Food Allergy Management: Training Innovations

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Session Objectives

• **Objective 1:** gain knowledge about current food allergy management practices in schools

• **Objective 2:** learn about useful training strategies, including a recently developed behavior-based video to capture employee attention for facilitating best food allergy management practices

• **Objective 3:** understand how to inform and influence stakeholders throughout the school environment about the importance of food allergies
Food allergy - a potentially serious immune response to eating or otherwise coming into contact with certain foods or food additives.

A food allergy occurs when the immune system:

1) identifies a food protein as dangerous and creates antibodies against it;
2) tries to protect the body against the danger by releasing substances, such as histamine, into our blood when that food is eaten.
The reaction to a food allergy can be mild to life-threatening. Some of the symptoms or signs that might occur include:

- A tingling sensation in the mouth
- Swelling of the tongue and throat
- Difficulty breathing
- Itchy skin/hives
- Drop in blood pressure
- Loss of consciousness
- These complications can sometimes lead to death
• Eight (8) foods cause ninety (90) percent of the food allergic reactions in the United States:

• Milk
• Peanuts
• Tree Nuts
• Eggs

• Wheat
• Fish
• Soy
• Shellfish
Overview

- Increased presence of students with food allergy; 18% increase (children under 18) 1997 – 2007
  - Better/more diagnosing?
  - Hygiene Hypothesis?

- Teens are the highest risk group for fatal allergic reactions

- Emergencies are inevitable
  - Proactive approach rather than reactive
The only known prevention is food avoidance.

Anaphylaxis is a serious possible life-threatening allergic reaction:
- Rapid onset
- If not treated, can lead to death in a matter of minutes
- Not all food allergic reactions result in anaphylaxis

Epinephrine by injection is the treatment for a serious reaction:
- Administration is key – a delay can be deadly
Broad Discussion

- Multi-faceted issue in schools
  - 25% of children
  - Many diverse stakeholders
- Guidance
  - CDC: Food Allergies in Schools
  - ICN: several great resources
Broad Discussion

• What nation-wide interviews tell us
  – Relationships are important
  – Loyalty
  – Social media

• School Nutrition Directors
  – Training
    • Dealing with multiple allergies
  – Expertise
    • Am I the best?
  – Communication
    • External, internal, with parents
    • Recalls, allergen-based
• 2014 Study
  – Determine current practices and challenges for managing food allergies in schools, specifically those challenges:
    • during key points of food production
    • with food vendors and with recall communication,
    • with USDA foods, and
    • with personnel training
  – Determine the incidence, nature of, and response to food allergic reactions
• Survey of national directors (n = 5,592)
## Current Findings

<table>
<thead>
<tr>
<th>Allergen</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peanuts</td>
<td>375 (96.9)</td>
<td>10 (2.6)</td>
<td>2 (0.5)</td>
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<tr>
<td>Milk</td>
<td>363 (96.0)</td>
<td>10 (2.6)</td>
<td>5 (1.3)</td>
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<tr>
<td>Tree nuts</td>
<td>298 (88.7)</td>
<td>27 (8.0)</td>
<td>11 (3.3)</td>
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<tr>
<td>Wheat</td>
<td>297 (87.4)</td>
<td>36 (10.6)</td>
<td>7 (2.1)</td>
</tr>
<tr>
<td>Eggs</td>
<td>274 (80.6)</td>
<td>52 (15.3)</td>
<td>14 (4.1)</td>
</tr>
<tr>
<td>Soy</td>
<td>206 (72.8)</td>
<td>56 (19.8)</td>
<td>21 (7.4)</td>
</tr>
<tr>
<td>Fish</td>
<td>198 (66.7)</td>
<td>78 (26.3)</td>
<td>21 (7.1)</td>
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<tr>
<td>Shellfish</td>
<td>174 (62.6)</td>
<td>77 (27.7)</td>
<td>27 (9.7)</td>
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<tr>
<td>Other</td>
<td>94 (72.3)</td>
<td>22 (16.9)</td>
<td>14 (10.8)</td>
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</table>
## Current Findings

### Frequency of Students Accommodated per Food Allergen (N=301)

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<th></th>
<th>0</th>
<th>1-10</th>
<th>11-25</th>
<th>26-50</th>
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<td>37</td>
<td>24</td>
<td>9</td>
<td>8</td>
<td>13</td>
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<tr>
<td>Milk</td>
<td>1</td>
<td>159</td>
<td>65</td>
<td>36</td>
<td>17</td>
<td>4</td>
<td>3</td>
<td>7</td>
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<tr>
<td>Tree nuts</td>
<td>3</td>
<td>127</td>
<td>44</td>
<td>27</td>
<td>13</td>
<td>9</td>
<td>6</td>
<td>5</td>
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<tr>
<td>Wheat</td>
<td>-</td>
<td>149</td>
<td>45</td>
<td>24</td>
<td>12</td>
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<td>Soy</td>
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<tr>
<td>Fish</td>
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<td>10</td>
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<td>16</td>
<td>9</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>-</td>
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</table>
## Current Findings

### School Personnel Allowed to Administer Epinephrine (N=480)

<table>
<thead>
<tr>
<th>Role</th>
<th>Yes</th>
<th>(%)</th>
<th>No</th>
<th>(%)</th>
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</thead>
<tbody>
<tr>
<td>School Nurse</td>
<td>307</td>
<td>64.0</td>
<td>173</td>
<td>36.0</td>
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<td>School Administrator</td>
<td>155</td>
<td>32.3</td>
<td>325</td>
<td>67.7</td>
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<tr>
<td>Teachers</td>
<td>146</td>
<td>30.4</td>
<td>334</td>
<td>69.6</td>
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<tr>
<td>School Nutrition Employees</td>
<td>81</td>
<td>16.9</td>
<td>399</td>
<td>83.1</td>
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<tr>
<td>Other</td>
<td>92</td>
<td>19.2</td>
<td>388</td>
<td>80.8</td>
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</tbody>
</table>

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## Current Findings

### Personnel Responsible for Maintaining Food Allergy Documentation (N=293)

<table>
<thead>
<tr>
<th>Role</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurse</td>
<td>169 (57.7)</td>
</tr>
<tr>
<td>District Nutrition Director</td>
<td>48 (16.4)</td>
</tr>
<tr>
<td>Other</td>
<td>31 (10.6)</td>
</tr>
<tr>
<td>School Nutrition Manager</td>
<td>25 (8.5)</td>
</tr>
<tr>
<td>Registered Dietitian</td>
<td>20 (6.8)</td>
</tr>
</tbody>
</table>
More Perspective

• Foodborne Illness
  – 1 in 6
  – 48 million
  – 128,000 hospitalizations
  – 3,000 deaths annually

• Food Allergy
  – 1 in 13 children
  – 15 million
  – 200,000 ER visits
    300,000 care visits
  – 63 to 99 deaths annually

CDC

CDC, FARE
More Perspective

Food Safety Plan

and

Food Allergy Plan

Master Plan

Food Safety

Food Allergy
More Perspective

• Foodborne Illness Prevention
  – Time
  – Temperature
  – Sourcing
  – Training
  – Cross-contamination
  – Handwashing

• HACCP

• Food Allergic Reaction Prevention
  – Time?
  – Temperature?
  – Sourcing?
  – Training
  – Cross-contact
  – Handwashing

• HACCP?
  – Hazard Analysis
Achieving Food Safety

Traditional Approach--Command and Control
- Regulation
- Standard setting
- Enforcement

Food Safety Culture
- Behavior-based food safety management system
- Integrates food science and behavioral science
What is Culture?

- What does culture mean within an organization?
- Characteristics of culture
  - Shared knowledge, beliefs, values, attitudes, meanings
  - A way of life
  - Patterns of behavior
  - Learned behavior of a group of people
  - Transmitted from generation to generation
What is your district’s culture?

• Our school district has a rigorous *food safety policy* that covers all food served in schools.
  – Q: Does our school district have a rigorous *food allergy* policy?

• Are the district superintendent, teachers, and others committed to *food allergies*?
What is your district’s culture?

- Does the school nutrition program have a behavior-based **food allergy** management program?

- Are **food allergies** a core consideration when making decisions about menus, procurement, service, and staffing?

- Do facilities and equipment support **food allergy management**?
What is your district’s culture?

- Do foodservice managers in our schools value *food allergies* and serve as good role models?

- Do parents and others view our schools as providing safe food for students?
Known Strategies

- Talk to parents and include them
- Identify the student
  - Do students know HOW to watch and notify others?
- Learn to recognize the symptoms for foods that commonly cause allergic reactions
- Read and monitor ingredient labels for all foods
- Create a separate storage space for allergy-free foods
Known Strategies

- Prepare the kitchen, avoid cross-contact
- Designate one or two people to be responsible, BUT TRAIN EVERYONE
- Communicate with the serving line staff
- Communicate with the school nurse and classroom staff
- Encourage thorough hand washing - throughout
Training Strategies

- Guidance
  - CDC: Food Allergies in Schools
  - ICN: several resources
Training Strategies

- Behavior change

Knowledge + Attitudes – Barriers = Behavior Change
Training Strategies

- Behavior change through stories
  - Persuasive
    - Emotion and conflict
  - Stimulate cognitive curiosity
  - Motivate employees to probe further
  - Develop mental solutions
NEW – Caitlin Remembered
PROFESSIONAL STANDARDS CODE

• This session provides one (1) CEU
  – Presentation Key Area: 1 - Nutrition
  – Professional Standards Code: 1160