

Patient Surge in Disasters: A Hospital Toolkit for Expanding Resources in Emergencies

Introduction and References

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INTRODUCTION

For many larger hospitals, the ability to capture a truly accurate census at any given moment remains an elusive goal. Even using the latest bed tracking software and analysis tools, hospital admitting managers know they will seldom be able to fully reconcile actual bed utilization to their system reports. Change-of-shift dynamics, data entry lag time, and a multitude of other variables deriving from patient admission, discharge and transfer activities contribute to a complex bedding landscape that makes one marvel at how hospitals are able to routinely compile even relatively accurate census profiles. However, obtaining an accurate census at the outset of a mass casualty emergency is essential as vacant, supported beds will quickly be at a premium. Bed management professionals know the best way to do this is to use their electronic systems in conjunction with proven strategies, such as bed-by-bed walk-throughs, and partnering more closely with hospital staff that are able to assist with identifying and expediting discharges.

Because disasters resulting in significant medical surge can be either short- or long-term in duration, hospitals must prepare for both. Typically, increased inpatient volume due to shorter-duration incidents may be managed by activating rapid discharge protocols (though hospitals may have to engage capacity expansion strategies to cope with a commensurate increase in ambulatory patient volume). Longer-duration disasters may require hospitals to continue rapid discharge efforts while taking additional steps to expand capacity in traditional clinical, non-traditional clinical and non-clinical areas. In both cases, preparedness is key to successful response outcomes.

Currently, New York City is home to more than 57 community, specialty and tertiary hospitals that range in size from 200 to 1200 beds. Most NYC hospitals have been regular and enthusiastic participants in the jurisdiction's *Hospital Preparedness Program*, and *Patient Surge in Disasters: A Hospital Toolkit for Expanding Resources in Emergencies* is a compilation of tools that have been used to help them plan and prepare for disaster surges. Each tool provides step-by-step instructions for assessing and documenting their surge staffing, facility and supply needs. Additionally, implementation strategies, along with timelines and useful forms that can be adapted to the size and services of any hospital, are included. *Patient Surge in Disasters: A Hospital Toolkit for Expanding Resources in Emergencies* is an adaptable, all-hazards resource that can help a hospital, regardless of size or available services, to prepare for and respond to virtually any emergency incident.

Surge Tools, including working spreadsheet templates, are downloadable at:
<http://www.nyc.gov/html/doh/html/em/emergency-surge.shtml>



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Bellevue Hospital Center
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 Harlem Hospital Center
 Hospital for Joint Diseases
 Hospital for Special Surgery
 Interfaith Medical Center
 Jacobi Medical Center
 Jamaica Hospital Medical Center
 Kings County Hospital Center
 Kingsbrook Jewish Medical Center
 Lenox Hill Hospital
 Lincoln Medical and Mental Health Center
 Long Island College Hospital
 Long Island Jewish Medical Center
 Lutheran Medical Center
 Maimonides Medical Center
 Memorial Hospital for Cancer and Allied Diseases
 Metropolitan Hospital Center
 Montefiore Medical Center/Children's Hospital
 Montefiore Medical Center/Moses Division
 Montefiore Medical Center/Wakefield Campus
 Montefiore Medical /Weiler Einstein Division
 Mount Sinai Hospital
 Mount Sinai Hospital of Queens

New York Community Hospital
 New York Downtown Hospital
 New York Eye and Ear Infirmary
 New York Hospital - Queens
 New York Methodist Hospital
 New York University Medical Center
 New York Westchester Square Medical Center
 North Central Bronx Hospital
 North Shore University Hospital at Forest Hills
 NY Presbyterian Hospital/Allen Hospital
 NY Presbyterian Hospital/Columbia University Medical Center
 NY Presbyterian Hospital/Morgan Stanley Children's Hospital
 NY Presbyterian Hospital/Weill Cornell Medical Center
 Queens Hospital Center
 Richmond University Medical Center
 St. Barnabas Hospital
 St. John's Episcopal Hospital
 St. Luke's-Roosevelt Hospital - Roosevelt Division
 St. Luke's-Roosevelt Hospital - St Luke's Division
 Staten Island University Hospital - North Campus
 Staten Island University Hospital - South Campus
 Steven and Alexandria Cohen Children's Medical Center
 The Brooklyn Hospital Center
 University Hospital of Brooklyn - SUNY Downstate
 VA NY Harbor Healthcare System - Bronx
 VA NY Harbor Healthcare System - Brooklyn
 VA NY Harbor Healthcare System - Manhattan
 Woodhull Medical and Mental Center
 Wyckoff Heights Medical Center



GLOSSARY OF TERMS

Additional Capacity – Additional staffed beds to accommodate sudden, unexpected upturns in demand.

Attending Physician – A doctor with admitting privileges.

Bed Board – A tool to keep track of patients, patient status and bed availability; also used to describe meetings to review patient admission, discharge, and transfer activity.

Bed Management Committee – A group of clinical and administrative bed management experts who are charged with organizing and directing activities related to inpatient admissions, discharges and transfers.

Bed Tracking Manager – An individual who maintains information on the status, location and availability of all patient beds.

Bed Tracking System – A program or system used to track patients and initiate activities such as bed turnover and patient discharge.

Emergency Census Tool – A census capture form used during emergencies to profile vacant beds, potential and definite discharges, and transfer activity in all patient care units.

Holds – Patients in an emergency department who are awaiting staffed beds.

Hospitalists – Physicians employed by hospitals.

House Staff – Hospital interns, residents and fellows.

Length of Stay – Patient-stay duration (usually calculated in number of days from time of admission to time of discharge).

Med/Surge Unit – Patient care unit (pediatric, adult, geriatric) that provides care for patients who are acutely ill or injured.

Monitored Beds – For medicine patients who require close monitoring; for surgical patients who require close postoperative follow-up.

Patient Tracking Manager – An individual who monitors and documents the location of patients at all times within the hospital's patient care system and tracks the destination of all patients being discharged from the facility.

Rapid Discharge Tool – An NYC DOHMH-developed tool to assist emergency managers and hospital staff in accurately capturing census and creating supported, vacant beds while monitoring ongoing patient discharge status and activities.

Registered Nurse Extenders – Patient Care Unit staff (Patient Care Associates, Nursing Aides/Assistants) who provide direct support to registered nurses.

Registered Nurse/Patient Ratio – The number of patients divided by the number of registered nurses assigned to their care.

Rollover Capacity – Closed unit beds that can be made available for inpatient use within a shift.



Agency for Healthcare Research and Quality Terms

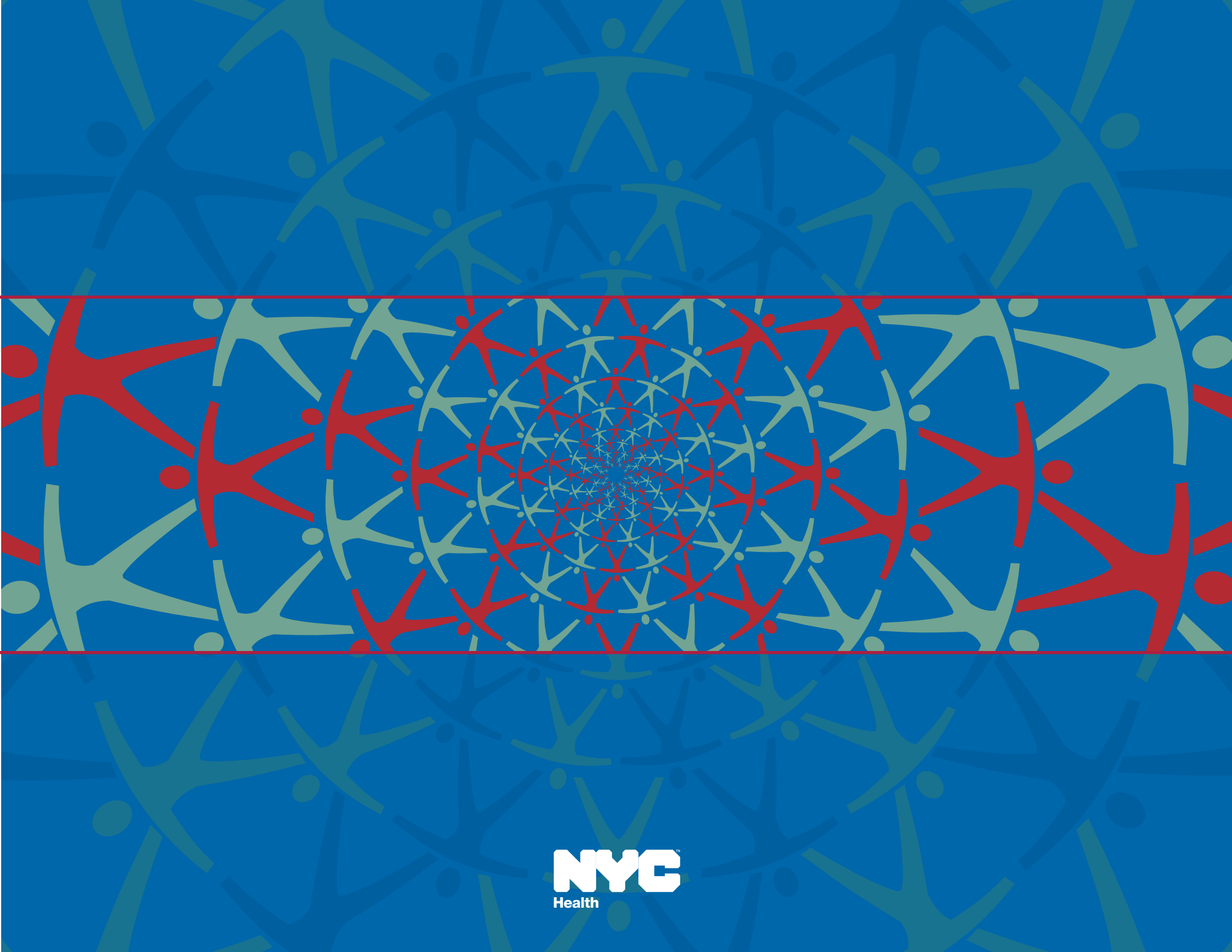
- **Adult Intensive Care Unit (ICU)** – A unit that can support critically ill or injured patients, including ventilator support.
- **Burn or Burn ICU** – Units either approved by the American Burn Association or self-designated. These beds should not be included in other ICU bed counts.
- **Licensed Beds** – The maximum number of beds for which a hospital holds a license to operate.
- **Medical/Surgical** – Regular beds throughout a hospital; also referred to as “ward” beds.
- **Negative Pressure/Isolation Units** – Units with negative airflow, providing respiratory isolation; the number of beds in this unit may represent available beds included in the counts of other types of beds.
- **Occupied Beds** – Beds that are licensed, available, staffed and occupied by patients.
- **Operating Rooms** – An operating room that is equipped and staffed, and available for patient care use in a short period of time.
- **Pediatric ICU** – The same as adult ICU, but for patients 17 years and younger
- **Pediatrics** – A ward/unit with medical/surgical beds for patients 17 and younger
- **Physically Available Beds** – Beds that are licensed, assembled and available for use and which are supported by services (such as food, laundry and housekeeping). These beds may or may not be staffed but are physically available.
- **Psychiatric Beds** – Ward beds on a closed/locked psychiatric unit or in areas where patients are attended by a sitter.
- **Staffed Beds** – Beds that are licensed and physically available with staff on hand to attend to patients; the count should include both occupied and vacant beds.
- **Surge Capacity** – A healthcare system’s ability to expand quickly to meet an increased demand for medical care in the event of bioterrorism or other large scale public health emergency.
- **Unstaffed Beds** – Beds that are licensed and physically available but currently have no staff on hand to attend to patients.
- **Vacant/Available Beds** – Licensed beds that are vacant and available to patients immediately. The count of such beds must include supporting space, equipment, medical material, ancillary and support services, and staff operating under normal circumstances.



ABBREVIATIONS

ADT – Admission, Discharge and Transfer
BCET – Bed Capacity Expansion Tool
BET – Beds Expansion Team
BMC – Bed Management Committee
CARD – Cardiology
CCU – Critical Care Unit
NYC DOHMH – New York City Department of Health and Mental Hygiene
NYS DOH – New York State Department of Health
ECT – Emergency Census Tool
ED – Emergency Department
EDCET – Emergency Department Capacity Expansion Tool
ED-ST – Emergency Department Surge Team
EMT/P – Emergency Medical Technician-Paramedic
EST – Equipment, Supplies and Facilities Team
FTE – Full Time Equivalent
HERDS – Health Emergency Response Data System (NYS’ HAvBED system)
HICS – Hospital Incident Command System

ICU – Intensive Care Unit
ICUCET – Intensive Care Unit Capacity Expansion Tool
ICU-ST – Intensive Care Unit Surge Team
ISO – Isolation
LPN – Licensed Professional Nurse
MED – Medicine (Department of, Unit)
MICU – Medical Intensive Care Unit
PACU – Post-Anesthesia Care Unit
PCU – Patient Care Unit
PEDS – Pediatrics
PICU – Pediatric Care Unit
RDs – Rapid Discharges (confirmed discharges)
RDT – Rapid Discharge Tool
RN – Registered Nurse
SET – Staffing Expansion Team
SICU – Surgical Intensive Care Unit
SPM – Surge Planning Master
SURG – Surgery/Surgical
UBRDT – Unit-Based Rapid Discharge Team



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