A nation’s social and economic health is closely tied to the health of its citizens. Providing healthful food and nutrition education to school children is one strategy to ensure short- and long-term benefits including better health and learning outcomes. While recent legislative efforts, such as the Healthy Hunger Free Kids Act of 2010, contributed to strong federal child nutrition programs that support healthier school food environments, there are no specific federal requirements regarding nutrition education in schools.

What is the deeper issue?
Nutrition education (NE) in schools provides children with knowledge about healthy eating practices and attitudes around food, helping students establish healthful patterns early in life. Each school district participating in the National School Lunch Program (NSLP) or School Breakfast Program (SBP) is required to develop and implement a school wellness policy. However, the levels of comprehensiveness and quality vary widely from school to school (1), and other priorities often take precedence and limit the time allotted to NE.

Specific minimum requirements for school wellness policies are laid out in the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.). Pending legislation H.R. 3800 -- Nutrition Education Act takes these guidelines several steps further, providing more robust minimum requirements.

Figure 1. Minimum Local School Wellness Policy Requirements and Potential Enhancements

<table>
<thead>
<tr>
<th>Richard B. Russell National School Lunch Act</th>
<th>H.R. 3800 -- Nutrition Education Act</th>
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<tbody>
<tr>
<td>Set goals for NE, physical activity, and other activities to promote school wellness</td>
<td>Require 50 hours of nutrition education per student per academic year</td>
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<td>Make nutrition information available for all foods and beverages offered during the school day</td>
<td>Offer NE at each grade level as part of the comprehensive, standards-based program</td>
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<td>Invite parent, student, representative, and other school staff participation in wellness policy development, implementation, and updates</td>
<td>Encourage integration of NE into instruction across the curriculum</td>
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<tr>
<td>Inform and update the public community about content of school wellness policies</td>
<td>Coordinate NE with school meal programs and other nutrition-related community services</td>
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<tr>
<td>Periodically measure compliance with all school wellness policies</td>
<td>Promote fruits, vegetables, whole grains, low-fat/fat-free dairy; healthy food prep and nutrition practices</td>
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<td></td>
<td>Provide NE training for teachers and other staff</td>
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<td></td>
<td>Establish specific processes to properly evaluate school wellness policy effectiveness</td>
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</table>
Where do we currently stand?
Many barriers currently limit the adequacy of NE offered in schools for children to develop healthy eating behaviors. Among those to be discussed here include limited enforcement of compliance, implementation and reporting of wellness policies, limited staff training, and limited curriculum flexibility.

While it is a requirement that schools participating in the SBP and NSLP develop a wellness policy, recent studies show that most policies are “weak, fragmentated and do not necessarily require schools to take action” (2). A Robert Wood Johnson Foundation research program called Bridging the Gap (BG) has conducted research in this area. Between 2011 and 2013 researchers found 93% of the 704 public school districts required NE goals in their wellness policies, and approximately 52% of districts required skill-based NE (2). However, less than 1% of those surveyed indicated a requirement for number of NE courses or contact hours (3). This research illustrates the unintended outcome of vague wellness policies: inclusion of nutrition as a component of school wellness policies without development of standards to ensure implementation.

In addition to the limited enforcement of wellness policies, schools often lack NE training for teachers and staff. Training at a multitude of levels is important to create a supportive school nutrition environment. The 2012-2013 BG research data indicated only 11% of districts required NE training or professional development for all staff, and only 8% required NE training for food service staff (3). All staff need and benefit from support in learning how to incorporate NE into the curriculum, including food service staff to prepare healthy meals that reinforce messages taught in the classroom (4). The same research showed that 71% of districts had no policy regarding promotion of healthy food choices in schools (4).

School staff are burdened with many administrative pressures to provide more educational opportunities to students. Most school curricula are state or district-mandated and teachers and school-level administrators have limited flexibility regarding lesson plans and few opportunities to include new topics (5). According to the School Health Policies and Practices Study (SHPPS) in 2012, about 47% of districts provided ideas on how to involve school nutrition staff into classrooms – up from 33% in 2000 (6). However, schools lack support implementing district suggestions and finding curriculums where NE is embedded into core classes.

While these barriers exist, progress is being made. The US Department of Agriculture issued guidance in 2011 to state agencies and child nutrition leaders to help maintain compliance, implement, and report on wellness policies (7). In addition, a Centers for Disease Control and Prevention and US Department of Education interagency workgroup put together a five-year technical assistance plan to help schools comply with requirements in 2011 which has since been updated in 2013 (8).

What are the future implications?
Schools are a significant part of children’s lives, and are poised to strongly influence dietary practices and promote lifelong healthy habits. During the 2007-2008 academic year alone, students spent an average of 6.64 hours per day in school (9). In a 180-day cycle, that equates to roughly 1,200 hours. Between kindergarten and 12th grade, the total number of hours in school surpasses 15,500.

Embedding the recommended 50 hours of NE into regular classroom curricula ensures approximately 650 hours per student from kindergarten through senior year of high school. Integration approaches may be based on the needs of each local school. These approaches could range from nutrition as a stand-alone subject, or integration of nutrition into health education (4) or other core subjects such as biology, chemistry, math, or social studies.

While research into the long-term impacts of general NE in schools is still forthcoming, current results are far reaching and compelling. Figure 2 illustrates potential future health and societal implications should the more rigorous and comprehensive guidelines of H.R. 3800 be implemented.
Where do we go from here?
State government and local education stakeholders should be aware of how nutrition education benefits their children and communities. A common understanding can foster discussion and provide opportunities to both collaborate within current programs and create more effective strategies to address the issues presented in this Brief. The following figure offers some ideas for moving forward.

Figure 3. Nutrition Education in Schools: A Call to Action

- **State Government Stakeholders**
  - Provide districts with financial and technical assistance to develop, implement, maintain and evaluate NE curricula, including training and regular professional development for educators and school support staff.
  - Create incentives for schools that meet the mandated minimum of at least 50 hours to encourage participation.
  - Construct a statewide strategy and supporting tool-kit (including social media platform) for local education stakeholders (both in schools and the community) to promote importance of NE and healthy eating with unified, transparent messaging.

- **Local Education Stakeholders**
  - Develop interactive, evidence-based, culturally- and socioeconomically-appropriate curricula—utilize pre-existing curricula as guides and local organizations for instructors.
  - Create district- or local-level school health committees, including school leaders, parents, students, and community stakeholders to ensure 50-hour minimum is met.
  - Support collaboration with parents and local health and agricultural professionals to raise funds and promote NE and healthy eating behaviors beyond the classroom.
  - Enrich the connection communities have with fresh, healthy food and local food producers through farm to school programs (14).
A list of resources is provided below to guide those interested in implementation of successful school NE. School professionals, parents, school wellness committees, state and local leaders, dietitians, health educators, and community members can use these tools to take a step towards ensuring a healthier future for today’s youth.

- **Farm to Preschool Resources**, National Farm to School Network
- **Nutrition Education Resource Guide for California Public Schools: Kindergarten through Grade Twelve**, California Department of Education
- **Team Nutrition**, Food and Nutrition Services, United States Department of Agriculture
- **SNAP-Ed Connection**, Food and Nutrition Services, United States Department of Agriculture
- **Expanded Food and Nutrition Education Program**, National Institute of Food and Agriculture, USDA
- **Nutrition Education Resources and Grants**, Action for Healthy Kids
- **Nutrition Education Resources and Funding**, Fuel Up to Play 60, National Dairy Council
- **Child Nutrition Resources**, nutrition.gov

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