



### INTRODUCING VISION ZERO CHICAGO



Through Vision Zero, safety will be the most important consideration for every street, from our major thoroughfares to neighborhood streets.



Dear Fellow Chicagoans.

Thousands are impacted by severe traffic crashes each year. Through Vision Zero, we will work together - as a City and as individual citizens - to prevent these tragedies.

The Vision Zero Chicago Action Plan is the result of months of collaboration between twelve city departments and sister agencies and numerous community stakeholders. Using data, we have identified our greatest opportunities for change. This plan connects the resources and expertise of each department and stakeholder to advance our shared goal to eliminate traffic fatalities and serious injuries on Chicago's streets by 2026.

We will work with you to have a collective impact on how we design and use our streets. Through Vision Zero, safety will be the most important consideration for every street, from our major thoroughfares to neighborhood streets. The connection between transportation and health is indisputable, as everyone travels in some form, whether it is for work, school, play or worship. As a greater number of Chicagoans rely on alternative forms of transportation, often to incorporate healthier lifestyles, it is essential to ensure safety for all users.

Over the next three years we will work with you to improve safety on high crash streets, putting the health and welfare of all roadway users first. We will engage communities most affected by severe traffic crashes to create customized local plans that incorporate education and police engagement in tandem with changes to street design. And we will lead by example, requiring that City employees adhere to high safety standards as they drive while also enhancing the safety of the equipment they use.

The Plan is the starting point for a newly-focused effort toward building a culture of safety. As our partners at the state and federal levels also work toward a zero traffic fatality goal, we expect the conversation around traffic safety to grow. Chicago is, and will continue to be, a leader in making safety improvements on our streets and educating the public about the importance of prioritizing the health and safety of all roadway users. These efforts will save lives and prevent lifealtering injuries, to promote thriving, healthy communities.

I look forward to innovative, collaborative action to build a better, safer transportation system for all Chicagoans through Vision Zero.

Rahm Emanuel Mayor, City of Chicago

## CONTENTS

Executive Summary	Page 6
Steering Committee	Page 8
Vision Zero Chicago Mission Statement	Page 9
Vision Zero Introduction	Page 10
Vision Zero Data Analysis	Page 14
Citywide Policies	Page 20
Action Plan Goals	Page 22
Goal 1: Invest Resources	Page 24
Goal 2: A Culture of Safety	Page 38
Goal 3: Make Streets Safer for All Users	Page 52
Goal 4: Safer Drivers & Vehicles	Page 62
Transparency & Accountability	Page 74
Data Benchmarks	Page 82
About the Data	Page 84
Acknowledgements	Page 86

## **EXECUTIVE SUMMARY**

### **About Vision Zero**

Vision Zero is Chicago's commitment to eliminating death and serious injury from traffic crashes by 2026. This Action Plan is a guiding document identifying the City's priorities and resources for traffic safety initiatives through 2019. Under the leadership of the Office of the Mayor, more than a dozen City departments and sister agencies collaborated to develop the plan.

Vision Zero commits to several principles, most importantly, that traffic crashes are not "accidents," and that the tools and technology exist to prevent loss of life. This comprehensive approach to traffic safety is a partnership between the City, community members, and the private sector to create a transportation system that will better serve all roadway users.

### **Action Plan Benchmarks**

- Reduce deaths from traffic crashes 20% citywide by 2020.
- Reduce serious injuries from traffic crashes 35% by 2020.

### **Citywide Policies**

- Approach death and serious injury from traffic crashes as a public health issue.
- Design streets so that speeds are safe for all users of the roadway.
- Lead by example on vehicle safety equipment and driver training.
- Police traffic laws fairly, focusing on education and the dangerous driving behaviors that cause most severe crashes.
- · Commit to investing resources equitably.

### **Vision Zero Action Plan Goals**

- Goal 1: Invest additional resources in communities that are most affected by severe traffic crashes.
- Goal 2: Work to change behaviors and perceptions to build a citywide culture of safety.
- Goal 3: Make streets safer for all users.
- Goal 4: Encourage and implement policies, training, and technologies that create safer vehicles and professional drivers.

### Transparency and Accountability

Chicago is committed to transparency and accountability. Vision Zero progress reports will be made quarterly and an annual report of all progress will be completed for each plan year. More information is available at www.VisionZeroChicago.org.

### STEERING COMMITTEE

The Vision Zero Steering Committee met throughout 2016 to define the initiative's mission and establish goals and benchmarks for the Vision Zero Chicago Action Plan. Steering Committee members also participated in meetings of four working groups to draft Action Plan strategies on Engineering, Education, Police Engagement, and Data. These working groups' recommendations form the basis of the Vision Zero Chicago Action Plan.

Office of the Mayor
Chicago Department of Transportation
Chicago Department of Public Health
Chicago Police Department
Chicago Fire Department/EMS
Office of Emergency Management &
Communications
Chicago Transit Authority
Fleet & Facilities Management
Business Affairs & Consumer Protection
Department of Innovation & Technology
Chicago Public Schools
Department of Cultural Affairs & Special Events

## VISION ZERO CHICAGO MISSION STATEMENT

## Even one life lost in a traffic crash is unacceptable.

We all have the right to walk, bike, take public transit, and drive on streets that are safe for everyone, regardless of who we are or where we live.

## Vision Zero brings together the policies, partnerships, and technologies that prevent death and serious injury from traffic crashes.

Traffic crashes are not "accidents." We acknowledge that traffic deaths are preventable and unacceptable, and commit to using all available tools to influence the conditions and behaviors that lead to serious crashes.

## Working together, we can eliminate traffic deaths and life-altering injury.

The Vision Zero initiative builds a partnership between City leadership and the public to prioritize human life and the safety of our streets. The Vision Zero Chicago Action Plan commits to reducing traffic crashes that cause death and serious injury through an equitable distribution of resources and inclusive community engagement.

Vision Zero is both the commitment and the approach to eliminating death and serious injury from traffic crashes.

By changing how we design, use, and view our streets, we can make them safer for everyone.



### Vision Zero is growing quickly nationwide.

This idea started in Sweden decades ago, but has since been adopted by a number of major U.S. cities. Vision Zero has gained momentum in the U.S. over the past five years, with major cities adopting Vision Zero strategies and some states and the federal government adopting their own long-term goals of eliminating traffic fatalities nationwide.



### **National Leaders in Vision Zero**

### VISION-4=: (• NETWORK

Chicago is one of ten Focus Cities in the Vision Zero Network. The Vision Zero Network is a collaborative campaign aimed at building the momentum and advancing this game-changing shift toward safe, healthy, and equitable mobility for all. Focusing initially on leading-edge cities demonstrating commitment and potential, the Network has brought together local leaders in health, traffic engineering, police engagement, policy and advocacy to develop and share winning strategies and to support strong, interdepartmental leadership for policies and practices that make Vision Zero a reality.



The Road to Zero (RTZ) Coalition's goal is safe mobility for all people, and it will work to develop priorities, take action individually and collaboratively, and encourage partners and stakeholders to take action to meet the goal of eliminating traffic fatalities by 2047. It is a collaboration focused on ending traffic fatalities on our roadways within 30 years. The National Safety Council leads the initiative in partnership with the U.S. Department of Transportation, including the National Highway Traffic Safety Administration, the Federal Highway Administration and the Federal Motor Carrier Safety Administration.



### VISION ZERO'S CORE PRINCIPLES

- **1** A traffic crash is not an "accident," but a <u>predictable</u> and <u>preventable occurrence</u>.
- No traffic-related death is acceptable when the <u>tools</u> <u>exist to prevent</u> the conditions and behaviors that lead to these tragedies.
- **3** Cities should adopt policies and technologies and build partnerships that <u>prioritize traffic safety.</u>
- **4** Both the public and the government <u>share responsibility</u> to improve safety.



### **VISION ZERO'S PROVEN METHODS**

- Collecting and <u>using data to prioritize</u> limited City resources towards successful and effective approaches.
- **2** Choosing effective <u>street designs that prioritize safety.</u>
- Identifying and preventing the most dangerous roadway behaviors.
- **4** Working with community leaders and all Chicagoans to educate on safe roadway behaviors.

### Vision Zero is for all Chicagoans.

Severe traffic crashes cause death or serious injury and negatively impact public health, economic development, and equity.

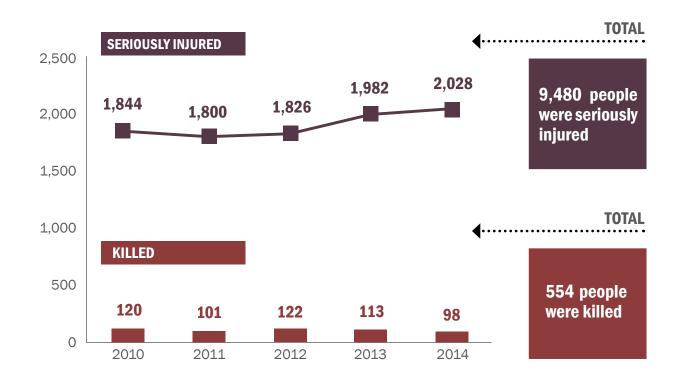
Five people are seriously injured in a traffic crash every day.

Every three days, someone dies in a traffic crash in Chicago.



## Death and serious injuries from traffic crashes increased by 8% from 2010-2014.

### PEOPLE KILLED OR SERIOUSLY INJURED IN TRAFFIC CRASHES, CITY OF CHICAGO, 2010-2014



A "serious injury" is defined by the Illinois Department of Transportation as incapacitating, meaning the individual was transported from the scene by ambulance. Serious injuries can include head injuries, deep lacerations, broken bones, or internal bleeding.

Data Source: Illinois Department of Transportation 2010-2014. Data excludes crashes that occur on interstate expressways.

### Vision Zero promotes equity in safe mobility.

Severe crashes affect Chicagoans whatever their race, gender, age, and income level, but some communities are impacted more than others.

Public health data show traffic crashes affect Chicago communities unequally.

Chicagoans who live in areas of High Economic Hardship have increased risk of being in a severe crash.

**Data Sources:** 

Illinois Department of Transportation 2010-2014. Data excludes crashes that occur on interstate expressways.

American Community Survey 2014 5-year estimates, Illinois Department of Health, Vital Statistics.



Chicagoans living in communities of high economic hardship die in traffic crashes more often and at a higher rate than other Chicagoans.

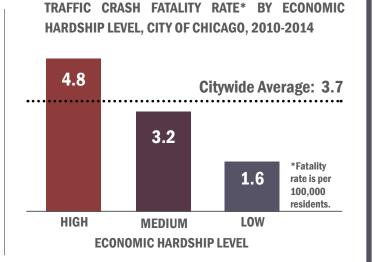
#### **Economic Hardship Index**

The Chicago Department of Public Health creates a relative index score comparing Chicago communities by <u>Economic Hardship</u>. High Economic Hardship Communities experience higher rates of unemployment, poverty, number of dependents, and crowded housing, and lower per-capita income and educational attainment.

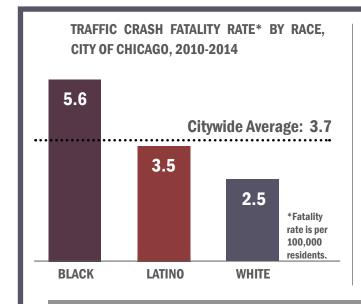
HIGH
47%

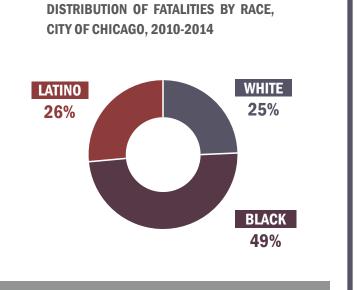
MEDIUM

35%



Chicagoans of color are more at risk of dying in a traffic crash than white Chicagoans.





Black Chicagoans are more than twice as likely to be killed in a traffic crash than white Chicagoans, and almost half of all fatal crash victims are black.

### Vision Zero is for all travel choices.

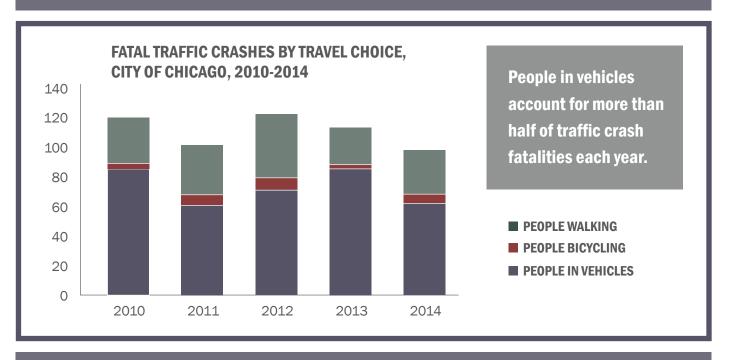
Thousands of people walking, riding bicycles, and riding in vehicles are involved in traffic crashes each year.

Most people killed or seriously injured in a traffic crash are in vehicles.

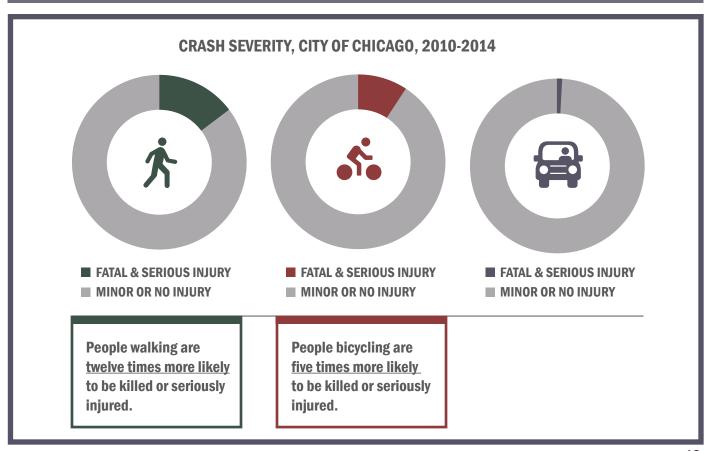
People walking and biking are vulnerable roadway users because they are more likely to be killed or seriously injured in a collision.



Severe traffic crashes affect all modes of travel throughout the City.



Crashes result in serious injury or death much more frequently for vulnerable roadway users than people in vehicles.



## CITYWIDE POLICIES

All of Chicago will benefit from safer streets. Vision Zero is a renewed, coordinated effort to build connections between traffic safety, economic development, and community-building efforts that happen citywide. The City will continue to develop policies and pursue local, state and federal funding opportunities that support a safe transportation system.

The interim benchmarks for this three-year period (2017-2019) have been established to put Chicago on target to eliminate death and serious injury from traffic crashes by 2026.

### **Action Plan Benchmarks**

- Reduce deaths from traffic crashes 20% citywide by 2020.
- Reduce serious injuries from traffic crashes 35% by 2020.

## Approach death and serious injury from traffic crashes as a public health issue.

Preventable serious injuries and deaths from traffic crashes pose a public health concern to all Chicagoans. Vision Zero is one strategy for increasing health outcomes through improvements to the built environment. Throughout the community engagement process, City agencies must consider the impact that their programs have on health and safety priorities, in accordance with the City's "Health in All Policies" resolution.

### Design streets so that speeds are safe for all users of the roadway.

Many of the strategies in the Vision Zero Action Plan rely on designing streets that are safe for all Chicagoans, whether they choose to drive, take public transit, walk, or ride a bicycle to get around. This builds upon the last five years of planning for a safe and healthy city.

Chicago is a national leader on Complete Streets, following a modal hierarchy that places pedestrian safety first in the way streets are designed, because a street that is safer for the most vulnerable roadway user is safer for everyone. Since the adoption of the Complete Streets policy, the City has installed over 100 pedestrian refuge islands, bump-outs at over 200 intersections, pedestrian countdown timers at over 1,700 of the City's 3,000 signalized intersections, leading pedestrian intervals at over 150 signalized intersections, tens of thousands of ADA ramps, almost 250 miles of various types of on-street bikeways, and thousands of street trees.

Moving forward, the City will look at how the design process can go further, on every project, in every community. As a policy, the Chicago Department of Transportation will review speed limits during roadway projects and design streets at speeds safer for all users. The City will also conduct a study and work with communities to determine if changes to the statutory speed limit are required.

## Lead by example on vehicle safety equipment and driver training.

The City is committed to using its regulatory powers to make streets safer, starting with the City's own fleet and employees. Enhanced safety equipment, including mirrors and truck side guards for large vehicles, will be required to prevent crashes and protect vulnerable roadway users. The City will continue to pursue equipment, technology, and training curriculum that improve safety.

## Police traffic laws fairly, focusing on education and the dangerous driving behaviors that cause most severe crashes.

The Vision Zero Action Plan does not use increased traffic citations as a metric for success. Chicago is committed to working with partner organizations throughout the City to ensure that police engagement on traffic safety is done fairly and with community support, and is focused on preventing the most dangerous driving behaviors on Chicago's streets, prioritizing education and positive outcomes in all interactions.

### Commit to equitable investment.

All Chicagoans have the right to safe streets. Vision Zero cannot just address traffic crashes, but must also consider the disparity of where crashes occur and who they impact. The City commits to prioritizing equity in all programs and policies pursued under Vision Zero. The City will also ensure that major Vision Zero outreach materials are available in the most common languages spoken in Chicago: English, Spanish, Polish, and Mandarin.

## Seek additional local, state and federal funding to accelerate infrastructure investments that improve traffic safety.

Continue to prioritize existing resources for Complete Streets investments, and seek out additional funding sources, including competitive grants and potential new revenue streams, to advance necessary infrastructure investments expeditiously.

## **ACTION PLAN GOALS**

The four goals in this plan use data to prioritize the City's resources how and where they will be most effective. The first goal sets targets by location, while the remaining three implement policies, partnerships, and technologies with benefits citywide.

### **Goal 1**

Invest equitably in communities that are most affected by severe traffic crashes.

### Goal 2

Work to change behaviors and perceptions to build a culture of safety.

### Goal 3

Make streets safer for all users.

### Goal 4

Encourage and implement policies, training, and technologies that create safer vehicles and professional drivers.







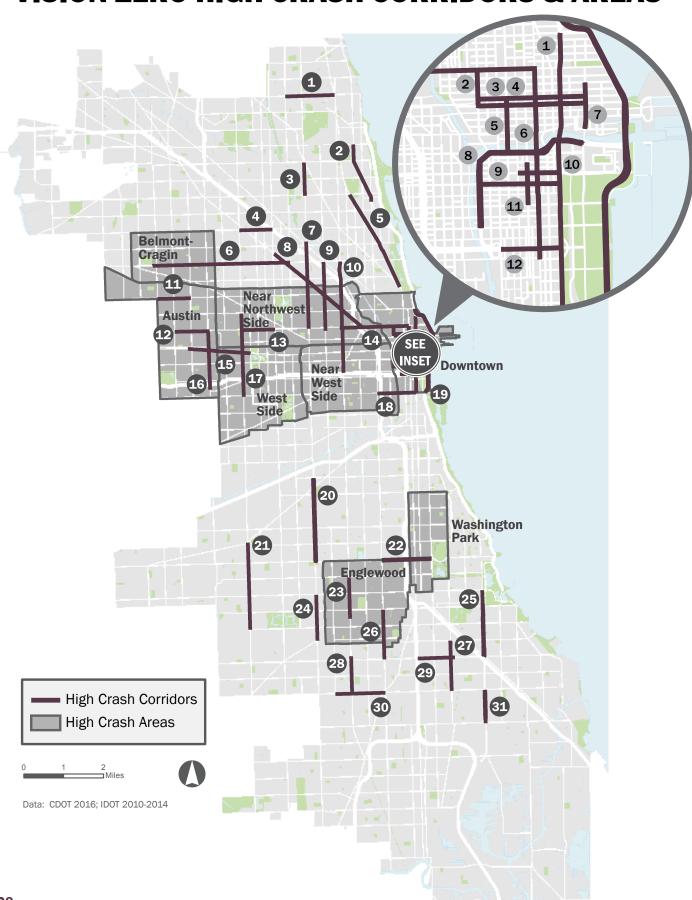
# GOAL 1 INVEST EQUITABLY in communities that are most affected by severe traffic crashes.

While severe traffic crashes are a persistent problem across the city, crash data show certain communities are more seriously impacted than others. **Communities and corridors with** disproportionately high rates of severe crashes have been identified as High Crash Areas and **High Crash Corridors to prioritize** investments for the biggest impact in the shortest amount of time. These High Crash Areas and Corridors will be the focus of investment through 2020, in addition to the citywide efforts described throughout this plan.

### By 2020, CHICAGO WILL:

- Reduce severe crashes in High Crash Areas and High Crash Corridors by 40%.
- Reduce traffic crash fatalities for people living in high economic hardship communities by 25%.

### **VISION ZERO HIGH CRASH CORRIDORS & AREAS**



### **HIGH CRASH CORRIDORS**

### **NEIGHBORHOOD HIGH CRASH CORRIDORS**

Numbered North to South

1	Devon	from	California	to	Clark	18	Roosevelt	from	Halsted	to	Michigan
2	Broadway	from	Foster	to	Grace	19	Lake Shore Drive	from	Division	to	Roosevelt
3	Western	from	Lawrence	to	<b>Irving Park</b>	20	Western Ave/Blvd	from	35th	to	Garfield
4	Belmont	from	Pulaski	to	Kedzie	21	Pulaski	from	Archer	to	71st
5	Clark	from	<b>Irving Park</b>	to	LaSalle	22	Garfield	from	Halsted	to	King
6	Fullerton	from	Meade	to	California	23	Ashland	from	59th	to	69th
7	Western	from	George	to	Chicago	24	Western	from	63rd	to	74th
8	Milwaukee	from	Kedzie	to	<b>O</b> gden	25	Stony Island	from	63rd	to	79th
9	Damen	from	Fullerton	to	Superior	26	Halsted	from	Marquette	to	79th
10	Ashland	from	Fullerton	to	Van Buren	27	<b>Cottage Grove</b>	from	75th	to	87th
1	North	from	Austin	to	Laramie	28	Ashland	from	78th	to	87th
12	Chicago	from	Central	to	Cicero	29	79th	from	State	to	Drexel
13	Chicago	from	Pulaski	to	Kedzie	30	87th	from	Damen	to	Halsted
14	Chicago	from	Paulina	to	State	31	Stony Island	from	87th	to	95th
15	Lake	from	Lockwood	to	Hamlin						
16	Cicero	from	Chicago	to	Arthington						
1	Pulaski	from	Division	to	Roosevelt						

### **DOWNTOWN HIGH CRASH CORRIDORS (MAP INSET)**

Numbered North to South

1	Michigan	from	0ak	to	Roosevelt
2	<b>Orleans</b>	from	Chicago	to	Ohio
3	Ontario	from	Orleans	to	Fairbanks
4	Ohio	from	Orleans	to	Fairbanks
5	LaSalle	from	Ontario	to	Wacker
6	State	from	Chicago	to	Harrison
7	Fairbanks	from	Huron	to	North Water
8	Wacker	from	Jackson	to	Columbus
9	Washington	from	Wacker	to	Michigan
10	Randolph	from	Clark	to	Michigan
11	Dearborn	from	Lake	to	Monroe
12	Congress	from	Wells	to	Michigan

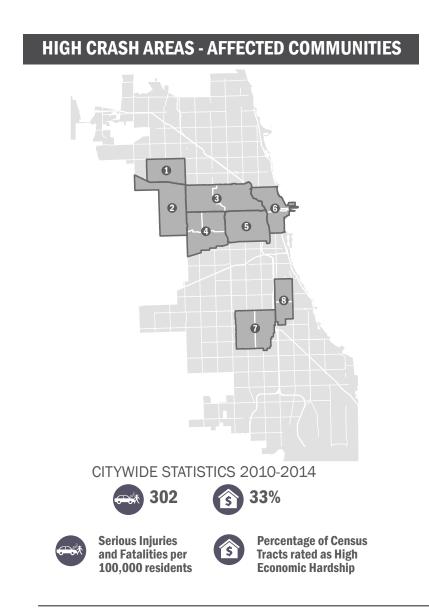
### **METHODOLOGY**

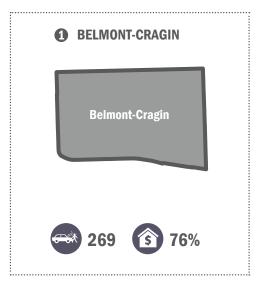
Candidate Vision Zero High Crash Corridors were identified by evaluating the spatial pattern of citywide non-expressway crashes resulting in fatalities and serious injuries between 2010 and 2014. Each candidate corridor was then ranked by the number of injury crashes per mile with added weight given to fatal and serious injury crashes. The map identifies 70 miles of Vision Zero High Crash corridors, including (1) 50 miles with the overall highest weighted crash indices, (2) the share of corridors within the downtown area was limited to 10 miles due to high overall numbers of crashes in the commercial center of the city, and (3) additional corridors that ranked highly by crashes involving one mode – pedestrian, bicyclist, or motorist – but did not make the top 50 miles by aggregate index round out the Vision Zero High Crash corridors list.

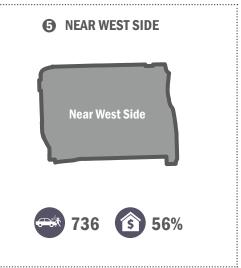
The eight High Crash Areas are made up of the top 14 (top 20th percentile) Community Areas as ranked by a composite score of total fatal and serious injury crashes, total fatal and serious injury crashes/100,000 residents, total fatal and serious injury crashes/square mile, economic hardship, and proportion of fatal and serious injury crashes per total crashes. Names broadly describing these areas are used.

### **HIGH CRASH AREAS**

These communities experience significantly higher rates of crashes that cause death and serious injury than Chicago's average. The Downtown High Crash Area experiences the highest overall number of crashes. The seven additional neighborhood High Crash Areas also experience High Economic Hardship. These eight communities collectively account for 36% of fatal crashes, but only 20% of Chicago's area and 25% of the city's population.









20%

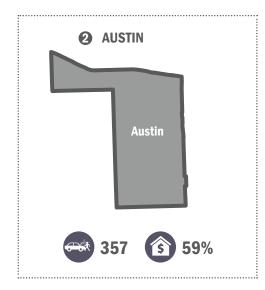
**25**%

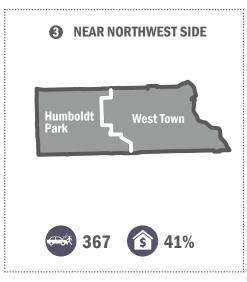
36%

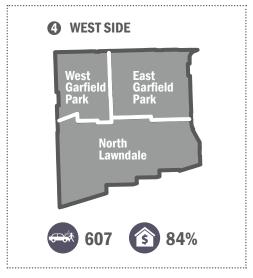
of Chicago's Geographic Area

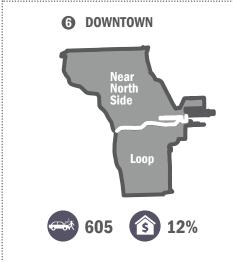
of Chicago's Population

of Chicago's Severe Crashes

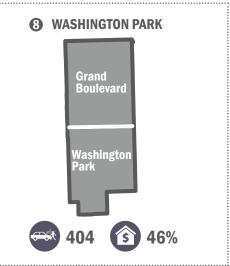












## Develop community-led crash reduction plans for each High Crash Area.

**Every community** in Chicago faces different challenges. **Through Vision** Zero, plans will be developed for each High Crash Area that reflect local needs and community character, including datadriven responses to behaviors and conditions that cause severe traffic crashes.

### **Action**

- Establish a Vision Zero Downtown Task Force
- Convene public and private stakeholders within the seven neighborhood High Crash Areas to set goals and metrics inclusive of community concerns.

### **Impact**

By focusing engagement at the community level, those most affected by traffic safety issues will be given equal voice in their communities. To ensure that the many stakeholders in the Central Business District are included, a task force will be established for discussing the specific strategies for this dense urban area. The City will take advantage of existing forums and partnerships in seven neighborhood High Crash Areas during the engagement process and work with community groups and citywide advocates to set up meetings specific to Vision Zero.

### **Action**

Follow an inclusive outreach process to encourage community ownership of traffic safety solutions.

### **Impact**

Through an inclusive engagement process working with the community, create Vision Zero Area Plans that include:

- Street design treatments that accommodate all members of the community, no matter how they get around.
- Localized education and awareness efforts to eliminate dangerous driving behaviors.
- Police involvement driven by community input and support.



### **Vision Zero High Crash Area Plan Process**



Timeframe
One month

Product
High Crash Area Profile

## 02

Timeframe
Six months

Product
Community Outreach and Events

### **Research & Data Collection**

City staff will create a profile for each High
Crash Area that includes spatial and behavioral
data, as well as key public health indicators and
demographic information, that can be compared to
citywide averages to focus interventions. Each High
Crash Area will also be the focus of a Community
Outreach Plan, involving Aldermen, residents,
citywide and community partners, and City agencies.

### **Listening & Planning**

Residents, business owners, and community groups know their neighborhoods best. Cooperative planning with City departments, stakeholders, and residents in each High Crash Area will provide input. Conversations will include how the City can design safer streets, educate people on how to travel safely, and ensure that dangerous driving behaviors are not a recurring problem for residents. Outreach will be conducted at existing community meetings and additional Vision Zero events.

STEP **03** 

Timeframe
Six months to one year

Product
Program Implementation

STEP **04** 

Timeframe
Annually
Product
Progress Reports on Programs

### **Learning & Piloting**

Using existing data sources and the information learned through community input, the City will make recommendations for improved and innovative programming for engineering, education, and police engagement, and work with community partners to implement new ideas and adjustments to City policy and existing initiatives. The implementation of new street designs will take more time to implement, dependent on available resources.

### **Reporting & Accountability**

Programs will be evaluated for outcomes and benefits to the community. Transparency and accountability are an important component of Vision Zero, and outcomes will be made available to the public.

# Utilize data to prioritize investments in street design, education and outreach, technology, and police engagement.

While Vision Zero is for all Chicagoans, focusing resources in High Crash Areas will have a greater impact on reducing severe crashes. **Vision Zero Chicago** will commit certain resources to areas that have the greatest potential to reduce severe traffic crashes overall. By using data to target interventions, the **City can ensure that** its limited resources will be spent where and how they will best maximize safety benefits.

### **Action**

Evaluate High Crash Corridors for appropriate redesigns, including changes to signage, pavement markings, signalization, and curbside use (adding or removing parking). Create High Crash Corridor improvement plans that identify opportunities for interim and permanent infractructure projects to improve safety.

### **Impact**

Improving safety on the City's most dangerous streets is the highest priority for Vision Zero engineering projects. These 70 miles of streets have high crash rates and recurring problems in user behavior, such as speeding or failure to stop for pedestrians. By implementing proven safety countermeasures, these behaviors can be reduced, decreasing the number and severity of crashes that occur along the corridor.

### **Action**

Develop Vision Zero infrastructure recommendations throughout High Crash Areas and Corridors and work with Aldermen to prioritize these investments.

### **Impact**

Pursue funding opportunities for Vision Zero High Crash Corridor improvement projects. In addition to comprehensive corridor projects, CDOT will identify low-cost spot improvements in High Crash Areas and Corridors, and work with local leaders to identify funds for safety-improving projects. CDOT will meet with the respective Aldermen who wish to include safety improvements within their local discretionary budgets to recommend where investments will have the highest impact on improving safety and also work with Aldermen to use Menu Funding to match state and federally-funded safety improvement projects within their wards. Work with partners to apply for state, federal, and philanthropic support to increase the funding available for capital investment.





### Action

Prioritize High Crash Areas and Corridors for Safe Routes Ambassadors events, providing safe mobility education to Chicagoans of all ages.

### **Impact**

Children and seniors are at higher risk of death or serious injury in the event of a crash, and those in High Crash Areas are especially vulnerable. By focusing on High Crash Areas for education and outreach, the Ambassadors program can more effectively reach those most at risk.

SINCE 2011, THE
CITY OF CHICAGO'S
AMBASSADOR PROGRAM
HAS REACHED 100,175
PEOPLE THROUGH
SAFETY EDUCATION
EVENTS.

# Leverage safety infrastructure improvements as an opportunity for additional community investment, safety awareness, and economic development activities.

Streets should serve the needs of all community members, no matter how they get around. Well-designed and programmed streets provide more than mobility for all modes of transportation; they also support local economic development. City departments can work together with the community to create a safer, more inviting environment and improve quality of life.

### **Action**

Explore opportunities to improve infrastructure along High Crash Corridors that align with the Department of Planning and Development Thrive Zones and other City investment strategies.

### **Impact**

Mayor Emanuel's Thrive Retail Zones initiative is a three-year pilot program aimed at strengthening the economic vitality of eight neighborhood commercial corridors. Each of the Retail Thrive Zone corridors, located on the City's South, Southwest, and West sides, have economic challenges, but they also have strong potential for growth. Within those corridors, the City will offer an evolving package of financial assistance to entrepreneurs and business. Learn more about Retail Thrive Zones at www.thrivezones.com.

Several Retail Thrive Zones are also High Crash Corridors. Working with DPD, CDOT will examine these overlapping corridors for potential safety improvements, providing better access to the businesses there.

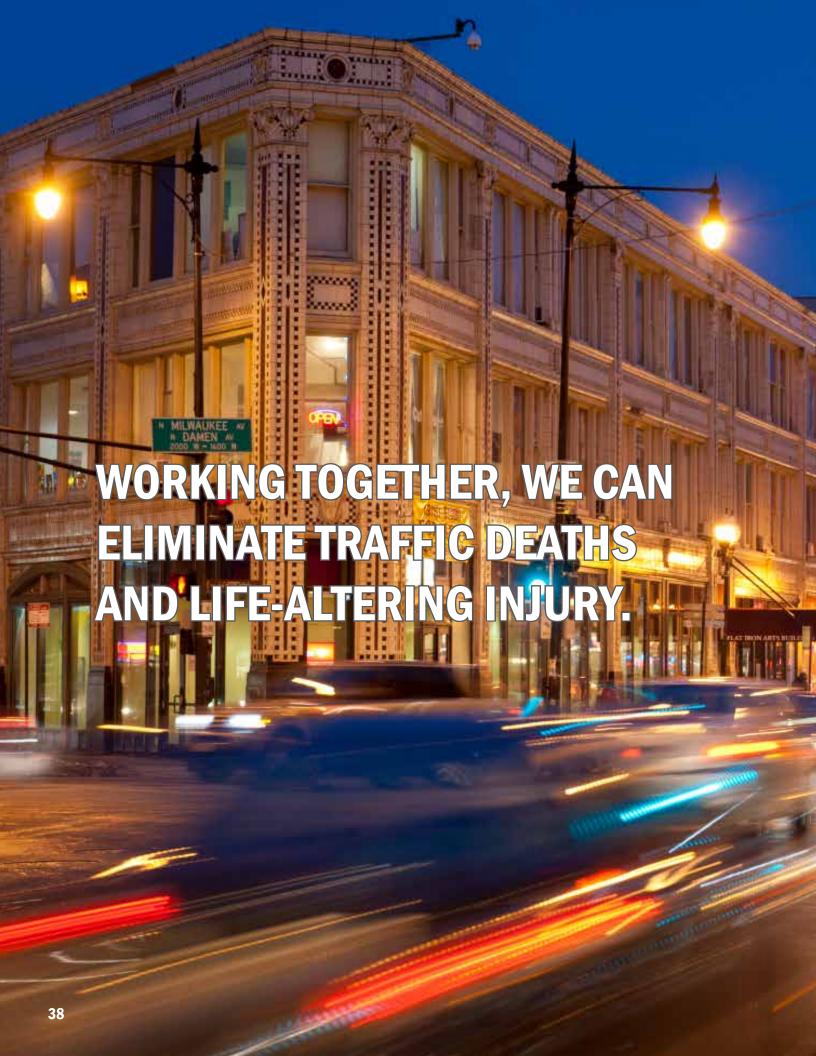
### **Action**

Work with the Department of Cultural Affairs and Special Events to encourage programming along High Crash Corridors and in High Crash Areas, including Year of Public Art and initiatives under the Chicago Cultural Plan.

### **Impact**

Artists are natural ambassadors to the community, and changes to the built environment can inspire changes to behaviors. Combining these improvements with traffic safety messaging, outreach, and infrastructure improvements, art installations could affect a deeper change.







# 72% OF CRASHES RESULTING IN DEATH INVOLVE ONE OR MORE OF THESE FIVE DANGEROUS DRIVING BEHAVIORS:

- Speeding
- Failure to Give the Right of Way
- Using a Cell Phone While Driving
- Driving Under the Influence
- Disobeying Traffic Signs and Signals

# GOAL 2 Work to change behaviors and perceptions to build a citywide CULTURE OF SAFETY.

A traffic crash is not simply an "accident," but the result of preventable behaviors and conditions that led to the crash. Identifying and changing behaviors and conditions is key to preventing severe crashes from occurring.

#### **By 2020, CHICAGO WILL:**

- Decrease speed-related fatal and serious injury crashes by 25%.
- Increase awareness of dangerous driving behaviors by 33%, as measured through survey data.
- Have 100,000 Chicago residents sign the Vision Zero Pledge.

### Conduct focused public engagement to inspire community action.

Vision Zero is not simply a government initiative, but an effort to change the conversation around traffic safety. No Chicagoan should have to suffer the loss of a family member or be killed or seriously injured as a result of a preventable traffic crash.

Vision Zero aims to eliminate traffic crashes in the same way that other public health concerns that we once viewed as insurmountable, such as workplace injury, have been substantially reduced. Working with the public to increase awareness, the City can help inspire a culture of safety.

#### **Action**

Launch a public awareness campaign leveraging City resources and marketing channels.

#### **Impact**

Utilizing low-cost marketing opportunities that leverage City resources and communication channels, the City will increase public awareness of Vision Zero principles and the goal to eliminate traffic fatalities and serious injuries.

#### **Action**

Execute a full behavioral marketing campaign in partnership with private industry.

#### **Impact**

This social marketing campaign will include direct, personalized contact with Chicagoans, focused on modifying specific behaviors, not simply increasing awareness. Social marketing has a long history of success in influencing behavioral change for societal good, and is considered a proven safety countermeasure by the Highway Traffic Safety Administration. Identifying and recruiting appropriate private and nonprofit partners to support these marketing campaigns will help the City reach many more Chicagoans than relying solely on City resources.



#### **Action**

Establish the Vision Zero Pledge and encourage Chicagoans to commit to safer streets through the decisions they make every day on City streets.

#### **Impact**

The Vision Zero Pledge provides all users of the right of way the opportunity to make a personal commitment to Vision Zero. This will also provide a mechanism for tracking the number of people exposed to Vision Zero's principles and goals.

#### **Action**

Compile local and national data on perceptions of dangerous driving behaviors and survey Chicagoans on their transportation habits and perceptions surrounding dangerous driving behaviors.

#### **Impact**

Examining national data, the City will learn of the common problems in understanding dangerous driving behaviors and appropriate responses. Surveying locally through the **Healthy Chicago Survey** will enhance the national data to determine how dangerous driving behaviors are perceived here and provide a baseline for tracking change throughout the course of the Action Plan, as well as help to prioritize educational initiatives and messaging.

#### **Vision Zero Pledge**

#### I pledge to:

- Acknowledge that every time I drive I am responsible for my own safety and the safety of others.
- Obey Chicago's 30 MPH speed limit, because slower is safer.
- Keep my hands on the wheel and my eyes on the road, not on my phone.
- Be aware of people walking and riding their bikes.
- Stop for people in crosswalks.
- Never drink and drive.
- Stop at red lights and stop signs.
- Obey the rules of the road when walking and biking.

Sign the pledge and learn more at www.VisionZeroChicago.org

#### **Police Engagement and Vision Zero**

While enforcement is an important and effective tool to prevent dangerous driving behaviors, **Chicago will work** in partnership with communities and residents to ensure that all traffic safety interventions are fair, focused appropriately, and support the goals outlined in Vision Zero.

The City is committed to Vision Zero police engagement that will:

- Make every traffic safety interaction an educational opportunity, providing information about safe behaviors to people driving, walking, and biking.
- Involve leaders and residents in defining traffic safety within their community.
- Be supported by data and focused on dangerous driving behaviors.

#### **Action**

Work with the Chicago Police Department and the Cook County Courts to expand opportunities for traffic safety education.

#### **Impact**

As a part of Vision Zero's commitment to emphasizing education over fines, the City will work to ensure that officers provide information about Traffic Safety School options, which may lower the long-term costs of receiving traffic citations, and work with the County to ensure effective programs exist for limiting the cost burden for low-income residents.



#### **Tool: High Visibility Traffic Missions**

High Visibility Traffic Missions deploy police to address very specific behaviors and locations and publicize those missions through media campaigns and other public outreach opportunities. This practice has proven to be effective in reducing dangerous driving behaviors. This proven countermeasure utilizes data to determine an plan for mission locations combined with marketing and engagement efforts.

The CPD conducts High Visibility Traffic Missions for failing to stop for pedestrians in the crosswalk and driving under the influence. As a part of Vision Zero, CPD will have access to improved data used to inform locations for these efforts and coordinate communication.

#### Must Stop for Pedestrians in the Crosswalk

CPD partners with CDOT to coordinate many of its crosswalk safety initiatives. Chicago's crosswalk initiatives involve a police officer in plain clothes attempting to cross the street at a crosswalk. If an approaching driver does not stop as required by state law, the driver will be pulled over by a police officer further down the street. From 2010-2015, CPD conducted an average of 76 crosswalk missions per year.

#### **DUI Saturation Patrols**

CPD conducts regular DUI Saturation Patrols across the city. The purpose of this program is to fill a pre-designated area with roving police officers that continually monitor vehicular traffic for signs of impaired driving. Patrols also place emphasis on speed, alcohol-related violations, and safety belt infractions. Police vehicles equipped with speed detection are deployed to apprehend speeding violators during the saturation patrols.



#### **Tool: Community Traffic Safety Events**

As a component of Vision Zero outreach in High Crash Areas, the City will work with community members to determine police engagement and education priorities. Community planning sessions will bring together community members, City departments, and community resource providers to engage in conversations about traffic safety. City representatives will lead discussions about high crash locations in the community, dangerous driving behaviors witnessed, and community barriers to safe mobility, providing a forum for residents to voice their traffic safety concerns and to participate in directing police engagement and education resources to remedy them.

Based on feedback, ideas, and concerns voiced during the initial planning stage, resources will be deployed to locations chosen in partnership with the community to prevent dangerous driving behaviors. It is a priority that every interaction is treated as an opportunity to educate.

### Design streets at safe speeds to decrease crash risk and severity.

**Driver speed** is the most important factor in determining crash risk and crash severity. There are two primary methods for lowering driver speed: Implement street designs that calm traffic with speed limits set to match conditions, and prevent speeding in excess of the limit. Both of these aspects of speed management are crucial to decreasing death and serious injury from traffic crashes, which is why speed is the highest priority for Vision Zero.

#### **Action**

Identify opportunities to reduce the posted speed limit and create recommendations that would prioritize reduced speeds on neighborhood streets and pedestrian, bicycle, and transit priority areas.

#### **Impact**

Chicago's citywide speed limit is 30 miles per hour unless otherwise posted, but some streets might be better served by a lower speed limit. Per the AAA Foundation, a person struck by a driver traveling 30 miles per hour is 74% more likely to be killed than if the driver was traveling 25 miles per hour.

As a policy, the Chicago Department of Transportation will evaluate streets and set speeds that are appropriate for each street in context as a step of the Complete Streets design process. Around public transit, near schools and parks, and in neighborhoods with many people walking, biking, or taking public transit, lower speed limits may be more appropriate. The City is committed to working with Aldermen and the community when setting appropriate speeds for recent and upcoming construction projects.

#### Action

Identify streets with persistent speeding problems to increase safety through design improvements.

#### **Impact**

Street design influences driver behavior, particularly driver speed. To ensure that streets are safe for all roadway users, streets should be designed with target speeds at or lower than the speed limit. Reducing lane widths, decreasing the number of traffic lanes, and adding elements like street trees and parking that emphasize the limits of the roadway can help reduce speeds.

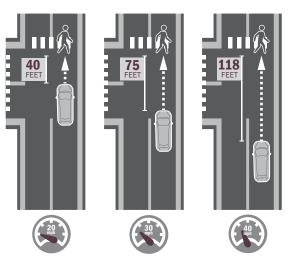
The City will identify streets that have speeds inconsistent with the mix of roadway users and make recommendations for improvements or interventions. In addition to preventing crashes, streets with slower speeds and multimodal designs have a positive impact on economic development.

Source: "Why Lowering NYC's Speed Limit by Just 5 MPH Can Save a Lot of Lives." from Wired magazine, Nov. 2014.



#### **Speed Increases Crash RISK**

#### **Speed increases the distance to stop.**



Source: UK Department for Transport, Highway Code Stopping Distances Quiz

#### **Speed narrows a driver's perspective.**









As vehicle speed increases, the driver's field of vision narrows and limits the view of the street.

Source: National Association of City Transportation Officials, Urban Street Design Guide, Design Speed

#### **Speed Increases Crash SEVERITY**

Higher speeds pose a greater risk to

people walking. 80% 40% RISK OF DEATH TO A PERSON WALKING

Source: U.S. Department of Transportation, "Literature Reviewed on Vehicle Travel Speeds and Pedestrian Injuries." March 2000.

Higher speeds are of a greater risk to people driving.

**DRIVER'S RISK OF DEATH** 





80%



In a side impact crash, with a seat belt fastened.

Source: D. C. Richards Transport Research Laboratory. "Relationship between Speed and Risk of Fatal Injury: Pedestrians and Car Occupants." Sept. 2010

### Address Speeding as a Dangerous Driving Behavior.

Vision Zero Chicago's highest priority dangerous driving behavior is speeding - driving at speeds higher than the posted speed limit. **Focused education** and outreach on the dangers of speeding, paired with community engagement around priority locations for traffic enforcement, will be conducted over the next three years.

#### Action

Work with communities to determine how speeding should be prevented in High Crash Areas using all available tools.

#### **Impact**

Working with communities will foster crucial buy-in for these efforts. A multi-faceted approach to speeding prevention can include engineering investments, traffic safety education and outreach events, police activities, and automated speed enforcement. The support of local residents will boost success and acceptance of infrastructure and intervention efforts and amplify safety messaging.

#### **Action**

Ensure priority Police personnel are trained to use radar speed technology and that resources exist for District and Traffic Safety speeding missions.

#### **Impact**

Additional training on the correct use of radar technology is needed to ensure that officers are able to participate in speed-related missions. This will be prioritized to ensure that priority personnel - including Traffic Safety Division and officers regularly assigned to traffic cars in Districts - are trained and that all new recruits receive this training at the Academy.



#### **Action**

Pilot High Visibility Traffic Missions focused on speeding.

#### **Impact**

Working with communities, the High Visibility Traffic Mission program can be expanded to include speeding as a focus behavior, providing an additional tool to address High Crash Areas and Corridors.

83% OF PEOPLE
SURVEYED BY
AAA BELIEVE IT IS
UNACCEPTABLE TO
SPEED MORE THAN
10 MILES AN HOUR
OVER THE LIMIT ON
CITY STREETS, BUT
NEARLY HALF ADMIT TO
SPEEDING IN THE LAST
30 DAYS.



#### **Tool: Automated Speed Enforcement**

Automated Speed Enforcement has been proven in the City to greatly reduce speed by targeting habitual speeding behavior in data-driven deployments.

- Speeding decreases by half within 90 days of camera operation
- 18% decrease in injury-causing crashes in Child Safety Zones in the first year
- 81% of drivers issued a violation in a school zone do not receive a second violation

In partnership with community leadership, Aldermen, and residents, automated speed enforcement will be studied as an option to curb dangerous speeding in High Crash Areas or Corridors, and, if appropriate, additional units placed in accordance with state and municipal law.

### Better understand behaviors and conditions that lead to severe crashes by analyzing data.

Traffic crash reports provide the majority of the data driving Vision Zero Chicago, but there are increasingly diverse data sources and opportunities to leverage new technologies available to the City. Accessing, analyzing, and reporting on these data will help to better understand why, when, and where severe crashes occur and how to prevent them. Improving data output will improve the quality of outreach and engagement opportunities.

#### Action

Conduct a multi-departmental review for every death caused by a traffic crash and prioritize funds for rapid response infrastructure improvements at fatal crash sites.

#### **Impact**

By involving multiple departments to analyze the behaviors, conditions, and responses after fatal crashes, the City can best determine the appropriate engineering, education, or police responses to prevent future severe crashes.

#### **Action**

Create data models to identify intersections, corridors, and community areas where severe crashes are likely to occur based on built environment characteristics in order to proactively target interventions.

#### **Impact**

The City's traditional approach for identifying High Crash Corridors and hotspots for targeted interventions has relied on historical crash data. In order to proactively prevent severe crashes before they occur, the City will develop analytical models to identify factions of the built environment that increase the relative risk of severe traffic crashes. Results will inform future interventions and policies. This systemic approach to traffic safety is being developed across the nation by cities, states, and the USDOT.



#### **Action**

Analyze crashes to identify patterns to determine where and when severe crash types are likely to occur.

#### **Impact**

Cursory analysis shows that common crash types recur, and the interventions needed for these crashes differ. By determining which crash types are most common, the City can improve safety by targeting the best intervention at the most beneficial times and locations.

#### **Action**

Build partnerships with insurers, technology providers, and others in the private sector to receive and analyze traffic and driver behavior data.

#### **Impact**

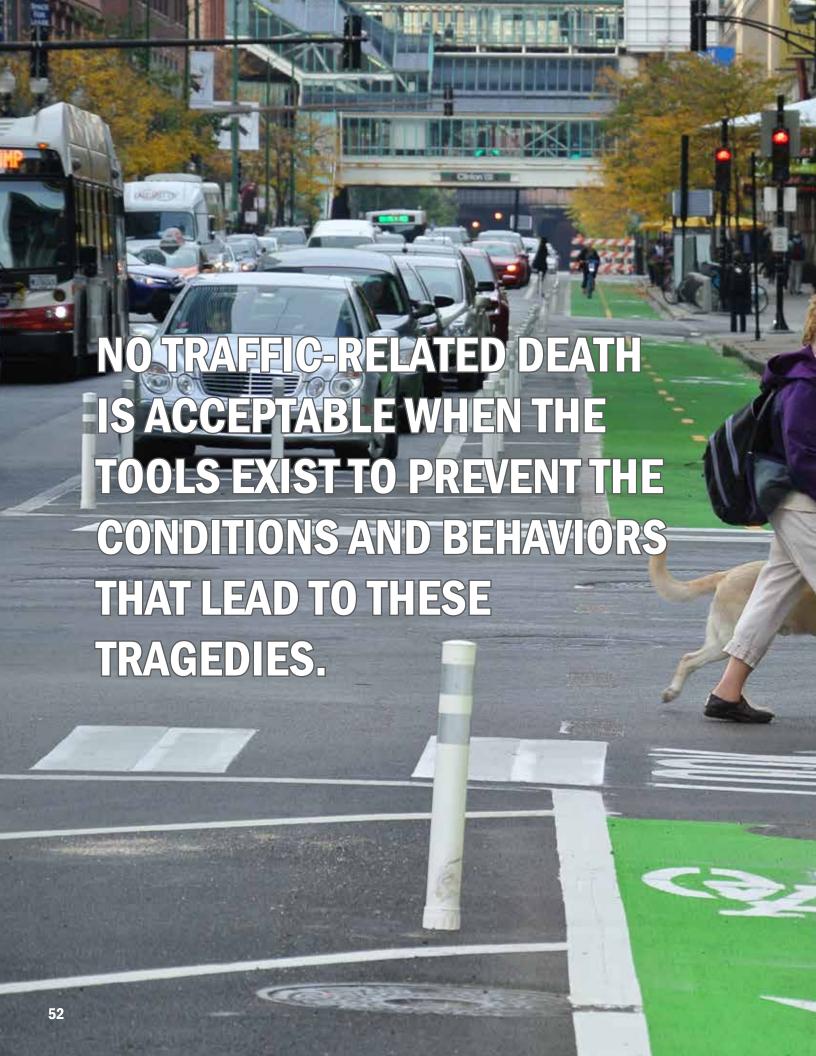
Data about how drivers behave on Chicago's streets will assist in better understanding where and when dangerous behaviors occur on Chicago streets. Access to additional data will improve this data-driven initiative.

#### **Tool: Electronic Crash Reporting**

The implementation of Electronic Crash Reporting (ECR) in 2017 will provide multiple City agencies with more timely and accurate data on traffic crashes. Official data sets are issued annually by the Illinois Department of Transportation. With the adoption of ECR, City agencies will be able to access updated data daily. Inaccuracies, inconsistencies, and omissions that occur through paper reporting will be reduced under the new system. These benefits will help the City to leverage the full potential of crash data in order to identify trends, concentrations of crashes, and behavioral issues. ECR has been implemented in several CPD Districts, with full adoption expected in summer 2017.

#### **Tool: Array of Things**

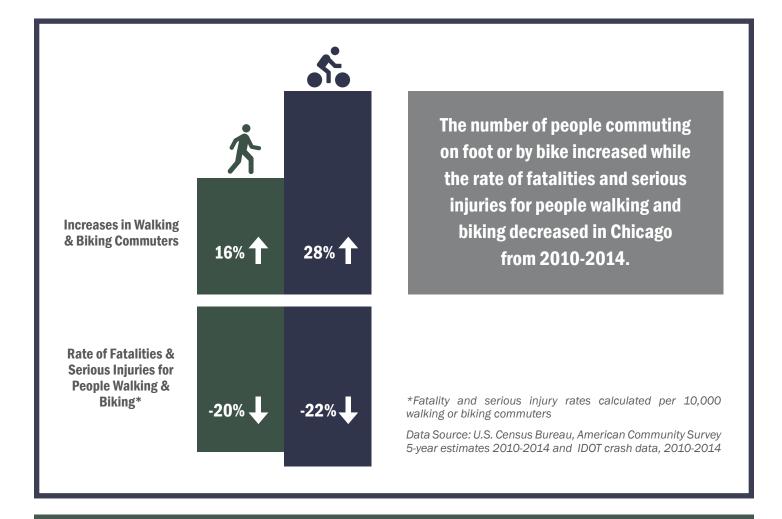
The City will work with Argonne National Labs and the University of Chicago's Urban Center for Computation and Data to deploy Array of Things nodes in High Crash Areas and on High Crash Corridors. The Array of Things nodes can track a variety of environmental data points, including multimodal traffic data. Data collected by nodes located throughout Chicago will be used to improve the City's understanding of street activity and user behavior.







### The more people there are walking and biking, the safer it becomes for vulnerable roadway users.



Streets that are safe for the most vulnerable people are safer for all users. With the release of Chicago's Complete Streets Design Guidelines in 2013, CDOT began operating under a pedestrian-first modal hierarchy. This pedestrian-first hierarchy reflects the fact that all Chicagoans are pedestrians at some point every day. The policy prioritizes the safety, convenience, and comfort

of people walking in all CDOT projects as well as in the maintenance and operations of Chicago's streets. Streets where safety enhancements for people walking and biking have been installed have experienced a decrease in the number of crashes for all roadway users.

### **GOAL 3 Make streets <u>SAFER FOR ALL USERS</u>.**

There is safety in numbers. When more people are walking and biking, the risk of severe crashes decreases. Fostering safety in numbers is achieved in two ways: redesigning streets so they are comfortable and safe for all users, and developing encouragement programs that promote walking, biking, and taking public transit.

#### By 2020, CHICAGO WILL:

- Increase the percentage of adults who walk, bike, or take public transit to work by 10%, with the long-term City goal of 50% non-auto commuters by 2030.
- Implement proven safety countermeasures to improve pedestrian infrastructure at 300 intersections.

### Build a transportation network that provides choices for all modes of travel.

In every construction project, CDOT is committed to building safe streets that provide multi-modal transportation choices for all Chicagoans. These are known as Complete Streets.

#### **Action**

Follow the Complete Streets Design Guidelines in all City projects and prioritize efforts that focus on safety for all modes.

#### **Impact**

A street that is safer for people walking, the most vulnerable roadway users, is also safer for people on bikes and in cars.

Since 2013, the City of Chicago has utilized its Complete Streets Design Guidelines to prioritize the safety and accessibility of vulnerable roadway users. Through Vision Zero, the City will continue applying these principles citywide, and target resources to improve the streets that are most dangerous - the 70 miles of High Crash Corridors.

#### Tool: Complete Streets Design Elements

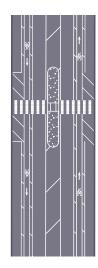
This list includes nationally recommended design elements that provide safer crossings, safer speeds, and safer streets for all users. These elements appear in Chicago's Pedestrian Plan, Streets for Cycling Plan 2020, and Complete Streets Design Guidelines.

- Right-sized Streets (See Below)
- Pedestrian Refuge Islands
- Bump-outs
- Protected Bike Lanes
- Pedestrian Countdown Timers and Leading Pedestrian Intervals
- Pedestrian Hybrid Beacons and Rectangular Rapid Flash Beacons
- Accessible Pedestrian Signals
- In-road State Law Stop for Pedestrians Signs
- Speed Feedback Signs

#### **What are Right-Sized Streets?**

Right-sized Streets are one tool for designing safer, more comfortable streets. A street is right-sized when it provides accommodation for all roadway users and is designed for safe operating speeds at all times of the day. Some streets may no longer need more than one through lane due to changes in traffic, or existing lanes might be too wide, encouraging speeding. The process of right-sizing a street may involve reducing the number of travel lanes (a road diet) or narrowing lane widths. The reclaimed space can then be re-allocated for other uses, such as pedestrian refuge islands, bump-outs, more sidewalk space, turn lanes, bus lanes, or bike lanes.





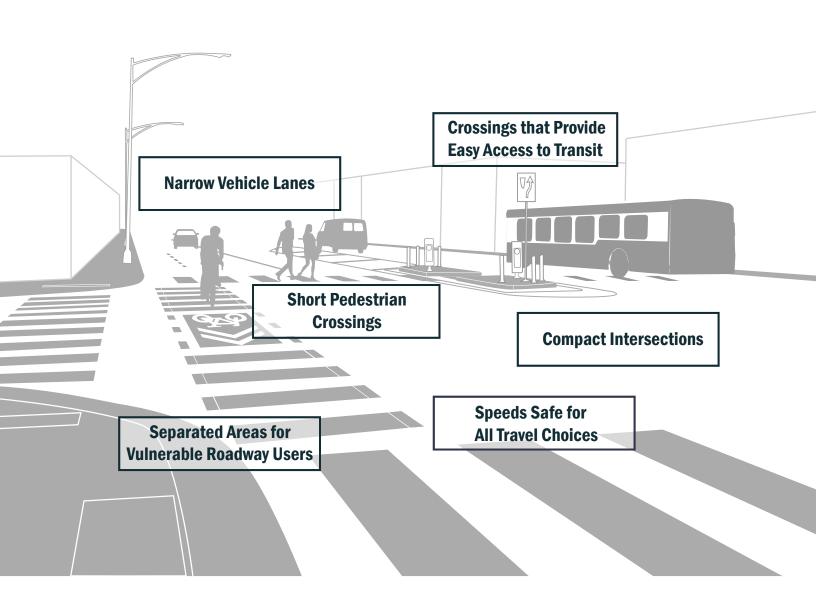
BEFORE AFTER

**56** 



#### **Chicago's Design Principles**

The City of Chicago is committed to designing streets that are safe, comfortable, and provide options in transportation. Chicago's streets should be designed to be predictable and consistent, minimize risk to vulnerable roadway users, and encourage safe speeds.



### Encourage more people to walk, bike, and take public transit.

More people walking, biking, and taking public transit has many benefits beyond improved traffic safety. Lowering the number of trips made in personal vehicles reduces traffic congestion, improves air quality, supports local businesses, and increases positive community health impacts.

#### **Action**

Work with nonprofits, healthcare providers, businesses, and advocates on programs that encourage walking, biking, and riding public transit.

#### **Impact**

Developing the City's partnerships with organizations that share goals for walking, biking, and public transit usage can increase the collective impact these organizations have in their communities and throughout the City.

#### **Action**

Continually improve service and access to public transit throughout the City and target safety improvements around bus stops and train stations, particularly those with above average crash rates, in High Crash Areas, or on High Crash Corridors.

#### **Impact**

Improving public transit service and access to transit will encourage people to use buses and trains to get around Chicago.





#### **Action**

Promote Divvy and expand the bikeshare network, providing additional transportation choices.

#### **Impact**

Divvy provides an additional transportation choice. Over 10 million trips have been taken on Chicago's Divvy bikeshare system as the network has grown to cover more than 100 square miles and serves over 70% of Chicago households, and the system continues to improve.

#### **Tool: Go Campaigns**

The Go Campaigns are City of Chicago neighborhood campaigns meant to encourage more biking, walking, and public transit use through community events and resource-sharing. The City of Chicago received a federal grant to organize Go Campaigns in five Chicago neighborhoods. The first program piloted in 2013 with Go Bronzeville and continued with Go Pilsen (2014), Go Albany Park and Go Edgewater (2015), and Go Garfield Park (2016). Each campaign ran for four months and offered free resources, events, and support to residents to encourage them to walk, bicycle, and take public transit more often. Upcoming campaigns will include Go Little Village and Go North Lawndale.

#### **Tool: Divvy for Everyone Discounted Membership Program**

To support equitable transportation options, CDOT offers the Divvy for Everyone program for Chicagoans facing financial hardship. The program provides subsidized memberships and a cash-based payment option for qualifying residents.







#### **Tool: Chicago's Ambassadors Program**

Since 2001, CDOT has promoted safe walking and biking through the City of Chicago's Safe Routes Ambassadors and Bicycling Ambassadors. The goals of the Ambassadors are improving safety for people walking and biking through encouragement and education, reducing crashes, and making Chicago a better place for active transportation. Ambassadors have reached hundreds of thousands of Chicagoans at all stages of life since the program began.

Each year Ambassadors visit schools, parks, libraries, businesses, block parties, ward events, bike rides, farmer's markets, and festivals, and do outreach on the Lakefront Trail, Riverwalk and the 606. Going forward, the Ambassadors will be refocusing their efforts to prioritize Vision Zero outreach along with Divvy, and teaching people how to ride a bike though free Learn to Ride classes. The Ambassadors also partner with the Chicago Police Department to educate about traffic laws that create a safer environment for people who walk, bike, and drive in the city.

#### **Action**

Hold Walk to School events and Safe Routes training led by CDOT and coordinated with CDPH, Chicago Public Schools, and the Chicago Park District in schools where there are known traffic safety issues.

#### **Impact**

The City will continue to work with schools to improve safe access for all modes of travel and to reduce congestion around pick up and drop off. As mentioned previously, the Ambassadors program will target outreach to work face-to-face with students and parents in High Crash Areas.

#### **Action**

Coordinate community walks and rides and other events that encourage biking and walking with community partners, CDOT, CDPH, and Police District Offices through their CAPS Sergeants.

#### **Impact**

City agencies will work with community groups to bring people out onto the street to experience walking and riding on Chicago's streets. This provides a sense of community, a positive interaction with City agencies, and for some participants, a new perspective on getting around.









**12%** 

While large vehicles travel 8% of miles driven in Chicago, they are associated with 12% of fatal bicyclist and pedestrian crashes.

Sources: CMAP Regional Travel Model Results for Air Quality Conformity Analysis Approved in October 2016. Ilinois Department of Transportation 2010-2014. Crashes excludes crashes that occur on interstate expressways.

Chicago has recently experienced an increase in fatal crashes involving large vehicles and people riding bicycles.



21%

of fatal bicycle crashes involved a large vehicle 2010-2014.

67%

of fatal bicycle crashes involved a large vehicle 2016.

Data Sources: Illinois Department of Transportation 2010-2014. Chicago Police Department, 2016. Crashes excludes crashes that occur on interstate expressways.

#### GOAL 4

## Encourage and implement policies, training, and technologies that create safer vehicles and professional drivers.

Those who drive vehicles professionally have a special responsibility to prioritize safety on the roadway. Improved driver training and vehicle safety features can help to prevent crashes or reduce the severity of injuries if they occur.

#### By 2020, CHICAGO WILL:

- Eliminate severe crashes involving City fleets, public transit vehicles, and public chauffeurs.
- Ensure that training for drivers of City-owned vehicles (City fleet drivers), public transit operators, and Cityregulated drivers include Vision Zero curriculum components.

### Utilize equipment and technologies that make vehicles safer and encourage safe driving behavior.

Advances in vehicle equipment and technology have proven effective in lowering crash risk and crash severity. Improving vehicle equipment is a key component of the Vision Zero Chicago Action Plan.

#### **Action**

City Ordinance: Require safety improvements for large City fleet vehicles and City contractors based on national best practices for mirrors and truck side guards.

#### **Impact**

Mirrors greatly reduce blind spots for large vehicles, and side guards mitigate the severity of a side-impact crash. These low-cost solutions are easily installed. The Volpe Institute, a division of the USDOT, sets standards for side guard equipment, which the City of Chicago will use to ensure that its vehicles are providing better safety.

Following the national adoption of side guard equipment as the standard in the UK, cyclist fatalities were reduced by 61%, and there was a 20% decrease in pedestrian fatalities due to side-impact collisions with trucks.

Source: Volpe, The National Transportation Systems Center, U.S. Department of Transportation, Truck Side Guards Resource Page



#### **Tool: Side Guards**

Side guards reduce crash SEVERITY if a driver making a turn strikes a person walking or biking by adding a barrier to going under the vehicle's rear wheels. It is the white and red component on the side of the vehicle pictured here.

Chicago installed the first side guards in the City's fleet in 2017. Moving forward, these safety features will be included on large vehicles the City leases or purchases. The City will also make these specifications available publicly for use by industry groups and private companies.

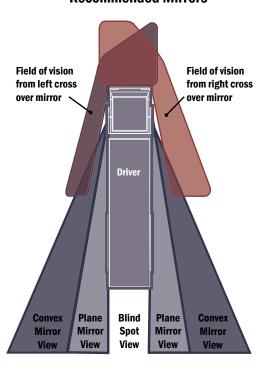


#### **Tool: Convex and crossover mirrors**

#### **Driver's Field of Vision Using Standard Mirrors**

# Plane Mirror View Plane Wirror View

#### Increased Field of Vision Using Recommended Mirrors



Convex and crossover mirrors lower crash RISK by reducing blindspots. As demonstrated on the left, the driver's field of vision drastically increased with the inclusion of additional mirrors. These low-cost solutions require no special tools to install.

Source: Volpe, The National Transportation Systems Center, U.S. Department of Transportation, Cambridge Safer Truck Initiative Ensure that City fleet and City-regulated professional drivers are adequately trained on the rules of the road and safe driving practices.

There are over 10,000 vehicles in the City's own fleet. The City is committed to making these vehicles and the drivers operating them the safest they can be for everyone on the roadway.

#### **Action**

Ensure all City departments have policies in place surrounding the five dangerous driving behaviors and City and sister agency employees who operate vehicles receive training utilizing Vision Zero curriculum.

#### **Impact**

The City and sister agencies will also lead by example by requiring that all employees who operate vehicles will receive Vision Zero training as will drivers who are regulated under the City's municipal code.





#### **Table: Training and Equipment Requirements**

City Employees & Contractors	City-Regulated Drivers	Chicago Transit Authority
City Ordinance: Require safety improvements for large City fleet vehicles and City contractors based on national best practices for mirrors and side guards.	Recommend appropriate safety related technologies, devices, and designs for taxi and Transportation Network Provider (TNP - includes Lyft, Uber, etc.) vehicles based on crash data.	Recommend appropriate safety- related technologies, devices, and designs for CTA vehicles based on crash data. Prioritize technology and training deployment on CTA routes based on crash data.
Establish and require a training module with Vision Zero curriculum.	Include Vision Zero curriculum in training for new and recertifying public chauffeurs and (TNP) drivers.	Include Vision Zero curriculum in training for new CTA bus operators and recertification program for existing operators.
Provide opportunities for positive reinforcement of high-performing safe drivers.		
Provide opportunities for positive reinforcement of high-performing safe drivers.	Partner with Transportation Network Providers to receive data and utilize technologies that recommend improvements to driver performance. Collaborate to ensure that accurate navigation data are available to drivers and consider dedicated pick up locations where appropriate.	Identify CTA routes and drivers with high crash rates and high rates of speed for additional bus operator education opportunities.

### Coordinate safe driving initiatives for private fleets and large vehicles.

Working with private industry partners, the City will encourage the adoption of vehicle safety equipment and technology, policies, and training to improve safety for commercial vehicles, their drivers, and all roadway users.

#### **Action**

Include safety equipment requirements in vehicle incentive programs, such as the Drive Clean Chicago alternative fuel grants, administered by the City.

#### **Impact**

As a policy, all City-funded trucks and large vehicles will be required to install mirrors and side guards to receive incentive funding, expanding the use of these crucial safety improvements to private industry.

#### **Action**

Collaborate with the Secretary of State to include Vision Zero in the Commercial Driver's License training.

#### **Impact**

The Illinois Secretary of State issues Commercial Drivers Licenses and creates all requirements for these operators. Working with the Secretary of State's office, the City will encourage the inclusion of Vision Zero curriculum focused on driving in Chicago, where operators of large vehicles must share the road with people walking and biking.



#### **Action**

Work with companies that own or maintain large private fleets to implement training and install technology and equipment that prioritize safety.

#### **Impact**

City specifications for safety equipment will be publicly available and promoted through industry groups to encourage private industry adoption. Vision Zero training curriculum will be publicly available to encourage Chicagoans to drive safely. Outreach to trade associations and companies with large fleets operating within the City will be made to encourage routine training and updated materials.

#### **Action**

Partner with safety advocates and other organizations to identify training resources.

#### **Impact**

By collaborating with experts in training and curriculum, the City will ensure that its materials are following national best practices for driver safety training.



### Ensure that Chicago regulations and policies foster the responsible growth of emerging technologies.

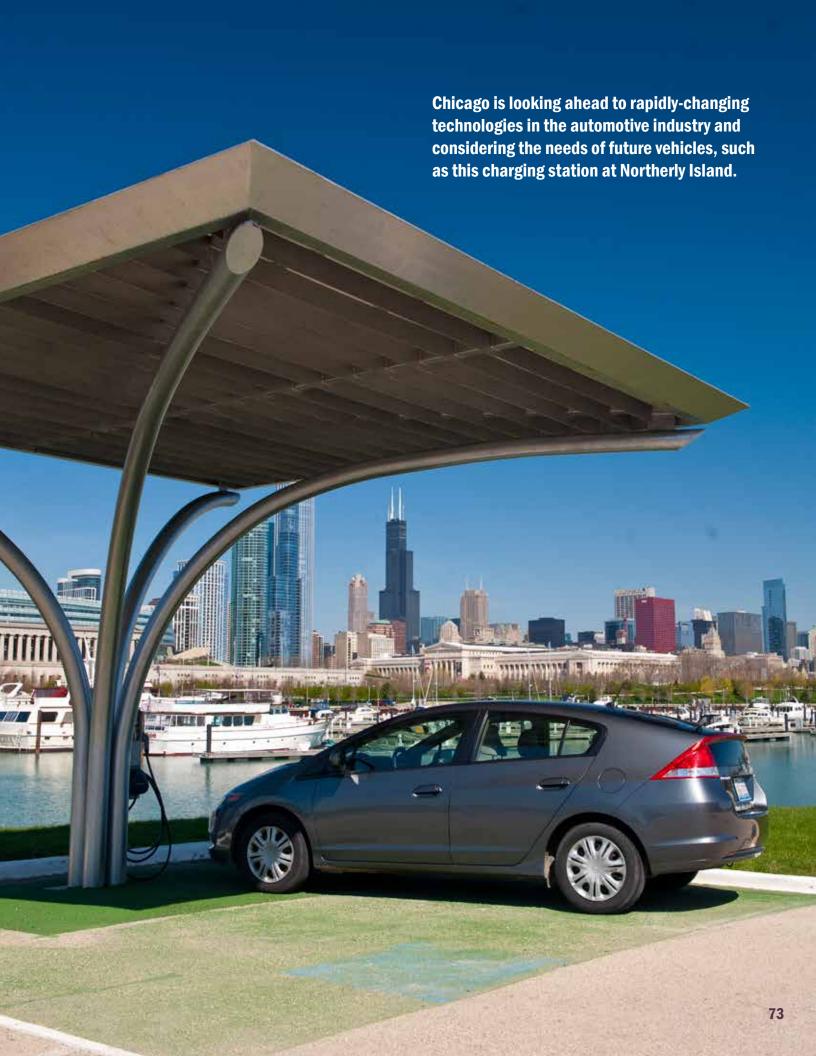
Automated vehicle technology is growing and expanding, Chicago must be adequately prepared to address how these technologies will affect our transportation system. As these vehicles approach roadway ready, the City will study their potential impact on the transportation system and establish regulations that enhance safety for all roadway users, but especially for the most vulnerable.

#### **Action**

Enact policies that promote the responsible use of connected and autonomous vehicles in Chicago. Encourage the piloting of connected and autonomous vehicles programs that incentivize safer driving.

#### **Impact**

The City must prepare for the growth of new technologies that would fundamentally change the usage of our transportation network. Working with national organizations and peer cities to establish policies focused upon safety, Chicago will ensure that if these technologies are brought to market, the City is prepared for their arrival.





# Share data, build resources, and remain accountable.

The Vision Zero
Chicago Action
Plan includes a
set of goals and
strategies to achieve
a measurable
improvement
in traffic safety
by 2020 and to
eliminate traffic
fatalities and
serious injuries by
2026.

Designed to be flexible in scope and responsive to community needs, the programs, products, and policies the City advances for Vision Zero Chicago must be transparent to the public.

#### **Use Data to Prioritize Infrastructure Improvements**

Vision Zero Chicago infrastructure improvements will:

- Be focused in a High Crash Area, on a High Crash Corridor and/ or a location otherwise supported by data.
- Include the construction of proven safety countermeasures that address a demonstrated need at a given location.
- Prioritize projects that improve access and safe mobility in communities of High Economic Hardship.

#### **Establish Regular Communication on Progress**

- Establish a forward-facing portal that includes benchmark data and Vision Zero progress through www.VisionZeroChicago.org.
- Publish an annual report on Vision Zero progress, evaluating program efficacy, benchmark progress, and commitment to equity.
- Provide quarterly updates on Vision Zero activities through the Mayor's Pedestrian and Bicycle Advisory Councils both in-person and through publicly available meeting minutes and other electronic resources.

#### **Measure Success Uniformly**

Vision Zero products, programs, and policies will be evaluated through qualitative and/or quantitative data on four criteria:

- Did it improve traffic safety and reduce traffic fatalities and serious injuries?
- Did those most disproportionately impacted by severe traffic crashes receive the greatest amount of resources?
- Did it support one of the four goals of the Vision Zero Chicago Action Plan?
- How can it be improved for future application?

# DEPARTMENT & AGENCY ROLES

#### Office of the Mayor

Provides leadership and priorities for policies, technologies, and partnerships.

### **Chicago Department of Transportation**

Lead agency for designing streets that serve all roadway users.

## **Chicago Department of Public Health**

Use a public health and health equity approach for traffic safety since resources and interventions will be directed to locations and communities with the greatest risk. CDPH will make crash and injury data available on the chicagohealthatlas.org data portal.

#### **Chicago Police Department**

Educate Chicagoans on safe driving and traffic laws to prevent dangerous behaviors that lead to death and serious injury from traffic crashes.

#### **Chicago Fire Department/EMS**

Ensure that emergency response to traffic crashes is fast and reliable.

## Office of Emergency Management & Communications

Leverage technological resources to learn about and prevent traffic crashes and provide leadership in public safety around special events.

#### **Chicago Transit Authority**

Provide reliable access to public transportation for all Chicagoans and ensure that operations promote safe mobility. Use training, equipment, and technology to make safer drivers and vehicles.

#### Fleet & Facilities Management

Ensure that the City fleet is equipped to be safe for all roadway users and that City drivers are properly trained.

## **Business Affairs & Consumer Protection**

Regulate public chauffeurs, including taxi and livery drivers, as well as tour bus operators and Transportation Network Providers (rideshare companies including Uber, Lyft, and Via) and ensure drivers are properly trained.

## Department of Innovation & Technology

Provide technological and data expertise to determine best practices and provide a public data portal.

#### **Chicago Public Schools**

Ensure that schools are safe for all modes of transportation and provide education on safe mobility to students.

## **Department of Cultural Affairs & Special Events**

Leverage the efforts of artists and power of public art to transform places and support economic development activities on City streets.

# TIMEFRAMES & DEPARTMENT LEADS

#### Goal 1: Invest equitably in communities that are most affected by severe traffic crashes.

#### Follow an inclusive outreach process to encourage community ownership of traffic safety solutions.

Timeframe: Phase outreach to create four High Crash Area Plans concurrently, with a goal of completing all High Crash Area Plans by June 2018.

Lead Agencies: Mayor's Office, CDOT, CDPH, CPD

## Evaluate High Crash Corridors for appropriate redesigns, including changes to signage, pavement markings, signalization, and curbside use (adding or removing parking). Create High Crash Corridor improvement plans that identify opportunities for interim and permanent infractructure projects to improve safety.

Timeframe: Evaluate all projects recently completed on High Crash Corridors to determine success. Construct improvements on 10 High Crash Corridors in 2017. Develop a plan by the end of 2017 to address the remaining 25 High Crash Corridors.

**Lead Agency: CDOT** 

## Develop Vision Zero infrastructure recommendations throughout High Crash Areas and Corridors and work with Aldermen to prioritize these investments.

Timeframe: Conduct annual briefings as a part of the Menu budgeting process and report on Menu-funded safety improvements in annual reports.

Lead Agencies: Mayor's Office, CDOT

## Prioritize High Crash Areas and Corridors for Safe Routes Ambassadors events, providing safe mobility education to Chicagoans of all ages.

Timeframe: Train parents and concerned community members on Safe Routes to School programming at 90% of schools and perform Safe Routes for Seniors outreach at 80% of senior centers in High Crash Areas by 2020.

Lead Agencies: CDOT, CPS

#### Goal 2: Work to change behaviors and perceptions to build a citywide culture of safety.

#### Launch a public awareness campaign leveraging City resources and marketing channels.

Timeframe: 2017 and ongoing.	Lead Agencies: Mayor's Office, CDOT,
	CDPH

#### **Execute a full behavioral marketing campaign in partnership with private industry.**

Timeframe: Include Vision Zero as a municipal marketing opportunity for 2017 to help identify a sponsor. Pursue grant opportunities and other options for funding to support peer-to-peer marketing campaigns.

Lead Agencies: Mayor's Office, CDOT, CPD, CFO

## Compile local and national data on perceptions of dangerous driving behaviors and survey Chicagoans on their transportation habits and perceptions surrounding dangerous driving behaviors.

Timeframe: Conduct surveys in 2017 to be included in the Year 1 Annual Report. Conduct rolling surveys through 2020 to determine progress.

Lead Agencies: CDPH, CDOT

#### **Goal 2: Continued**

Identify opportunities to reduce the posted speed limit and create recommendations that would prioritize reduced speeds on neighborhood streets and pedestrian, bicycle, and transit priority areas.

Timeline: Review recent Complete Streets projects to determine if the speed limit is appropriate for the mix of roadway users. Propose changes in 2017 to be implemented in 2018. Consider speed limit changes on all new construction projects, including those set for construction in 2017 and 2018. As a part of the 2017 Downtown Task Force meetings, consider lowering speed limits in the Central Business District, West Loop, UIC Campus, and Medical District. Recommend if there should be changes to the State of Illinois statutory speed limit by 2020.

Lead Agency: Mayor's Office, CDOT, CTA

#### Identify streets with persistent speeding problems to increase safety through design improvements.

Timeframe: Conduct analysis of high speed roadways utilizing data, spatial analysis, and other sources recommended by national best practices. Release a report identifying high priority roadways in 2018 with plans for how the City will address high speed streets.

Lead Agencies: CDOT, DoIT

#### Work with communities to determine how speeding should be prevented in High Crash Areas using all available tools.

Timeline: This will be a component of the 2017-2018 outreach process in High Crash Areas established under Goal 1.

Lead Agencies: Mayor's Office, CDOT, CDPH, CPD

### Ensure priority Police personnel are trained to use radar speed technology and that resources exist for District and Traffic Safety speeding missions.

Timeline: Create and implement curriculum at the Academy for all new recruits in 2017. Ensure priority personnel are also trained, including Traffic Safety Division and District Officers frequently assigned to Traffic Cars.

Lead Agency: CPD

#### Pilot High Visibility Missions focused on speeding.

Timeline: Develop a suggested pilot program in 2017. Work with communities to determine appropriate locations to conduct events.

Lead Agencies: CPD, CDOT

### Conduct a multi-departmental review for every death caused by a traffic crash and prioritize funds for rapid response infrastructure improvements at fatal crash sites.

Timeline: Establish protocols for crash review in 2017 to be initiated with the full adoption of Electronic Crash Reporting.

Lead Agencies: CPD, CDOT, OEMC, Fire/EMS

## Create data models to identify intersections, corridors, and community areas where severe crashes are likely to occur based on demographic and built environment characteristics in order to proactively target interventions.

Timeline: Issue a report in 2018.

Lead Agencies: CDOT, DoIT, CTA

#### Analyze crashes to identify patterns to determine where and when severe crash types are likely to occur.

Timeline: Issue a report in 2018.

Lead Agencies: CDOT, DoIT, CTA

#### Goal 3: Make streets safer for all users.

Continually improve service and access to transit throughout the City and target safety improvements around bus stops and train stations, particularly those with above average crash rates, in High Crash Areas, or on High Crash Corridors.

Corridors.	
Timeframe: Construct improvements near five transit stations in 2017,	ten in Lead Agencies: CTA, CDOT
2018, and ten in 2019.	
Hold Walk to School events and Safe Routes training led by CDOT and cand the Chicago Park District in schools where there are known traffic	, ,
Timeframe: Hold 30 Walk to School events each year 2017-2019.	Lead Agencies: CDOT, CDPH, CPS, Parks
	·
Coordinate community walks and rides and other events that encourage	ge biking and walking with community partners,
CDOT, CDPH, and Police District Offices through their CAPS Sergeants	i.
Timeframe: Hold 50 community walks each year 2017-2019.	Lead Agencies: CDOT, CDPH, CPD

## Goal 4: Encourage and implement policies, training, and technologies that create safer vehicles and professional drivers.

Require safety improvements for large City fleet vehicles and City contractors based on national best practices for mirrors and truck side guards.

Timeframe: Pass ordinance in 2017 including a phased implementation of side	Lead Agencies: Mayor's Office, 2FM,			
guards and mirrors. Establish a time frame for implementation within the City fleet	CDOT			
that includes retrofitting and natural replacement, as well as estimated costs and				
possible sources. Make specifactions publicly available.				
Ensure all City departments have policies in place surrounding the five dange	rous driving behaviors and City and			
sister agency employees who operate vehicles will receive training.				
Timeframe: Create and distribute curriculum and requirements in 2017.	Lead Agencies: Mayor's Office, 2FM,			
	CDOT			
Collaborate with the Secretary of State to include Vision Zero in the Commercial Driver's License training.				
Timeframe: Begin coordination in 2017 with a goal of inclusion in 2018.	Lead Agencies: Mayor's Office, 2FM,			
	CDOT			

#### Include Vision Zero curriculum in training for new and recertifying public chauffeurs and TNP drivers, CTA operators.

Timeframe: Require TNPs certify their drivers are trained with VZ curriculum within	Lead Agencies: BACP, CTA
${f 12}$ months of receiving their chauffeurs license. Include VZ curriculum in CTA	
training starting in 2017 to ensure all operators receive training by 2020.	

# DATA BENCHMARKS

BENCHMARK	SOURCE	AVERAGE ANNUAL 2010-2014	2020 GOAL VS. 2010-2014 AVERAGE		
OVERALL					
Reduce deaths from traffic crashes 20% citywide by 2020	IDOT Annual Crash Data Extract - non-expressway crashes	111	89		
Reduce serious injuries from traffic crashes 35% by 2020		1,896	1,232		
	GOAL 1				
Reduce severe crashes in High Crash Areas by 40%	IDOT Annual Crash Data Extract - non-expressway crashes	591	355		
Reduce severe crashes on High Crash Corridors by 40%		306	183		
Reduce traffic crash fatalities in high economic hardship communities by 25%	IDOT Annual Crash Data Extract - non-expressway crashes; IDPH Vital Statistics; Census Bureau American Community Survey 5-year estimates	42	32		
	GOAL 2				
Decrease speed-related fatal and serious injury crashes by 25%	IDOT Annual Crash Data Extract - non-expressway crashes	300	225		
Increase awareness of dangerous driving behaviors by 33%, as measured through survey data.	CDOT/CDPH	Data available 2017	Progress will be reported annually		
Have 100,000 Chicago residents sign the Vision Zero Pledge	CDOT/CDPH	N/A	Progress will be reported annually		
	GOAL 3				
Increase the percentage of adults who walk, bike, or take public transit to work by 10%	Census Bureau, American Community Survey 5-year estimates	35%	39%		
Implement proven safety countermeasures to improve pedestrian infrastructure at 300 intersections	CDOT	N/A	Progress will be reported annually		
GOAL 4					
Eliminate severe crashes involving City fleets, public transit vehicles, and public chauffeurs	IDOT Annual Crash Data Extract - non-expressway crashes; 2FM, BACP, CTA	Data available 2017	0		
Ensure that training for drivers of Cityowned vehicles (City fleet drivers), public transit operators, and City-regulated drivers include Vision Zero curriculum components	2FM, BACP, CTA	N/A	Progress will be reported annually		

# **ABOUT THE DATA**

The information in this report is based on data sets that have been analyzed by multiple City departments.

#### **Data Period**

Chicago's Vision Zero team used a five-year period to improve the stability of the data. At the time of this plan's development, 2014 was the most recent year that crash data were available, therefore all crash and injury statistics used in its development are from the 2010-2014 time period.

#### **Traffic Crash Data**

Official traffic crash data for the City of Chicago and the State of Illinois are provided by the Illinois Department of Transportation (IDOT) on an annual basis and analyzed by the Chicago Department of Transportation (CDOT). The City of Chicago is responsible for any data analyses and conclusions drawn from IDOT's data.

Chicago's Vision Zero data team used a five-year analysis period, 2010-2014, to correct for small numbers problems inherent in single-year analyses that decompose serious and fatal crashes by roadway user, behavior, and/or fine geographical scale. For the purposes of all analyses and reported statistics included in this plan, crashes that occurred on freeways and interstate highways were removed. All facility-level analyses included in this plan were performed in a GIS environment using a buffer distance of 75' from the corridor centerline or intersection midpoint.

Interim traffic crash fatality statistics for the years 2015-2016 included in this plan were reported by the Chicago Police Department (CPD). As crash reporting criteria differ between CPD and IDOT, final annual fatality numbers reported by each agency may exhibit slight variation. These interim data were used at the time of plan development to illustrate general trends and are not used in any detailed analyses.

Large vehicles are defined as vehicles larger than a passenger van. Vehicle types include buses, single unit trucks, and tractor trailers.

#### **Vital Statistics Data**

The Chicago Department of Public Health (CDPH) received Vital Statistics information from the Illinois Department of Public Health and matched it with IDOT crash data to study the distribution of traffic crash fatalities across demographic groups to create baseline measures of equity. At the time of this plan's development, 2014 was the most recent year that crash data and Vital Statistics data were both available.

#### **Economic Hardship Index**

The Economic Hardship Index was assembled by the Chicago Department of Public Health, using data from the U.S. Census Bureau Decennial Census (2010) and five-year American Community Survey (2009-2013). The Chicago Department of Public Health utilizes the Economic Hardship Index (EHI) developed by the Rockefeller Institute of Government. The EHI measures the social and economic conditions of communities at the census tract level using six indicators including:

- i. crowded housing (percent of housing units with more than 1 person per room),
- ii. poverty (percent of households living below the federal poverty level),
- iii. unemployment (percent of persons over the age of 16 years that are unemployed),
- iv. education (percent of persons over the age of 25 years without a high school education),
- v. dependency (percent of population that is under age 18 or over age 64 years),
- vi. income level (median per capita).

#### **Demographic Data**

Race and ethnicity were analyzed using U.S. Census Bureau data. For the purposes of this plan, the Census fields of Non-Hispanic Black and Non-Hispanic White are referred to as Black and White, and Hispanics of all races are referred to as Hispanic. Due to small numbers of traffic fatalities affecting Non-Hispanic Asian or Pacific Islanders, the specific age-adjusted mortality rate is not available.

# **ACKNOWLEDGEMENTS**

#### Rahm Emanuel Mayor, City of Chicago

#### **Steering Committee Leadership**

Rebekah Scheinfeld Commissioner, Chicago Department of Transportation Dr. Julie Morita Commissioner, Chicago Department of Health Eddie Johnson Superintendent, Chicago Police Department Michael Negron Chief of Policy, Office of the Mayor

#### **Steering Committee Representatives**

Jadine Chou, Chicago Public Schools
Joe Deal, Office of the Mayor

Deputy Chief George Devereux, Chicago Police Department

Samantha Fields, Business Affairs & Consumer Protection

Mark Kelly, Department of Cultural Affairs & Special Events

Michael McLaughlin, Chicago Transit Authority

David Reynolds, Fleet & Facilities Management

Tom Schenk, Department of Innovation & Technology

Mary Sheridan, Emergency Medical Services

Alicia Tate-Nadeau, Office of Emergency Management & Communications

#### **Stakeholder Organizations**

AARP Chicago
Active Transportation Alliance
Consortium to Lower Obesity in
Chicago's Children

Lurie Children's Hospital The Resurrection Project Ride of Silence Slow Roll Chicago SRAM Cycling Fund

#### **Staff Leadership**

Publishers:
Cara Bader, Office of the Mayor
Luann Hamilton, CDOT
Kevin O'Malley, CDOT

Data Analysis by: Eric Hanss, CDOT Joseph Kezon, CPD Nik Prachand, CDPH Margarita Reina, CDPH Rosanne Ferruggia, CDOT, Project Manager & Editor Hsuan-Hui Hu, CDOT, Graphics & Design

#### **Working Group Contributors**

Mike Amsden, CDOT
Lt. Joe Andruzzi, CPD
Cdr. Sal Avila, CPD
Cara Bader, Office of the
Mayor
Katie Bowes, CDOT
Ann Cibulskis, CDPH
Mike Claffey, CDOT
P.O. Richard Considine,
CPD
Maria Cornejo-Nallen, CPD
Lauren Crabtree, CDOT
Sgt. Megan Curry, CPD

Abraham Emmanuel, CDOT

Rosanne Ferruggia, CDOT
Matthew Fischler, Office of
the Mayor

Eric Hanss, CDOT
Erin Harkey, DCASE
Jennifer Henry, CTA
Jennifer Herd, CDPH
Joseph Kezon, CPD
Timothy Lavery, CPD
Marc Manning, CTA

Jim McVane, BACP

David Pertuz, 2FM
Nik Prachand, CDPH
David Pulsipher, CDOT
Margarita Reina, CDPH
Brian Richardson, CDPH
Jessica Rio, CTA
John Sadler, CDOT
Malihe Samadi, CDOT
Sgt. Kelly Schnoor, CPD
Charlie Short, CDOT
Nicholas Smith, CTA
Brian Steele, CTA

Michael Stubbe, CTA
Helena Swanson-Nystrom,
Office of the Mayor
Darin Taylor, OEMC
Patricia Thomas Miller,
CTA
Sgt. Robert Tietz, CPD
Sgt. Amanda Vanek, CPD
Sean Wiedel, CDOT
Zachary Williams, OEMC
Amanda Woodall, CDOT

Benny Zhang, CTA



Chicago's initiative to eliminate traffic fatalities and serious injuries by 2026.

# **ACTION PLAN 2017-2019**

**Published June 2017** 



www.VisionZeroChicago.org