CITY OF ONTARIO

Safe Routes to School Infrastructure Project

Active Transportation Program Grant Submittal
May 2014

For Caltrans use only: _____ **TAP** _____**STP** _____**SRTS** _____**SRTS-NI** _____**SHA**

_____**DAC** _____**Non-DAC** _____**Plan**

Table of Contents

		PAGE
I.	GENERAL INFORMATION	1
II.	PROJECT INFORMATION	3
III.	SCREENING CRITERIA	4
IV.	NARRATIVE QUESTIONS Q1 - 8	7
V.	PROJECT PROGRAMMING REQUEST	23
VI.	ADDITIONAL INFORMATION	25
VII.	NON-INFRASTRUCTURE SCHEDULE INFORMATION	26
VIII.	APPLICATION SIGNATURES	27
IX.	ADDITIONAL ATTACHMENTS	29
	ATTACHMENT 1 & 1A — BON VIEW ELEMENTARY SIDEWALK IMPROVEMENTS	29
	ATTACHMENT 2 & 2A — CORONA ELEMENTARY SIDEWALK IMPROVEMENTS	31
	ATTACHMENT 3 & 3A — EUCLID ELEMENTARY SIDEWALK IMPROVEMENTS	33
	ATTACHMENT 4 & 4A — VINEYARD ELEMENTARY SIDEWALK IMPROVEMENTS	35
	ATTACHMENT 5 — MEDIAN INCOME BY CENSUS TRACT	37
	ATTACHMENT 6 — CALENVIRON SCORE	38
	ATTACHMENT 7 — COMMUNITY CENTERS, SURROUNDING LAND USES & PEDESTRIAN ACCIDENTS	39
	ATTACHMENT 8 & 8A — BON VIEW ELEMENTARY PED/ ACCIDENTS & SIDEWALK IMPROVEMENTS	40

Table of Contents

ATTACHMENT 9	CORONA ELEMENTARY PEDESTRIAN ACCIDENTS & SIDEWALK IMPROVEMENTS	42
ATTACHMENT 10 & 10A	EUCLID ELEMENTARY PEDESTRIAN ACCIDENTS & SIDEWALK IMPROVEMENTS	43
ATTACHMENT 11	VINEYARD ELEMENTARY PED/ ACCIDENTS & SIDEWALK IMPROVEMENTS	45
ATTACHMENT 12	PERCENTAGE OF HISPANIC POPULATION BY CENSUS TRACT	46

X. SUPPLEMENTAL APPLICATION INFORMATION PART 1 47

BENEFIT-COST CALCULATION 47

ENGINEER'S ESTIMATE 48

ADDITIONAL SCHOOL INFORMATION 49

CONSERVATION CORP CONTACT INFORMATION 52

REFERENCE MATERIALS 54

XI. SUPPLEMENTAL APPLICATION INFORMATION PART 2 116

PUBLIC PARTICIPATION DOCUMENTATION 116

CITY COUNCIL RESOLUTION OF AUTHORIZATION 192

XII. SUPPORT LETTERS 196

I. GENERAL INFORMATION

Project name: City of Ontario -Safe Routes To School Infrastructure Improvement Project

(fill out all of the fields below)

1. APPLICANT (Agency name, address and zip code) City of Ontario	2. PROJECT FUNDING ATP funds Requested $ 1,163,680.33 Matching Funds (If Applicable) $ 0.00 Other Project funds $ 0.00 TOTAL PROJECT COST $ 1,163,680.33
3. APPLICANT CONTACT (Name, title, e-mail, phone #) Scott Murphy, Planning Director, smurphy@ci.ontario.ca.us, (909) 395-2419	
4. APPLICANT CONTACT (Address & zip code) 303 East "B" Street, Ontario, CA 91764	5. PROJECT COUNTY(IES): San Bernardino County
6. CALTRANS DISTRICT #- Click Drop down menu below District 8	7. Application # 1 of 2 (in order of agency priority)

Area Description:

8. Large Metropolitan Planning Organization (MPO)- Select your" MPO" or "Other" from the drop down menu>	SCAG Southern California Association of Governr
9. If "Other" was selected for #8- select your MPO or RTPA from the drop down menu>	
10. Urbanized Area (UZA) population (pop.)- Select your UZA pop. from drop down menu>	Small Urban (Pop =or<200,000 but > than 5,000)

Master Agreements (MAs):

11. ☒ Yes, the applicant has a FEDERAL MA with Caltrans. 08-5092R
12. ☒ Yes, the applicant has a STATE MA with Caltrans. 08-000092

13. If the applicant does not have an MA. Do you meet the Master Agreement requirements? Yes ☐ No ☐
The Applicant MUST be able to enter into MAs with Caltrans

Partner Information:

14. Partner Name*: N/A	15. Partner Type N/A
16. Contact Information (Name, phone # & e-mail) N/A	17. Contact Address & zip code N/A

☐ Click here if the project has more than one partner; attach the remaining partner information on a separate page

*If another entity agrees to assume responsibility for the ongoing operations and maintenance of the facility, documentation of the agreement must be submitted with the application, and a copy of the Memorandum of Understanding or Interagency Agreement between the parties must be submitted with the request for allocation.

Project Type: (Select only one)

18. Infrastructure (IF) ☐ 19. Non-Infrastructure (NI) ☐ 20. Combined (IF & NI) ☒

Project name: City of Ontario -Safe Routes To School Infrastructure Improvement Project

I. GENERAL INFORMATION-continued

Sub-Project Type (Select all that apply)

21. ☐ Develop a Plan in a Disadvantaged Community (select the type(s) of plan(s) to be developed)
    ☐ Bicycle Plan ☐ Safe Routes to School Plan ☐ Pedestrian Plan
    ☐ Active Transportation Plan

    (If applying for an Active Transportation Plan- check any of the following plans that your agency already has):
    ☐ Bike plan ☐ Pedestrian plan ☐ Safe Routes to School plan ☐ ATP plan

22. ☒ Bicycle and/or Pedestrian infrastructure
    Bicycle only: ☐ Class I ☐ Class II ☐ Class III
    Ped/Other: ☒ Sidewalk ☐ Crossing Improvement ☐ Multi-use facility

    Other:

23. ☐ Non-Infrastructure (Non SRTS)

24. ☐ Recreational Trails*- ☐ Trail ☐ Acquisition

    ***Please see additional Recreational Trails instructions before proceeding**

25. ☒ Safe routes to school- ☒ Infrastructure ☒ Non-Infrastructure

If SRTS is selected, provide the following information

26. SCHOOL NAME & ADDRESS:
Bon View Elementary, 2121 South Bon View Avenue, Ontario, CA 91761
27. SCHOOL DISTRICT NAME & ADDRESS:
Ontario Montclair School District, 950 West "D" Street, Ontario, CA 91762

28. County-District-School Code (CDS)	29. Total Student Enrollment	30. Percentage of students eligible for free or reduced meal programs **
36 67819 6036149	729	81.58
31. Percentage of students that currently walk or bike to school	32. Approximate # of students living along school route proposed for improvement	33. Project distance from primary or middle school
42.92%	219	Within .25 miles from school

**Refer to the California Department of Education website: http://www.cde.ca.gov/ds/sh/cw/filesafdc.asp

☒ Click here if the project involves more than one school; attach the remaining school information including school official signature and person to contact, if different, on a separate page

II. PROJECT INFORMATION

1. **Project Location**: The project is located in the City of Ontario around Bon View Elementary: north side of Philadelphia Street between Bon View and Cucamonga and on Bon View Street, south of Francis; Corona Elementary: east and west side of Mandalay Street between Princeton and Fifth Street; Euclid Elementary: north side of Phillips, west of Euclid Avenue; Vineyard Elementary: east and west sides of Amador Avenue between Sycamore Street and Sixth Street and the south side of Sycamore Street, east and west of Amador Avenue. (Attachment 1, 1A, 2, 2A 3, 3A , 4, & 4A)

2. **Project Coordinates:**

N34.054813	W117.6287
Latitude	**Longitude**

3. **Project Description**: Design and construction of 5778 lineal feet of missing ADA compliant pedestrian sidewalk, curb and gutter, and curb ramps within ½ mile of Bon View, Corona, Euclid, and Vineyard Elementary Schools to serve students walking to school, pedestrians walking to transit and residents walking to local community centers.

4. **Project Status:** A recent (2012) city-wide sidewalk study prioritized necessary sidewalk improvements for the entire City, giving special attention to missing segments around schools. All proposed sidewalk gap closure improvements are shovel- ready except for portions along Phillips Street and Philadelphia Street which will require the purchase of right-of–way. The community identified these areas as priority improvement sites. The project has been found to be exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15304 (h), and the National Environmental Policy Act (NEPA) process has not been completed. Conceptual design is complete. Construction plans have not been prepared. Preparation of plans and specifications for the bid package will commence if the grant is awarded.

III. SCREENING CRITERIA

1. Demonstrated Needs of the Applicant

Purpose: The proposed Safe Routes to School infrastructure project will provide safe and accessible sidewalks on suggested routes to local elementary schools, community centers and other neighborhood amenities in some of the most disadvantaged neighborhoods within Ontario.

Need: All four priority schools serve neighborhoods with high poverty rates, high student obesity rates, high numbers of pedestrian related traffic collisions, and street segments without sidewalk improvements (Table 1). The segments where funds are being requested have existing single family homes that are not slated for removal or redevelopment. No alternative funding is available or has been identified.

Three of the priority schools draw from neighborhoods below 80 percent (80%) of the State Median Income. (Attachment 5) All priority school neighborhoods are considered disadvantaged pursuant to the California Communities Environmental Health Screening Tool Version 1.1 (CalEnviroScreen) which is used to identify California's most burdened and vulnerable communities (Attachment 6).

TABLE 1: DISADVANTAGED COMMUNITY DATA

SCHOOL	OBESITY RATE OF STUDENTS*	% ELIGIBLE FOR FREE/REDUCED LUNCH**	BELOW 80% OF STATE MEDIAN***	CAL ENVIRO SCREEN SCORE****	% HISPANIC POPULATION*****
Bon View Elementary	45.6%	81.58%	$46,426	46.18 (Top-5%)	81.23%
Corona Elementary	40.9%	95.79%	$58,667	44.76 (Top 10%)	86.24%
Euclid Elementary	50.6%	97.23%	$41,813	41.42 (Top 10%)	90.23%
Vineyard Elementary	45.7%	86.35%	$46,652	44.76 (Top 10%)	88.25%

* *2012-13 California Physical Fitness Report*
** *2012 California Department of Education Free and Reduced Price Meal Data*
*** *2012 Five Year Average from American Community Survey (State: Median: $61,400 80% of Median: $49,120)*
**** *CalEnviroScreen Version 1.1*
***** *2012 Five Year Average from American Community Survey (State: 37.57% and Ontario: 68.45%)*

III. SCREENING CRITERIA

Pedestrian Safety: During calendar years 2003 thru 2011, 500 traffic collisions occurred in Ontario involving pedestrians (TIMS). Of these collisions, 53 occurred around the priority schools where sidewalk improvements are being proposed. This represents 10.6 percent (10.6%) of all the pedestrian accidents in the City. Table 3 shows the severity of these accidents. A higher proportion of the accidents around priority schools were fatal compared to the severity of accidents found citywide. According to Dangerous by Design 2011[1], Ontario is located within the fifth most dangerous metropolitan areas in the Nation and the first in the State of California according to Transportation for America.

As Table 1 shows, the neighborhoods around the priority schools have a higher percentage of Hispanic residents who are lower income (Attachment 12). According to the article "Travel to School[2]", lower-income communities with a greater percentage of Hispanic populations tend to have higher walking rates. In addition, Dangerous by Design 2011[1] found that Hispanics have a pedestrian death rate of 3.1 per 100,000, a rate 97 percent (97%) higher than non-Hispanics. In 2012, the Ontario Planning Department conducted a Neighborhood Survey in the Kaiser Healthy Eating, Active Living (HEAL) Zone which noted that the community felt unsafe walking in their neighborhoods. They cited concerns related to traffic conditions such as lack of sidewalks, speeding cars and other safety issues. The proposed sidewalk improvements will create a safer walking environment (including adequate walking surfaces, lighting, etc.) as a means to reduce pedestrian death rates, and provide better access to schools and community centers in a neighborhood that has high rates of walking and often uses active transportation and transit as their primary means of transportation.

Health Risks: As Table 1 shows, the priority schools have a high student obesity rate. In addition, Ontario has higher rates of heart disease, cancer, stroke and diabetes than the County or State (see Tables 4 and 5 in Public Health Section).

Goal: This Safe Routes to School infrastructure project will create a safe and accessible environment for children and other pedestrians to have improved access to schools, surrounding neighborhoods and amenities (such as transit and community centers). It will provide the opportunity for residents to increase their physical activity which will help reduce the high rates of obesity and other risk factors facing the community.

2. Consistency with Regional Transportation Plan

On April 4, 2012, Southern California Association of Governments adopted the RTP/SCS (Plan) with the primary goals of increasing mobility options and reducing mobile emissions to comply with SB 375, improving public health, and meeting National Ambient Air Quality Standards. According to the Plan, pedestrian deaths and injuries represent a significant percentage of all traffic-related accidents, particularly in urban areas. The proposed project implements Plan goals by increasing pedestrian safety through reducing pedestrian accidents and fatalities, encouraging physical activity to help reduce the high rates of obesity in Ontario, and reducing vehicle miles-traveled, thereby reducing Green House Gas emissions.

IV. NARRATIVE QUESTIONS

1. POTENTIAL FOR INCREASED WALKING AND BICYCLING, ESPECIALLY AMONG STUDENTS, INCLUDING THE IDENTIFICATION OF WALKING AND BICYCLING ROUTES TO AND FROM SCHOOLS, TRANSIT FACILITIES, COMMUNITY CENTERS, EMPLOYMENT CENTERS, AND OTHER DESTINATIONS; AND INCLUDING INCREASING AND IMPROVING CONNECTIVITY AND MOBILITY OF NON-MOTORIZED USERS.

The proposed project will increase safety and walking opportunities for students traveling to school, residents traveling to local community centers and residents connecting to transit.

Travel to School: In 2005, the City of Ontario conducted an analysis of the sidewalk system to determine the locations where sidewalks were missing or needed repair and in 2012 an update was done to this document. The segments in need of improvement were then prioritized. Since then, the City has repaired or replaced numerous segments of sidewalks with a focus on improving the sidewalk systems around local schools to create safe paths of travel for students walking to school.

Sidewalk improvements were selected around four elementary schools located in some of the City's most disadvantaged neighborhoods. As Table 1 in the Demonstrated Need Section shows, more than half of the students at these schools are obese; most qualify for the Free or Reduced Price Meals Program; and these schools draw from neighborhoods that are at or below the State Median Income. (Attachment 5) Two of these schools (Euclid and Bon View Elementary) serve the HEAL (Healthy Eating Active Living) Zone where a focused effort is being made to encourage lifestyle changes to improve the health of the residents.

Current Conditions: In mid-April 2014, counts were taken at each of the four selected schools to determine the percentage of students in attendance that walked or biked to and from school; more than half (51.81%) of the students from the four schools walked or biked. The proportion of students who walked or biked to and from school varied by school as shown in the Table 2 below:

TABLE 2: WALK AND BIKING STUDENTS

SCHOOL	% WHO WALKED OR BIKED TO AND FROM SCHOOL*
Bon View Elementary	42.92%
Corona Elementary	63.85%
Euclid Elementary	41.54%
Vineyard Magnet	54.87%

*Student Counts taken in April 2014

Impacts of the Proposed Project: With the construction of the proposed sidewalks, 286 additional households around these four schools will have a safe path of travel to and from school. According to "California's Safe Routes to School Program: Impacts on Walking, Bicycling, and Pedestrian Safety[3]" (Attachment 16) found that construction of sidewalk gap closure projects around schools increases the number of children who walk to school. According to this study, the average increase in children who walked to school after the completion of three sidewalk gap projects was 55 percent (55%).

Around two of the four schools (Euclid and Bon View), additional efforts are underway to help change the behavior of the residents through the promotion of the Healthy Eating, Active Living (HEAL) Zone pilot project. The project engages the community in discussions about healthy lifestyle choices to encourage healthy eating and active living which should encourage more children to walk to school.

Access to Community Centers: In addition to providing a safe route to school for school age children, the proposed sidewalk improvements around Euclid and Bon View Elementary Schools will provide a safe path of travel to the Community Centers at De Anza and Bon View Parks. Currently, nearly four thousand (3,922) households are within one-half mile of De Anza or Bon View Park Community Centers (Attachment 7).

Impacts of the Proposed Project: An additional 660 households will have a safe path of travel to the De Anza and Bon View Community Centers after construction of the proposed sidewalks. This would result in 14,433 persons within one-half mile of these two community centers having a safe walking path

(based on the California Department of Finance Persons per Household Estimate for 2013). This represents a 20.2% increase. These two parks are a magnet for the residents and offer a myriad of activities. Bon View Park offers outdoor sports, playground, weight and fitness room, classroom, computer lab, game room, pool and kitchen and a community garden and a farmers market. De Anza Park has a teen center, fitness room, classrooms, outdoor fitness equipment and a trail system. Two years ago a Healing Trail and outdoor fitness equipment was installed at Veterans Park. Since then, usage of Veterans Park has increased by 130 patrons per month. The Healing Trail and outdoor fitness equipment at De Anza Park is getting similar results. The proposed sidewalk improvements will make it possible for more surrounding residents to walk to the park to enjoy this new amenity.

The Marin County Safe Routes to School Program resulted in an increase in walking to school from 14% to 22% and biking to school increased from 7% to 11%, carpooling increased from 11% to 18%, and automobile trips with a single student decreased from 62% to 44%. The second year resulted in a 64% increase in walking to school, 104% increase in biking to school, carpooling increased to 91%, and automobile trips with single students decreased by 39%[4] .

Two of the four priority schools are part of the HEAL pilot project where Promotora health educators are working in the community to provide health education and community outreach, including the benefits of active transportation. Walking clubs are being formed to incorporate the new Healing Trail at De Anza Park. The HEAL project provides the opportunity to implement strategies to increase walking and biking in these neighborhoods which will then be evaluated for effectiveness. Those strategies which are most successful can then be applied to other neighborhoods within the City and will result in tangible evidence based strategies.

Access to Transit Facilities: The sidewalk improvements that are proposed will enhance access to transit for the residents in these neighborhoods. As Attachments 8, 9, 10, & 11 show, Omnitrans Bus Routes are in close proximity to the proposed improvements. An estimated 1,110 additional households

will have a safe path to the bus routes. According to American Community Survey, 0.0247 persons per household in Ontario use public transportation to get to work. If this is applied to the additional households that will now have a safe path of travel to transit when the sidewalks are constructed, 27 additional persons may use public transportation to travel to work.

By constructing sidewalk gap closures and curbs and gutters, connectivity between neighborhoods and other amenities and destinations will be increased and barriers to walking, such as vehicular traffic, will be removed. Pedestrians will feel safer walking in their neighborhood which will encourage active transportation and reduce vehicle miles traveled.

2. POTENTIAL FOR REDUCING THE NUMBER AND/OR RATE OF PEDESTRIAN AND BICYCLIST FATALITIES AND INJURIES, INCLUDING THE IDENTIFICATION OF SAFETY HAZARDS FOR PEDESTRIANS AND BICYCLISTS.

The purpose of this project is to provide elementary school children and other pedestrians with a continuous and safe walking path to and from school, community centers and transit so that no child or other pedestrian is walking on a street or shoulder where they are being exposed to traffic hazards. Providing this necessary sidewalk gap closure will reduce the risk of pedestrian injuries and fatalities.

During the calendar years of 2003 thru 2011, 500 traffic collisions occurred in Ontario involving pedestrians according to Transportation Injury Mapping System (TIMS). Fifty-three (53) of these collisions occurred around the schools where sidewalk improvements are being proposed, which represents 10.6 percent (10.6%) of all the pedestrian accidents in the City. Only those accidents within the school attendance area were included in the accident data analysis .

Table 3 shows the severity of the accidents around the priority schools. A higher proportion of the accidents were fatal compared to those found citywide. According to Dangerous by Design 2011 Ontario is located within the fifth most dangerous metropolitan area in the Nation and the first in the State of California.[1]

TABLE 3: TRAFFIC COLLISIONS INVOLVING PEDESTRIANS (2003 – 2011)

SEVERITY OF ACCIDENT	CITY OF ONTARIO		AROUND PROPOSED SCHOOLS	
	#	%	#	%
Fatal	38	7.6%	7	13.2%
Severe Injury	70	14%	6	11.32%
Other Visible Injury	241	48.2%	27	50.94%
Complaint of Pain	151	30.2%	13	24.53%
TOTAL	500	100%	53	100%

Euclid Elementary: Fifteen (15) of the 53 pedestrian accidents identified were in the Euclid Elementary school boundary or adjacent to De Anza Park. More than half of these accidents were along Euclid Avenue. A majority of these accidents occurred on weekdays in the late afternoon or early evening and were due to pedestrian violations. Properties in the Euclid Elementary school boundary are within the Healthy Eating Active Living (HEAL) project area where substantial input has been provided by the residents about pedestrian safety issues that need to be addressed. The proposed sidewalk improvements on the north side of Phillips St. were specifically identified as a safety hazard by the residents.

The improvements proposed on the north side of Phillips St. (west of Euclid Avenue) are imperative to ensuring a safe route to De Anza Community Center who live north and east of the center. This segment of Phillips St. carries 4,180 average vehicles per day at speeds of 40 miles per hour. The proposed improvements along this segment include completion of a missing sidewalk along an unimproved mid-block lot and substantial widening at the corner of Phillips St. and Euclid Ave. and construction of a curb, gutter, parkway and sidewalk. This improvement will provide a safe path for residents to travel to De Anza Park, which is directly across the street from the proposed improvements, and ensure pedestrians do not have to walk in the traffic lanes of the existing street, which is less than 30 feet in width (Attachment 10 & 10A).

Bon View Elementary: Four (4) of the 53 pedestrian accidents were in the Bon View Elementary School boundary area. One of these accidents had a fatality. Three-quarters (75%) of these accidents were mid-week either in the early morning (3–6am) or in the evening (6–9pm). The proposed sidewalk improvements are along two major streets (Bon View Ave. and Philadelphia St.) which provide access to Bon View Elementary School and to South Bon View Park. The most significant segment of the improvements around Bon View Elementary School is on the northside of Philadelphia St. between Campus and Cucamonga Avenues (Attachment 8 & 8A).

Portions of the north side of Philadelphia Street between Campus Ave. and Cucamonga Ave. are not fully improved and have an unimproved street edge with no curb, gutter, parkway or sidewalk. This segment of Philadelphia St. carries 9,732 vehicles per day at speed limits of 40 miles per hour and has gaps in the sidewalk system, which force walkers into the street or across the front yards of existing homes.

Corona Elementary: Fourteen (14) of the 53 pedestrian accidents were in the Corona Elementary School boundary area. More than half of these accidents were along Fourth Street or Vineyard Avenue (major arterials providing access to the I-10 Freeway). Most of the accidents were weekday. The time of the accidents were spread throughout the day. Half of these accidents were due to pedestrian violations. One of the accidents is near the proposed sidewalk improvements on Mandalay Avenue (Attachment 9).

Vineyard Magnet: Twenty-one (21) of the 53 pedestrian accidents were in the Vineyard School boundary area. More than half of these accidents were along Grove Avenue (a major arterial) and three were fatalities. Nearly all of the accidents were mid-week and most were mid-day (9am– 3pm). Most of the accidents were due to pedestrian violations (including the 3 fatalities). The proposed improvements will entail sidewalk gap closures on Sycamore and Amador Avenue (Attachment 11).

Impact of the Proposed Project: The proposed project will provide a safe and continuous pathway for students and pedestrians to travel to and from school, residents to travel to local community centers and transit, and eliminate people walking on unimproved sections of a public street where they are exposed to roadway hazards. This will reduce pedestrian/vehicular collisions. Sidewalk gap closure projects have shown to reduce the percentage of children who walk to school on the street or on the shoulder by 31% - 70%[3].

3. PUBLIC PARTICIPATION AND PLANNING

The City has been seeking public and stakeholder input on its Safe Routes to Schools efforts over the past decade (See Public Participation Documentation on pages 116-191). In 2005, the City prepared a city-wide sidewalk priority study which ranked all areas of the City where sidewalks were missing or deficient and updated this document in 2012. Each segment was ranked based on: pedestrians and traffic volumes, vehicle speed, roadway width, shoulder type, roadside impediments, segment length, school type, and the percentage of truck traffic. Since that time, improvements to the sidewalk system have been made as funds were available based on public input, accident information, etc. At locations where safety concerns have been raised, necessary steps to address the issues have been implemented including sidewalk and street improvements and the addition of crossing guards during school hours.

In 2005, the City began a healthy community initiative to improve the health of Ontario residents. This helped to inform the goals and policies established in The Ontario Plan (general plan). Active transportation gained momentum in Ontario with the adoption of the City's first Pedestrian and Bicycle section of the General Plan (The Ontario Plan or TOP) in 2010. Complete streets and active transportation principals are woven throughout the Mobility and Community Design Elements.

Community participation in the form of public workshops, community walk audits, meetings with health advocates, and workshops with Strategic Advisors led to the adoption of active transportation goals and policies that support a healthy and environmentally sustainable community. Seven noticed community

meetings, 5 noticed public hearings, three stakeholder meetings (school districts, downtown, and development community) and six Strategic Advisor Series meetings were held during the development of The Ontario Plan.

In 2012, the City received a Healthy Eating Active Living (HEAL) grant from Kaiser Permanente to help increase opportunities for physical activity and healthy eating. Active transportation is a component of the HEAL Zone Community Action Plan (CAP). The proposed sidewalk improvements are adjacent to two schools that serve HEAL Zone residents, Euclid Elementary and Bon View Elementary. Baseline community surveys conducted in 2013 by the City, Kaiser and faith based organizations, indicated the need for more walkable neighborhoods and identified missing sidewalks as a barrier to physical activity. Residents and youth participated in a HEAL Zone PhotoVoice project by taking cameras into the community and documenting barriers to healthy eating and active living, such as missing sidewalks. This input helped inform the scope of this project. The HEAL Zone CAP includes education, outreach and policy strategies to increase active transportation. Two community-based walking clubs exist and new clubs are being formed. These walking clubs are inspiring children and adults to walk to nearby schools, churches and community centers. The City conducted a HEAL Zone neighborhood planning survey in which concerns related to pedestrian safety were identified. A neighborhood walk audit was conducted with local residents to identify pedestrian safety issues around Euclid Elementary School and De Anza Community Center.

In 2014, Planning staff and local volunteers conducted Pedestrian Counts at the local elementary schools to identify how many students were walking versus being driven to school. In 2014, two community workshops were conducted to gain input from residents and other stakeholders regarding the pedestrian safety priorities. Discussions with Ontario Montclair School District (OMSD) were held to seek their input on safety priorities around the local public schools. Attendees of these two workshops concurred that Euclid, Bon View, Vineyard and Corona Elementary schools were priority schools for sidewalk

improvements based on accident rates, high number of obese students, and high number of students qualifying for free or reduced lunch. The City is collaborating with Ontario Montclair School District (OMSD) to develop strategies to increase active transportation through education and outreach and to seek opportunities to integrate these strategies into HEAL Zone, community center, and school activities (see Section VII-Non-Infrastructure Schedule). Kaiser is providing technical assistance from Change Lab Solutions, Prevention Institute and Safe Routes to School National Partnership during the three-year Heal Zone project (2012-2015). Because the HEAL Zone is a pilot project, strategies are evidence-based and are being measured for effectiveness. The proposed ATP project will also benefit from this technical assistance and evaluation efforts.

The City is teaming up with Ontario Montclair School District (OMSD) and the California Conservation Corps (CCC) to explore the development of a pedestrian education and outreach strategy. This effort may include any of the following strategies: the City and OMSD will work together to educate parents and students about pending detours and navigating safely around sidewalk construction sites; reinforce the goal of the project to increase rates of walking to and from schools and community centers near the project areas; and decrease accidents by educating students and parents about pedestrian safety and safe routes to school with technical assistance from Safe Routes to School National Partnership.

Two of the four priority schools are part of the HEAL Zone project. Implementation of this grant will allow the City to compare and analyze the effectiveness of infrastructure only improvements versus sidewalk gap closure improvements which include comprehensive community outreach components. Since the Heal Zone project schools include a multitude of base line surveys from health and transportation agencies, it is expected that the post project surveys will provide valuable information to add to the body of evidence about the benefits of active transportation.

IV. NARRATIVE QUESTIONS

A. Is the project cost over $1 Million? YES

If Yes- is the project Prioritized in an adopted city or county bicycle transportation plan, pedestrian plan, safe routes to school plan, active transportation plan, trail plan, circulation element of a general plan, or other publicly approved plan that incorporated elements of an active transportation plan? YES

In 2010, the Ontario City Council adopted The Ontario Plan which includes a bicycle and pedestrian section with policies that promote safe and convenient travel between residential areas and schools, parks and transit. In addition, the project is consistent with and implements the adopted regional Sustainable Communities Strategy and the Regional Transportation Plan, County Non-Motorized Plan and the active transportation strategies contained in the County's Community Vital Signs.

4. COST EFFECTIVENESS

The entire City Sidewalk Priority Study was analyzed with our City Traffic Engineers. The sites selected have populations with the greatest need in terms of being economically disadvantaged, having high rates of obesity, having the highest percentage of youth receiving free or reduced lunches, and high rates of pedestrian accident. Community survey data was also taken into consideration when choosing project locations. Two of the schools within the project area are located in the City's Kaiser HEAL Zone where extensive surveying of the community has taken place. Issues with traffic safety and missing sidewalks were identified as priorities for the community. In addition, Safe Routes to School Regional Network has identified sidewalk improvements around Euclid Elementary as a priority area for the Region.

Below is the Benefit/Cost Ratio found using TIMS (See page 47).

$$\frac{\text{Benefit}}{\text{Total Project Cost}} \div \frac{\$57{,}022{,}222}{\$1{,}162{,}680} = 49.04$$

5. IMPROVED PUBLIC HEALTH

Since 2007, the City has been an active partner in the San Bernardino County Department of Public Health (DPH) Healthy Communities Program and initiatives including the county's Community Vital Signs (CVS) data report. The report provides data and a health improvement framework to align strategies and resources to achieve countywide wellness. The proposed project is consistent with the active transportation strategies contained in CVS.

Public Health Need: Diabetes, obesity and heart disease are sited as primary community health issues for Ontario residents. As shown in the tables and chart below, Ontario residents have higher death rates from cancer, heart disease and stroke than the state or county. Residents in San Bernardino County have higher rates of hospitalization for diabetes (adults and children), and higher obesity rates compared to San Bernardino County and the State of California.

In addition, Ontario has a higher percentage of its population who are Hispanic (68.45%), a higher percentage of the residents in the priority school census tracts who are Hispanic (81 -90%) and a higher percentage of student population at the priority schools who are Hispanic than found in the County (49.28%) or State (37.57%) (Attachment 12). Hispanics are more likely to be obese (Table 5) and have higher rates of diabetes than non-Hispanics.

TABLE 4:
DEATH RATES PER 100,000 POPULATION FOR SELECTED DISEASES

DISEASE	HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE*	CALIFORNIA*	SAN BERNARDINO COUNTY*	ONTARIO**
All Cancers	160.6	153.3	167.0	182.4
Coronary Heart Disease	100.8	106.2	130.1	254.2
Stroke	33.8	36.6	40.4	55.8

* County Health Status Profiles 2014 by California Department of Public Health and California Conference of Local Health Officers

** San Bernardino County: Our Community Vital Signs 2013 Data Report by Community Vital Signs Initiative and San Bernardino County

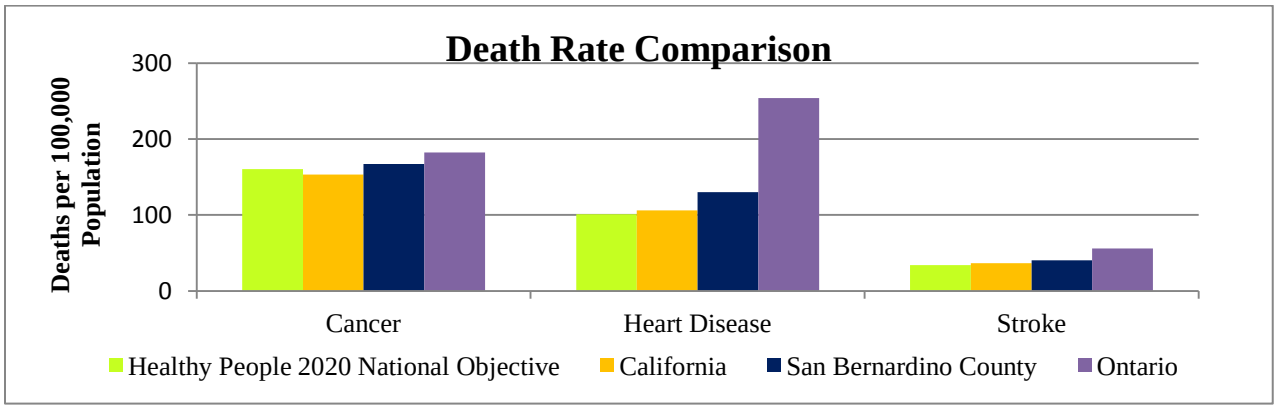


TABLE 5: OTHER HEALTH RELATED ISSUES**

	CALIFORNIA	SAN BERNARDINO COUNTY	ONTARIO
Diabetes Hospitalization Rate/100,000 (All Ages)	145.2	176.4	182.9
Diabetes Hospitalization Rate/100,000 (Children under 18 years old)	35	51	NA
Adult Diabetes Rate (% of Population)	8.5%	10.6%	NA
Obesity Rates of Adults (% of Population)	22.7%	30.4%	NA
Obesity Rates of Hispanic Adults (% of Population)	29%	34%	NA
Overweight or Obese Children (5th, 7th and 9th grader children)	38.0%	39.3%	43.3%

** San Bernardino County: Our Community Vital Signs 2013 Data Report by Community Vital Signs Initiative and San Bernardino County

Improving Health: According to the *2008 Physical Activity Guidelines for Americans,* strong evidence exists that children and adolescents benefit from physical activity which improves cardio respiratory and muscular fitness, bone health, cardiovascular and metabolic health biomarkers, and body composition. In addition, evidence exists that physical activity reduces symptoms of depression. For children and adolescents aged 6–17 years, the *2008 Physical Activity Guidelines for Americans* recommends sixty minutes or more per day of aerobic activity, with most of the activity of moderate or vigorous intensity.

Walking to and from school, community centers and local transit is one way for individuals (especially children) to get routine physical activity. Studies indicate that the mean Body Mass Index (BMI) is lower among individuals with some level of active transportation compared to individuals with no active transportation.[5] As Table 6 shows, the odds of having hypertension and diabetes is lower for individuals with some levels of active transportation compared to individuals with no active transportation.[5] In addition, active transportation reduces cardiovascular risk by 11%[6]. (Hamer)

TABLE 6: POTENTIAL HEALTH BENEFITS FROM ACTIVE TRANSPORTATION COMPARED TO NO ACTIVE TRANSPORTATION

ACTIVITY LEVELS	HYPERTENSION	DIABETES
Low Active Transportation (1 – 149 minute/Week in segments of at least 10 minutes)	24% Reduction	Reduced but not to a level of significance
High Active Transportation (>149 minute/Week in segments of at least 10 minutes)	31% Reduction	31% Reduction

Successful SRTS programs can increase the rate of children walking and biking to school thereby improving individual and community health[7]. Students who walk to school have been found to have a lower abdominal obesity (waist circumstance) and lower systolic and diastolic blood pressure and cholesterol levels[8]. (Pizarro)

Air Quality and Carbon Emissions - The Inland Empire (San Bernardino and Riverside Counties) air quality is affected by topography, industry, and a transit-lean transportation system. Successful Safe Routes to School (SRTS) programs can reduce vehicle trips and vehicle miles traveled which reduces air pollution and carbon emissions. The subject schools and the target population are located in an area with the poorest air quality in the state according to CalEnviroScreen. Poor air quality is associated with increased rates of asthma. In the County of San Bernardino, 13.7% of persons one year and older have been diagnosed with asthma, higher than the state at 12.4% (CVS). Childhood asthma hospitalization rates are 127.8 in San Bernardino County compared to 112.2 in the state (CVS). As indicated in the

Marin County case study, successful SRTS programs can improve air quality and reduce carbon emissions by reducing vehicle trips and vehicle miles traveled. In turn, improved air quality can reduce asthma risks.

By providing safe and convenient alternatives to driving, more individuals will choose active modes of transportation. Incorporating physical activity into daily life can help individuals achieve their recommended levels of daily activity and decrease vehicular/pedestrian accidents and fatalities.

6. **BENEFIT TO DISADVANTAGED COMMUNITIES**

TABLE 7: DISADVANTAGED COMMUNITY CRITERIA

SCHOOL	STUDENT OBESITY RATE*	% ELIGIBLE FOR FREE/REDUCED LUNCH**	BELOW 80% OF STATE MEDIAN INCOME***	CAL ENVIRO SCREEN SCORE****
Bon View Elementary	39.5%	81.58%	$46,426	46.18 Top 5%
Corona Elementary	50.6%	95.79%	$58,667	44.76 Top 10%
Euclid Elementary	51.8%	97.23%	$41,813	41.42 Top 10%
Vineyard Magnet	49.9%	86.35%	$46,652	44.76 Top 10%

* *2012-13 California Physical Fitness Report*

** *2012 California Department of Education Free and Reduced Price Meal Data*

*** *2012 Five Year Average from American Community Survey (State: Median: $61,400 80% of Median: $49,120)*

**** *CalEnviroScreen Version 1.1*

One hundred percent (100%) of the requested funding will benefit a disadvantaged community. As evidenced by the table above, the community's median household income is less than 80% of the statewide median income based on current census tract data. Bon View Elementary is located within an area of the City which is considered to be in the top 5% of the most disadvantaged communities according to the California Communities Environmental Health Screening scores. The other three schools are located in areas considered to be in the top 10%. The majority of our school children are eligible for free or reduced priced lunches, with percentages ranging anywhere from of 81% to 97%.

Sixty-nine (69) percent of Ontario residents are Hispanic and Hispanic families are much more likely to walk or bicycle to school compared to their white or Asian counterparts, who are much more likely to be driven to school[2]. By providing safe and convenient alternatives to driving by expanding the number of trips taken by active transportation, the City of Ontario can facilitate incorporating physical activity into daily life and help individuals achieve their recommended levels of daily activity and decrease vehicular/pedestrian accidents and fatalities.

7. USE OF CALIFORNIA CONSERVATION CORPS (CCC) OR A CERTIFIED COMMUNITY CONSERVATION CORPS

A. The applicant has coordinated with the CCC to identify how a state conservation corps can be a partner of the project. **YES**

On April 21, 2014 an email was sent to Virginia Clark-Virginia.clark@ccc.ca.gov

(916) 341-3147. Project Manager for the California Conservation Corp (CCC), Jennifer Dulay responded to the email and was interested in partnering on our project.

Jennifer.Dulay@CCC.CA.GOV, (909) 594-4206.

B. The applicant has coordinated with a representative from the California Association of Local Conservation Corps (CALCC) to identify how a certified community conservation corps can be a partner of the project. **YES**

On April 21, 2014 we sent an email to Cynthia Vitale at calocalcorps@gmail.com

(916) 558-1516.

C. The applicant intends to utilize the CCC or a certified community conservation corps on all items where participation is indicated? **YES**

The City has coordinated with a representative of the CCC; and they are qualified to partner on the following project items:

- Help prepare the site
- Serve and apprenticeship with the hired contractor
- Outreach and education to the schools about college funding opportunities

The City has coordinated with a representative of the CALCC; and the following are project items that they are qualified to partner on:

- CALCC was contacted and has not responded to our email.

8. **APPLICANT'S PERFORMANCE ON PAST GRANTS**

A. Describe any of your agency's ATP type grant failures during the past 5 years, and what changes your agency will take in order to deliver this project.

Not Applicable

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2013)

General Instructions

☑ New Project					Date:	5/14/14
District	**EA**	**Project ID**	**PPNO**	**MPO ID**	**TCRP No.**	
08						

County	Route/Corridor	PM Bk	PM Ahd	Project Sponsor/Lead Agency	
SB				City of Ontario	
				MPO	**Element**
				SCAG	Local Assistance

Project Manager/Contact	Phone	E-mail Address
Scott Murphy	909-395-2419	smurphy@ci.ontario.ca.us

Project Title

Safe Routes to School Active Transporation-Bon View, Corona, Euclid and Vineyard Elementary Schools

Location, Project Limits, Description, Scope of Work ☐ See page 2

This Project is located in the City of Ontario targeting four local elementary schools all situated in disadvantage communities (see attached maps for more details). The project scope of work is to construct missing sidewalks, curb and gutter, street paving and acquiring right of way at two locations all within a short distance from each school in order to provide children who walk to school a safe, secure and clean route and to encourage others to walk as well.

☐ Includes ADA Improvements ☑ Includes Bike/Ped Improvements

Component	Implementing Agency
PA&ED	City of Ontario
PS&E	City of Ontario
Right of Way	City of Ontario
Construction	City of Ontario

Purpose and Need ☐ See page 2

The purpose of this project is to provide elementary school children a continuous walking sidewalk to and from schools so that no child will need to walk on unimproved sections of a public street where they're exposed to close proximity to traffic and to dirt and mud in the winter time. This needed walkway will eliminate theaccident risk exposure to these kids. It will also provide for better storm water drainage as with the construction of new curb and gutter storm water can be channeled and transported properly to basins for disposal. This will eliminate water ponding and create cleaner and safer neighborhoods for everyone to enjoy.

Project Benefits ☐ See page 2

As in other similar projects of this importance, improving safety for elementary children walking to and from schools is a benefit that is hard to quantify. Saving a life of one child by providing a safer walkway can outweigh all other trivial (improved drainage, higher property values) benefits. Also, providing this safer walkway may lead parents to allow their children who did not walk to and from school to change their habits.

☑ Supports Sustainable Communities Strategy (SCS) Goals ☑ Reduces Greenhouse Gas Emissions

Project Milestone			Proposed
Project Study Report Approved			
Begin Environmental (PA&ED) Phase			
Circulate Draft Environmental Document	**Document Type**	CE/CE	07/15/15
Draft Project Report			
End Environmental Phase (PA&ED Milestone)			08/15/15
Begin Design (PS&E) Phase			09/15/15
End Design Phase (Ready to List for Advertisement Milestone)			12/15/14
Begin Right of Way Phase			01/15/15
End Right of Way Phase (Right of Way Certification Milestone)			09/30/15
Begin Construction Phase (Contract Award Milestone)			01/15/16
End Construction Phase (Construction Contract Acceptance Milestone)			04/29/16
Begin Closeout Phase			04/30/16
End Closeout Phase (Closeout Report)			06/30/16

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2013)

Date: 5/14/14

District	County	Route	EA	Project ID	PPNO	TCRP No.
08	SB	Variuos, local ,				
Project Title:	Safe Routes to School Active Transporation-Bon View, Corona, Euclid and Vineyard Elementary Schools					

Proposed Total Project Cost ($1,000s)									Notes
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	
E&P (PA&ED)									
PS&E		80	20						
R/W SUP (CT)									
CON SUP (CT)									
R/W		10	40						
CON			1,014						
TOTAL		90	1,074						Total cost=$1,164,000

Fund No. 1:									Program Code
Proposed Funding ($1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									

Fund No. 2:									Program Code
Proposed Funding ($1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									

Fund No. 3:									Program Code
Proposed Funding ($1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									

Project name:	City of Ontario -Safe Routes To School Infrastructure Improvement Project

VI. ADDITIONAL INFORMATION

Only fill in those fields that are applicable to your project

FUNDING SUMMARY

ATP Funds being requested by Phase (to the nearest $1000)	**Amount**
PE Phase (includes PA&ED and PS&E)	$
Right-of-Way Phase	$ 35,000
Construction Phase-Infrastructure	$ 1,121,000
Construction Phase-Non-infrastructure	$ 8,000
Total for ALL Phases	**$** 1,164,000

All Non-ATP fund types on this project* (to the nearest $1000)	**Amount**
In-kind	$
	$
	$
	$
	$
	$

*Must indicate which funds are matching

Total Project Cost	$ 1,164,000
Project is Fully Funded	Yes

ATP Work Specific Funding Breakdown (to the nearest $1000)	**Amount**
Request for funding a Plan	$
Request for Safe Routes to Schools Infrastructure work	$ 1,164,000
Request for Safe Routes to Schools Non-Infrastructure work	$ 0
Request for other Non-Infrastructure work (non-SRTS)	$ 0
Request for Recreational Trails work	$ 0

ALLOCATION/AUTHORIZATION REQUESTS SCHEDULE

	Proposed Allocation Date	**Proposed Authorization (E-76) Date**
PA&ED or E&P		09/01/2015
PS&E		09/01/2015
Right-of-Way		09/30/2015
Construction		11/01/2015

All project costs MUST be accounted for on this form, including elements of the overall project that will be, or have been funded by other sources.

Project name: City of Ontario -Safe Routes To School Infrastructure Improvement Project

VII. NON-INFRASTRUCTURE SCHEDULE INFORMATION

Start Date	End Date	Task/Deliverables
02/01/2015	06/01/2016	Provide walking and biking safety education and other community resources
		to encourage active transportation on the Healthy Ontario website. Promote
		the health envrionment benfits of active transporation on the Healthy Ontario
		website. The City will work with the Ontario Montclair School District to
		develop an active transporation outreach strategy that is aligned with ongoing
		HEAL Zone active living strategies.
03/01/2015		Conduct walk/bike audits in the vicinity of at least two priority schools and
		adjacent neighborhood/community parks to assist with evaluation and
		outreach/education.
04/28/2015		Proclaim National Bike and Walk to School Month
04/30/2015		Ontario Wheel House to host an active transportation celebration/activities
05/13/2016		National Bike and Walk to School Day
09/01/2015	05/01/2016	Promotional material and school presentations on safe routes, pedestrian
		safety and safety around the ongoing sidewalk construction zones. Schools,
		City, CCC (promote construction of new sidewalks)and the HEAL Zone
		community walk/bike groups will coordinate presentations on safety
		and benefits of active transporatation to HEAL Zone residents and school
		children.
03/01/2015		Conduct walk/bike audits in the vicinity of at least two priority schools
		and adjacent neighborhood/community parks to assist with evaluation
		and outreach/education.
04/19/2016		Proclaim National Bike and Walk to School Month
04/30/2016		Ontario Wheel House to host an active transportation celebration/activities
05/11/2016		National Bike and Walk to School Day

Project name: City of Ontario -Safe Routes To School Infrastructure Improvement Project

VIII. APPLICATION SIGNATURES

Applicant: The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____ Date: 5/15/14
Name: Al C. Boling Phone: 909-395-2354
Title: City Manager e-mail: aboling@ci.ontario.ca.us

Local Agency Official (City Engineer or Public Works Director): The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____ Date: 5/14/14
Name: Louis Abi-Younes Phone: 909-395-2146
Title: City Engineer e-mail: labi-younes@ci.ontario.ca.us

School Official: The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature: _____ Date: _____
Name: Karla Wells Phone: 909-418-6436
Title: Assistant Superintendent e-mail: karla-wells@omsd.net

Person to contact for questions:

Name: Same as above Phone: _____
Title: e-mail: _____

Caltrans District Traffic Operations Office Approval*
If the application's project proposes improvements on a freeway or state highway that affects the safety or operations of the facility, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support or acknowledgement from the traffic operations office be attached (_) or the signature of the traffic personnel be secured below.

Signature: _____ Date: _____
Name: N/A Phone: _____
Title: _____ e-mail: _____

*Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm

Project name: SRTS -Bon View, Corona, Euclid, and Vineyard Elementary Schools

VIII. APPLICATION SIGNATURES

Applicant: The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____ Date: 5/14/14
Name: Scott Murphy Phone: 909-395-2419
Title: Planning Director e-mail: smurphy@ci.ontario.ca.us

Local Agency Official (City Engineer or Public Works Director): The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____ Date: _____
Name: Louis Abi-Younes Phone: 909-395-2146
Title: City Engineer e-mail: labi-younes@ci.ontario.ca.us

School Official: The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature: Karla Wells Date: 4·16·14
Name: Karla Wells Phone: 909-418-6436
Title: Assistant Superintendent e-mail: karla-wells@omsd.net

Person to contact for questions:

Name: Same as above Phone: _____
Title: e-mail: _____

Caltrans District Traffic Operations Office Approval*
If the application's project proposes improvements on a freeway or state highway that affects the safety or operations of the facility, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support or acknowledgement from the traffic operations office be attached (_) or the signature of the traffic personnel be secured below.

Signature: _____ Date: _____
Name: N/A Phone: _____
Title: _____ e-mail: _____

*Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm

Project name:	SRTS -Bon View, Corona, Euclid, and Vineyard Elementary Schools

VIII. APPLICATION SIGNATURES

Applicant: The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____ Date: _____
Name: Scott Murphy Phone: 909-395-2419
Title: Planning Director e-mail: smurphy@ci.ontario.ca.us

Local Agency Official (City Engineer or Public Works Director): The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____ Date: _____
Name: Louis Abi-Younes Phone: 909-395-2146
Title: City Engineer e-mail: labi-younes@ci.ontario.ca.us

School Official: The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature: Karla Wells Date: 4·16·14
Name: Karla Wells Phone: 909-418-6436
Title: Assistant Superintendent e-mail: karla-wells@omsd.net

Person to contact for questions:

Name: Same as above Phone: _____
Title: e-mail: _____

Caltrans District Traffic Operations Office Approval*
If the application's project proposes improvements on a freeway or state highway that affects the safety or operations of the facility, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support or acknowledgement from the traffic operations office be attached (_) or the signature of the traffic personnel be secured below.

Signature: _____ Date: _____
Name: N/A Phone: _____
Title: _____ e-mail: _____

*Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm

ATTACHMENT 1

Bon View Elementary Sidewalk Improvements

Legend

School Boundaries

- Bon View Elementary Boundary
- Bon View Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Bon View Elementary
- 1/2 Mile Buffer - Bon View Elementary

Secondary Map Symbols

- Parcel Boundaries
- Parks

CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 1A

Bon View Elementary Sidewalk Improvements (Photos)

127 Looking East

275 Looking North

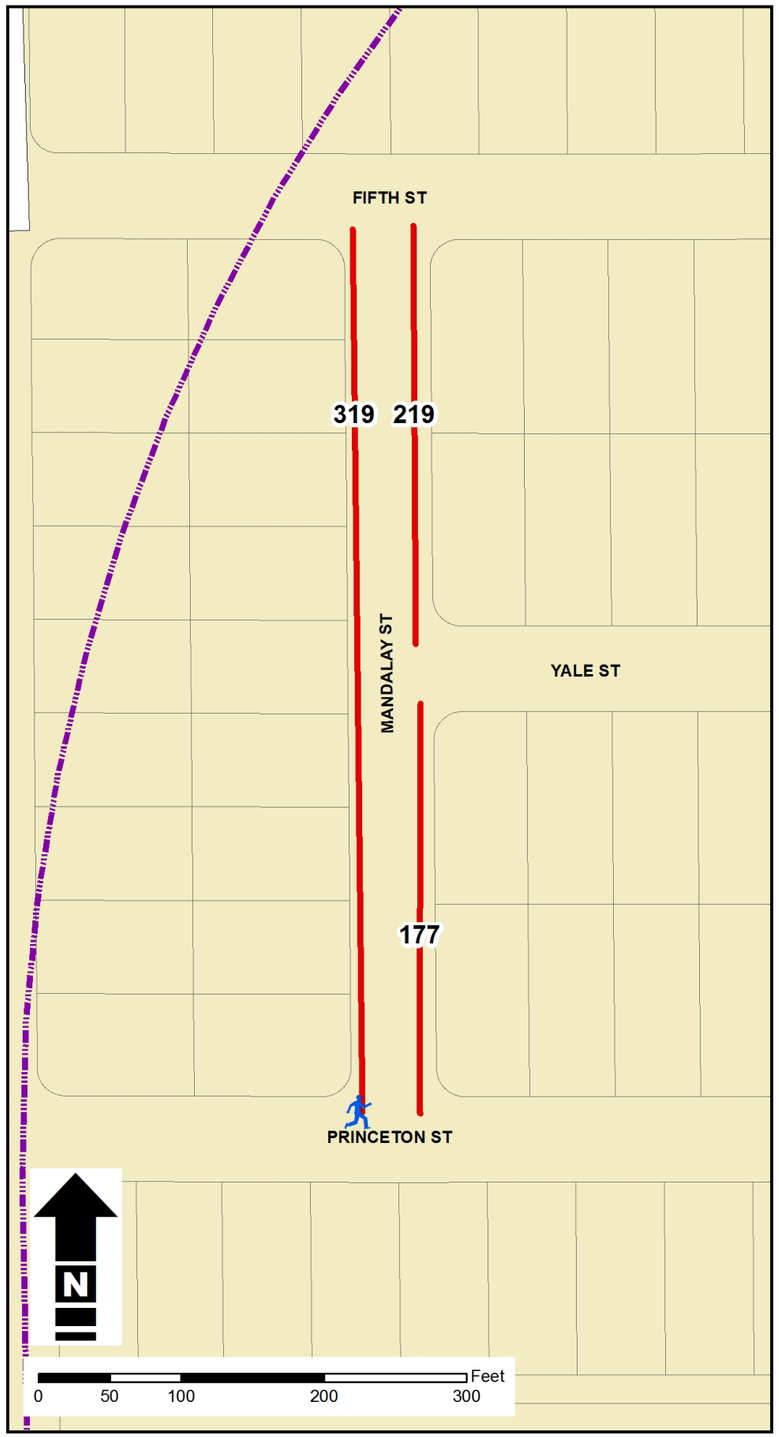
274 Looking North

58 Looking East

279 Looking North

52 Looking East

76 Looking West



ATTACHMENT 2

Corona Elementary Sidewalk Improvements

Legend

School Boundaries

- Corona Elementary Boundary
- Corona Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Corona Elementary
- 1/2 Mile Buffer - Corona Elementary

Secondary Map Symbols

- Bus Route 83
- Parcel Boundaries
- Parks

CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 2A

Corona Elementary Sidewalk Improvements (Photos)

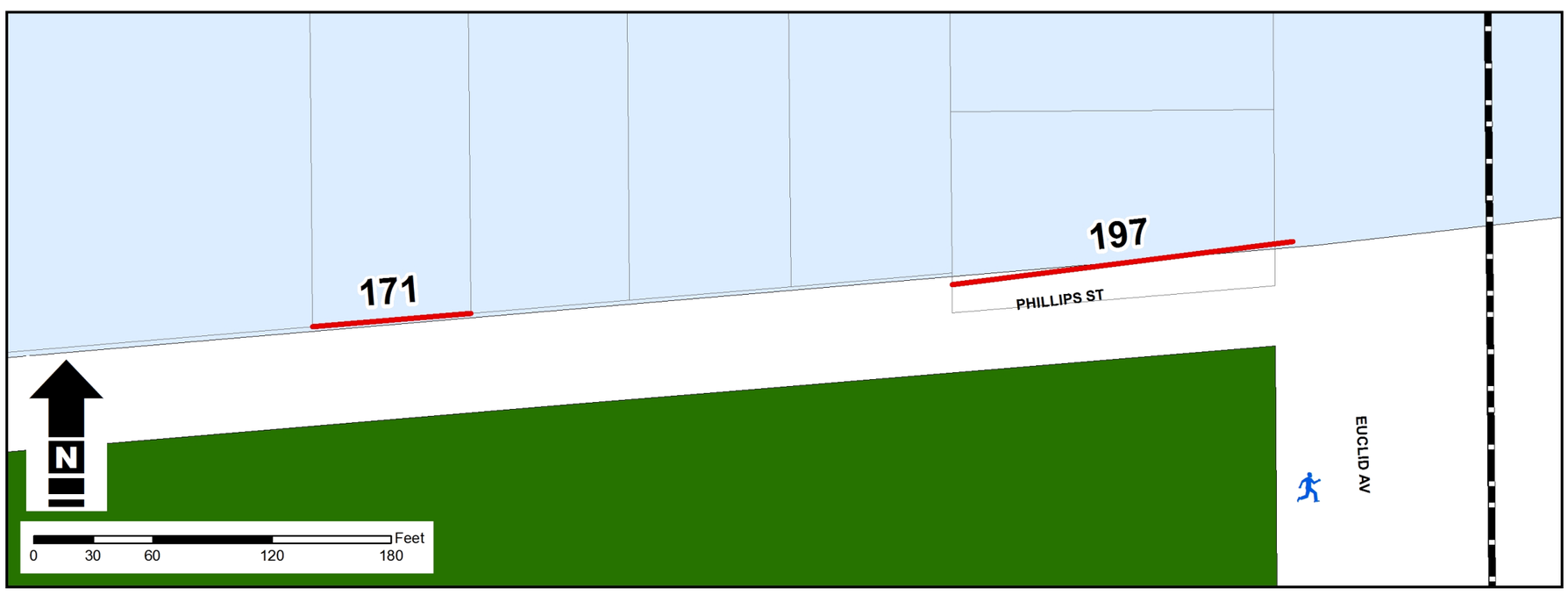
319 Looking South West

219 Looking South East

219 Looking North East

ATTACHMENT 3

Euclid Elementary Sidewalk Improvements



Legend

School Boundaries

- Euclid Elementary Boundary
- Euclid Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Euclid Elementary
- 1/2 Mile Buffer - Euclid Elementary

Secondary Map Symbols

- Bus Route 83
- Parcel Boundaries
- Parks
- Community Center

CITY OF ONTARIO

May 21, 2014

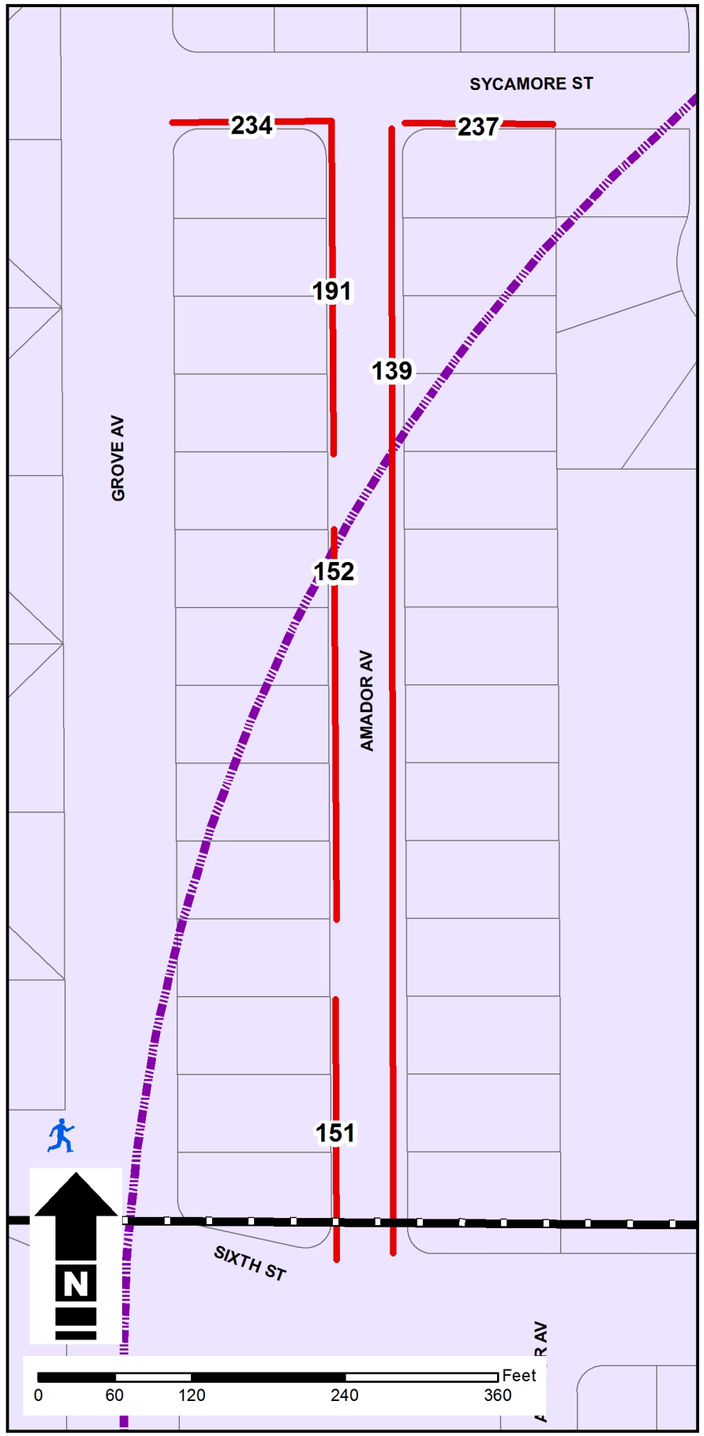
Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 3A

Euclid Elementary Sidewalk Improvements (Photos)

171 Looking West

197 Looking West



ATTACHMENT 4

Vineyard Elementary Sidewalk Improvements

Legend

School Boundaries

- Vineyard Elementary Boundary
- Vineyard Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Vineyard Elementary
- 1/2 Mile Buffer - Vineyard Elementary

Secondary Map Symbols

- Bus Route 83
- Parcel Boundaries
- Parks

CITY OF ONTARIO

May 21, 2014

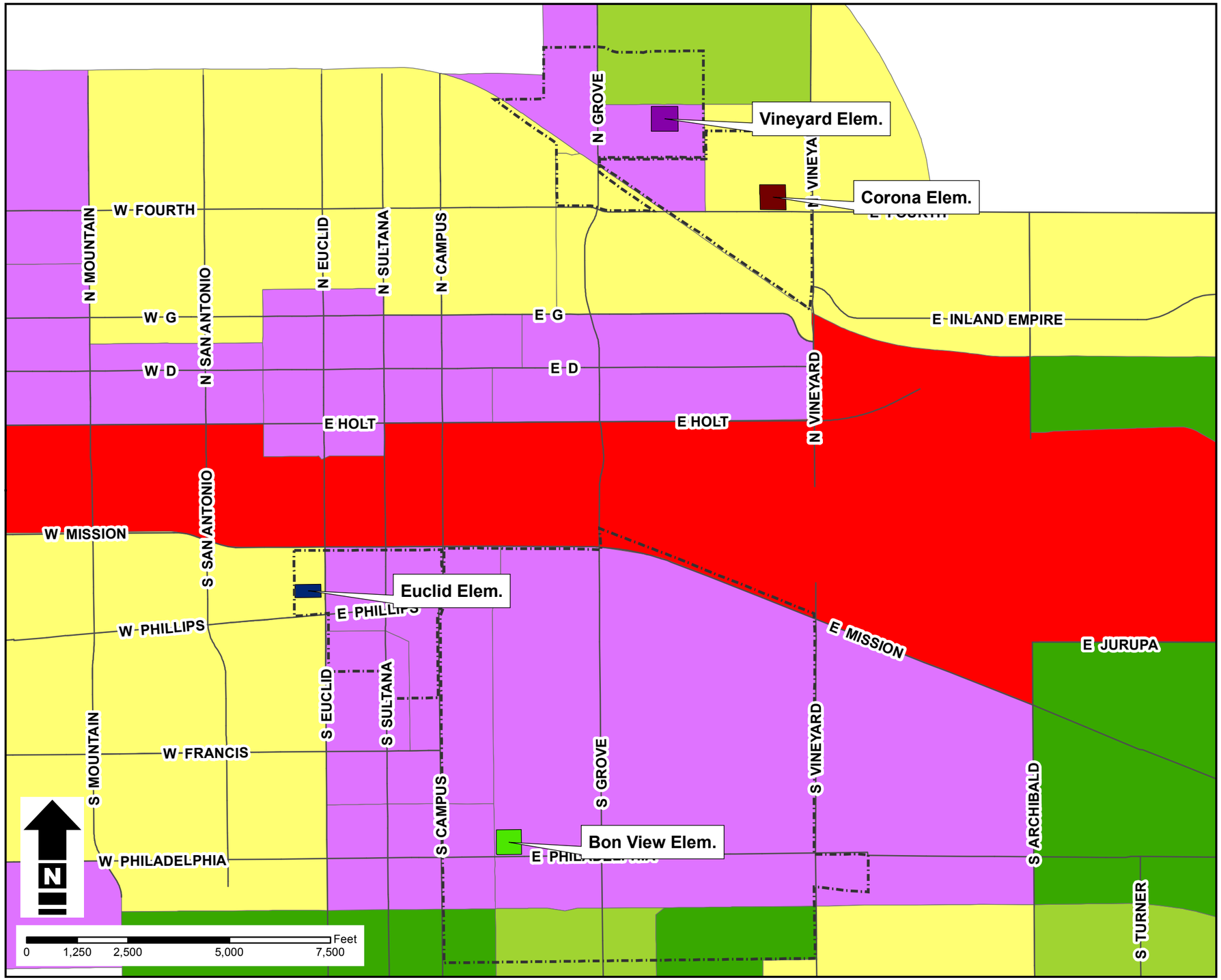
Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 4A

Vineyard Elementary Sidewalk Improvements (Photos)

ATTACHMENT 5

Median Income
By Census Tract



Legend

Elementary School Locations

- Bon View Elementary
- Corona Elementary
- Euclid Elementary
- Vineyard Elementary
- Elementary School Boundaries

Median Income

- Less than 50% of State Median ($30,173 - $30,700)
- 50% - 80% of State Median ($30,701 - $49,120)
- 80% - 100% of State Median Income ($49,121 - $61,400)
- 100% - 120% of State Median ($61,401 - $73,680)
- Greater than 120% of State Median (greater than $73,681)

Secondary Map Symbols

- Major Streets

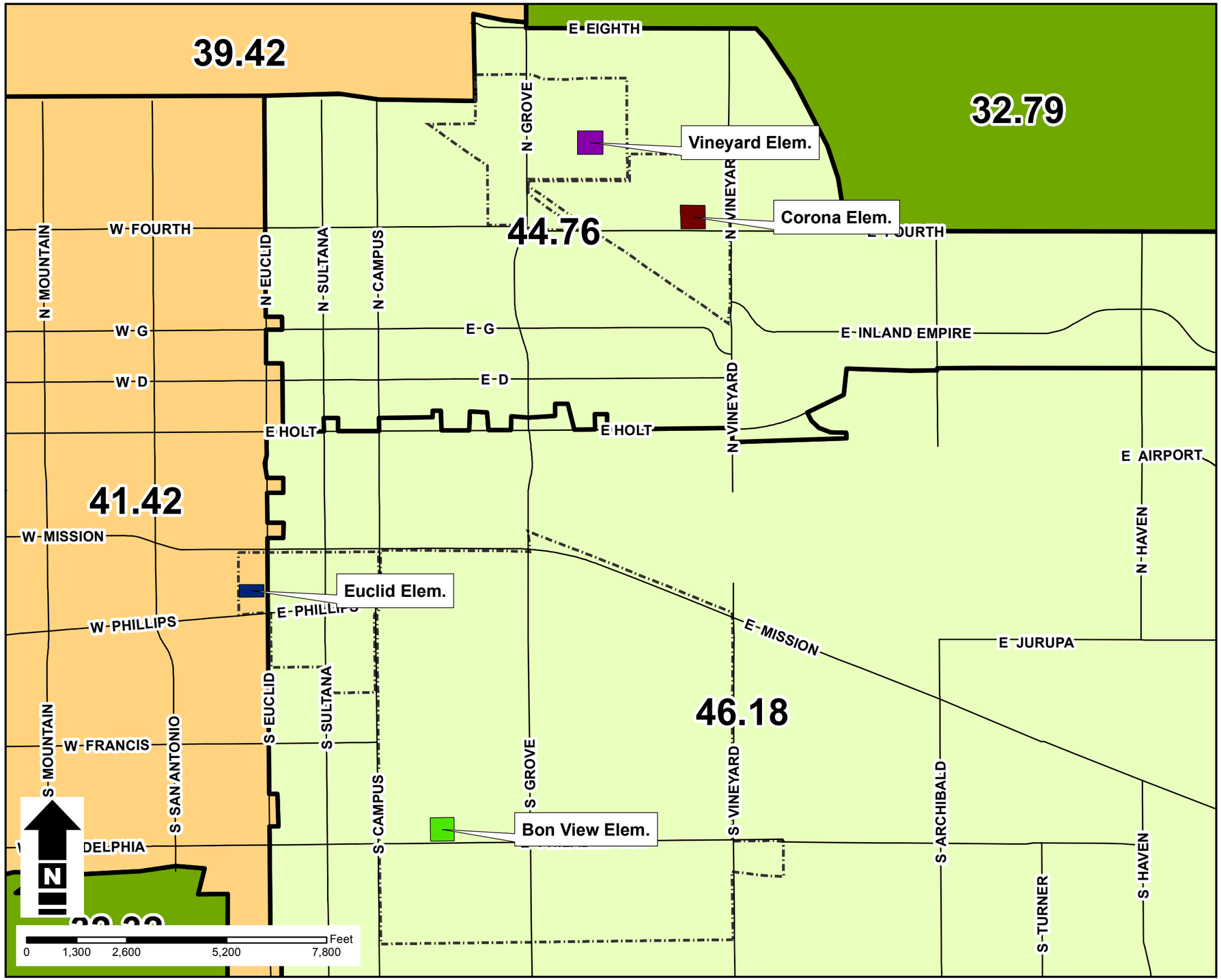
CITY OF ONTARIO

May 21, 2014

Source: 2012 American Community Survey

ATTACHMENT 6

CAL Environ Score
Disadvantaged Communities



Legend

Elementary School Locations

- Bon View Elementary
- Corona Elementary
- Euclid Elementary
- Vineyard Elementary
- Elementary School Boundaries

CAL Environ Score

- 96-100% (highest scores)
- 91-95%
- 86-90%
- 81-85%

Secondary Map Symbols

- Major Streets

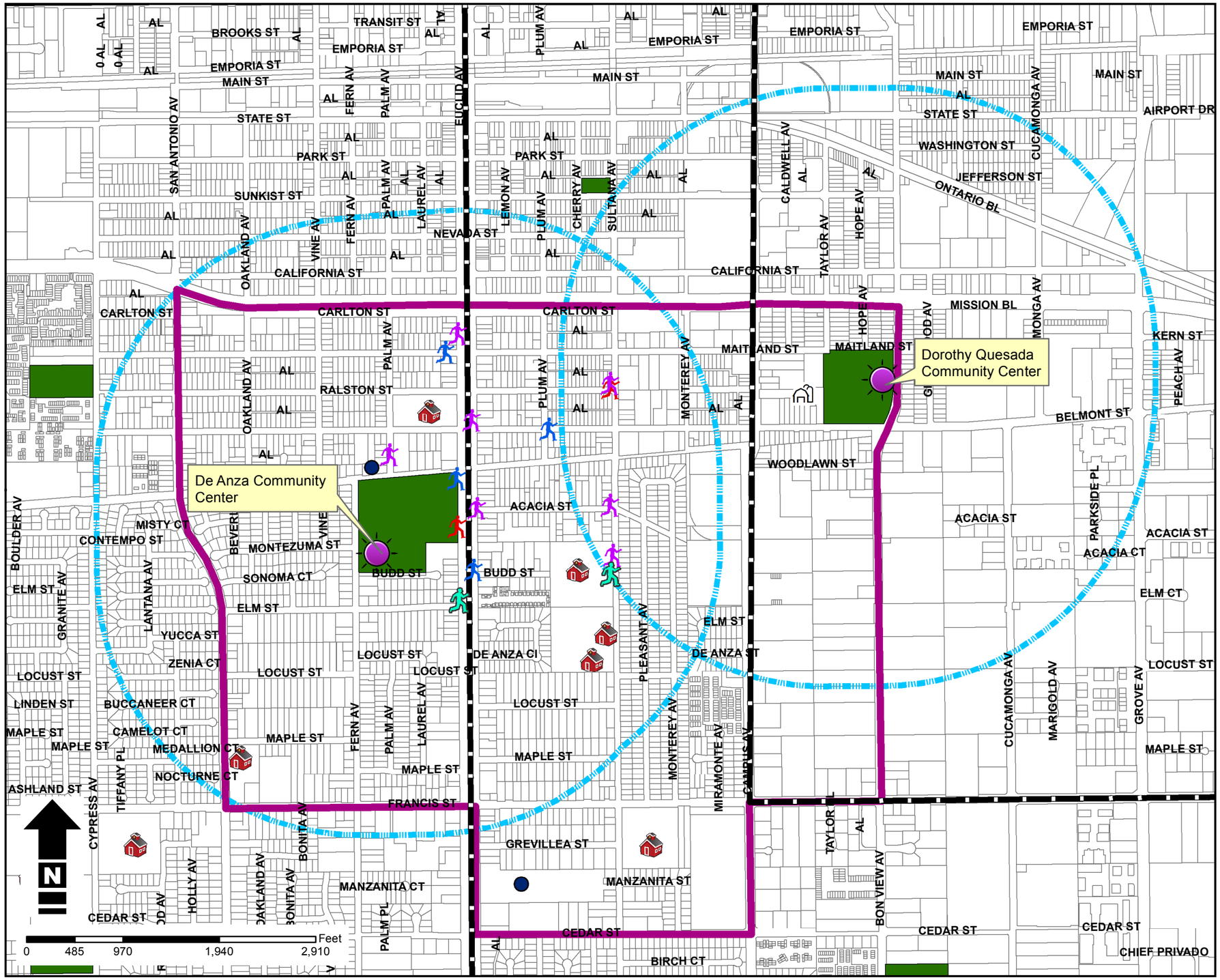
CITY OF ONTARIO

May 21, 2014

Source: California Communities Environmental Health Screening Tool Version1.1

ATTACHMENT 7

Community Centers Surrounding Land Uses & Pedestrian Accidents



Legend

- Public School
- Private School
- College or University
- Community Center
- Bus Route
- Parcel Boundaries
- Parks
- 1/2 Mile Buffer - Community Centers
- Heal Zone Project Area

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

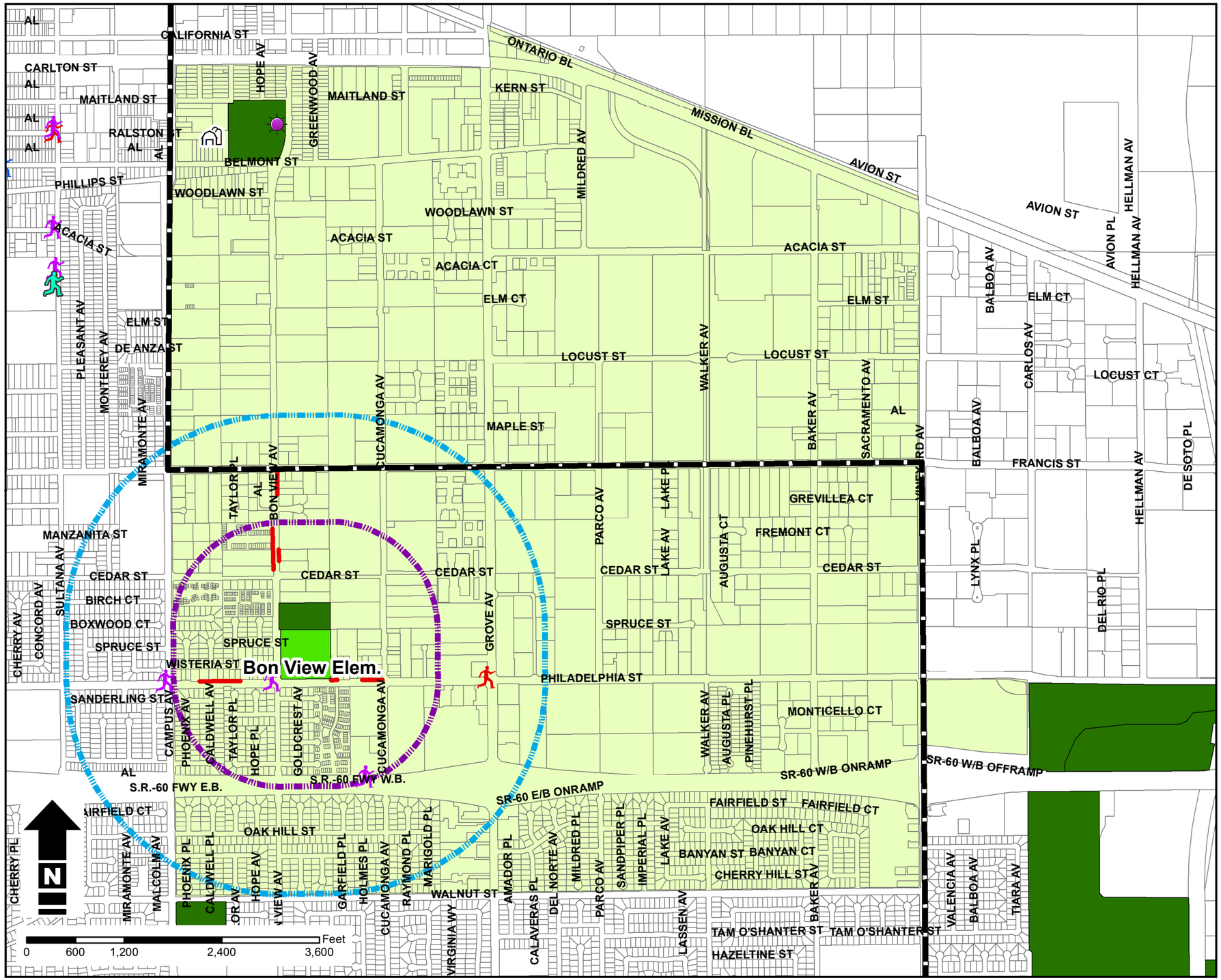
CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 8

Bon View Elementary Pedestrian Accidents & Sidewalk Improvements



Legend

School Boundaries

- Bon View Elementary Boundary
- Bon View Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Bon View Elementary
- 1/2 Mile Buffer - Bon View Elementary

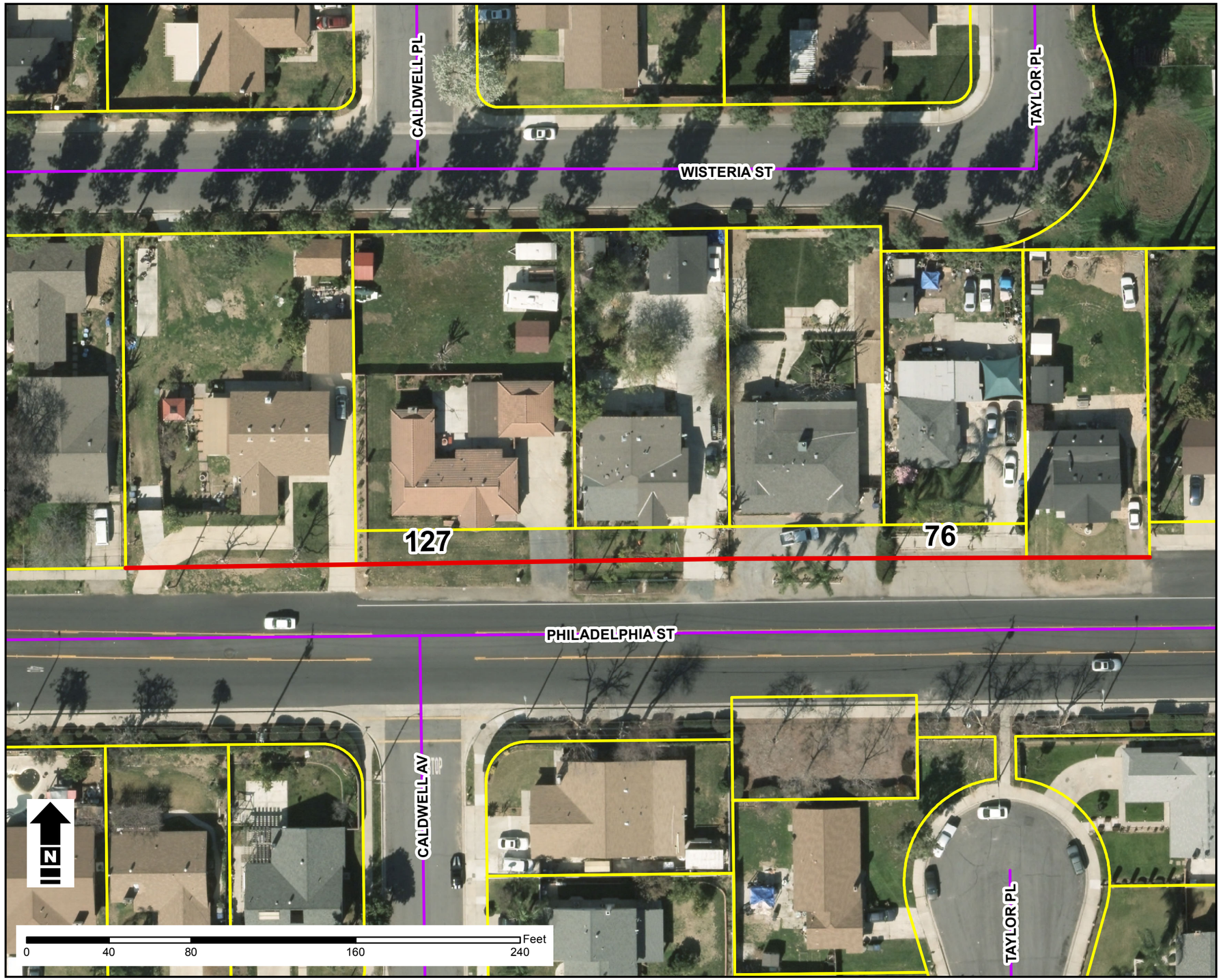
Secondary Map Symbols

- Bus Route
- Parcel Boundaries
- Parks
- Community Center
- Community Garden

CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)



ATTACHMENT 8A

Philadelphia Street Sidewalk Improvement Aerial

Legend

Parcel Property Lines

Street Centerlines

Infrastructure Improvements

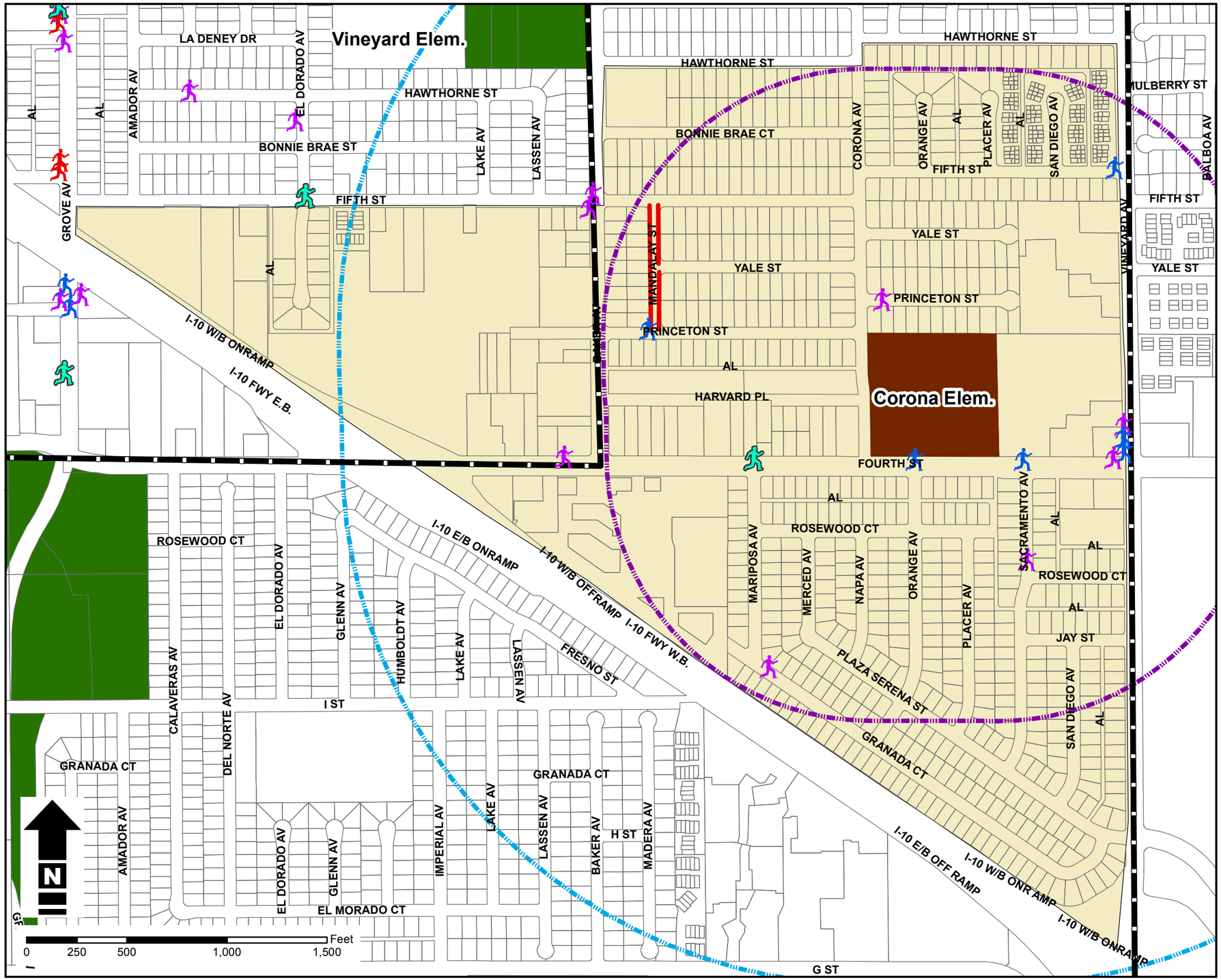
Sidewalk Improvement Segments

CITY OF ONTARIO

May 21, 2014

ATTACHMENT 9

Corona Elementary Pedestrian Accidents & Sidewalk Improvements



Legend

School Boundaries

- Corona Elementary Boundary
- Corona Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Corona Elementary
- 1/2 Mile Buffer - Corona Elementary

Secondary Map Symbols

- Bus Route
- Parcel Boundaries
- Parks

CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 10

Euclid Elementary Pedestrian Accidents & Sidewalk Improvements

Legend

School Boundaries

- Euclid Elementary Boundary
- Euclid Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Euclid Elementary
- 1/2 Mile Buffer - Euclid Elementary

Secondary Map Symbols

- Bus Route
- Parcel Boundaries
- Parks
- Community Center

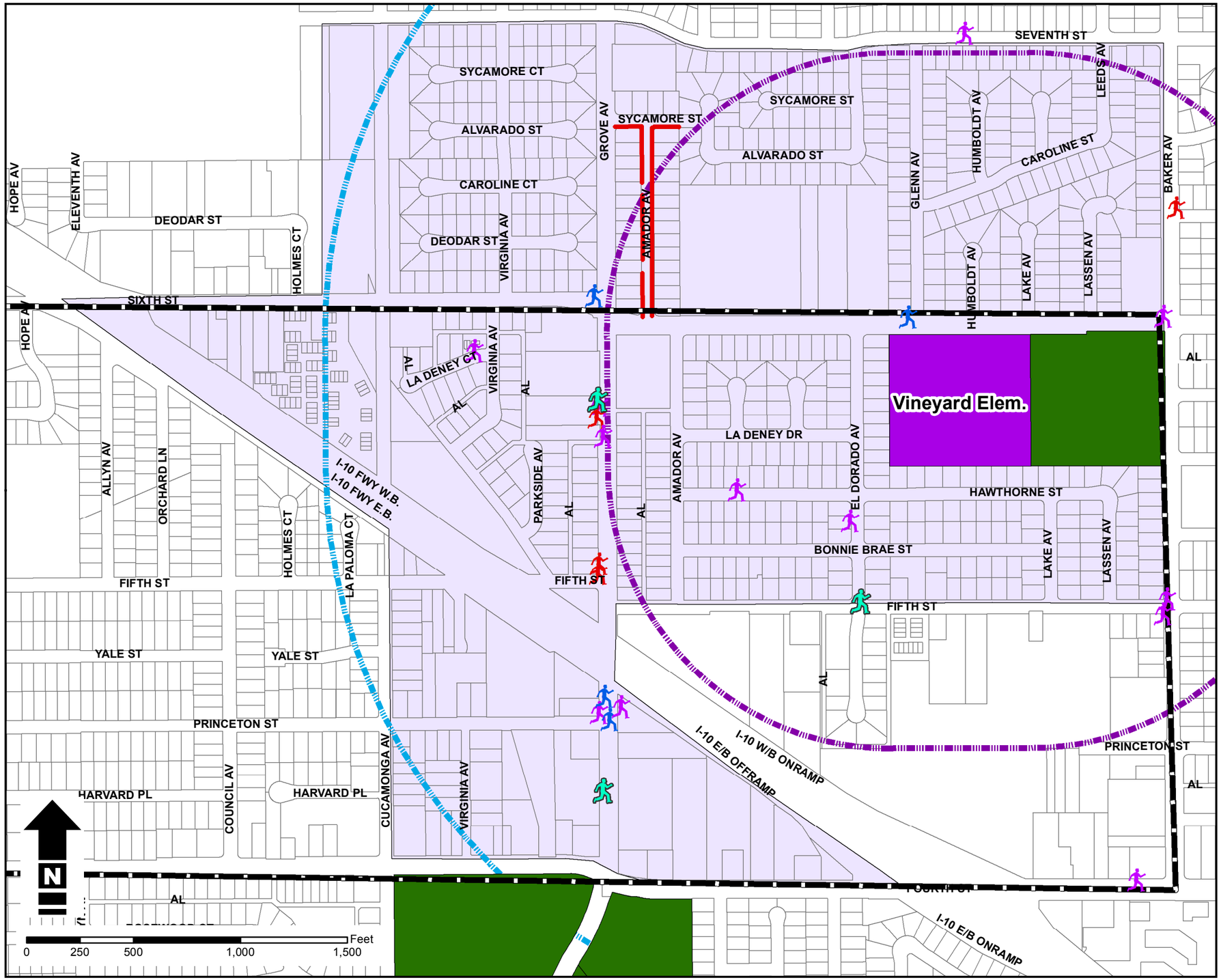
CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 11

Vineyard Elementary Pedestrian Accidents & Sidewalk Improvements



Legend

School Boundaries

- Vineyard Elementary Boundary
- Vineyard Elementary (School Site)

Pedestrian Accidents

- 1 - Fatal
- 2 - Severe Injury
- 3 - Visible Injury
- 4 - Complaint of Pain

Infrastructure Improvements

- Sidewalk Improvement Segments

School Distance Buffers

- 1/4 Mile Buffer - Vineyard Elementary
- 1/2 Mile Buffer - Vineyard Elementary

Secondary Map Symbols

- Bus Route
- Parcel Boundaries
- Parks

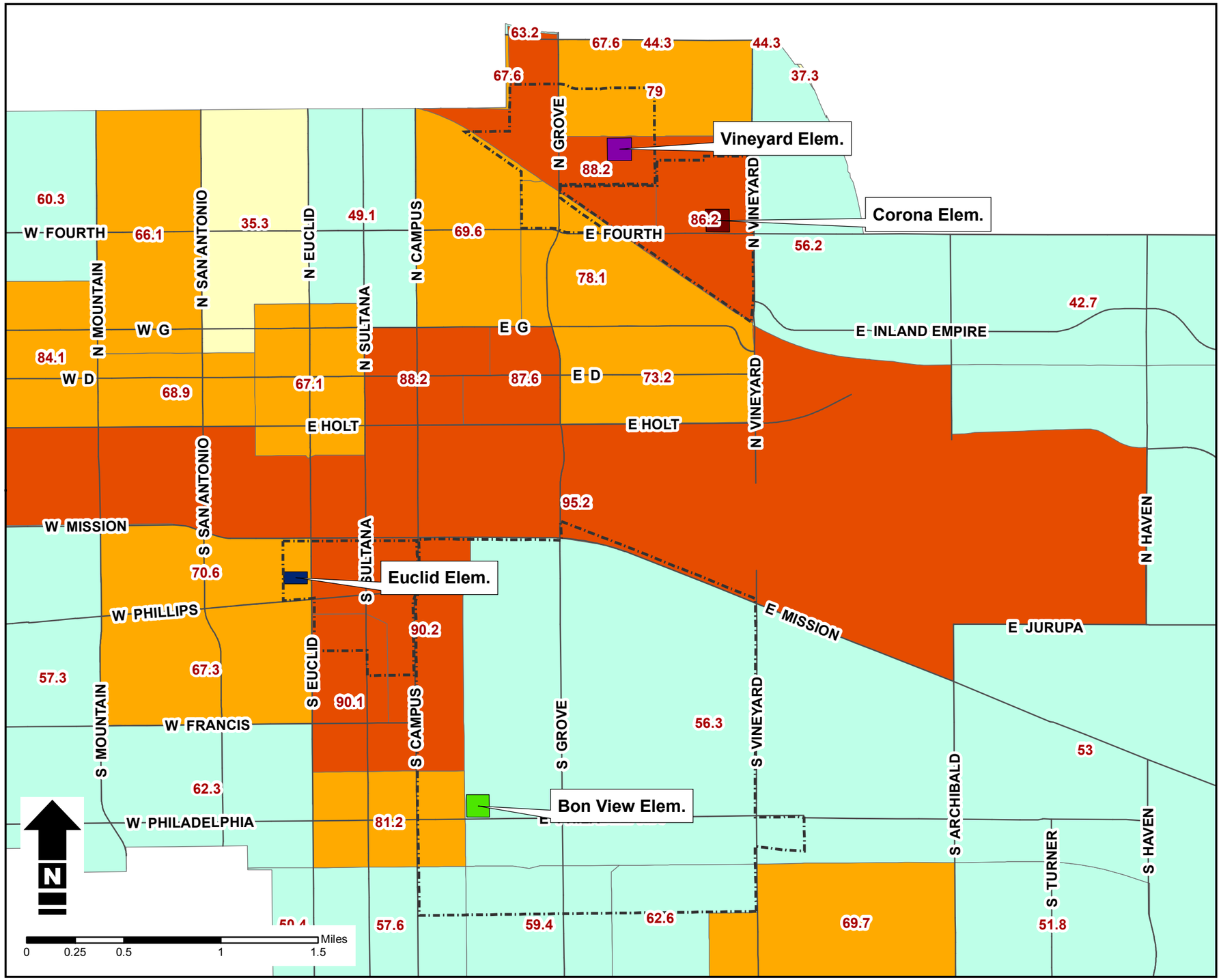
CITY OF ONTARIO

May 21, 2014

Source: Transportation Injury Mapping System
Statewide Integrated Traffic Record System (SWITRS)

ATTACHMENT 12

Percentage of Hispanic Population by Census Tract



Legend

Elementary School Locations

- Bon View Elementary
- Corona Elementary
- Euclid Elementary
- Vineyard Elementary
- Elementary School Boundaries

Percentage of Hispanic Population

- 0 % - 40 %
- 41% - 65%
- 65% - 85%
- Greater than 85%

Secondary Map Symbols

- Major Streets

CITY OF ONTARIO

May 21, 2014

Source: American Community Survey 2012

Benefit / Cost Calculation Result

1. Project Information

Application ID	City of Ontario SRTS 2014	Version	1

2. Countermeasures and Crash Data

Crash Data Time Period	01/01/2003	to	12/31/2011	Years	9

- Install sidewalk / pathway (to avoid walking along roadway)

CM Number	Project Type	Crash Type	CRF	Life
R37	Ped and Bike	Ped & Bike	80	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Ped & Bike	7	6	27	13	0	53

Annual Benefit	$ 2,851,111	Cost	$ 1,163,680
Life Benefit	$ 57,022,222	B/C Ratio	**49.00**

3. Benefit Cost Result

Total Benefit	$ 57,022,222
Total Cost	$ 1,163,680
B/C Ratio	**49.00**

Safety Practitioner / Engineer: Nabil Kassih

Signature: Nabil Kassih

By signing this B/C Calculation Result, you are attesting to your authority / responsibility at your local agency for this work and you are attesting to the accuracy of the values on this page and that they have been entered into the HSIP Application Form correctly, DO NOT SIGN if any of this is not the case.

ENGINEER'S ESTIMATE - SR2S/ATP - ONTARIO PROJECT AREAS

NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
1	Earthwork, Clear & Grub, Restores, Relocs (Incl.walls/fences/mailbo	1	LS.	$64,000.00	$64,000.00
2	Remove A.C. pavement	235	S.Y.	$50.00	$11,750.00
3	Remove PCC Sidewalk (Ramp and non-compliant locations)	4,650	S.F.	$6.00	$27,900.00
4	Remove PCC Curb & Gutter	314	L.F.	$15.83	$4,970.62
5	Remove PCC Drive Approach	20,724	S.F.	$4.00	$82,896.00
6	Remove PCC Cross Gutter/Spandrel		S.F.	$4.26	$0.00
7	Remove Tree	80	E.A.	$1,500.00	$120,000.00
8	Cold Plane A.C. Pavement	2,589	S.Y.	$3.00	$7,767.00
9	Construct A.C. Leveling Course		S.Y.	$4.00	$0.00
10	Construct ARHM Overlay (0.15')		T.N.	$80.00	$0.00
11	Construct Conventional AC Pavement	500	T.N.	$150.00	$75,000.00
12	Construct Aggregate Base		T.N.	$62.01	$0.00
13	Construct AC Dike	855	L.F.	$20.00	$17,100.00
14	Construct Type B Curb & Gutter (24")	1,350	L.F.	$36.81	$49,693.50
15	ConstructPCC Sidewalk -w-retaining curb	10,065	S.F.	$8.50	$85,552.50
16	Construct PCC Sidewalk	29,945	S.F.	$6.00	$179,670.00
17	Construct PCC Access Ramp (w/detec. surface)	2,392	S.F.	$15.00	$35,880.00
18	Construct PCC Drive Approach	17,758	S.F.	$7.98	$141,708.84
19	Construct PCC Cross-Gutter/Spandrel		S.F.	$9.98	$0.00
20	Install Parkway Tree	71	E.A.	$600.00	$42,600.00
21	Adjust Water Valve to Grade		E.A.	$101.53	$0.00
22	Adjust MH Ring and Cover to Grade		E.A.	$428.00	$0.00
23	Striping		LS.	$4,500.00	$0.00
24	Construct Watermain (8" Ductile Iron Pipe)		L.F.	$52.00	$0.00
25	Construct 1" Water Service		E.A.	$917.00	$0.00
26	Relocate Fire Hydrant Assembly	6	E.A.	$4,157.00	$24,942.00
27	Construct 8" Gate Valve		E.A.	$1,213.00	$0.00
28	PVC Curb Drain	5	E.A.	$400.00	$2,000.00
29	Construct AC Dike -w-AC Walkway	450	L.F.	$28.00	$12,600.00
30	Install 2x4 Redwood Header	1,335	L.F.	$4.00	$5,340.00
31	Slot Grind		S.Y.	$4.00	$0.00
32					$0.00
33					$0.00
	Construction Subtotal				$991,370.46
	Traffic Control (6.5% of const. subtotal)	1	LS.	$64,439.08	$64,439.08
	Std. Construction Contract Contingency (15%)				
	CIP planning contingency (10%) (see note 2)	0			$0.00
	Construction Total				$1,055,809.54
	Consultant Topo and Base Maps (9% of Const.)	0	LS.	$0.00	$0.00
	Consultant Material Testing, Geotechnical Services	1	LS.	$0.00	$0.00
	Consultant Design (10% of Construction)	1	LS.	$105,581.00	$105,581.00
	Consultant Const. Mgmt. (15% of Construction)	0	LS.	$0.00	$0.00
	Advertising/Promotional & Duplicating Expense	1	LS.	$2,500.00	$2,500.00
	Property Acquisition Exp. (In-Fee and Easements)	1	LS.	$35,000.00	$35,000.00
	Legal Expenses	0	LS.	$0.00	$0.00
GSH	**TOTAL PROJECT COST**				**$1,163,890.54**

26. SCHOOL NAME & ADDRESS: CORONA ELEMENTARY, 1140 North Corona Ave. Ontario, CA 91764-2626		
27. SCHOOL DISTRICT NAME & ADDRESS: Ontario Montclair School District, 950 West "D" Street, Ontario, CA 91762		
28. County-District-School Code (CDS) **36 67819 6036172**	29. Total Student Enrollment **663**	30. Percentage of students eligible for free or reduced meal programs ** **95.79**%
31. Percentage of students that currently walk or bike to school **63.85%**	32. Approximate # of students living along school route proposed for improvement **121**	33. Project distance from primary or middle school **Within .25 miles from school**

26. SCHOOL NAME & ADDRESS: EUCLID ELEMENTARY SCHOOL, 1120 South Euclid Ave., Ontario, CA 91762-5119		
27. SCHOOL DISTRICT NAME & ADDRESS: Ontario Montclair School District, 950 West "D" Street, Ontario, CA 91762		
28. County-District-School Code (CDS) **36678196036255**	29. Total Student Enrollment **600**	30. Percentage of students eligible for free or reduced meal programs ** **97.23%**
31. Percentage of students that currently walk or bike to school **41.54%**	32. Approximate # of students living along school route proposed for improvement **133**	33. Project distance from primary or middle school **Within .25 miles from school**

26. SCHOOL NAME & ADDRESS: VINEYARD MAGNET ELEMENTARY SCHOOL, 1500 East Sixth St., Ontario, CA 91764-2113		
27. SCHOOL DISTRICT NAME & ADDRESS: Ontario Montclair School District, 950 West "D" Street, Ontario, CA 91762		
28. County-District-School Code (CDS) **36678196036446**	29. Total Student Enrollment **601**	30. Percentage of students eligible for free or reduced meal programs ** **86.35%**
31. Percentage of students that currently walk or bike to school **54.87%**	32. Approximate # of students living along school route proposed for improvement **85**	33. Project distance from primary or middle school **Within .25 miles from the school**

Karen S. Thompson

From: Karen S. Thompson
Sent: Monday, April 21, 2014 11:34 AM
To: 'Virginia.clark@ccc.ca.gov'; 'calocalcorps@gmail.com'
Subject: City of Ontario-Active Transportation Proposal
Attachments: 2014506 ATP Grant CC Authorization^06 EXH School Locations.pdf

Hi Virginia and Cynthia,

The City of Ontario is preparing an Active Transportation Program (ATP) Proposal for a Safe Routes to School infrastructure project. Below is general description and cost estimate of the project.

- Project Description: The project provides for the construction of sidewalk at various locations throughout the City (see attached map) which are regularly traveled by students walking to-and-from school and where there are presently no existing pedestrian walkway facilities. The construction of walk facilities will require a varied scope of work which will include pcc sidewalk construction, pcc drive approach reconstruction, meter/utility relocations, earthwork/grading, asphalt concrete paving, access ramp construction, masonry block wall removal/modification/construction (retaining) and other appurtenant items of work (including minor right-of-way acquisition) necessary to construct the proposed walkway facilities and modify the adjacent existing improvements as necessary.
- Map: See attached
- Schedule: Once funding is allocated for the project, Staff will begin the environmental, design/right-of-way acquisition phase of the project. Environmental/ Design/Right-of-way acquisition will take approximately one year (1-year) to complete. Once this phase of work have been completed, authorization to bid/award the project will be requested. The bid/award process will take approximately three months (3 months). Once the bid has been awarded, construction should last approximately four months (4 months). TOTAL PROJECT TIME FROM AUTHORIZATION TO COMPLETION OF CONSTRUCTION: APPROXIMATELY 19 MONTHS (1-year and 7 months.).
- Costs: $1,164,000 has been requested for all phases of the project.
- Preliminary Plans: "Preliminary Plans" are not scheduled for preparation for this project.

Thank you for your consideration and please feel free to contact me at the number below if should require additional information.

Karen S. Thompson
Associate Planner
City of Ontario/ Planning Department
Healthy Ontario Program
303 East B Street/Ontario, CA 91764
(909) 395-2459
kthompson@ci.ontario.ca.us

Set ONTario Free!
Dedicated to returning our airport to local control

School Locations for ATP Grant Application

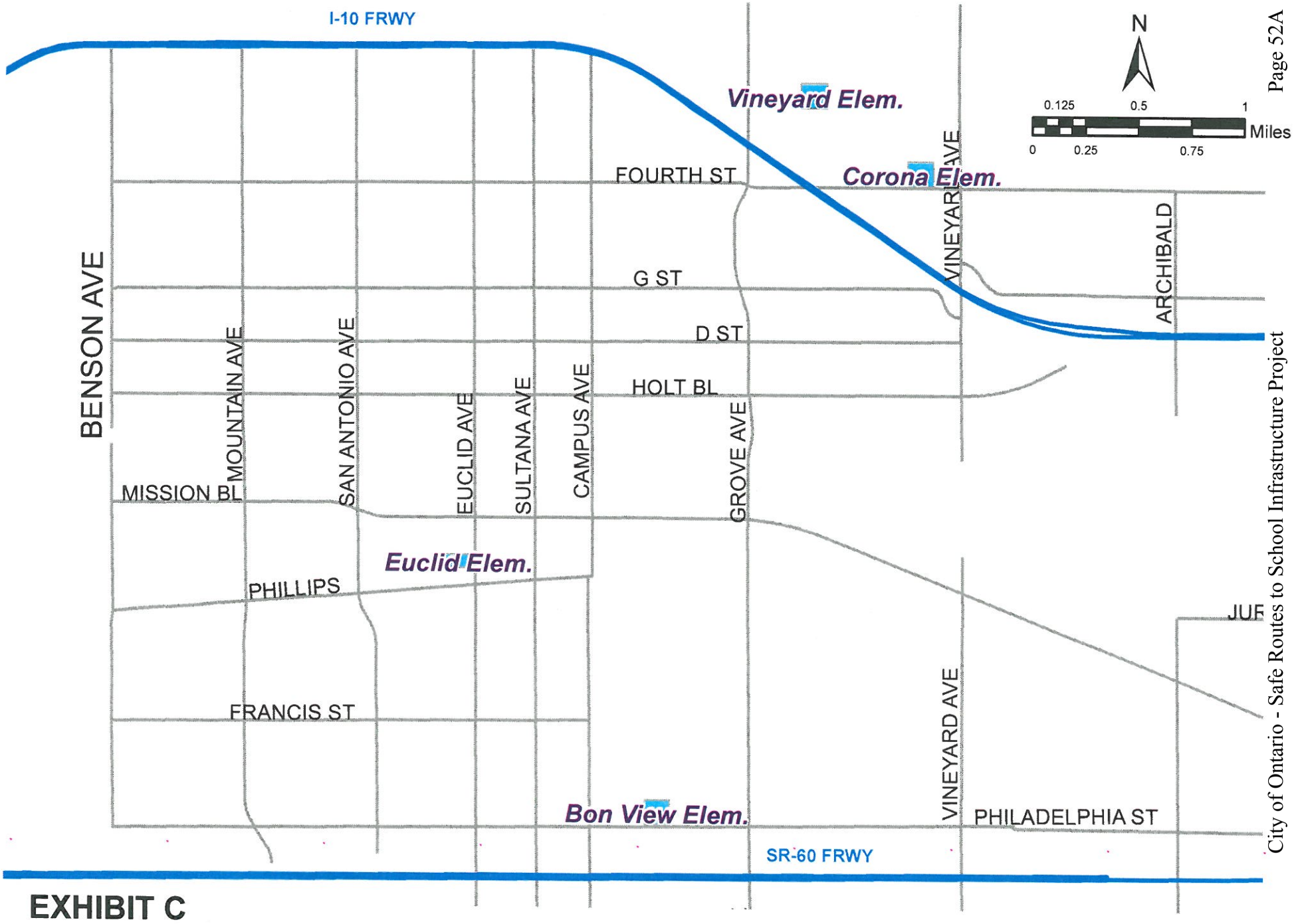


EXHIBIT C

From: Clark, Virginia@CCC
To: Karen S. Thompson
Cc: calocalcorps@gmail.com; Dulay, Jennifer@CCC; Wilson, Duane@CCC
Subject: FW: City of Ontario-Active Transportation Proposal
Date: Wednesday, May 14, 2014 4:51:57 PM
Attachments: image001.jpg
image002.png
image003.gif

Karen

CHANGE OF DECISION . The CCC definitely **DOES WANT TO** participate with you on this ATP project

Virginia Clark
Region Deputy, Region 1
hardhat

California Conservation Corps
(916) 341-3147
fx(877) 834-4177
virginia.clark@ccc.ca.gov

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL
Visit our web site at **www.ccc.ca.gov** for more information about the California Conservation Corps
Visit our web site at **www.WatershedStewards.com** for more information about the Watershed Stewards Program

---

From: Dulay, Jennifer@CCC
Sent: Wednesday, May 14, 2014 3:28 PM
To: Clark, Virginia@CCC
Cc: Wilson, Duane@CCC
Subject: Re: City of Ontario-Active Transportation Proposal

Hi Virginia

I just left you a phone message. Is it too late to say yes to Ontario? Karen is a huge advocate for utilizing local youth and wants to create an apprenticeship for Corpsmembers.

So if it's not too late we would like to help out.

Connected by Motorola

"Clark, Virginia@CCC" <Virginia.Clark@CCC.CA.GOV> wrote:

Karen,
The CCC will not be opting to participate in your ATP project.
Thank you

Virginia Clark
Region Deputy, Region 1
hardhat

California Conservation Corps
(916) 341-3147
fx(877) 834-4177
virginia.clark@ccc.ca.gov

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL
Visit our web site at www.ccc.ca.gov for more information about the California Conservation Corps
Visit our web site at www.WatershedStewards.com for more information about the Watershed Stewards Program

---

From: Dulay, Jennifer@CCC
Sent: Wednesday, May 14, 2014 11:44 AM
To: Clark, Virginia@CCC
Cc: Wilson, Duane@CCC
Subject: Re: City of Ontario-Active Transportation Proposal

Pomona will not participate on this one.

Thank you.

Connected by Motorola

"Clark, Virginia@CCC" <Virginia.Clark@CCC.CA.GOV> wrote:

Please review this ATP project and let me know your interest

Connected by Motorola

-------- Original Message --------
Subject: City of Ontario-Active Transportation Proposal
From: "Karen S. Thompson" <kthompson@ci.ontario.ca.us>
To: "Clark, Virginia@CCC" <Virginia.Clark@CCC.CA.GOV>,"'calocalcorps@gmail.com'" <calocalcorps@gmail.com>
CC:

Hi Virginia and Cynthia,

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should require additional information.

Karen S. Thompson
Associate Planner
City of Ontario/ Planning Department
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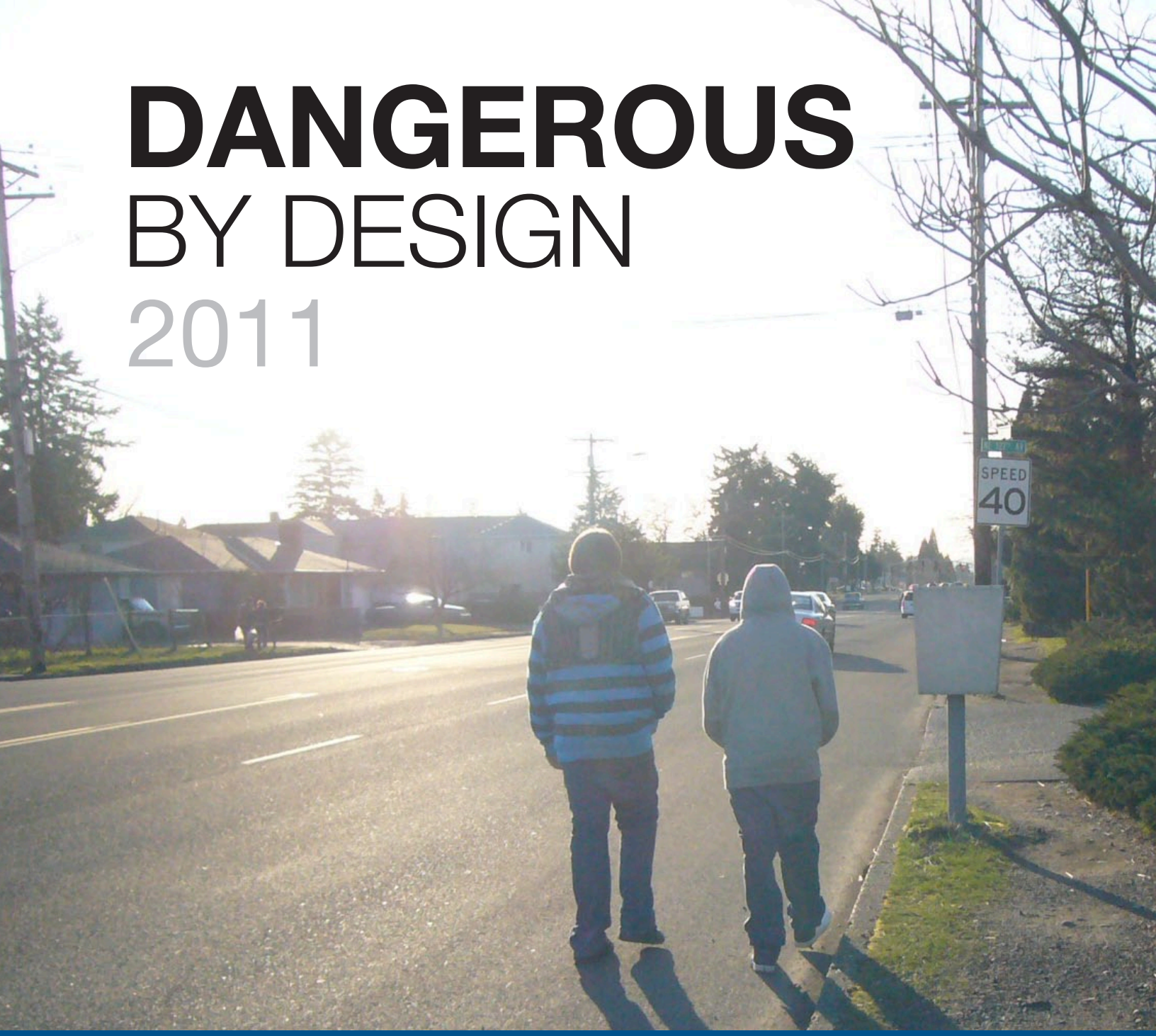
Home

REFERENCES

1	Transportation for America, ***Dangerous By Design 2011***
2	Safe Routes to School National Partnership; **Travel to School in California: Key Findings from the National Household Travel Survey** 2013.
3	Boarnet et al: **California's Safe Routes to School Program: Impacts on Walking, Bicycling, and Pedestrian Safety** Journal of American Planning Association, 2005 71:3
4	Staunton et al; ***Promoting Safe Walking and Biking to School: The Marin County Success Story*** American Journal of Public Health 2003 93:9
5	Furle et al: **Active Transportation and Cardiovascular Disease Risk Factors in U.S. Adults** American Journal of Preventive Medicine 2012;43:621-628.
6	Hamer M., Chida Y., **Active Commuting and cardiovascular risk: a meta-analytic review**. Preventive Medicine 2008 46:9-13.
7	Centers for Disease Control and Prevention. *Strategies to event Obesity and Other Chronic Diseases:* ***The CDC Guide to Strategies to Increase Physical Activity in the Community*****.** Atlanta: U.S. Department of Health and Human Services; 2011.
8	Pizarro et al**: Is walking to school associated with improved metabolic health?** International Journal of Behavioral Nutrition and Physical Activity 2013, 10:12
	California Environmental Protection Agency*, "***California Communities Environmental Health Screening Tool, Version 1.1'***, Office of Environmental Health Hazard Assessment,* September 2013. http;//oehha.ca.gov/ej/ces11.html 9accessed 2014).
	California Department of Public Health and California Conference of Local Health Offices*, "**County Health Status Profiles 2014."*** **http://oehha.ca.gov/programs/ohir/Documents/OHIRProfiles2014.pdf (accessed 2014).**
	County of San Bernardino, "San Bernardino County: Our Community Vital Signs." Community Vital Signs Initiative 2013. http://communityvitalsigns.org/Portals/41/OurCommunityVitalSigns2013FinalReport.pdf (accessed 2014)

DANGEROUS BY DESIGN 2011



CALIFORNIA

Solving the Epidemic of Preventable Pedestrian Deaths
(And Making Great Neighborhoods)

Transportation for America

California 2000-2009 Overview

6,957 pedestrians were killed in California between 2000 and 2009.

67 percent of all pedestrian fatalities occurred on roads that are eligible to receive federal funding for construction or improvement, with federal guidelines or oversight for their design.

Especially when combined with unsafe street and road design, vehicle speed presents a deadly threat to pedestrians. Nearly **60 percent** of pedestrian fatalities from 2000 to 2009 occurred on roads with speed limits of 40 mph or greater. Pedestrians have only a **15 percent** chance of surviving a collision with a car traveling 40 mph.

Too many arterial roads, even in urban areas, are simply not designed to accommodate pedestrians and sometimes lack sidewalks altogether. Of the 47,452 pedestrian fatalities for which the location of the collision is known, more than **40 percent** occurred where no crosswalk was available. And just **ten percent** of pedestrian fatalities occurred inside a crosswalk.

African-Americans and Hispanics are killed in disproportionate numbers. In California between 2000 and 2007, the average pedestrian death rate for Hispanics was **3.1** per 100,000 people, a rate 97 percent higher than the **1.6** rate for non-Hispanic whites. The average pedestrian death rate for African-Americans was **2.8** per 100,000 persons, a rate almost 83 percent higher than for non-Hispanic whites.

Nationwide, older Americans are nearly twice as likely to be killed while walking than those under 65 years of age. A total of 8,458 pedestrians 65 and over were killed between 2000 and 2007. **1,423** of those were killed in California Older pedestrians died at a rate of **4.7** per 100,000 residents in California, compared to **1.6** per 100,000 for residents under age 65, ranking **3rd** nationally for fatality rate for pedestrians over the age of 65.

Pedestrian injury is the third leading cause of death by unintentional injury for children 15 and younger, according to Centers for Disease Control and Prevention mortality data. Nationwide, 3,880 pedestrians 15 years and younger were killed between 2000 and 2007. **526** of those killed were in California.

California's overall Pedestrian Danger Index (PDI) of **71.0** ranks **16th** nationally, though assessing risk locally at the metro or county level with the data that follows in this report can provide a much fuller picture of the danger to pedestrians.

Dangerous by Design 2011: California

Solving the Epidemic of Preventable Pedestrian Deaths (and Making Great Neighborhoods)

Between 2000 and 2009 **6,957** people were killed while walking in California. This is a share of the more than **47,700** Americans who died on our streets and roads, whether walking to school, approaching a bus stop, or strolling to the grocery store. Children, older Americans, and racial and ethnic minorities were killed in disproportionate numbers. An overwhelming proportion of these deaths share a common thread: they occurred along "arterial" roadways that were **dangerous by design**, streets engineered for speeding cars with little or no provision for people on foot, in wheelchairs or on bicycles.

Nationwide, pedestrians account for nearly **12 percent** of total traffic deaths. But state departments of transportation have largely ignored pedestrian safety from a budgetary perspective, allocating only **1.5 percent** of available federal funds to projects that retrofit dangerous roads or create safe alternatives.[1]

The good news is that communities choosing to prioritize pedestrian safety and invest in safer designs see fewer deaths and injuries, while improving quality of life.

In recent years, scores of communities began retrofitting poorly designed roads to become "complete streets" by adding sidewalks and bicycle lanes, reducing crossing distances and installing crosswalks to make walking and biking safer and more inviting for users of all ages and abilities. Though growing in number, communities that have completed their streets remain the exception rather than the rule, placing California's pedestrians in continued danger.

Since the 1950s, states have used federal dollars on the vast network of federal-aid roadways that are some of the most dangerous places for walking today. As Congress debates legislation that will set transportation investment priorities for the next six years, policymakers have an opportunity to ensure that federal dollars are allocated to make roads safer for everyone who uses them. As this report demonstrates, many pedestrian injuries and deaths — as well as those of motorists — are preventable with low-cost design features and retrofits.

[1] Federal funds categorized as a bicycle or pedestrian improvement type. Includes funds for sidewalks, bicycle paths and lanes, crosswalks, and other projects or programs that improve existing, or provide new infrastructure, or promote safe walking and bicycling. Data is derived from the Federal Highway Administration's Fiscal Management Information System for the fiscal years 2005 through 2008.

Why pedestrian safety is in the federal interest

For decades, federal dollars have been invested in thousands of miles of state and local highways. There has been a debate brewing in the 112th Congress about what constitutes the "federal interest" in transportation. Pedestrian safety is often perceived as a strictly local issue, but **67 percent of all 47,000+ pedestrian fatalities from 2000-2009 occurred on federal-aid roadways** — roads eligible to receive federal funding for construction and improvements with federal guidelines or oversight for design. Taxpayer money that goes to the federal government and is distributed to states for transportation should be used to build streets, roads and highways that are safe for all users. With millions of Americans walking along and crossing these federally funded roads each day, the millions in federal dollars spent on them each year must result in safer conditions for pedestrians.

Measuring the danger to California's pedestrians

In California from 2000 to 2009, **6,957** pedestrians were killed, resulting in a fatality rate of **2.0** deaths per 100,000 residents. But the fatality rate for pedestrians within the state population as a whole provides a limited picture about the relative danger for pedestrians in one location compared to another. For a more complete picture, the number of fatalities should be compared with how frequently residents walk in a given area.

A city where many people walk may see a higher absolute number of pedestrians killed than a place where road conditions dissuade people from walking, simply because there are more people walking in that city's population. But the *fatalities per trip taken on foot* in these places are typically lower than in places where road conditions are hostile to those who do walk.

In analyzing the relative danger to pedestrians, the share of people who walk to work in a given place can serve as a proxy for the total number of walkers in the population.[2] Many of the areas with the most dangerous roads have both a high proportion of pedestrian traffic deaths *and* a low percentage of residents walking to work. These are places where pedestrians have a high chance of being killed while walking, a risk captured by the Pedestrian Danger Index for the metro areas in California.

Researchers at the Surface Transportation Policy Partnership in the 1990s developed the **Pedestrian Danger Index (PDI)** in an effort to establish a level playing field for comparing metropolitan areas based on the danger to pedestrians. Correcting for the fact that the cities where more people walk on a daily basis are likely to have a greater number of pedestrian fatalities, the PDI computes the rate of pedestrian deaths relative to the amount of walking in that area. The PDI demonstrates that the most

[2] In order to address concerns that Journey-to-Work data captures only a small share of total trips made, Transportation for America calculated a regression analysis of the American Community Survey's Journey-to-Work data and the National Household Travel Survey (NHTS) data on all trips by all people. We determined the two measures show a good correlation, with an R-squared of 0.67. This means that about two-thirds of the variation in the ACS data can be explained by the NHTS.

dangerous places to walk are the communities failing to make smart infrastructure investments that make roads safer for everyone.

California has an overall PDI of 71.0, ranking 16th nationally for relative risk to pedestrians, though assessing risk locally at the metro or county level with the following data can help provide a much fuller picture of the danger to pedestrians.

The first table lists California's large metro areas, ranked by their average PDI from 2000 to 2009, including where each metro ranks nationally. The safer places for walking are those with a lower PDI. Using the PDI, we can identify the most dangerous places – those with a high number of pedestrian fatalities despite low walking rates. Put another way, people who walk in these areas have the highest chance of being killed while walking. These areas are dominated by lower density and automobile-oriented development patterns that rarely account for the safety of pedestrians.

California metros over 1 million, ranked by PDI (most to least dangerous)

National PDI Rank	Metro Area	Average % of Workers Walking to Work	Total Pedestrian Fatalities (2000-2009)	**Pedestrian Danger Index**
5	Riverside-San Bernardino-Ontario	1.8%	938	**139.2**
21	Sacramento--Arden-Arcade--Roseville	2.1%	377	**90.7**
27	Los Angeles-Long Beach-Santa Ana	2.6%	2,533	**76.0**
28	San Diego-Carlsbad-San Marcos	2.8%	623	**74.7**
30	San Jose-Sunnyvale-Santa Clara	2.3%	274	**68.4**
41	San Francisco-Oakland-Fremont	4.3%	685	**38.5**

The following table lists all the metros within the region, showing how California's metro areas compare to other nearby metros in neighboring states.

Western metros over 1 million, ranked by PDI (most to least dangerous)

Regional PDI Rank	Metro Area	Average % of Workers Walking to Work	Total Pedestrian Fatalities (2000-2009)	Pedestrian Danger Index
1	**Riverside-San Bernardino-Ontario, CA**	**1.8%**	**938**	**139.2**
2	Las Vegas-Paradise, NV	1.9%	421	135.2
3	Phoenix-Mesa-Scottsdale, AZ	1.7%	867	132.4

4	**Sacramento--Arden-Arcade--Roseville, CA**	**2.1%**	**377**	**90.7**
5	Tucson, AZ	2.7%	212	84.7
6	**Los Angeles-Long Beach-Santa Ana, CA**	**2.6%**	**2,533**	**76.0**
7	**San Diego-Carlsbad-San Marcos, CA**	**2.8%**	**623**	**74.7**
8	Denver-Aurora, CO	2.3%	397	74.3
9	**San Jose-Sunnyvale-Santa Clara, CA**	**2.3%**	**274**	**68.4**
10	Salt Lake City, UT	2.1%	131	60.2
11	**San Francisco-Oakland-Fremont, CA**	**4.3%**	**685**	**38.5**
12	Portland-Vancouver-Beaverton, OR-WA	3.2%	243	36.3
13	Seattle-Tacoma-Bellevue, WA	3.5%	398	35.9

Metro areas often include a large number of counties. Within California, the rate of pedestrian deaths varies widely from county to county (even within metro areas), depending to at least some degree on the condition and design of the local road network as well as the number of trips that are made on foot. This next table ranks counties in California by pedestrian fatality rate per 100,000 residents, unadjusted for the amount of walking in that area. (Appendix B provides detailed statistics for all counties.) *Data comes from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS).*

Counties with highest fatality rate (unadjusted for amount of walking)

	County	Total number of pedestrian fatalities (2000-2009)	Percent of traffic deaths that were pedestrians (average 2000-2009)	**Average Pedestrian Fatality Rate (per 100,000)**
1	Del Norte County	10	11.1%	**3.53**
2	Madera County	48	12.2%	**3.48**
3	Inyo County	6	5.3%	**3.43**
4	Merced County	75	12.7%	**3.23**
5	Tehama County	18	10.5%	**3.02**
6	Lake County	18	10.3%	**2.87**
7	San Francisco County	220	51.9%	**2.86**
8	San Bernardino County	516	14.8%	**2.72**
9	Kern County	183	11.5%	**2.46**

	County	Total number of pedestrian fatalities (2000-2009)	Percent of traffic deaths that were pedestrians (average 2000-2009)	**Average Pedestrian Fatality Rate (per 100,000)**
10	Imperial County	38	8.1%	**2.46**

**Counties with fewer than five fatalities are omitted from this table due to an unreliable impact on rate.*
***Fatality rate is a measure of the number of pedestrian deaths relative to population. Pedestrian fatality rate is expressed in deaths per 100,000 individuals per year; thus, a pedestrian fatality rate of 5.0 in a county with a population of 100,000 would mean 5 deaths on average per year in the county each year from 2000-2009.*

More than half of pedestrian deaths are on poorly designed arterials

Over the past 50 years, traffic engineers have taken it as their mandate to move the most cars as rapidly as possible, often at the expense of safety and community livability. Research and experience, however, shows that making streets safer for pedestrians can help bring other benefits. A recent study in San Antonio showed that the streets safest for pedestrians were also safest for drivers.[3]

This emphasis on traffic movement at the expense of pedestrians and other travel modes has shifted daily activities away from Main Streets toward higher speed arterials. These arterial roads and highways have drawn shopping centers, drive-through eateries, apartment complexes and office parks, increasing automobile traffic and further straining existing capacity. However, the pressure to move as many cars through these areas as quickly as possible has led state departments of transportation to squeeze in as many lanes of traffic as possible, while designing out sidewalks, crosswalks and crossing signals, on-street parking and even street trees. As a result, more than half of fatal pedestrian crashes occur on these wide, high capacity and high-speed thoroughfares.

Engineering Wide Roads: Most pedestrians are killed on the wider, higher capacity and high-speed arterials. Arterial roads connect major destinations within an urban or rural area. Nationwide from 2000 to 2009, more than **52 percent** of the 47,067 pedestrians killed (for whom roadway classification data were recorded) died on principal or minor arterials.

Designing for Fast Travel Speed: Especially when combined with poor design, vehicle speed presents the greatest threat to pedestrians. A recent NHTSA report on pedestrian safety finds that a pedestrian is 16 times more likely to be killed in a crash occurring on a road with a posted speed limit of 50 mph or higher, than on a road with a speed limit of under 30 mph.[4] At higher vehicle speeds, a

[3] Eric Dumbaugh and Wenhao Li. Design for the Safety of Pedestrians, Cyclists, and Motorists in Urban Environments. Journal of American Planning Association. Vol.7, No.1, Winter 2011.
[4] NHTSA. National Pedestrian Crash Report, 2008. <http://www-nrd.nhtsa.dot.gov/Pubs/810968.pdf>

collision is not only more deadly, but far more likely. Even without the distractions of cell phones and PDAs, a driver needs 164 feet to stop a vehicle moving at just 40 mph.[5]

Insufficient Pedestrian Infrastructure*:* Too many arterial roads, even in urban areas, are simply not designed to accommodate pedestrians and sometimes lack sidewalks altogether. Even places with sidewalks often lack crosswalks or have crosswalks spaced too far apart to be convenient for pedestrians. Of the 47,452 pedestrian fatalities for which the location of the collision is known, more than 40 percent occurred where no crosswalk was available. Just ten percent of pedestrian fatalities occurred inside a crosswalk.

Dangers to Pedestrians with Few Options

Walking is the first and most basic method of transportation. Nearly everyone is a pedestrian at some point each day, even if it is simply walking from the car to the office. Americans make about 10.5 percent of all trips on foot,[6] and 107 million American adults walk regularly to get to work, school, run errands or visit friends.[7]

Walking is even more critical for a large number of Americans. At least one-third of Americans cannot or choose not to drive and, and for most of them, being a pedestrian is an integral part of their daily life.[8] This group includes children and young adolescents, older Americans who no longer drive, people with disabilities, low-income Americans and a growing number who seek to avoid the high cost of owning and maintaining a car.

Low-income: Over 19 percent of households make less than $25,000 per year and do not own a vehicle.[9] In the 234 counties nationally where more than 1 in 5 families has a household income lower than the poverty level (with more than five pedestrian fatalities over the decade), the pedestrian fatality rate averages **2.91** per 100,000 persons, significantly higher than the national rate of 1.6.[10]

Minorities: Ethnic and racial minorities are disproportionate victims of pedestrian fatalities. Nationwide from 2000 to 2007[11], the average pedestrian fatality rate for non-Hispanic whites was 1.38 (per 100,000 people.) The rates were higher for nearly all minority groups, with 1.45 for Asian Americans, 2.23 for Hispanics and 2.39 for African Americans, per 100,000 people.

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[5] http://www.jmu.edu/safetyplan/vehicle/generaldriver/stoppingdistance.shtml

[6] NHTS 2001. A trip is defined as travel from one address to another, with switches to different modes and each stop along the way counted as separate trips.

[7] FHWA. Travelers Opinion Survey 2005.

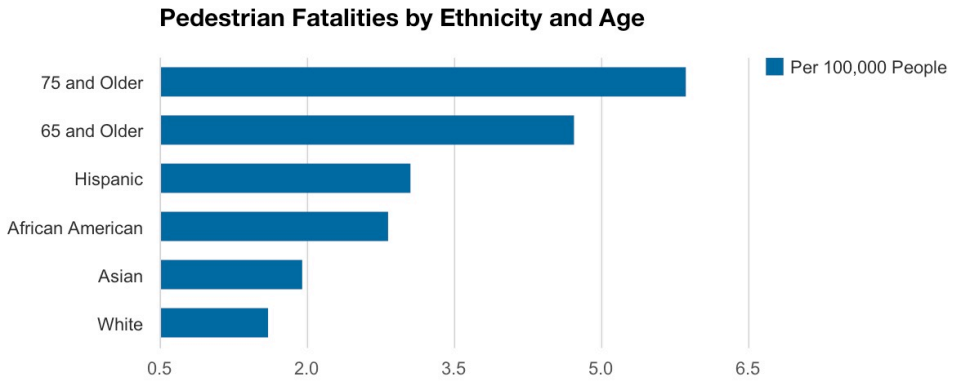
[8] According to the most recent (2009) FHWA Highway Statistics Series (Table DV-1C), only 68 percent of Americans currently hold a driver's license. One-third is probably an underestimate, because we can assume that a number of the 68 percent of Americans who have a license do not drive.

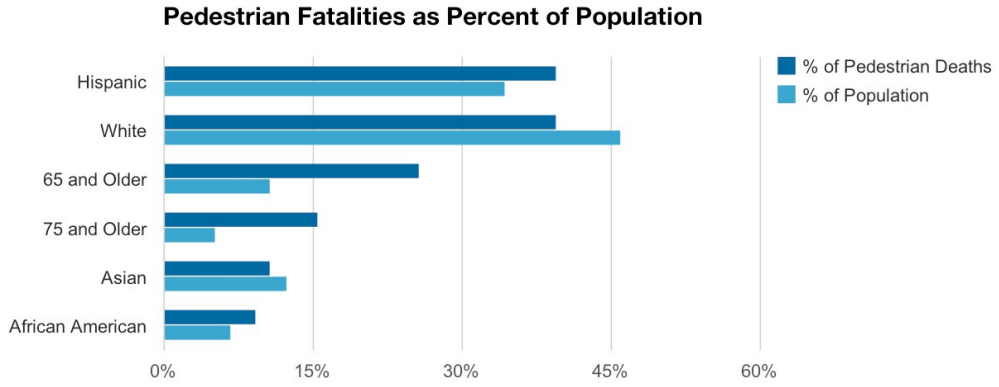
[9] Brookings Institution and UC-Berkeley, "Socioeconomic Differences in Household Automobile Ownership Rates"

[10] U.S. Census Bureau, 2005-2009 American Community Survey

[11] Because data on race and ethnicity for pedestrian deaths from the federal FARS database is incomplete at the state level, we turned to the Centers for Disease Control and Prevention Web-based Injury Statistics Query and Reporting System (WISQARS) which documents pedestrian fatalities from 2000 to 2007 (in contrast to FARS, which covers through 2009).

In California from 2000 to 2007, the average pedestrian death rate for Hispanics was **3.1** per 100,000 people, a rate 97 percent higher than the 1.6 rate for non-Hispanic whites and the average pedestrian death rate for African-Americans was **2.8** per 100,000 persons, a rate almost 83 percent higher than for non-Hispanic whites.[12] In absolute terms, **2,188** Hispanics, **508** African-Americans, **591** Asian Americans and **2,186** non-Hispanic white persons were killed in this period.





Older Americans*:* Nationwide, older Americans are nearly twice as likely (96 percent) to be killed while walking than those under 65 years of age. A total of 8,458 pedestrians 65 and over were killed from 2000 to 2007. Older pedestrians represent 21.7 percent of total pedestrian fatalities during that period, despite comprising only 12.4 percent of the population.[13] From 2000 to 2007, **1,423** pedestrians in California aged 65 years or older were killed. Older pedestrians died at a rate of **4.7** per 100,000 residents in California, compared to **1.6** per 100,000 for residents under age 65. California ranks **3rd** nationally for the highest fatality rate for pedestrians over the age of 65.

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[12] Knoblauch, R. L., Seifert, R. F., Murphy, N. B. "The Pedestrian and Bicyclist Highway Safety Problem As It Relates to the Hispanic Population in the United States." FHWA: December, 2004.
[13] NHTSA Traffic Safety Facts. 2008 Data for the Older Population.

Older Americans have much to gain when walking is safe. Many older Americans who cannot or choose not to drive rely on others for transportation. Absent sufficient alternatives, they often become stranded in their home. The percentage of Americans aged 65 and over is expected to rise from 12 percent in 2005 to 18 percent in 2025, requiring new approaches to reflect the mobility challenges that increase with age.

Young Children: Pedestrian injury is the third leading cause of death by unintentional injury for children 15 and younger, according to CDC mortality data. Nationally, **3,880** children 15 years and younger were killed as pedestrians from 2000 to 2007. More than **526** of those deaths were in California. Designing communities with convenient and fun opportunities for children to bicycle and walk keep children safe and healthy. Safe Routes to School is a small federally funded program aimed at making it more convenient for children to walk and bicycle to school by financing the construction of safer streets, bicycle and pedestrian pathways and sidewalks.

Cost-Effectiveness Benefits of Safe Streets

Transportation is the second largest expense for American households, costing more than food, clothing, health care and even housing in some metro areas.[14] Even prior to the recent increase in gasoline prices, Americans spent an average of 16 cents of every dollar on transportation, with the poorest fifth of families spending more than double that figure.[15] These transportation expenses can be reduced if local infrastructure decisions encourage active transportation and improve safety.

Controlling Health Care Costs*:* The money saved by preventing pedestrian injuries and fatalities more than offsets the costs of improving our streets and roads. The National Safety Council estimates the comprehensive cost — including both economic costs and diminished quality of life — for each traffic death at $4.3 million.[16] Multiplying that figure by the 47,740 pedestrians killed nationwide from 2000 to 2009 equates to a cost of $180 billion. Multiplying that figure by the 6,957 pedestrians killed in California from 2000 to 2009 equates to a cost of $29.92 billion over that period. Reducing fatalities by just 10 percent would save the state $2,991.51 million.

Sparking Neighborhood Reinvestment: The economic downturn taught us that the most resilient local economies are those with lively downtowns and village centers – walkable places with a variety of shops, services and restaurants. A recent survey by the National Association of Realtors found that most Americans would like to live in walkable communities where shops, restaurants and local business are within an easy walk from their homes, regardless of what type of neighborhood or house they live in. [17]

A movement has emerged to convert deadly arterials and lifeless strip malls into more walkable urban centers. Developers recognize these new walkable places can command a higher purchase price. A

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[14] Center for Neighborhood Technology. Housing and Transportation Affordability Index. http://htaindex.cnt.org/
[15] Bureau of Labor Statistics. Consumer Expenditure Survey, 2009. Expenditures by Income Group.
[16] National Safety Council. Estimating the Costs of Unintentional Injuries, 2000-2009
[17] National Association of Realtors. 2011 Community Preference Survey. http://www.realtor.org/government_affairs/smart_growth/survey

recent CEOs for Cities report found that "homes located in more walkable neighborhoods — those with a mix of common daily shopping and social destinations within a short distance — command a price premium over otherwise similar homes in less walkable areas. Houses with above average walkability command a premium of about $4,000 to $34,000 over houses with just average levels of walkability in the typical metropolitan areas studied."[18] Similarly, an analysis of office, retail, apartment and industrial properties found higher values for properties in more walkable areas.[19]

Making places more walkable not only improves their safety and encourages physical activity, but it also helps restore local tax bases and boosts local economies.

Smart Investment and Smart Design

Many communities have succeeded at increasing safety and preventing pedestrian deaths through targeted investments in pedestrian infrastructure, often using federal dollars. These tools for change include safer street design — most fatalities occur on federal-aid roads and arterials — creating walkable communities, traffic calming, road diets, complete streets policies and Safe Routes to School programs.

Traffic calming and street design. Traffic calming includes a host of engineering techniques used to physically alter road design for the purpose of slowing traffic and improving safety for bicyclists and pedestrians. Beyond simply installing sidewalks, these improvements enhance safety through a focus on intersections, with features such as pedestrian refuge medians, better road geometry and signals giving pedestrians a "head start" when crossing roads. Depending on the type of measure implemented and speed reductions achieved, traffic calming reduces collisions by 20 to 70 percent.

Complete streets. Where traffic calming seeks to improve safety by reducing traffic speeds, complete streets policies ensure that future road projects consistently take into account the needs of users of all ages and abilities, particularly pedestrians and bicyclists. Complete street designs are not a one-size-fits-all strategy and vary by location. A complete street might feature sidewalks, bicycle paths, comfortable bus stops, median islands, frequent crosswalks and pedestrian signals. Both the American Academy of Pediatrics and the Centers for Disease Control and Prevention recently endorsed the adoption of local and statewide complete streets policies as a strategy for improving safety and increasing physical activity among children and adults. By ensuring new and reconstructed roads take the needs of all users into account, money can be saved over expensive retrofits later on to improve pedestrian safety. To date, more than 100 jurisdictions across the country have implemented complete streets policies.

Safe Routes to School programs. Safe Routes to School programs take a comprehensive approach to improving safety around schools for children walking and bicycling. The program funds engineering upgrades like sidewalks and crosswalks, improved traffic enforcement and bicycle and pedestrian

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[18] J. Cortright. "Walking the Walk: How Walkability Raises Housing Values in U.S. Cities." CEOs for Cities. August 2009.
[19] Pivo, G. and Fisher, J. "Effects of Walkability on Property Values and Investment Returns" Working paper. August 2009.

safety education. The intent is to address parental concerns about traffic dangers and get more children walking and bicycling to school, improving their physical fitness and health. Starting as a handful of pilot efforts across the country, Safe Routes to School has grown into a federally-funded program providing more than $600 million over five years for thousands of projects nationwide.

Walkable neighborhoods. Walkable communities are safe and inviting for walking and bicycling and feature a variety of destinations, such as parks and public space and nearby schools, workplaces and other amenities like restaurants and retail facilities, in closer proximity.

Now is the time for Congress to act

Congress is currently drafting a multi-year federal transportation bill that will guide funding priorities for states and cities. Now more than ever, there is a clear need for strong leadership, greater resources for pedestrian safety and more accountability from states on how those funds are spent.

With 67 percent of pedestrian deaths occurring on federal-aid roads and highways, there's a clear need for ensuring our federal transportation dollars are used to make these thoroughfares safe for pedestrians and all other users. Greater resources must be dedicated toward projects and programs that improve pedestrian safety. Streets designed for speed rather than people continue to fuel these preventable pedestrian deaths. Now, we must call on Congress to change transportation funding and policy to ensure our roads are safe for everyone.

We recommend that the next federal transportation spending bill include the following provisions:

- **Retain dedicated federal funding for pedestrians and bicyclists**. Congress is currently comtemplating elimination of dedicated funding for Transportation Enhancements and the Safe Routes to School program, the two largest funding sources for bike and pedestrian facilities. Without these committed funding streams, states will likely reduce spending for safety features like sidewalks, crosswalks and trails.
- **Adopt a national complete streets policy**. Ensure that all federally funded road projects take into account the needs of all users of the transportation system, including pedestrians, bicyclists, and transit users, as well as children, older adults, and individuals with disabilities.
- **Fill in the gaps**. Beyond making new and refurbished roads safer for pedestrians, we need to create complete networks of sidewalks, bicycle paths, and multi-use trails so that residents can travel safely throughout an area.
- **Commit a fair share for safety**. In 2008, only two states spent any of their Highway Safety funding to improve infrastructure for bicycling and walking. Yet, pedestrians and bicyclists make up 14 percent of all traffic-related fatalities. Federal, state, and local governments should set safety goals that not only reduce fatalities overall, but reduce fatalities for individual modes, with safety goals for pedestrians, bicyclists, motorcyclists, and motorists.
- **Hold states accountable for creating communities that are safe for walking**. Congress must hold states accountable to ensure that transportation funds are spent wisely, by ensuring that:
    - New streets are built to be safe for pedestrians, bicyclists, public transportation users, and motorists alike;
    - The most dangerous roads are retrofitted for safety; and,
    - Federal safety dollars result in lives saved and a more active population.

Appendix A: All California metro areas with pedestrian fatality data, listed alphabetically

Metro Area	Total pedestrian fatalities (2000-2009)	Percent of traffic fatalities that were pedestrians	Fatality rate (per 100,000 people)	2009 population
Bakersfield	183	11.5%	2.5	807,407
Chico	31	9.3%	1.4	220,577
El Centro	38	8.1%	2.5	166,874
Fresno	199	12.8%	2.3	915,267
Hanford-Corcoran	16	4.3%	1.1	148,764
Los Angeles-Long Beach-Santa Ana	2533	27.2%	2.0	12,874,797
Madera	48	12.2%	3.5	148,632
Merced	75	12.7%	3.3	245,321
Modesto	106	13.1%	2.2	510,385
Napa	13	7.0%	1.0	134,650
Oxnard-Thousand Oaks-Ventura	93	12.5%	1.2	802,983
Redding	36	11.5%	2.1	181,099
Riverside-San Bernardino-Ontario	938	14.5%	2.5	4,143,113
Sacramento--Arden-Arcade--Roseville	377	17.3%	1.9	2,127,355
Salinas	66	11.8%	1.6	410,370
San Diego-Carlsbad-San Marcos	623	21.8%	2.1	3,053,793
San Francisco-Oakland-Fremont	685	26.1%	1.6	4,317,853
San Jose-Sunnyvale-Santa Clara	274	24.9%	1.6	1,839,700
San Luis Obispo-Paso Robles	27	6.7%	1.1	266,971
Santa Barbara-Santa Maria-Goleta	65	15.1%	1.6	407,057
Santa Cruz-Watsonville	38	16.2%	1.5	256,218
Santa Rosa-Petaluma	54	10.6%	1.2	472,102
Stockton	155	14.0%	2.4	674,860
Vallejo-Fairfield	53	12.4%	1.3	407,234
Visalia-Porterville	98	10.3%	2.5	429,668
Yuba City	21	6.3%	1.4	165,539

Appendix B: All California counties with pedestrian fatality data, listed alphabetically

County	Total pedestrian fatalities (2000-2009)	Percent of traffic fatalities that were pedestrians	Fatality rate (per 100,000 people)	2009 population	Percent of population below poverty line
Alameda County	233	23.0%	1.6	1,491,482	10.9%
Alpine County	1	3.4%	8.3	1,041	12.2%
Amador County	5	4.2%	1.3	37,876	8.9%
Butte County	31	9.3%	1.4	220,577	18.3%
Calaveras County	3	2.4%	0.7	46,731	9.7%
Colusa County	4	4.5%	1.9	21,321	15.7%
Contra Costa County	126	18.2%	1.3	1,041,274	8.6%
Del Norte County	10	11.1%	3.5	29,114	19.4%
El Dorado County	15	5.4%	0.9	178,447	7.7%
Fresno County	199	12.8%	2.3	915,267	20.9%
Glenn County	5	5.4%	1.8	28,299	17.8%
Humboldt County	26	10.8%	2.0	129,623	18.2%
Imperial County	38	8.1%	2.5	166,874	21.2%
Inyo County	6	5.3%	3.4	17,293	10.9%
Kern County	183	11.5%	2.5	807,407	20.4%
Kings County	16	4.3%	1.1	148,764	19.1%
Lake County	18	10.3%	2.9	65,279	18.8%
Lassen County	0	0.0%	0.0	34,473	13.8%
Los Angeles County	2079	28.1%	2.1	9,848,011	15.4%
Madera County	48	12.2%	3.5	148,632	18.0%
Marin County	22	19.0%	0.9	250,750	6.4%
Mariposa County	3	4.7%	1.7	17,792	10.1%
Mendocino County	20	8.0%	2.3	86,040	16.3%
Merced County	75	12.7%	3.2	245,321	21.1%
Modoc County	0	0.0%	0.0	9,107	15.8%
Mono County	2	3.8%	1.6	12,927	14.3%
Monterey County	66	11.8%	1.6	410,370	13.3%
Napa County	13	7.0%	1.0	134,650	9.7%
Nevada County	9	5.5%	0.9	97,751	8.1%
Orange County	454	23.8%	1.5	3,026,786	9.6%
Placer County	39	11.4%	1.3	348,552	6.2%

County	Total pedestrian fatalities (2000-2009)	Percent of traffic fatalities that were pedestrians	Fatality rate (per 100,000 people)	2009 population	Percent of population below poverty line
Plumas County	1	1.3%	0.5	20,122	11.0%
Riverside County	422	14.2%	2.3	2,125,440	12.3%
Sacramento County	302	23.0%	2.3	1,400,949	13.2%
San Benito County	4	4.1%	0.7	55,058	11.1%
San Bernardino County	516	14.8%	2.7	2,017,673	14.3%
San Diego County	623	21.8%	2.1	3,053,793	11.5%
San Francisco County	220	51.9%	2.9	815,358	11.5%
San Joaquin County	155	14.0%	2.4	674,860	15.3%
San Luis Obispo County	27	6.7%	1.1	266,971	13.6%
San Mateo County	84	21.9%	1.2	718,989	7.2%
Santa Barbara County	65	15.1%	1.6	407,057	13.8%
Santa Clara County	270	26.9%	1.6	1,784,642	8.6%
Santa Cruz County	38	16.2%	1.5	256,218	12.7%
Shasta County	36	11.5%	2.1	181,099	15.4%
Sierra County	0	0.0%	0.0	3,174	6.9%
Siskiyou County	4	3.2%	0.9	44,634	15.4%
Solano County	53	12.4%	1.3	407,234	9.9%
Sonoma County	54	10.6%	1.2	472,102	9.6%
Stanislaus County	106	13.1%	2.2	510,385	15.1%
Sutter County	7	3.9%	0.8	92,614	12.8%
Tehama County	18	10.5%	3.0	61,138	19.8%
Trinity County	0	0.0%	0.0	14,165	15.1%
Tulare County	98	10.3%	2.4	429,668	22.6%
Tuolumne County	12	7.3%	2.1	55,175	10.4%
Ventura County	93	12.5%	1.2	802,983	9.0%
Yolo County	21	8.9%	1.1	199,407	17.2%
Yuba County	14	9.1%	2.1	72,925	17.4%

**Counties with fewer than 5 pedestrian deaths from 2000-2009 (second column) have a high margin of error due to small sample size and should be referenced with caution.*

Travel to School in California:

Key Findings from the National Household Travel Survey

Travel behavior in California

- Californians walk 10-25 percent more than the national average
- Twenty-six to thirty-one percent of children walk or bicycle to school, more than twice the national average
- Children that walk to school make twice as many walking trips for all purposes than children that travel to school by other means
- Nearly two-thirds of school aged children in California live within two miles of their school, but of those children, a greater percentage are driven and fewer ride a school bus than the national average
- Socioeconomic disparities reflect stark differences in travel to school patterns – African-American and Latino children, and children from lower-income households, are more likely to walk or bicycle to school

California Travel is Unique

New data from the 2009 National Household Travel Survey - California add-on questionnaire (CA-NHTS) demonstrates that travel in California is different from travel trends nationally. Californians walk and bicycle at higher rates than the rest of the country, and Californians between 5 and 15 years of age walk more than any other age category. **This data indicates that state-level transportation policy decisions should be based on California-specific data and not on national trends.**

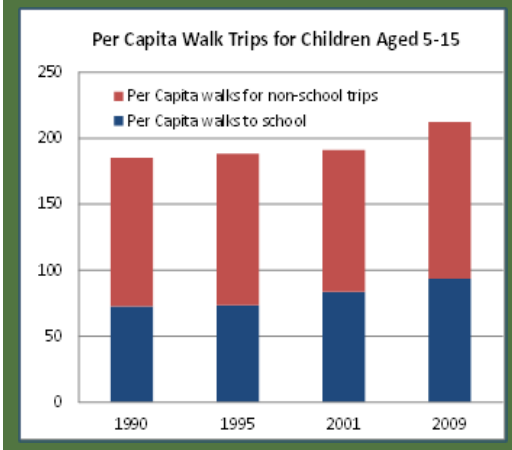
Travel to School Trends Statewide

Nearly one-third of school-aged children in California walk or bicycle to school, more than twice the national average. Since 1999, the first year of the state-funded Safe Routes to School program, children aged 5-15 have increased their average annual walk trips by 10 percent. Children who walk to school make more than twice as many walk trips overall than children who do not walk to school. For children who walk to school, trips to school account for 44 percent of their total annual walking trips. This trend illustrates the important role walking to school plays as a component of children's daily activity[1]. Walking to school anchors daily walking; over time populations with high rates of children walking to school also have higher per-child walking rates.

Data Highlights

Walking and bicycling constitutes 15 percent of travel trips statewide; up to 18 percent assuming all transit trips include a walk or bicycle trip.

School-aged children walk for 19 percent of all trips and increased their walking trips 10 percent from 1999 to 2009.



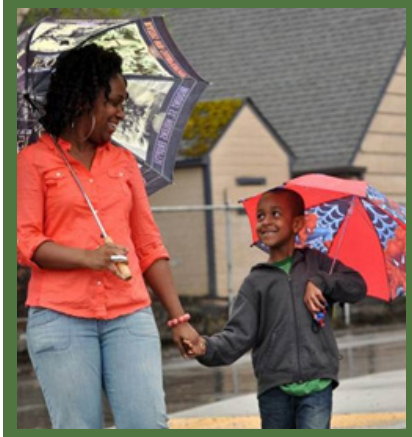
Twenty-six to thirty-one percent of children walk or bicycle to school.

Data Highlights

Sixty-two percent of school-aged children live within two miles of their school, and 42 percent live within one mile of school.

Of children living within two miles of school, 51 percent are driven to school in a private vehicle, 39 percent walk or bicycle, and two percent travel via transit.

Only 13 percent of students in California ride a school bus compared to 37 percent nationally.

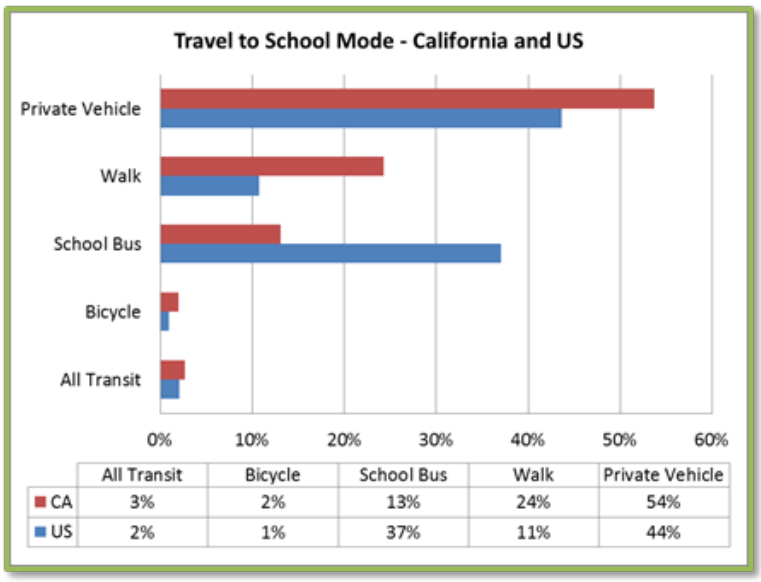


For households earning $80,000 or more, 65 percent drive children to school versus 31 percent with children that walk or bicycle.

For households earning $25,000 or less, 36 percent drive children to school versus 47 percent with children that walk or bicycle.

Forty-five percent of African-American and Hispanic/Latino students walk or bicycle to school, compared to 30 percent of White or Asian students.

Children in California have the advantage of greater proximity to school, with nearly two-thirds of school-aged children living two miles or less from school, assumed to be a reasonable walking or bicycling distance. Of those children that live within two miles of school, 39 percent walk or bicycle, but more than half are driven to school in a private vehicle. Those children represent a significant population with the potential to walk or bicycle to school given a safe option and targeted Safe Routes to School initiatives.



	All Transit	Bicycle	School Bus	Walk	Private Vehicle
CA	3%	2%	13%	24%	54%
US	2%	1%	37%	11%	44%

The rate of students in California that ride a school bus is approximately one-third of the rate of students that are bussed nationally. **Students need a safe alternative when they do not have the option to ride a school bus, including walking, bicycling, or an accessible transit route. Policymakers must pay close attention to the provision of safe alternatives for these students.**

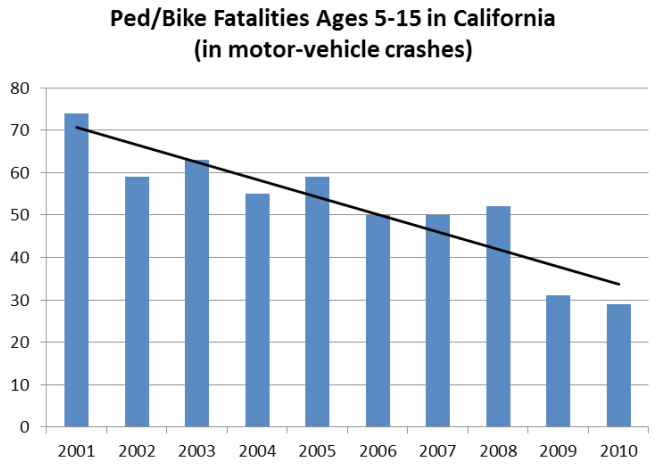
Demographics Influencing Travel to School

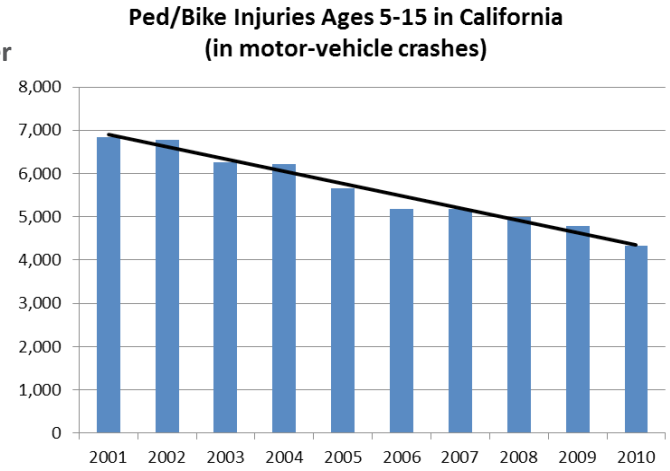
Twenty-one percent of California households have a child aged 5-15, with socioeconomic disparities that influence travel to school behavior. Among high-earning households, significantly more children are driven to school and fewer children walk or bicycle than in lower-income households. African-American and Hispanic/Latino students are much more likely to walk or bicycle to school compared to their White or Asian counterparts, who are much more likely to be driven to school. Hispanic/Latino students make up 57 percent of students that live within two miles of their school and are more likely to ride a school bus than other students. African-American students ride transit to school most often. **Lower-income communities and communities with higher African-American and Latino populations already have high rates of walking and bicycling to school but are also at higher risk of unsafe traffic conditions and issues of personal safety, requiring prioritization by policymakers to address this social inequity.**

Safety Concerns

Parents that did not allow their children to walk or bicycle to school indicated that their primary concerns were speed and volume of traffic along the route. These concerns are warranted in many regions of the state. Statewide, 27 percent of all victims aged 5-15 of traffic fatalities and serious injuries are pedestrians and bicyclists – nearly twice the national average[2].

While there is still room for improvement, traffic safety issues for children are being effectively addressed with Safe Routes to School, a tool to help communities focus limited resources on traffic safety around schools where children spend a lot of time. **California's consistent leadership in support for Safe Routes to School with over a decade of dedicated funding has resulted in a steady decline in auto collision-related fatalities and serious injuries to children walking and bicycling (see graphs), but the risk is still unacceptably high.**





Source: Statewide Integrated Traffic Records System http://www.chp.ca.gov/switrs

What This Means for California Transportation Policy in 2013

Travel data from the CA-NHTS and safety data from the Statewide Integrated Traffic Records System helps transportation policymakers and stakeholders to better understand how investment in Safe Routes to School will continue to improve safety and increase rates of walking and bicycling to school for youth and their families. Policymakers, planners, and community groups want to increase the number of children that walk and bicycle to school for a number of important reasons:

- To alleviate congestion and improve safety during drop-off/pick-up times to save lives and prevent injuries
- To provide daily physical activity that children might otherwise not engage in; daily physical activity has been shown to improve academic performance[3]
- To reduce fuel use and harmful emissions by vehicles around schools
- To save money for the state of California by reducing traffic injuries and fatalities
- To increase the sense of community and livability in a neighborhood

As California implements the federal transportation legislation Moving Ahead for Progress in the 21st Century (MAP-21), the state proposes to streamline active transportation and Safe Routes to School funding. The proposal strives to effectively address statewide priorities for safety, public health, school transportation, and greenhouse gas emissions reduction. In a recent study, Maizlish et al estimate that high levels of active transportation could reduce greenhouse gas emissions up to 14.5 percent and could lead to up to 13 percent fewer premature deaths per year and 15 percent fewer years of life lost from cardiovascular disease and diabetes[4].

The Safe Routes to School National Partnership along with other active transportation, health, and equity partners urge the Governor, the Business, Transportation, and Housing Agency and the California Legislature to fund the proposed Active Transportation Program at a level consistent with prior year funding of initially at least $147 million per year. This account should be supplemented in the future with funds from cap and trade auction proceeds. In addition, the structure of the Safe Routes to School Program should be given special consideration in order to keep the program managed by Caltrans, to maintain the infrastructure and non-infrastructure components of the program, and to continue to prioritize lower-income communities and schools. A minimum guarantee of funding for the Safe Routes to School Program of $48 million/year initially (current levels) should be set aside within the new account to sustain this successful program with an important and unique audience: schools, parents and children.

The Safe Routes to School Program provides unique benefits to children and schools, as well as the community at large, through improvements to infrastructure such as sidewalks, pathways, bike lanes, and safer street crossings as well as non-infrastructure education, enforcement and encouragement activities. As the data contained in this report illustrates, in only 10 years, Safe Routes to School has realized significant benefits to safety and mode shift for children in the state, prioritizing social equity in the grant process. With only one in four Safe Routes to School grant applications funded per project cycle, the need for program funds is still great, especially in lower-income communities which have the greatest traffic safety risks and high numbers of children already walking and bicycling. With a focused Active Transportation Program as a mechanism for additional future revenue, California could make significant strides toward meeting statewide safety, health, and emissions targets by providing greater access for all Californians to walk or bicycle.

The Safe Routes to School Program provides safe, healthy, sustainable, and economical transportation solutions in California's communities and encourages children, parents, and all Californians to walk and bicycle at even greater levels.

How to Find Out More

- Read the full study: "Travel to School in California: Findings from the California - National Household Travel Survey," December 2012 (http://saferoutespartnership.org/sites/default/files/travel-to-school-in-california-final.pdf), Prepared by Nancy McGuckin, Travel Behavior Analyst http://www.travelbehavior.us/ , funded by Active Living Research (http://activelivingresearch.org/)
- Contact - Jeanie Ward Waller, California Advocacy Organizer, Safe Routes to School National Partnership jeanie@saferoutespartnership.org
- Visit the Safe Routes to School National Partnership website - http://saferoutespartnership.org/

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3. "Physical education, school physical activity, school sports and academic performance", by Trudeau, F. and Shephard, R., at: http://www.ijbnpa.org/content/5/1/10

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California's Safe Routes to School Program

Impacts on Walking, Bicycling, and Pedestrian Safety

Marlon G. Boarnet, Kristen Day, Craig Anderson, Tracy McMillan, and Mariela Alfonzo

This article evaluates California's pioneering Safe Routes to School (SR2S) program, which funds traffic improvement projects designed to improve safety for children's walking and bicycling to school and to increase the number of children who do so. Through surveys of parents and observations of vehicle and pedestrian traffic before and after project construction, we examined the impacts of 10 traffic improvement projects funded through the SR2S program. We measured changes in perceived safety and in safety-related behaviors associated with children's trips to school, and examined changes in the number of children walking and bicycling following these improvements. Five of the 10 traffic improvement projects we evaluated showed evidence of a successful impact. The findings have implications for California's SR2S program and for similar initiatives throughout the country.

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Safe Routes to School (SR2S) programs have generated tremendous interest among U.S. policymakers, planners, and public health officials in recent years. These programs target the walk to school as an essential point of intervention to improve pedestrian safety and increase physical activity among children.

In this article, we evaluate California's pioneering SR2S construction program, which was designed to improve safety for children's walking and bicycling to school, and to increase the number of children who do so, by funding traffic engineering improvements around schools. Through a systematic evaluation of 10 California SR2S traffic improvement projects near elementary schools, we examined the impacts of this influential state policy on children's travel behavior in these neighborhoods. We investigated changes in the perceived safety of children's trips to school, in safety-related behaviors tied to the trip to school, and in the number of children walking and bicycling to school following these improvements. The findings have implications for California's SR2S program and for similar initiatives throughout the country.

The Need for Safe Routes to School: Children, Physical Activity, and Pedestrian Safety

The last 2 decades have witnessed a significant decline in walking among children in the U.S. (Killingsworth & Lamming, 2001). Today, fewer than 16% of students ages 5 to 15 walk or bike to school, compared to 48% of these students 3 decades ago (U.S. Environmental Protection Agency, 2003). In contrast, over 50% are driven to school in private vehicles (Nationwide Personal Transportation Survey, 1997). These trends, coupled with changes in eating and physical activity, have serious implications for children's health, including increased rates of Type I and II diabetes and rising rates of obesity (Flegal, 1999; Huang & Goran, 2003; Ogden et al., 2002; Sallis & Owen, 1999).

Recent years have seen encouraging reductions in traffic accidents among child pedestrians. These declining accident rates may be attributed to reduced rates of walking, however, more than to other factors (National Safe Kids Campaign, 2004). When exposure is taken into account, walking and bicycling still

emerge as two of the most risky modes of travel for the trip to school, calculated on a per-mile-traveled basis. A report released by the Transportation Research Board (2002) on the relative risks of school travel examined 9 years of injury and fatality data across all travel modes. The report identified 590 child pedestrian injuries and 2,050 bicycle injuries per 100 million miles of travel to school, compared to 90 injuries per 100 million miles for children riding in passenger cars driven by adults (the latter is the primary mode of travel for U.S. children today). The same trend was observed for fatalities per 100 million student-miles traveled to school, with 8.7 and 12.2 deaths per 100 million student-miles for child pedestrians and bicyclists respectively, compared to 0.3 for child passengers in adult-driven private vehicles.

An emergent movement among U.S. planners and public health experts targets the design of the physical environment as an important tool for promoting physical activity. Advocates call for design changes to make communities safer, more attractive, and more convenient for walking and bicycling as part of everyday life. Empirical research on the actual effectiveness of such environmental interventions has focused predominantly on adult activity and has generally shown that opportunities for physical activity (e.g., open space, nearby destinations) are important, as is access to such opportunities (Booth et al., 2000; Carnegie et al., 2002; Corti et al., 1996; Giles-Corti & Donovan, 2003; Handy, 1996; Hess et al., 1999; Hovell et al., 1991; King et al., 1999; Kitamura et al., 1997; Moudon et al., 1997; Shriver, 1997). A stronger empirical basis is needed to guide and to support, where appropriate, the development of policies and programs that aim to increase physical activity and to enhance safety for children through improvements to the physical environment. This study expands the basis of empirical research by examining the effectiveness of California's SR2S construction program.

Safe Routes to School

The city of Odense, Denmark, is credited with launching the SR2S movement in the 1970s, to respond to high child pedestrian accident rates in that city. This program led to the creation of a national SR2S program in Denmark and the development of similar programs in other countries (see, e.g., Appleyard, 2003).

In the U.S., local SR2S initiatives began to gather steam in the mid 1990s. It was not until 1999, however, that programming—and funding—for SR2S was implemented at the state level. A coalition that represented urban planning, engineering, public health, education, and law enforcement (among other fields) helped pass California Assembly Bill 1475 in October 1999, creating the first SR2S statewide construction program in the U.S. AB1475 authorized the set-aside of one third of California's federal Surface Transportation Program safety funds over 2 years (totaling $40 million). This set-aside was designated for construction projects that would increase the safety and physical activity of child pedestrians and bicyclists on routes to school by altering traffic conditions for vehicles, pedestrians, and bicyclists (e.g., installing speed bumps, cross walks, etc.).

The original 2-year program, administered by the California Department of Transportation (Caltrans), was re-authorized in 2001 for 3 more years and $75 million, under California Senate Bill 10. By fall of 2002, the program had completed three application cycles and approved funding for more than 270 projects. Each SR2S project is eligible for up to $450,000 in funding; a 10% minimum local match is required. In its first year, the program limited funds to engineering improvements. Subsequent application cycles allowed funds to increase education and awareness of traffic safety.

California's SR2S construction program spawned similar dedicated resource programs in other states. These programs, including those in Oregon, Washington, Texas, and Delaware, share a strong focus on engineering solutions. Other locales, such as Tallahassee and Clearview, Florida; Atlanta, Georgia; Chicago, Illinois; and Arlington, Virginia, target education on walking and bicycling safety and/or enforcement of traffic laws around schools (Transportation Alternatives, 2002). One of the most successful SR2S programs to date is in Marin County, California, where the combination of education, enforcement, and engineering, along with strong community partnerships and financial support, has led to a 64% increase in walking and a 119% increase in bicycling to school (Staunton et al., 2003).

Federal agencies such as the National Highway Traffic Safety Administration (NHTSA) and the Centers for Disease Control and Prevention (CDC) have invested considerable resources in safer, more pedestrian- and bicycle-oriented routes to school (CDC, 2004; NHTSA, 2002). The U.S. Environmental Protection Agency (EPA) also supported these efforts through its recent report on the consequences of poor school-siting decisions, which may include implications for school travel decisions (EPA, 2003). National organizations such as the Surface Transportation Policy Project, the American Planning Association, and the American Public Health Association currently advocate for the inclusion of a SR2S program in the 2004 federal transportation bill re-authorization. As of March 2005, both the Senate and the House versions of the bill included a national SR2S program, with the Senate version funded at

$70 million/fiscal year and the House version funded at $150 million for the first fiscal year (with increases in subsequent years; U.S. House of Representatives, 2005).

For all this attention, there have been few evaluations of SR2S programs. The evaluation of the Marin County SR2S program (Staunton et al., 2003) is an exception. In the present study, we go beyond Staunton et al. (2003) by assessing results at 10 schools and using data from multiple sources, including surveys and observations, to examine the success of a larger number of different traffic improvements.

Evaluating California's SR2S Program

California's SR2S program funds six possible types of traffic improvements: sidewalk improvements (e.g., new sidewalks); traffic calming and speed reduction projects (e.g., speed bumps); pedestrian and bicycle crossing projects (e.g., crosswalks); bicycle facilities (e.g., bicycle paths); traffic control devices (e.g., traffic signals); and traffic diversion improvements (e.g., closing streets to vehicle traffic to create pedestrian walkways). These traffic improvement projects cannot be directly compared to each other, since different types of improvements have different expected impacts on increased safety and walking opportunities. The success of traffic improvement projects funded by the SR2S program must be evaluated in terms of the *expected outcomes* of each improvement for pedestrian and/or bicyclist safety, or for encouraging walking and/or bicycling. For example, the expected outcome of installing sidewalks where none existed would be a reduction in the number of children walking in the street or on the shoulder, while the expected outcome of installing speed bumps would be a slowing of vehicle traffic.

Existing research has examined the efficacy of some types of traffic improvements that are implemented as part of the California SR2S program. For instance, recent research by the National Safe Kids Campaign (2004) found marked crosswalks, in-pavement crosswalk signals, and pedestrian-activated flashing warning systems to be effective at increasing pedestrian visibility at crossing points. The impact of these improvements on vehicular behavior (e.g., speeds, yielding behavior) and conflict rates are mixed, however, partly due to setting and roadway design (Van Derlofske et al., 2003; Zegeer et al., 2003). Researchers have not systematically evaluated the impact of a SR2S construction program such as California's at the scale of the evaluation reported here.

Our evaluation of 10 SR2S traffic improvement projects assessed each project in terms of its expected outcomes for pedestrian and bicycle safety and for amount of walking and bicycling. Our analysis examined the following expected short-term outcomes of specific traffic improvements:

1. relocate walking from the street or shoulder to the sidewalk;
2. reduce the speed of vehicles;
3. increase yielding by vehicles to pedestrians and/or bicyclists;
4. increase walking and bicycling. (This outcome could follow indirectly from changes in perceived safety or convenience of walking or bicycling related to one of the first three outcomes).

We determined expected outcomes for each project by identifying how that type of improvement is generally expected to impact walking/bicycling levels and/or pedestrian and bicyclist safety.

Methods

Study Design

We evaluated 10 traffic improvement projects funded through the California SR2S program by comparing the measured outcomes to expected outcomes for each project. Using a multiple case study design, we assessed factors related to perceived pedestrian and bicycle safety; to behaviors that impact actual safety (e.g., yielding, traffic speeds); and to the amount of children's walking and bicycling. We compared findings before and after construction of SR2S traffic improvements at each of 10 elementary school sites.

This case study approach has limitations. It does not capture the impacts of the program at all 186 sites (first two rounds of SR2S funding) where improvements were made. Our sample of 10 sites is larger than that employed in other studies of the impact of the built environment on physical activity, however, increasing our confidence in the findings (see Corti et al., 1996; Handy, 1996; Hess et al., 1999; Kitamura et al., 1997; Moudon et al., 1997; Shriver, 1997). Additionally, the case study approach allowed us to consider the impact of each construction project in the context of its surrounding neighborhood and community.

This evaluation employs data collected from two sources: (1) observations of the characteristics of vehicle, pedestrian, and bicycle traffic at each site that are potentially related to perceived and actual traffic safety (e.g., vehicle speeds); and (2) surveys of parents of 3rd to 5th graders at each study school to collect information on children's travel behavior and parents' perceptions related to walking and bicycling (e.g., importance of walking to school for

children.) We also collected data on the characteristics of the urban environment in neighborhoods around study schools that might be related to overall levels of walking and bicycling (e.g., length of blocks, amount of graffiti, etc.) The latter data is not included in this evaluation.

Our research team was contracted by Caltrans to conduct an evaluation of the California SR2S program, which was required under the authorizing legislation. Caltrans' priorities—namely, to assess the impacts of several types of traffic improvements in varied locations, and to inform future funding priorities—and its time and budget constraints shaped specific decisions regarding methodology.

School Site Selection Criteria

Our evaluation included traffic improvements that were funded during rounds one and two of SR2S funding. Our sample of sites included only improvements located near elementary schools, since most SR2S projects funded in the first and second cycles of the program (70%) were associated with elementary schools. Traditionally, elementary schools are often sited to serve local populations, suggesting that walking might be feasible for many elementary school students who live nearby (EPA, 2003).

The 10 schools included in the evaluation are located in nine cities plus one unincorporated area in three counties in California. We attempted to include schools in urban, suburban, and rural settings. Most schools funded in the first two cycles of the SR2S program were located in suburban settings, however, limiting the variation of the sites in our study. In selecting projects to evaluate, we also considered the compatibility of a project's anticipated construction schedule with our research schedule.

The renewal of the authorizing legislation for the SR2S program, SB 10, required that the evaluation of the program be delivered to the legislature by December 31, 2003. This deadline limited potential study sites to projects that had not begun construction in spring of 2002, when funding for the research was released, but that would be completed by fall of 2003. The project team contacted all elementary schools that fit the SR2S construction timeline. Not all schools were willing to participate in the study, which required that teachers distribute the parent survey to children in their classes, and then collect and return surveys to the research team. Sixty-four percent of the schools contacted agreed to participate; all were accepted as participants in the study.

As noted earlier, California's SR2S program funded six different types of traffic improvements. Our sample of sites does not include traffic calming or traffic diversion projects. Our initial sample included a total of 16 projects that represented all six types of improvements funded by the program. We collected "before construction" data at these 16 sites. At the time that the evaluation research was completed in fall of 2003, 6 of the original 16 projects had not completed construction, despite schedules that proposed earlier completion dates. The 6 delayed projects were therefore excluded from this analysis. Table 1 identifies the traffic improvement projects included in this study.

Data Collection

Observation of Vehicle, Pedestrian, and Bicycle Traffic Patterns. A team of observers collected data on traffic patterns at each school. Observers recorded the number of child and adult pedestrians and bicyclists at the site of the proposed traffic improvement project. Observers also recorded information on yielding behavior of drivers, pedestrians, and bicyclists, focusing on whether parties yielded as would be required by the California Vehicle Code. In addition, observers used a stopwatch to calculate vehicle traffic speeds.[1]

Data were collected during 2-day periods both before and after construction of the SR2S project at each site. Care was taken to avoid conducting observations on days when students had irregular class schedules and during the first or last week of the school session. At most sites, traffic was observed from 30 minutes before to 15 minutes after the beginning of the school day, and from 15 minutes before to 30 minutes after the end of the school day.

In observing traffic patterns, we evaluated behaviors and perceptions linked to pedestrian safety (e.g., vehicle speeds), rather than actual changes in accident rates at these sites. Pedestrian and bicycle accidents are rare events, and tracking the effect of SR2S traffic improvements on accident rates would require a time series of accident data extending for several years before and after project construction. The requirements of the authorizing legislation and the strong interest in SR2S programs among advocates and policymakers warranted a more timely evaluation.

Survey of Parents on Perceived Safety, Children's Travel Behavior. The sample for the parent survey consisted of all parents with children in the 3rd through 5th grade attending the school that was linked to each traffic improvement. Sample sizes varied across schools based on the number of children in each grade. The survey collected information on the parent's self-report of the child's method of travel to and from school, and the parent's own walking and bicycling in the neighborhood. Parents were instructed to respond pertaining only to the child bringing home the survey. The survey asked parents about their perceptions of driving behavior around school, their perceptions of safety and crime near school, and their attitudes towards walking and bicycling to school. Additionally, the survey asked par-

School	Improvement	City and context
Sidewalk improvement projects		
Juan Cabrillo Elementary	Install pathway of decomposed granite bordered by wood curb, with appropriate signage	City of Malibu, in a predominantly residential area with a rural character, including large lots and low-density housing. The neighborhood is located a few blocks from the ocean.
Murrieta Elementary	Install sidewalk, curb, gutter	City of Murrieta, in a rural area that is becoming suburban. Neighborhood includes mixed residential, commercial, and civic land uses, with large lots and long blocks. A busy arterial is near the school.
Sheldon Elementary	Install sidewalk gap closures	City of El Sobrante, in a suburban area in the San Francisco Bay Area. An arterial near the school divides the neighborhood into two areas: one with curvilinear roads and a steep grade, and one with a moderate grade and grid-like streets.
Valley Elementary	Install sidewalk gap closures	City of Yucaipa, in a bedroom community in San Bernardino County. The area is growing and changing from rural to suburban in character. Residential uses occupy large lots.
West Randall Elementary	Install sidewalk gap closures	Located in an unincorporated area in San Bernardino County. This older neighborhood follows a typical suburban pattern, with low-density residential land uses and no commercial development.
Traffic signal improvement projects		
Cesar Chavez Elementary	Install traffic signal to replace four-way stop sign	City of Bell Gardens, in south central area of Los Angeles near a major arterial. Neighborhood has urban character, including traditional grid streets with mixed land uses and mostly single-family detached homes.
Newman Elementary	Install traffic signal to replace four-way stop signs	City of Chino, near Los Angeles, San Bernardino, and Riverside counties. This older suburban neighborhood has a modified grid pattern with culs-de-sac and linking pedestrian pathways, and residential land uses.
Crosswalk and crosswalk signal improvement projects		
Glenoaks Elementary	Install in-pavement crosswalk signal system to alert vehicles of children in the crosswalks	City of Glendale, an older suburban city in Los Angeles. Highway overpass divides the neighborhood into a community of single-family homes on one side and multifamily housing on the other.
Jasper Elementary	Install pedestrian-activated flashing warning signal system	City of Rancho Cucamonga, a suburban bedroom community in San Bernardino County. Residential neighborhood has longer blocks and curvilinear streets. Project was located on a quiet residential street.
Mt. Vernon Elementary	Add pedestrian count-down signals to traffic signal system	City of San Bernardino, in mostly residential neighborhood with some mixed uses. Most streets follow a grid pattern, but one area has a more suburban street pattern with longer blocks and more culs-de-sac.
Valley Elementary	Install crosswalk and crosswalk signs	See description above.
Bicycle path improvement projects		
Murrieta Elementary	Install bike lanes	See description above.

Table 1. Study sample of SR2S traffic improvement projects.

ents to estimate the distance that they live from the schools and their length of residence within their neighborhoods. The survey also collected basic demographic information.

The survey was administered in English and Spanish and designed for completion in approximately 15 minutes. The survey was distributed in the classroom to be sent home and returned through the student. There was no follow-up to capture those who did not respond. Surveys were distributed and collected by teachers for students to take home for their parents to complete. All surveys were anonymous; no information was collected on the identities of those who completed surveys. We did not follow up with nonresponders because of the burden that would have created for teachers to monitor parents' completion of the survey and to selectively follow up with parents who had not responded.

We distributed a second survey to 3rd through 5th grade parents after construction of traffic improvements. The second survey included the questions discussed above, plus questions on parents' opinions of the effectiveness of the SR2S traffic improvement project. A total of 1,778 parents completed the "before" survey and 1,243 parents completed the "after" survey. Table 2 reports the number of survey respondents at each school.

Results

As discussed, expected outcomes of SR2S projects varied with the type of traffic improvement. Our evaluation of these 10 projects hinged on whether the actual or measured impacts were consistent with the expected impacts. We classified projects as having evidence of success if the measured outcomes corresponded to expected outcomes, if the measured outcomes exceeded the sample error in the survey data or the estimated human error in data collection (as appropriate), if the data provided a consistent indicator of project success, and if the magnitude of impact was reasonably large. We found evidence of success in 5 of the 10 projects evaluated. These criteria for success are stringent, requiring that a project produce a near-term, measurable impact that can be observed. Improvements that contribute to behaviors that cannot be easily measured but that contribute to safety would not be ranked as successful by these criteria.

Projects with evidence of success did not necessarily achieve the same level of impact on all expected outcomes. Sidewalk gap closures and replacement of four-way stop signs with traffic signals appeared to have high potential for success. All 5 projects that displayed evidence of success were of these types. Below, we discuss the results grouped by project type, beginning with sidewalk improvement projects.

Sidewalk Improvement Projects

Sidewalk improvement projects included three sidewalk gap closure projects (Sheldon, Valley, and West Randall Elementary); the construction of a decomposed granite path and appropriate signage (Juan Cabrillo Elementary); and the installation of new sidewalks and sidewalk gap closures (Murrietta Elementary). (Pedestrian crossing improvements at Valley Elementary project are discussed separately, below.)

School	Number of responses (response rate)		Change (%)
	"Before" survey	"After" survey	
Cesar Chavez Elementary	N = 251 (56.00%)	N = 207 (48.80%)	−44 (−7.2%)
Glenoaks Elementary	N = 209 (72.00%)	N = 142 (57.00%)	−67 (−25%)
Jasper Elementary	N = 143 (55.60%)	N = 77 (31.60%)	−66 (−24%)
Juan Cabrillo Elementary	N = 58 (34.70%)	N = 38 (23.03%)	−20 (−11.67%)
Mt. Vernon Elementary	N = 179 (68.85%)	N = 138 (54.12%)	−41 (−14.73%)
Murrieta Elementary	N = 223 (53.61%)	N = 125 (29.34%)	−98 (−24.27%)
Newman Elementary	N = 215 (51.07%)	N = 130 (30.37%)	−85 (−20.7%)
Sheldon Elementary	N = 71 (35.50%)	N = 80 (40.82%)	+9 (+5.32%)
Valley Elementary	N = 157 (42.90%)	N = 125 (32.55%)	−32 (−10.35%)
West Randall Elementary	N = 272 (44.52%)	N = 181 (40.22%)	−91 (−4.3%)
Total	N = 1778 (51.75%)	N = 1243 (38.59%)	−535 (−13.16%)

Table 2. Responses and response rates for parent survey, by school.

Expected outcomes of these sidewalk improvement projects were to increase walking and to relocate walking from the street or shoulder to the sidewalk.

We evaluated changes in amount of walking in two ways: (1) on-site counts of walking and (2) parents' survey responses on whether the child walked or bicycled to school more after the SR2S project was constructed (differentiating between those who reported that their children *did* and *did not* pass the particular project site along their route to school). We evaluated changes in location of walking through on-site observations. Table 3 describes expected and actual outcomes for sidewalk improvement projects.

Sidewalk Improvement Projects with Evidence of Success. For each of the three sidewalk gap closure projects, observed walking increased from "before construction" to "after construction" (see Table 4). In the analysis of the survey results, we split children into two groups: those who walked past the project and those who did not (based on parents' responses to a question about whether their child would pass the project on his or her walk to school). At all three of these schools, children who would pass the project on their way to school were significantly more likely to have reported increases in walking, compared to children who would not have passed the project on their way to school (t=2.43 at Sheldon; t=3.01 at Valley; t=3.15 at West Randall; see Table 5; for details on how this portion of this analysis was conducted, see Boarnet et al., 2005).[2,3] The results provide evidence that these sidewalk gap projects induced an increase in walking for the students who travel past the projects on their way to school.

The three sidewalk gap closure projects demonstrated statistically significant decreases in the number of observed child pedestrians walking on a street or shoulder, from "before construction" to "after construction" observations (t=5.55 at Sheldon; t=6.79 at Valley; t=39.23 at West Randall Elementary; see Table 4). For some schools, the magnitude of the observed shift from the street or shoulder to the sidewalk was large. For example, at West Randall Elementary, 75% of observed child pedestrians walked in the street or on the shoulder before construction of the new sidewalks, while only 5% walked in the street or on the shoulder after SR2S construction (see Table 4).

			Walking impacts	
School	**Project description**	**Expected vs. actual outcomes**	**Amount** [a]	**Location** [b]
Sheldon Elementary	Sidewalk gap closures	Expected:	*Increase*	*On sidewalk*
		Actual: [c]	*Increase*	*On sidewalk*
Valley Elementary [d]	Sidewalk gap closures	Expected:	*Increase*	*On sidewalk*
		Actual:	*Increase*	*On sidewalk*
West Randall Elementary	Sidewalk gap closures	Expected:	*Increase*	*On sidewalk*
		Actual:	*Increase*	*On sidewalk*
Juan Cabrillo Elementary	Pathway of decomposed granite	Expected:	Increase	*On sidewalk*
		Actual:	Evidence of both increase and no change	*On sidewalk*
Murrieta Elementary	New sidewalks and sidewalk gap closures	Expected:	Increase	On sidewalk
		Actual:	Increase [d]	None

Note: Italic indicates outcomes that corresponded with expectations.

a. *Amount* refers to the total number of pedestrians observed during the 2-day observation period. The analysis summed across morning and afternoon periods for both days.

b. *Location* refers to walking only and whether walking occurs on sidewalk/path or street/shoulder. We analyzed data on the number of pedestrians (summed over both observation days) that walked exclusively on a sidewalk or path, as opposed to pedestrians walking on the street or on the shoulder of a street. *On sidewalk* indicates an expected increase in walking on a sidewalk or path.

c. *Actual result* is the measured outcome from study data observed after construction of the SR2S traffic improvement project.

d. Change is small and/or inconclusive.

Table 3. Expected versus actual outcomes of SR2S sidewalk improvement projects.

The shift of walking from the shoulder or street to the sidewalk can be an important safety improvement when it occurs at schools where many children walk. At Sheldon Elementary, for example, the SR2S project funded sidewalk construction along a busy thoroughfare where the study team clocked average vehicle speeds from 32 to 42 miles per hour after SR2S construction, depending on the time of day. As Figure 1 shows, the sidewalk provided a substantially safer walking environment, helping to separate children from fast-moving vehicle traffic.

Sidewalk Improvement Projects with Limited or No Evidence of Success. Two of the five sidewalk improvement projects were associated with limited or no evidence of success. The construction of a decomposed granite path and appropriate signage along a street near Juan Cabrillo Elementary achieved expected outcomes in relocating walking away from the street or shoulder (t=2.70; see Table 4), though few children walked to this school before or after this improvement. Research findings provided evidence of both an increase (see Table 4) and no change (see Table 5) in the amount of walking after installing the path. The change in the amount of walking after construction was not statistically significant (t=1.04; see Table 5).[4]

The installation of new sidewalks and sidewalk gap closures at Murrieta Elementary demonstrated mixed or no evidence of success. Walking did increase after construction of the project, but the number of children observed walking was low both before and after construction (see Table 4), as was the number of children observed walking on the street or shoulder (Boarnet et al., 2003). Children who passed along the project on their way to school reported both more (t=2.12) and less (t=3.31) walking compared to children who did not pass the project (see Table 5), a result with an ambiguous interpretation. Because this sidewalk project surrounded the school on all sides, many students may have passed a portion of the project, possibly weakening the ability to distinguish its effect by comparing students who would and would not pass it.

Figure 1. Example of a SR2S traffic improvement project. San Pablo Dam Road near Sheldon Elementary School before (above) and after (below) the SR2S-funded project to install new sidewalks.

Traffic Signal Improvement Projects: Evidence of Success

Two of the 10 projects were traffic signal improvements: specifically, the replacement of four-way stop signs with traffic signals at Cesar Chavez and Newman Elementary. Expected outcomes were the regulation of yielding behavior and the slowing of vehicle speeds (see Table 6). Conceivably, replacing four-way stops with traffic signals could also have the opposite effect on speed, if drivers speed through green or yellow traffic signals. More speculatively, the traffic signal projects might also increase pedestrian counts by enhancing sense of safety among pedestrians. Both traffic control improvement projects demonstrated evidence of success.

At both schools, the actual impacts of these projects on yielding confirmed expectations and were statistically significant (t=5.42 at Cesar Chavez; t=3.44 at Newman Elementary; see Table 7). In addition, the traffic improvement projects at both schools were associated with expected (but speculative) increases in pedestrian counts, measured both through observations and survey responses (see Tables 4 and 5). Impacts on vehicle speed were mixed, with some changes at both schools falling within estimated human error (see Table 7).[5] Observed reductions in vehicle

		Amount of child walking			Location of child walking (% on street or shoulder) [a]			
School	**Project description**	**Before project**	**After project**	**Difference**	**Before project**	**After project**	**Difference (percentage points)**	***t*-statistic [c]**
Sidewalk improvement projects								
Sheldon Elementary	Sidewalk gap closures	138	152	+10%	66%	35%	−31	5.55
Valley Elementary	Sidewalk gap closures	64	89	+39%	42%	4%	−38	6.79
West Randall Elementary	Sidewalk gap closures	692	1146	+66%	75%	5%	−70	39.23
Juan Cabrillo Elementary	Pathway of decomposed granite	274	302	+10%	7%	2%	−5	2.70
Murrieta Elementary	New sidewalks and sidewalk gap closures	2	19	+850%	0%	5%	+5	1.03
Traffic signal improvement projects								
Cesar Chavez Elementary	Traffic signal replaces 4-way stop sign	1701	2047	+20%	—	—	—	—
Newman Elementary	Traffic signal replaces 4-way stop sign	143	250	+75%	—	—	—	—
Crosswalk and crosswalk signal improvement projects								
Glenoaks Elementary	In-pavement crosswalk lighting	X [b]	974	X [b]	—	—	—	—
Jasper Elementary	In-pavement flashing warning light	51	57	+12%	—	—	—	—
Mt. Vernon Elementary	Pedestrian count-down signals	193	137	−29%	—	—	—	—

Note: This table includes only those SR2S projects that were expected to impact amount or location of walking; "—" indicates that no impact on this dimension was expected.

a. *Location* refers to walking only and whether walking occurs on sidewalk/path or street/shoulder. We analyzed data on the number of pedestrians (summed over both observation days) that walked exclusively on a sidewalk or path, as opposed to pedestrians walking on the street or on the shoulder of a street.

b. An error in defining the observation catchments area during 1 day of "before construction" observations introduced irregularities for this measurement; these data are therefore not shown.

c. The t-test for the significance of a difference in sample proportions is

$$\frac{p1 - p2}{\sqrt{\frac{p1(100 - p1)}{N1} + \frac{p2(100 - p2)}{N2}}}$$

where $p1$ and $p2$ are the two sample proportions and $N1$ and $N2$ are the sizes of the two samples.

Table 4. Impacts of SR2S traffic improvement projects on amount and location of observed child walking.

		Children who walk more after project			Children who walk less after project		
School	**Project description**	**Project on route**	**Project not on route**	**Difference (*t*-statistic)**	**Project on route**	**Project not on route**	**Difference (*t*-statistic)**
Sidewalk improvement projects							
Sheldon Elementary	Sidewalk gap closures	15.63%	0.00%	15.63% (t = 2.43)	50.00%	32.00%	18.00% (t = 1.40)
Valley Elementary	Sidewalk gap closures	11.59%	0.00%	11.59% (t = 3.01)	10.14%	20.00%	−9.86% (t = −1.02)
West Randall Elementary	Sidewalk gap closures	28.57%	7.41%	21.16% (t = 3.15)	14.29%	22.22%	−7.93% (t = −1.11)
Juan Cabrillo Elementary	Pathway of decomposed granite	6.67%	0.00%	6.67% (t = 1.04)	13.33%	18.75%	−5.42% (t = −0.41)
Murrieta Elementary	New sidewalks and sidewalk gap closures	13.73%	2.38%	11.34% (t = 2.12)	17.65%	0.00%	17.65% (t = 3.31)
Traffic signal improvement projects							
Cesar Chavez Elementary	Traffic signal replaces 4-way stop sign	20.59%	6.15%	14.43% (t = 2.52)	16.18%	13.85%	2.33% (t = 0.38)
Newman Elementary	Traffic signal replaces 4-way stop sign	10.94%	0.00%	10.94% (t = 2.80)	18.75%	30.00%	−11.25% (t = −1.16)
Crosswalk and crosswalk signal improvement projects							
Glenoaks Elementary	In-pavement crosswalk lighting	12.00%	7.69%	4.31% (t = 0.76)	8.00%	20.00%	−12.00% (t = −1.91)
Jasper Elementary	In-pavement flashing warning light	3.13%	0.00%	3.13% (t = 1.02)	9.38%	16.67%	−7.29% (t = −0.41)
Mt. Vernon Elementary	Pedestrian count-down signals	19.05%	5.71%	13.33% (t = 1.85)	28.57%	22.86%	−5.71% (t = −0.57)

Note: This table includes only those projects that were expected to impact the amount of children's walking to school.

Table 5. Impacts of SR2S traffic improvement projects on amount of reported child walking.

speed during the morning off-peak, afternoon peak, and afternoon off-peak periods at Cesar Chavez Elementary and during the afternoon off-peak period at Newman Elementary were outside of the estimated human error range. Thus, at both schools, projects achieved expected outcomes in terms of yielding and achieved expected (though speculative) outcomes in terms of pedestrian counts. Impacts of these traffic control projects on vehicle speeds were more mixed and modest, with only the Cesar Chavez site giving consistent evidence of vehicle speed reductions larger than the estimated human error range associated with the measurement of vehicle speeds.

Crosswalk and Crosswalk Signal Improvement Projects: No or Limited Evidence of Success

Four of the 10 traffic improvement projects involved improvements to crosswalks and/or crosswalk signals. These projects included two pedestrian-activated, in-pavement flashing warning light systems at crosswalks (Glenoaks and Jasper Elementary); a pedestrian-activated, "count down" light to warn pedestrians of the amount of time remaining to cross (Mt. Vernon Elementary); and a new crosswalk and crosswalk signs (Valley Elementary). Expected outcomes included improved yielding of vehicles to pedestri-

School	Project description	Expected vs. actual outcomes	Walking impacts	Traffic impacts	
			Amount [a]	Yielding [b]	Vehicle speeds
Cesar Chavez Elementary	Traffic signal replaces 4-way stop sign	Expected:	*Increase* [e]	*Increase*	*Decrease*
		Actual: [c]	*Increase*	*Increase*	*Decrease*
Newman Elementary	Traffic signal replaces 4-way stop sign	Expected:	*Increase* [e]	*Increase*	Decrease
		Actual:	*Increase*	*Increase*	Decrease [d]

Note: Italic indicates actual outcomes that corresponded to expected outcomes.

a. *Amount* refers to the total number of pedestrians observed during the 2-day observation period. We summed across morning and afternoon periods for both days.

b. *Yielding* refers to yielding of vehicles to pedestrians/bicyclists only.

c. *Actual outcome* is the measured outcome from study data observed after construction of the SR2S traffic improvement project.

d. Change is small and/or inconclusive.

e. Outcome is somewhat speculative.

Table 6. Expected versus actual outcomes of SR2S traffic signal improvement projects.

ans (Glenoaks, Jasper, and Valley Elementary) and reduced vehicle speeds (Glenoaks, Jasper, and Valley Elementary, with this outcome being somewhat speculative at Valley Elementary). Additional expected outcomes included more walking travel because of improvements in safety (Glenoaks, Jasper, and Mt. Vernon Elementary, with this outcome being somewhat speculative at Glenoaks and Mt. Vernon Elementary). In all four instances, these projects provided only limited or no evidence of success (see Table 8).

Yielding increased at Glenoaks Elementary (t=1.78, statistically significant at the 10% level; see Table 7). Increased yielding was the most substantial positive outcome at this school. At Jasper and Valley Elementary, the increase in yielding was not statistically significant (t=1.02 at Jasper; t=0.97 at Valley; see Table 7). Expected reductions in speed were not seen. At Glenoaks and Valley Elementary, changes in speed were either positive or within the range of human error (see Table 7).[6] At Valley Elementary, rain interference made it difficult to identify a measured change in vehicle speeds during the afternoon observation period after construction of the crosswalk. At Jasper Elementary, vehicle speed increased. This increase was likely attributable to the completion of a nearby freeway.[7] SR2S projects at these three schools did not achieve the expected impacts in the amount of walking (see Tables 4 and 5). At Glenoaks Elementary, an error in defining the observation catchments area during one day of "before construction" observations introduced irregularities in measuring changes in walking through on-site observations. At Mt. Vernon Elementary, the findings indicated a small decline in overall walking (see Tables 4 and 5).

Bicycle Path Improvement Projects: Limited or No Evidence of Success

The evaluation included one bicycle path improvement project: the installation of on-street bike lanes at Murrieta Elementary. Observations showed four bicyclists before and fourteen bicyclists after SR2S construction. These values are too low to make inferences regarding the success of the project. We conclude that there was little observed impact on bicycling.

Parents' Perceptions of SR2S-Funded Traffic Improvement Projects

Previous research indicates that parents feel that traffic safety and perceived travel distances to school are major barriers to walking and bicycling to school (Dellinger & Staunton, 2002; McMillan, 2003). Parents also suggest that the streets closest to the school are some of the most dangerous locations for children who travel to school on foot, due to the high period-specific traffic volumes and erratic driving behavior of parents who are dropping children off at school (Anderson et al., 2002; Bradshaw, 2001).

Parents were highly positive in their appraisal of the SR2S-funded traffic improvement projects that were evaluated in this study. Surveys for each school briefly

		Percentage change in vehicle speed (error range)				Number of vehicles yielding to pedestrians (%) [a]	
		A.M.		P.M.			
School	**Project description**	**Off-peak**	**Peak [b]**	**Off-peak**	**Peak**	**Before project**	**After project**
Traffic signal improvement projects							
Cesar Chavez Elementary	Traffic signal replaces 4-way stop sign	−7% (−11,−3)[d]	−1% (−5,+3)	−6% (−10,−2)	−19% (−23,−15)	584 (95.42%)	205 (100%) t = 5.42
Newman Elementary	Traffic signal replaces 4-way stop sign	−0% (−3,+3)	+3% (0,+6)	−15% (−18,−12)	+10% (+7,+13)	277 (94.86%)	265 (99.62%) t = 3.44
Crosswalk and crosswalk signal improvement projects							
Glenoaks Elementary	In-pavement crosswalk lighting	−4% (−10,+2)	+11% (+5,+17)	+5% (−1,+11)	+12% (+6,+18)	225 (94.14%)	128 (97.71%) t = 1.78
Jasper Elementary	In-pavement flashing warning light	+23% (+16,+30)	+11% (+4,+18)	+14% (+7,+21)	+17% (+9,+24)	28 (96.43%)	30 (100%) t = 1.02
Valley Elementary	Crosswalks and crosswalk signs	+6% (+2,+12)	+11% (+6,+16)	X [c]	X [c]	18 (95.00%)	12 (100%) t = 0.97

Note: This table includes only those projects that were expected to impact vehicle traffic.

a. The number of vehicles that yielded to pedestrians or bicyclists was summed over morning and afternoon observation periods. Yielding of vehicles to other vehicles is not included in this data. Numbers in parentheses show the fraction of vehicles observed that yielded to pedestrians or bicyclists.

b. The peak vehicle speed period is the 10 minutes when vehicle speeds are at their lowest. Average vehicle speeds for all 10-minute intervals in an observation period were calculated, and the 10-minute period with lowest average speeds was the peak. Thus peak period is not the same 10-minute period at each school. Instead, peak periods were chosen to illustrate the maximum variation in the data.

c. On one day of "after construction" observations, rainfall interfered with traffic observations. For that reason, afternoon vehicle speeds are not shown.

d. Numbers in parentheses in the first four columns are error ranges for percentage change in vehicle speeds, based on assumed human error as discussed in endnote 5. In the right-most two columns, the number in parentheses is the percentage of vehicles yielding to pedestrians.

Table 7. Impacts of SR2S traffic improvement projects on vehicle traffic.

described the SR2S project at that school in neutral language, including a one-sentence description of the project itself and its location. The survey then asked parents whether they had noticed the SR2S project at their child's school, as follows: "Have you noticed this project?"

The survey asked parents how important they thought this project was, as follows:

> Thinking about the possible traffic projects that could have been built near your child's school, would you say that the Safe Routes to School project described above was:
>
> a. The single most important construction project that could have been built
> b. Among the few most important construction projects that could have been built
> c. Helpful, but not that important
> d. Not at all important

School	Project description	Expected vs. actual outcomes	Walking impacts	Traffic impacts	
			Amount [a]	Yielding [b]	Vehicle speeds
Glenoaks Elementary	In-pavement crosswalk lighting	Expected:	Increase [e]	**Increase**	Decrease
		Actual: [c]	X [d]	**Increase**	None
Jasper Elementary	In-pavement flashing warning light	Expected:	Increase	Increase	Decrease
		Actual:	None	None	Increase
Mt. Vernon Elementary	Pedestrian count-down signals	Expected:	Increase [e]	—	—
		Actual:	None	—	—
Valley Elementary	Crosswalk and crosswalk signs	Expected:	—	Increase	Decrease [e]
		Actual:	—	None	None

Note: Boldface indicates actual outcomes that corresponded to expected outcomes; "—" indicates that no impact on this dimension was expected.

a. *Amount* refers to the total number of pedestrians observed during the 2-day observation period. We summed across morning and afternoon periods for both days.

b. *Yielding* refers to yielding of vehicles to pedestrians/bicyclists only.

c. *Actual result* is the measured outcome from study data observed after construction of the SR2S traffic improvement project.

d. An error in defining the observation catchments area during one day of "before construction" observations introduced irregularities for this measurement; these data are therefore not shown.

e. Outcome is somewhat speculative.

Table 8. Expected versus actual outcomes of SR2S crosswalk and crosswalk signal improvement projects.

A separate question asked parents about several possible effects that the construction project could have. Parents were asked to respond "yes" or "no" as to whether they thought that the construction project had made walking or bicycling safer for children, made it easier for children to cross the street, slowed car traffic near the project, made drivers more aware of children walking or bicycling, and/or separated walkers or bicyclists from car traffic.

Large majorities of parents at all sites noticed the SR2S construction projects (from 65% to 85% of parents; see Table 9). Most parents stated that the project near their child's school would increase safety (from 64% to 87% of parents), and most thought the project was important (from 59% to 78% of parents). Sometimes, a larger fraction of parents stated that they believed the project would increase safety than stated that they noticed the project. In those cases, a few parents likely offered a favorable opinion about the traffic improvement project based on the brief description in the "after construction" survey. The description of the SR2S-funded project in the survey was minimal, however, and was written in neutral terms that would not signal any judgment about the effectiveness or wisdom of the project. Hence, the strong positive opinion ratings provide evidence of parental approval of the projects funded by the SR2S program.

Two tests were used to assess whether parents' awareness or their opinions of the SR2S project at their child's school influenced their child's propensity to walk or bicycle to school. Dividing the survey respondents into two groups, those parents who noticed the SR2S project and those who did not, revealed a difference of only 3.2% in the proportion of children reported to walk or bicycle to school more (t=1.33, p=.18). We also found no significant correlation between parents' assessment of the importance of the SR2S project near their child's school and children's reported walking behavior (r=.039, p=.258). These findings suggest that reported increases in children's walking and cycling do not differ based on whether parents noticed the SR2S projects, or whether parents regarded the SR2S projects as important.

Education Campaigns and Increased Walking and Bicycling to School

During the period in which this evaluation was conducted, the California SR2S program focused its funding on construction projects. Schools or cities were not required to provide education on walking or bicycling to school in order to receive SR2S funds. It is possible, however, that some education of parents and children on the

importance of walking and bicycling to school occurred coincident with this study. If so, such education may have increased the propensity of children's walking and bicycling at these schools during the time of this evaluation. To understand whether schools provided education or information materials on walking and bicycling coincident with SR2S project construction, administrators at the 10 study schools were queried in fall 2003 as to whether they had participated in National Walk to School Day during the period immediately before or immediately after SR2S project construction. Five of the 10 study schools stated they did not participate in National Walk to School Day; two schools had participated. At three schools, no official was available who could verify whether or not they had participated. While participation in National Walk to School Day does not cover the full range of education initiatives, it suggests that many schools in the study did not change their education or information programs related to walking and bicycling during SR2S project construction, implying that what is reported in this paper is an evaluation of primarily built environment changes.

Conclusions and Recommendations

Overall, the research team found evidence of success in 5 of the 10 traffic improvement projects we evaluated. As noted, we used strict criteria for project success. These criteria require that a project produce a near-term, measurable impact that can be observed. Projects that contribute to behaviors that cannot be easily measured but that contribute to safety would not be judged successful by these criteria. For example, crosswalk lighting systems that increase driver awareness of pedestrians might not increase yield rates if yielding was already high, and also might not measurably slow vehicle speeds if most vehicles slowed for pedestrians before installation of the warning light. Given that collisions with pedestrians are rare events, an increase in safety from such a crosswalk lighting system could be real, but the measured outcomes of this study would not mark the project as successful. Lastly, other events or programs could confound some impacts of these SR2S-funded projects. At Jasper Elementary, for example, the nearby opening of the I-210 freeway extension could have masked any effect that the pedestrian/bicycle crossing project might have had on slowing vehicle speeds. Overall, the ranking of "evidence of success" may understate the success of California's SR2S program.

Some SR2S-funded traffic improvements clearly delivered more immediate and measurable success than did others. A lack of immediate success does not necessarily indicate a failure of the project, however. The sidewalks and bicycle lanes near Murrieta Elementary, for example, could be justified as necessary infrastructure that, with later improvements, might contribute to increases in walking and bicycling. In the quarter-mile circle around Murrieta Elementary, only 8% of the blocks had a complete sidewalk before the SR2S project, one of the lowest percentages of sidewalks at any project site evaluated. Thus the sidewalks at Murrieta Elementary might be justified not based on any prospect for immediate impact, but because the neighborhood had very poor walking infrastructure.

School	Noticed project	Project made walking/bicycling safer	Project was most important or important	Project was most important
Caesar Chavez Elementary	82%	85%	76%	40%
Glenoaks Elementary	70%	77%	70%	51%
Jasper Elementary	86%	64%	68%	44%
Juan Cabrillo Elementary	82%	87%	63%	50%
Mt. Vernon Elementary	65%	71%	59%	37%
Murrieta Elementary	86%	85%	75%	60%
Newman Elementary	87%	81%	86%	38%
Sheldon Elementary	75%	84%	78%	44%
Valley Elementary	77%	77%	78%	50%
West Randall Elementary	69%	69%	71%	39%

Table 9. Parents' opinions of the SR2S-funded traffic improvement projects.

Some patterns emerge from examining the evidence of project success across different types of traffic improvements. Among the 5 sidewalk improvement projects studied, 3 sidewalk gap closure projects showed evidence of success. In all three cases, the evaluation of the project as successful was based primarily on improvements in separating pedestrian traffic from vehicle traffic. The fraction of children observed walking exclusively on the sidewalk increased from 35% before SR2S construction to 65% after SR2S construction at Sheldon Elementary, from 58% to 96% at Valley Elementary, and from 25% to 95% at West Randall Elementary. These changes connote substantial safety improvements. Based on the experiences at these schools, sidewalk gap closures at locations with moderate or heavy pre-existing pedestrian traffic are good candidates for funding for traffic improvements. (In contrast, at the two schools where sidewalk projects did not show strong evidence of success—Juan Cabrillo and Murrieta Elementary—few children walked on the street or shoulder before the SR2S project, so there was limited potential to shift students from the street or shoulder to the sidewalk.)

The replacement of four-way stops with traffic signals at two schools both showed evidence of success. This suggests that traffic signals that regulate vehicle yielding can produce important improvements in safety, especially near schools with much walking and bicycle travel.

None of the four schools with pedestrian/bicycle crossing improvements showed more than limited evidence of success. While this success seems less impressive than for the sidewalk improvement projects, note that the impact of pedestrian/bicycle crossing improvements might be more difficult to measure. Pedestrian/bicycle crossing improvements may function by making pedestrian crossings more visible and by directing pedestrians into a single, well-marked crossing, thus making drivers and pedestrians more aware of the presence of the other. Both drivers and pedestrians may behave more predictably, thus decreasing conflicts. Any increase in awareness should be reflected in yielding, but yielding rates are so high at some locations that it may be difficult to show an increase. To the extent that pedestrian/bicycle crossing improvements increase driver or pedestrian awareness, safety could increase in ways that would not be measured by the methods used in this study. Findings from this study do not shed light on this question either way.

The only bicycle facility (on-street bicycle lanes near Murrieta Elementary) showed no evidence of success. There was little observed bicycling before or after construction of this SR2S-funded project. Had there been more bicycle traffic before construction, the project might have had important value by separating that traffic from vehicles. As is, the bicycle lane by itself appeared to do little to increase the amount of bicycle travel. If we can draw conclusions from evaluation of this single bike lane project, it may be that bicycle facilities might be restricted to either schools with moderate or high pre-existing levels of bicycle travel or to schools where a bicycle lane brings a reasonable *a priori* expectation of increases in bicycle travel.

California's SR2S program and programs in other states can build on the lessons learned in this study. Specifically, we recommend the following:

- Projects should be supported that would fill sidewalk gaps near schools with moderate or high amounts of walking. Findings suggest that such projects are capable of improving conditions linked to pedestrian safety.
- Projects should also be supported that include traffic control devices to regulate yielding at intersections where large volumes of vehicle and pedestrian traffic intersect.
- At schools with low levels of walking or bicycle travel, traffic improvements by themselves may be insufficient to increase nonmotorized travel to school. At such locations, it may be that SR2S construction funding would be more effective if coupled with other efforts (e.g., education campaigns or additional construction improvements) to encourage students to walk or bicycle to school.
- In general, schools should be encouraged to leverage funds for traffic improvements by providing education that encourages students to walk and bicycle safely to and from school. Including participation in National Walk to School Day as a criterion for evaluating applications for SR2S funding is one way to couple education more tightly with construction programs.

Future research should continue to track the outcome of SR2S construction programs. Research is needed on traffic calming and traffic diversion projects in particular. As noted earlier, it was not possible to examine such projects in this evaluation, though attempts were made to do so. Traffic calming and traffic diversion projects constitute an important component of the toolkit available to planners and engineers to address pedestrian and bicyclist safety issues. Such projects should be included in future evaluations of the impact of built environment changes on walking and bicycling. Future research should also examine more long-term outcomes of SR2S construction. One example would be studies that would track accident rates, taking advantage of longer time series than were available in this study.

Acknowledgments

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Notes

1. A segment of street (200 feet or more) was chosen that began and ended at least 50 feet from any intersection. The time required for a vehicle to travel the measured segment was recorded by hand. When travel time was recorded for one vehicle, another vehicle was identified, timed, and recorded.

Using a stopwatch to measure speed gives an average speed and is applicable regardless of speed or congestion. With radar, the more common methodology, it is difficult to identify which vehicle is being measured under crowded conditions. Furthermore, the instantaneous speed provided by radar is difficult to interpret under stop-and-go conditions. Our research team has used stopwatches to measure speed previously (Agran et al., 1996).

2. Responses are from a question asking parents whether their children walked or bicycled to school more than, less than, or the same amount now as compared to before construction of the SR2S-funded project. This question did not ask parents to assess whether the project caused changes in walking or cycling; instead, it simply asked them to assess whether their children's walking or cycling travel to school changed in the period of time that spanned from before project construction to after the project was completed. This comparison controls for factors that might have generally increased or decreased walking or bicycling travel to school during the period of SR2S project construction. Examples of such factors include a highly publicized child abduction and murder that occurred in California between "before construction" and "after construction" observations for some of the schools, and so might have contributed to general decreases in walking or bicycling travel among elementary school children in California. By comparing changes in children's walking and bicycling by location of the project relative to children's paths, findings control for broader societal or neighborhood changes in walking and bicycling that might not be associated with the SR2S-funded project.

3. There is some conflict between survey results at West Randall Elementary—which indicate, on net, little change in walking—and the observations at West Randall, which show a large increase in walking travel (see Tables 4 and 5). Note that some of the foot traffic near West Randall Elementary might be associated with another nearby school. It was not possible to differentiate observed pedestrians as to the school they attended.

4. Survey responses reported that few children walked to school at Juan Cabrillo Elementary, yet the number of children observed walking was high. We observed that many parents who drove their children to this school parked nearby and then walked the children into school. Hence, observed walking travel directly in front of the school was higher than one would expect based on the reported mode of travel to school, and we conclude that the amount of walking to school at Juan Cabrillo Elementary was modest.

5. Vehicle speeds were calculated based on measured times that vehicles took to travel a fixed distance. Because these measurements were timed using a stopwatch, a 0.3 second error associated with starting and stopping the stopwatch is assumed. That 0.3 second error was propagated through to the speed calculations, and is used to bound error ranges around the estimates of vehicle speeds.

6. Since traffic in front of Glenoaks Elementary was already heavily congested during drop-off and pick-up times, however, further slowing of vehicle speeds (averaging 12 miles/hour in the morning and 15 miles/hour in the afternoon) might have been unlikely.

7. Between the collection of "before construction" and "after construction" data, the nearby extension of Interstate 210 was completed and opened to traffic. This highway is located approximately 1,000 feet away from the SR2S traffic improvement. The study team's traffic counts at Jasper Elementary decreased by approximately 20% from before to after SR2S construction, suggesting that traffic was diverted to the completed Interstate 210, which could explain the increase in vehicle speeds.

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Promoting Safe Walking and Biking to School: The Marin County Success Story

Catherine E. Staunton, MD, Deb Hubsmith, BS, and Wendi Kallins, BA, for the Marin County Bicycle Coalition's Safe Routes to School Program

Walking and biking to school can be an important part of a healthy lifestyle, yet most US children do not start their day with these activities.

The Safe Routes to School Program in Marin County, California, is working to promote walking and biking to school. Using a multipronged approach, the program identifies and creates safe routes to schools and invites communitywide involvement. By its second year, the program was serving 4665 students in 15 schools.

Participating public schools reported an increase in school trips made by walking (64%), biking (114%), and carpooling (91%) and a decrease in trips by private vehicles carrying only one student (39%).

WALKING AND BIKING TO school provide a convenient opportunity to incorporate physical activity into a child's daily routine, yet only about 1 US child in 9 starts the day by walking or biking to school. About one third of children take a bus to school and half are driven in a private vehicle.[1] Increasing the proportion of children walking and biking to school are 2 of the national health objectives for 2010.[2]

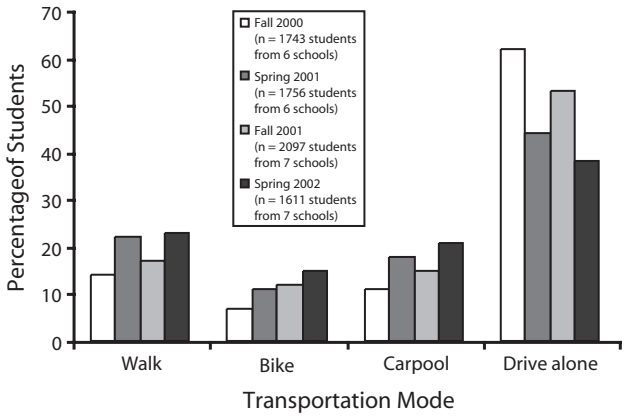
THE PROGRAM

Marin County is a middle- and upper-class community on the California coast just north of San Francisco. Its population of 247 707 includes about 35 000 school-aged children.[3] In 1999, 2 local residents began working to increase the number of Marin County children walking and biking to school and to decrease the number of school trips made by private vehicles. By 2000, the Marin County Safe Routes to School Program, initially funded by a grant from the Marin Community Foundation, had been established. In August 2000, the program received a $50 000 grant from the National Highway Traffic Safety Administration. During the 2000–2001 school year, the program served about 3500 students in 9 schools (7 public and 2 private); by the 2001–2002 school year, 4665 students in 15 schools (12 public and 3 private) were enrolled; in the 2002–2003 school year, 7609 students in 21 schools (17 public and 4 private) are participating. Enrolled schools include elementary and middle schools.

The program has only 4 paid staff. One of the 2 founding members is the program director, and the other works several hours a week supervising and promoting the program. A full-time educator is employed to develop the program's school curriculum and oversee classroom education. A traffic engineer assists in identifying and creating safe routes for participating students. A private consulting firm, hired during the second year, oversees and evaluates the program. The Marin County Safe Routes to School Program relies heavily on parent, teacher, and community volunteers to carry out its broad range of activities (Table 1). The program requires each school to identify a volunteer team leader prior to enrolling.

During the first 2 years of the program, modes of school transportation were determined by student surveys. For 3 consecutive days in the fall, prior to the start of the program, and then again in the spring, prior to the end of school, volunteers visited classrooms and, using a show of hands, asked children to indicate the transportation mode they used in traveling to school that morning. Results from the 3 days were averaged. Because the survey relied on inexperienced volunteers, results were often incomplete; some schools did not conduct the surveys at all and other schools did not survey all classrooms. Six of 9 schools participated in the fall 2000 and spring 2001 surveys. Seven of 15 schools participated in the fall 2001 and spring 2002 surveys.

By spring 2002, more than $1 million in additional funding had been received, including dona-



Note. A "carpool" is defined as 2 or more students per private vehicle, and "drive alone" is 1 student (with driver) per private vehicle.

FIGURE 1—Transportation choices in the public schools participating in the Marin County Safe Routes to School Program, 2000–2002.

tions from local foundations, local businesses, and grants from the Marin Community Foundation, Marin County, the City of San Rafael, and the California Departments of State Services and Transportation. Funding for the 2002–2003 school year is expected to exceed $2 million. Much of this funding is earmarked for infrastructure changes (Table 1) to decrease the traffic danger faced by students walking and biking.

EVALUATION

The student transportation surveys (Figure 1) reveal an increase in walking, biking, and carpooling in the participating public schools during the first 2 years of the Marin County Safe Routes to School Program. From fall 2000 to spring 2002, there was a 64% increase in the number of children walking, a 114% increase in the number of students biking, a 91% increase in the number of students carpooling, and a 39% decrease in the number of children arriving by private car carrying only one student.

The data in Figure 1 include 6 schools for the first school year and 7 for the second school year. Only 2 schools participated in surveys both years. Analysis restricted to these 2 schools produced results similar to those in Figure 1 (data not shown). School bus trips are not shown because only 2 schools offered bus transportation. Of the 3 private schools, data were collected in only 2 of the schools and only during the second year of the program. These 2 private schools, with a total of 401 students (data not included in Figure 1) drawn from larger geographic areas than in the public schools, recorded only modest increases in walking (1%) and carpooling (5%) and small decreases in biking (–1%) and "drive alone" transport (–4%). As discussed below, improved and expanded program evaluation is planned.

DISCUSSION

The Marin County Safe Routes to School Program provides a successful model for promoting safe walking and biking to school. Decreased rates of walking and carpooling and increased rates of "drive alone" in fall 2001 may be secondary to the addition of new schools, lack of program activities over the summer, or both. The program is making an important difference to participating communities by enhancing health, reducing traffic congestion, and helping build a greater sense of community. Although barriers to walking and biking to school, such as distance, traffic danger, crime, and the availability of volunteers, will vary by community, many aspects of this program will be useful to other interested communities.[4] Efforts to create safe and accessible routes for children to walk and bike to school can facilitate safe walking and biking for people of all ages.

NEXT STEPS

The program, now in its third year, has maintained its base curriculum while planning an expansion to recruit more schools, including high schools. Future goals include expanding and perfecting data collection and analysis by using professional statisticians. Further analysis could include evaluating the effectiveness of the individual program activities, analyzing transporta-

Lagunitas School students get help from a volunteer crossing guard.

TABLE 1—Activities of the Safe Routes to School Program: Marin County, California, 2000–2002

Mapping Safe Routes to School

- Town-wide programs established to identify and create safe routes for walking and biking to each school.
- Volunteers walk the routes and report findings to the group documenting routes for their school.
- Findings pooled on a master map.
- Solutions to make walking and biking safer are designed (sidewalks, improved pedestrian signage and crossings, a pedestrian bridge, extension of existing bike trail, bike lanes, etc.).
- Funds for needed traffic infrastructure changes are obtained through grant applications, public presentations leading to donations, and local government funds.

Walk and Bike to School Days

- All schools participate in "International Walk to School Day" (beginning of October); many schools also have scheduled monthly or even weekly "Walk to School Days."
- Many schools provide drinks and treats to children walking or biking to school.
- "Staging Areas" are established where students who live too far away can be dropped off and then walk the rest of the way to school.
- Some schools also encourage children to take school buses rather than travel by private vehicle.

Frequent Rider Miles Contest

- Children are issued "tally cards" with 20 possible points per card.
- Children earn 2 points for walking or biking and 1 point for taking the bus or carpooling.
- At 20 points, children get a small prize and can enter a raffle for larger prizes.
- Children are encouraged to submit multiple cards for the raffle during the contest period.

Classroom Education

- Safety training is provided through videos, discussions, presentations, and hands-on "bicycle rodeos." A "toolkit," developed by the program and available to all participating schools, includes curriculum guidelines for teaching pedestrian and biking safety.
- Using age-appropriate, local examples, children were taught about transportation choices and the environment, physical activity for health, the power of community involvement, and the interrelatedness of all species and habitats.
- In one middle school, children produce their own videos on "the role bicycles play in our society."

Walking School Buses and Bike Trains

- Organized groups of children that walk and bike together are called "walking school buses" and "bike trains," respectively. These groups allow parents to share the responsibility of supervising children's trips and provide the children with a group of friends to travel with.
- Geographic mapping systems showing the homes of the participating children facilitate establishment of these walking and biking groups. Some schools posted these geographic maps along with parent contact information to facilitate formation of "walking school buses" and "bike trains."

Newsletters and Promotions

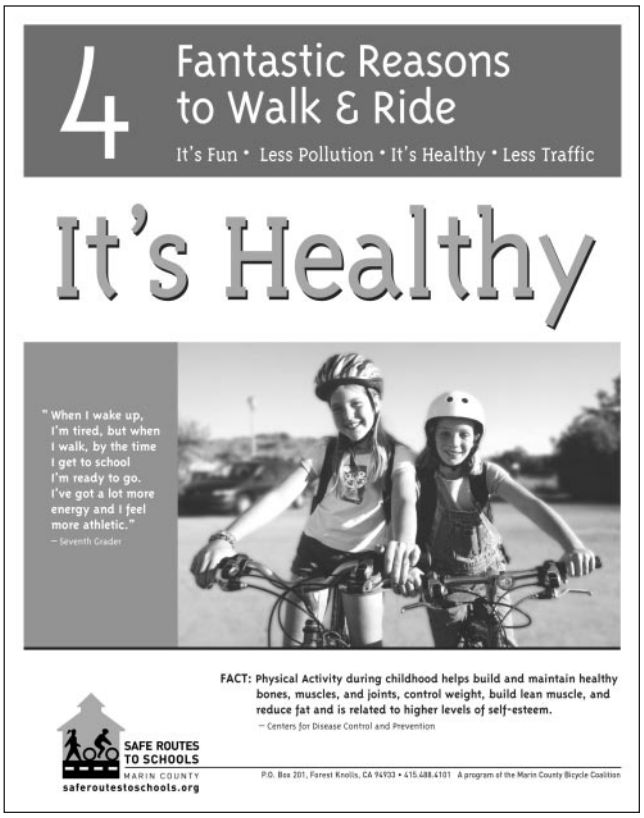
- Throughout the year, the volunteer team leaders at each school are supplied with template flyers, fact sheets, posters, and newsletters (newsletters are also mailed to elected officials, town staffers, and other interested parties).
- Local newspapers have run feature articles about the program.
- The program uses an e-mail listserv, an e-mail distribution list, and a Web site (see "Resources").
- An annual countywide forum is held to welcome new schools to the program and allow participating teams of volunteers at all schools to meet and talk with one another.

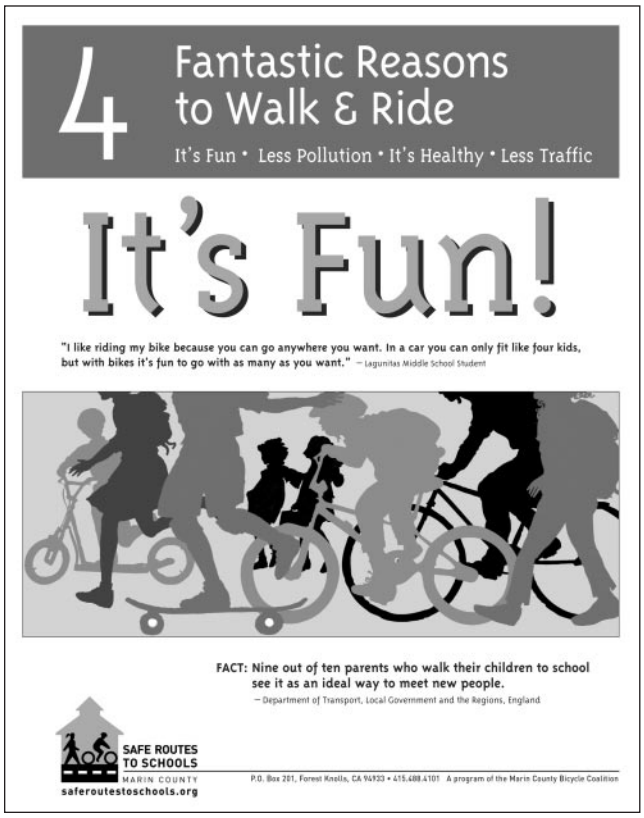
Networking and Presentations on the State and National Level

- Safe Routes to School staff have been invited speakers at numerous state, national, and international conferences.

KEY FINDINGS

- Marin County's Safe Routes to School Program has been successful in promoting walking and biking to school.
- Much of the program's success can be attributed to the contributions made by parents, teaches, and community volunteers.
- This community-based program also led to an increased rate of carpooling to school and a substantial drop in the use of private vehicles for transporting students to school.





Promotional posters made and used by the Marin County Safe Routes to School program.

tion modes by travel distance, assessing health outcomes such as improved physical fitness, having closer surveillance for travel-related injuries, measuring changes in traffic congestion, and using comparison communities. ■

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Contributors

C.E. Staunton reviewed the study design, research methods, and data analysis and then wrote the report. D. Hubsmith and W. Kallins, who founded and continue to run the Marin County Safe Routes to School Program, were central in collecting and analyzing the data presented in the report and also reviewed the report.

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4. Centers for Disease Control and Prevention. Barriers to walking and biking to school—United States, 1999. *MMWR Morb Mortal Wkly Rep.* 2002; 51:701–704.

Resources

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- "Kids Walk-to-School" Program. Available at: http://www.cdc.gov/nccdphp/dnpa/kidswalk/resources.htm.
- Walk to School Day USA. Available at: http://www.walktoschool-usa.org.
- International Walk to School Day. Available at: http://www.iwalktoschool.org.
- National Highway Traffic Safety Administration. Available at: http://www.nhtsa.dot.gov/people/injury/pedbimot/ped/saferouteshtml/toc.html.
- National SAFE KIDS Campaign. Available at: http://www.safekids.org/tier3_cd.cfm?folder_id=183&content_item_id=3410.

Active Transportation and Cardiovascular Disease Risk Factors in U.S. Adults

Gregg L. Furie, MD, MHS, Mayur M. Desai, PhD, MPH

This activity is available for CME credit. See page A4 for information.

Background: Evidence of associations between active transportation (walking and bicycling for transportation) and health outcomes is limited. Better understanding of this relationship would inform efforts to increase physical activity by promoting active transportation.

Purpose: This study examined associations between active transportation and cardiovascular disease risk factors in U.S. adults.

Methods: Using the 2007–2008 and 2009–2010 cycles of the National Health and Nutrition Examination Survey (NHANES), adults (N=9933) were classified by level of active transportation. Multivariable linear and logistic regression analyses controlled for sociodemographic characteristics, smoking status, and minutes/week of non-active transportation physical activity. Analyses were conducted in 2011.

Results: Overall, 76% reported no active transportation. Compared with no active transportation, mean BMI was lower among individuals with low (−0.9, 95% CI= −1.4, −0.5) and high (−1.2, 95% CI= −1.7, −0.8) levels of active transportation. Mean waist circumference was lower in the low (−2.2 cm, 95% CI= −3.2, −1.2) and high (−3.1 cm, 95% CI= −4.3, −1.9) active transportation groups. The odds of hypertension were 24% lower (AOR=0.76, 95% CI=0.61, 0.94) and 31% lower (AOR=0.69, 95% CI=0.58, 0.83) among individuals with low and high levels of active transportation, respectively, compared with no active transportation. High active transportation was associated with 31% lower odds of diabetes (AOR=0.69, 95% CI=0.54, 0.88). Active transportation was not associated with high-density lipoprotein level.

Conclusions: Active transportation was associated with more-favorable cardiovascular risk factor profiles, providing additional justification for infrastructure and policies that permit and encourage active transportation.

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Introduction

Nearly 40% of adults in the U.S. do not obtain the minimum 150 minutes/week of moderate physical activity recommended by the DHHS,[1,2] increasing their chances of acquiring cardiovascular disease risk factors such as obesity,[3,4] hypertension,[5] diabetes,[6,7] and serum lipid abnormalities.[8] Despite evidence of physical activity's health benefits, particularly for sedentary populations,[9] efforts to increase population levels of leisure-time or occupational physical activity have not achieved desired results. Active transportation (walking and bicycling for transportation) may provide an alternative opportunity for physical activity. By transforming routine daily living into an opportunity for physical activity, active transportation overcomes many of the traditional barriers to engaging in leisure-time or occupational physical activity.[10] Public policy and built environment interventions could increase levels of active transportation,[11,12] but justifying these efforts on the grounds of health promotion requires stronger evidence that active transportation, like other forms of physical activity, is associated with clinically meaningful health outcomes.

Numerous observational studies have demonstrated a protective effect of leisure-time physical activity on cardiovascular disease risk factors. However, studies[10,13] of

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active transportation have shown inconsistent effects. Further, studies conducted in Scandinavia,[14–24] Australia,[25] and Asia[26–28] may lack generalizability to U.S. adults because of different racial and ethnic composition, transportation policies and infrastructure, and cardiovascular disease risk profiles. Two U.S. studies focused only on adults aged 18–28 years[29] and aged 38–50 years.[30] Importantly, these studies[14–30] evaluated walking or bicycling to work or school and therefore fail to capture populations that are unemployed, do not attend school, or use active transportation for purposes other than commuting. Given these limitations, there is need for better understanding of the potential health benefits of active transportation in U.S. adults.

It was hypothesized that engaging in active transportation would be inversely associated with selected cardiovascular disease risk factors, independent of time spent in leisure-time and occupational physical activity. Because the greatest health benefits of physical activity accrue to sedentary individuals, it also was hypothesized that the associations would be stronger among individuals who did not meet physical activity recommendations through leisure-time and occupational physical activity.

Methods

Sample

The study employed a cross-sectional design using data from the 2007–2008 and 2009–2010 cycles of the National Health and Nutrition Examination Survey (NHANES), a stratified multistage probability sample of the non-institutionalized U.S. civilian population. Details of the complex survey design are described elsewhere.[31] Individuals aged ≥20 years who participated in both the questionnaire and Mobile Examination Center portions of the survey, were not pregnant, and did not report impaired mobility were included in the analysis. Impaired mobility was defined as using special equipment to walk or reporting much difficulty walking or being unable to walk one-quarter mile or up ten steps.

Measures

Outcomes of interest were cardiovascular disease risk factors for which physical activity has well-established protective effects, including BMI,[3,4] abdominal waist circumference,[3,4] hypertension,[5] diabetes,[6,7] and high-density lipoprotein (HDL) level.[8] BMI and abdominal waist circumference were treated as continuous variables; hypertension, diabetes, and HDL level were treated as dichotomous variables. Hypertension was defined as either self-reported use of pharmacologic therapy for high blood pressure, mean systolic blood pressure (SBP) ≥140 mmHg, or mean diastolic blood pressure (DBP) ≥90.[32,33] Diabetes was defined as either self-reported use of pharmacologic therapy for diabetes or a hemoglobin A1c (HbA1c) ≥6.5%.[34] Low HDL was defined as a serum HDL level <40 mg/dL.[35]

The primary independent variable was time spent in active transportation in a typical week. Participants were asked if they "walk or use a bicycle for at least 10 minutes continuously to get to and from places." If they responded affirmatively, they were asked on how many days in a typical week and for how many minutes on a typical day. Individuals who did not engage in active transportation were considered to have 0 minutes/week. For all others, minutes/week of active transportation were calculated by multiplying the minutes/day spent walking or bicycling for transportation by the number of days/week on which the activity was reported. Time spent in active transportation was categorized into three levels: none (0 minutes/week); low (1–149 minutes/week); or high (≥150 minutes/week). The cutoff reflects current recommendations for a minimum of 150 minutes/week of moderate physical activity and represented the approximate median of the distribution of those with nonzero values for time spent in active transportation.

Minutes per week of time spent in leisure-time physical activity and occupational physical activity were calculated using the same method. Because participants were asked independently about both moderate and vigorous leisure-time and occupational physical activity, time spent in vigorous activity was weighted by a factor of two in order to convert to moderate physical activity equivalents.[1] Time spent in leisure-time and occupational physical activity were summed to create a single variable. This variable was then categorized into five levels: 0 minutes/week; 1–149 minutes/week; 150–449 minutes/week; 450–899 minutes/week; 900–2249 minutes/week; or ≥2250 minutes/week, with cutoffs based on approximate quintiles of those with nonzero values for time spent in combined leisure-time and occupational physical activity. NHANES uses the WHO's Global Physical Activity Questionnaire, which has been evaluated for reliability and validity.[36]

Other covariates included age; gender; race/ethnicity (non-Hispanic white, non-Hispanic black, Mexican-American, or other); education level (<high school, high school, or >high school); and smoking status (never, former, current). Ratio of family income to the federal poverty level (<1, 1–2.9, ≥3),[37] provided as a variable in the NHANES data set and used in prior studies of NHANES, was used to adjust for SES.

Data Analyses

First, descriptive statistics were used to characterize the sample by level of active transportation. Bivariate associations between sample characteristics and level of active transportation were examined using ANOVA and the χ^2 test for continuous and categoric variables, respectively. Second, unadjusted associations between level of active transportation and each of the five cardiovascular disease risk factors of interest were examined using ANOVA and the χ^2 test as appropriate.

Next, adjusted analyses of associations between level of active transportation and the cardiovascular disease risk factors were performed using linear regression for continuous outcomes (BMI and waist circumference) and logistic regression for dichotomous outcomes (hypertension, diabetes, and low HDL). All multivariable models were adjusted for sociodemographic variables, smoking status, and time spent in combined leisure-time and occupational physical activity.

Finally, in addition to analyses of the total sample, stratified analyses were conducted to assess whether associations between active transportation and cardiovascular disease risk factors differed in those who did and did not meet physical activity recommendations (at least 150 minutes/week of moderate physical activity) through combined leisure-time and occupational physical activity. Stratified analyses were performed in order to evaluate active transportation in an otherwise relatively sedentary popula-

Table 1. Description of the sample, % unless otherwise noted

Characteristic	Total sample (N=9933)			
	No active transportation (*n*=7284; 76%)	Low active transportation (*n*=1129; 11%)	High active transportation (*n*=1520; 14%)	*p*-value[a]
Age (years; M±SE)	46±0.3	43±0.8	42±0.6	<0.001
Gender				0.001
Male	48	51	55	
Race/ethnicity				0.003
Mexican-American	12	15	19	
Non-Hispanic white	71	65	60	
Non-Hispanic black	10	13	12	
Other	6	8	8	
Education level				<0.001
<High school	16	18	28	
High school	25	22	17	
>High school	59	60	55	
Family income level, % FPL				<0.001
<100	10	15	20	
100 to <300	31	32	35	
≥300	51	45	37	
Unknown	8	9	8	
Smoking status				0.038
Never	56	55	56	
Former	24	23	21	
Current	21	22	23	
Time spent in combined leisure-time and occupational physical activity, minutes per week				<0.001
None	26	23	26	
1–149	13	14	6	
150–449	20	17	15	
500–899	14	15	15	
900–2249	16	18	20	
≥2250	12	13	19	

Note: All *n*s are unweighted and percentages are weighted; percentages may not sum to 100% because of rounding. No active transportation=0 minutes/week; low active transportation=1–149 minutes/week; high active transportation≥150 minutes/week.
[a]For ANOVA or χ^2 test
FPL, federal poverty level

tion that, based on prior research,[9] experiences the greatest benefit from participating in physical activity. All analyses were weighted to account for the complex survey design and were conducted using SAS 9.2 and SAS-Callable SUDAAN 9.0.3. Analyses were conducted in 2011. The study was exempted from review by the Yale University Human Investigation Committee.

Results

The final analytic sample included 9933 participants, 43% of whom did not meet physical activity recommendations based on combined leisure-time and occupational physical activity. Overall, 76% of individuals did not walk or bike for

Table 2. Unadjusted and adjusted[a] associations between level of active transportation and cardiovascular disease risk factors in unstratified and stratified[b] analyses

	BMI			Waist circumference, cm		
	Unadjusted			Unadjusted		
Level of active transportation	M±SE	*p*-value[c]	Adjusted β (95% CI)	M±SE	*p*-value[c]	Adjusted β (95% CI)
UNSTRATIFIED						
All included participants		<0.001			<0.001	
None	28.6±0.1		1 (ref)	97.9±0.3		1 (ref)
Low	27.6±0.2		−0.93 (−1.35, −0.51)	95.2±0.6		−2.22 (−3.25, −1.19)
High	27.3±0.3		−1.24 (−1.68, −0.79)	94.3±0.8		−3.08 (−4.28, −1.89)
STRATIFIED						
Did not meet physical activity recommendations		<0.001			<0.001	
None	29.3±0.2		1 (ref)	99.5±0.4		1 (ref)
Low	27.8±0.4		−1.48 (−2.34, −0.61)	95.3±0.9		−3.78 (−5.65, −1.90)
High	27.6±0.4		−1.73 (−2.47, −0.99)	94.4±1.0		−5.04 (−6.82, −3.26)
Met physical activity recommendations		0.011			0.007	
None	28.1±0.1		1 (ref)	96.9±0.3		1 (ref)
Low	27.5±0.3		−0.64 (−1.30, 0.02)	95.0±0.7		−1.32 (−2.71, 0.07)
High	27.2±0.3		−1.02 (−1.62, −0.42)	94.2±1.0		−2.17 (−3.74, −0.59)

Note: Active transportation: none=0 minutes/week; low=1–149 minutes/week; high=≥150 minutes/week.
[a]Adjusted for age, gender, race/ethnicity, education level, income, smoking status, and combined leisure-time and occupational physical activity
[b]Stratified by whether participants did or did not obtain ≥150 minutes/week of combined leisure-time and occupational physical activity
[c]*p*-value for ANOVA or χ^2 test
HDL, high-density lipoprotein

more than 10 minutes continuously for transportation in a typical week (i.e., no active transportation), and 19% of individuals engaged in no physical activity of any form.

Characteristics of the sample are shown in Table 1. Individuals who engaged in the highest level of active transportation, compared with those who engaged in no or low active transportation, were younger and more likely to be male, Mexican-American, lower income, and less than high-school educated. Level of active transportation was positively associated with time spent in combined leisure-time and occupational physical activity (Table 1). In unadjusted analyses, there were significant inverse associations of level of active transportation with mean BMI and mean abdominal waist circumference and with prevalence of both hypertension and diabetes (Table 2). No association was found between active transportation and prevalence of low HDL.

After adjustment for all covariates, mean BMI remained lower among individuals with low (−0.9, 95% CI= −1.4, −0.5) and high (−1.2, 95% CI= −1.7, −0.8) levels of active transportation versus no active transportation (Table 2). Similarly, mean abdominal waist circumference remained lower among those engaged in low (−2.2 cm, 95% CI= −3.2, −1.2) and high (−3.1 cm, 95% CI= −4.3, −1.9) levels of active transportation versus no active transportation (Table 2). The odds of having hypertension were 24% lower (AOR=0.76, 95% CI=0.61, 0.94) and 31% lower (AOR=0.69, 95% CI=0.58, 0.83) among individuals with low and high levels of active transportation, respectively, than individuals with no active transportation (Table 2). Compared with no active transportation, high active transportation was associated with 31% lower odds of having diabetes (AOR=0.69, 95% CI=0.54, 0.88); the odds of having diabetes among individuals with low active transportation also were reduced, but did not reach significance (Table 2).

Similar patterns were observed in stratified multivariable analyses (Table 2). Within the group that did not meet physical activity recommendations through combined leisure-time and occupational physical activity, increasing active transportation was associated with lower mean BMIs, smaller waist circumferences, and lower odds of both hypertension and diabetes. Further, even among the group that did meet physical activity recommendations through combined leisure-time and occupational physical activity, engaging in a high level of active transportation was associated with a lower mean BMI and smaller mean waist circumference. However, the magnitudes of these associations were smaller than those seen in the former group.

Table 2. *(continued)*

Hypertension			Diabetes			Low HDL		
Unadjusted			Unadjusted			Unadjusted		
%±SE	*p*-value[c]	AOR (95% CI)	%±SE	*p*-value[c]	AOR (95% CI)	%±SE	*p*-value[c]	AOR (95% CI)
	<0.001			<0.001			0.767	
30.3±0.9		1 (ref)	8.9±0.4		1 (ref)	21.3±0.7		1 (ref)
22.5±1.7		0.76 (0.61, 0.94)	6.5±0.7		0.77 (0.58, 1.02)	20.0±1.9		0.88 (0.67, 1.15)
20.2±1.5		0.69 (0.58, 0.83)	5.8±0.6		0.69 (0.54, 0.88)	21.7±1.4		0.88 (0.73, 1.06)
	<0.001			0.002			0.438	
36.3±1.1		1 (ref)	12.3±0.8		1 (ref)	21.2±1.1		1 (ref)
28.3±2.7		0.75 (0.57, 0.98)	9.7±1.1		0.83 (0.64, 1.07)	18.2±2.4		0.76 (0.53, 1.11)
23.2±1.9		0.58 (0.44, 0.76)	7.8±1.0		0.62 (0.45, 0.87)	19.9±2.2		0.77 (0.57, 1.05)
	<0.001			0.017			0.846	
26.5±1.3		1 (ref)	6.8±0.4		1 (ref)	21.3±0.8		1 (ref)
19.0±2.1		0.77 (0.58, 1.02)	4.6±1.0		0.71 (0.41, 1.24)	21.1±2.4		0.94 (0.68, 1.32)
18.7±1.9		0.77 (0.59, 1.02)	4.9±0.8		0.73 (0.52, 1.03)	22.5±2.1		0.94 (0.73, 1.20)

Discussion

Less than one quarter of U.S. adults in a nationally representative sample reported walking or bicycling for transportation in a typical week. After adjusting for potential confounders, engaging in active transportation was associated with lower BMI, smaller waist circumference, and lower odds of hypertension and diabetes. Based on the CIs, there were no differences between the associations of low and high levels of active transportation with the outcomes of interest. However, there was a trend toward higher levels of active transportation having stronger inverse associations with these four cardiovascular disease risk factors. After stratification of the sample into those who did or did not meet physical activity recommendations through a combination of leisure-time and occupational physical activity, the magnitudes of the associations were larger among the more sedentary group. However, even those who met physical activity recommendations had a significantly lower mean BMI and lower mean waist circumference when they also engaged in high levels of active transportation.

The present study's findings are interesting in light of evidence that fitness may be a more important determinant of cardiovascular risk than adiposity.[38] Although use of continuous and dichotomous dependent variables precludes direct comparison, the magnitude of associations between active transportation and BMI and waist circumference appeared small relative to its associations with hypertension and diabetes. Prior studies have demonstrated that fitness is associated with reductions in blood pressure[5,39] and improved glycemic control[40] independent of its effect on adiposity. No association was observed between active transportation and low HDL. Active transportation may not be of sufficient intensity to raise HDL levels.[41]

Active transportation is an untapped reservoir of opportunity for physical activity for many U.S. adults. A study using the National Household Transportation Survey found similar low utilization of active transportation, with only 19% of Americans aged ≥5 years reporting walking or bicycling for transportation.[42] In contrast to the U.S., many European countries experience high population levels of active transportation.[43] In Germany, the proportion of individuals reporting any walking or cycling for transportation are two and seven times greater than in the U.S., respectively.[12] These differences are in part due to policies, community planning, and infrastructure design that make active transportation appealing.[11,12,43,44] Implementing similar strategies in the U.S. could have important implications for individuals with time or financial constraints that prohibit leisure-time physical activity or with professions and work environments that are not conducive to occupational physical activity.

Although the cross-sectional study design precludes inferring a causal effect of active transportation on the out-

comes of interest, the findings are consistent with prior longitudinal studies that demonstrate dose-dependent reductions in cardiovascular disease risk factors associated with physical activity.[4,5,7,45–47] The findings also are consistent with prior studies of U.S. adults that found inverse associations between active commuting and cardiovascular disease risk factors.[29,30] This suggests a potential role for active transportation in risk factor modification. Increasing levels of active transportation may have additive health benefits for individuals who are already physically active. However, the greatest impacts could accrue to the sedentary, highest-risk populations that are most sensitive to barriers to engaging in other forms of physical activity. Collectively, these findings suggest that public policy and built environment interventions to increase levels of active transportation in the U.S. may be justified on the grounds of health promotion. Additionally, these strategies could help reduce morbidity and mortality linked to motor vehicle emissions, including cardiopulmonary disease[48,49] and global climate change.[50,51]

Strengths and Limitations

The present study has several strengths, including use of a sample representative of the U.S. adult population, assessment of active transportation for any purpose rather than just for commuting, use of objective measurements of cardiovascular disease risk factors, adjustment for contributions of other forms of physical activity, and a large sample size. Nonetheless, this study does have limitations. The cross-sectional design prohibits attributing causality to the associations between active transportation and investigated cardiovascular disease risk factors. However, excluding participants with impaired mobility reduced the potential for reverse causation; individuals with disabilities related to any of the outcomes of interest might not have been able to engage in active transportation (e.g., an individual with an amputation due to diabetes who, therefore, was unable to walk or bike without difficulty).

Confounding could occur if individuals who engage in active transportation are more likely to make other healthy lifestyle choices. To address this possibility, time spent in non–active transportation physical activity and smoking status were included in multivariable models. The sample also was restricted to those who did not meet physical activity recommendations through combined leisure-time and occupational physical activity in the stratified analyses. Interestingly, there was evidence to refute a positive correlation between active transportation and other healthy behaviors.

First, smoking status did not differ substantially across levels of active transportation. Second, analysis of data from the 2007–2008 NHANES cycle, which included information on self-reported diet quality, revealed no association between active transportation and diet quality (data not shown). Third, active transportation was more common among demographic groups that tend to engage in less leisure-time physical activity,[2,52,53] which may reflect their concentration in urban areas and lower rates of car access. These groups' high levels of combined leisure-time and occupational physical activity may be due to employment in more physically demanding professions.[53–55]

The analysis did not adjust for rural, suburban, or urban location or geographic region because of restricted access to geographic variables. Systematic differences in cardiovascular disease risk factor profiles by region or degree of rurality could have caused confounding if these geographic factors also influenced levels of active transportation (e.g., due to weather, cultural norms, or inconvenience). Additionally, time spent in physical activity was based on self-report, which is known to overestimate accelerometer-based measurements of physical activity.[1] However, there is little reason to suspect systematic misreporting among certain groups that would lead to bias. It was not possible to estimate the intensity of active transportation without knowledge of the relative contribution of walking and biking to time spent in active transportation.

Conclusion

Evidence for the diverse health benefits associated with active transportation is mounting. Despite this knowledge, levels of active transportation in the U.S. remain low, largely because of policies and built environments that discourage its use. This study provides support for the value of active transportation in reducing the prevalence of important cardiovascular disease risk factors, including obesity, hypertension, and diabetes. Interventions to promote the use of active transportation in the U.S. should be pursued.

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Review

Active commuting and cardiovascular risk: A meta-analytic review

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Abstract

Objective. Leisure time physical activity is inversely associated with cardiovascular risk, although evidence for the protective effects of active commuting is more limited. The present review examines evidence from prospective epidemiological studies of commuting activity and cardiovascular risk.

Methods. Meta-analytic procedures were performed to examine the association between commuting physical activity and cardiovascular risk. Several cardiovascular endpoints were examined including mortality, incident coronary heart disease, stroke, hypertension and diabetes.

Results. We included eight studies in the overall analysis (173,146 participants) that yielded 15 separate risk ratios (RR). The overall meta-analysis demonstrated a robust protective effect of active commuting on cardiovascular outcomes (integrated RR = 0.89, 95% confidence interval 0.81–0.98, $p = 0.016$). However, the protective effects of active commuting were more robust among women (0.87, 0.77–0.98, $p = 0.02$) than in men (0.91, 0.80–1.04, $p = 0.17$).

Conclusions. Active commuting that incorporates walking and cycling was associated with an overall 11% reduction in cardiovascular risk, which was more robust among women. Future studies should investigate the reasons for possible gender effects and also examine the importance of commuting activity intensity.
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Keywords: Walking; Cycling; Active commuting; Cardiovascular disease risk; Hypertension; Diabetes

Contents

Introduction . . . 9
Methods . . . 10
Search strategy . . . 10
Inclusion criteria . . . 10
Meta-analysis technique . . . 10
Results . . . 11
Discussion . . . 11
References . . . 12

Introduction

The protective effect of physical activity and cardiorespiratory fitness on cardiovascular disease is well publicised (Wannamethee and Shaper, 2002) and follows a curvilinear dose–response pattern. Important mechanisms include blood pressure control, lipid lowering, anti-inflammatory effects, improved endothelial function and glycaemic control. However, the relative importance of different forms of physical activity, such as active commuting, has not been well established. Active commuting, such as cycling and walking to work, provides a feasible method of integrating regular physical activity into the increasingly sedentary lifestyles of western populations, as well as providing environmental benefits. Accumulated bouts of physical activity such as commuting may also be an effective way to achieve recommended guidelines of a 30-min activity per day. A number of studies have demonstrated benefits for

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accumulated bouts of short duration exercise over the day as oppose to one continuous session (e.g., Park et al., 2006; Murphy et al., 2002). For example, four 10 min bouts of walking were more effective in lowering daytime ambulatory blood pressure than a continuous 40 min session in pre-hypertensive adults (Park et al., 2006).

The aim of the present paper was to examine the association between commuting physical activity and cardiovascular risk using meta-analytic procedures. We selected prospective epidemiological studies with cardiovascular outcomes, including cardiovascular mortality and incident coronary heart disease, stroke, hypertension and diabetes.

Methods

Search strategy

We developed a protocol using a widely recommended method for systematic reviews of observational studies (Stroup et al., 2000). We searched general bibliographic databases including Medline (1966–2007), Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, ACP Journal Club, Database of Abstracts of Reviews of Effects (1991–2007), Web of Science (1900–2007), PubMed (1950–2007) and scrutiny of reference lists from relevant reviews and articles.

Inclusion criteria

We limited the current systematic review and meta-analysis to prospective cohort and case–control studies, since cross-sectional studies cannot conclusively detect a causal association between predictive and outcome variables. Taken together, criteria for inclusion were as follows: (1) English language full-length publication in a peer-reviewed journal; (2) prospective cohort or case controlled study; and (3) investigating a causal association between type of commuting to work (active or non-active) and cardiovascular endpoint (cardiovascular mortality, incident coronary heart disease, stroke, hypertension or diabetes). We excluded prospective studies in non-healthy participants at the baseline assessment (e.g., Hu et al., 2004), studies of all cause mortality or other diseases such as cancer (e.g., Andersen et al., 2000; Hou et al., 2004; Matthews et al., 2005) and replicated information (Hu et al., 2007). Information on participants and study characteristics, adjustment for potential confounders and hazard ratio (HR) or relative risks (RR) with 95% confidence intervals (CIs) was abstracted by one author (M.H.) and verified by another (Y.C.). Assessment of quality and validity was made independently by both reviewers.

Meta-analysis technique

We followed meta-analytic procedures that have been previously described elsewhere (Lyubomirsky et al., 2005). In the primary analyses we used HRs and RRs from multivariate models with the most complete adjustment for potential confounders. Given that commuting physical activity is significantly related to occupational and leisure time activity, we also performed additional analyses using a model without adjustment for additional forms of physical activity. All hazard ratios (using non-active commuting as the referent group) were converted into a correlation coefficient (r). Weighted average effect sizes were computed as r's by proportionally weighting for sample size. Advantages of reporting meta-analytic results as r's as opposed to other effect size indicators (e.g., Cohen's d and Hedge's g) have been previously outlined (Rosenthal and Rubin, 2003). Because we compared the effects of a wide range of cardiovascular endpoints, we employed random effects modeling (DerSimonian–Laird, 1986, method) overall. Random effects models take into account the amount of variance caused by differences between studies as well as differences among

Table 1
Prospective studies on the association of active commuting and cardiovascular risk

Study/participants	Cardiovascular endpoint and follow-up	Commuting activity measure	Adjusted covariates
Barengo et al. (2004), Finland. 15,853 ♂, 16,824 ♀	CVD mortality (2439 deaths) 20 years follow-up	Self-reported time spent walking/cycling to work. High activity group >30 min/day	Age, study year, BMI, SBP, cholesterol, education, smoking, leisure time and occupational PA.
Hu et al. (2006), Finland. 22,877 ♂, 24,963 ♀	CHD (4660 cases) 18.9 years follow-up	Self-reported time spent walking/cycling to work. High activity group >30 min/day	Age, study year, BMI, SBP, cholesterol, education, smoking, alcohol, FH diabetes, leisure time and occupational PA.
Wagner et al. (2002), Ireland and France. 9758 ♂	CHD (167 hard CHD, 154 angina cases) 5 years follow-up	Self-reported walking/cycling to work (yes/no)	Age, country, employment status, smoking, alcohol, education, BMI.
Wennberg et al. (2006), Sweden. 583 cases, 2098 matched controls (20% ♀)	First MI (583 cases)	Self-reported mode of transport to work during each season of the year (walking, cycling, bus, car)	Smoking, BMI, cholesterol, diabetes, hypertension, education, leisure time and occupational PA.
Hu et al. (2005), Finland. 22,841 ♂, 24,880 ♀	Stroke (2863 cases) 19 years follow-up	Self-reported time spent walking/cycling to work. High activity group >30 min/day	Age, area, study year, BMI, SBP, cholesterol, education, smoking, alcohol, FH diabetes, leisure time and occupational PA.
Barengo et al. (2005), Finland. 5935 ♂, 6227 ♀	Hypertension (1146 cases) 11.3 years follow-up	Self-reported time spent walking/cycling to work. High activity group >30 min/day	Age, area, study year, BMI, SBP, education, smoking, alcohol, leisure time and occupational PA.
Hayashi et al. (1999), Japan. 6017 ♂	Hypertension (626 cases) 6–16 years follow-up	Self-reported time spent walking to work. High activity group >22 min/day	Age, BMI, smoking, alcohol, fasting plasma glucose, SBP, DBP, leisure time PA.
Hu et al. (2003), Finland. 6898 ♂, 7392 ♀	Diabetes (373 cases) 12 years follow-up	Self-reported time spent walking/cycling to work. High activity group >30 min/day	Age, study year, BMI, SBP, education, smoking, leisure time and occupational PA.

Abbreviations: ♂ men; ♀ women; CVD, cardiovascular disease; CHD, coronary heart disease; MI, myocardial infarction; BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; FH, family history; PA, physical activity.

participants within studies. Separate effects were also calculated for men and women. We employed the Q-test for homogeneity between studies, which tests whether there was variability within the set of effect sizes. Finally, to detect publication biases, we explored heterogeneity in funnel plots. In addition, we also examined the degree of asymmetry by using a Begg's asymmetry method (Begg and Berlin, 1989). All analyses were performed on a Macintosh G4 using a meta-analysis program (Masui, 2003).

Results

Eight studies met the inclusion criteria (see Table 1), which yielded 15 separate risk ratios (RR). Five of the studies included cohorts from Finland (Barengo et al., 2005, 2004; Hu et al., 2006, 2005, 2003), one study from Sweden (Wennberg et al., 2006), one study a collaborative group from Ireland and France (Wagner et al., 2002) and one from Japan (Hayashi et al., 1999). All studies were prospective cohorts that ranged in follow-up from 5 to 20 years, except for one that was case–controlled (Wennberg et al., 2006). Six of the studies contained both men and women while two studies were men only (Wagner et al., 2002; Hayashi et al., 1999).

The overall meta-analysis, using fully adjusted models, demonstrated a robust protective effect of active commuting on cardiovascular outcomes (integrated RR = 0.89, 95% confidence interval, 0.81–0.98, $p = 0.016$), which is shown in Fig. 1. However, the protective effects of active commuting were more robust among women (0.87, 0.77–0.98, $p = 0.02$) than in men (0.91, 0.80–1.04, $p = 0.17$). There was also significant heterogeneity among men, $\chi^2(8) = 31.62$, $p < 0.001$, but not among women, $\chi^2(5) = 9.68$, $p = 0.08$. Finally, we detected no publication bias from inspection of funnel plots and Begg's asymmetry (p's > 0.1) (see Fig. 2). In analysis that was not adjusted for other forms of physical activity the overall effects were slightly stronger (0.85, 0.77–0.93, $p < 0.001$) and robust among women (0.80, 0.69–0.94, $p = 0.006$) and men (0.87, 0.77–0.99, $p = 0.04$). Given the limited number of studies, it was not possible to perform sensitivity analyses for separate cardiovascular outcomes.

Discussion

The present meta-analysis demonstrates a protective effect of active commuting on cardiovascular outcomes, which is apparently more robust among women. These results should however be viewed in light of a relatively limited number of available studies that were mainly drawn from cohorts in Finland. Further studies that examine the association between active commuting and cardiovascular risk are therefore warranted to strengthen the conclusions drawn from the present meta-analysis. Nevertheless, the present results are consistent with findings that demonstrate active commuting is protective against all cause mortality (Andersen et al., 2000). In addition, recent studies suggest a protective effect against certain types of cancer (Hou et al., 2004; Matthews et al., 2005).

One of the main difficulties in epidemiological studies is to exclude the possibility of residual confounding, which may otherwise explain the association between two variables. In the present analyses, we used hazard ratios from fully adjusted

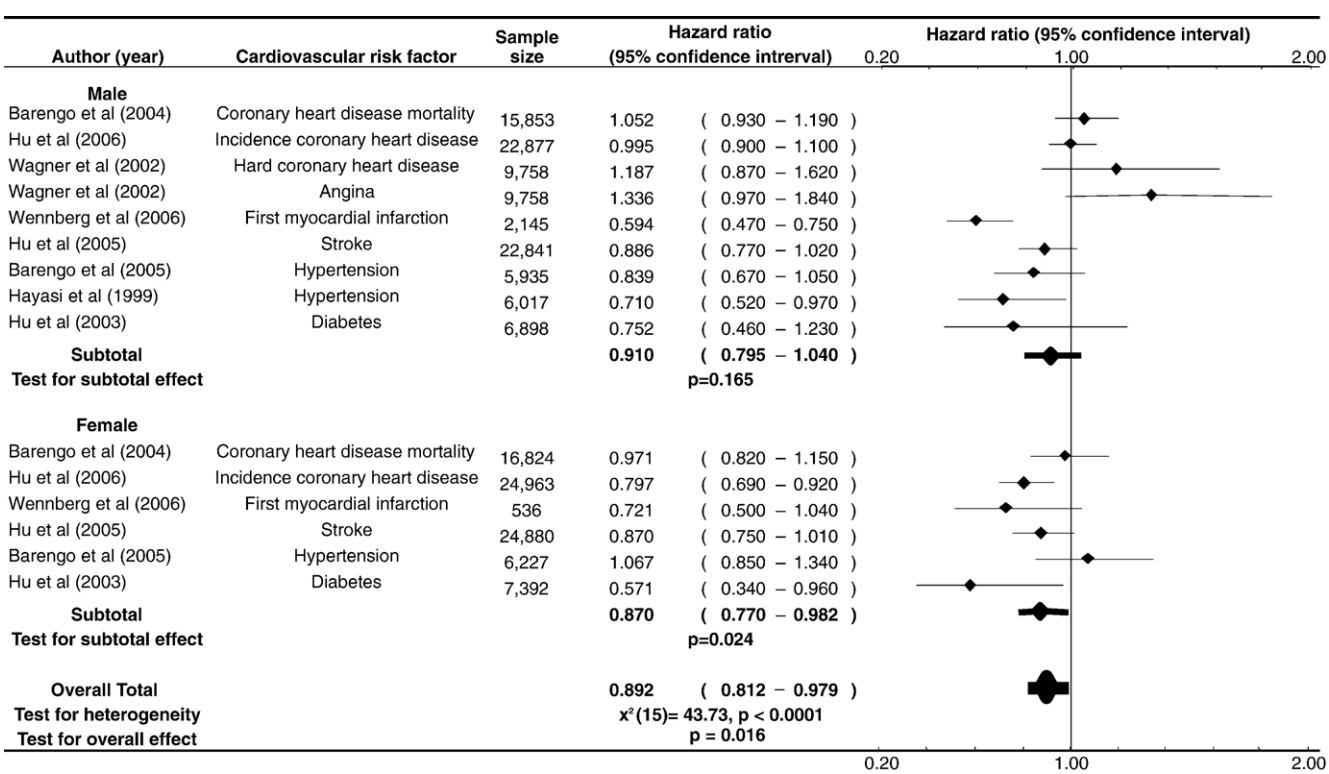

Fig. 1. The association between active commuting and cardiovascular risk in men and women. The referent group refers to non-active commuting and hazard ratios of less than 1.0 suggest benefits of active commuting.

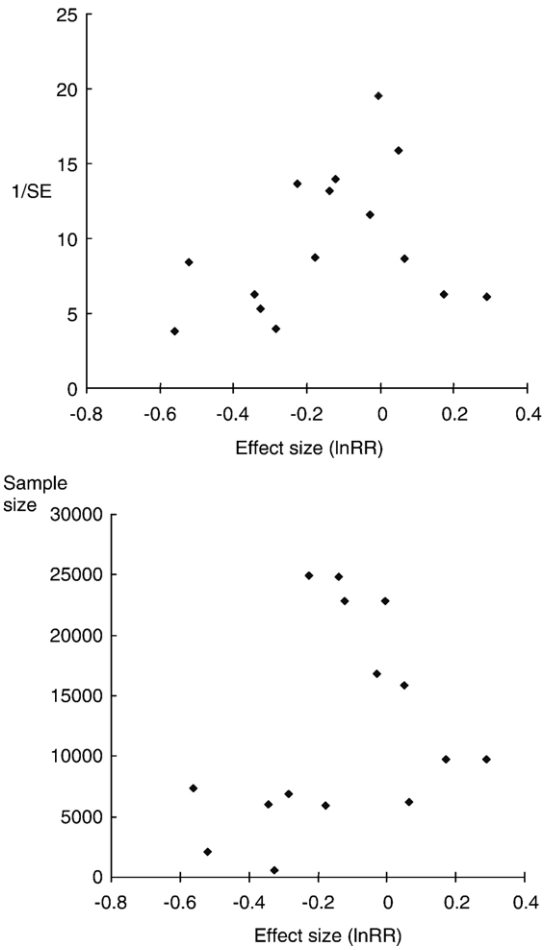

Fig. 2. Funnel plots for the examination of possible publication bias. There is no evidence of asymmetry therefore suggesting no publication bias. SE, standard error; in RR, natural logarithm of relative risk scores.

models, which contained covariates that may confound the association between active commuting and cardiovascular risk. In a secondary analysis we also examined hazard ratios that had not been adjusted for other forms of activity such as leisure time and occupational. Given that the secondary analysis produced slightly stronger associations (an overall 15% risk reduction), some of the benefits of active commuting may be partly confounded by other forms of activity, suggesting that active commuters lead a generally more active lifestyle. Nevertheless, the associations from fully adjusted models still predicted an overall 11% reduction in cardiovascular risk suggesting independent effects of commuting activity. Indeed, different types of activity may provide overall additive benefits, as indicated by recent findings (Hu et al., 2006).

The reasons why the protective effects of active commuting appear to be more robust among women are unclear. The heterogeneity in the data among men was most likely caused by the results of Wagner and colleagues (2002) that suggested a borderline positive association between active commuting and risk of angina ($p=0.08$). A possible explanation for this finding is that angina is less often diagnosed in sedentary participants because they do not attain sufficiently high levels of activity to induce ischemic pain. In contrast, active commuting clearly appears to play a protective role for other outcomes such as hypertension risk among men (see Fig. 1). Given that the associations in men became significant in analyses unadjusted for other forms of physical activity, this may suggest stronger confounding of occupational and leisure time activity among men.

A limitation of the prospective studies included in the present review is the use of self-report data to assess commuting activity, which is imprecise and can be prone to recall bias. For example, some studies merely assessed the mode of transport used for commuting, while others assessed commuting time, but not activity intensity. However, there are few randomised controlled trials that have examined the impact of increasing active commuting on cardiovascular risk factors. In a previous systematic review of interventions to promote active commuting there was evidence to suggest that targeted programs can change the behaviour of motivated subgroups in a few relatively well-conducted studies (Ogilvie et al., 2004). At a population level this resulted in around 5% of all household trips being shifted from cars to walking and cycling. However, only two trials demonstrated robust effects of active commuting on health markers, which included improvements in mental health and physical fitness (Ogilvie et al., 2004). Various approaches have been adopted to encourage active commuting, including publicity programs, extending cycling networks and financial incentives, with the most successful deemed to be targeted behavioural change. Given that worksite health promotion programs can have a positive impact on risk factors (Engbers et al., 2005), initiatives in the workplace that encourage active commuting, such as provision for showering facilities and secure bicycle racking, may also be beneficial.

In summary, the results of our meta-analysis demonstrate an association between active commuting and reduced cardiovascular risk, which appears to be more robust among women. Further trials should be conducted that investigate dose–response issues and specific mechanisms.

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RESEARCH Open Access

Is walking to school associated with improved metabolic health?

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Abstract

Background: Active commuting to/from school is an important source of physical activity that has been declining over the past years. Although it is an affordable and simple way of increasing physical activity levels it is still unclear whether it has enough potential to improve health. Therefore, the aim of this cross sectional study was to examine the relationship between active commuting to/from school and metabolic risk factors in 10 to 12 year old children.

Methods: Participants were 229 adolescents, selected through consecutive sampling, (121 girls) with mean age of 11.65 (±0.73) years old from Porto, Portugal. Means of transport to/from school was accessed by asking: "How do you usually travel to school?" and "How do you usually travel from school?". Active commuting was considered if children reported at least one of the trips (to or from school) by active means. Total physical activity was obtained with Actigraph accelerometer for 7 consecutive days. Lipid profile measurements were conducted with Cholestech LDX® analyser. Waist circumference and blood pressure were measured by standard methods. The criteria for metabolic syndrome defined by International Diabetes Federation for children and adolescents were used.

Results: Adjusted binary logistic regression analysis suggested that walkers have higher odds to have a better waist circumference (OR = 2.64, 95% CI = 1.63-6.01) and better high density lipoprotein cholesterol (OR = 2.14, 95% CI = 1.01-4.52) profiles than non-active commuters, independent of moderate-to-vigorous physical activity. No associations were found for other metabolic risk factors.

Conclusions: Exertions to increase and maintain walking to school may be particularly relevant as it is likely to have a positive impact on children's health and eventually decrease metabolic and cardiovascular diseases.

Keywords: HDL-C, Waist circumference, Active commuting, Cardiovascular disease risk factors

Introduction

Being physically active can help reduce the prevalence of obesity in children and is associated with a decrease in cardiovascular risk factors such as lipid disorders, high blood pressure, insulin resistance among others [1]. Recent studies suggest that low levels of high-density lipoprotein cholesterol (HDL-C) are an important and independent risk factor for cardiovascular disease (CVD) [2] and are linked to worse CVD outcomes [3]. This should be a major cause of concern because cardiovascular risk factors tend to track into adulthood [4] and the process of atherosclerosis, the pathologic basis for clinical CVD starts early in childhood [1].

Active commuting to/from school (ACS) should be consider a key factor to reduce important negative health outcomes as it has been identified as an important source of physical activity (PA) for young people [5,6]. However in Portugal, similarly to most developed countries, data on transport suggests a decline in active commuting over the past years. For example, in Porto, walking trips to work/school decreased from 27% in 1991 to only 19% in 2001. Inversely, car was the most used transport to work/school in 2001 (49%), increasing over than 100% when compared to 1991 when only 23% of the journeys were made by car, showing dramatically changes in transport patterns (INE, 2003). These shifts are replicated, all over the world, in children's decreasing number of walking trips to/from school [7,8].

Although some evidence supports that ACS is associated with a healthier body composition and higher

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levels of cardiorespiratory fitness among youth [9], it remains unclear whether ACS has the potential to improve health through a better metabolic profile as research on this topic is scarce. To our knowledge, only two studies have addressed the relationship between ACS and metabolic risk factors in children [10,11]. A research in Danish children and adolescents found no differences in CVD risk factors between passive travelers and walkers, but 15-year-olds that cycled to school showed consistently better CVD risk profile compared with noncyclists [10]. Moreover children who did not cycle at baseline and had changed to cycling at follow up had better cholesterol/HDL ratio, better glucose metabolism, and a lower composite CVD risk factor score than those who did not cycle at either time point. On the other hand, Chillón and colleagues [11] found no significant associations between means of transport to school and cardio metabolic risk factors in a longitudinal study in Swedish children. Although both studies were developed in north European countries, with strong traditions of cycling to school, findings show conflicting results. In addition, PA in these studies could be underestimated as bicycling is not accurately measured by the accelerometer, therefore influencing the results. Moreover, any of the studies considered diet intake although it has a well-recognized role affecting cardiovascular health and risk factors for CVD [12]. The study from Andersen and coworkers [10] found no differences between walking and non-active means of transport in relation to CVD risk profile, however previous research show that walking has the potential to play a key role in the primary and secondary prevention of CVD in younger, middle, and older men and women, in both healthy and patient populations [13].

The aim of this study was to examine the relationship between ACS and metabolic risk factors having known potential confounders in consideration. It is our intention to improve the understanding of this issue since ACS is likely to be easily incorporated into daily living activities, positively impacting health outcomes.

Methods

Participants

Data for this study is a part of SALTA PROJECT STUDY (Environmental Support for Leisure and Active Transport), a longitudinal study being developed in Porto area, Portugal, designed to examine environmental and social influences on PA. Ethical approval for this study was obtained from the Faculty of Sports ethics committee, the Foundation for the Science and Technology and by the regional section of the ministry of Education.

All public middle-schools in Porto area were invited to take part in the SALTA PROJECT by letter, email and telephone. From a total of 65 schools, 37 declined to participate, 13 did not reply to our invitation and 15 schools agreed to take part in this study. Due to lack of resources and failure in bilateral talks, data were only collected in 9 middle-schools with a total population of 1555 students in the 6th grade. Respondents included 652 children who agreed to participate and had parental written consent to take part in the study. After eliminating subjects due to collecting errors, SALTA PROJECT final sample comprised 641 children (41.2%; 342 boys and 299 girls) with a mean age of 11.60 years old. From those, 121 girls and 108 boys with mean age of 11.65 (±0.73) years old had parental authorization to collect capillary blood samples and took part in this particular study.

Testing protocol

Data collection was performed in the school gymnasium between 08:20 and 11:00 a.m. As children were overnight fasting, lipid profile was firstly accessed. After blood samples were taken children were given light breakfast. Subsequently, participants fulfilled a demographic questionnaire and determined their maturational stage. Following a 5 minute rest in a separate room, blood pressure was measured. Afterwards anthropometric data was collected and nutritional information was gathered; lastly accelerometer devices were placed right before the testing protocol was over.

Measurements

Means of transport to and from school

Means of transport to and from school was accessed by questionnaire. Participants were asked "How do you usually travel to school?" and "How do you usually travel from school?". Possible answers included walking, cycling, by car or by public transport. Based on their answers the respondents were categorized as active commuters (walking and cycling) or non-active commuters (car or public transport) to/from school. If subjects reported at least one of the trips as active they were included in the active commuting group [14]. Previous studies have demonstrated evidence for reliability and validity for similar questions [15].

Metabolic risk factors

Waist circumference (WC) was measured with a non-metallic tape midway between the lower rib margin to the anterior superior iliac crest [16] at the end of normal expiration.

Capillary fasting blood samples were taken from the middle finger by trained professionals according to Center of Disease Control capillary blood sample protocol. Blood samples were drawn in capillary tubes (35 μl,

Selzer) coated with lithium heparin and immediately assayed using Colestech LDX Analyser in order to obtain values of plasmatic total cholesterol (TC), HDL-C, triglycerides (TG), and fasting glucose (GLU). A daily optic check was conducted on the analyzer used for the study.

Systolic and diastolic blood pressure measurements were performed with Colin model BP 8800 (Critikron, Inc., Tampa, FL) on the right arm after a 5 minute rest. Participants were in a comfortably seated position with their back supported and legs not crossed. The arm was bared without constrictive clothes, supported at the heart level and resting in a table. At least two readings were performed at 1-minute intervals; if there was a > 5 mmHg difference between the first and second readings additional readings were done. The average of two readings with < 5 mmHg difference were used for analysis [17].

Clustered metabolic risk score

The cluster for metabolic syndrome for children and adolescents defined by International Diabetes Federation (IDF) was used to access the metabolic risk factors [18] and included WC ≥ 90 th percentile, HDL-C <40 mg/dL, TG ≥ 150 mg/dL, GLU ≥ 100 mg/dL, and systolic blood pressure ≥ 130 or diastolic blood pressure ≥ 85 mmHg. In regards to blood pressure if the participant had at least one of the systolic or diastolic blood pressure values above the reference they were included in the risk group.

Confounders

Total physical activity was measured with Actigraph accelerometers, model GT1M (Actigraph, Pensacola, FL). Participants were instructed to use the accelerometer attached to an elastic belt and placed above the right iliac crest for 7 consecutive days. Instructions were given to wear the monitor all times except when sleeping, bathing, swimming or other water activities. Data was collected in 30 seconds epochs and a minimum recording of 8 hours on at least 4 days (1 weekend day) were considered valid data. 60 minutes of consecutive zeros were considered invalid data. PA data was processed using Actilife software (Actigraph LLC Pensacola, FL) and summarized as time spent in moderate and vigorous PA (MVPA), defined as ≥ 2296 counts/min. This cut points for PA intensities developed by Evenson and colleagues [19] seem to exhibit significantly better accuracy than others in children and adolescents [20].

Anthropometric measurements were taken with children in bare feet and lightly dressed. Height (cm) was measured with SECA 206 Bodymeter Measuring Tape (SECA, Hamburg Germany). Weight (Kg) and body fat percentage were accessed using digital scales (TANITA BF-522 W, Tokyo, Japan). Body mass index (BMI) was calculated as weight (kg) / height (m)^2. Overweight and obesity were defined according to sex- and age-specific BMI cut points established by Cole et al. [21].

Socioeconomic status (SES) was obtained based on parents report of their educational level and was collapsed into three categories according to Portuguese Educational System: ≤ 6 years (low), 7–12 years (medium) and > 12 (high) similarly to procedures applied in the Portuguese context before [22].

Participants were asked to self-determine their *pubertal stage* using the pattern of development diagrams for pubic hair and breasts or genital development established by Tanner [23]. If the responses differed between pubic hair and breasts/genital development, then the pubic hair stage was used.

Food intake was assessed by a trained nutritionist using the 24-hour recall and supported by a food quantification manual to allow more accurate portion size estimation. Data were then analyzed using Food Processor Plus (ESHA Research, Salem, OR). The 24-h recall is the most commonly used dietary assessment method because it is easy to administer, can be performed in large-scale studies [24,25] and can be used to assess adequacy of energy and macronutrient intakes.

Statistical analyses

Data was analysed using IBM SPSS Statistics (version 20; SPSS, Inc., Chicago, IL). Significance level was set at 5% ($p < 0.05$). Descriptive statistics were used to characterize the sample. Point biserial correlation determined the associations between walking and MVPA. Regression analysis models were conducted to establish associations between metabolic risk factors and walking. Known potential confounders for the CVD risk factors, namely body fat percentage, calories from fat, age, gender, SES, pubertal stage and minutes in MVPA were included in the analysis to find the model that best fits the observed data. Variables were retained in the models if backward elimination resulted in a greater than 10% change in the estimated effect measures. Interactions between walking and each confounder were studied when accessing the associations of walking and each metabolic risk factor.

Results

Demographic characteristics of the initial sample did not differ significantly from the final sample included in this particular study.

Sample characteristics are presented in Table 1. About 53% of the students were girls and most prevalent tanner stages were 3 and 4. Sample SES was predominantly (87%) medium and low. Among 229 students 75% made at least one trip (to or from school) by active means. Interestingly, walking was the only active means of transport reported. Noteworthy 85.5% of the children

Table 1 Descriptive statistics for participants in the study

Variable	Frequency (n)	Frequency (%)
Girls	121	52.8
Means of Transport		
Walking	171	75
Cycling	0	0
Public transport	10	4.4
Car	43	18.8
Socio Economic Status		
Low	54	34
Medium	85	53
High	20	13
Tanner Stage		
2	32	15
3	87	39
4	78	35
5	25	11
	Mean (SD)	
Age (years)	11.65 (0.73)	
% Body Fat	22.92 (7.84)	
Calories (Kcal)	2133.95 (495.3)	
Calories from Fat (Kcal)	680.85 (374.06)	
Waist Circumference (cm)	70.71 (9.97)	
Total Cholesterol (mg/dL)	148.29 (26.39)	
HDL-C (mg/dL)	48.23 (13.31)	
Triglycerides (mg/dL)	69.69 (33.62)	
Glucose (mg/dL)	90.24 (7.83)	
Average Systolic Blood Pressure (mm hg)	116.35 (13.12)	
Average Diastolic Blood Pressure (mm hg)	61.19 (8.28)	
Physical activity (min/day MVPA)	39.53 (20.26)	

Legend: *SD* standard deviation, *HDL-C* high density lipoprotein-cholesterol, *kcal* kilocalories; *cm* centimeters, *mg/dL* milligrams per deciliter, *mm hg* millimeter of mercury, *min/day in MVPA* minutes per day in moderate to vigorous physical activity.

did not achieve daily PA recommendations of 60 minutes of MVPA and MVPA mean time was about 40 minutes. Association between walking and MVPA was also assessed but no significant relation was found ($p = 0.102$). Mean sample metabolic components were within normal values [18]. Table 2 provides the number of subjects exhibiting each component of the metabolic syndrome. Metabolic syndrome defined by abdominal obesity (WC ≥ 90th percentile) and the presence of two or more other clinical features (HDL <40 mg/dL, TG ≥150 mg/dL, GLU ≥ 100 mg/dL and systolic blood pressure ≥ 130 or diastolic blood pressure ≥ 85 mmHg) was observed in only 3% of the sample. Most prevalent lipid disorder was low levels

Table 2 Distribution of the metabolic syndrome and related components

Metabolic Risk Factors	At risk definition	Frequency (%)
Waist Circumference	≥90th percentile	16.4
HDL-C	<40 mg/dL	25.5
Triglycerides	≥150 mg/dL	2.5
Glucose	≥100 mg/dL	8.8
Blood Pressure	≥130/≥85 mm hg	15.1
Metabolic Syndrome	WC ≥ 90th + 2 other	3
Physical Activity	<60 min/day in MVPA	85.6

Legend: *HDL-C* high density lipoprotein- cholesterol, *mg/dL* milligrams per deciliter, *mm hg* millimeter of mercury, *WC* waist circumference, *min/day in MVPA* minutes per day in moderate to vigorous physical activity.

of HDL-C (25.5%) and just a small number of children ($n = 5$) had high TG levels.

Results from crude and adjusted binary logistic regressions between metabolic risk factors and walking are presented in Table 3.

Crude binary logistic regressions showed significant associations between walking and WC < 90th percentile (OR = 2.28, 95%CI = 1.06 - 4.95) and HDL-C ≥ 40 mg/dL (OR = 2.17, 95%CI = 1.10-4.25). Adjusted analysis still suggests higher odds, in walkers, to have a better WC (OR = 2.64, 95%CI = 1.63-6.01) and HDL-C (OR = 2.14, 95%CI = 1.01-4.52) profiles than non-active commuters. No significant interactions were found by walking on any metabolic risk outcome (results not presented).

Discussion

The aim of this cross-sectional study was to analyze the relationship between ACS and the metabolic risk factors for children defined by IDF. Findings suggest a significant association of walking with both WC and HDL-C providing implications for children health promotion. Unlike other studies we controlled for confounding by dietary fat intake and MVPA, which would better estimate the impact of walking on the metabolic risk factors.

Our results suggest a beneficial association between walking to/from school and WC, after controlling for MVPA. In line with our findings Rowe and colleagues [26] compared active and passive school commuters and found that children who actively commute to school have healthier waist adiposity, body weight, cholesterol sub-fractions, blood lipids and possibly inflammation. Also a longitudinal research focusing on cycling to school and weight found lower odds of being overweight in children who cycled to school [27]. Despite the heterogeneity of ACS definitions, a recent review on ACS health-related fitness in children and adolescents found an association between this active behaviour with a healthier body composition [9]. These findings could be

Table 3 Association between walking and metabolic risk factors

Dependent variable	Crude OR	95% CI	Adjusted OR	95% CI
Waist Circumference [a]	2.28	1.06 - 4.95*	2.64 [b]	1.63-6.01*
HDL-C [a]	2.33	1.15 - 4.71*	2.14 [c]	1.01-4.52*
Triglycerides [a]	2.04	0.33 - 12.50	-	-
Glucose [a]	1.17	0.40 - 3.43	-	-
Blood Pressure [a]	1.79	0.82 - 3.91	-	-

Legend: *HDL-C* high density lipoprotein-cholesterol, *OR* odds ratio, *95% CI* 95 percent confidence interval.
a) Reference Category: At risk.
b) Adjusted for gender, % body fat, minutes in moderate-to-vigorous physical activity.
c) Adjusted for age and tanner stage.

especially significant for obese children that usually have less PA opportunities implying that walking to school may be a simple and effective strategy, that can be implemented almost everywhere, to help control and reduce overweight.

While the association between walking and fatness has been well investigated, limited evidence exists regarding other metabolic health parameters of children who walk to school. Despite data in adults provide strong evidence that people who are more physically active have higher HDL-C levels, results vary considerably depending on the characteristics of the exercise programs and the assessing methods. In children, thus evidence suggest a favorable lipoprotein profile related to higher habitual physical activity, and that increases in HDL-C and reductions in low density lipoprotein cholesterol may be possible with regular exercise, the dose–response relationship remains elusive [28]. Findings from our study, add information to current knowledge suggesting that walking to school may be of relevance for a better HDL-C profile. In line with our findings, in a meta-analysis from Kodama and collaborators [29] including 25 articles, regular aerobic exercise was modestly associated with clinically important elevation in HDL-C levels. In addition the exercise duration has been previously highlighted as the most important element of an exercise prescription [30]. In fact, it is assumed that a minimum exercise volume is needed to significantly increase HDL-C [30]. Although, a dose–response relationship between the amount of exercise performed and HDL-C has been suggested [30,31] research shows conflicting results. The exercise volumes suggested by previous studies varies between 20 minutes of exercise 3 to 4 times a week and 60 minutes of combined exercises at a maximum heart rate of 75%. Interestingly, in our study 86% of the students took less than 15 minutes to get to school, and only 13% took more than 15 minutes (data not shown), still our results suggest that walking to/from school predicts higher HDL-C levels. This can indicate that even small amounts of walking may play an important role in health. Despite the fact that 75% of our sample were active commuters, a large percentage (85%) were not sufficiently active to reach the recommended daily MVPA. As point biserial correlation didn't show any association between means of transport to/from school and minutes in MVPA this may imply that walking could be of light intensities and therefore not enough to be considered in PA recommendations. In fact is likely that exercise-induced changes in HDL-C are the result of the interaction amongst each exercise component (intensity, frequency, duration of each exercise session and length of the exercise training period) however the relative contribution of each exercise component has not been established yet [32], particularly in children. Apparently, evidence point toward favourable changes to occur incrementally and reach statistical significance at approximately 7–10 miles per week or 1200 to 1600 kcal, what seems to fit in our sample [32]. We could also speculate that walking is just about the only MVPA children engage most days of the week and children who walk to/from school may spend less time in other forms of MVPA.

In contrast to our results, a longitudinal research in children showed no difference in CVD risk factors between passive travelers and walkers suggesting that self-selected intensities of walking were not enough to improve cardiovascular health when compared to cycling [8]. Nonetheless, in our data the inclusion of several confounders such as body fat percentage, minutes of MVPA and fat intake did not significantly altered our regression model, one may suggest that walking was an important factor for the main differences in HDL-C levels. We may also speculate that intensities achieved when walking to and from school may be relevant enough for good HDL-C levels.

The present study focus on walking in 10 to 12 year old children by contrast with the most prevalent research that commonly focuses on the effects of total PA or different types of training in metabolic risk factors. To our knowledge data from the present study are novel information regarding the association between walking and metabolic risk factors in Portuguese youths. The use of objective measures of PA and anthropometry are also important strengths of this study. Differently from other

research we adjusted analysis for potential confounders such as diet, SES, and demographics as the risk of metabolic syndrome is strongly associated with sociodemographic and lifestyle patterns including adequate diet, healthy weight and regular PA [33].

This study has some limitations notable of comment. Our independent variable, means of transport to and from school, relies on self-reported information. The cross sectional design of our study did not allow us to determine the direction of the observed associations. Nonetheless our data suggests that any active commuting is associated with better health. Finally the lack of results in other metabolic factors may be due to the lack of statistical power to show differences as was the case for triglycerides and glucose. Further research to clarify the threshold needed in each exercise component to obtain metabolic benefits should be conducted in children who walk to school in order to study the effect of this behaviour in health.

Future investigation should include Global Position System (GPS) technology during walking and combine it with accelerometer data. Therefore, more reliable information on time travelled, distance, intensities and patterns of this specific behaviour could be obtained and it would decrease the bias of self-reporting methods.

Even though walking has decreased in recent years, it still is an affordable and easy way of getting high daily PA levels, without the costs associated with regular exercise programs. Walking should be consider a major key factor to increase PA levels [14] and reduce important health outcomes such as obesity [34]. Countries such as Denmark and Holland show that it is possible to maintain and improve high levels of active commuting and our data reinforces that even small amounts of this behavior has potential to be of clinical relevance for health.

Conclusion

In summary, the findings from this study showed that walkers have higher odds of having a better WC and HDL-C profile than children who use passive means of transport to/from school, after adjusting for MVPA and diet. For that reason exertions to increase and maintain walking in children may be particularly relevant as it is likely to positively impact health and decrease metabolic and CVD.

Abbreviations

HDL-C: High density lipoprotein cholesterol; CVD: Cardiovascular disease; ACS: Active commuting to/from School; PA: Physical activity; WC: Waist circumference; TC: Total cholesterol; TG: Triglyceride; GLU: Fasting glucose; IDF: International Diabetes Federation; mg/dL: Milligrams per deciliter; mm hg: Millimeter of mercury; MVPA: Moderate to vigorous physical activity; cm: Centimeters; BMI: Body mass index; SES: Socio economic status; SD: Standard deviation; kcal: Kilocalories; OR: Odds ratio; 95% CI: 95 percent confidence interval; GPS: Global Position System.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

ANP and MPS conceived and coordinated the study. ANP conceptualized and drafted the paper after contribution to data acquisition, analysis and interpretation. JCR, EM, JM, MPS contribute to further development and critical revision of the manuscript. JCR made substantial contributions data acquisition. EM assisted in the statistical analysis. MPS and JM contributed with grant funding for the project. All authors approved the final version of the manuscript.

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COMMUNITY OPEN HOUSE NOTICE

Come Join Us for an Open House to gain public input on grant applications that the City is seeking for two Active Transportation Projects.

The City is applying for grant monies to improve sidewalks around Bon View, Euclid, Corona and Vineyard Elementary Schools. The proposed sidewalk improvements are necessary towards creating safe routes to schools. Come join us at the Community Meeting to learn more about what areas will be improved around these schools and to share your thoughts about what can be done to improve safe routes to schools.

The City is also applying for grant monies that will be utilized to design and install a Class II bicycle lane along Mission Boulevard between Benson Avenue and Milliken Avenue. Come join us at the Community Meeting to learn more about the proposed bike safety improvements along Mission Boulevard.

COMMUNITY OPEN HOUSE INFORMATION

Date: Wednesday - May 7, 2014
Time: 4:00 PM - 6:00 PM

Location: Ontario Senior Center
225 East B Street
Ontario, CA 91764

CITY OF ONTARIO
CITY COUNCIL AND HOUSING AUTHORITY
AGENDA
APRIL 15, 2014

Paul S. Leon
Mayor

Alan D. Wapner
Mayor pro Tem

Jim W. Bowman
Council Member

Debra Dorst-Porada
Council Member

Paul Vincent Avila
Council Member

Al C. Boling
City Manager

John E. Brown
City Attorney

Mary E. Wirtes, MMC
City Clerk

James R. Milhiser
Treasurer

WELCOME to a meeting of the Ontario City Council.

- All documents for public review are on file with the Records Management/City Clerk's Department located at 303 East B Street, Ontario, CA 91764.
- Anyone wishing to speak during public comment or on a particular item will be required to fill out a blue slip. Blue slips must be turned in prior to public comment beginning or before an agenda item is taken up. The Clerk will not accept blue slips after that time.
- Comments will be limited to 3 minutes. Speakers will be alerted when they have 1 minute remaining and when their time is up. Speakers are then to return to their seats and no further comments will be permitted.
- In accordance with State Law, remarks during public comment are to be limited to subjects within Council's jurisdiction. Remarks on other agenda items will be limited to those items.
- Remarks from those seated or standing in the back of chambers will not be permitted. All those wishing to speak including Council and Staff need to be recognized by the Chair before speaking.

ORDER OF BUSINESS: The regular City Council and Housing Authority meeting begins with Closed Session and Closed Session Comment at 6:00 p.m., Public Comment at 6:30 p.m. immediately followed by the Regular Meeting and Public Hearings. No agenda item will be introduced for consideration after 10:00 p.m. except by majority vote of the City Council.

(EQUIPMENT FOR THE HEARING IMPAIRED AVAILABLE IN THE RECORDS MANAGEMENT OFFICE)

CALL TO ORDER *(OPEN SESSION)* 6:00 p.m.

ROLL CALL

Wapner, Bowman, Dorst-Porada, Avila, Mayor/Chairman Leon

CLOSED SESSION PUBLIC COMMENT The Closed Session Public Comment portion of the Council/Housing Authority meeting is limited to a maximum of 3 minutes for each speaker and comments will be limited to matters appearing on the Closed Session. Additional opportunities for further Public Comment will be given during and at the end of the meeting.

CLOSED SESSION

- GC 54956.8, CONFERENCE WITH REAL PROPERTY NEGOTIATORS
  Property: APN No. 1083-351-08, 2350 South Milliken Avenue, Ontario; City/Authority Negotiator: Al C. Boling or his designee; Negotiating parties: Robert O. Burggraf, Masako Burggraf; Under negotiation: Price and terms of payment.

- GC 54956.8, CONFERENCE WITH REAL PROPERTY NEGOTIATORS
  Property: APN No. 0211-222-09, 54 South Milliken Avenue, Ontario; City/Authority Negotiator: Al C. Boling or his designee; Negotiating parties: Douglas Dennington, Counsel; Under negotiation: Price and terms of payment.

- GC 54956.9 (d)(1), CONFERENCE WITH LEGAL COUNSEL, EXISTING LITIGATION: *Inland Oversight Committee vs. City of Ontario, et al.; San Bernardino County Superior Court Case Number 1304541; Fourth District Court of Appeal Case Number E060022.*

- GC 54956.9 (d)(1), CONFERENCE WITH LEGAL COUNSEL, EXISTING LITIGATION: *City of Ontario vs. City of Los Angeles, Los Angeles World Airports, and Los Angeles Board of Airport Commissioners, RIC 1306498.*

In attendance: Wapner, Bowman, Dorst-Porada, Avila, Mayor/Chairman Leon

PLEDGE OF ALLEGIANCE

Council Member Avila

INVOCATION

Pastor Donald Rucker, First Church of the Nazarene

REPORT ON CLOSED SESSION

City Attorney

PUBLIC COMMENTS **6:30 p.m.**

The Public Comment portion of the Council/Housing Authority meeting is limited to 30 minutes with each speaker given a maximum of 3 minutes. An opportunity for further Public Comment may be given at the end of the meeting. Under provisions of the Brown Act, Council is prohibited from taking action on oral requests.

As previously noted -- if you wish to address the Council, fill out one of the blue slips at the rear of the chambers and give it to the City Clerk.

AGENDA REVIEW/ANNOUNCEMENTS: The City Manager will go over all updated materials and correspondence received after the Agenda was distributed to ensure Council Members have received them. He will also make any necessary recommendations regarding Agenda modifications or announcements regarding Agenda items to be considered.

SPECIAL CEREMONIES

PRESENTATION ON SAFE ROUTES TO SCHOOL

CONSENT CALENDAR

All matters listed under CONSENT CALENDAR will be enacted by one motion in the form listed below – there will be no separate discussion on these items prior to the time Council votes on them, unless a member of the Council requests a specific item be removed from the Consent Calendar for a separate vote.

Each member of the public wishing to address the City Council on items listed on the Consent Calendar will be given a total of 3 minutes.

1. APPROVAL OF MINUTES

Minutes for the regular meeting of the City Council and Housing Authority of March 18, 2014, and approving same as on file in the Records Management Department.

2. BILLS/PAYROLL

Bills March 9, 2014 through March 22, 2014 and **Payroll** March 9, 2014 through March 22, 2014, when audited by the Finance Committee.

3. A RESOLUTION RECOMMENDING THE JIEYANG CITY OF GUANGDONG PROVINCE, CHINA TO THE ONTARIO SISTER CITIES ASSOCIATION

That the City Council recommend the Jieyang City of Guangdong Province, China to the Ontario Sister Cities Association for formalization of a Sister City partnership.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, RECOMMENDING THE JIEYANG CITY OF GUANGDONG PROVINCE, CHINA TO THE ONTARIO SISTER CITIES ASSOCIATION.

4. A RESOLUTION ORDERING THE SUMMARY VACATION OF A PUBLIC EASEMENT FOR EMERGENCY VEHICULAR INGRESS AND EGRESS PURPOSES

That the City Council adopt a resolution ordering the summary vacation of an unimproved public easement for emergency vehicular ingress and egress purposes within the property located east of Shea Center Drive and south of Interstate 10 Freeway.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, ORDERING THE SUMMARY VACATION OF A PUBLIC EASEMENT FOR EMERGENCY VEHICULAR INGRESS AND EGRESS PURPOSES LOCATED EAST OF SHEA CENTER DRIVE AND SOUTH OF INTERSTATE 10 FREEWAY.

5. A RESOLUTION AUTHORIZING THE CITY MANAGER TO GRANT DEDICATIONS OF EASEMENTS WITHIN THE NEW MODEL COLONY FOR PUBLIC UTILITY PURPOSES

That the City Council adopt a resolution authorizing the City Manager to grant dedications of easements within the New Model Colony "neighborhood edges" for public utility purposes on behalf of the City.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO GRANT DEDICATIONS OF EASEMENTS WITHIN THE NEW MODEL COLONY FOR PUBLIC UTILITY PURPOSES.

6. AWARD OF BIDS FOR THE PURCHASE OF REPLACEMENT FLEET VEHICLES/ROTOLO CHEVROLET/FRITTS FORD/FAIRWAY FORD

That the City Council takes the following actions:

(A) Award Bid No. 419 to Rotolo Chevrolet of Fontana, California, in the amount of $103,123 for the purchase and delivery of two (2) Chevrolet Silverado trucks for the Fire Department;

(B) Award Bid No. 420 to Fritts Ford of Riverside, California, in the amount of $113,053 for the purchase and delivery of four (4) ¾ ton cab and chassis trucks for the Fire, Utilities, and Facilities Maintenance Departments; and

(C) Award Bid No. 421 to Fairway Ford of Yorba Linda, California, in the amount of $96,767 for the purchase and delivery of one (1) CNG medium duty stake bed truck for the Solid Waste Department.

7. RESOLUTIONS MODIFYING PAYMENT OF EMPLOYER PAID MEMBER CONTRIBUTIONS TO THE CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM FOR EMPLOYEES IN SAFETY BARGAINING UNITS

That the City Council adopt resolutions modifying the Employer Paid Member Contributions (EPMC) to the California Public Employees Retirement System (CalPERS) consistent with the terms and conditions of existing labor agreements and pursuant to California Government Code Section 20691.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, FOR EMPLOYER PAID MEMBER CONTRIBUTIONS FOR MEMBERS IN THE POLICE, POLICE MANAGEMENT, FIRE, AND FIRE MANAGEMENT UNITS.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, FOR EMPLOYER PAID MEMBER CONTRIBUTIONS FOR MEMBERS IN THE POLICE, POLICE MANAGEMENT, FIRE, AND FIRE MANAGEMENT UNITS.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, FOR EMPLOYER PAID MEMBER CONTRIBUTIONS FOR MEMBERS IN THE POLICE, POLICE MANAGEMENT, FIRE, AND FIRE MANAGEMENT UNITS.

8. A RESOLUTION APPROVING THE UPDATE OF THE SEWER SYSTEM MANAGEMENT PLAN

That the City Council adopt a resolution approving the update of the Sewer System Management Plan (SSMP).

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, APPROVING THE UPDATE OF THE SEWER SYSTEM MANAGEMENT PLAN (SSMP).

9. A MAINTENANCE SERVICES AGREEMENT FOR METER REPLACEMENT AND AUTOMATED METERING INFRASTRUCTURE UPGRADE/MASTER METER INC.

That the City Council approve and authorize the City Manager to execute a Maintenance Services Agreement (on file with the Records Management Department) subject to non-substantive changes as mutually agreed to by both parties with Master Meter Inc. of Mansfield, Texas, for meter replacement and automated metering infrastructure upgrade in the not to exceed amount of $267,840.

PUBLIC HEARINGS

10. A PUBLIC HEARING TO CONSIDER A RESOLUTION APPROVING THE DESIGNATION OF THE CHARLES B. JONES HOUSE AS A LOCAL HISTORIC LANDMARK

That the City Council consider and adopt a resolution approving File No. PHP14-001 designating the Charles B. Jones House, located at 227 West Sixth Street (APN: 1047-343-04) as Local Historic Landmark No. 94.

Notice of public hearing has been duly given and affidavits of compliance are on file in the Records Management Department.

Written communication.
Oral presentation.
Public hearing closed.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, APPROVING FILE NO. PHP14-001, THE DESIGNATION OF THE CHARLES B. JONES HOUSE, LOCATED AT 227 WEST SIXTH STREET, AS LOCAL HISTORIC LANDMARK NO. 94 AND MAKING FINDINGS IN SUPPORT THEREOF (APN: 1047-343-04).

COUNCIL MATTERS

Mayor Leon
Mayor pro Tem Wapner
Council Member Bowman
Council Member Dorst-Porada
Council Member Avila

STAFF MATTERS

City Manager Boling

ADJOURNMENT

Healthy Eating Active Living
Ontario HEAL Zone

What is the Ontario HEAL Zone?

The Ontario HEAL Zone is a network of community partners working together to help make healthy choices the easy choice for Ontario residents.

Our goal is to help prevent diseases such as diabetes and hypertension that often result from being overweight or obese.

Why do we need a HEAL Zone?

In Ontario 67% of our adults are either overweight or obese.

The HEAL Zone Collaborative envisions an empowered community that takes ownership of its health within an environment, sustained by support systems and policy, that make the healthy choice the easy choice.

What will the HEAL Zone do?

The HEAL Zone is working from a Community Action Plan (CAP) that was created by the HEAL Zone collaborative and residents specifically for Ontario residents. The CAP has several activities and strategies aimed at helping people eat better and move more by:

- Decrease calorie consumption
- Increase consumption of healthy food and beverages such as fresh fruits and vegetables and drinking water
- Increase physical activity

How does the HEAL Zone work?

The Ontario HEAL Zone brings together community residents with a network of partner organizations, including:

- City of Ontario
- Reach Out
- Ontario-Montclair School District
- Chaffey Joint Union high School District
- Kids Come First Community Health Clinic
- Ontario Montclair YMCA
- Pitzer College
- Loma Linda School of Religion
- Kaiser Permanente

By working together, we can make lasting, positive changes in the Ontario's social and physical environments.

How can I get involved?

We invite and welcome individuals, groups and organizations to join the (name) HEAL Zone and the fight against obesity.

Contact Karen Thompson at (909) 395-2459 for more information

About HEAL

Inspired by its mission to improve community health, Kaiser Permanente developed the HEAL program in 2004 to support healthy behaviors and reduce obesity through clinical practice and sustained community-level change. In 2005, the HEAL initiative grew to include place-based work, known as Community Health Initiatives (CHI). Today, six HEAL Zones in Southern California are an extension of the HEAL program. Since the program began, Kaiser Permanente will have committed more than $21 million to support HEAL efforts across Southern California.

HEAL ZONE
Ontario
Healthy Eating Active Living

Ontario HEAL Zone
Contact Info: Karen Thompson (909) 395-2459

Healthy Eating Active Living
Ontario HEAL Zone
Community Action Plan (CAP)

CAP at a Glance: 2012-2015

Strategy: Educate and promote the importance of eating fruits and vegetables and increase access to healthier food options so that students', parents' and residents are aware, and have increased knowledge and motivation to make healthier food choices.

- Increase fruits and vegetable selections to the Ontario High School lunch menu
- Promote healthy living at Ontario High School
- Lunch time salad bar option at Euclid Elementary and Harvest of the Month Program
- Implement a community garden, corner store makeovers, and farmer's markets
- Plant to Plate Program with Huerta de Valle community garden and Dorothy Quesada Center

Strategy: Promote active living and improve access to physical activity opportunities so that students, parents and residents have an increased awareness, knowledge and motivation to engage in physical activity.

- Install fitness trails and equipment at De Anza Park and Bon View Park
- Implement before/after school activities at Euclid and/or De Anza Schools
- YMCA will conduct Family Active Living Nights at Euclid Elementary
- Increase after-school physical activities at Ontario High School

Strategy: Increase the effectiveness of all HEAL strategies by partnering with faith based organizations within the HEAL Zone.

- Host an annual faith based conference
- Train faith based leaders in advocacy skills related to healthy eating and active living

Strategy: Increase the community's awareness, knowledge, skills, motivation and utilization around healthy eating and active living

- Reach Out will host leadership and advocacy classes
- Kids Come First will host a Healthy Eating Lifestyles Program (HELP)

Ontario HEAL Zone
Contact info: Karen Thompson (909) 395-2459

Capitol Focus Policy Conference 2014

Statewide Youth Advocate Network for Sustainability Organization

California Center for Civic Participation Program

Ontario HEAL Titan Teens

Maria Farthing, MPH (c)
mfarthing@live.com • 626.893.4098
City of Ontario – Planning Department
Randall Lewis Health Policy Fellowship 2013
Loma Linda University
School of Public Health

The 2014 Capitol Focus Policy Conference was a success. Through the California Center for Civic Participation program, the Statewide Youth Advocate Network for Sustainable Communities (YANSC) was very effective in facilitating the trip. The adventure began prior to the trip, as the youth prepared to embark on the adventure. For some, this was the first trip outside of Southern California, including their first airplane ride. As nervous as they were, they remained excited in anticipation to legislation exposure, peer leadership engagement, and the opportunity to present their work to peers across California. In collaboration with the De Anza Recreation Center, Dorothy Quesada Recreation Center, Kids Come First Community Health Center, and City of Ontario, the four youth were strategically selected from the Ontario HEAL Zone area (Kaiser's Healthy Eating, Active Living program).

These four leaders were trained and exposed to policy procedures prior to the trip. A brief presentation on Ontario district representatives, Assemblymember Freddie Rodriguez and Senator Norma Torres was reviewed. Parent permission slips were collected and teacher excuse letters were delivered. The goal of the Ontario HEAL Titan Teens program is to provide a structured space for youth leadership to flourish and to facilitate ownership of health through advocacy and community engagement. In alignment with this, the YANSC project engages over fifty California youth in local, state and national decisions focused on land use and transportation, food systems, energy efficiency, education and economic development.

During the Capitol Focus conference, the youth representatives participated in specific training through workshops and peer collaboration. They were engaged in dialogue among their YANSC peers regarding current food access, transportation and education issues California communities face. Such interaction helped build their leadership skills in public speaking, professional presence, proficient communication, and peer collaboration. The Ontario HEAL Titan Teens had the opportunity to share their community work among their peers. Our youth presented on their current projects: 1) the Community Garden 2) the Bike Club 3) the Get Active Class 4) the Cooking Class 5) the Walking Club, and two additional upcoming projects (the Healthy Vending Machine Policy and Addressing Long Lunch Lines in School).

The Ontario HEAL Titan Teens met with Assemblymember Freddie Rodriguez and his Chief of Staff Francisco Estrada to discuss current and proposed projects. These included: the Healthy Vending Machine Policy (for healthier food choices), Longer Lunch Breaks (currently

short due to long lunch lines), the Bicycle Club (to encourage safe bicycling), and the Get Active Class (to encourage healthy eating and active living among elementary school-aged individuals). Mr. Francisco Estrada gave the youth great feedback on how to move forward in their respective projects. Both individuals graciously made themselves available regardless of having our official meeting cancelled earlier that day. The meeting ended on a positive note and their business card was distributed for follow up questions and/or concerns the youth may have.

The YANSC group also studied three bills associated with creating healthy and sustainable school environments. Speakers from each bill were available at the conference to discuss their respective bill. The youth were asked to choose a bill to create dialogue through collaboration and present their findings to a Legislator in support or opposition to the bill. Three of the Ontario HEAL Titan Teens chose to study *Assembly Bill 2449-Lunchtime Supports Learning: Students Need Adequate Time to Eat*, while the fourth pursued *Senate Bill 1055 - School Based Health Centers*. Offered the opportunity to coordinate this group, I prepared the youth to make a presentation before the assigned Legislator. This group met with with Rory Kaufman, Consultant for Assemblymember Shirley Webber, PhD and argued in support of Assembly Bill 2449. Mr. Rory Kaufman was greatly impressed with the group's research, commended their persuasive argument, and recommended they meet with the author of the bill.

As the allotted time with Capitol Representatives came to an end, the youth eagerly discussed their constructive feedback from their legislative appointments as they made their way out. Outside of the Capitol building the Community Action Day 2014 was in full swing. The youth engaged with members representing San Bernardino County, including the Superintendent Representative of the County. After a morning and afternoon filled with action and excitement, the team was ready to make their way back to the conference room. In the conference room, the youth engaged in discussion of their Capitol experience with peers, evaluated the conference, and prepared for their trip back home. The trip back to Ontario was pleasant and upon arrival the HEAL Titan Teens were greeted by adult leaders from their recreation centers. The HEAL Titan Teens were very appreciative of this exciting opportunity and eager to present their work and implement the strategies they learned.

2014 Capitol Focus Conference Photos

Photo 1 and 2: Ontario HEAL Titan Teens working on their community activity poster presentation.

Workshops and Peer Engagement

Photo 3: Poster summarizing their work.

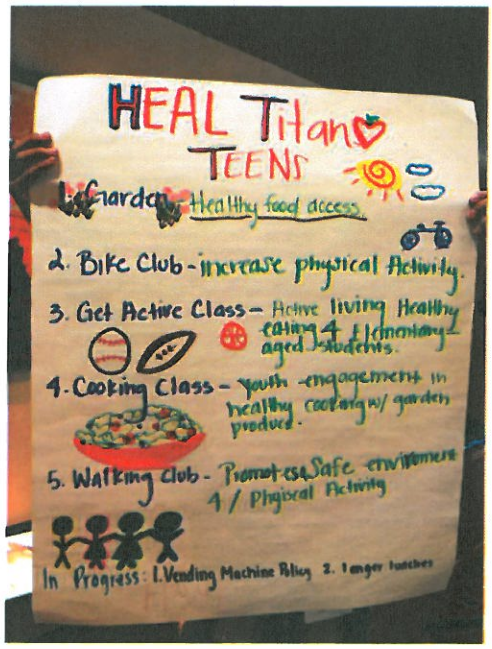


Photo 4: Policy Round Robin – Learning the four policy bills.

Photo 5: Legislateive Meeting with Assemblymember Freddie Rodriguez

Legislative and Policy Appointments

Photo 6: SB-1055 Meeting with Rory Kaufman, Consultant for Assemblymember Shirley Webber, PhD

Photo 7: In front of the Governor's Office

Photo 8: 2014 Community Action Day

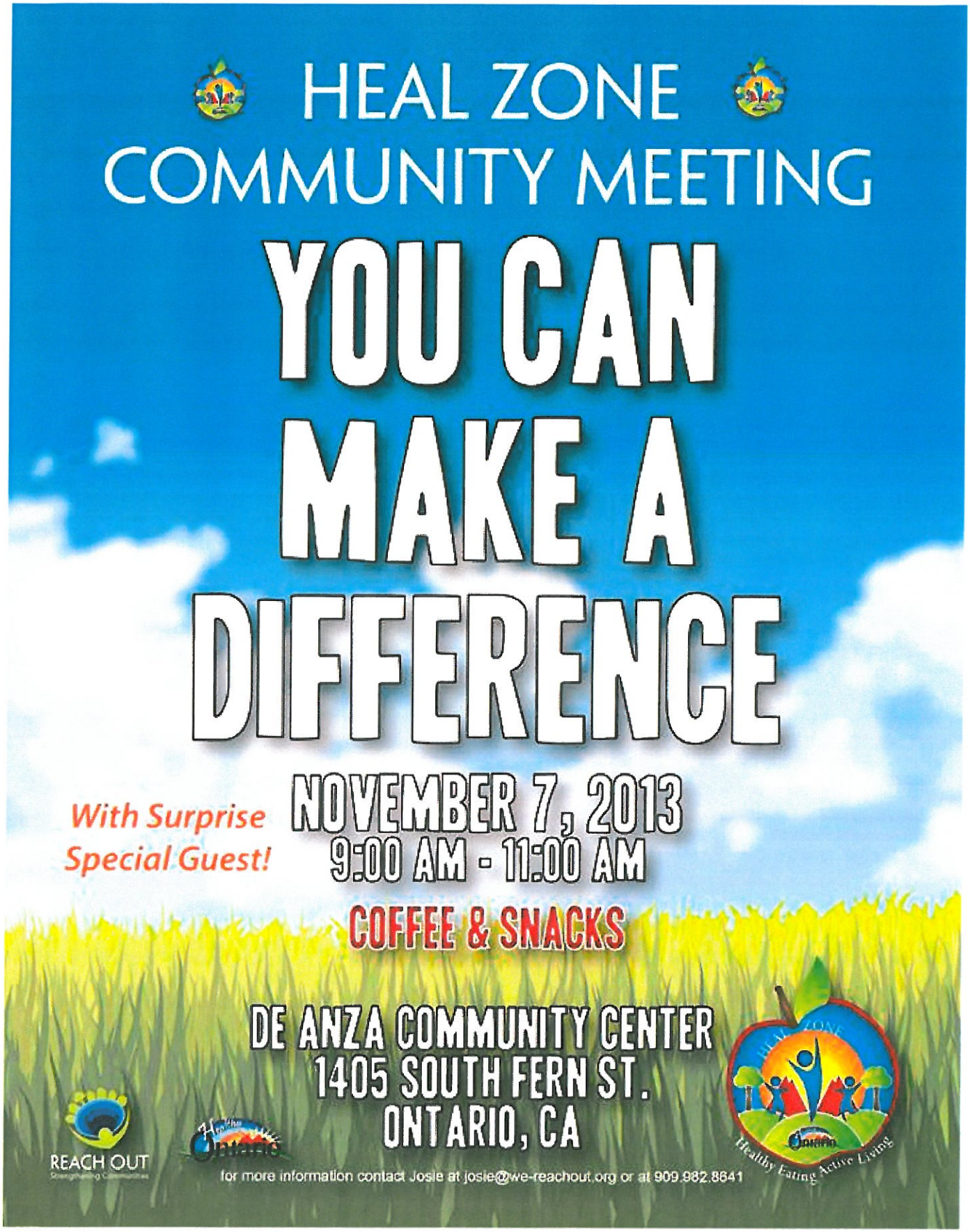
Photo 9: SB County Display

Exploring the Capitol Building

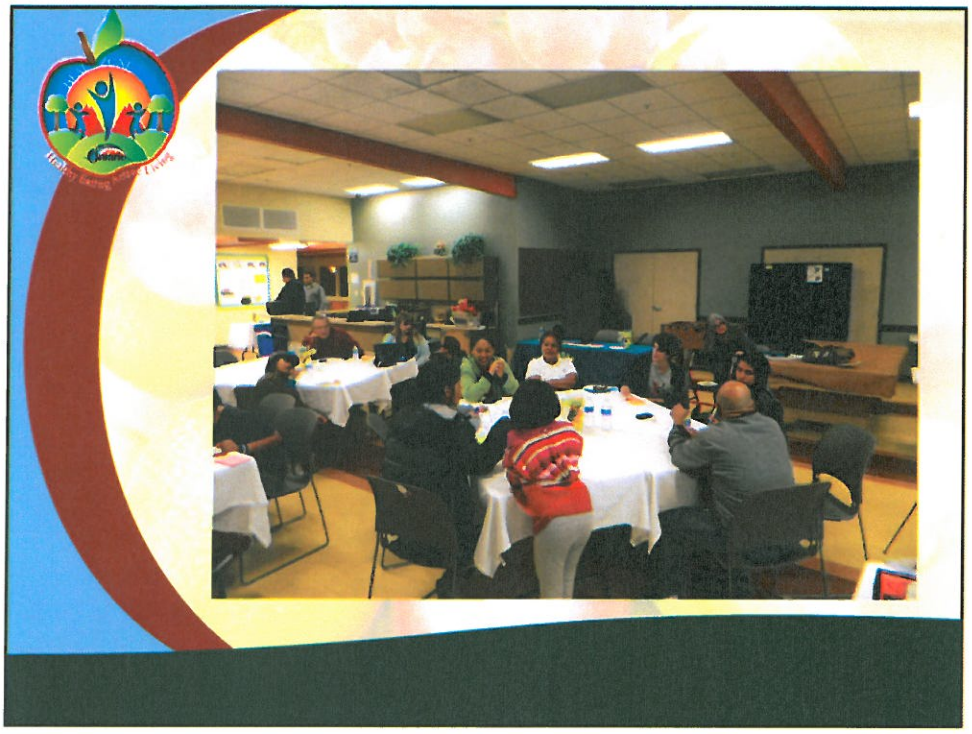
Photo 9: Ontario HEAL Titan Teens in front of the San Bernardino County display.

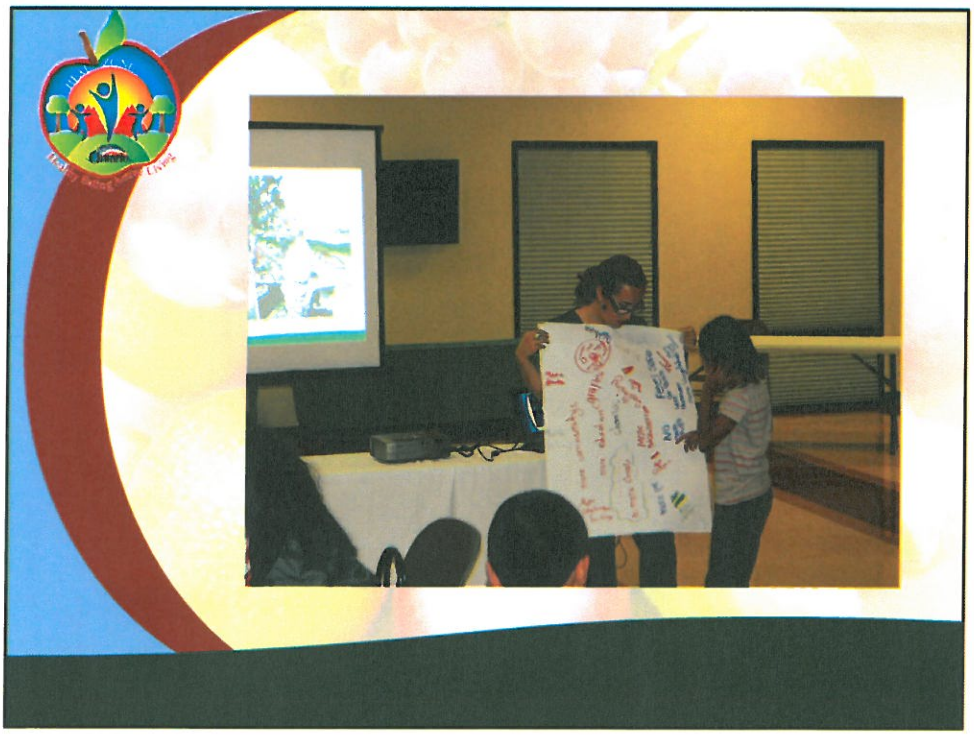
Photo 10: 2014 Capitol Focus Policy YANSC Group

Thank you!


HEAL ZONE
COMMUNITY MEETING
YOU CAN
MAKE A
DIFFERENCE
With Surprise
Special Guest!
NOVEMBER 7, 2013
9:00 AM - 11:00 AM
COFFEE & SNACKS
DE ANZA COMMUNITY CENTER
1405 SOUTH FERN ST.
ONTARIO, CA
REACH OUT
Healthy Eating Active Living
for more information contact Josie at josie@we-reachout.org or at 909.982.8841

HEAL ZONE
Ontario
Healthy Eating Active Living
Neighborhood Mapping Project 2013





Ontario

SCAL HEAL Zone
PhotoVoice

Time 1
11 Participants

Fall 2012

Training Session	11/15/12
Captioning Session	12/06/12

I see in this pic, lots of sugar and drawing attention to kids. You can die from so much candy!

What I see in this is junk food. Right when you walk into the store you will see junk food.

What I see is junk food at my local community center. Kids will be eating a lot of junk food.

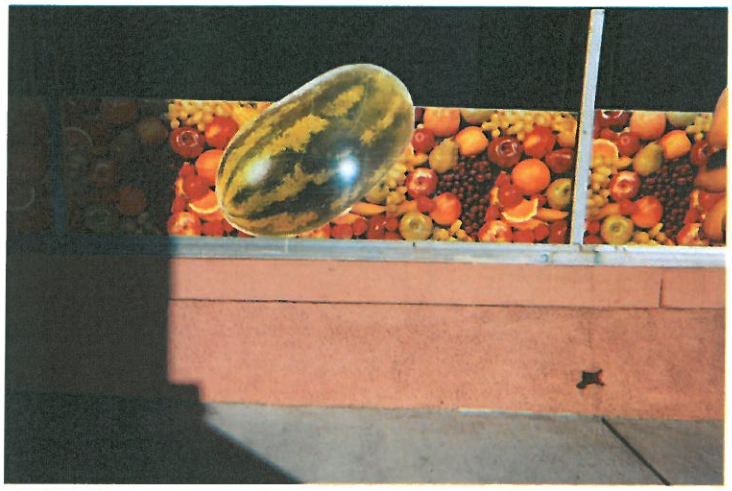
People in the community have very easy access to fast food restaurants. There should be more healthy food options in the community.

In this picture you can see that this is a little boy's plate, and he has taken off all the fruits and vegetables. I don't think this is very good for the little boy because he needs this so he can grow stronger and live longer. More parents should teach their kids to eat healthier.

This pizza and liquor store is the nearest place to the park where we can get a snack or something to eat. Youth and teenagers have no option but to eat here because it's the only thing in walking distance.

Melanie Vizcarra, age 17

I would love to see more farm stores like this one at Amy's Farm (Ontario). Land preservation, advertising local farms open to the public, and community gardens would allow access to fresh produce. Please introduce farm to table concept.



I like this picture, it has a lot of meanings. I saw this healthy picture stand out of the unhealthy advertising. I want more healthy advertising throughout the city. Including more healthy food available to people.

I like this picture of healthy fish. We all benefit from this picture. The price is expensive. I hope we can find a way to get inexpensive, healthy food. Please find a way to lower healthy food prices, and work together with a store to lower the price.

In this picture, there is an empty baseball field nobody uses, so I would want a baseball league to play here.

Anthony, age 12, O.M.S.

I like this park, it is a nice place to be. I would like to see a walk way for people to walk around the park. Everyone likes to exercise, but there is no place to. Please make it possible for people to get to a place to go.

Places without sidewalks only make it harder for people like me to go for a walk or just ride bikes. This only discourages people from jogging there because it's dangerous; since a car can run them over.

This abandoned lot is full of trash and broken glass. This lot is across the street from one of our biggest grocery stores, and it's unsafe for people to walk through here.

Ontario High School Student

Even though this is just an ally, it doesn't mean people don't use the street. This street discourages kids from riding their kids because every time they get stuck, which means they get annoyed by it and lose their exercise time.

What I see here is no crosswalk. It concerns me because people can get killed or injured. What we can do is have them put in a new crosswalk.

Anthony, age 12, O.M.S.

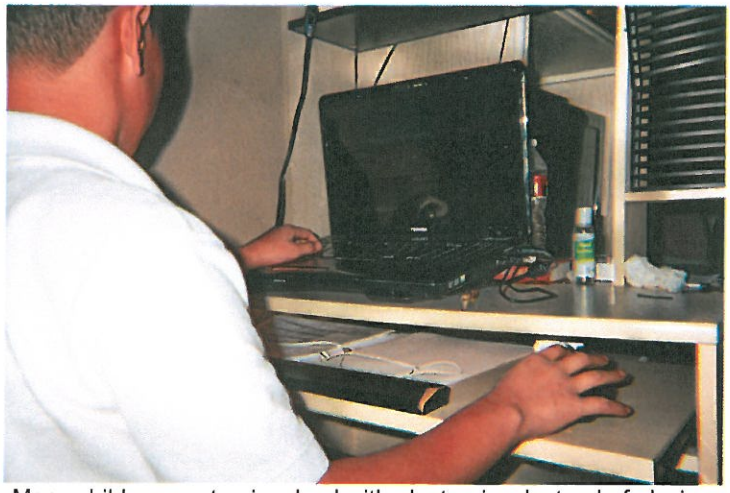
What's going on here is this soccer field has a lot of dead grass, it's a concern to me because we can get cut by this dry grass. I would want to have them replant grass and put in some fertilizer.

Anthony, age 12, O.M.S.

To start off, the sidewalk is uneven. This affects the people in the community because someone may trip and fall and possibly get injured. One way we can fix this is to tell everyone from the area and do something about it to even the concrete.

Guillermo Ceja, age 14, Ontario resident

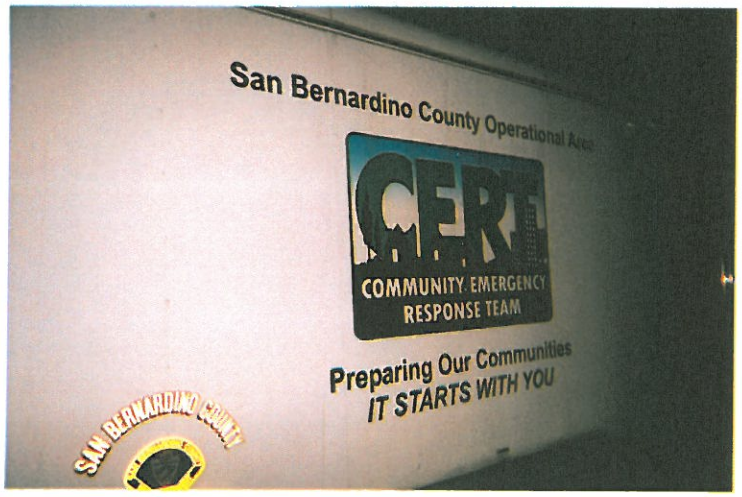
What this picture is showing is a big, wide, empty space. There is no life in this picture. It's showing people that we don't care how we treat the community. What we can do to make it better is we can grow fruits. For example, we can turn it into a fruit stand with strawberries, etc…



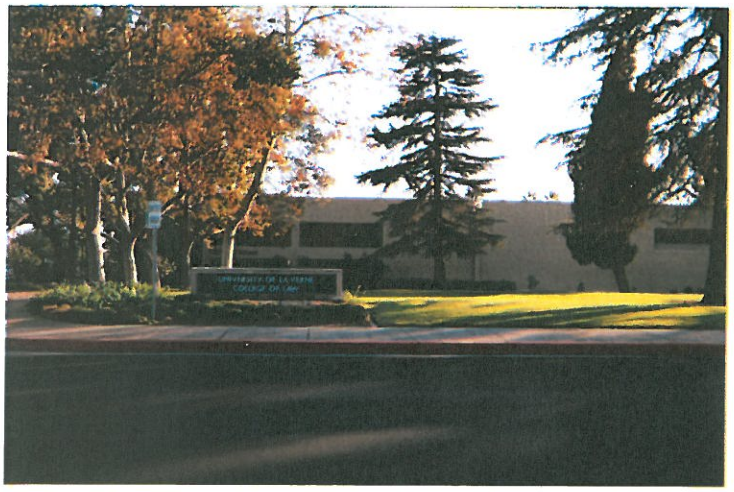
Many children are too involved with electronics. Instead of playing video games or being on the computer, children should be outside exercising or doing something productive. Parents should limit the amount of time children are allowed on electronics. Community should try harder to attract children to go out instead of staying home.

I'm happy to see an arts movement beginning in Ontario. I would like to see it continued onto Euclid Ave (it's currently hidden/tucked away). Allowing the community to be connected to arts is very healing to the soul.

I would like to see more museums in the downtown area. This would allow the community local education opportunities. I would like to see the schools exhibiting their artwork in the museums also.



I would like to see more training opportunities like this available to the community.



It would be wonderful to bring more universities to the downtown Ontario area.

Spring 2013

Healthy Eating Active Living

Youth Food and Physical Activity Survey

Baseline Results for Euclid Elementary

(City of Ontario, San Bernardino County)

Center for Community Health and Evaluation
Group Health Research Institute

Atkins Center for Weight and Health
University of California Berkeley

May 2013

Overview and Key Findings

Survey and Participants

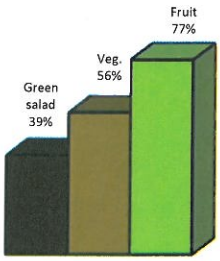
As part of the evaluation of **Kaiser Permanente's** HEAL Zones project (Healthy Eating, Active Living Community Health Initiative), 5th grade students at Euclid in Ontario **completed the "Youth Food and Physical Activity Survey"** in Spring 2013. The survey, developed in collaboration between the Atkins Center for Weight and Health and the Center for Community Health and Evaluation, asked students about their nutrition and physical activities and about perceptions of their school and communities.

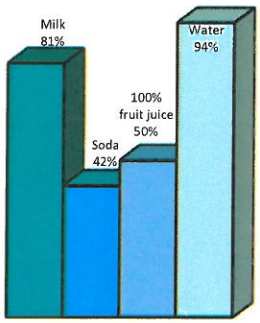
This document provides a summary of the responses from 66 students who completed the survey on 5/3/13. Half (55 percent) of respondents were boys; most students identified as Latino (84 percent).

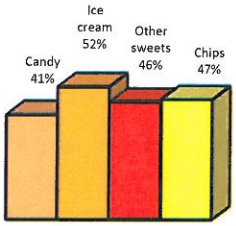
The following are highlights of the survey results; complete results begin on page 3 of this report.

Food

- **Eating at school:** 39 percent of students reported that they ate the school breakfast and 86 percent reported that they ate the school lunch on the day before the survey. When asked about their perceptions of school meals, 95 said the school meals **were healthy "always"** or **"sometimes," while** 93 percent said the school **meals taste good "always"** or **"sometimes."**
  - 46 percent of students reported getting candy or other sweets at a class party or as a reward at least once during the past month.
  - Students also reported whether they had attended a class about healthy food in the past year: 74 percent attended and found it helpful.
- **Eating patterns:** 14 percent of students reported eating a combined total of seven or more fruits and vegetables the day prior to the survey[1]; 88 percent said they ate at a fast food restaurant in the past week. Students reported eating and drinking these foods and drinks displayed on the following graphs the day before:







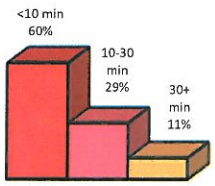
[1] Daily recommended servings of fruits and vegetables for 9-11 year olds can range depending on height and weight, but average 3.5 cups a day (a serving is half a cup). For more information, see the 2010 U.S. Dietary Guidelines (http://www.choosemyplate.gov/).

Overview and Key Findings

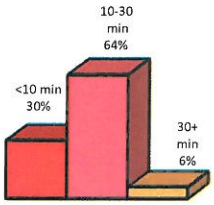
Physical Activity

- **Level of physical activity**: 39 percent of students reported doing more than 30 minutes of vigorous physical activity both in school and outside of school the day before the survey.
- **During school time**: 15 percent of students had Physical Education at least two days per week (0 percent said every day); 40 percent said they were active more than 10 minutes during class time (activity breaks) the day before the survey; and 70 percent were active more than 10 minutes at recess the day before the survey. Students reported the amount of physical activity they did at school the day before the survey as follows:

During Class



During Recess



- **Getting to and from school**: 46 percent of students walked or biked to school and 59 percent walked or biked home on the day of the survey.
- **Regarding sedentary activities**: 43 percent of students reported playing video games more than an hour; 51 percent said they watched more than an hour of TV/movies; and 32 percent said they surfed the internet more than an hour, all on the day before the survey.

Neighborhood Perceptions

- **Feeling safe outdoors**: 34 percent of students "always" feel safe when they are outdoors in their neighborhood; 47 percent "always" think there are safe places in their neighborhood where they can walk or ride a bike; and 24 percent reported their parents "always" let them go outdoors in their neighborhood.
- **Opportunities for physical activity in neighborhood**: 51 percent of students reported there "always" are outdoor places to do the kinds of physical activities they like, while 38 percent reported the same about indoor places for physical activities in their neighborhood.

Intentions and Support for Change

- **Family support**: 95 percent of students reported their family encourages them to eat fruits and vegetables; 94 percent said their family encourages them to be active; and 86 percent eat meals together with their family.
- **Children's intentions**: Students reported that they try to eat more fruits (89 percent), eat more vegetables (63 percent), drink water instead of sugary drinks (89 percent), and eat less fast foods (66 percent). They also indicated that they try to be physically active (95 percent), spend less time on the computer (66 percent), and watch less TV/videos/ video games (65 percent).
- **Perceptions of teachers' support in regard to nutrition and physical activity**: 34 percent of students reported that their teachers "always" help them be physically active every day; 51 percent indicated that their teachers "always" encourage them to eat healthy foods.

Results

Number of completed surveys	66
Gender	
Female	45%
Male	55%
Ethnicity	
African American	2%
Asian & Pacific Islander	0%
Hispanic/Latino(a)	84%
Native American	3%
White	2%
Other	3%
Multi-ethnic	6%

Foods eaten (yesterday)	***Yes***			
French fries	21%			
Green salad	39%			
Vegetables	56%			
Fruit	77%			
Hot dogs, hamburgers	18%			
Pizza	17%			
Fried chicken	30%			
Candy	41%			
Ice cream, frozen yogurt	52%			
Other sweets	46%			
Chips	47%			
Beverages drank (yesterday)	***Yes***			
Milk	81%			
Soda	42%			
Sports drinks	33%			
Energy drinks	11%			
100% fruit juice	50%			
Sweetened drinks	34%			
Water	94%			
Servings of food and drinks (yesterday)	***None***	***1-3***	***4+***	
French fries	78%	20%	2%	
Green salad	63%	34%	3%	
Vegetables	31%	66%	3%	
100% fruit juice	39%	58%	3%	
Fruit	20%	72%	8%	
Servings of fruits and vegetables (yesterday)	***None***	***1-3***	***4-6***	***7+***
	3%	41%	42%	14%

Results

In the last 7 days, times ate/drank...	***None***	***1-3***	***4-6***	***7+***
From a fast food restaurant	12%	77%	5%	6%
Eating at school	***Yes***			
Ate school breakfast (yesterday)	39%			
Ate school lunch (yesterday)	86%			
Food in classroom	***Once a week***	***A few times a month***	***Once a month***	***Never or a few times a year***
How often given candy/sweets for party/reward	20%	17%	9%	54%
Perceptions about school meals	***Always***	***Sometimes***	***Never***	
Think school meals are healthy	17%	78%	5%	
Think school meals taste good	8%	85%	7%	
Food education				
Attended a class about healthy food and it was helpful	74%			
Attended a class about healthy food and it was not helpful	6%			
Did not attend a class about healthy food	20%			
Physical activity in the past 7 days (not during school)	***0-1 days***	***2-5 days***	***6-7 days***	
Active outdoors at a park, field	36%	55%	9%	
Active indoors at a recreation center, gym	70%	21%	9%	
Active on a biking, walking, or jogging trail/path/track	34%	48%	18%	
Active in my neighborhood	50%	29%	21%	
Total physical activity (in school and outside of school)	***Less 10 min***	***10-30 min***	***30-60 min***	***More 60 min***
Active vigorously	20%	41%	16%	23%
Active not vigorously	43%	43%	5%	9%
Sedentary (hours yesterday)	***None or less 1 hr***	***1-3 hrs***	***3-4 hrs***	***More 4 hrs***
Played video/computer games	57%	25%	3%	15%
Watched movies/TV	49%	36%	3%	12%
Surfed the internet/text and instant messages	68%	17%	6%	9%
Mode of transportation to school	***Walk***	***Bike***	***Car/ Bus***	***Other***
How got to school today	44%	2%	53%	1%
How plan to get home from school today	59%	0%	39%	2%
After-school program	***Yes***			
Attended after-school program yesterday	23%			
	Less 10 min	***10-30 min***	***30+ min***	***Did not go yesterday***
Physically active in after-school program yesterday	6%	12%	11%	71%
Attended PE	***0-1 days***	***2-4 days***	***Every day***	***Do not have PE at all***
Days per week of PE	83%	15%	0%	2%
Physical activity during school	***Less 10 min***	***10-30 min***	***30 min+***	
Active vigorously at recess yesterday	30%	64%	6%	
Active vigorously during class yesterday	60%	29%	11%	

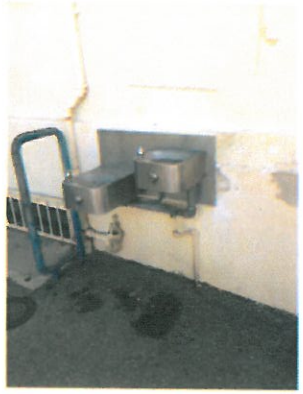
Results

Perceptions about neighborhood	Always	Sometimes	Never
Feel safe outdoors	34%	57%	9%
There are safe places to walk/bike	47%	41%	12%
Parents let me go outdoors	24%	56%	20%
There are outdoor places to be active	51%	37%	12%
There are indoor places to be active	38%	28%	34%
Like to go to places to be active	35%	48%	17%
Perceptions about family	*Yes*		
Encourages me to eat fruits and vegetables	95%		
Encourages me to be active	94%		
Eats meals together	86%		
At family meal, there are fruits and vegetables	88%		
Encourages me to drink water instead of sweetened drinks	84%		
My preferences	*Yes*		
Like to eat fruits	100%		
Like to eat vegetables	66%		
Like to eat whole grain foods	75%		
Like eating the food served at school	51%		
Like to be physically active	88%		
My intentions	*Yes*		
Try to drink water instead of sugary drinks	89%		
Try to eat less snack foods, like chips	69%		
Try to eat less desserts and candy	77%		
Try to eat more fruits	89%		
Try to eat more vegetables	63%		
Try to eat less fast foods	66%		
Try to be physically active	95%		
Try to watch less TV, videos, or play video games	65%		
Try to spend less time on the computer	66%		
Fruit and vegetable preferences	*Like*	*Don't like*	*Don't know/Never tasted*
Carrots	91%	6%	3%
Spinach	44%	28%	28%
Beets	29%	25%	46%
Swiss chard	18%	14%	68%
Tomatoes	52%	40%	8%
Cucumbers	77%	14%	9%
Peas	43%	42%	15%
Lettuce	86%	8%	6%
Peppers	58%	20%	22%
Apples	95%	0%	5%
Melon	80%	12%	8%
Berries	89%	3%	8%
Oranges	95%	3%	2%
Sweet potato	44%	23%	33%
Perceptions about teachers	*Always*	*Sometimes*	*Never*
Helps me be active every day	34%	63%	3%
Encourages me to eat healthy foods	51%	40%	9%

At-a-glance: Euclid Elementary School

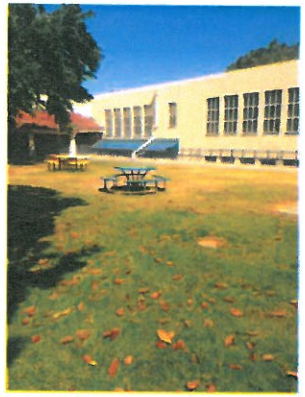
Wall of hands

Tetherball courts



Water fountains

Playground



Outdoor lunch area

Playground

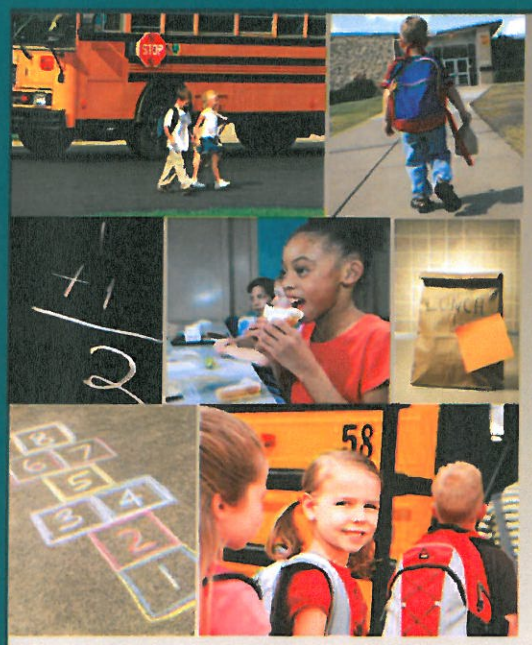
Spring 2013

Healthy Eating Active Living

Youth Food and Physical Activity Survey

Baseline Results for De Anza Middle School

(City of Ontario, San Bernardino County)



Center for Community Health and Evaluation
Group Health Research Institute

Atkins Center for Weight and Health
University of California Berkeley

June 2013

Overview and Key Findings

Survey and Participants

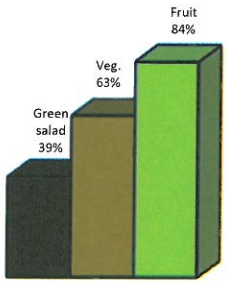
As part of the evaluation of **Kaiser Permanente's** HEAL Zones project (Healthy Eating, Active Living Community Health Initiative), 7th grade students at De Anza in Ontario **completed the "Youth Food and Physical Activity Survey"** in Spring 2013. The survey, developed in collaboration between the Atkins Center for Weight and Health and the Center for Community Health and Evaluation, asked students about their nutrition and physical activities and about perceptions of their school and communities.

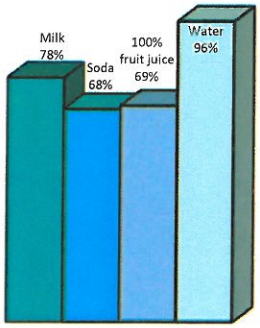
This document provides a summary of the responses from 310 students who completed the survey on May 14, 2013. Half (51 percent) of respondents were girls; more than half of students identified as Latino (73 percent).

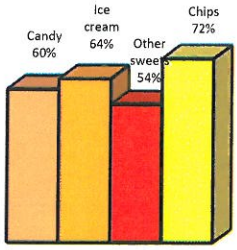
The following are highlights of the survey results; complete results begin on page 3 of this report.

Food

- **Eating at school:** 33 percent of students reported that they ate the school breakfast and 68 percent reported that they ate the school lunch on the day before the survey. When asked about their perceptions of school meals, 74 percent said the school meals (breakfast/lunch) **were healthy "always, often, or sometimes," while** 73 percent said the school meals (breakfast/lunch) **taste good "always, often, or sometimes."**
  - 23 percent of students reported getting candy or other sweets at a class party or as a reward at least once during the past month.
  - Students also reported whether they had attended a class about healthy food in the past year: 49 percent attended and found it helpful.
- **Eating patterns:** 89 percent of students reported eating a combined total of five or more fruits and vegetables the day prior to the survey[1]; 97 percent said they ate at a fast food restaurant in the past week. Students reported eating and drinking these foods and drinks displayed on the following graphs the day before:







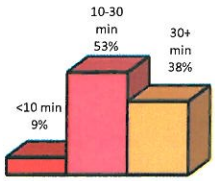
[1] Daily recommended servings of fruits and vegetables for 12-13 year olds can range depending on height and weight, but average 3.5 cups a day (a serving is half a cup). For more information, see the 2010 U.S. Dietary Guidelines (http://www.choosemyplate.gov/).

Overview and Key Findings

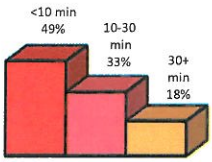
Physical Activity

- **Level of physical activity**: 38 percent of students reported doing more than 30 minutes of vigorous physical activity both in school and outside of school the day before the survey.
- **During school time**: 98 percent of students had Physical Education at least part of the year (94 percent said all year); 91 percent said they were usually active more than 10 minutes at school in PE class; and 51 percent were active more than 10 minutes at school the day before the survey (not in PE). Students reported the amount of physical activity they did at school:

In PE Class (average)



At School, not in PE (yesterday)



- **Getting to and from school**: 59 percent of students walked or biked home from school the day before the survey and 39 percent walked or biked to school on the day of the survey.
- **Regarding sedentary activities**: 50 percent of students reported playing video games more than an hour; 62 percent said they watched more than an hour of TV/movies; and 47 percent said they surfed the internet more than an hour, all on the day before the survey.

Neighborhood Perceptions

- **Feeling safe outdoors**: 80 percent of students "always or often" feel safe when they are outdoors in their neighborhood; 80 percent "always or often" think there are safe places in their neighborhood where they can walk or ride a bike; and 68 percent reported their parents "always or often" let them go outdoors in their neighborhood.
- **Opportunities for physical activity in neighborhood**: 66 percent of students reported there "always or often" are outdoor places to do the kinds of physical activities they like, while 48 percent reported the same about indoor places for physical activities in their neighborhood.

Intentions and Support for Change

- **Family support**: 89 percent of students reported their family encourages them to eat fruits and vegetables; 91 percent said their family encourages them to be active; and 80 percent eat meals together with their family.
- **Children's intentions**: Students reported that they try to eat more fruits (91 percent), eat more vegetables (66 percent), drink water instead of sugary drinks (87 percent), and eat less fast foods (73 percent). They also indicated that they try to be physically active (91 percent), spend less time on the computer (62 percent), and watch less TV/videos/ video games (63 percent).
- **Perceptions of teachers' support in regard to nutrition and physical activity**: 38 percent of students reported that their teachers "always" help them be physically active every day; 30 percent indicated that their teachers "always" encourage them to eat healthy foods.

Results

Number of completed surveys	310
Gender	
Female	51%
Male	49%
Ethnicity	
African American	1%
Asian & Pacific Islander	1%
Hispanic/Latino(a)	73%
Native American	0%
White	7%
Other	5%
Multi-ethnic	13%

Foods eaten (yesterday) Mark all that apply question: percentages do not add up to 100	***School***	***Home***	***Other place***	***Did not eat***
French fries	11%	17%	10%	63%
Green salad	4%	26%	9%	61%
Vegetables	7%	49%	6%	37%
Fruit	19%	69%	4%	16%
Hot dogs, hamburgers	19%	15%	13%	54%
Pizza	6%	14%	7%	72%
Fried chicken	6%	20%	7%	65%
Candy	13%	42%	8%	40%
Ice cream, frozen yogurt	4%	49%	8%	36%
Other sweets	5%	40%	5%	46%
Chips	9%	56%	6%	28%
Beverages drank (yesterday) Mark all that apply question: percentages do not add up to 100	***School***	***Home***	***Other place***	***Did not drink***
Milk	33%	49%	2%	22%
Soda	2%	53%	9%	32%
Sports drinks	13%	32%	5%	45%
Energy drinks	2%	14%	6%	72%
100% fruit juice	9%	49%	3%	31%
Sweetened drinks	3%	44%	4%	40%
Water	43%	70%	13%	4%
Servings of food and drinks (yesterday)	***None***	***1-3***	***4+***	
French fries	70%	28%	2%	
Green salad	64%	35%	1%	
Vegetables	41%	56%	3%	
100% fruit juice	33%	62%	5%	
Fruit	20%	72%	8%	
Servings of fruits and vegetables (yesterday)	***None***	***1-2***	***3-4***	***5+***
	0%	1%	10%	89%

Results

In the last 7 days, times ate/drank...	***None***	***1-3***	***4-6***	***7+***	
From a fast food restaurant	14%	75%	8%	3%	
Food options in neighborhood	***Always***	***Often***	***Sometimes***	***Never***	
Easy to buy fresh fruits/vegetables	37%	35%	20%	8%	
Easy to buy healthy snacks	32%	30%	28%	10%	
Easy to buy candy/soda/other sweets	57%	25%	15%	3%	
Eating at school	***Yes***				
Ate anything at school (yesterday)	74%				
Ate school breakfast (yesterday)	33%				
Ate school lunch (yesterday)	68%				
Food in classroom		***Once a week***	***A few times a month***	***Once a month***	***Never or a few times a year***
How often given candy/sweets for party/reward		9%	7%	7%	77%
Perceptions about school meals	***Always***	***Often***	***Sometimes***	***Never***	***Do not eat***
Think school lunch is healthy	12%	25%	42%	12%	9%
Think school lunch tastes good	11%	24%	45%	11%	9%
Think school breakfast is healthy	14%	25%	30%	6%	25%
Think school breakfast tastes good	20%	26%	20%	7%	27%
Food education					
Attended a class about healthy food and it was helpful		49%			
Attended a class about healthy food and it was not helpful		14%			
Did not attend a class about healthy food		37%			
Physical activity in the past 7 days (not during school)		***0-1 days***	***2-5 days***	***6-7 days***	
Active outdoors at a park, field		30%	55%	15%	
Active indoors at a recreation center, gym		61%	32%	7%	
Active on a biking, walking, or jogging trail/path/track		38%	45%	17%	
Active in my neighborhood		33%	47%	20%	
Total physical activity (in school and outside of school)		***Less 10 min***	***10-30 min***	***30-60 min***	***More 60 min***
Active vigorously		21%	41%	16%	22%
Active not vigorously		37%	44%	10%	9%
Sedentary (hours yesterday)		***None or less 1 hr***	***1-3 hrs***	***3-4 hrs***	***More 4 hrs***
Played video/computer games		50%	30%	4%	16%
Watched movies/TV		38%	41%	7%	14%
Surfed the internet/text and instant messages		53%	25%	8%	14%
Mode of transportation to school Mark all that apply question: percentages do not add up to 100		***Walk***	***Bike***	***Car/ Bus***	***Other***
How got home after school yesterday		55%	4%	38%	4%
How got to school today		38%	1%	59%	27%

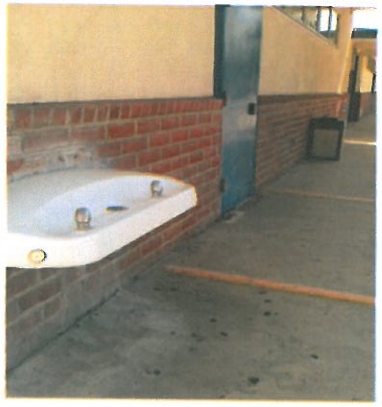
Results

	Yes	No	Did not go yesterday	
Physically active in after-school program yesterday	6%	14%	80%	
Attended PE	*Yes, all year*	*Yes, part of year*	*Do not have PE at all*	
Taking PE this school year	94%	4%	2%	
Physical activity during school	*Less 10 min*	*10-30 min*	*30 min+*	
Active vigorously at school , not in PE (yesterday)	49%	33%	18%	
Active vigorously in PE class (usually)	9%	53%	38%	
Perceptions about neighborhood	*Always*	*Often*	*Sometimes*	*Never*
Feel safe outdoors	42%	38%	15%	5%
There are safe places to walk/bike	53%	27%	16%	4%
Parents let me go outdoors	44%	24%	25%	7%
There are outdoor places to be active	42%	24%	17%	17%
There are indoor places to be active	30%	18%	20%	32%
Like to go to places to be active	21%	22%	34%	23%
Perceptions about family	*Agree*	*Disagree*		
Encourages me to eat fruits and vegetables	89%	11%		
Encourages me to be active	91%	9%		
Eats meals together	80%	20%		
At family meal, there are fruits and vegetables	81%	19%		
Encourages me to drink water instead of sweetened drinks	88%	12%		
My preferences	*Agree*	*Disagree*		
Like to eat fruits	94%	6%		
Like to eat vegetables	67%	33%		
Like to eat whole grain foods	75%	25%		
Like eating the food served at school	50%	50%		
Like to be physically active	89%	11%		
My intentions	*Agree*	*Disagree*		
Try to drink water instead of sugary drinks	87%	13%		
Try to eat less snack foods, like chips	77%	23%		
Try to eat less desserts and candy	74%	26%		
Try to eat more fruits	91%	9%		
Try to eat more vegetables	66%	34%		
Try to eat less fast foods	73%	27%		
Try to be physically active	91%	9%		
Try to watch less TV, videos, or play video games	63%	37%		
Try to spend less time on the computer	62%	38%		

Results

Fruit and vegetable preferences	*Like*	*Don't like*	*Don't know/Never tasted*
Carrots	85%	12%	3%
Spinach	32%	40%	28%
Beets	14%	26%	60%
Swiss chard	11%	16%	73%
Tomatoes	60%	33%	7%
Cucumbers	80%	10%	10%
Peas	42%	40%	18%
Lettuce	89%	7%	4%
Peppers	51%	30%	19%
Apples	96%	2%	2%
Melon	86%	9%	5%
Berries	91%	3%	6%
Oranges	97%	1%	2%
Sweet potato	39%	35%	26%
Perceptions about teachers	*Always*	*Sometimes*	*Never*
Helps me be active every day	38%	49%	13%
Encourages me to eat healthy foods	30%	48%	22%

At-a-glance: De Anza Middle School



Water fountain

Health education poster

Vending machines

Playground

Eating area

Cafeteria

HEALTHY EATING AND ACTIVE LIVING SURVEY –
PLEASE ASSIST BY SHARING YOUR OPINIONS!

(Date)

Dear **Ontario resident**,

A Healthy Eating Active Living (HEAL) Project is underway in your community. In cooperation with Kaiser Permanente, the goals of Healthy Ontario HEAL Zone coalition are to help families eat well and be physically active. We would like your help in understanding how successful the project is in meeting those goals.

The attached survey takes a few minutes to complete and will help us to know more about what you think about the foods you eat and your physical activities. Many households in Ontario are receiving this survey and we would like to hear from a random number of adults of all ages. That's why we would like ***the adult*** in your household who has the ***next birthday*** to complete this survey. If that person isn't able, **any adult in the household** may complete the survey.

There are no right or wrong answers. You do not have to complete the survey, but we hope that you will. As a thank you, we have enclosed $2.00 dollars for you to keep.

Do not write your name on this form. No one but you will know how you answer these questions.

Please take a few minutes of your time to complete the survey, and then return it in the enclosed self-addressed, stamped envelope. The survey should take no more than 10 minutes to complete. We appreciate your time.

If you have any questions or comments about this research, I would be happy to talk with you. Feel free to contact me via phone at (909) 395-2459 or via e-mail at kthompson@ci.ontario.ca.us. Thank you very much for helping with this important study!

Sincerely,

Karen S. Thompson
Associate Planner, City of Ontario/ Planning Department

2012 HEALTHY EATING AND ACTIVE LIVING SURVEY

FOODS YOU EAT

First, we have some food-related questions for you to answer. These questions are about the fruits and vegetables you ate or drank during the past 30 days. Please think about all forms of fruits and vegetables including cooked or raw, fresh, frozen or canned. Please think about all meals, snacks, and food consumed at home and away from home.

1. **During the past month, how many times per day, week or month did you drink 100% PURE fruit juices?** *Do not include fruit-flavored drinks with added sugar or fruit juice you made at home and added sugar to. Only include 100% juice.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

2. **During the past month, not counting juice, how many times per day, week, or month did you eat fruit?** *Count fresh, frozen, or canned fruit.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

3. **During the past month, how many times per day, week, or month did you eat cooked or canned beans, such as refried, baked, black, garbanzo beans, beans in soup, soybeans, edamame, tofu or lentils.** *Do NOT include long green beans.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

4. **During the past month, how many times per day, week, or month did you eat dark green vegetables?** *For example, broccoli or dark leafy greens including spinach, romaine, chard or collard greens.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

5. **During the past month, how many times per day, week, or month did you eat orange-colored vegetables such as sweet potatoes, pumpkin, winter squash, or carrots?**

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

6. **Not counting the fruits and vegetables you were just asked about, during the past month, about how many times per day, week, or month did you eat OTHER vegetables?** *Examples of other vegetables include tomatoes, tomato juice or V-8 juice, corn, jicama, peas, lettuce, cucumbers, and white potatoes that are not fried such as baked or mashed potatoes.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

7. **About how often do you drink regular soda that contains sugar?** *Do not include diet soda.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

8. **About how often do you drink sweetened fruit drinks, such as Sunny-D, Horchata, aguas frescas (con azucar), and lemonade?** *Include aguas frescas, fruit drinks you made at home and added sugar to.*

   Number of Times (enter number): _____ per (select one):

   - ❑ Day
   - ❑ Week
   - ❑ Month
   - ❑ Never
   - ❑ Don't know/Not sure

9. **The next question is about eating out at any restaurant. When calorie information is available in the restaurant, how often does this information help you decide what to order?**

   - ❑ Always
   - ❑ Most of the time
   - ❑ About half the time
   - ❑ Sometimes
   - ❑ Never

10. **Now think about the past WEEK. In the past 7 days how many times did you eat fast food?** *Include fast food meals eaten at school or at home, or at fast food restaurants, carryout, or drive thru. A fast food restaurant is a restaurant where you pay for your food at a counter or drive thru before you eat it. Some examples are: Jack in the Box, Del Taco, Carl's Jr, McDonalds, KFC, Panda Express, Taco Bell, and Chipotle.*

    Number of Times in the Past 7 Days: _____

    - ❑ None
    - ❑ Don't know/Not sure

YOUR PHYSICAL ACTIVITY

Now we have some questions for you to answer about exercise, recreation, or physical activities other than the exercise you might get from being active at work.

If you do not have a "regular job duty" or are retired, count the physical activity or exercise that you spend the most time doing in a regular month.

1. **During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?**

   ❑ Yes
   ❑ No
   ❑ Don't know/Not sure

We are interested in two types of physical activity – moderate and vigorous. Moderate activities cause small increases in breathing or heart rate. Vigorous activities cause large increases in breathing or heart rate.

2. **Now, thinking about the moderate activities you do in a usual week, do you do moderate activities for at least 10 minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate?**

   ❑ Yes
   ❑ No
   ❑ Don't know/Not sure → **Please skip to Question 5.**

3. **How many days per week do you do these moderate activities for at least 10 minutes at a time?**

   Days per week: _____
   ❑ Do not do any moderate physical activity for at least 10 minutes at a time
   ❑ Don't know/Not sure → **Please skip to Question 5.**

4. **On days when you do moderate activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?**

   Hours and minutes per day: __:_____
   ❑ Don't know/Not sure

5. **Now, thinking about the vigorous activities you do in a usual week, do you do vigorous activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?**

   ❑ Yes
   ❑ No
   ❑ Don't know/Not sure → **Please skip to the next page.**

6. **How many days per week do you do these vigorous activities for at least 10 minutes at a time?**

   Days per week: _____
   ❑ Do not do any moderate physical activity for at least 10 minutes at a time
   ❑ Don't know/Not sure → **Please skip to the next page.**

7. **On days when you do vigorous activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?**

   Hours and minutes per day: __:_____
   ❑ Don't know/Not sure

WHAT OTHERS AROUND YOU DO

Now we have some questions about what you think about several topics.

1. **Lots of people I know walk for exercise.**
   - ❑ Strongly disagree
   - ❑ Disagree
   - ❑ Agree
   - ❑ Strongly agree

2. **Lots of people I know often drink regular soda or pop that contains sugar.**
   - ❑ Strongly disagree
   - ❑ Disagree
   - ❑ Agree
   - ❑ Strongly agree

3. **How often during the past year have friends or family members encouraged you to be physically active?**
   - ❑ Never
   - ❑ Seldom
   - ❑ Sometimes
   - ❑ Often
   - ❑ Very often

4. **How often during the past year have friends or family members eaten fresh fruits and vegetables with you?**
   - ❑ Never
   - ❑ Seldom
   - ❑ Sometimes
   - ❑ Often
   - ❑ Very often

ABOUT YOUR COMMUNITY

1. **Thinking about the past week, have you bought fresh fruit and vegetables from the following places in Ontario?** (*Please check all that apply)*

	Yes	No	Don't know
Fresh & Easy	❑	❑	❑
Safeway, Ralphs, Albertsons or Vons	❑	❑	❑
Food 4 Less or Stater Brothers	❑	❑	❑
Superior, Cardenas	❑	❑	❑
Jaxx Market or Pronto Market	❑	❑	❑
Walmart, 99 Cent Stores or Smart & Final	❑	❑	❑
Kaiser's Farmers Market or Ontario Farmer's Market	❑	❑	❑
Other (*please specify) _____	❑	❑	❑

2. **Thinking about the past week, how often have you used these spaces for physical exercise or activity in Ontario?:**

Times in past week	0	1	2	3+
A private gym (such as 24 Hour Fitness) with exercise equipment and classes	❑	❑	❑	❑
A school (specify)_____	❑	❑	❑	❑
A church (specify)_____	❑	❑	❑	❑
Dorthy Casada Community Center (Bonview Park)	❑	❑	❑	❑
De Anza Community Center	❑	❑	❑	❑
Euclid Ave median (Euclid Ave South)	❑	❑	❑	❑
Linda Vista Community Center	❑	❑	❑	❑
YMCA	❑	❑	❑	❑
Veteran's Park (D & Grove Street)	❑	❑	❑	❑
Council Woman's Walking Group in Downtown	❑	❑	❑	❑
Other (specify): _____	❑	❑	❑	❑

3. **How often do you eat at Taquerias and Mexican restaurants in Ontario?**

❑ More than once a week
❑ 1-4 times per month
❑ Less than once a month
❑ Never

4. **Would you be interested in gardening or growing your own vegetables?**

❑ Yes
❑ No
❑ Don't know

5. **Does your place of worship (church, mosque, etc) provide opportunities for physical activity?**

❑ Yes (if yes, please specify: _____)
❑ No
❑ Don't Know/Not Sure

6. **How do you find out about events in your neighborhood?** (*Please check all that apply)*

❑ Email ❑ Local small newspaper ❑ Radio
❑ Word of mouth ❑ Local community calendars/newsletter ❑Posters/flyers
❑Social media (Facebook, twitter) ❑ Television news ❑Other_____

7. **Have you attended any Ontario HEAL (Healthy Eating Active Living) Zone events/activities?**

❑ Yes ❑ No ❑ Not sure/Don't know

INFORMATION ABOUT YOU

1. **What is your age?**

   ❑ Age (years): _____
   ❑ Don't know/Not sure

2. **Are you Hispanic or Latino?**

   ❑ Yes
   ❑ No
   ❑ Don't know/Not sure

3. **Which one or more of the following would you say is your race?** *Please check all that apply.*

   ❑ White
   ❑ Black or African American
   ❑ Asian
   ❑ Native Hawaiian or Other Pacific Islander
   ❑ American Indian or Alaska Native
   OR
   ❑ Other *(Please specify: _____)*
   ❑ Don't know / Not sure

4. **IF MORE THAN ONE, which one of these groups would you say <u>best</u> represents your race?** *Please select one.*

   ❑ White
   ❑ Black or African American
   ❑ Asian
   ❑ Native Hawaiian or Other Pacific Islander
   ❑ American Indian or Alaska Native
   OR
   ❑ Other *(Please specify: _____)*
   ❑ Don't know / Not sure

5. **How many children less than 18 years of age live in your household?**

   Number of children: _____
   ❑ None

6. **What is the highest grade or year of school you completed?**

   ❑ Never attended school or only attended kindergarten
   ❑ Grades 1 through 8 (Elementary)
   ❑ Grades 9 through 11 (Some high school)
   ❑ Grade 12 or GED (High school graduate)
   ❑ College 1 year to 3 years (Some college or technical school)
   ❑ College 4 years or more (College graduate)

7. **About how much do you weigh without shoes?**

   Weight (pounds): _____
   ❑ Don't know/Not sure

8. **About how tall are you without shoes?**

   Height ___ ft / ____ in
   ❑ Don't know/Not sure

9. **What is your gender?**

   ❑ Male
   ❑ Female

HEALTHY LIVING AND EATING SURVEY

Please use this page to include any other comments you have about healthy living and eating or about this survey. Please return your completed survey (and ONLY the completed survey in your language) in the enclosed envelope. Thank you for your participation in this study!

HEAL Zone Community List

Community Needs/Involvement

- More Trees
- Kids in school visiting the community gardens
- Lights so people can walk at night
- Less trash and a more clean community
- More police patrol
- Parks or Community Centers where you can rent bicycles, has swings, slides, children playing, trails to ride bikes, devices for the disabled and accessible for people with disabilities.
- Police
- More places to walk and ride bikes as a way of transportation.
- Clean
- Less Contamination
- Physical activities and exercise
- Communication and Harmony
- Gardens
- Integral development in the community
- Less use of technology
- Exercise
- Active children
- Lower stress and depression
- Functional side-walks that is accessible for wheel chairs.
- Education for parents.
- Activities for adults and children
- Low income clinics
- We walk for bicycles
- Integral development in the community.
- More leaders in the community and those who exist to get more involved.
- A Center for Education and Family
- No television and more sports.
- Activities that help decrease stress and depression.
- More programs for children and youth.
- A balance in the use of technology.
- Parenting classes for parents on how to educate their children.
- Activities for children and adults.
- Community Clinics
- Farmer Markets.
- Education for parents in school close to the Heal Zone.
- Parks with activities and equipment for the kids and lighting at night.
- Leaders that are involved in the community.
- Places to rent bicycles.
- More Community Gardens.
- Community Meetings.
- Community activities for the kids.
- Summer reading program transferred to wellness incentive/program pledges
- Strengthening community centers & activities (more resources and participants)
- New ways to advertise center activities
- Family game nights
- Garden at the park
- City provides/promotes more family activities
- Active family events
- Sidewalks and biking trails for families
- Increase access to healthy foods (grant for families with young children)
- More activities/fitness classes for kids
- Free kid activities
- Community coming together
- Monthly Heal Zone activities
- Children playing outside and staying active
- Community walk

Drugs and Safety Concerns

- Drug free community
- Safe
- Peaceful
- Relief from emotional stress with safer schools, safer access to schools
- Clean streets
- No Drugs in the community.
- Safe Communities.
- Improve the contamination.
- Activities for 2-5 year olds in safe places.
- More security in the parks and in the community to feel safe and not Drugs.
- Clean Community
- Functional side-walks.
- Feeling safe in the parks. More security.
- More participation from the police department.
- Airport: the contamination level?
- No Drugs.
- Safety
- Contamination
- Safe and clean parks
- More safe places
- Vegetarian Restaurants
- Lighting on streets where it's dark for safety
- No Drugs
- Drug free community.

Food and Accessibility

- More classes on nutrition—breaking habits and tradition
- Healthy restaurants, less fast food/convenience stores
- Healthy foods in school
- Incentives for schools/participants with healthy food & activities
- More fruits/veggies
- Sports: Healthy snacks.
- Stores that offer good quality products such as farmers markets that have fruits and vegetables.
- Healthy restaurants and school and eliminate unhealthy food.
- Nutritional stores
- More vending karts that sell fruits instead of Churros.
- Create more fruits and vegetables.
- More production of organic vegetables.
- Quality schools: High academics, better foods in school.
- Quality products in our stores. (Food with barcodes to get the nutritional facts).
- Farmers Markets.
- Better foods in the schools.
- Markets: more fruits and vegetables.
- Fruits and Vegetables: Oranges, Bananas, Broccoli, Lettuce, Carrots, Wheat.
- Healthy food in the schools: Fruits and vegetables (no hamburgers, pizza, or fast food

FBO_Heal_Zone--ONT → Pages → News

Last edited by: Johnny Ramirez 5 months ago

NEWS

Kaiser Permanente grant helps Ontario kick off health-education program. (http://www.sbsun.com/ci_22576459/kaiser-permanente-grant-helps-ontario-kick-off-health-education-program) Liset Marquez, Staff Writer--San Bernardino Sun (http://www.sbsun.com/ci_22576459/kaiser-permanente-grant-helps-ontario-kick-off-health-education-program)

"The city has partnered with Ontario-Montclair School District, Chaffey Joint Union High School District, Reach Out, Kids Come First, Ontario-Montclair YMCA, Pitzer College and Loma Linda School of Religion to implement strategies that specifically address the three goals of the grant:

- Decrease calorie consumption.
- Increase consumption of healthy food and beverages (fruits, vegetables and water).
- Increase physical activity.

At the end of the three-year program, the communities will incorporate walking and biking on safe routes; buying affordable fresh fruits and vegetables close to home; exercising in parks, and participating in active after-school programs as part of daily life."

Kick Off Even De Anza Park February 9, 2013

Dr. Johnny Ramirez-Johnson from the School of Religion at LLU (on the left) and
Pastor Obispo Jose M. Oruna of the Church of God of Prophecy 1130 S Campus Ave. Ontario (on the right) collaborator from Heal Zone FBO surveyed 112 people.

The surveyed were asked their interest in health initiatives in their local Faith based Communities, these are the results.

Saturday 09 February 2013 Survey of Faith Based Community Lifestyle Promotion initiatives

1st interest	2nd interest	3rd interest	Total	First 3 Choices for: Faith Based Organizations (FBO) Lifestyle Promotion Initiatives
38	10	13	61	1. Obesity weight control and monitoring lifestyle interventions.
23	22	9	54	2. Diabetes blood sugar levels control and monitoring.
12	11	18	41	5. Children obesity control and monitoring; parental help and guidance.
9	7	5	21	6. Mental health support groups for family and parenting issues.
9	5	13	27	10. Education: GED, ESL, Naturalization - Classes.
6	3	7	16	7. Mental health support group- alcohol and drug abuse AA and AL-ANON.
6	16	8	30	4. Diet and exercise lifestyle monitoring.
5	9	8	22	3. Blood pressure control and monitoring.
4	5	15	24	9. Safe neighborhood and food access initiatives.
0	5	7	12	8. Senior citizens mental health support group.
112	93	103	308	Totals

Next ▶
Faith Based Communities
see full course sequence

jblum@ci.ontario.ca.us Sign Out Help

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Healthy Ontario Activity Survey Edit

Design Survey | Collect Responses | Analyze Results

Edit Survey

Preview Survey

To change the look of your survey, select a theme below.

Aqua | Create Custom Theme

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PAGE 1 Edit Page Options ▼ | Add Page Logic | Move | Copy | Delete

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Your Activity

The Healthy Ontario staff would like you to fill out a short survey about the amount of exercise you and your family are able to do each week. You can help Healthy Ontario find solutions for the City's neighborhoods and communities that would get more people walking, bicycling, and enjoying sports and other activities. Activity improves physical and mental health, and can help maintain weight loss.
All personal information is strictly confidential, and is for Healthy Ontario staff use only.

+ Add Question ▼

Q1 Edit Question ▼ | Add Question Logic | Move | Copy | Delete

1. How many hours per week do you exercise ?

- A. Less than 1 hour per week
- B.1-2 hours per week
- C. 2-3 hours per week
- D. 4 more than 3 hours per week

+ Add Question ▼ | Split Page Here

Q2 Edit Question ▼ | Move | Copy | Delete

2. What is your opinion on the amount of exercise that you get?

- A.About the right amount
- B. Slightly too little
- C. Somewhat too little
- D. Much too little

+ Add Question ▼ | Split Page Here

Q3 Edit Question ▼ | Add Question Logic | Move | Copy | Delete

3. If you answer to question 2 was C or D, why don't you get enough exercise? (please mark the reasons that apply)

- I need someone to watch my children so that I can exercise
- I don't have enough time to exercise
- Gym membership or exercise equipment are too expensive for me
- I have health problems that keep me from exercising
- I don't like exercising
- I'm too tired to exercise

Other reasons

+ Add Question

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PAGE 2 Edit Page Options ▼ | Add Page Logic | Move | Copy | Delete

Show this page only

+ Add Question

Q4 Edit Question ▼ | Add Question Logic | Move | Copy | Delete

4. What do you most often do for exercise?

- Lift weights
- Walk
- Treadmill
- Bicycle
- Run
- Hike
- Swim
- Dance
- Golf
- Play a team sport (club or league sports)
- Play informal team sports ("pick up" basketball)
- Snowboarding or "extreme" sports
- I don't exercise

Other (please specify)

+ Add Question ▼ | Split Page Here

Q5 Edit Question ▼ | Move | Copy | Delete

5. Do any of the conditions below exist in your neighborhood?

	Very Big Problem	Somewhat of a Problem	Don't know, no opinion	Only a Small Problem	Not a Problem at All
There are not enough sidewalks					
Sidewalks are cracked, broken, or otherwise unsafe					
Sidewalks are too narrow					
Traffic signals do not give enough time to cross the street safely					
Not enough crosswalks					
Speeding cars or trucks					
Streets are poorly lit					
Crime					
Stray Dogs, or Dogs off leash					

Other (please specify)

+ Add Question | Split Page Here

Q6 Edit Question | Add Question Logic | Move | Copy | Delete

6. If you ride a bicycle: would you use designated bike lanes on City Streets?

- I would use bike lanes all of the time
- I might use bike lanes sometimes
- I never use bike lanes
- I have no opinion

+ Add Question | Split Page Here

Q7 Edit Question | Move | Copy | Delete

7. Please mark the statement below that best applies to your neighborhood

	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
There are many places to go that are within easy walking distance of my home					
It is easy to walk to a bus stop from my home					
There are many interesting things to look at while walking in my neighborhood					

+ Add Question

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Children's Activity

If you have children, Healthy Ontario staff would like you to answer questions about your child's exercise.
Physical activity is very important in achieving a healthy lifestyle,and the Healthy Ontario Staff would like your help in identifying ways for children to exercise more, and to participate in sports and activities that they enjoy.
All information will be kept confidential, and is for the use of the Healthy Ontario program only.

+ Add Question ▼

Q8 Edit Question ▼ Add Question Logic Move Copy Delete

8. What are the ages of the children in your household?

- A. 0-1 year
- B. 1-5 years
- C. 5-11 years
- D. 11-13 years
- E. 13-17 years
- F. 17 years and over

+ Add Question ▼ Split Page Here

Q9 Edit Question ▼ Add Question Logic Move Copy Delete

9. What is your opinion on the amount of exercise that your children get?

- A.About the right amount
- B.Slightly too little
- C. Much too little

+ Add Question ▼ Split Page Here

Q10 Edit Question ▼ Add Question Logic Move Copy Delete

10. If your answer to question 9 was B or C, please tell us why:

- No outdoor space for my children to exercise or play
- I am concerned about safety in my neighborhood
- I am concerned about traffic in my neighborhood
- My children don't have time to play or exercise
- My children don't have access to play or exercise equipment

Other (please specify)

+ Add Question | ▼ | Split Page Here

Q11 Edit Question | ▼ | Add Question Logic | Move | Copy | Delete

11. If you have school age children, how do they get to school?

- [ ] Walk
- [ ] Bicycle
- [ ] Both Walk and Bicycle
- [ ] Don't Walk or Bike to School

+ Add Question | ▼ | Split Page Here

Q12 Edit Question | ▼ | Add Question Logic | Move | Copy | Delete

12. If your children walk or bike to school, how often?

- ( ) Every Day
- ( ) 2-3 Days Per Week
- ( ) 1 Day Per Week
- ( ) 2-3 Times Per Month
- ( ) Less Than 1 Time Per Month

+ Add Question | ▼ | Split Page Here

Q13 Edit Question | ▼ | Add Question Logic | Move | Copy | Delete

13. If your children don't walk or bike to school, please fill in the reasons that apply:

- [ ] School is not within walking or biking distance
- [ ] I'm concerned about the safety of my children walking by themselves
- [ ] I'm concerned the safety of my children crossing streets
- [ ] There are no sidewalks, or sidewalks are missing along the school route

Other (please specify)

+ Add Question | ▼ | Split Page Here

Q14 Edit Question | ▼ | Add Question Logic | Move | Copy | Delete

14. Do your children participate in any of the following sports or activities? Please check all that apply:

- [ ] Organized Team Sports: (AYSO or Club Soccer, Little League, Pop Warner Football, T-Ball, etc)
- [ ] School Sponsored Sports; (Football, Baseball, Water Polo, Soccer, Marching Band, Track and Field, Cheer Leading, etc)
- [ ] Recreation programs sponsored by a City, YMCA, or a church, such as gymnastics, martial arts, baton twirling, swimming, dance, etc.?
- [ ] Recess or School P.E. Classes
- [ ] Informal Team Sports (Pick Up Soccer or Basketball, Flag Football, Street Hockey etc.)

Gymnastics

- [ ] Dance
- [ ] Bicycling
- [ ] Skateboarding
- [ ] Swimming
- [ ] Snowboarding

Other (please specify)

+ Add Question | Split Page Here

Q15 Edit Question | Add Question Logic | Move | Copy | Delete

15. If your children don't participate in sports or acitvities, why not?

- [ ] Don't have transportation to games, practice, or lessons
- [ ] Because of work or other commitments, parents can't take children to activities
- [ ] Lessons or sports equipment are too expensive
- [ ] Children are not interested in participating
- [ ] Not aware of informal team sports or activities in our neighborhood

Other (please specify)

+ Add Question | Split Page Here

Q16 Edit Question | Add Question Logic | Move | Copy | Delete

16. Are you interested in getting information about City recreation programs, and other activities for your children?

- ( ) Yes I would like information
- ( ) No I am not interested

+ Add Question

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Back to My Surveys

Preview Survey

Results of 2013 Neighborhood Healthy Activity Survey

Three things you like about your Neighborhood	English Speaking Response	Spanish Speaking	Both
	Parks	Parks	Parks
	Schools	Schools	Schools
	Friendly Neighbors/Like neighbors	Stores	Friendly Neighbors/Like Neighbors
	Stores	Shopping	Stores and Shoping
	Community Activities	Quiet community	Community Activities
	Feel Safe	Community Activities	Quiet community
	Lots of places to eat out	Like my Neighbors	Feel Safe
	Quiet	Police response time is	Police Response Time

Rate the Quality of the following items in your neighborhood	English speaking	Spanish Speaking	Both
Affordable	Very Good: 18.2% Good: 63.6% No Opinion 13.6% Not Very Good: 4.5% Very Bad/Terrible: 0%	Very Good: 27% Good: 43.2% No Opinion 8.1% Not Very Good 10.8% Very Bad/Terrible 10.8%	Very Good: 22.6% Good: 53.4% No Opinion: 10.85 Not Very Good: 7.6% Very Bad/Terrible: 5%
Close to Work	Very Good: 28.6% Good: 52.4% No Opinion 9.5% Not Very Good 4.8% Very Bad/Terrible 4.8%	Very Good 33.3% Good: 36.7% No Opinion 13.3% Not Very Good 10% Very Bad/ Terri 6.7%	Very Good: 31% Good: 44% No Opinion: 11.4% Not Very Good 7.5% Very Bad/Terrible: 6%
Close to Family/Friends	Very Good 30.4% Good: 47.8% No Opinion 13.0% Not Very Good 4.3%	Very Good 29.4% Good 58.8% No Opinion 0% Not Very Good 5.9%	Very Good: 29.5% Good: 53.3% No Opinion: 6.5% Not Very Good: 5.1%

1

Results of 2013 Neighborhood Healthy Activity Survey

	Very Bad/Terr. 4.3%	Very Bad/Terr. 5.9%	Very Bad/Terrible: 5.1%
	English Speaking	Spanish Speaking	Both
Close to Elementary/Middle/High Schools	Very Good 58.3% Good 37.5% No Opinion 4.2% Not Very Good 0% Very Bad/Terr 0%	Very Good 55.3% Good 47.4% No Opinion 0% Not Very Good 0% Very Bad/Terr 0%	Very Good: 56% Good 42.5% No Opinion 2.1% Not Very Good 0% Very Bad/Terrible 0%
Close to Shopping/Services	Very Good 60.9% Good 34.8% No Opinion 4.2% Not Very Good 0.0% Very Bad/Terr 0.0%	Very Good 44.1% Good 50.0% No Opinion 0.0% Not Very Good 5.9% Very Bad/Terr 0.0%	Very Good: 52.5% Good: 42.4% No Opinion: 2.1% Not Very Good: 3% Very Bad/Terrible: 0%
Close to Parks/Open Space	Very Good 70.8% Good 25.0% No Opinion 4.2% Not Very Good 0.0% Very Bad/Terr 0.0%	Very Good 47.1% Good 50.0% No Opinion 2.9% Not Very Good 2.9% Very Bad/Terr 0.0%	Very Good 58.9% Good 37.5% No Opinion 3.9% Not Very Good 1.45% Very Bad/Terr 0.0%
Close to Public Transportation	Very Good 57.1% Good 33.3% No Opinion 9.5% Not Very Good 0% Very Bad 0%	Very Good 40.6% Good 53.1% No Opinion 3.1% Not Very Good 3.1% Very Bad 0%	Very Good 49% Good 43.2% No Opinion 6.3% Not Very Good 1.5% Very Bad 0%
Close to Medical Care	Very Good 47.8% Good 26.1% No Opinion 21.7% Not Very Good 4.3% Very Bad/Terr. 0.0%	Very Good 41.2% Good 44.1% No Opinion 2.9% Not Very Good 11.8% Very Bad 0%	Very Good 44.5% Good 35.1% No Opinion 12.3% Not Very Good 8.09% Very Bad 0%

Please Rate How Safe or Unsafe	English speaking Response	Spanish Speaking Response	Both

2

You Feel						
In Your Neighborhood During the Day	Very Safe Somewhat Safe No Opinion Somewhat Unsafe Very Unsafe	54.2% 37.5% 0% 4.2% 4.2%	**Very Safe** **Somewhat Safe** **No Opinion** **Somewhat Unsafe** **Very Unsafe**	**43.6%** **41.0%** **5.1%** **22.9%** **8.6%**	**Very Safe 46%** **Somewhat Safe: 39.3** **No Opinion: 2.5%** **Somewhat Unsafe: 13.5%** **Very Unsafe: 6.4%**
In Your Neighborhood After Dark	Very Safe Somewhat Safe No Opinion Somewhat Unsafe Very Unsafe	20.8% 37.5% 8.3% 25.0% 8.3%	Very Safe Somewhat Safe No Opinion Somewhat Unsafe Very Unsafe	22.9% 45.7% 0.0% 22.9% 8.6%	Very Safe: 21.8% Somewhat Safe: 41.2% No Opinion: 4.15 Somewhat Unsafe: 23.9% Very Unsafe: 8.45%

Comments regarding neighborhood safety:

English speaking *	Spanish Speaking
"Alleys are too dark at night" "Sketchy People" "Need more security (police) around the park area; I live across the street from the park." "More police (2 responses)" "Too many car accidents on Euclid and Mission (intersections)" "Need Speed Bumps" "Hoodlums" "More street lights outside" "Some unfamiliar people walking through the neigborhood at night" "No Police Around"	"Gang activity, dark areas" "Each day, there are less and less recreational services for our teenagers, which can promote delinquency. Would like to see career outreach for our teenagers and adults. Career programs." "Car break ins" "Some apartments have gangs (cholos)" "More security" "Car windows are broken and cars are stolen" "Speeding cars and poor (no) street lights" "Lots of muggers" "Because you can get mugged at bus stops" "Speeding cars No lighting"

	"Many kids out at night"

*Several of the people responding indicated that the need for more police was because of speeding vehicles

Please Tell Us if Any of the Following are Concerns in Your Neighborhood		
Crime	Very Big Problem	15.3%
	Somewhat of a Problem	16.0%
	No Opinion	4.0%
	Small Problem	12.0%
	Not a Problem	44.0%
Sidewalks	Very Big Problem	3.1%
	Somewhat of a Problem	22.7%
	No Opinion	22.1%
	Small Problem	22.1%
	Not a Problem	29.9%
Streets	Very Big Problem	11.6%
	Somewhat of a Problem	20.8%
	No Opinion	14.5%
	Small Problem	20.8%
	Not a Problem	35%
Street Lighting	Very Big Problem	18.5%
	Somewhat of a Problem	20.2%
	No Opinion	10.3%
	Small Problem	10.3%
	Not a Problem	40.5%
Airport Noise	Very Big Problem	4.3%
	Somewhat of a Problem	26.1%

	No Opinion 17.4% Small Problem 17.4% Not a Problem 34.8%
Lawns, Property Not Maintained	Very Big Problem 9.1% Somewhat of a Problem 25.8% No Opinion 15% Small Problem 5.8% Not a Problem 44.1%
Speeding Vehicles	Very Big Problem: 41.7% Somewhat of a Problem: 21.5% No Opinion: 11.5% Small Problem: 12.8% Not a Problem: 12.3%

Would you like to participate in any of the following activities?	English Speaking	Spanish Speaking	
Community Gardens	Yes: 73% No: 27%	Yes: 80% No: 20%	Yes 76.5% No 23.5%
Walking Groups	Yes: 67% No: 33%	Yes: 70% No: 30%	Yes 68.5% No 31.5%
Exercise Groups	Yes: 71% No: 29%	Yes: 77% No: 23%	Yes: 74% No: 26%
Cooking Classes	Yes: 70% No: 21%	Yes: 96% No: 4%	Yes: 83% No: 12.5%
HEAL Zone (Healthy Ontario)	Yes: 80% No: 20%	Yes: 80% No: 20%	Yes: 80% No: 29%
Neighborhood Watch	Yes: 61% No: 39%	*	
Clean Communities	Yes: 92% No: 8%	Yes: 100% No: 0%	

*Unintentionally left out of survey

Neighborhood Planning Map Exercise

Number of Participants: Approximately 17

Favorite Places (Green Dots):

1. De Anza Park
2. Bon View Park
3. De Anza Middle School
4. Euclid Elementary School
5. Shopping Center at Euclid and Francis (Just outside the HEAL Zone)
6. Church on Francis Street
7. Church on Elm Street
8. Sultana Elementary School
9. Euclid Elementary School
10. Participant's House
11. County Park (outside HEAL Zone) more places to fish and enjoy the water

Area's Needing Improvement (In order of numbers of comments)

1. Pleasant Ave: Big Problem is cars speeding, needs speed bump or stop sign (several intersections were identified)
2. Vacant Property on Euclid just north of Francis: weeds, trash (turned over to Code Enforcement)

3. Vacant Building on Euclid just north of Francis: comments were that it was an eyesore (104 A, 3C)
4. Belmont and Campus: Street not in good condition (potholes)?
5. Euclid and Phillips by De Anza park : line of sight issues at intersection
6. De Anza Middle School: More security needed
7. Maple and Euclid Intersection: Unsafe
8. More street lights needed on Locust St west of Monterey Ave
9. Intersection of Locust St and Monterey Ave: Illegal activities (didn't specify) more lights needed
10. Bon View Ave south of Francis needs more businesses
11. De Anza Circle: Traffic problems (unspecified)
12. San Antonia and Ralston needs stop sign (one comment, outside HEAL Zone area)
13. Pallet yard on Cucamonga Ave. is unsightly (outside the HEAL Zone)
14. Side streets from Mission Blvd (Carlton St.) needs plants and a walkway
15. The Euclid Ave median should have a walkway- it's difficult to walk on
16. Sultana/Cherry Ave (outside HEAL Zone) crime activity, alleys aren't lighted enough
17. San Antonio/Mission: Speeding traffic
18. Euclid/Francis: Crime
19. Pleasant Ave: Crime, speeding traffic, no street lights

General Plan Update

Community Meetings—The Ontario Plan

Title	Description
1. Community Outreach Dates	A list of the dates and descriptions of various workshops held for the General Plan Update.
2. Community Workshops	
September 13, 2006—Colony High School	City of Ontario held a Community Visioning Workshop at Colony High School to map out community ideas for the future of Ontario.
September 14, 2006—Ontario Senior Center	City of Ontario held a Community Visioning Workshop at the Ontario Senior Center to map out community ideas for the future of Ontario.
September 16, 2006—De Anza Community Center	City of Ontario held a Community Visioning Workshop at De Anza Community Center to map out community ideas for the future of Ontario.
3. School Districts Coordination Meeting	
December 11, 2006—Ontario Library	City of Ontario held one School District Coordination Meeting at the Ontario Library.
4. Downtown West Neighborhood Workshop	
January 13, 2007—St. George Catholic Church	City of Ontario held a Downtown Westside Neighborhood Workshop with downtown walking tour and place-making session.
5. Housing Element Workshop	
March 22, 2008—Ontario Senior Center	City of Ontario held an Housing Element Community Workshop at the Ontario Senior Center.
6. The Ontario Plan: Community Workshops	
January 12, 2009—Ontario Police Department	City of Ontario held the first of two consecutive Community Workshops on the Policy Plan at the Ontario Police Department Community Room.
January 13, 2009—Ontario City Hall	City of Ontario held the second of two consecutive Community Workshops on the Policy Plan at the Ontario City Council Chambers.
7. The Ontario Plan: Neighborhood Meeting	
January 21, 2009—Ontario City Council Chambers	Ontario City Council held two Neighborhood Meetings on the Transitional Overlay areas at the Ontario City Council Chambers.
8. The Ontario Plan: Neighborhood Meeting	
July 1, 2009—Ontario City Council Chambers	Ontario City Council held one Neighborhood Meeting on the Transitional Overlay areas at the Ontario City Council Chambers.
9. Strategic Advisor Series Summary	Summary of a series of panels addressing the City of Ontario's Community Design, Growth and Economic Development, Health, Education and Culture, Housing, Infrastructure, and Transportation needs.
10. General Plan Update Presentations	A series of presentation were given on the General Plan Update regarding Land Use Designations, as well as an EIR Scoping Meeting. The Land Use Designation presentations discussed what's allowed in each land use, the changes between the existing and proposed land uses, and Ontario's housing, employment, and population potential at build-out under The Ontario Plan. The EIR Scoping Meeting provided a detailed description of the Environmental Review process in the approval or denial of The Ontario Plan.

RESOLUTION NO. 2014-037

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AUTHORIZING APPLICATION FOR ACTIVE TRANSPORTATION PROGRAM (ATP) FUNDING THROUGH CALIFORNIA DEPARTMENT OF TRANSPORTATION AND SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS FOR VARIOUS SAFE ROUTES TO SCHOOLS IMPROVEMENTS AROUND BON VIEW, EUCLID, CORONA AND VINEYARD ELEMENTARY SCHOOLS.

WHEREAS, on March 20, 2014, the California Transportation Commission issued a call-for-projects for the Active Transportation Program; and

WHEREAS, the City of Ontario recognizes the need to plan for and construct Safe Routes to School improvements to increase the opportunity for children around public schools to walk to school in a safe manner; and

WHEREAS, the City Council of the City of Ontario through the adoption of The Ontario Plan (General Plan) approved Policy M2-3:

> "*Pedestrian Walkways*. We require walkways that promote safe and convenient travel between residential areas, businesses, schools, parks, recreation areas, and other key destination points."

WHEREAS, the City of Ontario desires to submit an application for ATP funds to construct sidewalk improvements around Bon View, Euclid, Corona and Vineyard Elementary Schools which will help to reduce the deficiencies in the sidewalk systems around these schools and increase the opportunity for children to walk to and from school in a safe manner.

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED, AND RESOLVED, by the City Council of the City of Ontario, as follows:

SECTION 1. As the decision-making body for the project, the City Council has reviewed and considered the information contained in the administrative record for the Project. Based upon the facts and information contained in the administrative record, including all written and oral evidence presented to the City Council, the City Council finds as follows:

a. The design and construction of sidewalks on various streets around Bon View, Euclid, Corona and Vineyard Elementary Schools are exempt from the California Environmental Quality Act pursuant to Section 15301(c) (Existing Facilities).

SECTION 2. Based upon the substantial evidence presented to the City Council and upon the specific findings set forth in Section 1 above, the City Council hereby concludes that an application be made to CALTRANS and Southern California Association of Governments for Active Transportation Program funding, that the City of Ontario will not be required to provide matching funds, and that the City Manager or his designee is hereby authorized to file such application and execute all required ATP funding agreements and other documents as needed to secure and administer the funding.

The City Clerk of the City of Ontario shall certify as to the adoption of this Resolution.

PASSED, APPROVED, AND ADOPTED this 6th day of May 2014.

PAUL S. LEON, MAYOR

ATTEST:

Linda Kasad, MMC, Asst. City Clerk
for MARY E. WIRTES, MMC, CITY CLERK

APPROVED AS TO LEGAL FORM:

BEST BEST & KRIEGER LLP
CITY ATTORNEY

STATE OF CALIFORNIA)

COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, MARY E. WIRTES, City Clerk of the City of Ontario, DO HEREBY CERTIFY that foregoing Resolution No. 2014-037 was duly passed and adopted by the City Council of the City of Ontario at their regular meeting held May 6, 2014 by the following roll call vote, to wit:

AYES:	MAYOR/COUNCIL MEMBERS:	LEON, BOWMAN, DORST-PORADA AND AVILA
NOES:	COUNCIL MEMBERS:	NONE
ABSENT:	COUNCIL MEMBERS:	WAPNER

Vicki Kasad, MMC, Asst. City Clerk
for MARY E. WIRTES, MMC, CITY CLERK

(SEAL)

The foregoing is the original of Resolution No. 2014-037 duly passed and adopted by the Ontario City Council at their regular meeting held May 6, 2014.

Vicki Kasad, MMC, Asst. City Clerk
for MARY E. WIRTES, MMC, CITY CLERK

(SEAL)

School Locations for ATP Grant Application

EXHIBIT C

BOARD OF TRUSTEES

Kristen Brake
Samuel P. Crowe
J. Steve Garcia
Maureen "Moe" Mendoza
Elvia M. Rivas

Ontario-Montclair
School District

Bon View Elementary School
2121 South Bon View Avenue, Ontario, CA 91761 * (909)947-3932 * FAX (909)930-6751

JAMES Q. HAMMOND, Ed.D.
Superintendent

JANET CATCHINGS
Principal

JOHN *WALTON*
Elementary Administrator

JENNIFER BERRY
Elementary Administrator

April 15, 2014

City of Ontario
Planning Department
303 East "B" Street
Ontario, CA 91764

Subject: Safe Routes to School Active Transportation Grant-Bon View Elementary

I am writing to express my support of the City of Ontario's Safe Routes to School proposal for the installation of missing sidewalks around Bon View Elementary School. These improvements will be on Philadelphia Street between Bon View Street and Cucamonga and on Bon View Street, south of Francis.

The sidewalk installation will improve safety for the students that attend Bon View Elementary and surrounding De Anza Middle School and Ontario High School. The proposed sidewalk project will create a safe divider between pedestrians, and vehicular traffic lanes that will provide students with a secure walking route to and from school.

It is vital that the new sidewalks be placed in an area to prevent accidents. When the proposed sidewalk is completed, there will be a continuous safe route to school for most students that attend Bon View Elementary and the surrounding institutions.

Bon View Elementary enthusiastically supports the City's vision for creating safe, healthy and walkable communities. We hope that by improving the paths of travel to school for our students it will encourage more students to walk to school and will help improve our Student Fitness Test scores.

Sincerely,

Janet Catchings

Principal, Bon View Elementary

Ontario-Montclair
School District

950 West D Street, Ontario, California 91762 • (909) 459-2500 • FAX (909) 459-2741

James Q. Hammond, Ed.D.
Superintendent

CORONA SCHOOL

Sal Flores
Principal

April 16, 2014

City of Ontario
Planning Department
303 East "B" Street
Ontario, CA 91764

Subject: Safe Routes to School Active Transportation Grant- Corona Elementary School

I am writing to express my support of the City of Ontario's Safe Routes to School proposal for the installation of missing sidewalks around Corona Elementary School. These improvements will be on Mandalay Street between Princeton and Fifth Street.

The sidewalk installation will improve safety for the students that attend Corona Elementary. The proposed sidewalk project will create a safe divider between pedestrians and vehicle traffic lanes that will provide students with a secure walking route to and from school.
It is vital that the new sidewalks be placed in this area to prevent accidents. When the proposed sidewalk is completed, there will be a continuous safe route to school for students that attend Corona Elementary and the surrounding institutions.

Corona Elementary enthusiastically supports the City's vision for creating safe, healthy and walkable communities. We hope that by improving the paths of travel to school for our students it will encourage more students to walk to school and will help improve our Student Fitness Test scores.

Sincerely,

S. Flores

Sal Flores
Principal
Corona Elementary School

Ontario-Montclair
School District

BOARD OF TRUSTEES
Kristen Brake
Samuel P. Crowe
J. Steve Garcia
Maureen Mendoza
Elvia M. Rivas

EUCLID ELEMENTARY SCHOOL
1120 South Euclid Avenue, Ontario, California 91762 • (909) 984-5119 • Fax (909) 459-2769

James Q. Hammond, Ed.D.
Superintendent

Monica Ayala
Principal

Elena Zerbel
Elementary Administrator

April 15, 2014
City of Ontario
Planning Department
303 East "B" Street
Ontario, CA 91764

Subject: Safe Routes to School Active Transportation Grant- Euclid Elementary School

I am writing to express my support of the City of Ontario's Safe Routes to School proposal for the installation of missing sidewalks around Euclid Elementary School. These improvements will be on Phillips Street, west of Euclid and on Maitland Street, west of Monterey Avenue.

The sidewalk installation will improve safety for the students that attend Euclid Elementary and the neighboring De Anza Community Center. The proposed sidewalk project will create a safe divider between pedestrians and vehicular traffic lanes that will provide students with a secure walking route to and from school.

It is vital that the new sidewalks be placed in this area to prevent accidents. When the proposed sidewalk is completed, there will be a continuous safe route to school for students that attend Euclid Elementary and the surrounding institutions.

Euclid Elementary enthusiastically supports the City's vision for creating safe, healthy and walkable communities. We hope that by improving the paths of travel to school for our students it will encourage more students to walk to school and will help improve our Student Fitness Test scores.

Sincerely,

Monica Ayala

Principal, Euclid Elementary School

Vineyard
STEM EXPLORERS
Empowered Learners Today, Innovative Leaders Tomorrow
1500 E. 6th Street
Ontario, California 91764
(909) 984-2306
Mrs. Gateley, Principal
Mr. Zajicek, Elementary Administrator

April 15, 2014
City of Ontario
Planning Department
303 East "B" Street
Ontario, CA 91764

Subject: Safe Routes to School Active Transportation Grant- Vineyard Elementary School

I am writing to express my support of the City of Ontario's Safe Routes to School proposal for the installation of missing sidewalks around Vineyard STEM Magnet School. These improvements will be on Sycamore Street and Amador Avenue.

The sidewalk installation will improve safety for the students that attend Vineyard STEM Magnet School. The proposed sidewalk project will create a safe divider between pedestrians and vehicular traffic lanes that will provide students with a secure walking route to and from school.

It is vital that the new sidewalks be placed in this area to prevent accidents. When the proposed sidewalk is completed, there will be a continuous safe route to school for students that attend Vineyard STEM Magnet School and the surrounding institutions.

Vineyard STEM Magnet School enthusiastically supports the City's vision for creating safe, healthy and walkable communities. We hope that by improving the paths of travel to school for our students it will encourage more students to walk to school and will help improve our Student Fitness Test scores.

Sincerely,

Principal, Vineyard STEM Magnet School

OmniTrans
Connecting Our Community.

1700 W. Fifth St.
San Bernardino, CA 92411
909-379-7100
www.omnitrans.org

May 2, 2014

Ms. Teresa McWilliam
Office of Active Transportation and Spec. Prog.
CALTRANS
Division of Local Assistance, MS-1
P.O. Box 942874
Sacramento, CA 94274-0001

Subject: City of Ontario Safe Routes to School ATP Grant Submittal

Ms. McWilliam:

I write in support of the City of Ontario's Active Transportation Program Safe Routes to School grant application for sidewalk improvements around four Ontario elementary schools (Bon View, Euclid, Corona and Vineyard Elementary Schools).

Providing safe routes for children to travel to school will help to increase the willingness of parents to allow their children to walk to school, leading to reduced childhood obesity in the community of Ontario. In addition to improving community health, increased walkability will improve pedestrian access to Omnitrans' bus system, encouraging higher rates of usage of public transportation. The proposed sidewalk improvements fall within ½ mile walking distance of Omnitrans' bus routes 61, 63, 80, 81, and 83; thus will help to provide a safer route to transit.

The proposed improvements also go hand-in-hand with Omnitrans' proposed project to develop a rapid bus route called the West Valley Connector Corridor that runs along Holt Boulevard, Archibald, Inland Empire Boulevard, and Milliken Avenue through the City of Ontario. The two projects will work together to create a safer, more walkable, and healthier community of Ontario.

For all of the above reasons, Omnitrans highly recommends the City of Ontario's Safe Routes to School proposal for Active Transportation funding. Please feel free to contact Anna Rahtz at (909) 379-7256 or anna.rahtz@omnitrans.org for additional information.

Sincerely,

P. Scott Graham
by M. Ewing

P. Scott Graham
CEO/General Manager

DEPARTMENT OF PUBLIC HEALTH

COUNTY OF SAN BERNARDINO

OFFICE OF PUBLIC HEALTH ADMINISTRATION
351 North Mountain View Avenue, Third Floor ♦ San Bernardino, CA 92415-0010
(909) 387-9146 ♦ Fax (909) 387-6228

TRUDY RAYMUNDO
Public Health Director

MAXWELL OHIKHUARE, M.D.
Health Officer

May 13, 2014

CALTRANS
Division of Local Assistance, MS-1
Attention: Chief, Office of Active Transportation and Special Programs
P.O. Box 942874
Sacramento, CA 94274-0001

Re: Caltrans Active Transportation Program/Safe Routes to School, City of Ontario Grant Application

Dear Chief of Active Transportation and Special Programs:

On behalf of the San Bernardino County Department of Public Health, I am pleased to offer our support for the City of Ontario's application for a Safe Routes to School Active Transportation Grant.

The City of Ontario is collaborating with the Ontario-Montclair School District to increase physical activity by making active transportation an easier, safer and more appealing option for students and their families. They are pursuing an infrastructure-only project to install missing sidewalk segments around four elementary schools. Two of these, Euclid Elementary and Bon View are in the Kaiser Healthy Eating Active Living (HEAL) Zone in Ontario. This HEAL initiative is designed to help combat obesity by making healthy choices accessible to more people in underserved communities across Southern California.

The San Bernardino County Department of Public Health is very concerned with the health and safety of the community's children. Childhood obesity is a significant issue and we're continually looking for ways to encourage children to be more active. According to the 2010 United States Census, 43.3% of students in Ontario are overweight or obese, 80 – 90% of students are on free and reduced lunches and some schools are located in the top 5 - 10% of the CalEnviro Screen. Walking or riding a bike is an excellent opportunity to promote this kind of effort. However, without a safe route to and from school many parents may be reluctant to allow their children to walk and bike.

I believe that the actions included in the grant application will significantly improve health and safety for the community's children. I support the City of Ontario's application for the Active Transportation Program Safe Routes to School Grant.

Sincerely,

MAXWELL OHIKHUARE, M.D.
Health Officer

GREGORY C. DEVEREAUX
Chief Executive Officer

Board of Supervisors
ROBERT A. LOVINGOOD....First District
JANICE RUTHERFORD.....Second District
JAMES RAMOS.....Third District
GARY C. OVITT.....Fourth District
JOSIE GONZALES.....Fifth District

KAISER PERMANENTE®

April 25, 2014

City of Ontario
Planning Department
303 East B Street
Ontario, CA 91764

SUBJECT: Safe Routes to School Active Transportation Grant (Letter of Support)

Walking and biking are powerful preventive medicine and a strong, evidence-based solution to the epidemic of childhood obesity. There are many reasons why nearly 1 in 3 kids in California are now overweight or obese, with huge implications for their physical health, their emotional health and their ability to succeed in school.

One big driver of this epidemic is the fact that we have designed physical activity out of kids' lives. Kids today get less play time and more screen time. Physical education has been cut way back. And kids walk and bike to school a lot less than in years past.

In 1969, 48 percent of kids walked or biked to school. Today, only 13 percent do. Research shows that children who walk or bicycle to school have better fitness levels, are more active, and do better in school. It's a great way to get families and communities involved in the health of our kids—and it's fun!

Safe Routes to School programs have been proven to get kids on their feet and their bikes. By installing safe paths and street crossings, and training parents on how to organize walking and biking programs at their schools, Safe Routes initiatives change social norms and the built environment, making it easier and safer for physical activity to be part of kids' everyday routines.

As a health-care organization that cares for more than 460, 436 members in San Bernardino County, Kaiser Permanente has made a major commitment to Safe Routes to School programs. For nearly a decade, we have been working closely with schools, health departments, city agencies and local residents to help transform neighborhoods so that the healthy choice is the easy choice—including the new Kaiser Permanente supported Healthy Eating Active Living Zone in Ontario . Safe Routes to School programs are a major focus of nearly every one of these initiatives, including the City of Ontario.

The City of Ontario is proposing to install missing sidewalk segments around Bon View, Euclid, Corona and Vineyard Elementary schools. The City of Ontario is the recipient of a Kaiser Permanente Healthy Eating, Active Living (HEAL) grant and two of the four schools proposed in the project are located within the HEAL Zone.

Sincerely,

David A. Quam, M.D.
Area Medical Director and Chief of Staff
Kaiser Permanente Fontana and Ontario Medical Centers
Southern California Permanente Medical Group

9961 Sierra Avenue

Fontana, CA 92335

STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0052
(916) 319-2052
FAX (916) 319-2152

DISTRICT OFFICE
13160 7TH STREET
CHINO, CA 91710
(909) 902-9606
FAX (909) 902-9761

Assembly
California Legislature

FREDDIE RODRIGUEZ
ASSEMBLYMEMBER, FIFTY-SECOND DISTRICT

COMMITTEES
BANKING AND FINANCE
BUDGET
ELECTIONS AND REDISTRICTING
WATER, PARKS AND WILDLIFE

SUBCOMMITTEES
BUDGET SUBCOMMITTEE NO. 5 ON PUBLIC SAFETY

SELECT COMMITTEES
CHAIR: SELECT COMMITTEE ON LOCAL EMERGENCY PREPAREDNESS

JOINT COMMITTEES
VICE CHAIR: JOINT COMMITTEE ON EMERGENCY MANAGEMENT

To whom it may concern,

I am pleased to submit a letter in support of the City of Ontario Active Transportation Program Grant for sidewalk improvements at the following school locations: Bon View Elementary, Corona Elementary, Euclid Elementary, and Vineyard Elementary.

Two of these schools are part of the Kaiser-funded HEAL Zone Initiative, which is designed to help combat obesity through making healthy choices available to more people in underserved communities across Southern California.

When the proposed sidewalk is completed, there will be a continuous safe route for pedestrians and students within the Ontario- Montclair School district. Within the general plan at the City of Ontario, there is an adopted pedestrian and bicycle section that supports active transportation. This proposed project is in compliance with Caltrans complete street policies.

Thank you for your demonstrated commitment to improving highway safety for our students. Should you need further assistance please do not hesitate to call my office.

I fully support this program and encourage your support of the City's application. Please do not hesitate to contact my office should you have any questions regarding this matter. Thank you for your time and consideration.

Sincerely,

Freddie Rodriguez
Assemblymember, 52nd District

FR/jw

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