



Welcome to the California Department of Public Health PedSafe Webinar

What's Speed Got to Do with It?

We Will Begin Shortly...



Funding for this project was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration



How to Participate?



- ❖ Audio – available via your computer speakers or via telephone
 - ❖ Submitting questions
 - Type your question into the field provided
 - We will address questions at the end of the presentation
 - ❖ Webinar archive – presentation will be posted on the California Injury Prevention Network website
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California Department of Public Health PedSafe Program



- ❖ PedSafe aims to foster healthy and safe walkable communities by educating and linking public health, traffic safety and community advocates
- ❖ PedSafe implements a variety of activities, emphasizing a multi-prong approach of education, technical assistance, training and facilitation
- ❖ PedSafe collaborates with several partners to implement its grant, including:
 - Federal Highway Administration
 - CaliforniaWalks
 - UC Berkeley's SafeTREC Program
 - Caltrans
 - California Highway Patrol
 - Variety of local programs

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Caltrans Division of Traffic Operations
Office of Signs and Markings

VEHICLE SPEEDS AND PEDESTRIAN SAFETY

WHO WRITES THE RULES FOR SETTING SPEED LIMITS?

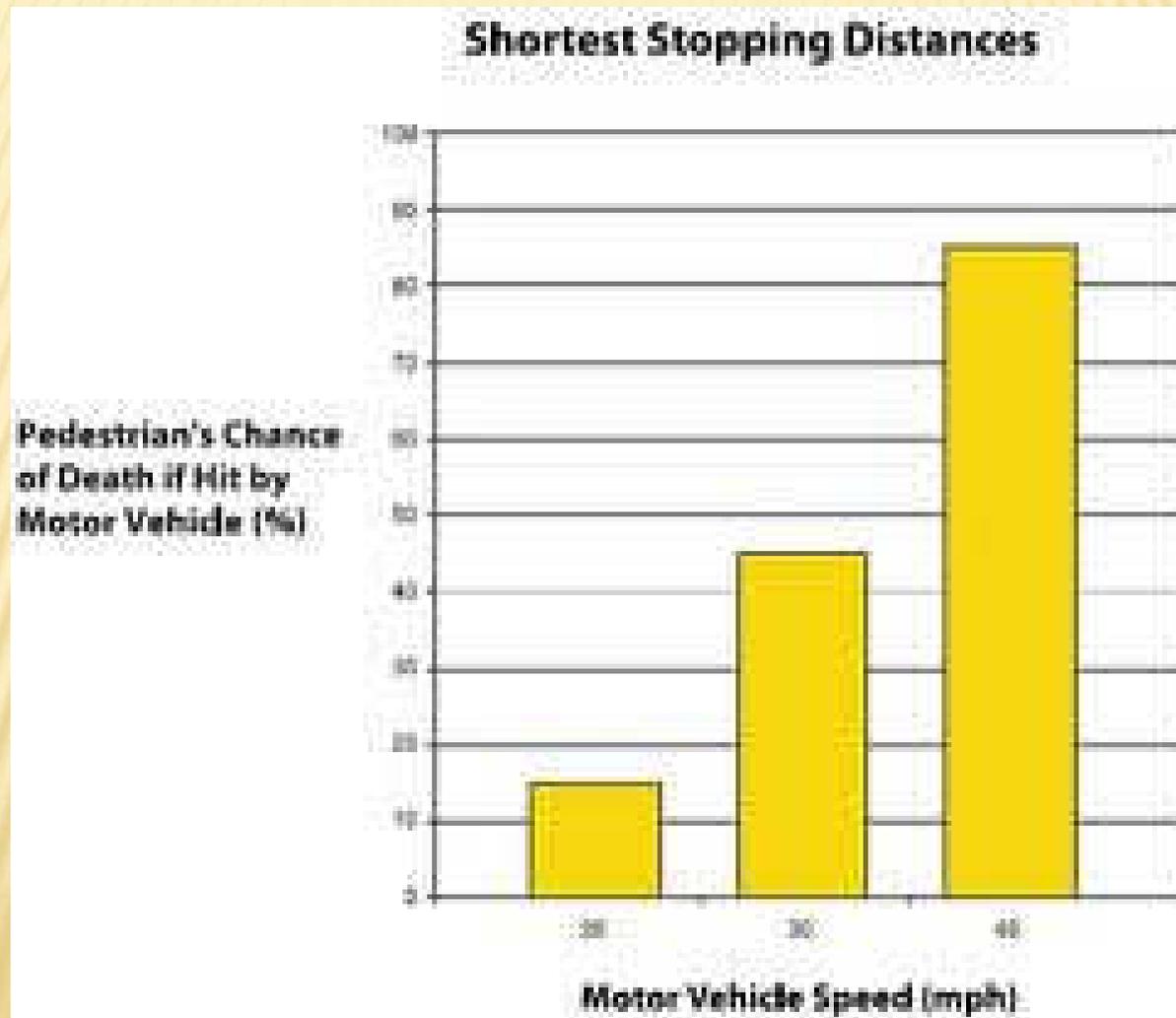
- × LEGISLATORS
- × EDITORS OF THE CALIFORNIA MUTCD
 - + CALTRANS STAFF
 - + CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE
 - × CALTRANS
 - × CHP
 - × REPRESENTATIVES FOR CITIES AND COUNTIES
 - × CALIFORNIA AUTOMOBILE ASSOCIATION

VEHICLE SPEEDS

- × PERCEIVED SPEEDS
- × ACTUAL SPEEDS

- × 85TH PERCENTILE SPEED
- × POSTED SPEED LIMIT

THE FASTER CARS GO, THE HARDER PEDS FALL



SLOWER SPEEDS = SAFER STREETS?

- ✘ IS SPEED THE ONLY FACTOR?
- ✘ DISTRACTED DRIVING AT ANY SPEED IS BIG PROBLEM
- ✘ LOWERING THE NUMBER ON THE BLACK AND WHITE SIGN DOES NOT RESULT IN SLOWER DRIVING SPEEDS
- ✘ IF DRIVER WANTS TO DRIVE FAST, CAN TECHNOLOGY SLOW DOWN THE VEHICLE?

HOW ARE SPEED LIMITS SET?

✘ BY STATUTE –

- + MAXIMUM: 55MPH AND 65MPH
- + SCHOOL ZONES: 25MPH AND 15MPH
- + RESIDENTIAL AND BUSINESS DISTRICTS: 25MPH

✘ ENGINEERING AND TRAFFIC SURVEYS

- + REQUIRED TO RAISE THE MAXIMUM (FREEWAYS AND RURAL 2 LANE ROADS)
- + REQUIRED FOR REDUCING THE MAXIMUM (SUCH AS ARTERIALS AND COLLECTOR STREETS)

CALIFORNIA VEHICLE CODES FOR SPEED LIMITS

- ✘ SECTION 627 “ENGINEERING AND TRAFFIC SURVEY”
- ✘ SECTIONS 22348-22366 GENERAL SPEED LAWS
- ✘ SECTIONS 40801 to 40805 OTHER SPEED LAWS
- ✘ SECTION 40802 “SPEED TRAP”

CVC 627

“ENGINEERING AND TRAFFIC SURVEY”

1. PREVAILING SPEEDS*
2. ACCIDENT RECORDS
3. HIGHWAY, TRAFFIC AND ROADSIDE CONDITIONS
NOT READILY APPARENT TO THE DRIVER

*NO SPECIFIC MENTION OF 85TH %TILE

CVC 22358.5

“...PHYSICAL CONDITIONS SUCH AS WIDTH, CURVATURE, GRADE AND SURFACE CONDITIONS OR ANY OTHER CONDITION READILY APPARENT TO THE DRIVER, WOULD NOT REQUIRE SPECIAL DOWNWARD SPEED ZONING.”

CVC SECTION 40802 “SPEED TRAP”

✘ Speed Trap is either of following:

Time and distance is not allowed to determine speed

Prima facie speed limit not justified by E&TS
(when radar or lidar is used)

CVC SECTION 40802 REQUIREMENTS

- ✘ Roadway must be surveyed every 5, 7, or 10 years
 - 7 years if...
 - + Officer POST certified (24 hour radar course / 2 hour lidar).
 - + Radar / lidar conforms to NHTSA standards (CPL).
 - + Independent equipment calibration within 3 years (IACP Certification).
 - 10 years if engineer certifies no significant changes in roadway or traffic conditions

CVC AND CA MUTCD COMPARISON

× CVC

- + NEED FOR E&TS
- + DELEGATES E&TS PROCEDURES TO THE DEPARTMENT OF TRANSPORTATION
- + SPEED LIMITS SET BY LEGISLATION
- + USED FOR CITATIONS

CA MUTCD

- ✘ CA MUTCD SECTION 2B.13
 - + CRITERIA FOR SELECTING VALUE OF SPEED LIMIT
 - + E&TS ELEMENTS
 - ✘ SAMPLE FORMS
 - ✘ REPORT FORMAT
 - + SIGNS TO USE
 - + NATIONAL STANDARDS (FEDERAL MUTCD)
- ✘ CURRENTLY PUTTING GUIDELINES FOR SETTING SPEED LIMITS INTO NEW BOOKLET

Standard:

When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the Option below.

Option:

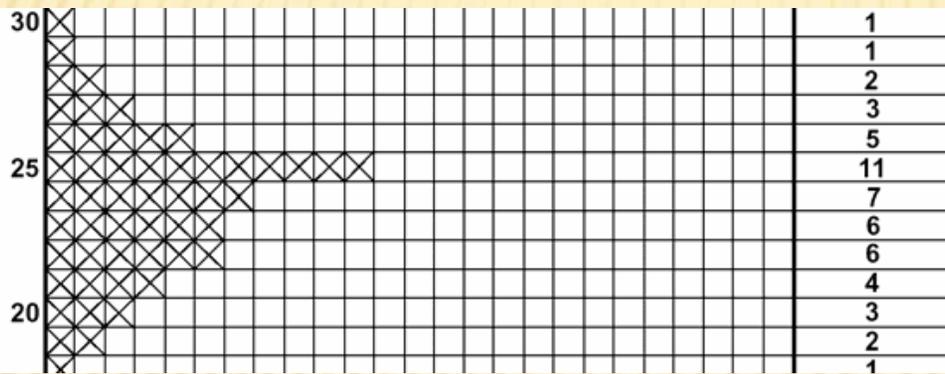
The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th percentile speed, in compliance with CVC Sections 627 and 22358.5.

Standard:

If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.

85TH PERCENTILE SPEED

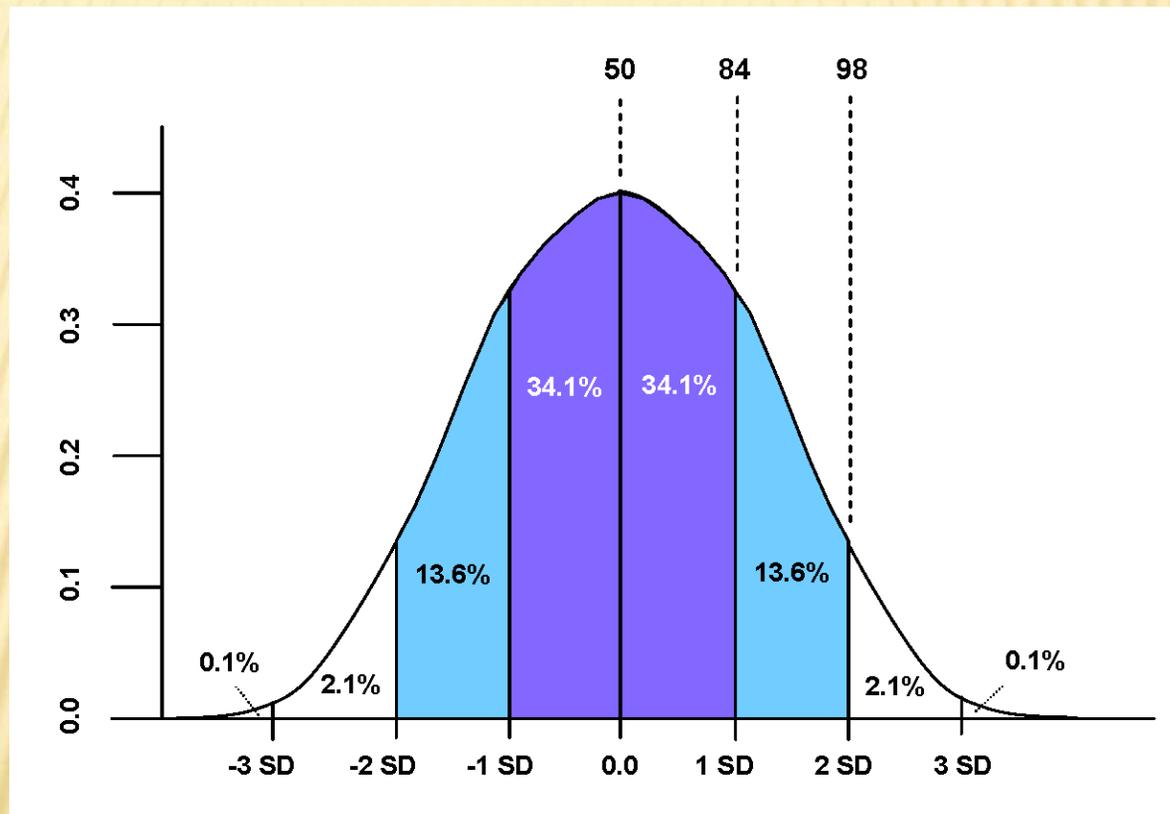
- × FOUNDATION FOR SETTING APPROPRIATE SPEED LIMITS
- × ACCEPTED PRACTICE FOR MANY YEARS
- × BASED ON STATISTICAL ANALYSIS



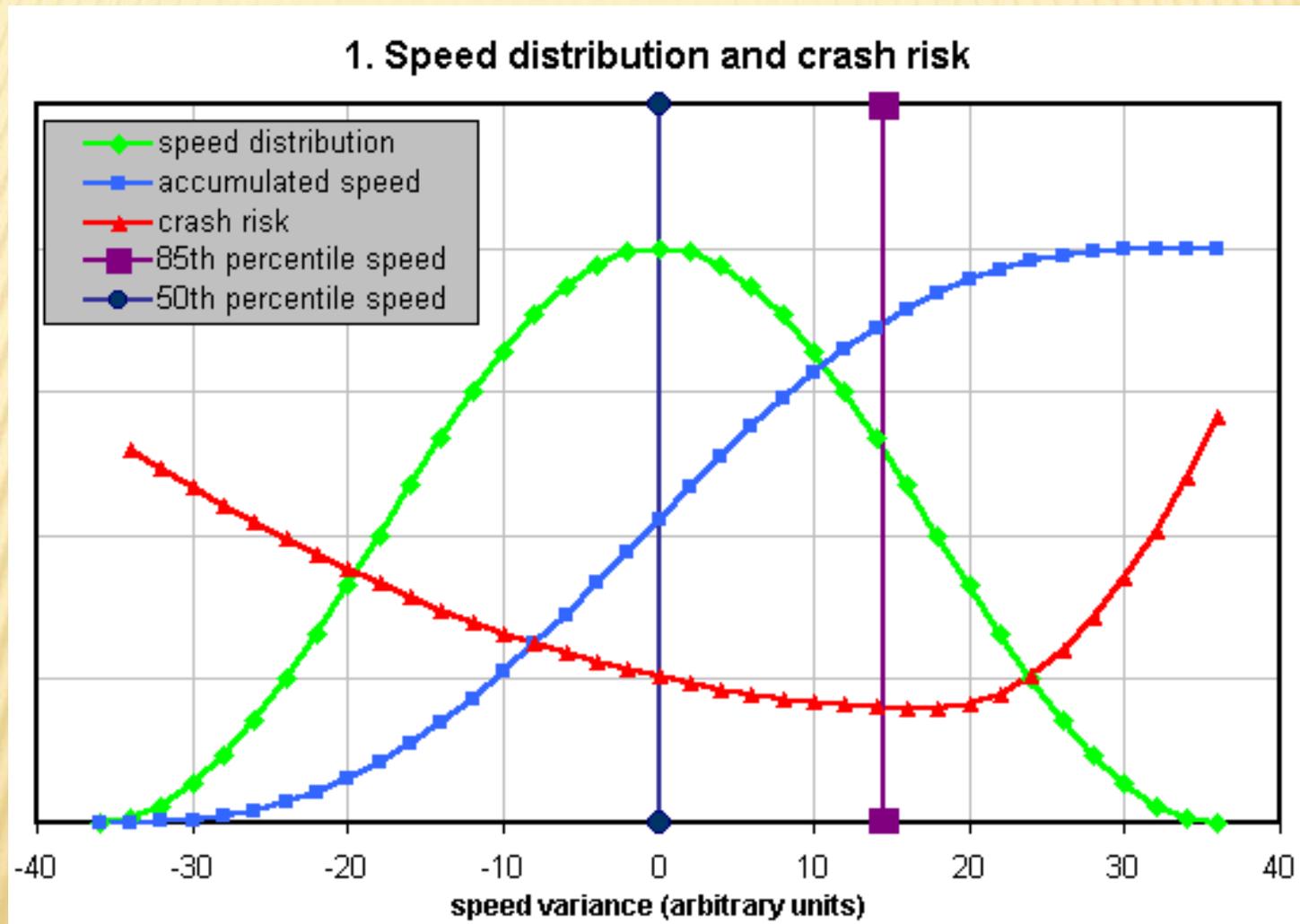
determine the critical speed

← **CRITICAL SPEED = 26 mph**

NORMAL DISTRIBUTION



SPEED DATA PLOTTED ON GRAPH



CITY OF PLEASANTON

- ✘ How can I have the speed limit lowered on my street?
- ✘ There are specific guidelines that must be followed to legally establish and enforce speed limits. State law allows for a 25 MPH speed limit in business and residential districts. This limit does not have to be posted to be enforced.
- ✘ Speed limits between 25 and 65 MPH are required to be established on the basis of engineering and traffic surveys. Engineering and traffic surveys include an analysis of roadway conditions, collision records and a sampling of the prevailing speed of traffic. The speed limit is set within 5 mph of the prevailing speed as it is assumed the majority of drivers drive at a speed that is safe and prudent for the given roadway. A 5 MPH speed limit reduction is allowed at locations with unusual conditions not readily apparent to the driver.
- ✘ If posted speed limits are set artificially low, disrespect is created for the limits, and since they are not set in accordance with the law, they are not enforceable with radar. The state maximum speed limit would then apply (65 mph).

CITY OF PLEASANTON

- ✘ Map with speed limits shown for City Streets
- ✘ Street segments linked to E&TS

STUDY IS DONE AND SPEED LIMIT IS DETERMINED

- ✘ DRIVERS VOTED WITH THEIR GAS PEDAL
- ✘ ENGINEERS FOLLOWED THE MANUAL
- ✘ YET POLITICIANS AND CITIZENS WANTED LOWER LIMIT
- ✘ AND CARS STILL GOING THE SAME SPEED AS BEFORE . . .

SO HOW DO WE MAKE DRIVERS GO SLOWER?

CHANGING THE SIGN DOES NOT CHANGE DRIVER BEHAVIOR



TOOLS FOR REDUCING SPEEDS

- ✘ INCREASE ENFORCEMENT
- ✘ SPEED FEEDBACK SYSTEMS
- ✘ MORE SIGNS
- ✘ EDUCATION OF FREQUENT DRIVERS
- ✘ TRAFFIC CALMING and STREET DESIGN

INCREASE ENFORCEMENT



PHOTO SPEED ENFORCEMENT



© Warren

PHOTO ENFORCEMENT GONE BAD



Stop Speeding Summit – NYC

- ✘ Held in November 2010
- ✘ Hosted by Transportation Alternatives, an organization based in New York that advocates for biking, walking, and public transportation as the best transportation alternatives.
- ✘ Addressed the pervasive effect speeding has on myriad aspects of lives.
 - + the health of children precluded from outdoor play
 - + the billions of dollars these crashes cost society in medical, emergency services, rehabilitation, property damage and travel delay costs every year.

Findings

- ✘ Automated Speed Enforcement (ASE) works
 - + Widely used throughout the world
 - + Can be accompanied by police or placed unattended roadside
 - + Detects vehicles traveling significantly faster than the posted speed limit
- ✘ Evaluations of ASE show large significant effects on speeds and speeding violations.
 - + Citywide evaluation of ASE in Washington, DC:
 - + Proportion of vehicles exceeding speed limits by >10 mph declined 82%

Benefits of ASE

- ✘ Program objective is to change driver behavior
- ✘ Effective deterrent to red-light running and speeding
- ✘ Increase safety for drivers, pedestrians, communities
- ✘ Police verify and authorize violations
- ✘ Allows more effective use of existing police resources
- ✘ “Force Multiplier”
- ✘ Paid for by violators not taxpayers

Fighting Opposition to ASE

Strong opposition from vocal minority requires that ASE programs be well designed and operated:

- × Best defensive is good offense – run program well
- × Focus on safety
- × Emphasize fairness in program design/operations
- × Get the engineering right
- × Avoid appearance of revenue motive
- × Anticipate and avoid legal setbacks
- × Effective communications
- × Evaluate program performance and outcomes

Many in Favor of ASE

- ✘ Public opinion polls – 80% nationwide support ASE
- ✘ Californians support ASE:
 - + 77% of San Francisco population supports ASE
 - + 72% of Fresno population supports
 - + 79% of Oxnard population supports ASE
- ✘ In CA, we currently cannot use ASE per CVC 21455.6
- ✘ Legislative change would be required to allow ASE use.
- ✘ But, ASE use is currently being considered for construction zones.

SPEED FEEDBACK SYSTEMS



MORE SIGNS ?????



EDUCATION OF REPEAT DRIVERS

- × NEIGHBORS
- × PARENTS
- × STUDENTS
- × COMMERCIAL DRIVERS

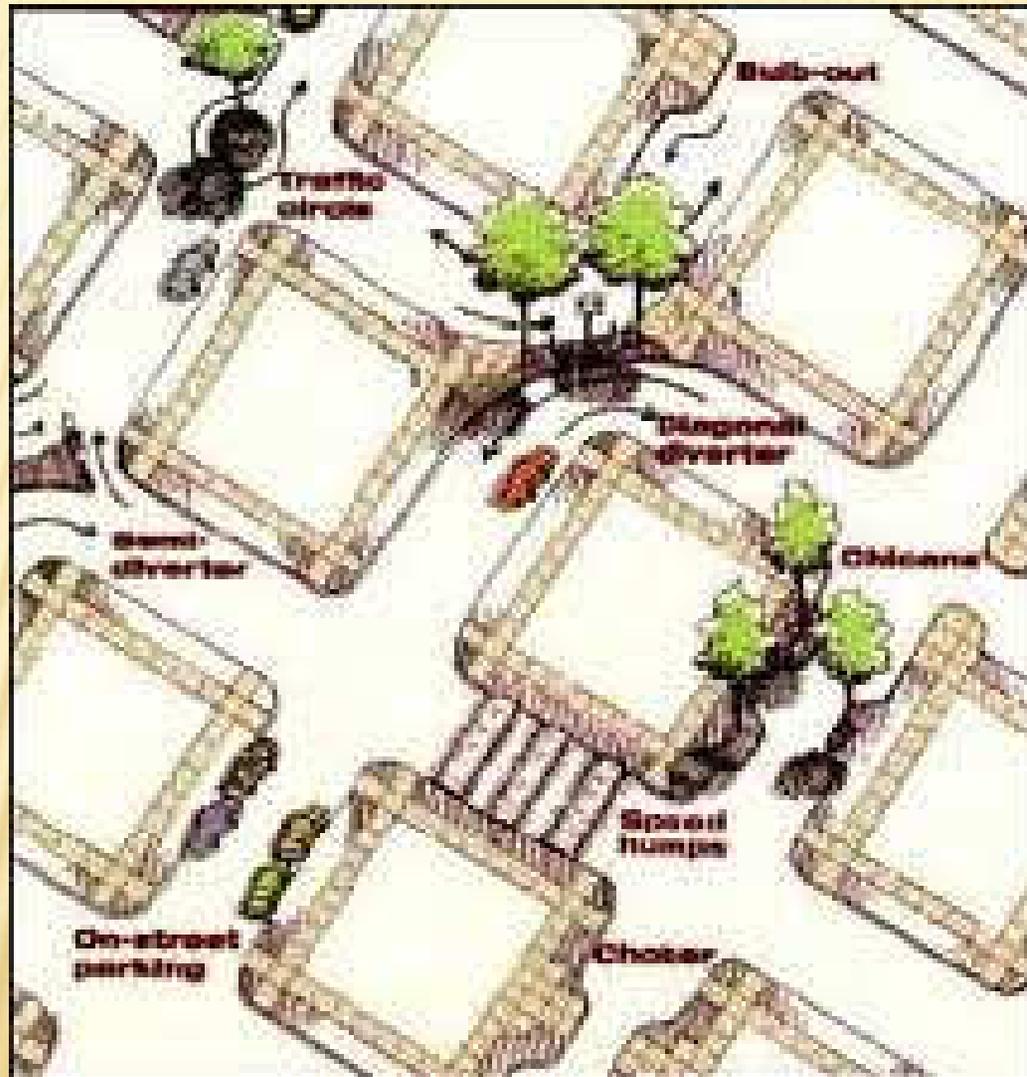
COMMUNITY CAMPAIGNS



TRAFFIC CALMING



NEIGHBORHOOD TRAFFIC CALMING



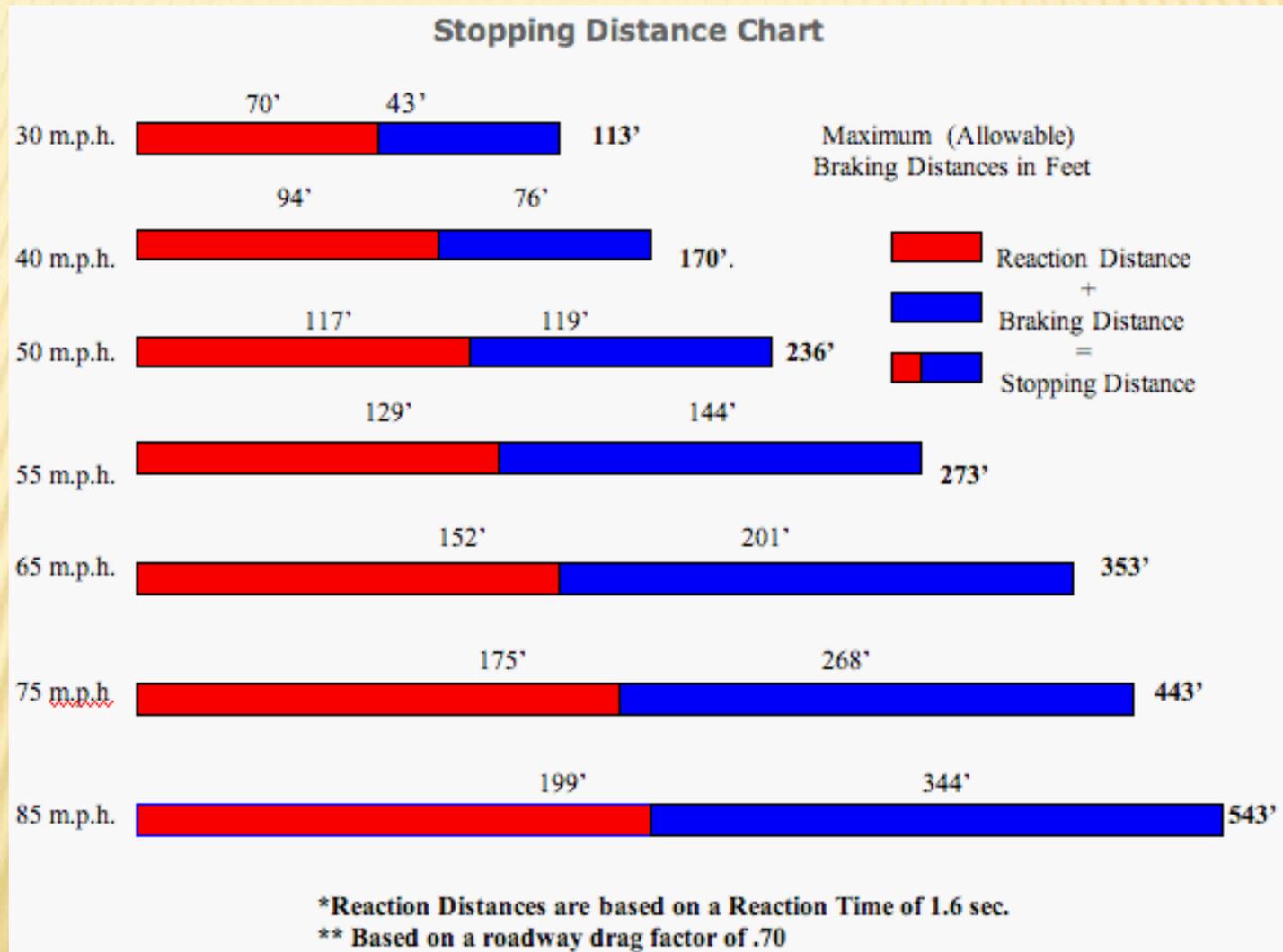
JUST LEAVE THE POT HOLES?



BETTER KNOWLEDGE FOR SHARING THE ROAD

- ✘ STOPPING DISTANCES AT HIGHER SPEEDS
- ✘ CROSSING AT SIGNALIZED LOCATIONS
- ✘ VISIBILITY AT NIGHT
- ✘ USING MEDIANS AS HALFWAY REFUGE
- ✘ WALKING ALONG SHOULDERS OF ROAD WITH NO SIDEWALKS

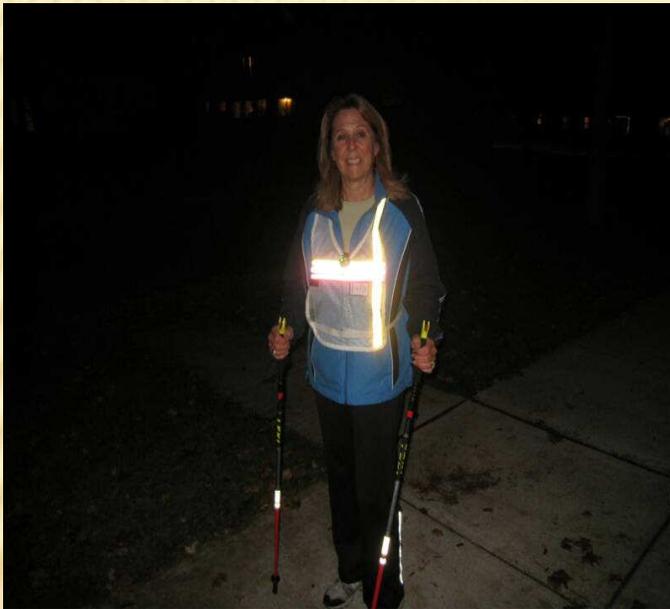
STOPPING DISTANCES ON DRY ROAD



COUNTDOWN SIGNALS



BE BRIGHT AT NIGHT



WHEN THERE ARE NO SIDEWALKS —



What Else Can Be Done?

Education

- School Programs
 - Target programs near high risk corridors
 - Expand Spanish language education efforts

- Parents
 - Target low educational attainment populations
 - Focus Safe Kids Coalition outreach to new immigrant groups
 - Expand non-English outreach

What Else Can Be Done?

- Older Adults

- Provide Safe Streets for Seniors presentations near high risk corridors
- Expand multi-language outreach
- Develop comprehensive active transportation program

- Intergenerational Outreach

- Utilize children as “Safety Deputies” to share traffic safety information
- Work with communities to create pedestrian safety-themed signs and murals

What Else Can Be Done?

Marketing

- Implement Marketing and PR campaign
 - Reinforce 30 mph speed limit and focus on speeding



Marketing

- Use targeted tactics to further raise *motorist* awareness
 - Work with DMV to get materials to Driver's Ed teachers and students
 - Introduce materials / messages at motorist education events
- Use targeted tactics to further raise *pedestrian* awareness
 - Pedestrian countdown signals / crossing with the light outreach
 - Multi-lingual “street teams”
 - Focus on areas with high populations of foreign-born residents
 - Introduce materials / messages at youth and senior outreach events

BE SAFE AND BE SEEN



QUESTIONS AND ADDITIONAL THOUGHTS





Webinar Archive



The presentation (slides and audio) will be posted on the CIPN website in the *Professional Development* section:

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

Thank you for joining us!



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