



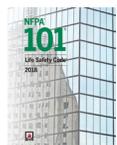
MAINTAINING SAFE HEALTH CARE FACILITIES IN EXTRAORDINARY TIMES

Health care professionals, local communities, and state and federal agencies are scrambling to prepare for the anticipated surge of patients as COVID-19 cases continue to increase across the United States. It is becoming clear that the current capacity of the nation's hospitals will not be enough to care for the number of critically ill patients expected in many areas. This means that existing health care locations need to be modified to provide more beds, additional spaces need to be created from repurposed existing buildings, or temporary structures need to be constructed.

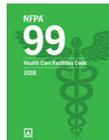
NFPA Codes Still Provide Guidance

With the peak of these cases expected within weeks in some locations, it will be impossible to modify or construct spaces in strict compliance with fire and life safety codes and be ready to treat critically ill patients with the best possible care.

Health care facility engineers, designers, and authorities having jurisdiction (AHJ) must all recognize this unprecedented challenge and find the best possible ways to meet the medical needs of communities while also seeking innovative solutions to provide the safest possible environment to a building's occupants in case of a fire.



NFPA strongly believes that in normal conditions structures built for providing care to patients should always be designed in accordance with appropriate fire and life safety codes such as NFPA 101®, *Life Safety Code*®, and NFPA® 99, *Health Care Facilities Code*, and the dozens of other standards referenced within them. In these extraordinary times, however, we can still look to the intent of these documents and use portions, such as the equivalency clauses, the goals and objectives of NFPA 101, or the risk-based approach of NFPA 99, in order to guide these difficult decisions. Specifically, NFPA is aware of several recurring situations throughout the country, including the following:



- Reconfiguration/repurposing of existing health care spaces.
- Modification of existing non-health care spaces (e.g., hotels/motels, convention centers, arenas) into spaces that house patient beds.
- Construction of tents or membrane structure in parking lots, fields, or other open spaces.
- Inspection, testing, and maintenance activities not able to be performed as normal due to both service providers' concerns for their employees' exposure and from decisions to limit access to health care facilities.

Weighing the Options

When fire and life safety features or systems need to be modified in order to meet the critical needs of patient care, those involved should weigh multiple considerations and consider alternative means to providing life safety to the affected room(s), area(s), or structure(s). Some of the major considerations that should be taken into account and weighed against the modifications include the following:



Prevention

The best way to help keep people safe from fire is to prevent it. Safe practices around the storage of combustibles and limitation of ignition sources must still be observed.



Detection/Notification

If a fire does start, the first step is to be able to detect it. Direct supervision by staff, smoke detectors, or single-station or interconnected smoke alarms are some of the ways this can be accomplished. Connection to a supervised fire alarm system provides a means for notifying the occupants as well as the fire department.



MAINTAINING SAFE HEALTH CARE FACILITIES IN EXTRAORDINARY TIMES *CONTINUED*



Egress

Once a fire is detected, appropriate evacuation or relocation of patients in the space should begin. In a hospital setting, horizontal evacuation across a smoke barrier and defend-in-place is the most common approach. This involves the assistance of staff to move patients who are not able to evacuate themselves, and it takes more time than in other kinds of buildings. In alternative care sites, this approach is likely not feasible. Key considerations are keeping egress paths as clear and unobstructed as possible and providing an emergency planning document for staff who are likely to be in unfamiliar surroundings to ensure they are familiar with their roles.



Automatic Sprinkler Systems

Automatic sprinkler systems help save lives and have long been required in all new health care construction.



Where they already exist, fundamental provisions regarding the inspection, testing and maintenance should be applied such as inspection of valves to ensure the system water supply is available.

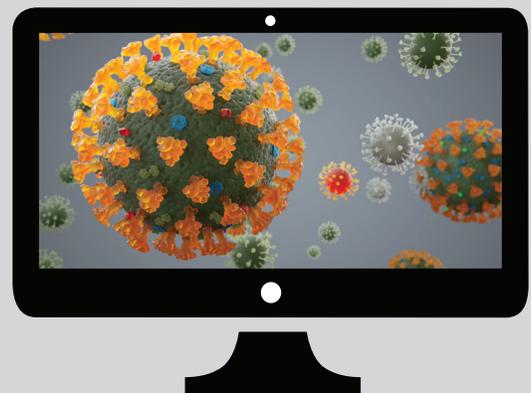
How NFPA Can Help

NFPA is in contact with our various stakeholders that are currently facing these challenges. We are collecting information on common issues being faced in health care facilities throughout the country and ways in which the modifications to fire and life safety features and systems and the potential negative effects can be mitigated. While each situation will have its own unique variables, NFPA will be looking to provide guidance for how facility engineers, designers, AHJs, and others can assess the most common scenarios against what is normally required and what can be provided in these most uncommon of times.

Learn More

Keep up with the latest news and information:

- ▶ NFPA 101 free online viewing: nfpa.org/101
- ▶ NFPA 99 free online viewing: nfpa.org/99
- ▶ NFPA COVID-19 resources: nfpa.org/coronavirus
- ▶ US Army Corps of Engineers (USACE): [Alternate Care Sites](#)
- ▶ Centers for Medicare & Medicaid Services (CMS): [CMS COVID-19 Information](#)
- ▶ The Center for Health Design: healthdesign.org/makingroom
- ▶ The Joint Commission: jointcommission.org/covid-19/
- ▶ Assistant Secretary for Preparedness and Response: asprtracie.hhs.gov/COVID-19
- ▶ American Society for Healthcare Engineering (ASHE): ashe.org/COVID19resources
- ▶ AHCA/NCAL: ahcancal.org/facility_operations/disaster_planning/Pages/Coronavirus.aspx
- ▶ ASTHO: astho.org/COVID-19/
- ▶ CDC: cdc.gov/coronavirus/2019-ncov/healthcare-facilities/alternative-care-sites.html



IT'S A BIG WORLD.
LET'S PROTECT IT TOGETHER.®

This material contains some basic information about NFPA 101, *Life Safety Code*, and NFPA 99, *Health Care Facilities Code*. It identifies some of the requirements in these documents as of the date of publication. This material is not the official position of any NFPA Technical Committee on any referenced topic which is represented solely by the NFPA documents on such topic in their entirety. For free access to the complete and most current version of all NFPA documents, please go to nfpa.org/docinfo. While every effort has been made to achieve a work of high quality, neither the NFPA nor the contributors to this material guarantee the accuracy or completeness of or assume any liability in connection with this information. Neither the NFPA nor the contributors shall be liable for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this material. Neither the NFPA nor the contributors are attempting to render engineering or other professional services. If such services are required, the assistance of a professional should be sought.