Using NFPA 1300 as a Tool to Comply with CMS Requirements for an Emergency Preparedness Program

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If you are a Medicare participant and are seeking reimbursement for medical services, the Centers for Medicare & Medicaid Services (CMS) requires you to prepare and submit an Emergency Preparedness Plan (EPP). The emergency preparedness program comprises four segments: risk assessment and planning, policies and procedures, a communication plan, and training and testing.

Chapter 12, Emergency Management, of NFPA 99, *Health Care Facilities Code*, can be used as a guide for meeting the CMS requirements. However, since CMS does not use Chapter 12 of NFPA 99, conducting a hazards vulnerability analysis (HVA) in accordance with NFPA 99 might not meet the requirements of CMS.

A new standard, NFPA 1300, *Standard on Community Risk Assessment and Community Risk Reduction Plan Development*, 2020 edition, is another tool that may be helpful for developing comprehensive risk assessment methodology because it covers an all-hazards approach and many of the program provisions of the CMS rule for emergency preparedness. NFPA 1300 includes requirements for a process that helps users determine what the hazards and risks are for their community or facility and how to prioritize those risks. Once the risks are identified and prioritized, a community risk reduction (CRR) plan can be developed to meet the goals resulting from the analysis. The three major steps of NFPA 1300 are to conduct a risk assessment, develop a CRR plan, and implement and evaluate the plan.

RISK ASSESSMENT AND PLANNING

The CMS risk assessment and planning provision requires the facility to develop an emergency plan that is based on a risk assessment. There is no guidance on how to conduct the risk assessment; however, there are many tools available on how to conduct this analysis, including NFPA 1300 and NFPA 99. It is important that the risk assessment be the result of a well-documented procedure.

CMS requires the risk assessment process to consider all hazards including internal and external events, and natural and human made disasters. Examples of internal disasters include loss of essential utilities—power, water, wastewater, HVAC, fire protection, fuel for building operations, medical gases, communications, and IT services. External disasters can be natural hazards such as geological, meteorological, and biological events, human-caused events (both accidental and intentional), and technological events.

POLICIES AND PROCEDURES

CMS recommends that a set of policies and procedures should be developed based on the outcome of the risk assessment and the emergency plan that was advanced in the assessment. Examples of policies and emergency procedures to address are food and water needs, essential utilities, evacuation plans, sheltering in place, and tracking patients and staff. Other conditions to consider when establishing policies are a high influx of new patients, communications, resources and assets, safety and security, clinical support, exterior connections, and staff roles.

CMS also requires the facility to review and update policies and procedures, at least annually. The one thing that is constant is change. New construction at or near a facility can have an impact. Roads and bridges could be closed, and alternate routes for first responders might need to be changed for delivery of emergency services. Economic factors can hinder delivery of the fuel necessary for generators; a new supplier or backup supplier will need to be identified. Because the community is constantly changing, an annual review of policies and procedures will identify whether protocol is still valid or needs to be updated.

COMMUNICATION PLAN

Communication is crucial during a disaster—inside and outside a facility. Timely information prepares the affected parties for intended actions and helps alleviate fears and anxieties. It also allows seamless transitions and coordinated activities such as sheltering in place, patient care inside and outside a health care facility, and evacuation of the facility. Communication plans should comply with applicable federal and state laws, including communicating with state and local health departments, and state and local emergency management systems.

TRAINING AND TESTING

Once the emergency preparedness program has been developed, the next phase is to train the staff and test the plan with drills and exercises. CMS requires three components for training and testing:

- Develop and maintain training and testing programs on policies and procedures.
- Demonstrate knowledge of the emergency procedures, and provide training at least annually.
- Conduct drills and exercises to test the emergency plan.

CMS requires several activities or exercises for facilities, including the following:

- Participation in a full-scale, community-based exercise.
- If a community-based exercise is not practical, an individual, facility-based exercise.

CMS Definition of Facility-Based: When discussing the terms *all-hazards approach* and *facility-based risk assessments*, CMS considers the term *facility-based* to mean that the emergency preparedness program is specific to the facility. Facility-based includes, but is not limited to, hazards that are specific to a facility and related to geographic location, patient, resident or client population, facility type, and surrounding community assets.

In addition to the exercise above, training is required and can include, but is not limited to, the following:

- A full-scale exercise that is individual or facility-based
- A tabletop exercise that includes a group discussion led by a facilitator using a narrated, clinically relevant emergency scenario, and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan

CMS Definition of a Full-Scale Exercise: A full-scale exercise is a multiagency, multijurisdictional, multidisciplinary exercise involving functional (e.g., joint field office, emergency operation centers) and ''boots on the ground'' response (e.g., firefighters decontaminating mock victims).

CMS Definition of a Tabletop Exercise (TTX): A tabletop exercise is a group discussion led by a facilitator using narrated, clinically relevant emergency scenarios and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan. In the training, key personnel discuss simulated scenarios, including computer-simulated exercises, in an informal setting. TTXs can be used to assess plans, policies, and procedures.

HOW CAN CRR STRATEGIES HELP WITH CMS EMERGENCY PREPAREDNESS BENCHMARKS?

NFPA defines CRR as a process to identify and prioritize local risks, followed by the integrated and strategic investment of resources to reduce their occurrence and impact.

NFPA also defines a community risk assessment (CRA) as a comprehensive evaluation that identifies, prioritizes, and defines the risks that pertain to the overall community.

NFPA 1300 is an all-hazards approach to help communities identify, prioritize, and develop plans to reduce risks. The definition of *community* ranges from a medical facility or building, medical campus, town, city, county, or state; it involves a broader perspective than just being facility-based and integrates data and information from the community. This data includes demographics, geography, building stock, public safety response agencies, community service organizations, hazards, economics, and past loss/event history. A good CRR plan engages members of the community, helps to identify hazards and solutions, and promotes closer working relationships. Ultimately, this will lead to a better use of resources to address the identified hazards.

A CRR strategy comprises three components: a CRA, a CRR plan, and implementation and evaluation of the CRR plan. This closely aligns with three of the four provisions of the CMS emergency preparedness program: conducting a risk assessment, developing policies and procedures, and developing a communication plan. The fourth provision, training and testing, can be associated with implementation and evaluation of the plan, as discussed

in NFPA 1300. There are no requirements on specific exercises in NFPA 1300; however, this requirement can be formalized in the CRR plan to address the fourth provision of the CMS EPP.

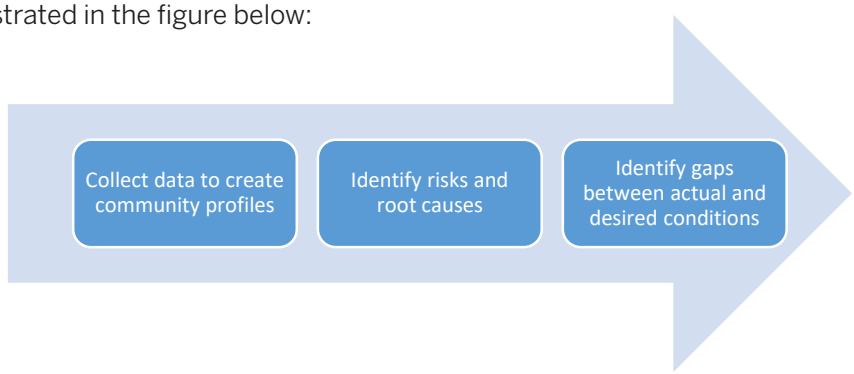
COMMUNITY RISK ASSESSMENT

A good CRA will identify specific risks to a community, as well as hidden, hard to contact, or underserviced populations and hazards. For example, the cafeteria staff working in your facility might be overlooked in your emergency management plan. By reviewing community demographics and transportation history, it can be determined that many staff members depend on public transportation for commuting. History shows that public transportation is hampered during the winter months because of snow removal problems. Thus, there is a possible risk that can affect the daily operation of your facility that should be addressed in your risk assessment and CRR development plan.

NFPA 1300 (5.3.2) identifies the following six steps for conducting a CRA:

1. Recognize the need to conduct a CRA and develop a community risk reduction plan based on the CRA.
2. Define the problem by identifying the potential risks and their root causes, and develop programs that are appropriate to mitigate the identified risks that fall within the available resources.
3. Collect empirical data (capable of being verified or known to be true) regarding the community's demographics, building stock profile, geography, past loss history, and potential likelihood or anticipated future events.
4. Analyze the data.
5. Identify gaps, areas where actual conditions vary from desired outcomes.
6. Validate the CRA by comparing the findings of the CRA with the available data, to ensure they are consistent with the community's level of acceptable risk, capabilities, and resources. All risks considered in the CRA might not be addressed in the CRR plan.

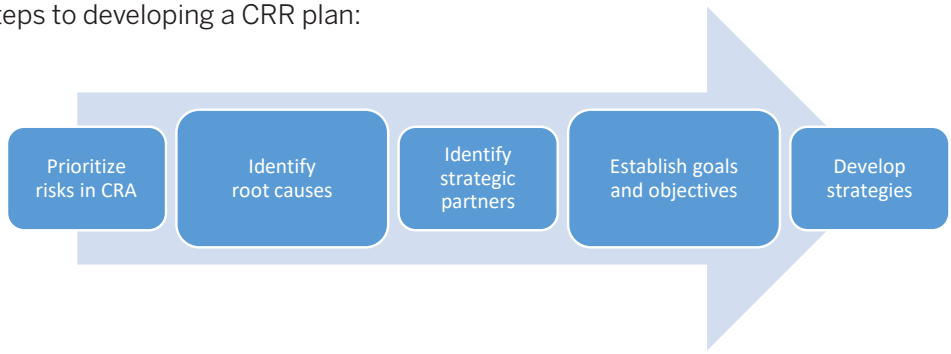
These steps are illustrated in the figure below:



Once your CRA is complete (including data collection), the risks and hazards are identified and the gaps are found, a CRR plan can now be developed.

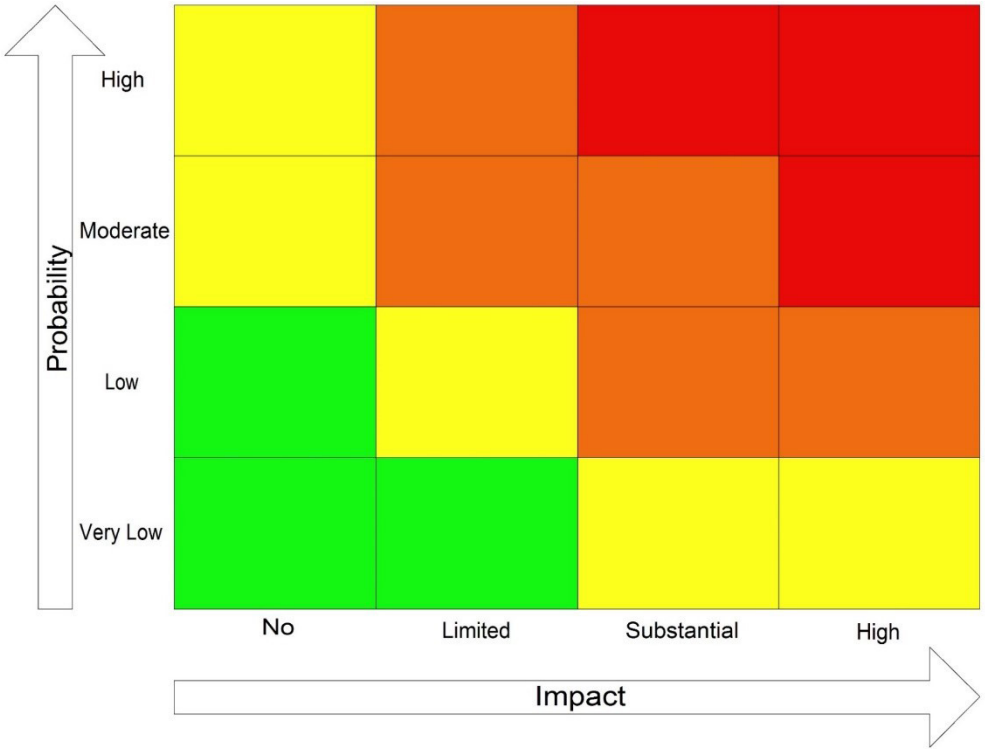
COMMUNITY RISK REDUCTION PLAN

There are five steps to developing a CRR plan:



STEP 1: PRIORITIZE RISKS

Risks were identified in the CRA. It's now time to prioritize the risk based on the probability and impact of the event as well as resource availability. A risk assessment matrix is a tool used to prioritize risk. The following is an example of the matrix.



In the matrix [based on NFPA 1300, Figure A.5.6(4)], you can plot the probability of an event and compare it to the impact. Events that occur in the red quadrants have a high probability of occurrence and a high impact once they occur. Conversely, events that occur in the green quadrants have a low probability of occurrence and a low impact.

STEP 2: ADDRESSING ROOT CAUSES

Evaluate the risk and root causes identified in the CRA and determine best risk reduction strategies. For example: If the identified risk is a parking garage that is continuously strewn with litter, addressing the root cause of the risk would entail the placement of trash barrels where garage users can drop trash.

STEP 3: IDENTIFYING STRATEGIC PARTNERS

By using the CRA and root cause evaluation, you can identify possible strategic partners to assist you with goal creation, resources, and strategies in the development of the CRR.

STEP 4: ESTABLISHING GOALS AND OBJECTIVES

Using the information in steps 1 to 3, begin to develop goals and objectives for your CRR plan. Use the five E's of CRR: enforcement, engineering, emergency response, economic incentive, and education. Each component of the five E's provides alternatives or options to meeting the goals identified in the CRR plan. There is no definitive method that should be used; it may be that a combination of several or all of the E's that is the best option for meeting your goal.

The following chart [NFPA 1300, Figure A.6.3.3.2(4)(b)] demonstrates how the five E's could be used to achieve a goal of "$0.00 Property Loss Due to Flooding by 2050."

As you can see from the example, there are five options to meet the object for property loss due to flooding. Each objective could work on its own, or a combination of options can be used to create a more comprehensive outcome.

STEP 5: DEVELOPING STRATEGIES

As strategies are developed, you should consider who will be responsible for implementing the strategies. Will it be individual facility staff, facility departments, strategic partners, or a combination? In addition to determining responsibility, establish a timeline to accomplish goals, objectives, and strategies. This is also where the testing and training provision of the CMS emergency preparedness program can be addressed.

IMPLEMENTING AND EVALUATING THE CRR PLAN

The last step in the CRR process is to start implementing the solutions, evaluating the process and impact measures, and then modify the CRR plan, as needed. The following figure shows this process:

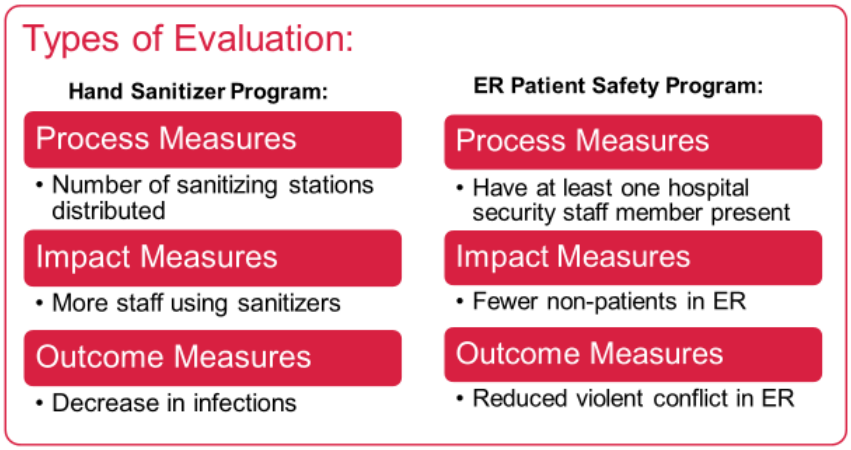
There are three types of assessments to consider when evaluating the CRR plan: process data evaluations, impact data evaluations, and outcome measures.

Process data evaluations look at what has been done and what has happened. What was the quantity, frequency, and quality of the function performed? This evaluation does not measure effectiveness.

Impact data evaluations demonstrate the changes in behavior or learning patterns of the community as a result of implementing the strategies of the CRR plan.

The outcome measures determine the success of the CRR plan. Did the risk described in the CRA increase, decrease, or stay the same? If the outcome does not meet the objectives, then the CRR plan should be modified to reflect the outcome. If it was successful, the revised plan could address another risk that had been in a lower risk category, or a new risk could become elevated because of a change in circumstances. For example, the closing of a bridge or a road could compound the risk for patients by introducing a delay in delivering emergency medical assistance. Therefore, the CRR plan should be modified to address this new risk.

The two examples below (Hand Sanitizer Program and ER Patient Safety) demonstrate the three types of evaluation. Each evaluation discusses what was done, what behaviors changed, and the outcomes and measures of success.



CONCLUSION

NFPA 1300 is a community risk reduction standard that uses an all-hazards approach. The methodology used in this standard can be applied when developing the CMS emergency preparedness program. NFPA 1300 provides a framework for anyone to use to develop a CRR plan. It contains an example in the annex to illustrate the process outlined in the standard.

ADDITIONAL RESOURCE

Visit nfpa.org/cms for more information.

FAQ'S

Q What is the difference between a hazard vulnerability analysis (HVA) and a community risk reduction (CRR) plan?

A An HVA is a methodology to identify hazards and prioritize those hazards within a facility. It is similar to a risk assessment (RA), where hazards and assets are identified, similar to components of a CRR plan. A CRR plan comprises an RA, development of a CRR plan, and implementation and evaluation of that plan.

Q If I conduct a CRR in accordance with NFPA 1300, have I met the requirements of CMS for an emergency preparedness program (EPP)?

A CMS does not specify any specific method or tool for a facility to meet the four requirements of its EPP. A facility has the flexibility to use various methods as long as the specific requirements of all four CMS provisions are met. NFPA 1300 is one methodology that can help address all the provisions of the CMS EPP.

Q Although CMS did not adopt Chapter 12, Emergency Management from NFPA 99, *Health Care Facilities Code*, 2012 edition, can I still use this chapter to meet the CMS requirements for an emergency management plan?

A Chapter 12 of NFPA 99 can be used as guidance for developing an emergency management plan. Using Chapter 12 of NFPA 99 in combination with the methodology of NFPA 1300 can help address the requirements of the CMS emergency preparedness program.