

# TYPE 2 DIABETES AND PREDIABETES PREVENTION TOOLKIT FOR SCHOOLS



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## A MESSAGE FROM DR. BARBARA FERRER

Dear School Principal:

The Los Angeles County Department of Public Health is pleased to provide you with this Type 2 Diabetes and Prediabetes Prevention Toolkit for Schools, which includes resources for schools to create environments that support healthy eating and engaging in regular physical activity.

Healthy students are better learners, and academic achievement bears a lifetime of benefits for health. However, poor nutrition and physical inactivity are more common in children whose families have a challenging time achieving good health because of conditions where they live and work. These social determinants of health can lead to health disparities in communities.

Health disparities among racial, ethnic, geographic, and socioeconomic groups are reflected in type 2 diabetes data. Latino, Black, and Native American communities experience significantly higher rates of type 2 diabetes than their White and Asian counterparts. In Los Angeles County, over 60% of adults are either obese or overweight; among low-income residents living below 100% of the Federal Poverty Level, over 65% of adults are either obese or overweight. The connection between obesity and hunger may not seem obvious, but poverty often creates the need to maximize calories over nutrition quality. One in three Latino and one in three Black children are living in poverty and experiencing food insecurity. Food insecure families may have to make tradeoffs between food and other immediate needs, like housing and medical care.<sup>1</sup> These communities are often living in neighborhoods where there is a lack of access to healthy foods and opportunities for physical activity, thereby increasing the risk of developing type 2 diabetes later in life.

In November 2021, the County of Los Angeles Board of Supervisors adopted a motion to proclaim November Los Angeles County Diabetes Awareness Month, with the goal of educating youth and their families about ways to prevent or manage type 2 diabetes, which impacts 90-95% of all people with diabetes. As a result of this motion, the Los Angeles County Department of Public Health will partner with Los Angeles County Office of Education, K-12 school districts, and community-based organizations to improve access to healthy meals at schools, including efforts to reduce food waste, and provide culturally relevant resources (such as this toolkit) about diabetes awareness and prevention.

If you have questions and need technical assistance, please visit the Los Angeles County Department of Public Health's Cardiovascular and School Health website at [publichealth.lacounty.gov/cardio](https://publichealth.lacounty.gov/cardio) or contact Dr. Eloisa Gonzalez at [elgonzalez@ph.lacounty.gov](mailto:elgonzalez@ph.lacounty.gov).

Sincerely,



Barbara Ferrer, PhD, MPH, MEd  
Director  
Los Angeles County Department of Public Health

## BACKGROUND AND PURPOSE

The focus of this toolkit is to support the prevention of type 2 diabetes. More than 37 million Americans have diabetes, and approximately 90-95% of them have type 2 diabetes.<sup>2</sup> Complex factors in the physical and social environments have contributed to a sharp rise in diabetes rates. While it is important to make lifestyle changes that can reduce the risk of diabetes, it is equally important to recognize the influence of policies that affect the availability of healthy food, income, education, housing, and access to opportunities for physical activity as central to the development and progression of type 2 diabetes.<sup>3</sup>

Before developing type 2 diabetes, most people have prediabetes, meaning their blood sugar is higher than normal, but not high enough yet for a diabetes diagnosis. Prediabetes is very common—more than 88 million US adults live with it, though more than 84% of them don't know they do. For more information on how to prevent type 2 diabetes in children and adults, read [On Your Way to Preventing Type 2 Diabetes](#), a guide from the Centers for Disease Control and Prevention (CDC).

## MAKING THE CONNECTION: ROOT CAUSES OF CHRONIC HEALTH CONDITIONS

[Social determinants of health](#) are the conditions in which people are born, grow, live, work, and age.<sup>3</sup> Historically, interventions to reduce diabetes rates have focused on individual behaviors, but it is just as important to acknowledge and address the upstream factors that contribute to higher rates of diabetes. In 2019, fast-food restaurants spent \$5 billion in total advertising, an increase of over \$400 million since 2012, with many restaurants continuing to disproportionately target Black and Latino youth.<sup>4</sup> In addition, residents can live in food deserts, which are defined as areas where residents have challenges accessing affordable, healthy food due to the absence of grocery stores within reasonable traveling distance.<sup>5</sup> In this context skyrocketing rates of diabetes are not simply an issue of individual choice or behavior, but rather a complex set of interconnected issues that contribute to the disparities in health and risk factors for diabetes.

## HOW TO USE THIS TOOLKIT

This toolkit consists of multiple tools to bring awareness about diabetes prevention and management, including:

- Information about the important role schools can play in creating an environment that supports students' physical, social, and mental health
- Free and low-cost resources for schools on a variety of topics, including physical education, nutrition environment, health education, social and emotional climate, health services, employee wellness, community involvement, and family engagement
- [Sample messaging](#) about diabetes awareness and prevention that can be utilized in announcements during the school day, email templates, and social media messages



## CREATING A HEALTHY ENVIRONMENT: HOW SCHOOLS CAN SUPPORT STUDENT AND EMPLOYEE WELLNESS

### Facts About Diabetes

Diabetes causes people to have too much sugar in their blood due to the body not making enough insulin or using it properly. Insulin is the hormone that helps control the amount of sugar in the blood. Having too much sugar in the blood is dangerous because it can cause damage to the blood vessels and nerves in the body. This damage can later cause blindness, kidney failure, heart disease, heart attacks, strokes, disability, and early death. There are four types of diabetes: [prediabetes](#), [type 2 diabetes](#), [type 1 diabetes](#), and [gestational diabetes](#).

The percentage of individuals diagnosed with diabetes has increased in Los Angeles County over the last decade, from 9.5% in 2011 to 11.3% in 2018.<sup>6</sup> Type 2 diabetes disproportionately affects African Americans, Hispanic/Latino Americans, American Indians or Alaskan Natives as well as some Pacific Islanders and Asian Americans.<sup>7</sup>



Prediabetes is diagnosed when blood sugar levels are higher than what is considered normal, but not high enough to be diagnosed as type 2 diabetes. Prediabetes is a serious health condition because having prediabetes increases your risk of developing type 2 diabetes, heart disease and stroke.<sup>8</sup>



Type 2 diabetes is when the cells in your body can't respond to insulin normally causing high blood sugar levels, which damages the body and can lead to many other serious health problems such as blindness, kidney failure, heart disease and stroke.<sup>9</sup>

## Shifting Focus Beyond Individual Behavior Change to Community-Level Changes

The prevalence of chronic health conditions like type 2 diabetes can be influenced by policies, systems, and environments (PSEs) that promote unhealthy behaviors at the expense of health and wellbeing. Therefore, approaches that solely focus on individual choices or biology are insufficient to achieve long-lasting healthy behaviors or improvements in population-level health.<sup>10</sup> Individual level interventions that directly address chronic conditions should be combined with efforts to improve social, economic, or educational standing through improvements to PSEs.<sup>3</sup> Both should be rooted in data and complement each other.<sup>3</sup> PSE approaches should support community empowerment, establish strategic partnerships, educate decision-makers, identify community leaders and resources, gather data, and share successful strategies with other communities.<sup>11</sup>

Engaging students, parents, and teachers in decision-making is an ongoing and collaborative process that can achieve meaningful change and more impactful programs. At the student level, approaches like Youth-led Participatory Action Research (YPAR) can encourage positive youth and community development through training in social justice principles and systematic research so students are able to “improve their lives, their communities, and the institutions intended to serve them.”<sup>12</sup> At the parent and family level, parents can bring their voices and expertise to help with school health activities and help schools put into action local school wellness policies or other school board policies. Staff and teacher leaders should be engaged as experts in decision-making processes, especially when it comes to taking ideas from theory to practice in the PSE change process.



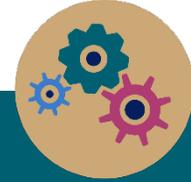
## A Model for Healthy School Environments

While no single toolkit can address all the complex factors that contribute to diabetes, schools play a critical role in creating an environment for students that promotes physical, emotional, and social health. Aligning education and public health can increase collaboration, contributing to each child's cognitive, physical, social, and emotional development.<sup>14</sup> The Centers for Disease Control's Whole School, Whole Community, Whole Child (WSCC) model aims to align the goals of public health and schools to create a whole child approach to education.

The WSCC model contains 10 components, including:

1. Physical education and physical activity
2. Nutrition environment and services
3. Health education
4. Social and emotional climate
5. Physical environment
6. Health services
7. Counseling, psychological, and social services
8. Employee wellness
9. Community involvement
10. Family engagement

Each component is discussed in more detail below, followed by practical resources and tools. The descriptions of each component are adapted from [CDC's National Center for Chronic Disease Prevention and Health Promotion](#). Inclusion of a particular resource or tool does not imply the endorsement or recommendation of the Los Angeles County Department of Health. Schools are encouraged to assess their environment and adapt resources to their unique community and needs. For sample messages, announcements, email template, and social media posts about diabetes awareness, please see [Appendix A, Sample Messages for Parents and Children](#).



"An aligned system with a strong interface among public health, health care, and the community and non-health sectors could produce better prevention and treatment outcomes for populations living with chronic illness."<sup>13</sup>

-Institute of Medicine



## Physical Education and Physical Activity

Schools can create an environment that encourages physical activity throughout the school day. A well-designed physical education program based on the [Physical Education Model Content Standards for California Public Schools](#) can provide the opportunity for students to learn and practice critical skills to create and maintain a physically active lifestyle throughout childhood and beyond. A comprehensive school physical activity program coordinates formal physical education, physical activity during school, physical activity before and after school, staff involvement, and family and community engagement.

A key component of physical activity in California public schools is a physical fitness test (PFT) called Fitnessgram®, which assesses students' ability to meet basic physical fitness standards for their age. The test results can be used by students, teachers, and parents. Results can provide input when designing physical education program curricula, help students assess their own health-related fitness, and help parents and guardians understand their child's fitness levels. Parents should speak to their child's doctor if their child falls out of the [Healthy Fitness Zone Standards](#) for any of the components.<sup>15, 16</sup>

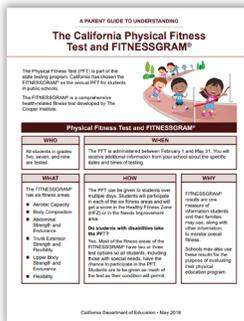
### Resources for Physical Education and Physical Activity

IMAGE	DESCRIPTION	COST
	<p><a href="#">The Daily Mile Website</a> and <a href="#">Informational Flyer</a></p> <p>The Daily Mile gets students out of the classroom each day to run, jog, walk, or wheel at their own pace for 15 minutes with their teacher. The goal is to improve the physical, social, emotional, and mental health and wellbeing of each participant, regardless of age, ability, or circumstances. Includes tips to get started along with resources for teachers.</p>	<p>No cost</p>
	<p><a href="#">Gasol Foundation</a></p> <p>This organization provides resources on physical activity, healthy eating, healthy sleep, and emotional well-being.</p>	<p>No cost</p>



Move Your Way Fact Sheets in [English](#) and [Spanish](#) and Posters in [English](#) and [Spanish](#)  
 These fact sheets help parents understand their children's physical activity needs and creative ways to get moving.

No cost



[A Parent Guide to Understanding the California Physical Fitness Test and FITNESSGRAM®](#)

No cost

This fact sheet explains the "who," "when," "what," "how," and "why" of the California Physical Fitness Test.



Parent's Guide to Physical Education: Growing a Healthier Generation of Students in [English](#) and [Spanish](#)

No cost

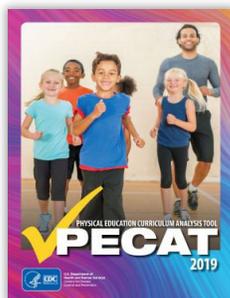
This guide helps parents understand physical education requirements in schools and how to support their children in getting adequate amounts of physical activity.



[Physical Activity Guidelines for Americans](#)

No cost

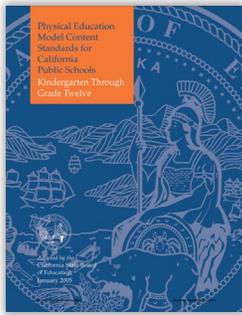
This document provides guidance on how adults can take small, practical steps toward a healthier lifestyle.



[Physical Education Curriculum Analysis Tool \(PECAT\)](#)

No cost

This self-assessment and planning guide focuses on how well a curriculum aligns with national standards for physical education.



[Physical Education Model Content Standards for California Public Schools: Kindergarten through Grade Twelve](#)

These standards focus on the content of physical education and incorporate the detail required to guide the development of consistent, high quality physical education programs aimed at student learning and achievement. The standards describe what students need to know and be able to do at each grade level.

Supported by district general funds, as are model content standards for other subjects



[Physical Fitness Test Assessment Fact Sheet](#)

This fact sheet from the California Department of Education provides an overview of health-related physical fitness tests for students in California.

No cost



[Sports: Help Your Kids Find Their Way to Play Fact Sheets in English and Spanish](#)

This sports fact sheet for parents provides creative strategies for getting children interested in sports.

No cost



## Nutrition Environment and Services

The school nutrition environment allows students to learn about and practice healthy eating habits through available food and beverages, and messages about food in the cafeteria and throughout the school campus. A healthy school nutrition environment markets and promotes healthier foods and beverages, encourages participation in school meal programs without stigma, and ensures access to free drinking water throughout the day. [The Smarter Lunchrooms Movement](#) emphasizes low or no-cost strategies in the cafeteria environment to promote healthy eating behaviors.

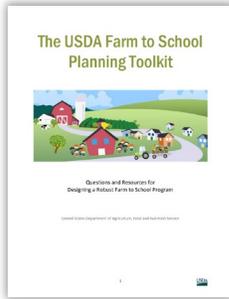
### SPOTLIGHT: LAWNSDALE ELEMENTARY SCHOOL DISTRICT

As part of their CalFresh Healthy Living work in partnership with the Los Angeles County Department of Public Health, Lawndale Elementary School District created eye-catching posters featuring fruits and vegetables of the day. The bright, colorful posters spotlight the benefits of different nutrients and fun facts about various fruits and vegetables. The posters even feature fruit and veggie-related jokes. Schools can implement similar materials to encourage students to try more nutritious and healthy foods.



### Resources for Nutrition Environment and Services

IMAGE	DESCRIPTION	COST
	<p><a href="#">CalFresh Healthy Living Share Table Implementation Guide</a></p> <p>This guide was developed for those who work in public schools and are interested in reducing food waste and addressing food insecurity among students by implementing share tables.</p>	No cost
	<p><a href="#">CalRecycle Food Waste Resources for Schools</a> and <a href="#">USDA Resources for Reducing Food Waste at K-12 Schools</a></p> <p>These resources provide waste prevention strategies for school cafeterias that can help minimize disposal and procurement costs while ensuring students have access to healthy school meals.</p>	No cost



[Farm to School Planning Toolkit](#)

No cost

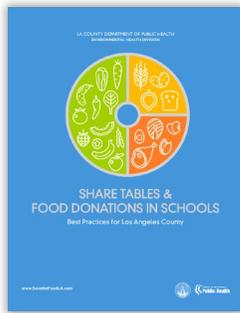
This toolkit was developed by the USDA and provides step-by-step instructions to implement a farm-to-school program. It was created to be used by schools or school districts as well as community partners.



[Healthy Food Choices in Schools](#)

No cost

The goal of Healthy Food Choices in Schools is to provide tools and resources that empower food service directors and staff, school administrators, teachers, health professionals, and wellness committees to make changes that encourage children to make healthier food selections in school food environments.



[Share Tables and Food Donations in Schools: Best Practices for Los Angeles County](#)

No cost

This guide was developed by the [Los Angeles County Food Redistribution Initiative](#) based on the passage and implementation of [SB 557 – Share Tables and School Food Donation](#) and [AB 1219 – California Good Samaritan Law](#). The guide was developed to answer questions about share tables and food donations at schools.



[Smarter Lunchrooms Movement of CA Tools and Success Stories](#)

No cost

The Smarter Lunchrooms Movement nudges students to make healthier food choices on their own by changing the way school food is presented.



## Health Education

Health education can help students gain the knowledge, attitudes, and skills they need for making health-promoting decisions, improving health literacy, implementing health-enhancing behaviors, and encouraging the health of others. Comprehensive school health education should address healthy eating and nutrition, mental and emotional health, personal health and wellness, physical activity, and a variety of other topics aligned with the [National Health Education Standards](#). Comprehensive health education can empower students to understand the influence of family, peers, culture, media, technology, and other factors on health behaviors, particularly those around health promotion and disease prevention.

### Resources for Health Education

IMAGE	DESCRIPTION	COST
	<p><a href="#">CATCH – Coordinated Approach to Child Health Overview and Program Website</a></p> <p>CATCH is a school health program that uses a coordinated approach to promote physical activity and healthy food choices. CATCH program is research-based and makes physical activity fun! CATCH offers programs from pre-K through grade 8 and after-school programs. CATCH provides educators with detailed instructions and technical assistance throughout the process of implementation.</p>	<p>Cost</p>
	<p><a href="#">Health Education Curriculum Analysis Tool</a></p> <p>This assessment tool provides a process to improve curriculum selection and development, which helps ensure quality health education.</p>	<p>No cost</p>
	<p><a href="#">Let's Eat Healthy</a></p> <p>These nutrition education lesson plans provide turnkey nutrition education for grades K-12. All plans align to Common Core State Standards and are free for California educators.</p>	<p>No cost</p>



[National Drinking Water Alliance](#)

This website contains strategies and resources to educate about and promote drinking water.

No cost



## Social and Emotional Climate

The social and emotional climate addresses psychosocial aspects of students' educational experience, including their social and emotional development. Improving the social and emotional climate of a school can build student engagement, support healthy relationships with other students, staff, family, and community, and positively impact academic performance. A positive social and emotional climate means ensuring that students who receive free or reduced-price meals are not identified, integrating positive youth development principles during program planning (for example, focusing on strengths and positive outcomes), and establishing social norms that increase physical activity behaviors of students and staff members, such as morning physical activity for all during announcements or over the intercom system.

### Social and Emotional Climate Resources

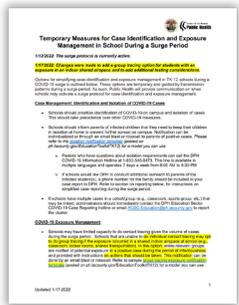
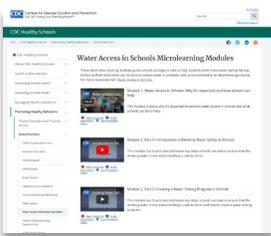
IMAGE	DESCRIPTION	COST
	<p><a href="#"><u>School Nutrition and the Social and Emotional Climate and Learning</u></a></p> <p>This resource from CDC provides an explanation of the value of social and emotional climate in school and how school leaders can create a positive social and emotional climate to make teaching and learning effective.</p>	No cost
	<p><a href="#"><u>Social and Emotional Learning and Nutrition Education</u></a></p> <p>Social and emotional learning supports children's growth, development, and success academically, emotionally, social, and financially through school and into adulthood. Activities related to food naturally bring people together and can help students develop social and emotional learning skills.</p>	No cost



## Physical Environment

A healthy and safe physical environment can encourage physical activity for students and staff. This includes assessing and maintaining spaces and facilities for physical activity, like playgrounds and playing fields, ensuring safe routes to school, and promoting joint use agreements to allow shared access to campus space. The physical environment of a school also plays a role in improving nutrition by giving students the opportunity to learn how to grow food by creating a school garden and ensuring access to safe drinking water.

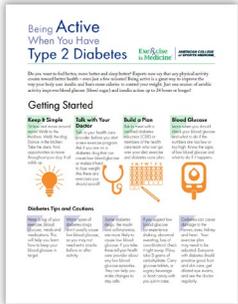
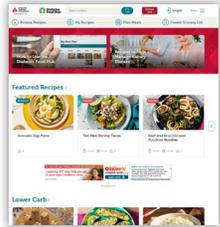
### Physical Environment Resources

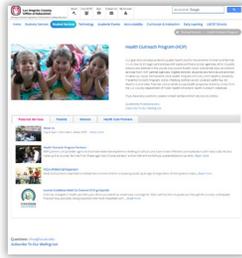
IMAGE	DESCRIPTION	COST
	<p><a href="#">COVID-19 Guidance for Schools</a></p> <p>This TK-12 Schools COVID-19 toolkit provides protocols and guidance for schools, youth sports, and youth camps, including screening, what to do when you have a case at your facility, testing and prevention, mental health resources, and data.</p>	No cost
	<p><a href="#">Garden Implementation</a></p> <p>Building school gardens that grow food is a beneficial and fun activity that teaches students to understand how food is grown. Resources include a school garden checklist to get started as well as gardening curriculum.</p>	No cost
	<p><a href="#">Water Access in Schools Microlearning Modules</a></p> <p>These short video training modules guide schools through steps to help students drink more water during the day. Staff will learn what can be done to ensure water is available, safe, and promoted as an ideal beverage choice, including ensuring drinking water is safe and building effective access to drinking water.</p>	No cost

## Health Services

School health services can provide both preventive care and management for chronic conditions such as diabetes. Health services can promote wellness, provide health education to students and parents, and connect school staff, students, and families to healthcare providers. Ensuring children have access to insurance is a first step to improving student health, but improving student health goes beyond insurance coverage and includes providing better access to care and preventive services.<sup>17</sup> Quality health services can train appropriate school staff on how to provide resources that support students with chronic health conditions like diabetes and manage their nutritional needs. Health services encompasses multiple determinants of students' health, including supportive environments and psychosocial skill development.

### Health Services Resources

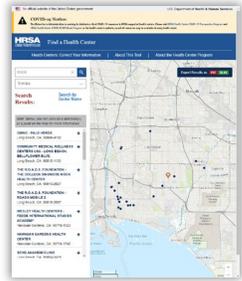
IMAGE	DESCRIPTION	COST
	<p><a href="#">Being Active When You Have Type 2 Diabetes</a> This guide from the American College of Sports Medicine provides tips for getting started with aerobic activity, strength training, and other types of physical activity.</p>	No cost
	<p><a href="#">Diabetes Food Hub Recipes</a> The American Diabetes Association has a variety of recipes, including low sugar, budget-friendly, easy pantry, and cooking for 1 or 2.</p>	No cost
	<p><a href="#">Diabetes Self-Management Education and Support (DSMES) Providers in LA County</a> <a href="#">DSMES</a> provides an evidence-based foundation to empower people with diabetes to navigate self-management decisions and activities. It is a proven tool to help improve health behaviors and health outcomes for people with diabetes.</p>	No cost



### [Health Outreach Program](#)

No cost

The Los Angeles County Office of Education's Health Outreach Program partners with state-certified provider agencies to increase access to health care for low-income children and families.



### [Health Resources and Services Administration \(HRSA\) Health Center Locator](#)

No cost

This tool allows users to search for HRSA-funded health centers by address, state, or county. Health centers are community-based and patient-directed organizations that deliver care to the nation's most vulnerable individuals and families, including people experiencing homelessness, agricultural workers, residents of public housing, and veterans.



### [Living with Type 2 Diabetes Program](#)

No cost

This program from the American Diabetes Association is for those recently diagnosed with type 2 diabetes. The program provides e-booklets, a monthly newsletter, information about local community events, and monthly ask the expert Q&A sessions.



### [Los Angeles County Oral Health Resources](#)

No cost

These resources include low- and no-cost dental clinics, Medi-Cal dental providers, and additional services from 211 LA.



### [Los Angeles County Nutrition Assistance Resources](#)

No cost

These resources from across Los Angeles County can help families prevent hunger. The flyer is available in English and Spanish.

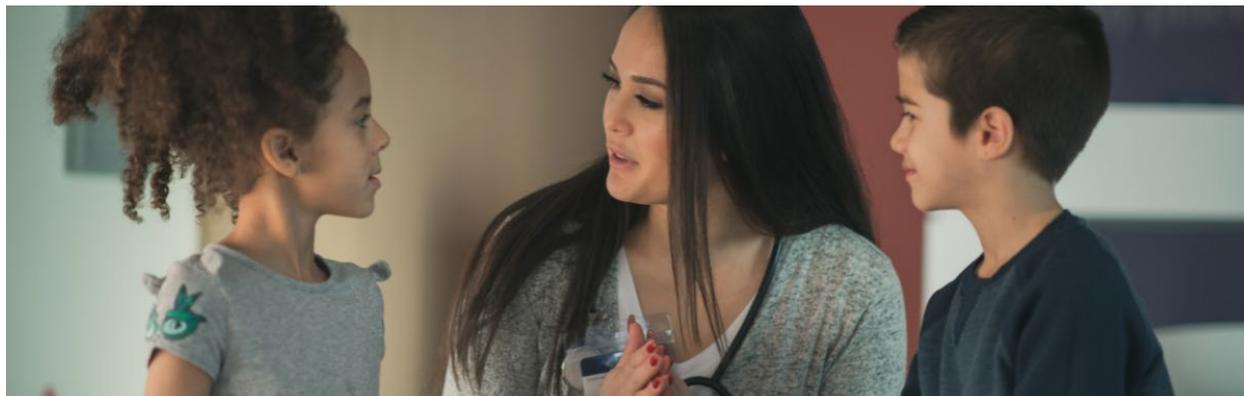


## Counseling, Psychological, and Social Services

Receiving any health diagnosis, for oneself or a family member, can be a difficult time for students and families. Providing prevention and intervention services can support the mental, behavioral, and social-emotional health of students, and assist students and families in the event of a diabetes diagnosis. Mental health professionals such as certified school counselors, school psychologists, and school social workers can help students with chronic health conditions, like diabetes, through disruptions, such as changes in schools or family structure. They ensure that staff can confidentially refer students to appropriate staff members for follow-up and referral to primary care providers as needed. Staff can connect students and their families with services in the school or community and can provide trauma-informed physical education that assesses student needs related to physical activity and can provide counseling or other services to meet those needs.

### Counseling, Psychological, and Social Services Resources

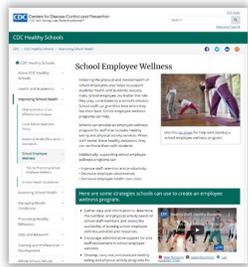
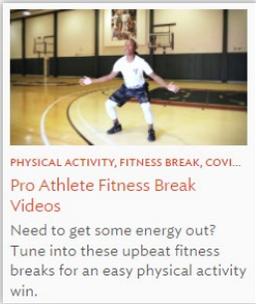
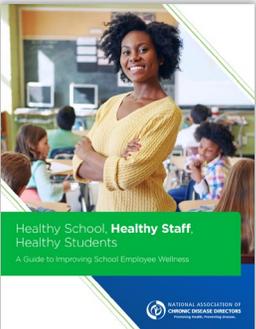
IMAGE	DESCRIPTION	COST
	<p><a href="https://www.cdss.ca.gov">California Department of Social Services</a> Provides a variety of programs that serve California's most vulnerable residents (e.g. cash assistance, food and nutrition services, and child and adult services).</p>	No cost
	<p><a href="https://www.lacoe.edu/school-counseling">Los Angeles County Office of Education School Counseling</a> The Los Angeles County Office of Education provides professional development, resources, and training for school counselors, administrators, and support staff.</p>	No cost

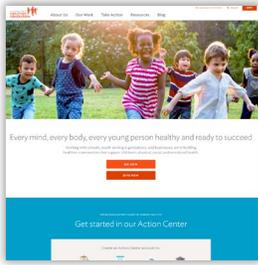


## Employee Wellness

In addition to being places of learning, schools are also worksites. Fostering employees' physical and mental health protects school staff, and therefore helps to support students' health. Healthy school employees can serve as role models for students, and healthy school environments can support healthy eating, active lifestyles, and stress management. Healthy school environments ensure that staff have access to healthy foods and beverages in faculty vending machines, provide out of school time professional development opportunities related to physical activity and healthy eating, and promote comprehensive staff wellness programs to prevent and manage chronic diseases like diabetes.

### Employee Wellness Resources

IMAGE	DESCRIPTION	COST
	<p><a href="#">CDC Healthy Schools: School Employee Wellness</a></p> <p>This resource is part of CDC's Healthy Schools Partner Toolkit and outlines strategies schools can implement to create an employee wellness program, in addition to other school employee wellness resources.</p>	No cost
	<p><a href="#">Fitness Break Cards</a></p> <p>These cards from Alliance for a Healthier Generation showcase different exercises with visuals and instructions that can be printed and used during breaks in staff meetings.</p>	No cost
	<p><a href="#">Healthy School, Healthy Staff, Healthy Students: A Guide to Improving School Employee Wellness</a></p> <p>This guide provides a process and resources for building or expanding an effective employee wellness initiative. Guidance is based on the experience of other school districts, experts in the field, and research findings.</p>	No cost



[School Wellness Champion Start-Up Kit](#)  
This toolkit from Alliance for a Healthier Generation provides examples for creating wellness opportunities in the workplace.

No cost



[Sneak in Some Exercise at Work](#)  
This article from EatFresh.org features actions staff can take at work to increase their physical activity with examples of low impact exercises that can be done while sitting.

No cost



## Community Involvement

Communities with excess burdens of chronic disease need basic resources, including information, fresh produce, safe environments, and access to quality health services.<sup>18</sup> Schools benefit when community groups and organizations create partnerships with schools and share resources to support student development and health-related activities. Community members benefit from partnerships that offer tangible resources to manage existing health concerns and integrating social determinants of health can facilitate sustained engagement to address health disparities.<sup>18</sup>

In practice, this can include coordinating information, resources, and services available from community-based organizations, social service agencies and health clinics about diabetes prevention and management. Schools can connect with out-of-school programs about access to health services for students with chronic health conditions like diabetes. Schools can involve local health departments, school-based and community health centers, and other health organizations in school initiatives, including linking schools with programs that promote healthy eating and physical activity.

### Community Involvement Resources

IMAGE	DESCRIPTION	COST
	<p><a href="#">Brighter Bites</a> Brighter Bites is a nonprofit that delivers fresh fruits and vegetables to families along with nutrition education.</p>	No cost
	<p><a href="#">National Diabetes Prevention Program</a> Consists of a partnership of public and private organizations working to prevent or delay type 2 diabetes. Developing these partnerships makes it easier for people at risk for type 2 diabetes to participate in lifestyle change programs to reduce their risk.</p>	Varies
	<p><a href="#">The Role of the Community Environment in Managing Diabetes Risk</a> This blog from a series on social determinants of health contains a Q&amp;A with Earle C. Chambers, PhD, MPH, who notes the important role communities play in managing diabetes. Schools are an important part of the community and can be a resource for supporting health.</p>	No cost



Youth-Led Participatory Action Research (YPAR) **No cost**  
[Training Binder](#) from the California Department of Public Health, [YPAR Tools](#) from UC Davis, and [YPAR Hub](#) from UC Berkeley

YPAR involves critical thinking and problem solving to empower youth to improve or solve a variety of issues. YPAR can be used to involve youth in making the connection between their built environment and diabetes, while also strengthening their leadership skills and academic performance.

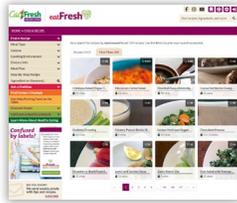
## Family Engagement

Engaging families is a crucial pillar to support students' overall health and wellness. Families and school staff can work together to engage families in actively supporting their child's learning and development. Years of research show that family engagement is one of the most powerful predictors of students' development, educational attainment, and success in school and life. It can also be a powerful tool for creating more equitable, culturally responsive, and collaborative schools.<sup>19</sup>

Parents should be provided with the opportunity to learn about chronic health conditions and school health services, while being encouraged to participate in school-based programs and activities that promote healthy behaviors. Materials on nutrition education, school nutrition programs, physical education, and physical activity should be provided in languages that students and parents speak at home. Parents should be provided with opportunities to learn about healthy eating or to practice being active with their children.

## Family Engagement Resources

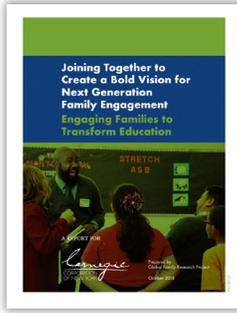
IMAGE	DESCRIPTION	COST
	<p><a href="#">EatFresh.org Mini Course</a></p> <p>This free online nutrition course includes 15 nutrition and healthy living topics that use EatFresh.org as the main source for easy, inexpensive recipes. This mobile-friendly course is available in English and Spanish. It can be shared with school staff as a free resource to learn more about healthy living that can reduce their risk for diabetes.</p>	<p>No cost</p>



### [EatFresh Recipes](#)

No cost

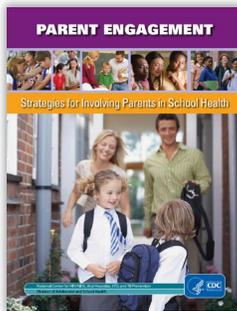
EatFresh provides over 500 recipes representing a variety of different cuisines. Recipes can be filtered by cuisine, dietary information, cooking environment (i.e. limited kitchen, very quick, or no-cook). Recipes can be translated into over 100 languages.



### [Joining Together to Create a Bold Vision for Next Generation Family Engagement: Engaging Families to Transform Education](#)

No cost

This report provides resources and research for building and evaluating family, school, and community engagement practices, programs, and policies.



### [Parent Engagement: Strategies for Involving Parents in School Health](#)

No cost

This publication defines and describes parent engagement and identifies strategies and actions schools can take to increase parent engagement.

## APPENDIX A: SAMPLE MESSAGES FOR PARENTS AND CHILDREN

The announcements below were modified from the [Juvenile Diabetes Research Foundation's Morning Announcements](#) and [Michigan Fitness Foundation's Building Leadership School Announcements](#).

### Announcements During the School Day

#### Diabetes

- November is National Diabetes Awareness Month! Kids and adults who have type 2 diabetes have too much sugar in their blood due to the body not making enough insulin or using it properly. Insulin is the hormone that helps control the amount of sugar in the blood and it is made by the pancreas. Insulin is necessary to get sugar into cells in your body, so that you have energy. We all need this energy to work, play, and even do our schoolwork!
- Kids who have diabetes are just like you! Diabetes is NOT contagious. You can't catch it like a cold, flu, or chicken pox! Doctors don't know exactly what causes diabetes. But they know people with diabetes cannot catch it from anyone else. Neither can you!
- There are two types of diabetes—type 1 and type 2. People with diabetes may need to prick their fingers and test their blood sugar several times a day to make sure they have the right amount of sugar in their systems. Kids and adults with type 2 diabetes may get their insulin through shots or in pill-form.
- Some children asked, "how a person would know if they have diabetes?" One sign is that you are suddenly SUPER thirsty and have to go to the bathroom very often. Everyone gets thirsty and everyone needs to use the bathroom. But a person with diabetes would do this several times in an hour.
- You cannot tell if a person has diabetes just by looking at them. People with diabetes are just like everyone else. They look and act perfectly "normal." It's only their pancreas that does not work right. But, hey, nobody's perfect. So, don't treat them differently just because they have diabetes.

#### Physical Activity

- Having diabetes is like a balancing and juggling act. People with diabetes must balance food intake with exercise and insulin. Food makes blood sugars rise; exercise and insulin make sugar levels fall. We have all tried juggling in PE class, and we know it is pretty tricky and challenging. Balancing food, exercise, and insulin is even trickier. It requires a lot of knowledge, care, math calculations, and problem solving!
- Everyone living with OR without diabetes can benefit from 30-60 minutes of daily exercise. When you go outside for recess, join the fun and be active! Exercise also gets you ready to learn when you go back to your classroom. Exercise is something we should all do -every day!
- What did you do to get active and play with someone in your family this weekend? I [rode my bike, raked leaves, walked the dog] with \_\_\_\_\_ [my neighbor, husband/wife, daughter/son]. Share one activity with your class.

- Today is November \_\_\_ [22<sup>nd</sup>]. At your desk, march your feet or swing your arms while you count to \_\_\_ [22]. Small amounts of activity during the day help you learn better.
- You should be active for 60 minutes (1 hour) each day. Doing a little in the morning, some at recess and more after school adds up! Do you reach that goal?

### Riddle Days

- It is Riddle Day! I have ears but cannot hear. What am I? [corn on the cob]
- It is Riddle Day! I am a vegetable. You can roast my seeds or eat my insides. Sometimes, it is fun to cut faces into me. What am I? [Pumpkin]
- It is Riddle Day! I grow in the ground and am usually orange, but I might be white, purple, and yellow too! What am I? [carrot]
- It is Riddle Day! I am a vegetable. You throw away my outside and cook my inside. Then you eat my outside and throw away my inside. What am I? [corn on the cob]
- It is Riddle Day! I am a vegetable that grows best in colder weather. I am hard on the outside. I can be green or orange. What am I? [winter squash – acorn, butternut, spaghetti]

### Resources

- Currently there is no cure for diabetes, but it takes just 60 seconds to find out if you are at risk for type 2 diabetes. Take the test and take action at [cdc.gov/prediabetes/risktest/index.html](http://cdc.gov/prediabetes/risktest/index.html). Ask your parents for help!
- Every 21 seconds, someone in the United States is diagnosed with diabetes. You can help us do something about that at <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>. Ask your parents for help!
- Diabetes can be caused by a lot of things, but did you know not having access to healthy food at home can increase your risk for diabetes later in life? To find out how you can get free healthy food at home, call 211 or visit [www.211LA.org](http://www.211LA.org). Ask your parents for help!
- You might know someone with diabetes. Did you know the American Diabetes Association says about 210,000 Americans under age 20 are estimated to have diabetes? Visit <https://kidshealth.org/en/teens/friend-diabetes.html> to learn how to support a classmate with diabetes. Ask your parents for help!
- 1 in 3 Americans has prediabetes, putting them at risk for type 2 diabetes. We are here to help you live healthier and lower that risk. Get started at <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>.

### Healthy Food

- Everyone—adults and kids, living with or without diabetes—can benefit from a nutritious and balanced diet. In general, high sugar food are not healthy for people with or without diabetes. We want you to know how to make good choices and pick the right snacks to stay healthy! MyPlate says to make half your plate fruits and vegetables. Share with your class your favorite fruit and favorite vegetable.

- Everyone—adults and kids, with or without diabetes—can benefit from a nutritious and balanced diet. Are you having the school lunch today? Make sure you try at least one bite of everything. Have you tried something you thought you would not like but liked when you did? Tell your class what you liked.
- Everyone—adults and kids, with or without diabetes—can benefit from a nutritious and balanced diet. Get your brain and body going by eating a healthy breakfast. Milk with cereal, fruit, and yogurt, or even a sandwich will give you energy to learn and grow. What did you have for breakfast today?
- Everyone—adults and kids, living with or without diabetes—can benefit from a nutritious and balanced diet. Beans are a very healthy food. Did you know that there are many different types of beans? How many can you name? [lentil, navy, kidney, pinto, black beans].
- Who likes dessert? Can you think of one that makes your body feel good? Here is one that is yummy, healthy, and looks good, too. Put some yogurt in a glass, then some fruit, then more yogurt and fruit on top.

## E-mail Template for Parents



[Dear Name],

Did you know November is National Diabetes Awareness Month? Throughout the month, we will be sharing information on how to prevent type 2 diabetes, what the causes are, and what actions can lower diabetes risk. For more information, visit: the [Los Angeles County Department of Public Health website](#).

The American Diabetes Association says about 210,000 Americans under age 20 are estimated to have diabetes ([ADA](#)). It is a long-lasting disease where the body doesn't make or properly use insulin, which is a hormone that helps control sugar in your blood.

Complex factors in the conditions in which people are born, grow, live, work, and age have contributed to the rise in diabetes rates. While it is important to make lifestyle changes that can reduce the risk of diabetes, it is equally important to recognize the influence of other issues like income, education, housing, and access to nutritious food as central to the development and progression of type 2 diabetes (Hill, 2013).

[Name of school] is committed to supporting your child's health. We will continue to offer healthy food and physical activity opportunities to reduce their risk of developing type 2 diabetes. We also have [policies, services, or actions taken] to further reduce their risk of diabetes.

We appreciate your support in spreading diabetes awareness.

[Email signature]

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## Social Media Messages

The following sample social media messages were derived from both the [Los Angeles County Diabetes Prevention Social Media Toolkit for Partners](#) and the [2018 World Diabetes Day Washington Social Media Toolkit](#).

Key Message: Diabetes Awareness and Prevention<sup>20</sup>

### Optional Hashtags

#DiabetesAwareness, #PreventDiabetes, #DiabetesManagement, #Type2DM, #Prediabetes, #LACounty

### English Messages

1. 1 in 3 American adults has #prediabetes. But more than 84% don't know they have it. Visit [www.DoIHavePrediabetes.org](http://www.DoIHavePrediabetes.org) to learn your risk today because prediabetes can be reversed. #DiabetesAwareness
2. Your risk of being struck by lightning? 1 in 500,000. Your risk of developing prediabetes? 1 in 3. Don't like your odds? Take this 1-minute test at [www.DoIHavePrediabetes.org](http://www.DoIHavePrediabetes.org) to learn if you're at high risk of prediabetes because #prediabetes can be reversed.
3. It's not too late. Fortunately, #prediabetes can be reversed. For a healthy future, take a minute to visit [DoIHavePrediabetes.org](http://www.DoIHavePrediabetes.org).
4. #Prediabetes often has no symptoms, so visit [DoIHavePrediabetes.org](http://www.DoIHavePrediabetes.org) to find out if you're at risk. Prediabetes can be reversed.
5. 1 in 3 Americans has prediabetes, putting them at risk for type 2 diabetes. We are here to help you live healthier and lower that risk. Get started at <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>.
6. More than 8 in 10 US adults with prediabetes don't know that they have it. If you have prediabetes, it's important for you to take action to prevent diabetes. Learn what to do at <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>
7. Every 21 seconds, someone in the US is diagnosed with #diabetes. You can help us do something about that at <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>.
8. It takes just 60 seconds to find out if you are at risk for type 2 diabetes. Take the test and take action at <https://www.diabetes.org/risk-test>
9. To help patients prevent and manage diabetes, visit the #LACounty diabetes webpage. [publichealth.lacounty.gov/diabetes](http://publichealth.lacounty.gov/diabetes)
10. Find #LACounty diabetes management resources here. [publichealth.lacounty.gov/diabetes](http://publichealth.lacounty.gov/diabetes)

## Spanish Messages

1. 1 de cada 3 adultos tiene #prediabetes. Pero más del 84% no lo saben. Visita PodriaTenerPrediabetes.org para conocer más sobre tu riesgo, porque la prediabetes se puede revertir.
2. ¿Riesgo de que te caiga un rayo? 1 en 500,000. ¿Tu riesgo de desarrollar #prediabetes? 1 en 3. No lo dejes a la suerte. Autoevalúate en un minuto en PodriaTenerPrediabetes.org para saber si tu riesgo es alto. Porque la prediabetes se puede revertir.
3. No es demasiado tarde. La #prediabetes se puede revertir. Para un futuro saludable, tómate un minuto para visitar DoIHavePrediabetes.org.
4. 1 de cada 3 personas tiene #prediabetes, lo que los pone en riesgo de desarrollar diabetes tipo 2. Estamos aquí para ayudarte a vivir de manera más saludable y reducir ese riesgo. Empieza aquí:  
<http://publichealth.lacounty.gov/diabetes/prevention/index.htm>
5. Más de 8 de cada 10 adultos con prediabetes no saben que la tienen. Si tienes prediabetes, es importante que hagas algo. Aprende qué hacer en <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>.
6. Cada 21 segundos, alguien es diagnosticado con diabetes. Puedes ayudarnos hacer algo al respecto en <http://publichealth.lacounty.gov/diabetes/prevention/index.htm>.
7. Solo se necesitan 60 segundos para saber si estás en riesgo de tener diabetes tipo 2. Haz la prueba y actúa en <https://www.cdc.gov/prediabetes/risktest/index.html>.

Key Message: Diabetes and Nutrition<sup>21</sup>

Optional hashtags: #DiabetesAwareness, #PreventDiabetes, #LearnAboutDiabetes, #Prediabetes, #LACounty

## Messages

1. Do you love cooking with your family around the holidays? Check out the @AmericanDiabetesAssociation Diabetes Food Hub for videos, recipes, meal planning resources, and more to make tasty meals your whole family will love!  
[www.diabetesfoodhub.org](http://www.diabetesfoodhub.org)
2. Diabetes risk can run in families, but so can healthy lifestyle habits! #PreventDiabetes  
<https://www.cdc.gov/diabetes/managing/index.html>
3. Do you have well-meaning family members who become the food police at the holidays (or are you that person yourself?) Check out this guide to navigating these tricky situations and keeping the family peace. #PreventDiabetes  
<https://www.diabetes.org/healthy-living>

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