School nutrition (SN) programs play an important role in serving healthy meals to meet the nutritional needs of America’s children in the school setting. Not only do SN programs provide healthy foods during regular school hours, but they also can provide food and support during times of natural or man-made disasters. Due to the rise of occurrences of armed intruders in school settings, the upsurge of natural disasters, and the prevalence of food contamination, there has been an increase in the need for the establishment of prevention and preparedness processes to address such incidences.

School districts are among the groups of government, private sector, and non-governmental organizations with sizeable populations that need to be prepared to respond in the time of natural or man-made disasters. Due to the large population of individuals attending America’s schools, these unforeseen disasters could have a detrimental impact on the lives of those who entrust the education and safety of their children to the education system. Although most school districts have emergency plans, researchers have identified a lack of comprehensiveness and close adherence to the federally recommended practices in those plans.

**OBJECTIVES**

This research covers two separate projects. The National Food Service Management Institute, Applied Research Division (NFSMI, ARD) first conducted an exploratory study to assist SN directors in identifying the effectiveness of their emergency preparedness (EP) plans, and their own roles in evaluating and implementing EP procedures. This study provided the foundation for a later study, which identified research-based practices for EP in SN programs, based on four practice categories: Prevention-Mitigation, Preparedness, Response, and Recovery. This information was used to develop a free, downloadable resource, the *Emergency Preparedness Resource Guide for School Nutrition Professionals*. 
STUDY I

• In Phase I, an expert panel of SN professionals explored common elements of EP plans, and discussed the extent EP plans were followed during emergencies. They also identified methods to evaluate EP plan effectiveness, and types of training.
• During Phase II, the expert panel results were used to guide the development of a survey to identify SN directors’ perception of their EP plans’ effectiveness, and the survey was mailed to a random sample of 700 SN directors that represented the seven United States Department of Agriculture (USDA) regions.
• A total of 26% of the surveys were returned, and all respondents reported having an EP plan.
• Seventy percent of respondents were able to use their plan as written or with modifications prompted by a prior emergency, and over 50% indicated they were unaware of any barriers to their current emergency preparedness plan.
• Over 50% of respondents reported EP plans have been most often used for lockdowns, and over 40% said EP plans were used during power failures.
• The most often cited challenge was a lack of staff to implement the EP plan.
• The elements of an EP plan that were most often not included were recovery plans, security provisions for deliveries, and information about funding and other resources for emergencies.
• Modification to the roles and responsibilities of the SN director, managers, and staff was the revision most often needed after the EP plan had been implemented.
• Types of training needed for EP included food safety/sanitation, Hazard Analysis and Critical Control Points, maintaining foodservice operations during emergencies, and emergency preparedness drills.
• Results from this study provided baseline information for assessment of SN emergency preparedness, and the information was used for a second study by NFSMI, ARD to develop an EP resource for SN professionals.

STUDY II

• Building on the findings from prior research, this study was conducted to identify research-based practices for EP in SN programs, and to create a resource to aid SN professionals who are implementing or assessing EP practices in SN programs. This project spanned two phases.
• Two panels of experts were actively involved in the development, evaluation, and confirmation of the practice resource. Both panels represented the seven USDA regions, and included SN directors, state agency personnel, school emergency management personnel, and emergency management agency personnel.
• In Phase I, eight SN directors, state agency personnel, and emergency management staff participated in a day-and-a-half expert panel work group session. The panel identified goal themes and practice statements, and grouped similar statements within the four practice categories. The information collected in this phase was used to revise and format a draft resource.
• In Phase II, a national panel of reviewers evaluated the best practice statements, goal statements, and draft statements. Panel members provided feedback on the content, scale, format, and usefulness of the resource as a self-assessment tool for SN professionals.
• Descriptive statistics were calculated and consisted of frequencies and percentages of total responses from the review panel.

### School Nutrition Directors’ Perceptions About Emergency Preparedness

<table>
<thead>
<tr>
<th>PERCEPTION</th>
<th>AGREE/SOMEWHAT AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>All school nutrition programs should have their own emergency preparedness plan.</td>
<td>74.4%</td>
</tr>
<tr>
<td>The school nutrition program is included in the school district’s emergency preparedness communications, perceptions, and drills.</td>
<td>65.1%</td>
</tr>
<tr>
<td>The current school nutrition program’s/district’s emergency preparedness plan can be used effectively in all emergency situations.</td>
<td>63.9%</td>
</tr>
<tr>
<td>Our school nutrition program/school district has adequate emergency supplies and resources.</td>
<td>54.1%</td>
</tr>
<tr>
<td>Our school nutrition program/school district’s emergency preparedness plan is adequately funded.</td>
<td>28.8%</td>
</tr>
</tbody>
</table>
The resource, Emergency Preparedness Resource Guide for School Nutrition Professionals, is a self-assessment checklist designed for SN professionals who are implementing or assessing EP practices in SN programs. This guide incorporates 87 practice statements and 17 goals within these four practice categories: Prevention-Mitigation, Preparedness, Response, and Recovery. Each practice statement is assessed using a 3-point scale based on current status: fully addressed, partially addressed, and not addressed. This scale is an assessment tool to assist in determining the current status of each practice statement as it pertains to the user’s SN program.

Upon assessing the current status of the practices, SN professionals can establish a plan of action to address and prioritize those practices identified as needing attention. School nutrition professionals are advised to perform an annual review to assess the implementation of their plan of action. In addition, SN professionals are encouraged to align their EP preparedness plan with federal, state, and local plans and guidelines. School nutrition professionals can use this assessment to develop and maintain a multi-faceted, comprehensive emergency plan for SN programs. The following are additional ways to use this best practice resource:

- Identify essential practices to implement in an SN program.
- Identify the role of SN staff and key community personnel necessary for planning, developing, and implementing policies and procedures related to emergency preparedness.
- Identify training needs of SN staff specific to EP activities.
- Establish a plan of action based on the assessment of the practices needing attention.

### The Four Practice Categories for Emergency Preparedness

**Prevention-Mitigation:** Action taken to decrease the likelihood that an event or crisis will occur (prevention); the action taken to eliminate or reduce the loss of life and property damage related to an event or crisis, particularly those that cannot be prevented.

**Preparedness:** Strategies, processes, and protocols to prepare the institution for potential emergencies.

**Response:** Action taken to effectively contain and resolve an emergency.

**Recovery:** Procedures, resources and policies established to assist an institution’s return to functioning after an emergency.
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GY# 2009 Project 8, GY# 2010 Project 7