

San Mateo County Assessment of School Wellness Policy Implementation



Applied Survey Research
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Background

In 2004, Congress passed the Child Nutrition and WIC Reauthorization. This act, which came about in large part because of growing recognition of the important role schools play in ensuring children's wellness, required each local educational agency (LEA) participating in the National School Lunch Program (NSLP) or other child nutrition programs (such as the School Breakfast Program (SBP)) to establish a local school wellness policy (LWP). The Healthy, Hunger-Free Kids Act of 2010 included new provisions for LWPs, including added emphasis on implementation, evaluation and public reporting of progress. Since the passage of the 2004 law, nearly all LEAs or school districts have developed and adopted LWPs as required by law. Although the requirement that districts create wellness policies has been evolving, it reflects the growing role of schools in promoting health.

Get Healthy San Mateo County (Get Healthy) is an initiative of the San Mateo Healthy System that seeks to increase access to healthy food and opportunities for physical activity. One of Get Healthy's priority areas is school wellness, and Get Healthy supports implementation of the physical activity and nutrition components of district wellness policies by awarding mini-grants, providing technical assistance and training to help implement relevant activities, and facilitating events for networking and sharing of best practices. All twenty two school districts in San Mateo County that receive federal funds have had a wellness policy since 2006, but strategies and level of policy implementation vary.

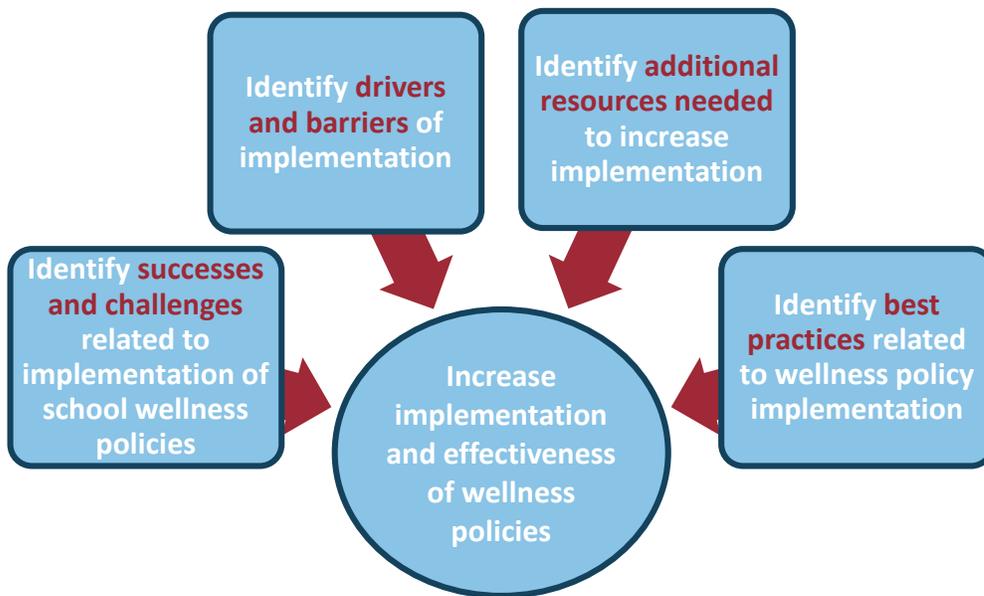
Get Healthy recognizes the importance that the school environment plays in influencing students and others within the school community health and wellness. Given that there is a strong connection between educational attainment and health outcomes, it is important for school environments to foster and encourage health and wellness, especially for those with the highest need. Based on available data it is clear that youth of color and youth from low-income households have worse health and educational outcomes than their more affluent and white and Asian peers. By supporting strong school wellness policies throughout the county, especially in school districts that serve low-income youth and youth of color, Get Healthy aims to address the persistent inequities among this population. School Wellness policies are recognized as an effective tool in creating health promoting school environments. School wellness policies can help ensure that those students who arrive to school hungry are fed and that schools prioritize the overall health and wellness of their entire student body.

Purpose of Assessment

The overall purpose of this assessment was to collect data that will inform Get Healthy's efforts to increase implementation and effectiveness of district wellness policies in San Mateo County. The assessment had multiple components, shown in the figure below. First, information about successes and challenges related to implementation provides insight about the ways in which district wellness policies are currently being implemented and areas in need of additional work and attention. Identifying

facilitators of implementation sheds light on ways to promote implementation. Knowing the primary barriers is key to help districts overcome these issues and increase implementation. Similarly, finding out about additional resources that districts need to increase implementation helps to direct resources in ways that are most likely to be needed and effective.

Figure 1. Purpose of Assessment

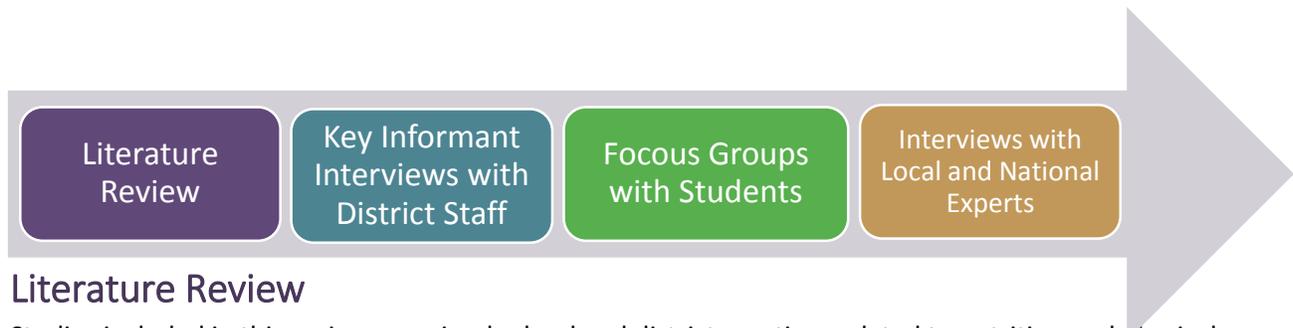


Methods

In order to accomplish these components, several different methods were used to collect information. These steps are shown in the figure below. The literature review was conducted to identify similar assessments and provide a starting place for questions to ask and frameworks for understanding

implementation. The key informant interviews with district and school staff provided the majority of the information regarding the extent of implementation (including successes and challenges), drivers and barriers of implementation and additional resources needed. Focus groups with students also informed these areas and provided a student perspective. Finally, interviews with local and national experts provided information about best practices and strategies that have been successful in other locations.

Figure 2. Steps of the Assessment



Literature Review

Studies included in this review examined school and district practices related to nutrition and physical activity policies. This included assessing changes in practices after policies had been instituted, identifying facilitators and barriers to policy implementation, assessing the strength of wellness policies, and gauging school staff perceptions and attitudes related to wellness efforts. Most studies specifically focused on the federal mandate that districts create local wellness policies, as outlined in the Federal Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004 and the Healthy, Hunger-Free Kids Act of 2010. Other studies examined state-level policies, such as North Carolina State Board of Education’s requirement that all kindergarten through eighth-grade children receive at least 30 minutes of moderate-to-vigorous physical activity each school day, and the Alabama State Department of Education’s school food and nutrition mandates. A summary of articles included in the literature review can be found in the appendix.

Key Informant Interviews

For this phase of the assessment, key informant interviews were conducted over the phone. The interviews ranged in length from 20 to 60 minutes. All interviews were audio-recorded after obtaining permission of the interviewee. Common themes were then identified and will be presented in the findings section.

Get Healthy San Mateo County identified ten districts to focus on, based the fact that they serve youth from priority communities within San Mateo County which have been identified as having existing health and economic disparities. These districts have a high rates of children participating in the Free or Reduced Price Meal Program and/or serve youth of color. The districts include a range of grade levels; seven include grades kindergarten through eighth; two are high school districts, and one includes kindergarten through twelfth grade.

Within each district, an average of two people were interviewed who were particularly knowledgeable about wellness policy implementation and wellness efforts in general. As shown in the list below, these people were in a range of roles, which was partially due to variation in the particular people in each

district who were involved in wellness efforts. Additionally, given the varying perspectives of wellness policy implementation, an effort was also made to hear from people in different positions. Interviews were conducted with the food service director in almost all ten districts. Five of the ten districts have wellness coordinators, and all participated. A total of 26 interviews were conducted.

Roles of school and district staff who participated in key informant interviews:

- Food Service Directors
- PE teachers/coaches
- Principals
- School board and community members
- School Nurses
- Superintendents
- Wellness Coordinators
- Classroom teachers

Youth Focus Groups

Two youth focus groups were conducted with high school students, for a total of 14 participants representing two high schools. Of the 14 participants, 10 were girls and 4 were boys. The distribution by grade was: 1 freshman, 3 sophomores, 4 juniors and 6 seniors.

Expert Interviews

After speaking with school and district staff and students, four interviews were conducted with local and national experts on school wellness. The purpose of these interviews was to gather ideas and recommendations about ways to address barriers described by staff and students from San Mateo County school districts. Interviews were conducted over the phone and lasted between 30 and 60 minutes. All interviews were recorded with interviewees' permission. The following individuals participated:

- **Ginny Ehrlich, EdD, MS, MPH:** Director, Childhood Obesity at Robert Wood Johnson Foundation and former Chief Executive Office of the Alliance for a Healthier Generation
- **Martin Gonzalez, JD:** Director, Institute for Local Government and former Deputy Executive Director of the California School Boards Association
- **Marlene Schwartz, PhD:** Director, Rudd Center for Food Policy & Obesity at Yale University
- **Jenny Wang, MHP, MPP:** Senior Program Specialist-School Team, Alameda County Health Care Services Agency, Public Health Department, Nutrition Services Program

Findings

Literature Review

Studies used a variety of quantitative and qualitative methods to examine implementation of school nutrition and physical activity policies. Many studies used surveys (often administered online) to assess a range of topics, including schools' level of policy implementation and perceptions about wellness efforts. Qualitative data was collected using interviews and focus groups with different constituencies within the district (such as principals, teachers, and students). Some studies also conducted observations of school-based activities.

There is evidence that school and district practices have changed since the institution of the local wellness policy (LWP) requirement. Although some studies found no increases in PE, recess minutes, or offering of fresh fruits and vegetables (Belansky et al, 2013), other studies found improvements in restricted access to competitive foods and exemptions from PE for sports or other reasons (Boles, 2011; Metos and Murtaugh, 2011). There is also evidence of an increase in scheduling recess before lunch and policies for vending machines (Belansky et al., 2013). A national survey of food service directors reported positive changes in the use of nutrition guidelines for a la carte foods, beverages, parties and vending, but challenges with the use of food for fundraising (Longley et al., 2009).

Several articles discussed barriers to wellness policy implementation, including: resource and financial constraints, overloading of school administrators with new policies, lack of time, lack of coordination of policy team, competing priorities (Amis et al., 2012; Budd et al., 2012; Erlich, 2012; Evenson et al., 2009). Superintendents reported that a significant challenge which schools are not adequately prepared to address is trying to change student attitudes and involve parents (CA Project LEAN, 2008). Barriers related specifically to physical education (PE) included a value system that prioritizes standardized test performance over physical education, and varsity sports systems that negatively influence opportunities for PE (Amis et al., 2012). Food service directors cited a lack of financial resources preventing them from providing a broad selection of healthy foods (Belansky et al., 2010). Staff development and teacher training was identified as a need in several studies: superintendents reported that staff development about how to implement policies is needed but requires funding; limited personnel to implement physical education and nutrition education classes; nutrition and physical activity training for staff members, especially teachers (CA Project LEAN, 2008; Marin County report; Gaines et al., 2011; Henry, 2010).

A range of factors were identified as contributing to changes including: effective school champions and/or wellness council, supportive school administrator, professional development for staff (e.g. for PE), and supportive district policies (Erlich, 2012). Accountability was associated with greater implementation and effectiveness (Budd et al., 2012). Although grant-related programs and funding facilitated change, grant-funded, non-curricular efforts were often not sustained after the grant ended (Erlich, 2012). There is some evidence that stronger, more comprehensive policies are associated with better implementation (Schwartz et al., 2012).

Successes and Challenges

The successes and challenges described below are organized by areas of school wellness outlined in most school wellness policies. The findings below are based on key informant interviews with school and district staff, as well as youth focus groups.

School Wellness Committees

Successes

Nearly all ten districts included in this assessment have a wellness committee, and those that did not are in the process of establishing a committee. The frequency of meetings for this committee ranged from monthly to quarterly, and membership varied. Most committees include the food service director, and other possible members include the wellness coordinator (if the district has one), a school nurse, parents, school board members, Director of Student Services, assistant superintendent, teachers, principals, students. Some wellness committees have working subcommittees, and one district had a health education committee. Teachers were usually notified about the wellness committee's activities, and general wellness activities, via e-mail (often from principals or the wellness coordinator if the district has one).

Challenges

Although most districts reported having a wellness committee, many districts reported challenges related to consistent participation by teachers and district administrators. Teacher participation is valuable, because teachers often play an important role in implementation. Likewise, greater engagement on the part of district administrators can expedite the approval process and allocation of resources for initiatives. It can also trickle down to site level implementation, by sending the message to principals, and subsequently teachers that wellness efforts are valued in the district. Interviewees explained that the primary reason teachers and administrators did not participate with the desired consistency or intensity was lack of time. A related issue is when meetings are scheduled at times that are not convenient for principals and teachers. Another challenge some districts face, particularly those without wellness coordinators, is having someone who can coordinate the wellness committee.

School Food

Successes

There has clearly been progress made related to food provided by the food service program. Most districts reported that school meals have become healthier, including more fresh produce, more cooking "from scratch," and even more local and organic foods. Some schools are integrating school gardens into school food offerings. There have also been efforts to promote healthy eating in cafeterias and involve students in selecting foods, such as by providing smoothies and salad bars, and providing opportunities for students to do taste-testings. Many districts also discussed successful efforts to promote water consumption and make water more available on campus. Most districts also reported that they adhere to regulations regarding a la carte items and food sold in vending machines.

Challenges

Although the food provided has gotten healthier, many districts reported more food waste, since students are often less accustomed to the healthier options. Food service directors also discussed the cost associated with changes, such as the cumulative amount of even a small increase in cost (e.g. for organic apples). There are also limitations for school food because they are dependent on government food sources and commodities.

High School Student Perspective: Students reported that although they would like to eat healthier foods, the “healthy” foods at school (such as fruit and salads) were often not very appealing or fresh. Cost was also cited as a barrier to buying healthy foods. Most students reported that they bring food from home, and many said they buy food from vending machines and/or the student store on campus.

Food Policies

In addition to food provided by the school food program, district wellness policies include guidelines related to other food available on campus including parties and fundraisers.

Successes

Some districts have been able to achieve consistent enforcement/implementation of food policies across schools, using strategies such as inclusion in handbooks and strong support and enforcement by principals. Interviewees reported that although there was some initial resistance from staff and parents, as policies have been in place longer, a new norm is being established.

Challenges

Despite successes related to food provided by the district nutrition programs, there are still challenges related to other food students have access to at schools. For example, Parent Teacher Association (PTA) fundraisers involving candy or other unhealthy foods are still an issue in many districts. In addition to being a source of unhealthy food for students, this can be a source of frustration for teachers who are abiding by the policy. In general, enforcement of food policies can be a challenge because teachers and other school staff do not want to be seen as the “food police” or “sugar police.” Enforcement is often left up to individual schools, and although some principals support enforcement of policies related to food sales and celebrations, this is not true across all schools.

Physical Education (PE)

Successes

Many districts reported that their students are receiving the required number of physical education minutes, or that a concerted effort is being made to do so. Some districts reported that there is still some difficulty fitting in all PE minutes, but since this has been made a priority, schools figure out how to do it. Districts have been creative in finding ways to fit in PE minutes. In middle school and high school grades, PE is taught by PE teachers. In elementary grades, PE is often taught by PE aides or classroom teachers. Several districts described partnerships or contracts with external organizations (such as Legarza) which bring in their own staff and activities to teach PE. Teachers appreciated it when PE classes included games that students could play during recess.

Challenges

Regarding challenges, nearly all districts discussed funding issues related to PE. It is common for PTAs to raise money to help fund PE. Even districts currently receiving external assistance for PE worried that it was not sustainable. Another concern was the lack of formalization of PE compared to other subjects, including the lack of a structured, sequential curriculum in many districts and a need for additional training for those teaching PE. Finally, some districts had infrastructure limitations, such as large class sizes and schools having to share facilities.

High School Student Perspective: The students who participated in the focus groups are only required to take PE for two years, usually in ninth and tenth grade. They reported that one of their favorite aspects of PE is being with their friends and the social aspect. Students suggested school facilities, such as the gym and pool, be open during lunch and after school to provide students with more opportunities to be physically active. There was some interest in making PE standards more consistent across schools, so that the content and rigor were not so dependent on individual PE teachers.

Health/Nutrition Education

Successes

As with PE, districts have been creative in finding ways to fit health education into an already packed school day. Some districts have short health lessons during PE, while others have been able to bring in volunteer or part-time health educators to teach lessons. Many districts were also aware of the free Dairy Council curriculum and had provided it to teachers. At the middle school level, some science teachers are integrating health education into the curriculum, and some schools are piloting a six grade trimester-long health elective.

Challenges

Health and nutrition education was an area in which nearly all districts reported challenges. Despite the efforts described above, most people who were interviewed said the health and nutrition education currently provided is not sufficient, and that there is variation in what is taught across schools and classrooms in the district. Teachers would also like to see more coordination between grade-levels.

One of the primary challenges is figuring out how to make time for health education. Elementary school teachers already have many subjects they are expected to fit into the school day. Science and physical education teachers already have many standards to cover, and physical education teachers often lack classroom space to effectively teach health education. Teachers explained that it is important to clarify who is responsible for teaching health, and to ensure teachers have sufficient training. Several interviewees commented that although there are health education standards, many people are not aware of them and there is not accountability for teaching these standards.

High School Student Perspective: Students reported that although they receive some health education in ninth grade, it consists primarily of topics such as first aid, life skills and reproductive health and includes very little nutrition education. Students explained that their main source of nutrition information is the internet, with some athletes also receiving nutritional advice from their coaches. Students reported that they would like to receive more nutrition education and information at school.

Staff Involvement

Successes

It was clear that within each district there are teachers and principals who are wellness champions—individuals who personally care about wellness efforts and go above and beyond to advocate for wellness initiatives within their school and sometimes throughout the district. For example, some teachers have applied for grants to fund particular programs or resources, or particular schools have participated in pilot programs because of the principal’s interest and engagement.

Challenges

While these types of involvement are certainly successes, most districts expressed a need for broader involvement of teachers, but this is difficult because of the many demands already expected of teachers and a lack of time.

Parent Involvement

Successes

Successes reported by many districts included increased parent participation on wellness committees, and some parent education. Other types of parent involvement included walk to school leaders and lunch volunteers who promote fruit and vegetable consumption. There has been an effort to communicate wellness efforts to parents, and there has been some increased awareness among parents about changes in the school meal program and new regulations.

Challenges

One challenge related to parent involvement was that it often requires staff time, particularly for parent education activities that require planning, recruitment and teaching. Communication with parents about the wellness policy varies both across and within districts. For example, even when documents are created by the wellness committee, not all schools distribute the document to parents.

Student Involvement

Successes

Some key informants reported success with informal student participation, such as through taste-testing of school food items and cooking contests, usually coordinated by the food service director. Some schools have events, such as jog-a-thons and walk-a-thons, that get kids excited about being active. There were also some high schools that reported having student groups (either currently or in the past) focused on promoting wellness.

Challenges

As with parent engagement, student engagement requires staff time. In one district, a successful student group related to nutrition and health ended because the staff member facilitating the group left and there was no one who could take his place. Another challenge is engaging a wider group of students—not only the students who are most involved in school activities.

High School Student Perspective: Students reported that existing student groups, such as the leadership class/group and student council, are usually the students involved in advocating for wellness. While these groups had attempted to make positive changes at some schools, such as attempting to obtain healthy vending machines, they felt the school administration did not adequately advocate for, or support, them in achieving these changes. Students also advocated for expanding the definition of wellness, to include mental health in addition to nutrition and physical activity. Students reported that they would like to see more opportunities for students to be involved in the decision-making process.

Implementation Barriers and Drivers

Barriers to Implementation

The section above describes major challenges for specific wellness issues. Interviewees discussed several issues that impede wellness policy implementation more generally. Perhaps the most common and significant barrier was competing priorities. There are many issues that schools are expected to address, and these other demands often mean there is limited time and funding for wellness.

Specifically, there is often limited time for staff to coordinate, plan and implement wellness efforts. This lack of time is especially an issue because districts, schools and teachers are currently in the process of adopting and learning the Common Core standards. Another overarching barrier that was discussed in several (but not all) districts was a lack of administrative support, particularly at the district level.

Drivers of Implementation

Although the barriers discussed above can make it difficult for districts to implement wellness policies, interviewees identified several factors that facilitate wellness policy implementation. These included:

✓ **Administrative support for wellness efforts**

In several districts, interviewees reported that district administrators such as the superintendent and/or assistant superintendent are strong advocates for wellness. Because of this, wellness is viewed as a priority in the district and wellness efforts have support (in the form of both political/ideological backing and resources) to move forward. In these districts, wellness is part of the district's strategic plan. In addition to district-level support, many interviewees discussed the importance of principal support of wellness efforts, since school administrators have a direct impact on implementation.

✓ **Wellness champions**

In addition to administrative support, many interviewees attributed success in their district to wellness champions in other roles, including food service directors, teachers (including PE teachers), school nurses and board members. These wellness champions are often long-time advocates in the district who are personally invested in promoting health, and often go above and beyond what is expected of them to advocate for, and implement, wellness efforts. Although only present in five districts, wellness coordinators were also identified as catalysts for change.

✓ **Collaborations with external organizations**

Many districts discussed the importance of collaborations with external organizations for obtaining resources and funding. Many had received grants from Get Healthy, and several receive funding from health care districts for wellness coordinators, PE programs, and other wellness initiatives. Districts also reported collaborating with community organizations to provide health education, and applying/receiving grants for activities like school gardens.

✓ **Effective strategies that schools can realistically implement**

Interviewees discussed the importance of programs and initiatives that are both effective and can be easily implemented. For example, Playworks and SPARK were described as programs that meet physical activity needs and can be implemented without too many challenges by school staff. This is also particularly important when asking teachers to implement particular programs.

✓ **Regulations**

Regulations were identified as a driver of some changes. For example, federal regulations (USDA) provided a reason/justification for providing more vegetables. State regulations were seen as an important factor for establishing a district beverage policy. At the district level, influential regulations included adding nutrition education in a new health curriculum approved by the board and including physical education in the Local Educational Agency plan. Interviewees explained that these types of regulations provided additional weight and leverage to ensure accountability and implementation.

✓ **Culture shift related to eating and physical activity**

Interviewees acknowledged that increased public awareness around healthy eating and physical activity, and specifically schools' role (e.g. school food), has been helpful for moving forward with wellness efforts, because it means district staff and parents are more eager to make improvements in this area. According to one respondent, "wellness has gotten higher on the list of things to pay attention to."

Additional Resources and Support Needed

Many of the facilitators and drivers of implementation described above link directly with the resources and support interviewees said their districts need to increase wellness policy implementation.

■ **Administrative support for wellness efforts**

Although some districts reported strong support for wellness efforts from both district administrators and principals, other districts said that more administrative support is needed to implement the wellness policy. In some districts, interviewees suggested that district staff need more information about the link between health and academics to convince them that wellness is an issue they should address. In other districts, administrators have acknowledged the importance of wellness but are too busy to be involved or forget about it when there are so many competing demands. Interviewees said it would be helpful to have support in addressing both of these issues.

■ **Funding and assistance identifying funding and partnerships**

Many districts reported the value of grants, including Get Healthy grants, for implementing particular aspects of their wellness policy. Unsurprisingly, nearly every district said that additional funding is needed to fully implement their wellness policy. Interviewees reported needing additional funding for the following areas:

- Health education: Districts need funding for health education curricula and materials, as well as staff to teach health education.
- Food Services: Food service directors reported needing more funding for: (1) facilities and equipment, such as bigger kitchens and hot carts; (2) more fresh foods, especially organic; (3) more kitchen staff.
- Staff Time: As described in previous sections, a lack of staff time is a major barrier to wellness policy implementation. To address this, many interviewees expressed a need for additional funds to cover staff time, including:
 - Teacher time for trainings
 - Stipends for “wellness champions” at school sites
 - Staff to coordinate youth involvement
 - Staff to coordinate parent education and engagement activities
 - PE specialists to coordinate recess activities
 - Health educators
 - Wellness coordinators
- Physical Education: Additional funding would enhance physical education by paying for additional staff (to reduce class sizes), materials and equipment, and outside vendors who provide physical education.

Interviewees acknowledged that funding can come from different sources, and explained that it would be helpful to be aware of possible funding sources as well as organizations in the community that could provide resources. For example, one district said it would be helpful to have assistance linking with businesses who could provide support for wellness efforts.

■ **Resource Directory**

Several interviewees, including all of the teachers, discussed the value of having a resource directory to make it easy for district staff and teachers to identify resources needed to implement wellness policy components, particularly related to health education and physical education. This would make it easier for teachers to get ideas, and would save districts from having to do their own research to identify relevant resources. Most people said that the most helpful format would be a website, which is also linked to each district’s website. It could also be a place where teachers share resources. Desired resources include:

- Health education resources
 - Health education standards
 - Health education curricula by grade
 - Resources by grade-level including lesson plans, websites, books, and videos
 - Organizations that could provide health education
 - Nutritionists who could come speak to students
- Physical Education (PE) resources
 - PE standards
 - PE curricula

- PE activities that classroom teacher can implement with minimal prep (for days when PE teacher is not available)
- Organizations that provide physical education

■ **Opportunities to problem-solve and share best practices**

In addition to some type of directory, interviewees discussed the value of learning from each other, particularly in the following areas:

- Food service directors would like to know what other districts (including districts outside the county, such as Berkeley) are doing to address challenges, such as food waste, promoting healthy options, and funding issues. They are also interested in discussing interpretation and implementation of policies related to school food.
- Physical education: District staff, particularly PE staff, would like to hear what other districts are doing regarding PE, including professional development, and curricula and lesson plans. There was also some interest in possibly sharing or coordinating professional development opportunities across districts.
- Documents: District staff would like to see examples of wellness policy-related documents, including examples of strong wellness policies and templates for letters that are sent to parents to communicate the policies.
- Fundraising strategies: Districts are interested in sharing ideas about successful fundraising strategies with culturally appropriate, healthy food.

Interviewees acknowledged that making time for this type of collaboration can be difficult. Many said they prefer to share ideas in-person, but that an on-line forum could also be useful.

■ **Training and Professional Development**

Many interviewees reported that additional training and professional development (PD) would help increase policy implementation. They provided suggestions both about both format and topics. Regarding format, many stressed that any professional development must be sensitive to time limitations of school staff, which could involve providing PD opportunities when school is not in session (and compensating staff). They also said that it is often beneficial to have smaller trainings for a core group of the most interested staff, rather than requiring everyone in the district to attend. There was also interest in providing opportunities for staff to attend relevant conferences. Topics that were suggested for trainings included:

- Training for para-educators and others who teach physical education
- Nutrition essentials for teachers, so they are better prepared to teach nutrition topics
- Training for food service staff (to address common disconnect between somewhat complicated guidelines written by dietitians and food service staff who implement the guidelines)
- Mindful schools and anti-bullying programs

■ **Assistance identifying and implementing health education curricula**

Although discussed several times above, it is important to note that many districts expressed a need for assistance in both identifying and implementing health education curricula.

- **Strengthen wellness policies**

Along with administrative support, several districts said that it would be helpful to have support in strengthening their wellness policies, both the policy itself and the regulatory/administrative weight of the policy. They explained that they would like to make the policy more specific and would like it to be paired with more administrative regulations, both of which would make it easier to leverage the policy to implement change.

Best Practices and Strategies

The four experts provided valuable insight and recommendations about ways districts could address challenges and barriers to implementation described above.

Administrative Support

Administrative support at the district level was identified by key informants as an important factor for wellness policy implementation. In some districts, superintendents and/or assistant superintendents are wellness champions themselves, and have established wellness as a priority for the district. In other districts, a small group of wellness champions felt limited in the progress they could make because of a lack of support at the district level.

All experts acknowledged the value of having support at the district level, but several also emphasized the importance of support at the school level, specifically from school principals. They pointed out that because implementation is often dependent on school-level actions and decisions, it is just as important to make sure principals are committed to wellness efforts.

The experts suggested several strategies for building support at the district and school levels:

- **Peer-to-Peer Advocacy:** Connect existing wellness champions with other district and school leaders to facilitate sharing of information and successes.
- **Positive reinforcement:** Several experts discussed the value of acknowledging and rewarding successes as a way to encourage further action and get the attention of other principals or superintendents to motivate them to initiate similar efforts. This kind of recognition also emphasizes that effective implementation is possible, as well as what it looks like. This also applies to wellness policies themselves—districts often find it helpful to see what a strong policy looks like and to have some of the language already written.
- **Emphasize that wellness efforts are doable:** Along with highlighting successes, some strategies to achieve this include: (1) Identifying small changes that do not require a lot of time or money; and (2) Providing technical assistance and training about how to implement the policy.
- **Engage other people who can advocate for wellness:** This can mean: (1) Leveraging the schools board by educating them on the importance of wellness so they can become advocates (if they are not already); (2) Engaging other influential community people (doctors, politicians, etc.) so they can apply their credibility; (3) Engaging school nurses, who can speak to students' health needs.

Teacher Involvement and Engagement

District and school staff also spoke about challenges to involving and engaging teachers in wellness efforts, especially given their busy schedules and other demands. Experts provided a range of ideas for engaging teachers.

- **Acknowledge that the process can take time:** Since many changes involve shifting norms, it is important to acknowledge that changing attitudes can take time and often happens in multiple stages.
- **Employee wellness activities can both support teachers and get them excited about wellness:** By providing opportunities for employees to focus on their own health (exercise classes, healthy eating ideas, etc.), they can get excited about their own health, which can translate into interest in their students' health. Providing resources for teachers, doing something *for them*, can also serve as an entrée point for other wellness efforts.
- **Small asks with incentives:** When asking teachers to implement something new, it is helpful to start small and provide incentives. Once teachers try something and see the benefits, they often want to continue. Along with this, it is important to be sensitive to what is manageable for teachers and maintain realistic expectations.
- **Give teachers tools:** Instead of expecting teachers to seek out tools and resources on their own, provide resources for teachers to make it easy for them to integrate health in their classroom. Examples provided include: ideas for physical activity in the classroom, workbooks and standard-based activities for Harvest of the Month, and voluntary professional development opportunities with compensation.
- **Identify and support teachers who are wellness champions:** Maximize the interest of teachers who are wellness champions by acknowledging teachers who are taking positive steps. This could also be done by providing teachers with a stipend to coordinate a particular wellness effort.
- **Tap into teachers' interests and priorities:** Teachers may be more likely to engage in wellness efforts if it is clear how they align with their interests and priorities. For example, it may be helpful to emphasize the link between students' health and their attendance, behavior, and engagement. Often other teachers are the best messengers.
- **Principals need to support and communicate wellness priorities to teachers:** It is easier for teachers to engage in wellness efforts if they know their principals support these efforts.

Youth Involvement

Along with teacher involvement, key informants discussed the importance of greater student involvement in wellness efforts, particularly at the middle and high school level.

- **Separate group of youth (ambassadors) to advocate for wellness:** This approach is successful only if the structure of the group ensures that they can truly have an impact.
- **More than one youth on wellness committee:** By having more than one youth on the wellness committee, students have a greater voice and more weight when speaking up about issues.

- **Students involved in creating facilities:** At all levels, involving students in developing and creating wellness-related facilities can increase their engagement and investment. For example, students can be involved in planning and building school gardens and improving playgrounds.

Physical Education

Two suggestions were given to formalize and standardize physical education:

- **Formal adoption of PE curriculum:** The process for identifying, adopting and implementing a physical education curriculum should be the same as the process for other subjects such as language arts and math.
- **Identify benchmarks:** The objectives of physical education in the district should be clear. These may be guided by mandated assessments, such as the Fitnessgram, but it is important that all staff who teach PE are aware of, and accountable for, these benchmarks.

Health/Nutrition Education

As with physical education, districts articulated a need to better formalize and standardize health education. Two of the suggestions are the same as those for physical education.

- **Formal adoption of health education curriculum:** As described above, this should be the same process that is used for other subjects.
- **Identify benchmarks:** These are likely to be based on (if not identical to) California state health education standards.
- **Have a clear understanding of the educational context:** It is important to understand how factors such as the Common Core and local accountability plans may affect how health education is provided.
- **Begin by having external staff provide nutrition education:** One approach to introducing health education is by phasing it in. For example, Oakland Unified School District began by providing nutrition education with external staff (not teachers). Once teachers started to see the benefits, they were able to transition to providing training and a packaged curriculum so teachers could provide nutrition education.

Funding

Experts suggested possible funding sources for wellness efforts:

- **Implementation grants:** These are usually small grants (\$1,000-\$5,000) that often come from local sources and enable schools or districts to implement particular changes or initiatives.
- **Federal funding sources:** Title I money can often be used to fund activities for parents. United States Department of Agriculture (USDA) funding, including SNAP-Ed, may be used to fund nutrition education and other related efforts.
- **Local businesses:** A clear and purposeful wellness plan can be leveraged to get support from local businesses.

- **Opportunities to pool resources at district/city/county level:** It may be possible to direct a portion of certain taxes (e.g. property taxes, sales taxes) to wellness efforts. For example, in San Francisco, some funds from the Public Education Enrichment Fund (PEEF), an add-on to the sales tax, are allocated to wellness initiatives in schools.
- **Kaiser Permanente:** Kaiser Permanente has provided funding for wellness efforts in other districts.
- **Caltrans:** Provides funding for Safe Routes to School Activities

Food Policies

Experts provided ideas for achieving implementation of food policies in schools, including celebrations, fundraisers and using food as a reward.

- **Acknowledge, and facilitate, a culture shift:** Implementing these type of policies requires a culture shift, which can take time (possibly several years) and is facilitated by:
 - A strong leader (principal)
 - A lot of enforcement initially, then less as the culture changes
 - Frequent reminders, such as sending out notices at the beginning of the year and before each holiday
 - Maintaining a consistent policy throughout school so teachers support each other and are all on the same page
 - Taking advantage of turnover in schools by focusing on early grades
- **Support Food Service Directors as advocates:** Food Service Directors are often the best advocates for these types of policies because it is in their interest for schools to only provide foods that support healthier foods served in cafeterias (and do not compete with food provided by the school meal program).

School Food

Many Food Service Directors expressed concern about students not eating the healthier food provided through school meals. Strategies for addressing this issue include:

- **Marketing and education:** Experts suggested several ideas, many of which are also activities districts are currently doing:
 - Taste tests to increase familiarity with foods
 - Use the cafeteria as a learning environment and opportunity for nutrition education and promotion. For example, lunchroom monitors can encourage consumption of healthy foods by using incentives such as stickers.
 - Food Service Director works with students to create menu through voting and taste tests, so that students are part of decision-making.
- **Help Food Service Directors (FSD) coordinate with each other:** Since many districts are struggling with the same issues, FSD can engage in group problem-solving.

Other ideas may not impact students' consumption, but may help address the issue of food waste:

- **Research showing there is not actually more food waste:** Two of the experts cited research indicating that plate waste has not actually increased since schools began providing healthier foods, but instead that plate waste has always been an issue. Collecting data to see how much food is actually being wasted could be helpful.
- **Creative re-use of fruits and vegetables:** In other districts, share bins have been set up so that instead of throwing away uneaten fruits and vegetables, the food can go out to the community.

Role of County

Given the variety of entities and organizations involved in promoting wellness policy implementation, interviewees were asked to describe their view of the unique role of county health departments.

- **Training and technical assistance:** The county can help to provide districts with the training and technical assistance needed to implement wellness policies. Specifically, this could include:
 - Health coaches who provide technical assistance and specific strategies and steps for policy implementation
 - Trainings for small groups of people in a district who can then go back and institute changes
 - A few half-day trainings with ongoing support, regular check-ins and tangible steps for districts to take
- **Help Food Service Coordinators (FSD) collaborate:** The county can bring together FSD so they can work together to solve common problems, and possibly take advantage of economies of scale for purchasing power.
- **Supportive (vs. regulatory):** The county should focus on providing support to districts, rather than scrutinizing implementation.
- **Build effective working relationships with school districts:** Strategies that contribute to successful partnerships between health departments and school districts include:
 - Keen understanding of the school district and how to place health within that context. This includes framing wellness in a way that is pertinent to schools.
 - Building a genuine, committed relationship, which can be facilitated by a relationship between the county health official and county superintendent.

Coordination with other health issues

Given districts' interest in health issues other than nutrition and physical activity, particularly mental health, experts were asked how efforts in these areas can be coordinated with other health issues. Ideas included:

- **Leverage the same system to deal with multiple issues:** For example, if a system is established for providing technical assistance and/or training to districts to support implementation of nutrition and physical activities, that same system can be used to provide technical assistance and/or training related to mental health.
- **Coordinated School Health Model:** This model, which was developed by the CDC and was recently updated and expanded, provides a way to understand school wellness as a whole.

Interviewees acknowledged that although it can break down quickly when resources are limited, it is helpful for people to have a working knowledge of the model.

- **Understanding of students' and families' needs to effectively apply assets and resources to address issues:** Data can be useful for identifying students' and families' top needs and then identifying and applying district and county resources to address these needs.

Parent Involvement

Experts suggested a range of strategies for engaging parents in wellness efforts, including Parent Teacher Associations (PTA) specifically, and all parents in general. A couple of experts also emphasized that because there can be turnover in PTAs, it may only take a couple of years to change “how things are done,” so as with other issues discussed above, it is important to remember that time can help.

- **Utilize available tools for engaging PTAs:** Several organizations were identified that have developed tools for engaging PTAs around wellness, including:
 - Alliance for a Healthier Generation has developed tools in coordination with the national PTA
 - The state and national PTA are very supportive of wellness initiatives and have resources on their website to support local PTAs
- **Identify and engage “early adopter” PTAs as peer advocates:** Identify PTAs who have changed practices to align with wellness policies, and use them as an example for other districts and schools to lessen fears about changing fundraising. For example, when switching to healthier fundraisers, some PTAs see an initial drop-off, then proceeds rebound to previous levels.
- **Provide a forum for parents to provide positive feedback:** Parents are often appreciative about districts' efforts to promote wellness. By providing a forum to provide this feedback, districts receive reinforcement for their efforts, and other parents can hear this positive message. This type of feedback could be provided through modes such as videos and surveys.
- **Pair parent education and advocacy:** Consistent with what some San Mateo County districts reported they have already been doing, experts recommended providing nutrition education for parents, then encouraging them to become advocates. Specifically, environmental change can be included in the education program, to help parents identify and then advocate for a wellness change (e.g. salad bar at lunch, remodeled playground, walking group).

Recommendations

The recommendations below are based on districts' successes and challenges in implementing particular elements of their wellness policies, primary barriers and facilitators of implementation, and strategies described by local and national experts.

- **Link districts with funding opportunities**

One of the most common challenges was a lack of funding, or inconsistent or short-term funding, to implement wellness policy components. As described in previous sections, this financial need applied to nearly all wellness policy components, including food service, physical education, health education, teacher involvement, parent involvement and youth involvement. There are several approaches Get Healthy could take to helping districts with funding:

- Continue to provide small implementation grants. Consider ways to promote sustainability of funded projects.
- Explore ways the County could access funding that could then be directed to districts, such as through USDA funding/grants, foundations, and county taxes.
- Identify ways in which local businesses could support districts' wellness efforts.
- Provide support to districts in applying for grants, including identifying appropriate grant opportunities and completing grant applications.

➤ **Support districts in identifying and implementing health/nutrition education curricula**

Nearly all districts reported that the health and nutrition education currently provided is not sufficient, and expressed interest in better standardizing and coordinating instruction in this area. Key informants had different perspectives about the best ways to fit in health and nutrition education given the primary barrier of insufficient time, but they agreed that it needs to be better coordinated across grade-levels, and that there needs to be more accountability for ensuring students are meeting health education standards. There are several ways that Get Healthy could facilitate the adoption of sequential, standards-based health/nutrition education:

- Provide districts with a list of health education curricula that meet California state standards¹
- Provide technical assistance to help districts develop a plan for implementing the health education curriculum, including how to fit lessons into the school day and how to train teachers.

➤ **Support districts in formalizing physical education (PE) instruction**

Although many districts have been successful in fitting in PE minutes, there is a need to make PE instruction more formalized. Get Healthy could facilitate this formalization in several ways:

- If needed, provide districts with a list of sequential PE curricula and programs that addresses standards
- Help districts engage in a curriculum adoption process for the PE curriculum
- Provide and/or coordinate professional development opportunities for staff (teachers or para-educators) who teach PE

➤ **Build administrative support at the district and school level**

It is important that efforts to build administrative support for wellness address both district administration and school administration (principals):

¹ The *Nutrition Education Resource Guide* created by the California Department of Education (2011) would be a good starting place. <http://www.cde.ca.gov/ls/nu/he/documents/nergcomplete.pdf>

- Identify superintendents, board members, principals, and other leaders who are wellness advocates, and give them opportunities to share their successes and strategies with others in their position.
- Highlight and reward successes of districts and schools with successful wellness policy implementation. Incentives and acknowledgement could include strategies such as formal reward or recognition, local media coverage, and inclusion in district/county newsletters.

➤ **Link districts to resources**

There was interest, especially among teachers, in having a resource directory, likely online, of resources relevant to wellness policy implementation. In addition to materials and ideas, the website would also provide information about community organizations and resources that could be helpful to districts, particularly for nutrition education and physical education. In order to be most useful, and to maximize utilization, the tool would need to be clearly organized, formally introduced to district staff and teachers, and regularly updated.

➤ **Provide opportunities for collaboration between districts and sharing of best practices**

Many key informants reported an interest in more collaboration between districts, particularly as a way of sharing strategies and best practices. Some participants also suggested collaboration with other districts for professional development. There was particular interest in collaboration among Food Service Directors. Participants were also interested in hearing about successful strategies from districts outside the county.

➤ **Support districts in engaging parents around wellness**

Most districts reported that they would like to more effectively engage parents in wellness efforts, including communication about wellness policies, parent education, and parent advocacy.

Strategies to engage parents include:

- Facilitate parent nutrition education and advocacy programs by linking schools with community organizations that can provide these services and/or funding school staff to provide these types of services.
- Highlight and build enthusiasm for wellness among Parent Teacher Associations (PTAs). Many PTAs already support wellness efforts in a variety of ways, such as by providing financial support for PE, organizing events such as jog-a-thons, and switching to non-food fundraisers. Recognize and publicize these positive efforts, and help PTAs adopt other practices in-line with wellness policies, such as healthy fundraisers.

➤ **Support districts in engaging teachers around wellness**

Although there are many challenges to teacher involvement, there are several strategies that can be used to facilitate teacher engagement:

- Consider providing stipends to teachers to promote wellness at their site, similar to the Wellness Champion Program in Oakland Unified School District. This would help to address several issues including building a broader base of support for wellness efforts, addressing the lack of staff time, and providing assistance with coordination of wellness activities.
- Support staff wellness activities as a way to “give” something to teachers and get them excited about their own health.

- Help districts identify times during the school day (paid teacher time) that teachers could participate in wellness activities, such as during early-release days and professional development days.

➤ **Support districts in engaging youth around wellness**

Strategies to involve youth include:

- For older grades, help schools/districts establish student groups related to wellness that have the structure necessary to effect change, or provide tools for existing groups to examine and advocate for wellness issues.
- For all grades, help schools/districts engage students in efforts to develop and create wellness resources, such as planning and creating school gardens and fixing playgrounds or sports facilities.

➤ **Provide technical assistance to help guide districts through wellness policy implementation**

Although half of the districts that participated in this assessment have wellness coordinators who can advocate for, and lead, wellness efforts, many districts do not have wellness coordinators and must rely on other staff to take on this role. Although it may not be realistic for Get Healthy to fund wellness coordinators in districts without them, GH could provide technical assistance to help districts implement their wellness policy. This technical assistance could consist of in-person trainings for a key group of district representatives (such as a core group of the wellness committee) combined with ongoing support and regular check-ins, including tangible steps for implementation. This type of technical assistance could be provided by coaches who can focus on the “how” part of wellness policy implementation.

➤ **Explore coordinating efforts with other health issues**

Mental health was identified as a priority in many districts by both staff and students. This is especially relevant as district wellness policies are becoming more inclusive (and not only focused on nutrition and physical activity). The Center for Disease Control and Prevention’s newly expanded model of school health, The Whole School, Whole Community, Whole Child (WSCC) model is helpful for developing a collaborative approach to student health.

Identify sustainable funding sources for school wellness coordinators

School wellness coordinators are essential to successful wellness policy implementation.

Unfortunately not all school districts have dedicated staffing positions for school wellness coordinators due to lack of funding. Currently funding for school wellness coordinators in San Mateo County are often through grant funding. Sustainable funding streams should be identified to support these positions on a consistent basis.

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Appendix: Summary of Articles Included in Literature Review

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
Belansky et al. (2013)	Rural Colorado <ul style="list-style-type: none"> 45 low-income elementary schools (40 school districts) Random sample of principals, PE teachers, and food-service managers 	Federally mandated Local Wellness Policy	Principals asked to categorize policies: <ol style="list-style-type: none"> No policy exists, written or unwritten; Unwritten policy that is always/almost always enforced; Written policy but is never/almost never enforced Written policy is sometimes enforced; Written policy always/almost always enforced 	Administered School Environment and Policy Survey one year before and 5 years after LWP mandate	<ul style="list-style-type: none"> No increase in PE or recess minutes No increase in offerings of fresh fruits and vegetables More schools had policies prohibiting teachers from taking recess away as punishment More schools scheduled recess before lunch and developed policies for vending machines
Belansky et al. (2010)	Rural Colorado 11 districts/11 food service managers	District local wellness policy (LWP)		Focus groups with food service managers	<ul style="list-style-type: none"> 8/ 11 foodservice managers familiar with district's LWP 2/11 helped write the policy. None of the foodservice managers believed LWP influenced their lunchroom practice in regard to nutritional content of meals, but several mentioned it influenced food served at classroom parties and contents of school soda machines. Most foodservice managers attached more importance to Colorado Dept. of Ed. recommendations about menu planning, nutrition analysis, reducing fat and salt content, and portion control Foodservice managers rarely mentioned receiving Colorado Dept of Ed. training on LWP, although training was offered. 5/11: lack of financial resources prevents them from providing broad selection of healthy foods.
Amis et al. (2012)	Mississippi and Tennessee	3 new state-level school-oriented	None	School case studies:	<ul style="list-style-type: none"> Significant barriers to effective implementation of obesity-related policies

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
	8 high schools	childhood obesity policies, esp. increase PA through changes to PE programs		<ul style="list-style-type: none"> ▪ Interviews with policymakers, administrators, teachers, students ▪ Observations of school-based activities ▪ Documents 	<ul style="list-style-type: none"> • Most notable: value system that prioritizes performances in standardized tests over physical education (PE) and a varsity sport system that negatively influences opportunities for PE. • These and factors such as resource constraints and overloading of school administrators with new policies inhibit implementation of policies to promote student health through PE.
Boles (2011)	Washington State ~1500 middle and high schools in WA (intervention), ~1,000 in OR (comparison)	2005 statewide school physical activity and nutrition mandate for middle and high schools	None	<ul style="list-style-type: none"> • Three years of statewide School Health Profiles survey data from WA, with OR as a comparison group • Longitudinal regression to look at policy changes after mandate 	<ul style="list-style-type: none"> • Relative to expected trends without mandate, found significant percentage-point increases in various policies: <ul style="list-style-type: none"> ▪ Restricted access to competitive foods in middle and high schools ▪ School food practices ▪ Eliminating exemptions from physical education (PE) for sports ▪ Exemptions from PE for community activities ▪ Exemptions from PE for academics
Brener et al. (2011)	National 538 school districts across the US	Child Nutrition and WIC Reauthorization Act wellness policy requirement	None	Analyzed district-level data from 2006 School Health Policies and Programs (SHPPS) study	<ul style="list-style-type: none"> • In 2006, none of the districts met all elements included in coding system for local wellness policies. • Percentage of districts meeting each element varied widely. • On average, districts met the greatest number of elements in the area of nutrition education and the least number of elements in the area of physical activity.
Briefel et al. (2009)	National 287 schools and 2,314 students in grades 1-12 (school year 2004-2005)		None	Examined associations between characteristics of school food environments and practices and child dietary behavior using data from third School Nutrition Dietary Assessment Study (SNDA-III) , nationally representative, cross-sectional sample of	<ul style="list-style-type: none"> • Sugar-sweetened beverages obtained at school contributed daily mean of 29 kcal in middle school children and 46 kcal in high school children • Attending school w/out stores or snack bars → reduced SSB consumption by 22 kcal/school day in middle school children ($p<0.01$) and 28 kcal in high school children ($p<0.01$). • Lack of a pouring rights contract in a school reduced sugar-sweetened beverage consumption by 16 kcal ($p<0.05$) • No à la carte offerings in a school → reduced consumption by 52 kcal ($p<0.001$) in middle school children.

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
				districts, schools, and children	<ul style="list-style-type: none"> • Most effective way to reduce energy from low-energy, energy-dense foods: characteristics of school meal program
Budd et al. (2012)	National 112 high school administrators	Healthy, Hunger-Free Kids Act (2010 reauthorization of the Child Nutrition and WIC Reauthorization Act)		<ul style="list-style-type: none"> • Cross-sectional survey: School Wellness Policy Implementation Questionnaire (SWP-IQ) • Action schools have taken to implement SWP? • Challenges associated w/ implementation of SWP? • Core domains implemented consistently & effectively? • Does accountability for SWP impact implementation? 	<ul style="list-style-type: none"> • 82% of schools reported making staff aware of policy requirements • 77% established a wellness committee or task force • 73% developed administrative procedures • 56% trained staff for policy implementation • Most commonly reported challenges to implementation were lack of time or coordination of policy team (37%) and lack of monetary resources (33%). • Core domains least likely to be implemented: communication and promotion (63%) and evaluation (54%). • Accountability associated with high ratings of implementation quality and effectiveness. • Domains most likely to be implemented: those mandated or associated w/ specific criteria (e.g, physical activity).
CA Project LEAN Report (2008)	National	Federal Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004		<ul style="list-style-type: none"> • Online surveys • Focus groups with school board members and state school boards association leaders • Key informant interviews with school districts and state-level wellness collaborators 	<ul style="list-style-type: none"> • School wellness definitely on superintendents' radar screens; they feel that it is very important, but not a top priority. • Superintendents: continual news about obesity has raised awareness for wellness, but not an esp. hot issue among community leaders and parents. • Superintendents not seeking assistance or outside help in implementing and/or evaluating their wellness policies. • Districts plan to handle tracking and evaluating the new wellness policies as they do other policies. • They do not recognize or express any need for special help from any experts or organizations. • Superintendents see their role going forward as ensuring policies are being implemented then reporting to board.

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
					<ul style="list-style-type: none"> • Something quantifiable in the policy, they say they'll measure it. Delegated actual implementation and tracking to other staff. • Most districts think they're doing good job with wellness and are fairly confident that they will be able to implement their policies. • Staff development is significant unmet need; funding is needed for training staff on how to implement wellness policies. • Trying to change student attitudes and getting parents involved is viewed as an overwhelming challenge and superintendents say their schools are not adequately equipped to address this. • Compliance seems to be more common than commitment.
Ehrlich (2012) (dissertation)	<ul style="list-style-type: none"> • National cohort of 4,669 schools • 2 large urban school districts (one in SE and one in NE) 	Alliance for a Healthier Generation Healthy Schools Program		<ul style="list-style-type: none"> • Case study in two large urban school districts • HSP Inventory • Progress Tracker • Interviews • Focus Groups • Observations 	<ul style="list-style-type: none"> • Schools made median of 10.12 changes over 2-to 4-year period • Largest effect size: school employee wellness; smallest effect size was in the area of physical education • Several school representatives said they began school wellness work by instituting employee wellness programs to generate buy-in for larger changes amongst the staff. • Findings across cohorts indicate common set of district- and school-level factors that contributed to health-promoting policy and program changes: <ul style="list-style-type: none"> ▪ effective school champion or school wellness council ▪ supportive school administrator ▪ professional development for staff (e.g. for PE) ▪ supportive district policy (e.g. establishing consistent policy for competitive foods & beverages, making healthier food items available for school meals preparation) • Attributed school's momentum in making changes to colleague or small group ("champions")

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
					<ul style="list-style-type: none"> • School administrators important for progress, but not day-to-day drivers of change in the school building • Infusion of grant-related programs facilitated change, but grant-funded, non-curricular efforts often not sustained after grant • Common set of district- and school-level factors perceived to be barriers to health-promoting policy and program changes: (a) cost of implementation, (b) time, and (c) competing priorities.
Evenson et al. (2009)	North Carolina 115 school districts (105 respondents)	2005: North Carolina State Board of Education updated the Healthy Active Children Policy to include a requirement that all kindergarten through eighth-grade children receive at least 30 minutes of moderate-to-vigorous physical activity each school day through physical education, recess, and other creative approaches	None	<ul style="list-style-type: none"> • 50-item survey on Zoomerang 	<ul style="list-style-type: none"> • Physical activity requirement most often met through recess, physical education, classroom Energizers, & intramural sports. • School districts reported numerous positive effects of policy in elementary and middle schools: increased student focus on studies, physical activity participation, awareness of healthy habits, alertness and enjoyment, and higher staff involvement. • Implementation challenges to policy included lack of time in school day, teacher participation, and concerns about academics.
Foster et al. (2007)	Philadelphia 1394 students in grades 4-6 from 10 schools	School Nutrition Policy Initiative	None	Schools randomly assigned to intervention or control	<ul style="list-style-type: none"> • Intervention resulted in a 50% reduction in the incidence of overweight. • Significantly fewer children in the intervention schools (7.5%) than in the control schools (14.9%) became overweight after 2 years. The prevalence of overweight was lower in the intervention schools. • No differences observed in the incidence or prevalence of obesity or in the remission of overweight or obesity at 2 years.
Gaines (2011)	Alabama 123 superintendents	Alabama State Department of Education (ALSDE)	None	<ul style="list-style-type: none"> • Wellness policies from Alabama public school districts 	<ul style="list-style-type: none"> • Majority of school districts (71%) in compliance with all federal wellness policy requirements.

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
		school food and nutrition mandates		<p>compared to minimum requirements under Child Nutrition and Women, Infants, and Children (WIC) Reauth. Act of 2004.</p> <ul style="list-style-type: none"> Data analyzed from survey of school district superintendents regarding compliance with ALSDE mandates. Districts graded based on the percentage of 7 components addressed in wellness policies, and on the percentage of ALSDE mandates implemented. Superintendent survey using Survey Monkey 	<ul style="list-style-type: none"> Average of 6.4 components addressed (mean score of 92%). No significant differences found in federal wellness policy or ALSDE mandate compliance scores based on district type, enrollment, percentage of students eligible for free and reduced-price meals, use of an environmental assessment survey, and use of wellness committee and a nutrition professional during policy development. Least addressed policy component: evaluation The Robert Wood Johnson Foundation reported most districts nationwide did not require the evaluation of wellness policy implementation or effectiveness. Kansas is only state monitoring school wellness policies for evaluative purposes. One of least completed ALSDE mandates: providing nutrition and physical activity training for staff members, especially teachers. Creating infrastructure supportive of wellness policies hampered when staff members are not qualified or are not provided professional development opportunities.
Henry (2010)	Large suburban school district in midwest 345 teachers	Local school wellness policy	None	<p>Food and Wellness Questionnaire- 24 items to broadly address school nutrition environment and wellness issues</p>	<ul style="list-style-type: none"> Teachers largely agreed with importance of school food and nutrition guidelines (subscale mean rating = 3.82 of 5) Teaching techniques to implement nutrition education appeared lacking (subscale mean rating = 2.50 of 5). Those with a college level nutrition course felt more prepared Useful resources included local policies, public materials, and access to nutrition experts (e.g, registered dietitians). Optimizing school food services, resources for teaching about nutrition, and consistent health messages,

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
					especially related to grade level, appear to be needed.
Jara et al. (2012)	Los Angeles 74 parents	6 hours of promotor advocacy training to improve local school wellness policy implementation	Psychological Empowerment Theory	<ul style="list-style-type: none"> Pre/post training questionnaires Post-training participant groups Four staff member focus groups 	<ul style="list-style-type: none"> Increased participant self-efficacy, knowledge, and attitudes to advocate for improved local school wellness policy implementation. Participating organizations intended to continue supporting promotor local school wellness policy advocacy.
King County (WA) Report	King County <ul style="list-style-type: none"> 19 school districts 58 key informant interviews 	<ul style="list-style-type: none"> District-wide wellness policies developed in response to 2004 federal Child Nutrition and WIC Reauthorization Act, In 2007, Washington State Senate Bill 5093 also introduced wellness-related goals to be met by 2010. Included specific nutrition standards for all foods available in schools; min. of physical activity; certification of health and fitness instructors; development of school health advisory committees 	None	<ul style="list-style-type: none"> Quantitative policy evaluation using the School Wellness Policy Evaluation Tool Key informant interviews (telephone) 	<ul style="list-style-type: none"> Recommendations for health department: <ol style="list-style-type: none"> Coordinate funding Facilitate access to curriculum and resources; Market and disseminate knowledge to the community Promote enthusiasm and participation within districts Advance district accountability Provide self-evaluation tools to districts Facilitate exchange of best practice information
Lambert et al. (2010)	Mississippi 321 elementary school teachers in 30 districts	School wellness policy	Organizational Change Theory	32-item, cross-sectional web-based survey to teachers	<ul style="list-style-type: none"> Majority of teachers (85.5%) favor their SWPs and has transitioned through the unfreezing stage. Lack of teacher input, time, resources, and recognition for providing nutrition education reflects that teachers do not have support for transitioning through the moving stage.
Leeman et al. (2012)			RE-AIM Framework	Description of evaluation framework	<ul style="list-style-type: none"> Outputs of the second 2 steps of policy making (implementation and maintenance/modification)

Authors	Setting & Sample	Policy/Intervention	Framework/Theory	Methods	Results
				for obesity prevention policy interventions	<p>were drawn from elements of the RE-AIM framework.</p> <ul style="list-style-type: none"> RE-AIM framework is widely used to assess an intervention's potential impact and includes following criteria: <ul style="list-style-type: none"> whether the intervention reaches the priority population, is effective in achieving intended outcomes is adopted by providers and settings is implemented with fidelity and maintained over time Outputs of the implementation and maintenance steps of the framework address 4 of the 5 REAIM criteria: reach, adoption, implementation, and maintenance. Fifth criterion, effectiveness, is addressed in outcomes.
Longley et al. (2009)	<p>National</p> <ul style="list-style-type: none"> 21 state nutrition directors, 847 food service directors stratified random sample selected from medium-sized or larger schools 	Reauthorization Act of 2004	None	<ul style="list-style-type: none"> Purpose of study: examine process and outcome of wellness policy development in school districts Phase 1 examined states' school nutrition legislation. Phase 2: qualitative interviews with foodservice directors Phase 3: e-mail and mail survey 	<ul style="list-style-type: none"> Before federal mandate, few wellness components (37.4%) in place for food service outside of the federally regulated meal program. Following legislation, 72.4% of the wellness components in place. Nutrition components changed the most and were reported as the components most frequently implemented. Changes particularly noted in foodservice operations were use of nutrition guidelines for a la carte foods, beverages, fundraisers, parties, and vending. Foodservice directors noted improvements in nutrition education and physical education. Less progress in implementation and monitoring of the wellness policy than in development of policy. Top barriers to wellness policy development and implementation: food in fundraising and competition for time.
Marion County (FL) report	Marion County, FL	Federal Child Nutrition and Women, Infants, and Children (WIC)	None	<ul style="list-style-type: none"> School self-assessment survey (similar to SHI) 	<ul style="list-style-type: none"> Limited time during school day to implement PE Limited personnel to implement physical education and nutrition education classes.

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	4 principals and school health committee leaders who directly monitor students	Reauthorization Act of 2004		<ul style="list-style-type: none"> Key informant interviews (telephone or person): perceptions, attitudes, recs regarding policy 	<ul style="list-style-type: none"> Limited/ no computers & software for Fitness Gram® requirements
Masse et al. (2013)	British Columbia, Canada 50 school informants : 17 principals , 33 teacher/school informants	Mandated Daily Physical Activity (DPA) and Food and Beverage Sales in Schools (FBSS) guidelines	<ul style="list-style-type: none"> Coding used a constructivist grounded theory approach; Diffusion of Innovations Model provided organizing framework to present emergent themes 	<ul style="list-style-type: none"> Semi-structured interviews 	<ul style="list-style-type: none"> With the exception of triability (not relevant in the context of mandated guidelines/policies), the key attributes of the Diffusion of Innovations Model (relative advantage, compatibility, complexity, and observability) provided a robust framework for understanding themes associated with implementation of mandated guidelines. Specifically, implementation of the DPA and FBSS guidelines was facilitated by perceptions that they were: <ul style="list-style-type: none"> Relatively advantageous compared to status quo Compatible w/ school mandates & teaching philosophies Had observable positive impacts and impeded when perceived as complex to understand and implement. Contextual factors including availability of resources facilitated implementation.
Metos et al. (2011)		2004 Child Nutrition Reauthorization Act (CNRA)	None	Systematic review	<ul style="list-style-type: none"> School districts comply with written requirement of wellness policy legislation despite weak accountability measures. Limited but promising evidence that school district policy predicts decrease in availability and consumption of low nutrient density foods at school. Few studies examining physical education and physical activity in response to district policy, but suggest little change Studies lacking that examine student behavior and weight as a result of policy implementation
Probart et al. (2008)	Pennsylvania				<ul style="list-style-type: none"> Most respondents identified superintendent (75.6%) and school foodservice director (60.3%)

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	499 school districts				<p>as responsible for ensuring local wellness policy implementation</p> <ul style="list-style-type: none"> • A federal mandate, coupled with state review and enforcement, was very successful in prompting Pennsylvania school districts to establish local wellness policies to reducing childhood obesity. • School district staff relied heavily on centrally developed resources to meet mandate requirements → additional resources should be developed to assist district staff in development of implementation plans. • Implementation and enforcement of the local wellness policy will require delegation of both authority and responsibilities or appointment of dedicated and qualified individual to coordinate this process, as well as establishment of plan for communicating implementation and enforcement plans.
Schwartz et al. (2012)	Connecticut 151 districts	Child Nutrition and Women, Infants, and Children Reauthorization Act of 2004		<ul style="list-style-type: none"> • District wellness policies coded using the Wellness School Assessment Tool (WellSAT-96) • Data regarding school practices, which were gathered via a survey completed by school principals (School Nutrition and Physical Activity Practices Survey) • District demographic data, obtained from public sources. 	<ul style="list-style-type: none"> • Statewide, more complete implementation of nutrition and physical activity policies at the school level was reported after adoption of written policies. • Districts with stronger, more comprehensive policies were more successful in implementing them at the school level. Some socio-demographic characteristics predicted the strength of wellness policies.
SLO County (CA) Report	San Louis Obispo County 1 elementary school	Two-year grant awarded to SLO County Public Health Department so outside agencies could engage	None	<ul style="list-style-type: none"> • Photo documentary, • Direct observation of PE and recess 	<p>Summary of Recommendations, Results, Take-Home Messages:</p> <ul style="list-style-type: none"> • Establish “buy-in” from all school staff • Have lunch groups pilot “recess before lunch” • Family involvement: establish parent network

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		in school wellness policy advocacy and community activities		<ul style="list-style-type: none"> • Key informant interviews using SHI modules • Plate waste study 	<ul style="list-style-type: none"> • Taste test fruits and vegetables • Promote extracurricular physical activity • Continue to promote school garden • Establish “user-friendly” identification system for healthy snacks and correct portions • Limit access to competitive foods
Turner et al. (2012)	<p>National</p> <p>Elementary schools 2006-2007: 578 public and 259 private schools</p> <p>2009-2010: 680 public schools, and 313 private schools</p>	Federal Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004		Survey data	<ul style="list-style-type: none"> • Many practices improved: participation in school gardens or farm-to school programs, availability of whole grains and only lower-fat milks in lunches. • Increase in food environment score was significant but small • Scores were higher in public schools than private schools, but did not differ by race/ethnicity or school size. For public schools, scores were higher in the Pacific and West South Central divisions compared with the national average.