GNYHA'S SIT STAT SYSTEM
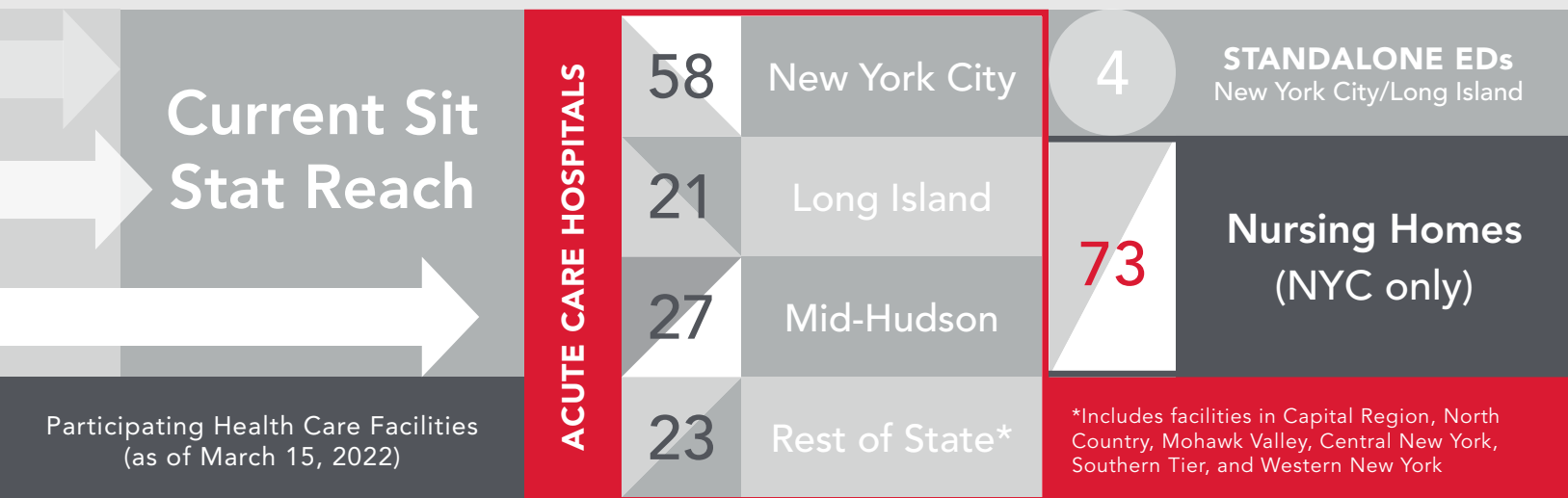
AN UPDATE ON RECENT ACTIVITIES, ONGOING EFFORTS, AND OUR PATH FORWARD

GREATER NEW YORK HOSPITAL ASSOCIATION
GNYHA

WHAT IS SIT STAT?

In 2017, GNYHA made a comprehensive web-based information-sharing and situational awareness platform available to all New York State hospital members at no charge. Called Sit Stat and built on the EMResource platform developed by Juvare Inc, the system enhances preparedness and response capabilities at the facility, health system, and regional levels. Sit Stat is currently used by 129 hospitals, 73 nursing homes, and numerous New York City and New York State response agencies. Participating users have access to static facility-level information and dynamic information collected during emergency events for both their own facility and other facilities across the region. Sit Stat informs and supports planning, coordination, and collaboration. A Sit Stat Advisory Council has overseen frequent enhancements to the platform that have increased the system's value and utility.

Sit Stat supports members before, during, and after emergencies by collecting and displaying information on current and anticipated impacts and needs. To this end, GNYHA has developed standardized surveys for hazards such as heat and winter weather events, coastal storms, mass casualty incidents (MCIs), and infectious disease events. Data elements focus on facility impacts, operations, and bed census and availability.

Current Sit Stat Reach

Participating Health Care Facilities (as of March 15, 2022)

ACUTE CARE HOSPITALS

58	New York City
21	Long Island
27	Mid-Hudson
23	Rest of State*

4 STANDALONE EDs
New York City/Long Island

73 Nursing Homes (NYC only)

*Includes facilities in Capital Region, North Country, Mohawk Valley, Central New York, Southern Tier, and Western New York

SIT STAT FUNCTIONALITY

Sit Stat currently has three primary uses, all of which are designed in partnership with key stakeholders and tailored to meet the needs of the broader response community. The chart below outlines these primary functions, their intended purpose, and examples of information that is displayed.

	Description/Intended Purpose	Examples of Displayed Information
Facility Profiles	Directory information about each facility or agency, housed within individual facility profiles	Hospital Designations Hospital Services information Emergency Management Contacts Facility Departmental Contacts Other Hospital Capabilities

	Description/Intended Purpose	Examples of Displayed Information
Tailored Dashboards	Dashboards that provide specific information across facilities and/or agencies and support particular operations	Emergency Contacts Phonebook Hospital Designations Dashboard UN General Assembly Coordination Dashboard
Real-Time Event Surveys	Surveys deployed to gauge the real-time impact of a hazard and inform direct support and coordination	Extreme Temperatures Hazardous Weather Events Regional Evacuation Large MCI Patient Distribution

RESPONSE AGENCY ACCESS AND USE

With hospitals interacting and coordinating with a constellation of city, county, and State response agencies during day-to-day and emergency operations, agency access to and use of the Sit Stat System is a critical component. Most agencies have a limited number of operational users with access. This access offers situational awareness during emergency events so that agency personnel can understand impacts to the sector as a whole and identify specific hospitals or nursing homes that may require outreach for further assistance. Sit Stat informs agency actions without requiring additional data collection through phone calls or separate survey efforts. The following agencies and organizations use Sit Stat:

	AGENCIES/ORGANIZATIONS
New York City	Fire Department of the City of New York (FDNY) New York City Emergency Management (NYCEM) New York City Department of Health and Mental Hygiene (DOHMH) New York City Regional EMS Council (NYC REMSCO) Office of Chief Medical Examiner of the City of New York (OCME)
Nassau County	Nassau County Department of Health
Suffolk County	Suffolk County Department of Health
Westchester County	Westchester County Department of Health Westchester County Office of Emergency Management
New York State	New York State Department of Health (DOH)
Health Care Associations	Greater New York Healthcare Facilities Association (GNYHCFA) Greater New York Hospital Association Continuing Care (GNYHA CC) Iroquois Healthcare Association (IHA) Southern New York Association (SNYA) Suburban Hospital Alliance of New York State

PRINCIPLES THAT INFORM SYSTEM DEVELOPMENT

The following principles have informed GNYHA's development and stewardship of Sit Stat since 2017:

1. Situational awareness is the lifeblood of any emergency response. Sit Stat provides a trusted, shared space for the health care sector and response agencies to gain critical information about an emergency event's impact on hospital and nursing home operations.

2. End user input is imperative. GNYHA has grown Sit Stat in a methodical, stepwise fashion with guidance from its Sit Stat Advisory Council, which is comprised of participating facility and response agency users. To the greatest degree possible, questions and surveys are developed and socialized in advance and are as brief as possible. This reduces end-user burden and increases the consistency and reliability of the data collected.

3. To minimize end-user burden and increase Sit Stat's value as a place for dependable information, coordination with other data collection systems and efforts are pursued whenever possible. For example, Sit Stat displayed key hospital COVID-19 data points from DOH's Health Electronic Response Data System (HERDS) throughout the COVID-19 pandemic.

4. The Sit Stat System is used whenever possible to drive standardization in data collection and operational processes (e.g., the use of standardized bed definitions in bed availability and bed census surveys).

5. To the greatest extent possible, data collection should be automated to reduce end-user burden and increase data accuracy. To support this goal, GNYHA launched a Bed Occupancy Data Automation Pilot Project in fall 2020, enabling hospitals to map their inpatient beds to regional standardized bed definitions and then push bed census and availability data into the Sit Stat system via an automated integration every four hours.

6. By focusing surveys on the impact of emergency events and operational actions, Sit Stat data can be used to educate agency staff and political leaders as they consider immediate response actions, as well as program and policy approaches to mitigate the emergency's impact.

DATA SECURITY AND INTEGRITY

Sit Stat is rooted in a culture of information sharing that promotes increased regional situational awareness. This culture is nurtured through the maintenance of strong relationships and frequent opportunities for discussion and input. There are also clear expectations and processes related to data security and integrity. Every organization that participates in Sit Stat signs a Participation Agreement that outlines data access and data sharing responsibilities and designates specific system users. Sit Stat uses the [Federal Traffic Light Protocol: Amber](#) as a guide for how information in the system should be handled and shared. GNYHA staff regularly verify system users for each participating organization, remove inactive users from the system, and adjust permissions as appropriate.

SIT STAT USE IN SUPPORT OF NEW YORK'S COVID-19 RESPONSE

GNYHA has constantly adjusted and tailored the use of Sit Stat throughout the ongoing COVID-19 pandemic to meet the specific circumstances of each wave. The data collected has served numerous purposes, from supporting transfer efforts for individual patients to informing broader advocacy efforts at the local and State levels.

WAVE I [MARCH 2020-JULY 2020]

In March of 2020, as COVID-19 was beginning to spread rapidly in New York, GNYHA fielded a Daily Hospital Survey to gauge its impact on facility operations. With a focus on the ability of hospitals to manage massive, rapid patient surges, GNYHA integrated key data points from the DOH HERDS survey into Sit Stat. These data points included the numbers of admitted COVID-19 patients and available staffed and ICU beds, and provided, for the first time, widespread visibility into facility-level surge and capacity for all Sit Stat users.

GNYHA also partnered with the many alternate care sites that were stood up across New York City during this time, including the Javits New York Medical Station, the USNS Comfort, and several hospital-operated sites. Through this partnership, alternate care site admissions criteria as well as daily census and availability data were made available to hospitals and the broader health care response community. This visibility helped facilitate hospital discharge operations.

WAVE II [NOVEMBER 2020-MARCH 2021]

During Wave II, which was less intense but longer in duration, GNYHA's focus shifted to indicators of hospital capacity management. Based on lessons learned during the first wave, GNYHA added a twice-daily Hospital Surge Indicator composed

of emergency department (ED) and inpatient metrics, along with other operational questions. These indicators, which were developed to provide the hospital community, response agencies, and decision-makers with a more complete picture of hospital surge operations, complemented HERDS data related to COVID-19 hospitalizations and available beds.

OMICRON VARIANT WAVE [DECEMBER 2021-FEBRUARY 2022]

At the onset of the Omicron variant surge in late 2021, which significantly impacted health care staffing, GNYHA deployed weekly or twice-weekly hospital surveys. These focused on ED operations and impacts, staff shortages, actions taken to manage the patient surge including redeployment of staff and curtailment of services, and hospital capacity and throughput issues related to acute transfers and post-acute discharges. The information that was collected informed efforts such as the strategic placement of mobile COVID-19 testing units to support busy emergency departments. GNYHA also surveyed New York City nursing homes on their admissions capabilities and displayed this information in Sit Stat to support hospital discharge planning.

BROADER SIT STAT USE IN 2020, 2021, AND EARLY 2022

Sit Stat has been used to support a broad range of incidents beyond the COVID-19 pandemic, including daily MCIs in New York City and weather-related events across New York State. The steady use of Sit Stat has continued to increase familiarity with and trust in the system across the many health care sector stakeholders who rely on the system for valuable situational awareness. The sections below highlight some of the ways Sit Stat has been used to support both common and unique events.

MCI NOTIFICATIONS

The single agency with enhanced access to Sit Stat is Emergency Medical Services (EMS) within FDNY. Since 2019, FDNY EMS has been using Sit Stat to notify 911-receiving hospitals in the New York City system of MCIs in the vicinity of their facility, improving upon what had previously been a phone-based process. This new process offers increased speed and efficiency and represents the first step in automated bidirectional communications between member hospitals and a response agency during a response in near-real time. GNYHA worked extensively with the Sit Stat Advisory Council and FDNY to develop the notification system's processes and workflows.

Transitioning the MCI notification process to Sit Stat also allowed FDNY to simultaneously notify additional roles/departments within hospitals when the ED is notified, which has expedited internal hospital notifications. FDNY has used Sit Stat to notify hospitals of 973 MCIs and made roughly 4,000 notifications directly to EDs and 63,000 notifications to key hospital departments and response staff since 2019.

EVENT-RELATED PATIENT TRACKING

Immediately following the devastating apartment fire in the Bronx in early January 2022, GNHYA deployed a Level C MCI Patient Distribution Survey to capture data on the distribution of event-related patients across New York City and Westchester County hospitals (Level C refers to NYC MCI protocols in place since August 2016). The survey aimed to characterize the fire's impact and provide situational awareness to surrounding hospitals as they anticipated potentially receiving patients or using their internal resources to help support neighboring hospitals. The survey was deployed a second time the day after the fire to capture any additional patient movement (this data was used to help reconcile agency data for official patient manifest purposes). While the survey worked well, GNYHA is in ongoing discussions with member hospitals and response agencies about improvements to the patient distribution survey so that it can serve the immediate and post-event needs of the response community during future events of this scale.

RESPONSE TO HAZARDOUS WEATHER & OTHER HAZARDS

GNYHA uses Sit Stat to monitor operations and gauge impacts to hospitals and nursing homes during and following weather-related events including prolonged heat waves, winter storms, and coastal storms such as Henri and Ida in 2021. Event

surveys typically focus on operational issues such as infrastructure damage, staffing and supply shortages, non-patient sheltering, and other safety and security concerns.

Gathering real-time data from facilities allows GNYHA and key response agencies to focus on facilities most impacted by the event. Making that data available to hospitals and nursing homes across the region also provides critical information about how other facilities have been impacted, which enhances their ability to support their neighbors and anticipate future potential impacts internally.

Sit Stat also supports bed-matching operations during single-facility or regional evacuation events, whether stemming from weather or other causes. Using regional standardized bed definitions, GNYHA can deploy Sit Stat surveys that gather hospital and/or nursing home bed census and availability data. This data is collected in near-real time and displayed in a dashboard format that allows evacuating facilities to more efficiently identify receiving beds for their patients. These surveys make the already robust hospital and health system patient movement processes more efficient while also allowing receiving facilities and response agencies to track patient movement at a high level.

MONITORING UNIQUE EVENTS

Sit Stat has also been used to monitor sector-wide impacts of other types of events such as civil unrest and even the implementation of certain public health policies. During the summer of 2020, GNYHA developed a Sit Stat survey to monitor the impact of heightened civil unrest and protest activity across the nation. Particularly in New York City, widespread activity created transportation issues and posed potential commuting hazards. GNYHA deployed a series of surveys over the span of a week that tracked ED volume and safety and security concerns, and monitored proactive measures taken by hospitals and health systems across the downstate New York region to mitigate potential operational impacts. These surveys were used to inform direct member outreach and coordinate broader supports with partnering agencies, including NYCEM and the New York City Police Department.

In late 2021, DOH announced a health care worker COVID-19 vaccine mandate in an effort to quell further spread in health care facilities. With the mandate contributing to existing staffing shortages across New York State, GNYHA surveyed Sit Stat hospitals to gauge the severity of staffing shortages, related service curtailments, and patient discharge issues stemming from staffing shortages in post-acute settings. New York City nursing homes were also surveyed about staffing shortages and other operational impacts. GNYHA used the information collected to advocate for the strategic placement of limited staffing resources.

COLLABORATIVE EXPANSION EFFORTS

As GNYHA continues to develop Sit Stat, other stakeholders have expressed interest in partnering with GNYHA to expand Sit Stat's scope, both in other parts of New York State and in other health care sectors.

NURSING HOMES IN NYC

Beginning in summer 2020, GNYHA's Continuing Care division partnered with DOHMH and other nursing home associations to expand Sit Stat to all New York City nursing homes. The nursing home program's design is guided by the Nursing Home Advisory Group and informed by the hospital use case and best practices. In the past year, New York City nursing homes have participated in various Sit Stat surveys, including those related to the COVID-19 pandemic and numerous weather-related events. As mentioned above, nursing homes were surveyed during the COVID-19 Omicron variant surge, providing critical information on their capacity to accept new admissions, which was shared with hospitals to inform their discharge planning.

More than one third of the City's 170 nursing homes participate in Sit Stat and recruitment is ongoing. Future efforts will focus on achieving citywide coverage, further developing nursing home-specific uses, and facilitating cross-sector visibility and information sharing where appropriate.

EXPANSION TO UPSTATE HOSPITALS

In late 2021, due to chronic hospital capacity challenges in upstate New York, GNYHA partnered with IHA to launch a pilot project to support patient transfers. The pilot included 15 IHA hospital members in upstate New York, with each facility expected to complete a daily survey on service curtailments and transfer capacity.

In early 2022, IHA built on the pilot project and GNYHA's broader efforts in the downstate region by formally offering Sit Stat to all its upstate hospital members. While still in its early stages, this expansion initiative will use a phased approach to integrate the IHA hospitals into Sit Stat to facilitate both independent regional use and collaboration with the downstate hospitals when appropriate.

DATA AUTOMATION & SYSTEM INTEGRATION EFFORTS

The COVID-19 response in New York and elsewhere exacerbated longstanding health care sector concerns about data collection burden, data quality, and data reliability. Understanding these frustrations and the desire to move away from manual data entry and toward automated data integration, GNYHA is pursuing numerous initiatives that aim to not only improve existing data collection and data-sharing processes, but also establish new capabilities that will improve day-to-day and emergency operations.

SIT STAT 3.0 INTEGRATION PROGRAM

In March 2021, using a set of previously developed and tested standardized bed definitions, GNYHA launched Sit Stat 3.0, a statewide program that allows all GNYHA member hospitals and health systems to integrate their internal bed management systems with the Sit Stat platform. This initiative builds on 2020's Bed Occupancy Data Automation Pilot Project and aims to establish a mechanism for real-time monitoring of regional bed capacity. Sit Stat 3.0 reduces the burden of manual data reporting and enhances data reliability, particularly during scenarios that require large-scale or regional patient movement, including MCIs or health care facility evacuations.

Recruitment and enrollment for this initiative are ongoing, and GNYHA continues to coordinate with DOH to align with a complementary effort at the State level. GNYHA also plans to further build upon Sit Stat 3.0, which currently only involves inpatient bed data, to incorporate ED and surge bed information. Development of an ED metric has already begun as part of a GNYHA-FDNY Emergency Department Capacity Metric Workgroup.

EMERGENCY DEPARTMENT CAPACITY METRIC

GNYHA and FDNY co-lead an ED Capacity Metric Workgroup that consists of several Emergency Medicine clinicians. The workgroup aims to develop a regional metric to be used as a measure against a historic baseline within a particular ED, as well as a comparative indicator across facilities. Informed by existing ED crowding metrics used across the country, the metric has been tailored to New York City's ED landscape and is built on several components, including occupancy, efficiency, acuity, and outflow indicators.

GNYHA and FDNY are working with two downstate health systems to test and analyze a draft metric developed by the workgroup, using a diverse real-world dataset to inform the final metric calculation. Next steps include additional testing, technical and operational pilot phases, development of data governance structures, and socialization of the metric and its intended use.

The ED Capacity Metric will ultimately be incorporated into hospital integrations established through the Sit Stat 3.0 initiative to facilitate real-time regional ED capacity monitoring. This real-time data will facilitate improved patient transport and regional load balancing efforts during emergencies while also informing operational decisions and resource allocation at the single-facility level.

INTEGRATION WITH FDNY COMPUTER AIDED DISPATCH SYSTEM

The Fire Department of the City of New York uses a computer-aided dispatch system (CAD) to manage 911-EMS operations. The CAD is utilized by call-takers and dispatchers at the Public Safety Answering Centers to prioritize incidents, identify the status and location of EMS units in the field, and effectively dispatch personnel. The emergency medical technicians and paramedics responding to 911 calls use CAD to review assignments and find critical information regarding incident locations, staging, and safety alerts. FDNY is currently working to integrate its CAD system with the Sit Stat platform to enhance communication with hospitals and improve patient distribution and load balancing. Priority areas for the CAD-Sit Stat integration include fully automating the MCI and critical patient notification processes and making real-time bed availability and ED capacity data available to FDNY dispatchers to inform patient transport decisions. Future consideration may be given to formally incorporating real-time hospital capacity into the official patient distribution algorithm.

ENVISIONING A COLLECTIVE PATH FORWARD

GNYHA continues to improve and build upon Sit Stat's current scope, design, and use. Ongoing efforts include initiatives to expand Sit Stat to other health care sectors and regions of New York State as well as projects focused on data automation and system integration (including those outlined above). To best support its members, GNYHA also continues to think through ways to better integrate and align Sit Stat with New York's multiple existing data collection and data sharing efforts.

In 2021, GNYHA partnered with DOHMH to launch a Regional Situational Awareness Strategic Assessment Initiative, which involves assessing key health and medical stakeholder capabilities and creating a roadmap for regional alignment in this area. Through 22 structured interviews—with hospitals and health systems, response agencies, and health care associations—GNYHA is exploring the current situational awareness and information sharing landscape across the downstate region and identifying sector-specific capabilities, gaps, and priorities for future efforts.

GNYHA is also analyzing the findings from the structured interviews and will soon produce an initial set of recommendations that will be discussed with all participating entities at an upcoming summit. Following the summit, GNYHA will propose a final set of strategic recommendations laid out over the course of five years. In general, GNYHA aims to pinpoint specific initiatives that will address existing gaps and redundancies and facilitate regional alignment while promoting a set of key principles that should inform all future data collection and data-sharing efforts. One component of this project will be to assess how Sit Stat can be further enhanced, expanded, and/or integrated into existing systems to better meet the needs of the health care sector.