

When Health is the Root Cause of Poor Education Outcomes: How Local Control Funding Formula Can Help Students Succeed



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Human Impact Partners is a national nonprofit working to transform the policies and places people need to live healthy lives by increasing the consideration of health and equity in decision making.

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Background

A new California law, known as Local Control Funding Formula, or LCFF, changes school district funding from a system in which districts received separate pots of money for specific uses to a formula that allows districts more control over spending. Now districts will get a base amount of money per student, with supplemental funding for disadvantaged students –foster children, low-income children, and English learners. An additional concentration grant with still more funds is provided if more than 55% of a district's students are disadvantaged.

Human Impact Partners has reviewed the research literature to provide the evidence for what many already suspect: the root causes of poor education outcomes for disadvantaged LCFF populations may often be health-related. The following summary discusses the spectrum of social, emotional, mental, and physical health issues that can affect youth from pre-K to 12th grade; the connections between these experiences and school readiness, classroom behavior, and chronic absenteeism; and the corresponding inequities in education outcomes that these disadvantaged populations face.

These findings are followed by a section that provides promising practices to address the health-related inequities through the provision of school-based programs and services to meet mental and physical health care needs, including asthma and dental programs; nutrition and physical activity programs; practices to develop a safe and supportive learning environment; practices to provide equitable access to resources for learning; teacher training practices; and parent engagement practices.

Adverse Childhood Experiences (ACEs)

Adverse Childhood Experiences (ACEs) are one way that disadvantaged populations can have social and emotional experiences that affect their mental health, which can then impact their classroom behaviors and potentially their educational outcomes.

The Centers for Disease Control and Prevention defines ACEs as emotional, physical, or sexual abuse; emotional or physical neglect; and family dysfunction such as domestic violence, household substance abuse, mental illness, parental separation or divorce, or incarcerated household member.¹ The World Health Organization expands on this definition to include peer, community, and collective violence.²

ACEs, Mental Health, and Behavior Problems

There is a strong link between increased number of ACEs experienced and a variety of physical and mental health outcomes.^{1 3 4} A national survey assessing 4,053 children ages 2-17 found that 80% had experienced at least one type of victimization in their lifetimes and that exposure to multiple forms of victimization can have damaging mental health consequences at very early stages of life.⁵

Young children who are traumatized remain in a state of fear and engage in emotional, behavioral, and cognitive function to promote their survival—this results in an expanded period of fear where the child may become overly vigilant, focused on possible threats, and anxious and impulsive.⁶ They may have problems self-regulating their emotions, putting them at risk for using a variety of different escape mechanisms – such as illicit drug use – to cope with the pain, anxiety, and anger that may accompany these experiences.⁷

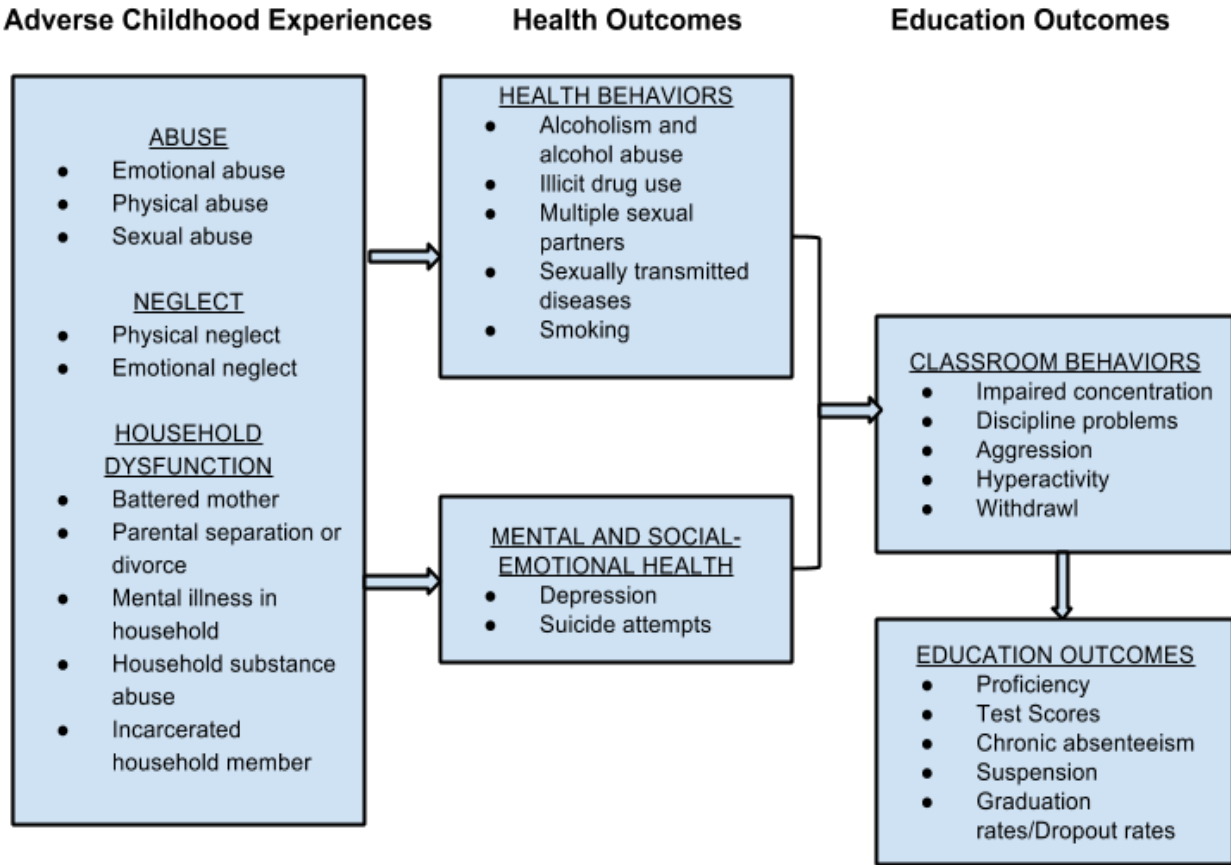
Exposure to ACEs has been shown to increase risk of many psychiatric disorders including mood disorders, anxiety disorders, disruptive behavior, antisocial behavior, and psychosis.^{8 9 10} Resulting behavioral problems can include: smoking, obesity, high risk sexual behaviors, unintended pregnancy, alcohol and drug use, and the perpetration of violence.^{3 8 7 11 12 13} Mental health outcomes stemming from ACEs can have different behavioral effects for boys and girls. Boys may display more aggression, inattention, and impulsivity, while girls may display more anxiety, depression, withdrawal, and physical symptoms.¹⁴

ACEs, Classroom Behaviors, and Education Outcomes

The mental and behavioral reactions to ACEs can impact school and classroom readiness in the following ways: disruptive, antisocial, violent, and/or aggressive behaviors can result in discipline problems in the classroom; mood disorders, anxiety, inattention, and impulsivity can impact classroom management; depression and withdrawal can result in challenges engaging students; and unintended pregnancies and alcohol and drug use could result in higher absentee and drop out rates.

ACEs can lead directly to poor education outcomes.^{15 16 17 18 6} Longer periods of abuse and neglect negatively impact children's cognitive development and result in differences in brain structure compared to children who have not had adverse experiences. This directly affects children's ability to succeed academically.^{6 4 19}

Figure 1. Adverse Childhood Experiences, Health and Education Outcomes



Harsh school discipline policies applied to school and classroom discipline problems that originated from ACEs can often be ineffective. Though “zero tolerance” policies are intended to discourage “misbehavior,” studies show that is not the case and in many instances such policies may have the opposite effect. For example, one study showed that suspension might actually reinforce negative behavior and does not deter uncooperative classroom behavior.²⁰ Minority students, especially Black males, are more harshly punished than White students, and urban schools with large Black, low-income, and Latino student populations are more likely to utilize punitive discipline measures.^{21 22} Further, students who are suspended are more likely to engage in troublesome behavior such as carrying a weapon in school, engaging in physical fights in school, smoking, using alcohol, marijuana and other drugs, and engaging in sexual intercourse.²³ Harsh discipline measures create a snowball effect for high-risk students who already have a hard time in school and may be dealing with family and community stressors. When the disciplinary measures are ineffective and students eventually get expelled or drop out of school, their education outcomes and overall life opportunities are negatively impacted. Moreover, these procedures help maintain the school-to-prison pipeline, which mostly affects male students of color.

Physical Health

In addition to the social and emotional impacts of ACEs on the mental health of disadvantaged groups, physical health challenges can also impact school readiness, behaviors, and absentee rates. Asthma and chronic conditions, nutrition, and dental health especially impact low-income students.

Asthma and Chronic Conditions

Asthma is the leading cause of children's trips to the emergency room, of their being hospitalized, and of their being absent from school.²⁴ Prevalence rates in diagnosed asthma are higher for blacks (16%) than for whites (12%) but lowest for Hispanics (11%). Rates are also higher for poor children (16%) than non-poor children (12%).²⁴

Adverse health impacts, especially when they are chronic, have been shown to be negatively related to school readiness.²⁴ First, illness may simply crowd out other activities with doctor visits and treatment. Second, children with chronic conditions may experience more stress, fatigue, or pain that can interfere with cognitive development. Third, drugs used to treat some illnesses may have unanticipated effects. Fourth, illness may alter relations between children, parents, and others in a way harmful to the child's development. Fifth, illnesses directly affect the ability to learn, by altering body chemistry.²⁴

As much as a quarter of the readiness gap between black and white students might be attributable to health conditions or health behaviors of both mothers and children.²⁴ While individual physical health conditions are unlikely to be a large source of deficits in school readiness, multiple negative health conditions interacting together may explain a large portion of the racial gap in school readiness.²⁴ In one study, vulnerability in school readiness was strongest for children with suboptimal health, as measured with an overall functional health index that includes vision, hearing, speech, mobility, dexterity, cognition, emotion, and pain and discomfort.²⁵

Asthmatic children have lower test scores than non-asthmatic children.²⁴ One large population-based study using NHIS data found that asthma affected school absences, the probability of having learning disabilities, and grade repetition.²⁴ Parents of asthmatic children were three times more likely to report that they needed extra help with learning.²⁴

Nutrition

The USDA reported that 21% of US households with children ages 0-18 years experienced food insecurity in 2011.²⁶ Food-insecure children (those who are at risk of missing meals) are more likely to suffer from common illnesses such as stomachaches, headaches, and colds when they reach preschool age.²⁶ Children's HealthWatch findings show that food insecure infants and toddlers are two-thirds more likely than food-secure young children

to be at risk for developmental delays. They are also at higher risk for iron-deficiency and anemia, which can influence basic motor and social skills.²⁶

Food insecure children are more likely to be obese than other children, although they are also more likely to be lacking specific micronutrients. Poor children from birth to age five are twice as likely as better-off children to be obese, about a third more likely to be anemic, and about 20% more likely to be deficient in vitamin A.²⁴

Nutrition deficits that result in low hemoglobin levels in children aged two or younger are strongly linked to poor educational achievement, cognitive development, and motor development in middle childhood.²⁴

Dental

Dental caries (cavities) is the most common chronic childhood condition - it is five times more common than asthma.²⁷ Fifty percent of 5-to-9-year-old children and 78% of 17-year-olds have at least one cavity or filling.²⁷

Dental disease varies by race and income level. Among two- to five-year-old children, untreated dental caries affect 14% of white children, 25% of black children, and 35% of Hispanic children.²⁸ Low-income children are less likely to see a dentist before kindergarten, suffer twice as much dental caries, and their dental disease is more severe and less likely to be treated compared to their more affluent peers.²⁷

Dental caries can lead to chronic pain and problems in eating, speaking, and cognitive growth and behavior.^{24 27} These health outcomes can impair participation in the educational system for children. The Surgeon General estimates that “more than 51 million school hours are lost each year to dental-related illness” and low-income children suffer 12 times more restricted-activity days due to dental disease compared to higher-income children.²⁷ One study of disadvantaged elementary and high school students from Los Angeles County public schools found that students with toothaches were almost 4 times more likely to have a low grade point average.²⁹

Foster Youth

One in 150 children in CA public schools have been removed from home and placed with guardians under custody of the state because of serious family problems or for treatment of conditions that can't be cared for at home.³⁰ Approximately 55% of foster children in the U.S. are non-white³¹, compared with 39% of all children in the U.S. who are non-white.³² American Indians and Alaska Natives have the highest rates of children in foster care, followed by African-Americans.³¹ About one-quarter of foster youth in California had a disability, in contrast to about one-tenth of general population youth.³³

Foster youth often enter the foster care system as a result of exposure to one or more ACEs. Based on a sample of 11,337 foster youth in grades 9-11 in California public schools, 67% of the youth were removed because of neglect, 12% due to physical abuse, 6% due to sexual abuse, and 14% due to other reasons.³³

Foster youth often manifest many of the behavioral problems that could be associated with ACEs. For example, compared to the general population, foster children have more behavioral problems, such as disruptive disorders (Conduct Disorder and Oppositional Defiant Disorder), Major Depression, and Attention-Deficit/Hyperactivity Disorder (ADHD).³⁴ Other studies also show greater internalizing behaviors; more anxiety/depression disorders, attention problems, and aggressive behaviors; more hyperactivity and emotional symptoms.³⁵

Foster youth are more likely to have disciplinary issues in schools.³⁶ They often have elevated risk of having attendance problems, suspensions, expulsions, and dropouts.³⁷ Among foster children, rates of high school dropout were found to be as high as 75%.³⁸

Children in foster care are academically at risk.³⁷ In California, one half of foster youth scored in the lowest two out of five performance levels of the California Standardized Test, compared to a quarter of general population youth. In a comprehensive review of the literature, foster youth scored below the mean on standardized measures of cognitive functioning and academic achievement. At both elementary and secondary levels, twice as many foster youth repeat a grade as compared to youth not in care.³⁹ A U.S. study found only 32% of teens in foster care graduated from public school compared to 59% of their peers.³⁹

Low-Income Youth

More than half of California students live in low-income families, based on eligibility for free and reduced-price meals.⁴⁰ While about 17% of all Californians fall below the federal poverty line, based on income of \$22,811 for a family of four, almost one in four African-Americans and one in four Hispanics in the state are in poverty.⁴¹

Low-income students have higher risks for suicide, smoking, excess alcohol consumption, depression, obesity, and other behavioral risk factors. They are also more likely to lack health insurance, and thus not have access to health care.⁴² Children from low-income families are farther behind than their affluent peers academically, socially, and physically.⁴³ Studies have shown that minority children from economically disadvantaged backgrounds perform lower than non-minority and non-poor counterparts.^{44 14 45 19} In addition to the physical challenges of pain, discomfort, and absenteeism caused by dental caries, food insecurity, and asthma described above, poverty can impact educational outcomes through two primary mechanisms – lack of material resources and increased stress and ACEs.

Children from low-income families experience a lack of access to equitable resources that could support their educational development. Families living in poverty are less able to invest in resources related to children's development, including books, lessons, and other material resources that engage children in learning. Children living in low-income neighborhoods are also less able to access materials to help them learn.⁴⁶

When children are not being read to, they are less experienced with new or different words and therefore less able to able to develop language skills. This gap is further aggravated in school when these children are likely placed in remedial classes where they have fewer interactions with text than their more skilled counterparts.⁴⁶ Children from ethnic minorities are disproportionately affected by poverty; hence they experience more academic failures of the type associated with poverty. For example, reading skill deficits have been shown in approximately 69% of African American students and 64% of Hispanic students.¹⁴

Mental illness in the family is considered one form of ACE. Parents in poverty can have increased levels of stress, depression, and poor health. The poor are 2.3 times more likely to be depressed than the non-poor, adjusting for age, gender, ethnicity, and prior history of depression.²⁴ The incidence of postpartum depression in a sample of poor, inner-city women is about double the rate typically found among middle- class women.²⁴

When compared to families with higher incomes, children in families with lower incomes have been found to have an increased risk for other ACEs as well, such as supervision neglect, physical neglect, and sexual abuse. Increased risk of physical neglect was also found in children whose parent had less than a high school education.⁴⁷

Poverty can adversely affect parents' ability to nurture their children, leading to higher levels of frustration and aggravation with child-rearing.⁴⁸ The children of these parents are

more likely to experience higher levels of behavioral problems in the classroom, such as distractibility and hostility.⁴⁸ Maternal depression has been shown to reduce test scores among preschool children.²⁴ Eight-to-ten year olds from low-income households have 40% more behavior problems in the classroom if their mother is out of the labor force for a prolonged period.⁴⁹ Exposure to violence (which is more prominent among inner-city low-income African American youth) has also been linked to outcomes such as anxiety, depression, post-traumatic stress disorder, aggression, and poor educational achievement.⁵⁰

Low-income individuals, adolescents, males, and racial/ethnic minority groups are more likely to be exposed to violence; this includes witnessing someone getting killed or shot, mugged, witnessing robberies, or hearing gunshots¹⁵. Violence exposure is not limited to the neighborhood and community setting, exposure to violence can also occur on school grounds through fights, students carrying weapons, and fear of being attacked in school.⁵⁰ These exposures to community violence increase the risk of depression, anxiety, posttraumatic stress disorder (PTSD), aggression, drug use, and low self esteem, all which have a negative impact on cognitive functioning and can aggravate academic difficulties.⁵⁰

Low-income children are more subject to chronic stress caused by ongoing economically distressing situations, which can result in higher levels of depression and reduced growth of new brain cells.^{51 52} Such chronic stress has subsequently been shown to be associated with a variety of educational behavioral challenges, including: impaired attention and concentration; reduced cognition, creativity, and memory; diminished social skills and social judgment; reduced motivation, determination, and effort; and over half of all absences.

Studies have shown that the stress and ACEs of living in low-income conditions, such as evictions, divorce, unemployment of a parent, and exposure to community violence, are associated with low-income children performing poorly in reading and math, having lower standardized test scores, having poorer attendance, repeating a grade, and being at disproportionately higher risk of dropping out.^{45 19 49 15}

Students from low-income households demonstrate lower academic achievement as measured by graduation^{53 54} and test scores.^{48 55} Low-income students fail to graduate at five times the rate of middle-income families and six times that of higher-income youth.⁵³ Graduation rates for low-income youth remain lower even when race is taken into account.⁵⁶

In California, differences in educational achievement vary most by family socioeconomic status.⁵⁷

English Language Learners

English language learners (ELLs) are defined as students who do not currently possess competent English comprehension and speaking abilities. These children are often either immigrants themselves, or children of monolingual immigrant parents. There are approximately 50 languages spoken by ELLs in California. The top languages spoken in schools are Spanish, Vietnamese, Filipino, and Cantonese⁵⁸. Nationally, 80% of ELLs come from Spanish-speaking homes and the majority of ELLs are Spanish speakers.⁵⁹ In California, 36% of kindergarten children were classified as ELL in 2009⁵⁸. Nationally, ELLs accounted for 11% of the K-12 student population in 2008. It is projected that by 2028, ELLs will account for 25% of the K-12 population.⁵⁹

Many – though certainly not all - of California’s ELL children come from families who have mixed immigration status and from communities in which many people are in the country without proper documentation. Nationwide, an estimated 4.5 million US citizen children live in families where one or both of their parents are undocumented.⁶⁰

In addition, hundreds of undocumented youth are detained in local youth detention facilities in response to non-binding requests made by Immigration and Customs Enforcement (ICE). These “ICE holds” are voluntary, but if local law enforcement chooses to detain an immigrant (including a youth immigrant), they may be detained for up to 48 hours until ICE assumes federal custody. Between October 1, 2009 and February 10, 2013, 697 ICE hold requests were made for youth in California. The majority of ICE holds in California are for Mexican citizens, and nearly half of youth with an ICE hold have no documented criminal history.⁶¹

Children of undocumented parents and their families live with stress and anxiety, fearful that they, their relatives, and their friends will be detained or deported. As part of a study about the health effects of detention and deportation on children and families, a survey was conducted. Nationwide, nearly 30% of undocumented parents reported that their children were afraid all or most of the time.⁶⁰ Using an abbreviated checklist to screen for post-traumatic stress disorder (PTSD), 81% of the Californian undocumented parents surveyed reported that their child had experienced symptoms of PTSD.⁶⁰ Compared to documented parents, a larger proportion of undocumented parents reported that their children experienced mental health problems, such as anxiety, fear, and behavioral problems: 38% reported their child had been withdrawn, compared to 24% of documented parents; and 40% reported their child had been angry, compared to 25% of documented parents.⁶⁰

English Language Learners also often have difficulty adjusting to the classroom setting when there is a language barrier. Although not consistent across all immigrant groups,⁶² youth often respond to the language barrier by remaining silent, appearing withdrawn, moody, and fearful, and this common response can last one to two years.⁶³ Rates of absenteeism from school are 65% for non-English-speaking families, compared to 48% for European-Americans.⁶⁴

In California, 40% of ELL third graders statewide scored below/far below in English-Language Arts on the California Standardized Test (CST) in 2012, compared to 23% of the remaining third graders⁶⁵. Nationally, ELLs score an average of 20–50% below native English speakers on state assessments of English language arts and other content-area subjects, and thus the majority of ELLs fail to achieve a score of proficient or meet adequate yearly progress goals.⁶⁶ In addition, ELLs have dropout rates that are almost twice that of native English speakers.⁶² In the 2011-12 school year for California, 62% of the ELL cohort class graduated compared to 79% of all students.⁶⁷ In states where there are high school exit exams, participation in the No Child Left Behind (NCLB) testing regimen negatively impacts the graduation rates of ELLs. California's use of state exit exams caused graduation rates among ELLs to decline by 4 to 5 percentage points in 2009.⁶⁶

The future of ELLs and the impacts of acculturation vary according to ethnic group. One study looked at three generations of Hispanic and Asian immigrants and found that all groups had higher average levels of depression than native whites in the first generation, and all except Puerto Ricans experience improvement in the second generation.⁶⁸ Mexicans and Puerto Ricans also had lower high school graduation rates compared to native whites in the first generation, but improved outcomes in the second and third generations. Cubans, Chinese, and Filipinos had better high school graduation rates compared to native whites in the first generation, but tended to have poorer outcomes in the second and/or third generations. For all ethnic groups, second- and third-generation youth were more similar to native whites than first-generation youth, regardless of their first generation status. College enrollment rates are similar.⁶⁸

Nationwide, more than 60% of children in mixed-status families are low-income. The stresses and trauma associated with poverty (discussed above) compound those associated with detention and deportation. Students partially construct their aspirations based on the level of educational attainment of their parents and older siblings. Even when the parents verbally stress the importance of an education, they are too often unequipped with the skills to provide academic support.⁶⁹

Promising Practices

The new LCFF funding mechanism will allow school districts more flexibility over their spending decisions, while still holding school districts accountable to achievement outcomes. The following section provides examples of promising practices that school districts could fund through LCFF funds to address the root causes of poor achievement outcomes described above.

School-Based Mental Health Programs and Services

School-based mental health programs and services could be a significant leverage opportunity for LCFF funding. As described above, all of the disadvantaged students who are specifically identified for additional LCFF funds – foster youth, low-income youth, and English Language Learners – are potentially impacted by Adverse Childhood Experiences (ACEs) and chronic stress in ways that could affect their mental well-being, school readiness, and educational outcomes. Providing school-based mental health services to students before these challenges become intractable barriers and lead to negative classroom behaviors and poor educational achievement could proactively address individual student concerns while improving the general climate of schools.⁷⁰

Foster children and others who suffer from ACEs-related serious emotional disturbances could benefit from individual and group therapy in school. One specific example is the Expanded School Mental Health (ESMH) Program, which provides comprehensive mental health services with assessment, case management, therapy, and prevention.¹⁶ Coupling educational screening with the mental health screening that all foster youth receive when they enter the system would allow educators to identify students who need increased investment in basic academic skills at the same time their mental health needs are identified.⁷¹

English Language Learner youth who are affected by the stress of potential detention and/or deportation of family members or themselves could benefit from mental health promotion programs that are culturally and linguistically appropriate.⁶⁰

Low-income students who are exposed to a higher level of violence in their neighborhoods could also benefit from school-based mental health services. Such services “may be an efficacious method of prevention and intervention, particularly in poor urban school systems that serve youth who may have little access to mental health care in the community.”¹⁵ Interventions could help decrease violence exposure by creating school-wide curricula addressing bullying and fights and focusing on building resilience among students.

For more information on funding such ESMH programs, see:

<http://www.schoolmentalhealth.org/Resources/ESMH/ESMHfunding.pdf>

For examples of states utilizing this type of program in their schools, see:

West Virginia: <https://sites.google.com/site/wvesmhi/>

Connecticut: <http://www.chdi.org/SchoolMH-IMPACT>

Massachusetts:

http://marylandpublicschools.org/MSDE/divisions/studentschoolsvcs/student_services_and_school_mental_health/index-WBCMODE=P_2525_2525_2525_2525_.html

For facts about school mental health services, including need, rationale, outcomes, and cost/benefit analyses, see: http://www.nasponline.org/advocacy/mhschools_facts.pdf.

School-Based Health Centers and School Nurses

School-based health centers could provide coordinated care for students of all income groups who experience chronic health conditions such as asthma, that could interfere with their attendance if not managed well.⁷² Such services are not limited to asthma and could offer early intervention and treatment for a variety of physical health problems that can contribute to high school dropouts, including teen pregnancy.⁷³ One component of school-based health services is also the staffing of a credentialed school nurse. The National Association of School Nursing documents that school nurses benefit schools through improved attendance and student achievement, improved time management for principals, teachers, and administrative staff, and improved accountability for schools to be compliant with federal and state laws.⁷⁴

The California School Nurses Organization's position statement on school-based/school-linked health centers states:

"School-based/school-linked health centers and mobile services provide additional resources and easy access for medically under-served children and their families. The California School Nurses Organization supports integration of school-based/school-linked health centers with existing school health programs in order to provide comprehensive care, including health education, mental health services, assessments, diagnosis, treatment tracking, follow-up and case management.

The California School Nurses Organization further supports parental involvement in the design of the health center and an advisory board with community representation aimed at encouraging long-term success of the school-based/school-linked health center."⁷⁵

For more information about school-based health centers, see:

The California School Health Centers Association website -

<http://www.schoolhealthcenters.org/>

HealthyCal.Org article on Oakland Unified School District's efforts to establish school-based health clinics - <http://www.healthycal.org/archives/8105>

Nutrition Programs

Increased access to school meals is critical for low-income children who are more likely to experience hunger as a result of inadequate household food budgets.⁷⁶ It is also important to ensure that nutritious food is offered, by establishing nutritional guidelines for all school foods.⁷⁶ In addition, breakfast, after-school, and summer meal programs have all been shown to be effective programs to address food insecurity for low-income students who qualify for free or reduced-price lunch programs.

Breakfast programs that deliver breakfast in the classroom during the school session, rather than in the cafeteria before school starts, have dramatically increased the number of students who participate in breakfast at school.^{75 78} Participation in such programs is associated with improved health outcomes, such as fewer complaints of stomachaches and headaches and healthier body weights (less obesity).⁷⁷ Breakfast program participation has also been associated with improved learning environment, increased student motivation, reduced disciplinary suspensions, reduced tardiness, and improved attendance.⁷⁷ Finally, breakfast programs have been shown to significantly improve cognitive and mental abilities, including visual and spatial perception and short-term memory.⁷⁷ Math and reading achievement scores have been shown to increase with breakfast program participation, as have academic performance index scores.⁷⁷

For more information on school breakfast programs in California, see:
The California Department of Education School Breakfast Program webpage -
<http://www.cde.ca.gov/ls/nu/sn/sbp.asp>

The BreakfastFirst website - <http://www.breakfastfirst.org/>

The California Food Policy Advocates webpage on School Breakfast Programs -
<http://cfpa.net/school-breakfast>

Physical Activity Programs

Low-income children often have fewer opportunities to be physically active due to safety concerns in low-income neighborhoods and a lack of adequate recreational facilities. Schools should provide no-cost opportunities for recreation and athletic activities in a safe environment.⁷⁶ Such services have been shown to not only increase physical activity among low-income youth, but also increase meaningful participation in school and problem-solving skills.⁷⁹

For more information, see:
California After School Physical Activity Guidelines -
<http://www.cde.ca.gov/Ls/ba/as/documents/paguidelines.pdf>

California After School Resource Center -
http://www.californiaafterschool.org/physical_activity

California School Boards Association and California Project LEAN (Leaders Encouraging Activity and Nutrition) survey of perceptions and practices regarding physical activity in California schools - http://www.lacoe.edu/Portals/0/Curriculum-Instruction/SHAPE%20Physical_Activity_CA_Survey_Sep09.pdf

Asthma Programs

The Centers for Disease Control and Prevention, the National Asthma Education and Prevention Program, and the Environmental Protection Agency all offer a variety of strategies for addressing asthma in schools. Better management of asthma can lead to better test scores, improved attendance, reduced learning disabilities, and reduced grade repetition.

- Establish school policies and procedures for administering medications, including protocols for emergency response to a severe asthma episode.^{72 80}
- Provide appropriate school health services for students with asthma.^{72 80} Educate staff and students about asthma basics, asthma management, and emergency response.^{72 80} Encourage parents to participate in these educational activities as well.
- Reduce indoor asthma triggers in the school environment, such as allergens, irritants and pests, and outdoor triggers such as idling buses and outdoor physical activities on poor air quality days.^{72 81 82}
- Provide safe and enjoyable physical activity opportunities for students with asthma.⁷²
- Manage asthma symptoms and reduce school absences among students with asthma by coordinating asthma care between the school, parents, and the healthcare provider.^{72 80}

For more information, see:

CDC's Strategies for Addressing Asthma Within a Coordinated School Health Program - <http://www.cdc.gov/HealthyYouth/asthma/pdf/strategies.pdf>

National Asthma Education and Prevention Program's guide for managing asthma in schools - http://www.nhlbi.nih.gov/health/prof/lung/asthma/asth_sch.pdf

EPA Clean School Bus Idle Reduction Campaign - <http://www.epa.gov/cleandiesel/sector-programs/antiidling.htm>

EPA School Flag Program - http://www.epa.gov/airnow/school_flag/SchoolFlag.pdf

Dental Care Services

The Association of State and Territorial Dental Directors has issued a strong recommendation for school dental sealant programs, based on findings that such programs can reduce dental caries in children by as much as 60%.⁸³ Dental sealant programs are

often designed to provide sealants to vulnerable populations, such as children eligible for free or reduced-cost lunch programs.⁸³ It is more cost effective and more effective in reducing caries to provide sealant services for all children of a high-risk population, rather than just those assessed to be at risk through individual screenings.⁸³ The California Department of Health Services Office of Oral Health offers guidelines for such a program.⁸⁴ Better management of dental carries will reduce the chronic pain from dental disease that can impact children's cognitive attainment and learning.²⁴

Another model is to offer dental services within school-based health clinics. Out of the 200 school-based health clinics in California, 61 provide a dental hygienist to screen and refer students for dental clinics, and 36 offer full dental services on-site to students.⁸⁵

For more information, see:

The California Children's Dental Disease Prevention Program -
<http://www.cdph.ca.gov/programs/Pages/CCDDPP.aspx>

The California School Boards Association and the Center for Oral Health's report on Integrating Oral Health into School Health Programs and Policies -
<http://www.csba.org/~/~~/media/904CF0EFAFCD42729DF03AE22F39D7E2.ashx>

Safe and Supportive Learning Environment

Some school districts have piloted or implemented alternative disciplinary practices such as Restorative Justice to promote a safer and more supportive learning environment. Restorative Justice has been shown to be quite successful among students, parents, and school staff and administration. A Health Impact Assessment on school discipline policies showed that schools that have alternative disciplinary practices had a reduction in school suspension, expulsion, and police referrals, as well as reductions in student stress levels.⁸⁶ Restorative Justice holds students accountable to their school community for their negative behaviors and the focus is on problem-solving instead of finger-pointing. Safer school environments can address some of the negative outcomes of ACEs by decreasing incidences of fights, bullying, and vandalism.⁸⁷ Based on research and previous Health Impact Assessments, it is encouraged that schools adopt alternative disciplinary practices such as Restorative Justice as an effort to decrease student suspension, expulsion, and tear down the school-to-prison pipeline.

In addition to adopting Restorative Justice as an alternative disciplinary practice, schools can also adopt restorative practices that are trauma-informed. Violent and aggressive behavior or lashing out at other students must be understood from a trauma and toxic stress framework. These students are crying out for help; it's a normal response to the stressors they experience on a daily basis, whether it is family- or community-based abuse, neglect, dysfunction or violence. Educating teachers and other school staff about this can help support students. Restorative practices work best with trauma-informed practices because "they hold students accountable for their actions, teach empathy, and focus on the importance of relationships."⁸⁸ The Healthy Environments and Response to Trauma in Schools (HEARTS) program is a successful example of how restorative practices have

helped decrease suspension rates – in one case by 89% - and shown to improve student behaviors.⁸⁸ Essentially, schools and districts can and should look at alternatives to address the behavioral problems that students display and that hold them back from succeeding in the classroom before turning to zero-tolerance policies.

School environments can also be enhanced to be more supportive by increasing student connection to schools. When students feel more connected to schools, they have greater educational motivation, classroom engagement, and improved school attendance across racial, ethnic, and income groups. Moreover, students who feel connected to school are less likely to engage in disruptive behavior, school violence, substance and tobacco use, less likely to be emotionally distressed, and less likely to initiate early sexual encounters.⁸⁷ Based on research evidence, some effective strategies to increase school connectedness include: providing academic support for students, applying fair and consistent disciplinary policies that are collectively agreed upon and fairly enforced, and fostering parent and family expectations for school performance and school completion⁸⁷

Foster youth could also specifically benefit from a better learning environment. Such an environment might include implementing school-wide positive behavioral supports, providing targeted educational programs for foster youth, creating a different discipline process for foster youth,³⁶ encouraging foster youth to obtain a high school diploma and to pursue postsecondary education,⁸⁹ and providing assistance to plan for, prepare for, and go through this transition.⁸⁹

Low-income students also benefit from programs that promote school connectedness during educational transitions. The School Transitional Environmental Program (STEP) targets primarily nonwhite, low-income students in transition from elementary and middle schools to high schools in urban areas. The program is designed to build a sense of community, increased school connectedness, increased social networks and family involvement, and increased responsibility for learning and decision-making. STEP was found to be the best best-practice program for working with low-income African American students transitioning from middle school to high school.⁹⁰ In addition to programs focus on transitional periods, programs that augment student support networks with children from other schools, adult mentors, and educational advisors can provide low-income children with emotional encouragement and educational advice. Certain school-based programs have this built into their strategies.⁹¹

For more information, see:

Implementing Restorative Justice: A Guide for Schools -

<http://www.icjia.state.il.us/public/pdf/BARJ/SCHOOL%20BARJ%20GUIDEBOOK.pdf>

National Council on Crime & Delinquency Restorative Justice Project -

<http://nccdglobal.org/what-we-do/restorative-justice-project/current-projects>

Highlight: HEARTS (Healthy Environments and Response to Trauma in Schools), San Francisco - <http://www.fixschooldiscipline.org/toolkit/educators/ucsf/#>

Promising Practices Network webpage on School Transitional Environmental Program - <http://www.promisingpractices.net/program.asp?programid=243>

Resources for Learning

Low-income youth experience a lack of access to resources that could support their educational development, contributing to chronic stress. There are many school-based programs and strategies that target the academic success of low-income students through increased access to these resources that could potentially alleviate some of their stress while also improving educational outcomes. For example:

- Disparities in academic achievement by race and class are apparent as early as ages three and four, and once they start it is hard for students to ever catch up. Early childhood educational programs can generate learning gains in the short-run and improve conditions later in life.⁵⁵
- Significantly expanded learning time outside of the school day has been found to be a key component of school reform efforts for low-income, low-performing students. It may also hold promise for higher achieving students to reach their full potential. Summer programming has been one way to extend learning time.⁹¹
- Providing supplemental programs outside of school that are aimed at buttressing important skills and/or preparing for college applications and internships can help compensate for a low-income family's lack of access to resources.⁹¹

Additional strategies can be used to target the academic success of English Language Learners, who often express their stress of facing a language barrier by withdrawing and becoming silent in the classroom or have more frequent absences.

While English can be successfully introduced during the preschool years, if it replaces the home language and children do not have the opportunity to continue to learn in the language they know, their future linguistic, conceptual, and academic development in English is at risk.⁶² More classes should be taught in a dual-language setting, as that will provide benefits to both the ELL students and the native English speakers.⁶² For example, bilingual Hispanic students had higher achievement scores than their monolingual English-speaking Hispanic counterparts.⁹² Ensuring that teachers are culturally competent and linguistically diverse strengthens the Early Childhood Educator workforce for ELLs.⁶⁵ Creating a space where students can practice both languages contributes to confidence in language abilities and validates learning, resulting in positive self-views.⁶⁵ In conjunction to this, collaboration between family and teachers can further solidify a support system and a strong link between the school and home environment, which can also help students improve their self-perception.⁶⁵

There is no one way to educate ELL students.⁹³ An urban elementary school may have students from several linguistic and socioeconomic backgrounds, whereas a rural community may have students who are predominantly from one linguistic background due to active immigration sponsorship. Educational needs for students will be different in each

of these settings.⁹³

Instruction at this level differs in some respects compared to instruction at the elementary level because course materials need to convey the complex content of upper grade courses using progressive English. It is important to use developmentally appropriate instructional materials, as secondary-level ELLs may be low in English proficiency, but cognitively able to understand advanced concepts.⁹³

For more information, see:

The Guide to Community Preventive Services webpage on Comprehensive, Center-Based Programs for Children of Low-Income Families to Foster Early Childhood Development
<http://www.thecommunityguide.org/healthequity/education/centerbasedprograms.html>

The National Association for Gifted Children's report Unlocking Emergent Talent: Supporting High Achievement of Low-Income, High-Ability Students
http://www.nagc.org/uploadedFiles/Conventions_and_Seminars/National_Research_Summit/Unlocking%20Emergent%20Talent%20FULL%20No-Tint.pdf

American Federation of Teachers' report: Teaching English Language Learners: What the Research Does – and Does Not – Say -
<http://www.aft.org/pdfs/americaneducator/summer2008/goldenberg.pdf>

Center for Collaborative Education's webpage on successful schools and programs for English Language Learners in the Boston public schools -
http://www.ccebos.org/ell_success.html

Teacher Training

Improving the quality of early childhood classrooms and providing teachers with the resources and training they need to maintain emotionally positive and cognitively enriching classrooms is another method to increase school readiness.⁹⁴ Teachers and other professionals who work with children should be given professional development opportunities to gain knowledge of the social-emotional needs of children and ways to recognize the needs.¹⁶ School personnel would also benefit from more training about the challenges that youth in foster care face, and ways they can advocate for these youth.⁸⁹ Finally, ongoing interactions in schools between teacher specialists for ELLs and mainstream subject-area teachers may enable more effective instructional strategies, both in English as a Second Language and mainstream classrooms for ELL students.⁹³

For more information, see:

The University of California, Berkeley's Greater Good website for a list of Social Emotional Learning (SEL) Training for In-Service Teachers -
http://greatergood.berkeley.edu/article/item/how_to_close_the_social_emotional_gap_in_teacher_training

The National Center for Youth Law's report Education Advocacy Systems: A Study of How California Counties Ensure Foster Youth Receive the Educational Advocacy and Opportunities They Need - http://www.youthlaw.org/fileadmin/ncyl/youthlaw/education/CA_Education_Advocacy_Systems_1.pdf

Parent Engagement

Parent engagement through the involvement of the school, teachers, and staff is vital for student wellness and can help children with development, learning, and overall school success.⁹⁵ Engaging parents of foster children, ELLs, and low-income children can be challenging due to parent time, skills, and education system understanding. One framework developed at Johns Hopkins University and often used in state Department of Education programs as a way to engage families suggests the following six focus areas:⁹⁶

- parenting skills to support the students' school efforts;
- communication between the school and home;
- parent volunteer opportunities;
- support for learning at home;
- including parents in school decision-making; and
- collaboration with the community.⁹⁶

Real-time data sharing between foster caregivers and teachers would further narrow the gap that foster youth have to close and help improve academic gains.^{71,97}

Low-income families may face barriers to involvement in their children's schools, such as long work hours and long commutes. Special efforts should be made to involve low-income parents in the development of school wellness policies.⁷⁶ "Community-centric" strategies for schools to involve low-income parents include:

- Learn about the families of the children in school. Teachers can do this by making home visits, and school counselors can also reach out to parents.
- Learn about the community where the students live. Principals, teachers, and school counselors can identify and communicate with community leaders such as community activists, spiritual leaders, parent leaders, local youth organizations, and organizations that provide services to families.
- Help parents address community concerns. Teachers and school counselors can be a resource to low-income families by linking them with needed community resources.
- Provide on-site services for parents. In addition to offering activities for parents that support student goals (e.g., family math nights), school-based activities addressing other topics of interest to parents (e.g., art classes, computer classes, and parent-child sports teams). Other on-site resources for parents could include a family center, tutoring, and/or medical services.
- Utilize parents' cultural capital. School personnel should value parents' worldviews and lived experiences, and respect what parents can contribute to the educational process regardless of their own formal education level.⁹⁸

For more information, see:

The Power of Parent Involvement: Evidence, Ideas, and Tools for Student Success -
http://education.praguesummerschools.org/files/education/patrikakou_2.pdf

Trust for America's Health Healthy Schools Campaign Report – Health in Mind: Improving Education through Wellness -
http://healthyamericans.org/assets/files/Health_in_Mind_Report.pdf

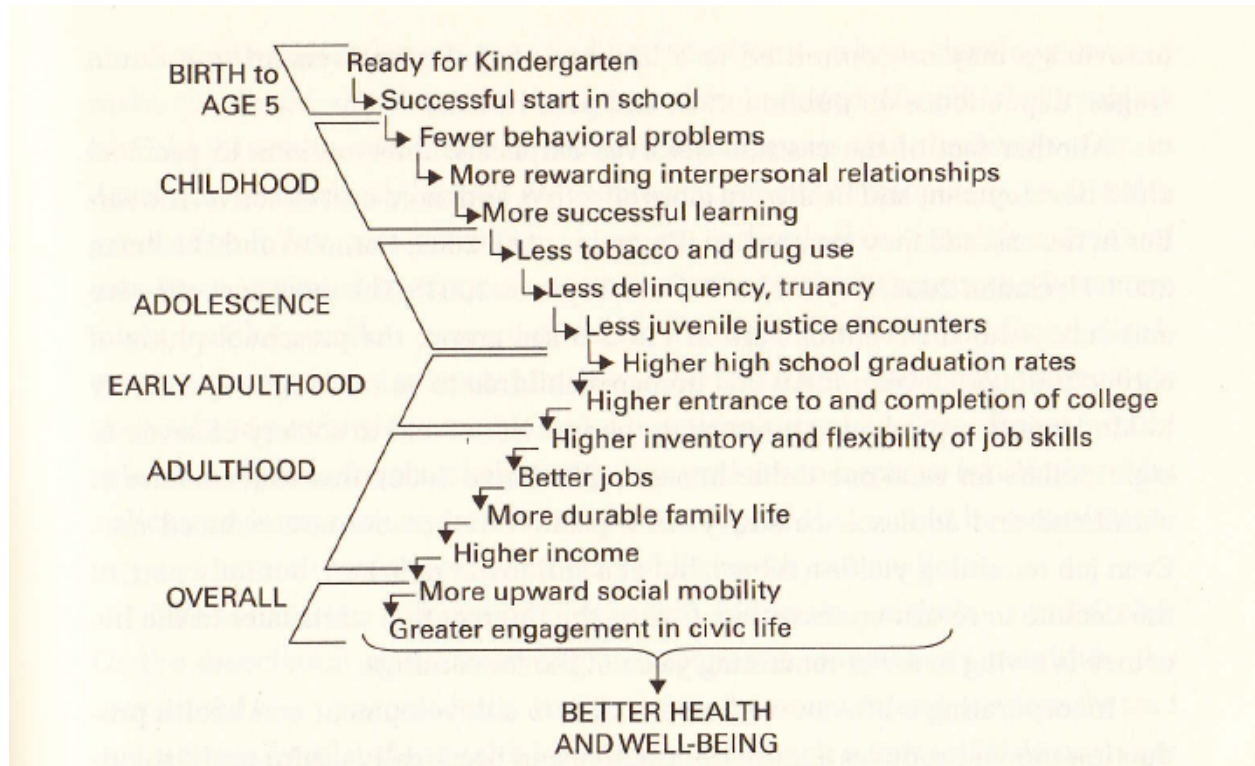
Improving Education Outcomes for Children in Child Welfare -
<http://ittakesanohana.org/wp-content/uploads/2013/08/Improving-Education-Outcomes-for-Children-in-Child-Welfare-Policy-Lab-Spring-2013.pdf>

Involving Low-Income Parents in the Schools: Communitycentric Strategies for School Counselors -
http://www.redorbit.com/news/education/1086552/involving_lowincome_parents_in_the_schools_communitycentric_strategies_for_school/

Summary

One of the ultimate reasons to provide a quality education to each student in the school system is to improve their lifecourse opportunities. This can best be illustrated by the figure below.

Figure 2. Cascading Effects of Enhanced Early Childhood Education and Development: A Lifecourse Perspective⁹⁹



This report provides an overview of the impediments to positive lifecourse opportunities that vulnerable populations such as foster youth, low-income youth, and English Language Learner youth may face. It describes the connections between Adverse Childhood Experiences (ACEs) and other chronically stressful conditions, the social, emotional, and mental health consequences of these experiences, their impacts on classroom behaviors, school readiness, and chronic absenteeism, and the subsequent impacts on educational outcomes. There is also evidence regarding the physical health challenges that many of these groups often face, which can lead to their own classroom and educational impacts. These challenges are not specific to a narrow age group but can impact youth from pre-K through high school.

Each of the populations discussed in this review face their own unique challenges, often as a result of inequitable social circumstances in their lives. The impacts of these inequities can have ripple effects on their overall health and well-being, which can in turn have significant impacts on educational outcomes, ultimately leading to reduced lifecourse opportunities. The Local Control Funding Formula legislation specifically identified these

groups when designating new funding strategies for school districts. The information above suggests that improving education outcomes and reducing the education inequities experienced by these groups may require attention to these underlying social, emotional, mental, and physical health challenges if we are to assure equitable positive lifecourse opportunities for all.

The most robust method to promote positive education outcomes is to include the use of more than one program and address the various problems plaguing students. Addressing education inequities by ensuring individual level and group level counseling, increasing parent involvement in program development as well as targeting parents as program participants, providing health-promoting resources and services at school, and building school environments where students feel safe and connected can yield strong academic and health outcomes. Utilizing LCFF funding to facilitate some of these strategies could provide California's students with increased opportunities to succeed.

References

1. CDC - ACE Study - About the Study - Adverse Childhood Experiences. Available at: <http://www.cdc.gov/ace/about.htm>. Accessed October 23, 2013.
2. WHO | Adverse Childhood Experiences International Questionnaire (ACE-IQ). *WHO*. Available at: http://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/en/. Accessed February 5, 2014.
3. WHO | Preventing child maltreatment: a guide to taking action and generating evidence. *WHO*. Available at: http://www.who.int/violence_injury_prevention/publications/violence/child_maltreatment/en/. Accessed October 23, 2013.
4. Duke NN, Pettingell SL, McMorris BJ, Borowsky IW. Adolescent Violence Perpetration: Associations With Multiple Types of Adverse Childhood Experiences. *Pediatrics*. 2010;125(4):e778-e786. doi:10.1542/peds.2009-0597.
5. Turner HA, Finkelhor D, Ormrod R. Poly-Victimization in a National Sample of Children and Youth. *Am J Prev Med*. 2010;38(3):323-330. doi:10.1016/j.amepre.2009.11.012.
6. Young and Vulnerable: Children Five and Under Experience High Maltreatment Rates. *Child Trends*. Available at: <http://www.childtrends.org/?publications=young-and-vulnerable-children-five-and-under-experience-high-maltreatment-rates>. Accessed October 23, 2013.
7. Dube SR, Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*. 2003;111(3):564-572.
8. Keyes KM, Eaton NR, Krueger RF, et al. Childhood maltreatment and the structure of common psychiatric disorders. *Br J Psychiatry*. 2012;200(2):107-115. doi:10.1192/bjp.bp.111.093062.
9. Kitzmann KM, Gaylord NK, Holt AR, Kenny ED. Child witnesses to domestic violence: A meta-analytic review. *J Consult Clin Psychol*. 2003;71(2):339-352. doi:10.1037/0022-006X.71.2.339.
10. Turner HA, Finkelhor D, Ormrod R. The effect of lifetime victimization on the mental health of children and adolescents. *Soc Sci Med*. 2006;62(1):13-27. doi:10.1016/j.socscimed.2005.05.030.
11. Hamburger ME, Leeb RT, Swahn MH. Childhood Maltreatment and Early Alcohol Use Among High-Risk Adolescents. *J Stud Alcohol Drugs*. 2008;69(2):291.
12. Dube SR, Miller JW, Brown DW, et al. Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *J Adolesc Health*. 2006;38(4):444.e1-444.e10. doi:10.1016/j.jadohealth.2005.06.006.
13. Rothman EF, Edwards EM, Heeren T, Hingson RW. Adverse Childhood Experiences Predict Earlier Age of Drinking Onset: Results From a Representative US Sample of Current or Former Drinkers. *Pediatrics*. 2008;122(2):e298-e304. doi:10.1542/peds.2007-3412.
14. Arnold DH, Doctoroff GL. The Early Education of Socioeconomically Disadvantaged Children. *Annu Rev Psychol*. 2003;54(1):517-545. doi:10.1146/annurev.psych.54.111301.145442.
15. Mathews T, Dempsey M, Overstreet S. Effects of exposure to community violence on school functioning: The mediating role of posttraumatic stress symptoms. *Behav Res Ther*. 2009;47(7):586-591. doi:10.1016/j.brat.2009.04.001.
16. Aviles AM, Anderson TR, Davila ER. Child and Adolescent Social-Emotional Development Within the Context of School. *Child Adolesc Ment Health*. 2006;11(1):32-39. doi:10.1111/j.1475-3588.2005.00365.x.
17. Fantuzzo J, Perlman S. The unique impact of out-of-home placement and the mediating effects of child maltreatment and homelessness on early school success. *Child Youth Serv Rev*. 2007;29(7):941-960. doi:10.1016/j.childyouth.2006.11.003.

18. Perlman S, Fantuzzo J. Timing and influence of early experiences of child maltreatment and homelessness on children's educational well-being. *Child Youth Serv Rev.* 2010;32(6):874-883. doi:10.1016/j.chilyouth.2010.02.007.
19. Ratcliffe C. Child Poverty and Its Lasting Consequence. 2012. Available at: <http://www.urban.org/publications/412659.html>. Accessed October 23, 2013.
20. Losen DJ, Skiba RJ. *Suspended education: Urban middle schools in crisis*. Montgomery, AL: Southern Poverty Law Center; 2010. Available at: http://civilrightsproject.ucla.edu/research/k-12-education/school-discipline/suspended-education-urban-middle-schools-in-crisis/Suspended-Education_FINAL-2.pdf.
21. DBS Corporation. *1990 Elementary and secondary school civil rights survey: National summaries*. Washington, DC: Office for Civil Rights; 1993.
22. Payne A, Welch K. Modeling the effects of racial threat on punitive and restorative school discipline practices. *Criminology.* 2010;48(4):1019-1062.
23. Centers for Disease Control and Prevention. Health risk behaviors among adolescents who do and do not attend school—United States, 1992. *MMWR.* 1994;43:129-132.
24. Currie J. Health Disparities and Gaps in School Readiness. *Future Child.* 2005;15(1):117-138. Available at: <http://stats.lib.pdx.edu/proxy.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ795844&site=ehost-live>.
25. Janus M, Duku E. The School Entry Gap: Socioeconomic, Family, and Health Factors Associated with Children's School Readiness to Learn. *Early Educ Dev.* 2007;18(3):375-403.
26. Hickson M, Ettinger de Cuba S, Weiss I, Donofrio G, Cook J. *Too Hungry to Learn: Food Insecurity and School Readiness*. Boston, MA: Children's HealthWatch; 2013:1-4. Available at: http://www.childrenshealthwatch.org/wp-content/uploads/toohungrytolearn_report.pdf.
27. US Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General-- Executive Summary*. Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health,; 2000.
28. Linda Kaste, et al. Coronal Caries in the Primary and Permanent Dentition of Children and Adolescents Ages 1 to 17 Years: Unites States, 1988-1991. *J Dent Res.* 1996;75:631-41.
29. Seirawan H, Faust S, Mulligan R. The Impact of Oral Health on the Academic Performance of Disadvantaged Children. *Am J Public Health.* 2012;102(9):1729-1734.
30. Barrat VX, Berliner B. *The Invisible Achievement Gap: Education Outcomes of Students in Foster Care in California's Public Schools*. San Francisco, CA: WestEd; 2013:1-116. Available at: http://cftl.org/documents/2013/IAG/Invisible_Achievement_Gap_Full_Report.pdf.
31. *Recent Demographic Trends in Foster Care*. US Department of Health and Human Services Administration on Children, Youth, and Families; 2013. Available at: http://www.acf.hhs.gov/sites/default/files/cb/data_brief_foster_care_trends1.pdf.
32. US Census Bureau. American FactFinder - ACS Demographics and Housing Estimates: 2012 American Community Survey 1-Year Estimates. *Am FactFinder.* 2013. Available at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_1YR_DP05&prodType=table. Accessed October 20, 2013.
33. Frerer K, Davis Sosenko LD, Henke RR. *At Greater Risk: California Foster Youth and the Path from High School to College*. Stuart Foundation; :1-25. Available at: <http://www.stuartfoundation.org/docs/default-document-library/at-greater-risk-california-foster-youth-and-the-path-from-high-school-to-college.pdf>.
34. Pecora PJ. Maximizing educational achievement of youth in foster care and alumni: Factors associated with success. *Educ Interv Pract Policies Improve Educ Outcomes Child Youth --Home Care.* 2012;34(6):1121-1129. doi:10.1016/j.chilyouth.2012.01.044.

35. Bernedo IM, Salas MD, García-Martín MA, Fuentes MJ. Teacher assessment of behavior problems in foster care children. *Child Youth Serv Rev.* 2012;34(4):615-621. doi:10.1016/j.chilyouth.2011.12.003.
36. Burstain J. *The Texas School Disciplinary System and Foster Care Children.* Center for Public Policy Priorities; 2009:1-9. Available at: http://library.cppp.org/files/4/392_education.pdf.
37. Trout AL, Hagaman J, Casey K, Reid R, Epstein MH. The academic status of children and youth in out-of-home care: A review of the literature. *Child Youth Serv Rev.* 2008;30(9):979-994. doi:10.1016/j.chilyouth.2007.11.019.
38. Zorc CS, O'Reilly AL, Matone M, Long J, Watts CL, Rubin D. The relationship of placement experience to school absenteeism and changing schools in young, school-aged children in foster care. *Child Youth Serv Rev.* 2013;35(5):826-833. doi:10.1016/j.chilyouth.2013.02.006.
39. Ferguson HB, Wolkow K. Educating children and youth in care: A review of barriers to school progress and strategies for change. *Child Youth Serv Rev.* 2012;34(6):1143-1149. doi:10.1016/j.chilyouth.2012.01.034.
40. EdSource. *California's Students.* Available at: http://www.edsource.org/sys_students.html.
41. Independent Voter Network. *Poverty Rate in California Continues to Exceed Rest of the Nation.* Available at: <http://ivn.us/2013/08/27/poverty-rate-in-california-continues-to-exceed-rest-of-the-nation-2/>. Accessed October 22, 2013.
42. *Position Statement: The Role of School Based Health Centers (SBHCs) in Improving Health Equity and Reducing Health Disparities.* Washington DC: National ASsembly on School-Based Health Care Available at: <http://files.eric.ed.gov/fulltext/ED542477.pdf>. Accessed December 16, 2013.
43. NAEP 2004 Trends in Academic Progress Three Decades of Student Performance in Reading and Mathematics. 2005. Available at: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005464>. Accessed November 8, 2013.
44. Rouse HL, Fantuzzo JW. Multiple risks and educational well being: A population-based investigation of threats to early school success. *Early Child Res Q.* 2009;24(1):1-14. doi:10.1016/j.ecresq.2008.12.001.
45. Hopson LM, Lee E. Mitigating the effect of family poverty on academic and behavioral outcomes: The role of school climate in middle and high school. *Child Youth Serv Rev.* 2011;33(11):2221-2229. doi:10.1016/j.chilyouth.2011.07.006.
46. Neuman SB, Celano D. The knowledge gap: Implications of leveling the playing field for low-income and middle-income children. *Read Res Q.* 2006;41(2):176-201. doi:10.1598/RRQ.41.2.2.
47. Hussey JM, Chang JJ, Kotch JB. Child Maltreatment in the United States: Prevalence, Risk Factors, and Adolescent Health Consequences. *Pediatr Vol 118 Number 3 Sept 2006.* 2006;118(3):933-942.
48. Dahl GB, Lochner L. The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit. *Am Econ Rev.* 2012;102(5):1927-1956.
49. Economic distress can affect children's behavior. *Chic Trib.* Available at: http://articles.chicagotribune.com/2011-09-21/news/ct-x-0921-poverty-mainbar-20110921_1_job-loss-poverty-assistant-professor. Accessed October 22, 2013.
50. Patton DU, Woolley ME, Hong JS. Exposure to violence, student fear, and low academic achievement: African American males in the critical transition to high school. *Child Youth Serv Rev.* 2012;34(2):388-395. doi:10.1016/j.chilyouth.2011.11.009.
51. Hammack PL, Robinson WL, Crawford I, Li ST. Poverty and Depressed Mood Among Urban African-American Adolescents: A Family Stress Perspective. *J Child Fam Stud.* 2004;13(3):309-323.
52. De Bellis MD, Keshavan MS, Beers SR, et al. Sex differences in brain maturation during childhood and adolescence. *Cereb Cortex.* 2001;11(6):552-557.

53. National Center for Education Statistics. *Trends in High School Dropout and Completion Rates in the United States: 1972–2009*. U.S Department of Education; 2011.
54. Wodtke GT, Harding DJ, Elwert F. Neighborhood Effects in Temporal Perspective: The Impact of Long-Term Exposure to Concentrated Disadvantage on High School Graduation. *Am Sociol Rev.* 2011;76:713-736.
55. Jacob BA, Ludwig J. Improving educational outcomes for poor children. *Focus.* 2009;26(2):56-61.
56. Wodtke G, Harding D, Elwert F. Neighborhood Effects in Temporal Perspective: The Impact of Long-Term Exposure to Concentrated Disadvantage on High School Graduation. *Am Sociol Rev.* 2011;76:713-736.
57. Betts JR, Rueben KS, Danenberg A. *Equal Resources, Equal Outcomes? The Distribution of School Resources and Student Achievement in California*. Public Policy Institute of California; 2000.
58. Medina O. Supporting Our Young Dual Language Learners: From Practice to Policy. 2012. Available at: http://www.afabc.org/getattachment/bdb3a16c-5953-4c42-9159-6230bedbac77/DLLTC_PolicyBrief.aspx.
59. Soto-Hinman I, Hetzel J. Introduction to the Achievement Gap and the “Literacy Gaps Model.” In: *The Literacy Gaps*. SAGE; :272.
60. Human Impact Partners. *Family Unity, Family Health: How Family-Focused Immigration Reform will mean Better Health for Children and Families*; 2013. Available at: <http://www.humanimpact.org/component/jdownloads/finish/7/304>.
61. Teji S. *The Unnecessary Detention of Undocumented Youth*. Center on Juvenile and Criminal Justice; 2013.
62. Espinosa LM. *Challenging Common Myths About Young English Language Learners*. Foundation for Child Development; 2008:1-12.
63. Leow DM, Goldstein M, McGlinchy L. *A Selective Literature Review: Immigration, Acculturation & Substance Abuse*. Education Development Center, Inc.; 2006.
64. Kearney CA. School absenteeism and school refusal behavior in youth: A contemporary review. *Clin Psychol Rev.* 2008;28(3):451-471. doi:10.1016/j.cpr.2007.07.012.
65. National Council of La Raza |. *Natl Counc Raza*. Available at: http://www.nclr.org/index.php/publications/dual_language_learner_teacher_competencies_dlltc_report/. Accessed January 13, 2014.
66. Menken K. NCLB and English Language Learners: Challenges and Consequences. *Theory Pract.* 2010;49(2):121-128. Available at: <http://eric.ed.gov/?id=EJ881098>.
67. California Department of Education. Cohort Outcome Data for the Class of 2011-12. 2013. Available at: <http://data1.cde.ca.gov/dataquest/cohortrates/CRByProgram.aspx?cds=0000000000000000&TheYear=2011-12&Agg=T&Topic=Graduates&RC=State&SubGroup=Ethnic/Racial>. Accessed November 15, 2013.
68. Greenman E, Xie Y. Is assimilation theory dead? The effect of assimilation on adolescent well-being. *Soc Sci Res.* 2008;37(1):109-137. doi:10.1016/j.ssresearch.2007.07.003.
69. Abrego LJ. “I Can’t Go to College Because I Don’t Have Papers”: Incorporation Patterns Of Latino Undocumented Youth. *Lat Stud.* 2006;4(3):212-231. doi:10.1057/palgrave.lst.8600200.
70. Haynes NM. Addressing students’ social and emotional needs: the role of mental health teams in schools. *J Health Soc Policy.* 2002;16(1-2):109-123.
71. Evans LD. Academic Achievement of Students in Foster Care: Impeded or Improved? *Psychol Sch.* 2004;41(5):527–535. doi:10.1002/pits.10179.
72. Centers for Disease Control and Prevention. *Strategies for Addressing Asthma Within a Coordinated School Health Program With Updated Resources*; 2006. Available at: <http://www.cdc.gov/HealthyYouth/asthma/pdf/strategies.pdf>.

73. Freudenberg N, Ruglis J. Reframing school dropout as a public health issue. *Prev Chronic Dis.* 2007;4(4):1545-1151. Available at: http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED499412&ERICExtSearch_SearchType_0=no&accno=ED499412#.
74. American School Nurses Association. *Five ways a school nurse benefits a school.* Available at: <http://www.nasn.org/Portals/0/about/FiveWays.pdf>.
75. California School Nurses Organization. *Position Statement: School-Based/School-Linked Health Centers.*; 1998. Available at: <http://www.csno.org/wp-content/uploads/2011/doc/2010-schoolbased-school-linked-services.pdf>.
76. Food Research and Action Center. *School Wellness Policy and Practice: Meeting the Needs of Low-Income Students.*; 2006. Available at: http://www.schoolnutrition.org/uploadedFiles_old/SchoolNutrition.org/Child_Nutrition/Local_School_Wellness_Policies/School%20Wellness%20Guide-FRAC.pdf.
77. BreakfastFirst. *The Benefits of Breakfast: Health & Academics.*; 2010. Available at: <http://www.breakfastfirst.org/pdfs/HealthAndAcademicBenefits.pdf>.
78. Watanabe T. New program offers breakfast in L.A. classrooms. *L.A. Times.* <http://articles.latimes.com/2012/mar/30/local/la-me-0330-lausd-breakfast-20120330>. Published March 30, 2012.
79. Madsen KA, Hicks K, Thompson H. Physical Activity and Positive Youth Development: Impact of a School-Based Program. *J Sch Health.* 2011;81(8):462–470. doi:10.1111/j.1746-1561.2011.00615.x.
80. U.S. Department of Health and Human Services National Heart, Lung and Blood Institute and U.S. Department of Education. National Asthma Education and Prevention Program. *Managing Asthma: A Guide for Schools.*; 2003. Available at: http://www.nhlbi.nih.gov/health/prof/lung/asthma/asth_sch.pdf.
81. U.S. Environmental Protection Agency. *Clean School Bus Idle Reduction Campaign.*; 2012. Available at: <http://www.epa.gov/cleandiesel/sector-programs/antiidling.htm>.
82. U.S. Environmental Protection Agency. *School Flag Program Fact Sheet.*; 2011. Available at: http://www.epa.gov/airnow/school_flag/SchoolFlag.pdf.
83. Association of State and Territorial Dental Directors. *Best Practice Approaches for State and Community Oral Health Programs: School-Based Dental Sealant Programs.*; 2003. Available at: <http://www.astdd.org/school-based-dental-sealant-programs-introduction/>.
84. California Department of Health Services, Chronic Disease Control Branch, Office of Oral Health. *Dental Sealant Program Guidelines: Children's Dental Disease Prevention Program (CDDPP).*; 2004. Available at: www.dhs.ca.gov/oralhealth.
85. Adams JM. Schools struggle to provide dental health safety net. *EdSourceOrg.* 2013. Available at: <http://edsources.org/today/2013/schools-struggle-to-provide-dental-health-safety-net/29167>.
86. Human Impact Partners. *Health Impact Assessment of School Discipline Policies: A Health Impact Assessment of Status-Quo Discipline, Positive Behavioral Interventions and Supports, and Restorative Justice Policies in Three California School Districts.*; 2012.
87. Robert Wm B. School Connectedness–Strengthening Health and Education Outcomes for Teenagers. *J Sch Health BULLET Sept BULLET.* 2004;74(74).
88. Stevens J. San Francisco's El Dorado Elementary uses trauma-informed & restorative practices; suspensions drop 89%. *ACEs Too High.* 2014. Available at: <http://acestoohigh.com/2014/01/28/hearts-el-dorado-elementary/>. Accessed February 5, 2014.
89. Pecora PJ, Kessler RC, O'Brien K, et al. Educational and employment outcomes of adults formerly placed in foster care: Results from the Northwest Foster Care Alumni Study. *Child Youth Serv Rev.* 2006;28(12):1459-1481. doi:10.1016/j.childyouth.2006.04.003.

90. Gentle-Genitty C. Best Practice Program for Low-Income African American Students Transitioning from Middle to High School. *Child Sch.* 2009;31(2):109-117.
91. Olszewski-Kubilius P, Clarenbach J. *Unlocking Emergent Talent: Supporting High-Achievement of Low-Income, High-Ability Students*. Washington DC: National Association for Gifted Children; 2012. Available at:
http://www.nagc.org/uploadedFiles/Conventions_and_Seminars/National_Research_Summit/Unlocking%20Emergent%20Talent%20FULL%20No-Tint.pdf.
92. Genesee F, Lindholm-Leary K, Saunders W, Christian D. English Language Learners in U.S. Schools: An Overview of Research Findings. *J Educ Stud Placed Risk.* 2005;10(4):363-385.
93. *English Language Learner (ELL) Programs at the Secondary Level in Relation to Student Performance*. Portland, OR: Center for School and District Improvement; 2004:1-212.
94. Raver CC, Knitzer J. Ready to Enter: What Research Tells Policymakers About Strategies to Promote Social and Emotional School Readiness Among Three- and Four-Year-Old Children. 2002. Available at: <http://academiccommons.columbia.edu/catalog/ac:127551>. Accessed November 14, 2013.
95. Evanthia N. P. The Power of Parent Involvement: Evidence, Ideas, and Tools for Student Success. 2008. Available at:
http://education.praguesummerschools.org/files/education/patrikakou_2.pdf. Accessed November 20, 2013.
96. Carr D, Schaible A, Thomas K. *Health_in_Mind_Report.pdf*. 2012. Available at:
http://healthyamericans.org/assets/files/Health_in_Mind_Report.pdf. Accessed November 20, 2013.
97. Rubin D, O'Reilly A, Zlotnik S, et al. *Improving Education Outcomes for Children in Child Welfare*. Philadelphia, PA: PolicyLab; 2013:1-16.
98. Velsor V, Orozco P, Graciela L. Involving Low-Income Parents in the Schools: Communitycentric Strategies for School Counselors. *redOrbit*. 2007. Available at:
http://www.redorbit.com/news/education/1086552/involving_lowincome_parents_in_the_schools_communitycentric_strategies_for_school/. Accessed December 16, 2013.
99. Tarlov AR. Health Production: A Common Framework to Unify Public Health and Medicine. In: Colgrove J, Markowitz G, Rosner D, eds. *The Contested Boundaries of American Public Health*. New Brunswick, NJ: Rutgers University Press; 2008:176-200.