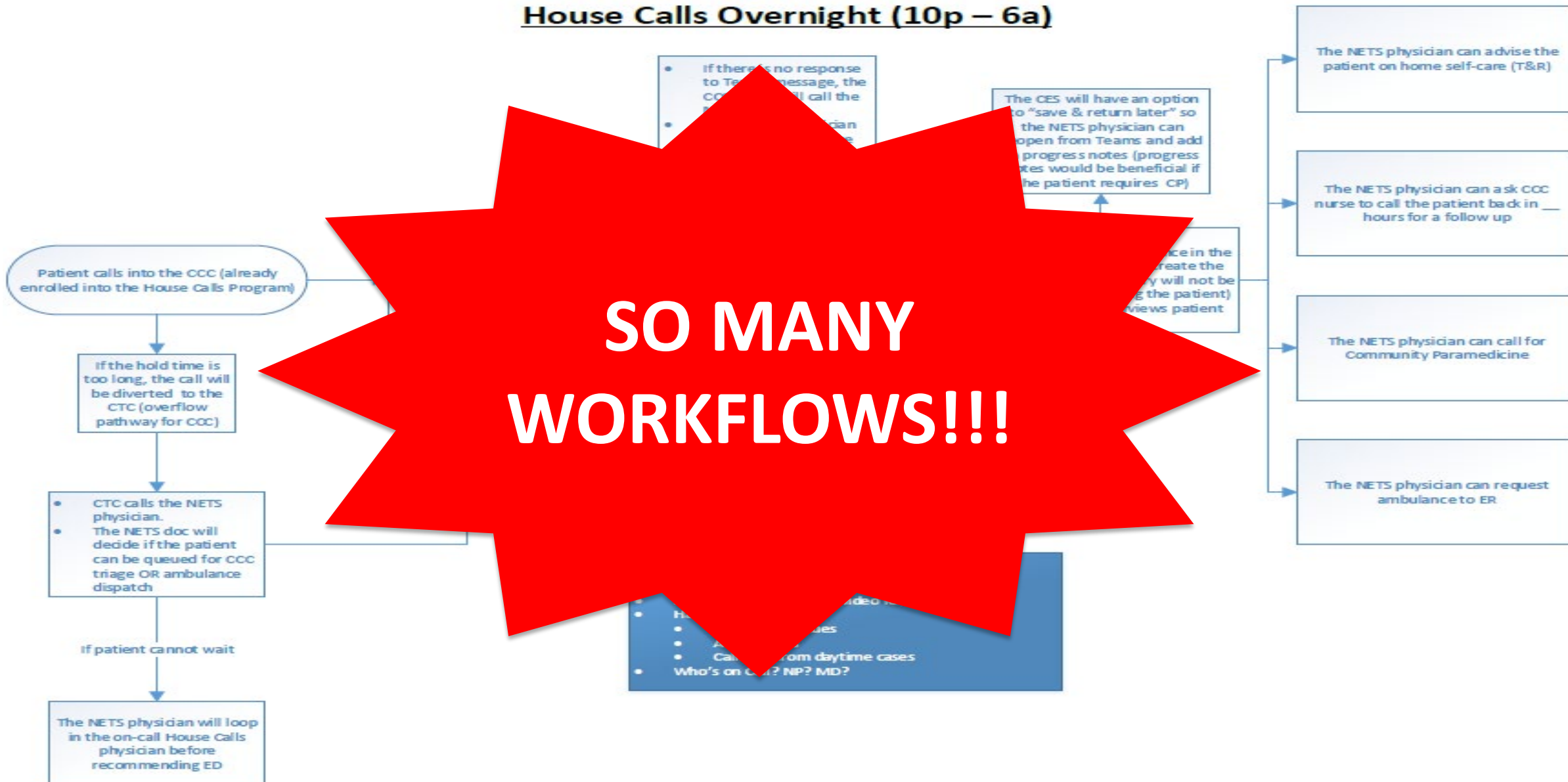
Northwell Emergency Telehealth Services (NETS) was created to respond to the unprecedented situation caused by the COVID-19 pandemic: the public was not seeking health care in the traditional format, which left EDs with low volumes and providers with excess time.

Program Description

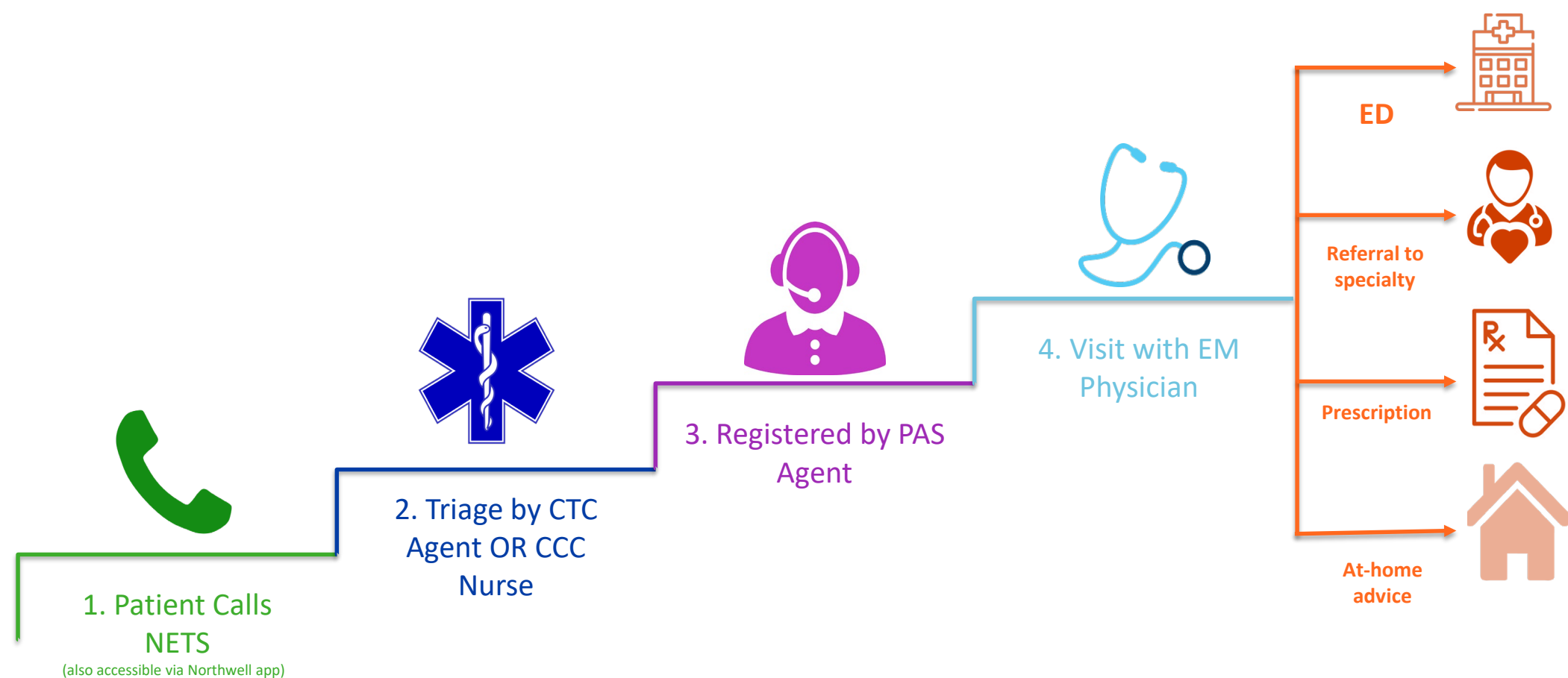
- Northwell Emergency Telehealth Services (NETS) is a **24/7 telehealth service** provided by **Northwell's Emergency Medicine Service Line and Centralized Transfer Center**.
- NETS is unique compared to other telehealth services because our staffing model is made up entirely of **Emergency Medicine physicians**.
- NETS serves many populations through direct-to-consumer and Northwell-managed programming.

Workflow

House Calls Overnight (10p – 6a)



NETS Process



NETS: The Populations We Serve

Northwell Employees

Well Tower Assisted Living

FDNY 911/311

Community Paramedicine

ER on Demand

House Calls

Online Medical Control

Transitions of Care Management

Centralized Transfer Center

NETS Program Offerings

Availability anytime to an EM physician with video conferencing capabilities

Expedient access to care: patients see an EM physician within an hour of calling

Efficient face-to-face appointment: 15 minutes with a doctor leads to diagnosis and/or care navigation plan

Direct connection to an ambulance, if needed

Call-ahead service to all Northwell emergency departments, if needed

Prescriptions (non-narcotic) sent to the pharmacy of patient's choice, including 24/7 pharmacies

Direct connection to ambulatory referral services next day

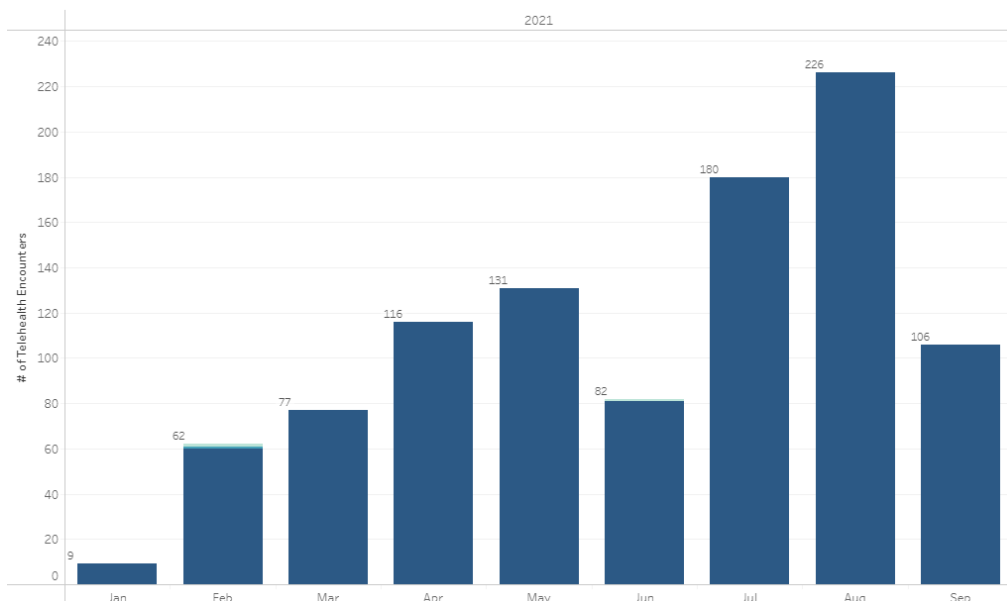
Discharge instructions and work/school notes are sent to patient's email after the visit

Next day follow-up with an EM physician

NETS Program Data

2021 Volume by Month

Total volume = 989

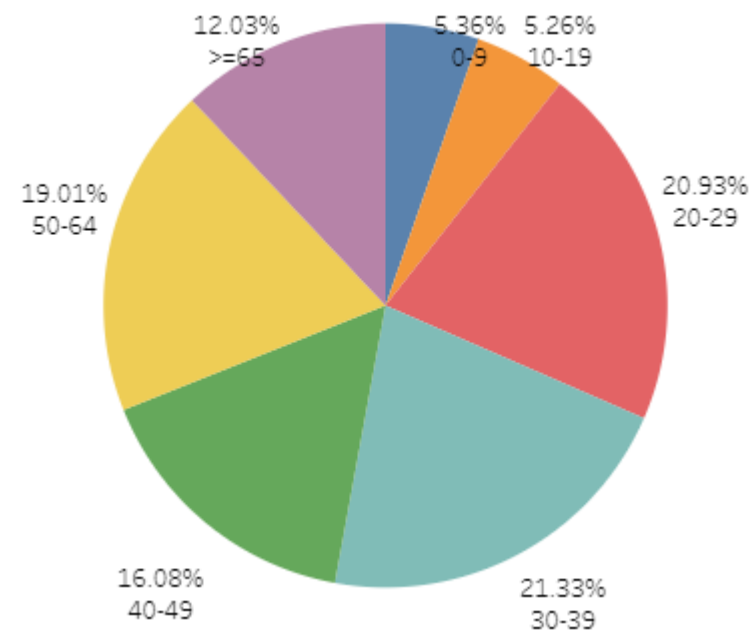


County of Origin

Nassau County	NY	352
Suffolk County	NY	195
New York County	NY	183
Queens County	NY	87
Kings County	NY	74

Age Distribution

(median = 38 years)



Most Common Chief Complaints

Chief Complaint	% of Cases
UTI/Hematuria	21%
Cellulitis/Rash	11%
Back Pain/Flank Pain	8%
Abd pain/diarrhea	8%
Chest Pain/SOB	8%
URI/COVID Sx	5%

NETS: The Populations We Serve



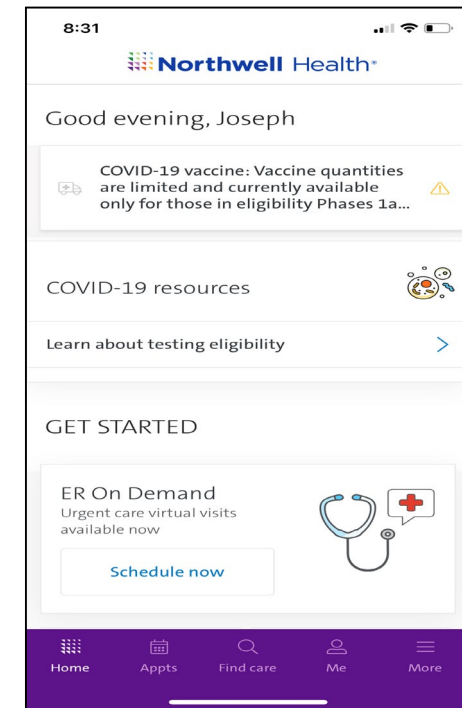
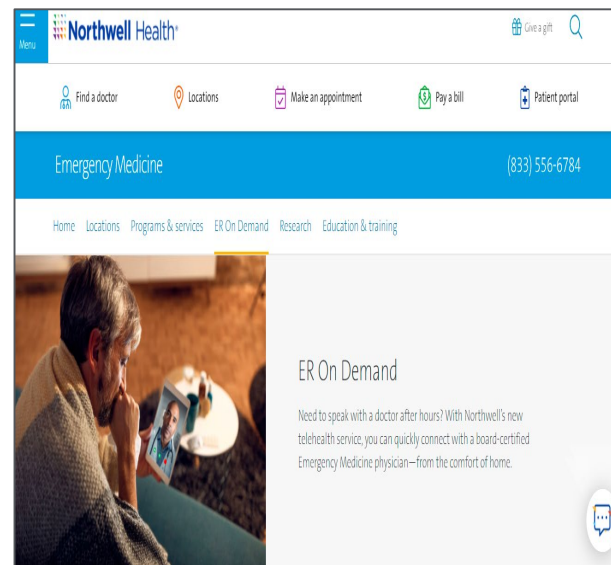
ER on Demand Program Description

ER on Demand is a **direct-to-consumer program** covering the overnight care gap from 8p-8a daily. **Emergency Medicine physicians** are taking telehealth calls from patients in our community who are located at home in **New York State**. Patients can access ER on Demand by **calling a direct line** into our agents or **self-scheduling through the Northwell app**.

ER on Demand did a soft launch in November 2020 for Northwell employees. On February 1st, 2021, ER on Demand launched publicly, with a marketing strategy **focused on paid search terms** that direct consumers to the ER on Demand [webpage](#). Currently, the marketing strategy is focused on Manhattan, Nassau, & Suffolk counties.

Of the programs that utilize NETS' services, ER on Demand has the most similar patient population to the outpatient population.

ER on Demand bills patients using outpatient specialist E&M codes.



Digital Patient Experience Application

Exclusion List Screen

9:41

Appointment information for your
Emergency virtual visit

Currently, not all appointments can be scheduled online.
If you're coming in for anything listed below, call us. Otherwise, select continue.

- Abnormal behavior, confusion, intoxication
- Inability to walk, unexplained extremity numbness or weakness
- Pain medication or psychiatric medication prescriptions
- Respiratory distress, difficulty breathing
- Severe chest pain
- Slurred speech or other stroke-like symptoms
- Vision loss

Call (XXX) XXX-XXXX

Continue

If you need a Northwell Health Ambulance,
call (833) 259-2367

ER on Demand Patient Population

Patient Age

Age Group	% of Cases (n=994)
18 & Under	11%
Ages 19-34	35%
Ages 35-49	27%
Ages 50-64	18%
65 & Over	9%

Day of the Week

Day of the Week	% Patients
SUN	18%
MON	13%
TUE	13%
WED	12%
THU	12%
FRI	14%
SAT	18%

Escalations and Referrals

Disposition	% of Cases
CEMS called by agent	3%
Physician recommends the ED	10%
Physician recommends ambulatory referral	8%

Our service is directed towards individuals with mild to moderate acuity.

Patients who call with time-sensitive, high acuity illness or symptoms that require in-person diagnostics are referred to the appropriate level of care.

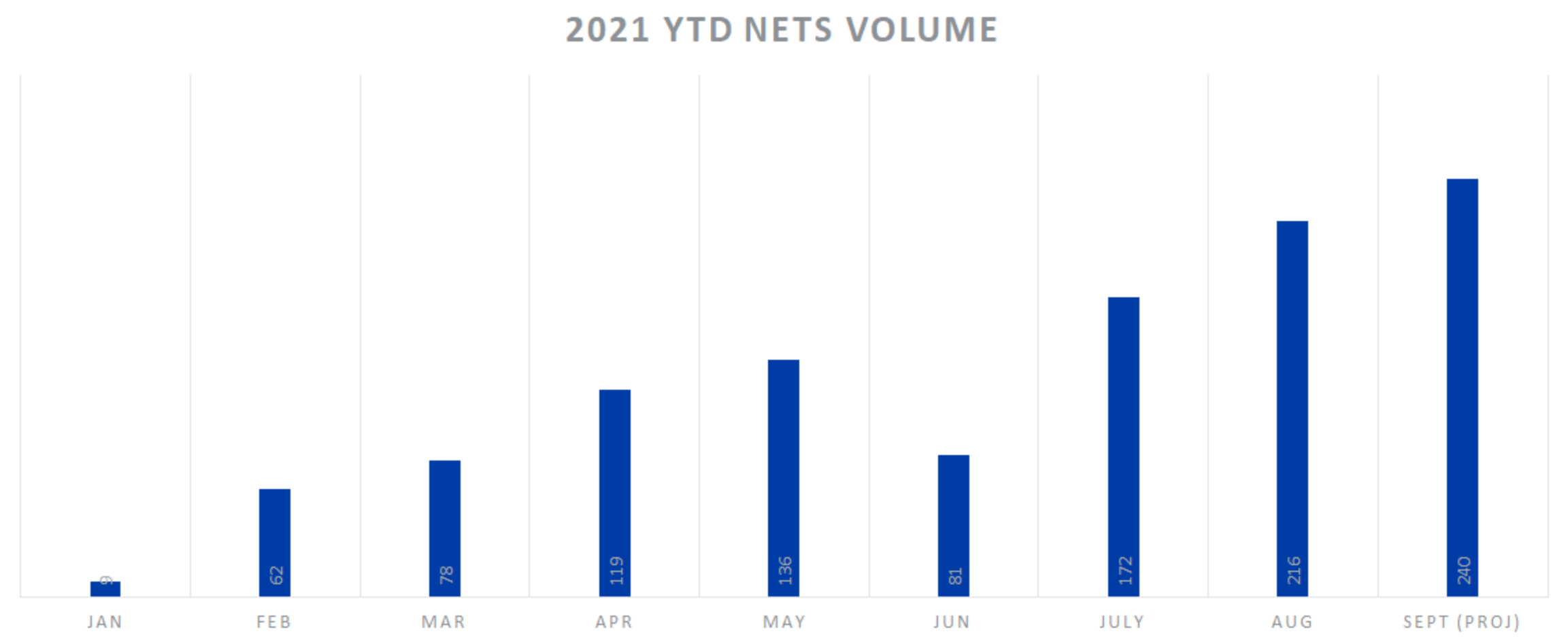
Average # Cases/Shift (since Feb 1)

Day of the Week	Avg # Cases
SUN	4.8
MON	3.5
TUE	3.4
WED	3.2
THU	3.1
FRI	3.9
SAT	4.8

Looking Ahead for ER on Demand



Patient Volume Growth: Over Time



Patient Volume Growth Strategy: Lean into Marketing



Patient Volume Growth Strategy: Support our Existing Contributors

Northwell Employees

Assisted Living Facilities/SNFs

FDNY 911/311

Community Paramedicine

ER on Demand

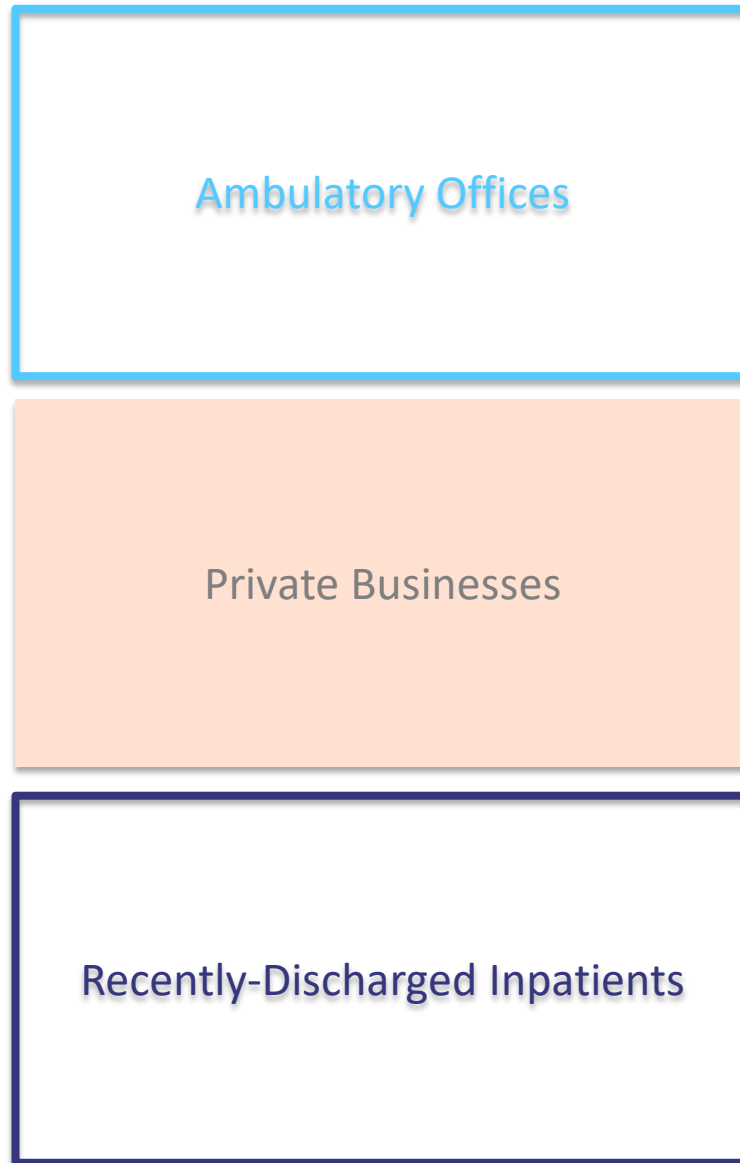
House Calls

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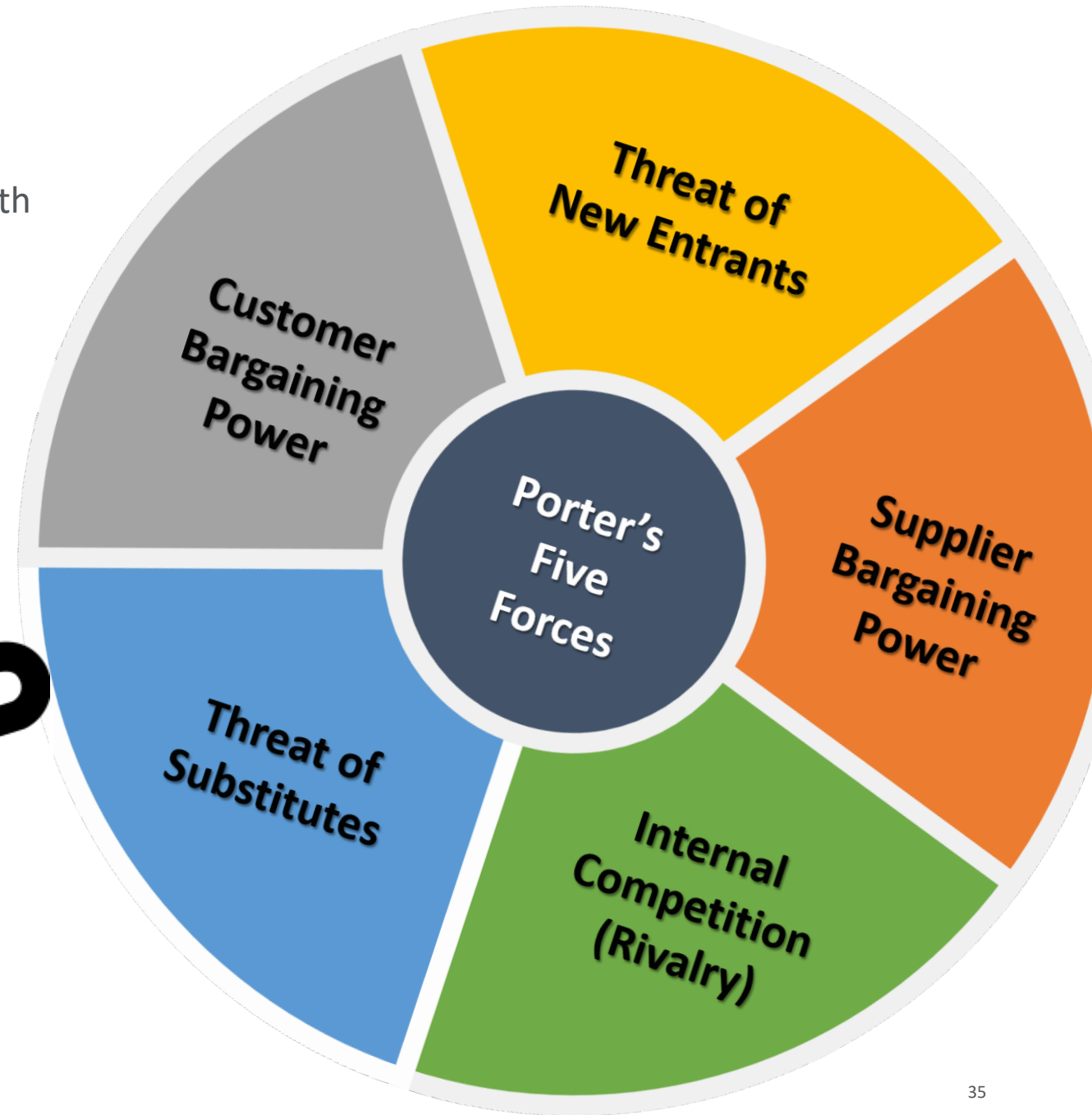
Centralized Transfer Center

Patient Volume Growth Strategy: Create New Access Pathways



Upcoming Challenges

- Ongoing patient interest in receiving care via telehealth
- Ongoing insurer interest in paying for telehealth
 - Differentiation in CPT codes
- Increased regulation of telehealth
- Appetite of the organization to invest in a start-up
- Significant growth competition



Moving Forward: Our Secret Ingredient

Emergency
Department
Leaders

Patient
Access
Services

Northwell
Legal

Emergency
Medicine
Service Line
Central Ops

Northwell
Marketing

dPX Team

Centralized
Transfer
Center

Center for
Emergency
Medical
Services

Revenue
Cycle

Northwell
Billing &
Coding

Registration

Market Differentiation: Expansion of Services

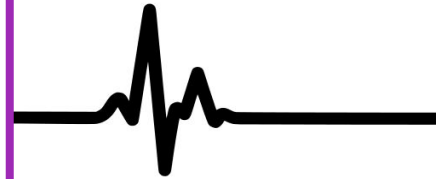
Lab Tests



Radiology Studies



Vitals Tracking



Ambulatory
Communication



Improving the Patient Experience: Operational Improvements

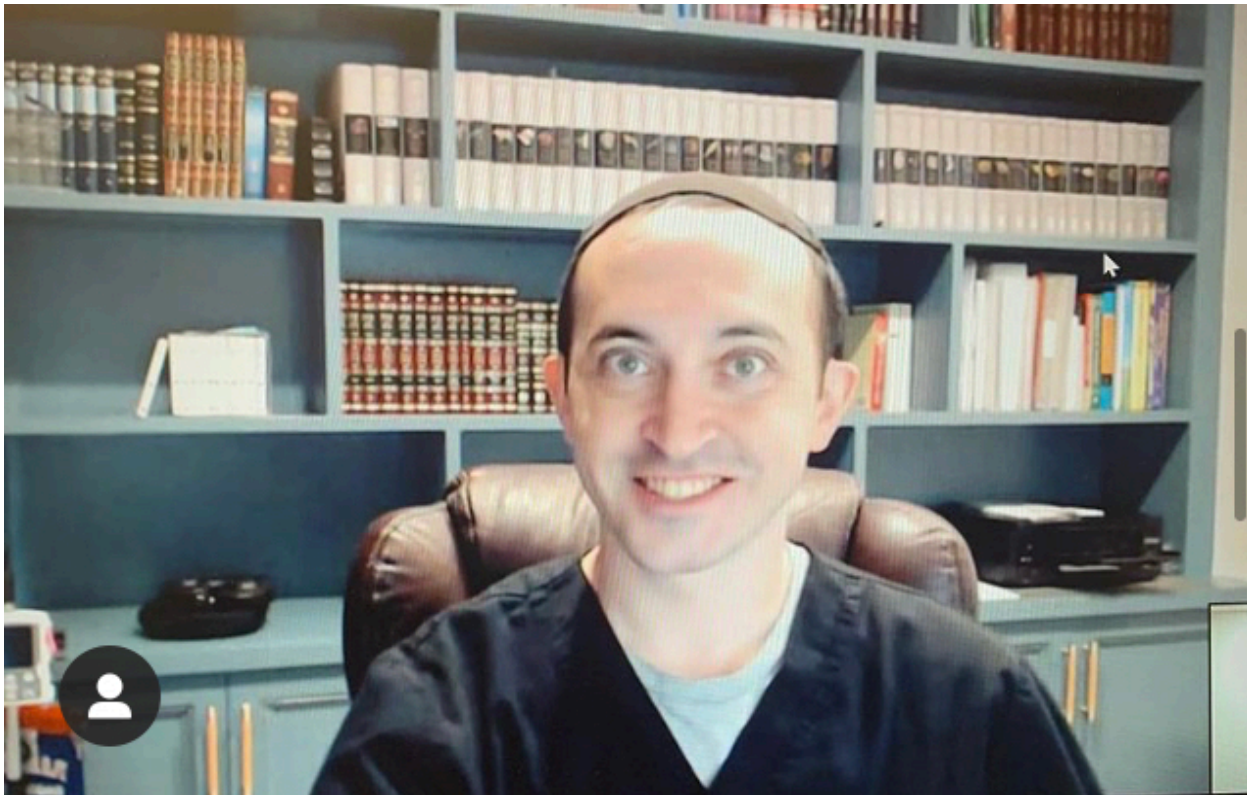
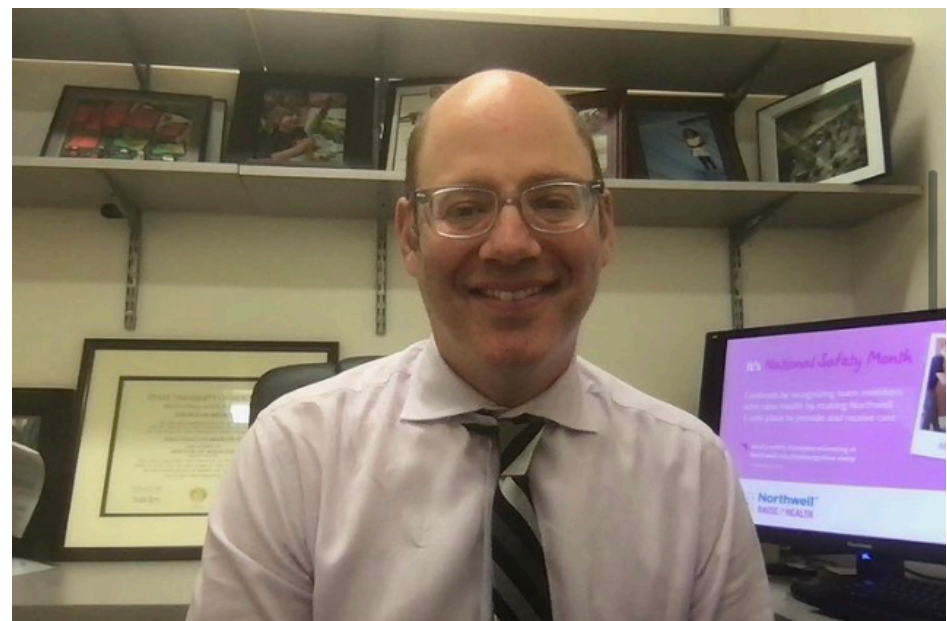
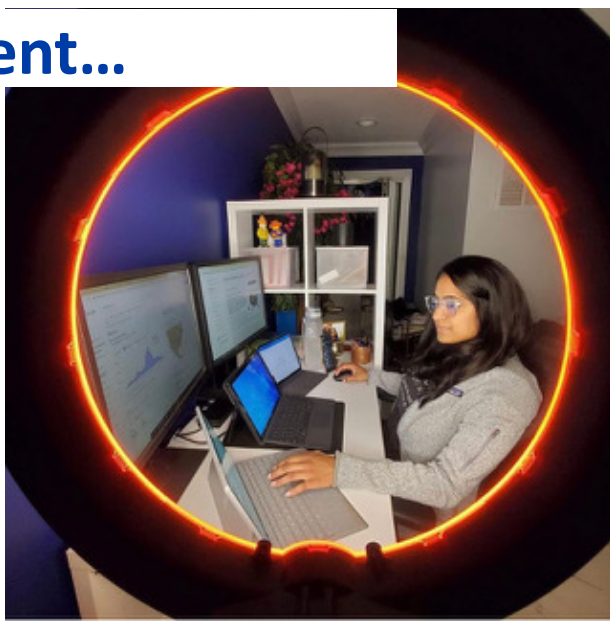
Understand our process & iterate

- Increase data collection to understand the connection between each element of the process
- Streamline the patient demographic collection process
- Improve on our existing pathways to access NETS

Apply patient and physician feedback

- Optimize our software
 - Lower necessary internet speeds
 - Improve video resolution
 - Add chat function with ability to send images
- Optimize our hardware (to support our physicians)
 - Multiple screens for physicians
 - Lighting and camera upgrades

Our Other Secret Ingredient...



To learn more about NETS and
ER on Demand, read about us:

[Becker's Hospital Review](#)

[ER on Demand Press Release](#)

[ER on Demand Website](#)

[Northwell Health Insights](#)