



Safety & Health Committee Meeting Agenda
Wednesday, August 18th at 9:30 AM

<https://global.gotomeeting.com/join/830662165>

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Access Code: **830-662-165**

Meeting Agenda

[Note: Meeting agenda is subject to change during the meeting.]

1. Welcome	09:30 AM
2. Data Review	
A. Regional Health and Transportation Kathryn Chambers and Jordan Silvers, WAMPO	09:35 AM
B. Vision Zero Nick Flanders, Danielle Gauna, and Chad Parasa, WAMPO	9:50 AM
C. Pedestrian and Bicycle Count Data September 23 (Thursday) & 25 (Saturday) WAMPO Staff	10:05 AM
3. Open Discussion	10:10 AM
4. Adjournment	10:30 AM

Resources: <https://www.transportation.gov/policy/transportation-policy/safety>

Next Meeting: Wednesday, November 3, 2021, 9:30 AM

SAFETY & HEALTH COMMITTEE

The primary activities of this committee will be updating regional technical reports on Safety and Health. This committee will review and update the regional data. This committee will update technical reports through discussions on:

- Improved safety & health for the region
- Safety of all modes of transportation
- Updating safety & health data reports
- Environmental Air Quality, ozone
- Strategies for reducing crashes in our region
- Develop Educational Awareness Tools
- Explore new initiatives, such as Vision Zero goals

WAMPO Regional Health & Transportation Report

August 2021



Introduction

Bridging health and transportation is of great importance to WAMPO to aid and improve the communities in the region. Since the passage of the National Environmental Policy Act, in effect since 1970, and similar laws and regulations, the links between our environments, whether urban or rural, and public health have become clearer and clearer. As WAMPO serves Wichita, the largest city in Kansas, its suburbs, and various nearby rural communities and townships, Wichita data can serve as a microcosm of the state.

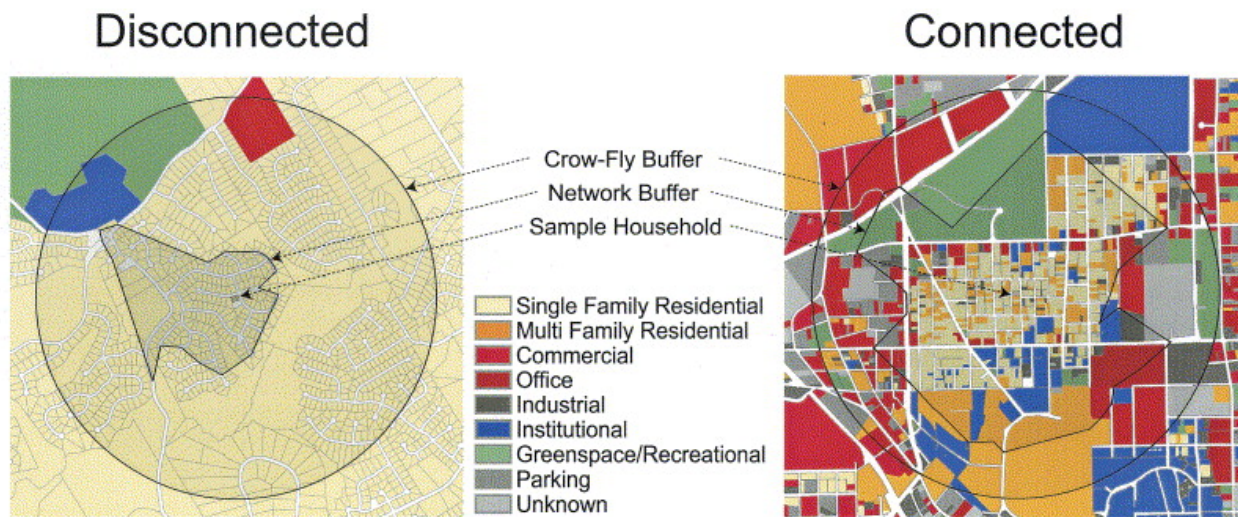
A significant point of contention in health and transportation is whom to prioritize. Who are our cities being built for? It has become increasingly common for significant building developments to be built on a scale that befits cars over humans. When rebuilding the House of Commons after its destruction during the German Blitz, Winston Churchill stated that “we shape our buildings and afterwards our buildings shape us.” The ideal urban

environment is connected and walkable, meaning neighborhood streets are connected via direct routes to places, have a high residential density, pedestrian oriented retail, homes near commercial businesses and institutions, and mixed land use.

Four aspects of health are affected in some form by transportation: access to goods and services, physical health and obesity, mental health and stress, and pollution and air quality.

Access to Goods & Services

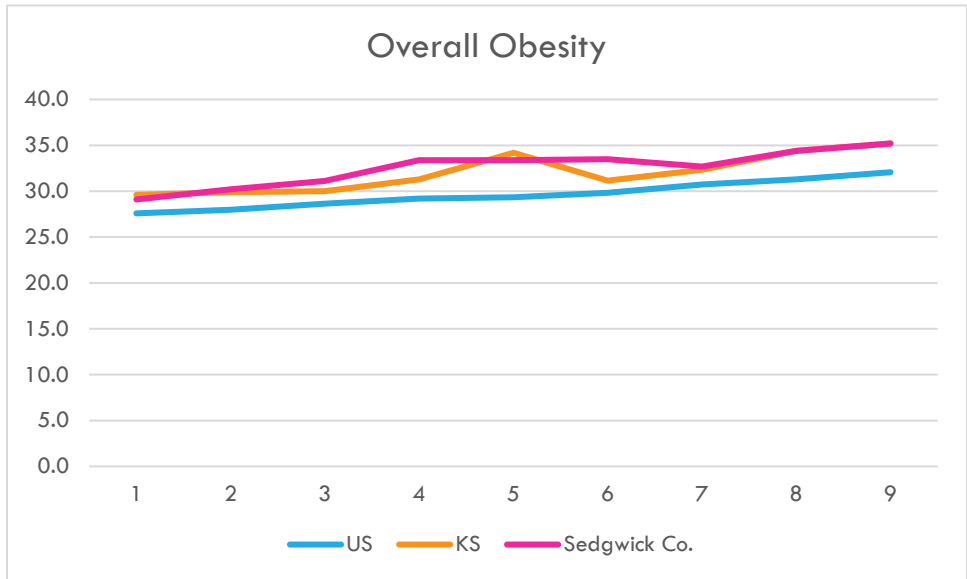
The abandonment of the walkable ideal for the drivable ideal has alienated those whom we try to serve. This practice creates issues of fairness, further burdening those who do not drive, whether by choice or circumstance. An auto-centric scale also creates an economic burden on the cities themselves, as the demand for road infrastructure maintenance rises. Local, state, and federal agencies are feeling this ache more recently as road infrastructure costs are on the rise, inflating to previously unseen levels since the COVID-19 pandemic.



Frank, L. D., Andresen, M. A., & Schmid, T. L. (2004). Obesity relationships with community design, physical activity, and time spent in cars. *American Journal of Preventive Medicine*, 27(2), 87–96. <https://doi.org/10.1016/j.amepre.2004.04.011>



Some form of transportation, whether public or private, must typically be used to access needed goods and services such as access to healthy food, places for physical activity, and health care. If these resources are not immediately available in a community, the need for transportation becomes much greater. The Sycamore Institute has found that those who rely on public transport are often saddled with the burden of lengthy transit routes, multiple transfers, inadequate or irregular service, and the inability to afford public transit are more likely to forgo the aforementioned needed goods and services. As much as neighborhoods need to be convenient and easy to navigate, so too does access to health care services and healthy food.



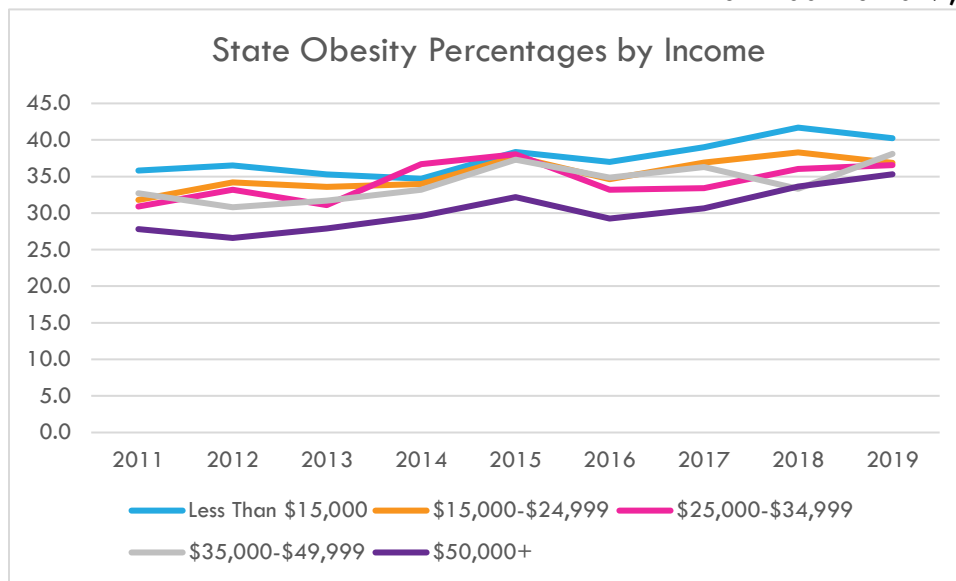
Centers for Disease Control and Prevention. (2011-2021). *BRFSS: Table of Overweight and Obesity (BMI)* [Dataset].

Physical Health

Physical activity is one of the main behaviors that affects one's health and well-being. Besides general benefits to one's health, regular physical activity can improve respiratory and cardiovascular health—conditions that pollution and poor air quality can exacerbate.

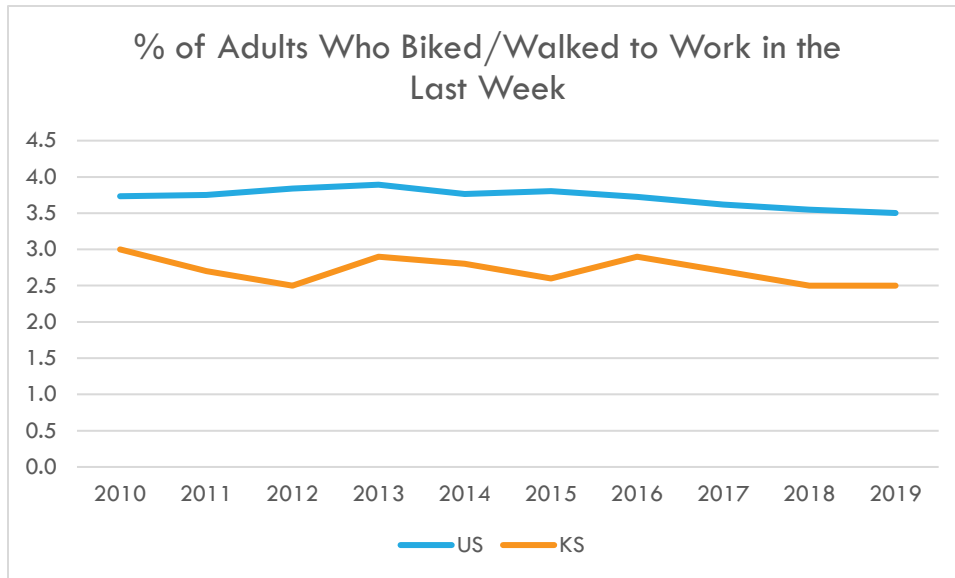
Obesity

From 2004 to 2017, adult obesity in Sedgwick County has risen by 9% and is 3% higher than the US average. The obesity rate in the state of Kansas consistently trends higher than the US average, partially in thanks to the environment. A lack of area parks, sidewalks, affordable gyms, and access to healthy food for some communities exacerbates the issue.



Centers for Disease Control and Prevention. (2011-2021). *BRFSS: Table of Overweight and Obesity (BMI)* [Dataset].





Centers for Disease Control and Prevention. (2011-2021). Nutrition, Physical Activity, and Obesity - American Community Survey [Dataset].

The lower a community lies on the socioeconomic scale, the more likely they are to be victims of these factors and have further to climb to escape them—for instance, those making less than \$15,000 a year in annual income average 38% obesity by population and the likelihood of occurrence decreases as income increases. Those that live in more

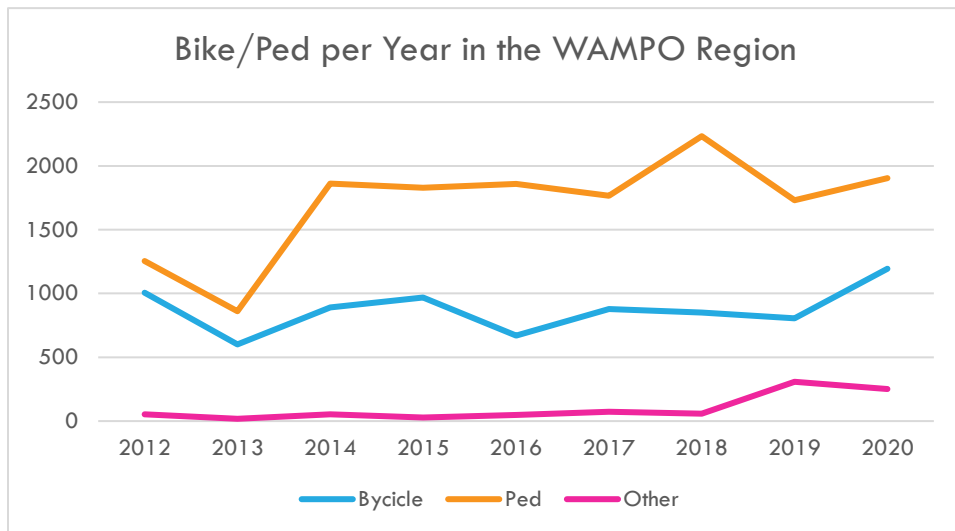
Bicycle & Pedestrian Activity

Only 1.6% of workers in the WAMPO region walk or bike to work, half the percentage of

walkable communities are more likely to use physically active modes of transportation, such as walking or biking. Studies published in the American Journal of Preventative Medicine show that every mile walked per day decreases a person’s chances of obesity by 8% whereas every 60 minutes in a vehicle increases one’s chance of obesity by 6%. Commuting by vehicle is a habitual form of sedentary behavior.

Commute distances of 15 miles or more increases one’s chances of obesity and decrease one’s odds of meeting daily physical activity recommendations. The WAMPO region has an average one-way commute distance of 13-14 miles and an average one-way commute time of 22 minutes in 2019.

the rest of the United States. The WAMPO region has seen a 52% increase in pedestrian traffic from 2012 to 2020, and a 19%



Pedestrians include people in wheelchairs or others using assistive devices. “Other” includes people using equipment such as skateboards or rollerblades.

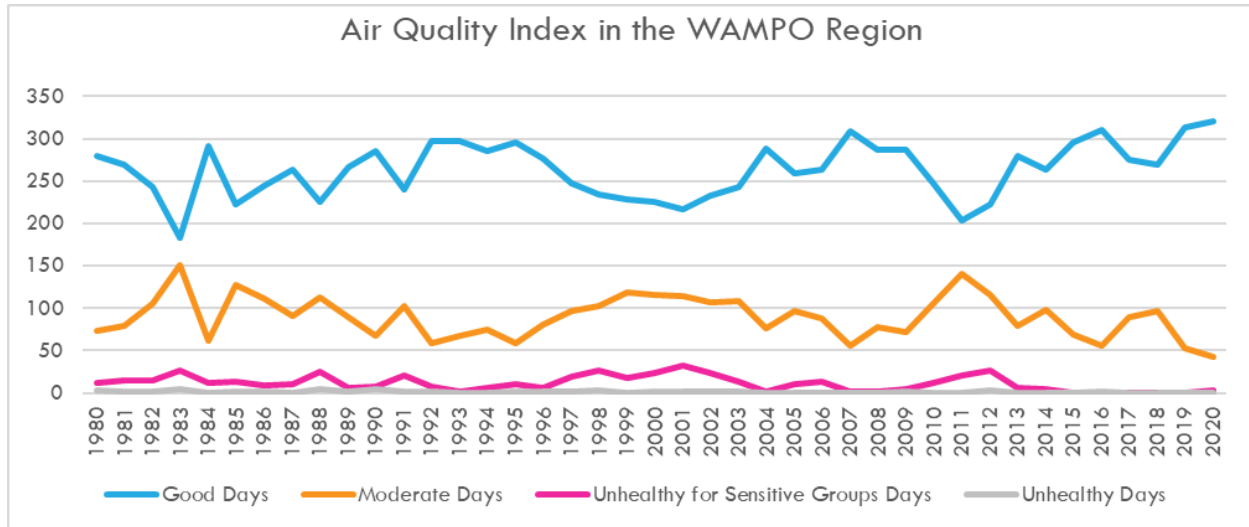
Source: Wichita Area Metropolitan Planning Organization. (2012–2020). *Bike/Ped Count Results* [Dataset].



increase in bicycle traffic in the same time frame.

The percentage of adults in Kansas who self-reported usually biking or walking to work in

the last week is consistently lagging behind the national average. Part of this can be attributed to the lack of interconnected community designs.



Air Quality Statistics by County. (1980–2020). [Dataset]. United States Environmental Protection Agency.

Pollution & Air Quality

Air pollution continues to increase as the amount of vehicles on the road increases, despite continued efforts to improve emissions standards. The Air Quality Index involves daily ozone forecasts and other common pollutants, such as nitrogen dioxide, carbon monoxide, and lead. AQI is reported via a color-coded scale.

The number of “good” days in the WAMPO region is increasing while the number of “moderate” days is decreasing. Unhealthy days are kept to a minimum.

Vehicle traffic has decreased in the WAMPO region from 2019 to 2020 by 13%, while bicycle and pedestrian traffic has increased. This has good implications for those with pre-existing condition or who are considered a part of a sensitive group. Vehicle traffic contributes

to the production of air pollution, smog, and ground-level ozone. These air pollutants can be harmful to everyone and even more so to those in sensitive groups, such as children and those with asthma or other lung diseases. High ozone levels may irritate one’s respiratory system, reduce lung function, and aggravate pre-existing conditions.

FHWA Conformity

The Federal Highway Administration (FHWA) requires metropolitan transportation plans, metropolitan improvement programs, and federal projects to conform to the Clean Air Act and State Implementation Plan in order to ensure FHWA and FTA funds are given to activities that are consistent with air quality goals. Any new activities should not cause nor contribute to violations of the National Ambient Air Quality Standards (NAAQS), which set



Federal standards for air quality concentration for the sake of public health.

Mental Health and Stress

Another aspect of transportation is mental health. One of the main contributing factors to aggressive driving or “road rage” is driving stress. Two of the main driving-related stressors are running late and challenging roadway conditions. Drivers that run into these problems are more prone to becoming aggressive. According to the American Automobile Association, nearly 80% of drivers in 2019 expressed feeling significant anger, aggression, or road rage in at least one instance in the past 30 days at the time of

study. Those who experience road rage are more likely to engage in hostile thinking and

aggressive actions, taking more risks with their driving, endangering those around them. With roughly 93% of the WAMPO region workers driving to their workplace, these feelings can occur daily.

Consistent access to mental health facilities is another important service to be provided. Cost, mode of transportation, public transit safety, and vehicle access are all barriers to transportation.

Air Quality Index	Protect Your Health
Good (0-50)	No health impacts are expected when air quality is in this range.
Moderate (51-100)	Unusually sensitive people should consider limiting prolonged outdoor exertion.
Unhealthy for Sensitive Groups (101-150)	<p>The following groups should limit prolonged outdoor exertion:</p> <ul style="list-style-type: none"> • People with lung disease, such as asthma • Children and older adults • People who are active outdoors
Unhealthy (151-200)	<p>The following groups should avoid prolonged outdoor exertion:</p> <ul style="list-style-type: none"> • People with lung disease, such as asthma • Children and older adults • People who are active outdoors <p>Everyone else should limit prolonged outdoor exertion.</p>
Very Unhealthy (201-300)	<p>The following groups should avoid all outdoor exertion:</p> <ul style="list-style-type: none"> • People with lung disease, such as asthma • Children and older adults • People who are active outdoors <p>Everyone else should limit outdoor exertion.</p>

Ozone and Your Health. (2009). United States Environmental Protection Agency.



The Effects of COVID-19 on Transportation

At the time of writing, there are 2.3 million confirmed cases of COVID-19 and 4.3 million deaths—35.5 million and 611,000 in the US, respectively. Loss of life and illness has a way of taking over every aspect of one's personal being at the time of occurrence, and when the time of occurrence overlaps for much of the population, the effects of such devastation are persistent and pervasive. The pandemic has created drastic economic losses, from businesses shuttering to crests in unemployment, to disruptions in education and our social and cultural daily activities. With this, travel in all forms has decreased. Motivated by a combination of emergency orders, business closures, online schooling, and reduced social activity, Annual Average Daily Traffic (AADT) decreased in the WAMPO region by 78% from 2019 to 2020.

The airline industry is of major concern to the WAMPO region, as Wichita is home to two regionally significant airports: Wichita Dwight D. Eisenhower National Airport (ICT) and Colonel James Jabara Airport (AAO). Major carrier capacity in the airline industry dropped by 60-80% nationwide, and the effect is expected to reverberate throughout the airline/aircraft industry for years to come.

Potential future transportation trends to come out of the pandemic could include an increase in non-shared modes of travel such as bikes or scooters—a trend the city of Wichita is well-positioned for, as the amount of scooter ride-shares in the region has increased. Shared forms of transportation such as public transportation, ride shares, and carpooling may become less common as people err towards isolation over groups. There may be

fewer people needing to commute to work in the first place, as businesses shift to a more permanent work-from-home model. The impact this may have on public health depends on the extent each of these factors change.

Conclusion

Those who live in more walkable communities are more likely to use physically active modes of transportation, drive less, and thus produce less air pollution. The most direct effect of transportation on health is vehicle-related injuries and fatalities; motor vehicle crashes are the leading cause of death for those aged 1-34 years. As the number of vehicles on the road continues to rise, so too does vehicle congestion and injuries to pedestrians, bicyclists, and vehicle occupants.

Buildings ought to be created on a “human scale,” using people as the foundational size metric, meaning that they're the right size and layout for the average person to feel comfortable. When public spaces are built on an auto-centric scale, they move at a rate much faster and much larger than human scale. It's the people who walk, bike, and use public transit that are the most likely to be victims of this dissonance that leaves a significant portion of the population in unsavory to dangerous situations. The burden is on those who do not drive, whether or not by choice. Neighborhoods built on a human scale are cognizant of distance and keep destinations close and easily reachable. Ease of walking highly depends on walking distance and contributes to health issues, such as obesity rates, which continue to trend upward on a local and federal level.

Our roads affect many aspects of our daily life, which means prioritizing our transportation has a clear effect on prioritizing our health.



Sources

- AAA Foundation for Traffic Safety. (2016). Prevalence of Self-Reported Aggressive Driving Behavior: United States, 2014 (Technical Report). Washington, D.C.: AAA Foundation for Traffic Safety.
- Air Quality Statistics by County*. (1980–2020). [Dataset]. United States Environmental Protection Agency.
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- Melton, C. & the Sycamore Institute. (2017, February). *How Transportation Impacts Public Health*. <https://www.sycamoreinstitute.org/transportation-impacts-public-health/>
- Ozone and Your Health*. (2009). United States Environmental Protection Agency.
- University of Wisconsin Population Health Institute. (2004–2017). *Adult Obesity* [Dataset].
- Wichita Area Metropolitan Planning Organization. (2012–2020). *Bike/Ped Count Results* [Dataset].



Vision Zero

August 2021



What is Vision Zero?

Vision Zero is a transportation safety philosophy based on the principle that loss of life is not an acceptable price to pay for mobility. Among those concerned with traffic safety Vision Zero has become a useful framework to eliminate traffic deaths and severe injuries in the transportation system with a proactive, preventive approach. Vision Zero recognizes that human behavior is imperfect and therefore the transportation system should be designed to minimize the consequences of human error.

Why the WAMPO Region needs Vision Zero?

The Wichita Area Metropolitan Planning Organization WAMPO Region consists of 22 cities and 3 counties. The towns, cities and counties of the region work together to ensure the WAMPO region remains a great place to live, work and play. Data from the Kansas Department of Transportation reported data between 2008 through 2018 on fatal crashes and suspected serious injuries. Of the 100,603 total crashes:

- 471 fatal crashes resulted in 515 deaths with 72 among bicyclist and pedestrians.
- 1,320 injury crashes resulting in 1,780 suspected serious injuries with 231 among bicyclist and pedestrians.

The United States Department of Transportation defines a suspected serious injury as any injury other than fatal that results in one or more of the following:

- Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood
- Broken or distorted extremity (arm or leg)
- Crush injuries

- Suspected skull, chest, or abdominal injury other than bruises or minor lacerations
- Significant burns (second and third degree burns over 10% or more of the body)
- Unconsciousness when taken from the crash scene
- Paralysis

How to adopt a Vision Zero Toolkit?

Local governments may use this plan as a toolkit of resources that can be endorsed or customized to encourage Vision Zero adoption and local safety action plan development.

Step 1: Develop a regional High Injury Network

Local governments can develop its own high-injury network through the use of more detailed local crash data, modify the regional High-Injury Network, or adopt the regional High Injury Network within their communities.

Step 2: Develop Crash Profiles, Behavior Profiles and Countermeasures

Crash profiles by area type provide information to local governments on crash types that are most frequently contributing to serious injury and fatal crashes in their jurisdictions. The crash profiles and corresponding countermeasure glossary suggest potential countermeasures that local governments and their partners can use to reduce these types of crashes. To apply these crash profiles, a local government can identify the area types relevant in its jurisdiction and target reduction of key crash profiles by implementing recommended countermeasures in high-priority locations (such as on the regional High-Injury Network)

The next page shows a countermeasure glossary to suggest potential countermeasures that local governments and their partners can use to reduce these types of crashes.

Countermeasure	Description
Traffic calming	Traffic calming refers to a full range of horizontal and vertical design elements intended to slow the movement of cars through a corridor. Examples include horizontal curvature, chicanes, narrow travel lanes, traffic circles, fewer lanes, bulbouts, medians, signals coordinated for slower speeds, and speed humps.
Road diet	Road diets generally reassign space in the roadway from vehicle travel lanes to create room for bicycle facilities, wider sidewalks or center turn lanes. Road diets optimize street space to benefit all users by improving the safety and comfort of people walking and people biking and reduce travel speeds and the potential for rear-end crashes.
Protected/separated bikeway	Designated bicycle lanes separated from vehicle traffic by a physical barrier (such as bollards, landscaping or parked cars) can increase safety for everyone by decreasing opportunities for encroachment on the bike lane by people driving. Protected and separated bikeways also reduce the risk of dooring.
Prohibit left turn	Consider banning left turns at locations where a turning vehicle may conflict with people walking in the crosswalk, where opposing traffic volume is high, or from a side street onto a busy two-way arterial street. Prohibiting people driving from turning left reduces pedestrian interaction with vehicles when crossing.
Pedestrian refuge median	Pedestrian refuge medians provide a protected area for people walking at the center of the roadway. They reduce the exposure time for people walking and simplify crossings by allowing people walking to focus on one traffic direction at a time.
Targeted enforcement	Targeted enforcement is used to reduce the most dangerous behaviors (such as speeding, distracted driving, aggressive driving, impaired driving, and red-light and stop sign running), particularly at locations with a history of such behaviors. People driving are less likely to participate in dangerous behaviors when they know there is a higher likelihood they will be caught.

Sources for countermeasure descriptions:

- American Association of State Highway and Transportation Officials Highway Safety Manual
- Caltrans Local Roadway Safety Manual
- Federal Highway Administration Office of Safety
- Federal Highway Administration Crash Modification Factors Clearinghouse
- Federal Highway Administration Bicycle Safety Guide and Countermeasure Selection System
- Federal Highway Administration Pedestrian Safety Guide and Countermeasure Selection System
- National Association of City Transportation Officials Urban Bikeway Design Guide
- Fehr & Peers

Step 3: Equity

The Vision Zero Network published Equity Strategies for Practitioners to assist communities in implementing Vision Zero with a focus on equity. Key strategies from the guide are:

- Commit to the work
 - Ensure that Vision Zero or traffic safety leadership reflects the diversity of the community, agree that equity issues are a focus of Vision Zero and make a strong and firm commitment from the start.
- Use data to focus efforts
 - Include demographic data such as race, ethnicity, level of poverty, and household median income.
- Enforcement with empathy
 - Enforcement must not have an outsized effect on low-income communities and communities of color, nor should they damage police-community relationships. Strategies to integrate equity into enforcement include community policing, officer training, careful application of automated enforcement, and transparency in traffic stop data, diversion programs that focus on education rather than punishment and graduated fines.
- Community engagement
 - Programs and associated staff should build sustaining relationships with the community and partners. Hosting engagement meetings in locations people can attend conveniently and reducing barriers to participation are key elements of Vision Zero-focused community engagement

MPO Example

The Hillsborough MPO partnered with state and local stakeholders, the MPO created the Vision Zero Action Plan. Partners in the Vision Zero Coalition include the Tampa City Council, Hillsborough County Commission, Temple Terrace City Council, Plant City Commission, School Board of Hillsborough County, emergency responders, businesses, and nonprofits. All of them share a goal to eliminate traffic fatalities and severe

injuries on area roadways. The Vision Zero Coalition created goals and specific activities supporting each track.

Vision Zero Coalition

- Hillsborough MPO
- Hillsborough County
- Florida Department of Transportation (FDOT)
- City of Tampa
- City of Plant City
- Tampa Police
- Sheriff's Office Hillsborough County
- Hillsborough County City-County Planning Commission
- Hillsborough County Public Schools
- St. Joseph's Hospital
- Florida Health Hillsborough County
- Florida Hospital
- Tampa General Hospital
- Temple Terrace
- American Association of Retired Persons (AARP)
- BayCare
- Westshore Alliance
- Innovation Place
- Tampa Bay Partnership
- Tampa Downtown Partnership
- Cox Media Group
- 83 Degrees Media
- Center for Urban Transportation Research (CUTR)
- National Association for the Advancement of Colored People (NAACP)
- Walk Bike Tampa
- Bike/Walk (A regional coalition of Tampa Bay)

Members of the Vision Zero Coalition created goals and specific activities supporting each track (4 tracks).

4 Tracks

- Low-Cost Retrofits and Pop-Up Treatments
 - painted temporary bike lanes
- Public Awareness and Education Strategies
 - Identifying key audiences for the initiative, choosing the most effective mediums to reach them and tailoring Vision Zero's messages in compelling ways for each audience.

- Shared Responsibility for Safe Road Behavior
 - Reduce dangerous behaviors by all road users. It also considers methods beyond policing to inhibit dangerous behaviors, including engineering and education.
- Facilitating Culture Change through Policies and Programs.
 - It includes changing the way professionals in the private and public sectors approach driving, biking, and walking. This track also focuses on ways to avoid perpetuating the problems in the built environment.

Step 4: Speed Reduction

Speed is a contributing factor to fatal and serious-injury crashes across all area types. Safe travel speed is a core Vision Zero principle given the documented relationship between speed and crash severity. A variety of proven techniques can be applied to reduce travel speed:

- Realigning skewed intersections
 - Broad, wide-radius turns can be made at high speeds. Tighter turns, closer to 90 degrees, with a small radius are made at lower speeds.
- Reducing travel lane widths
 - Narrower travel lanes encourage lower vehicle speeds.
 - Removing travel lanes
- Roundabouts
 - By introducing horizontal deflection onto otherwise straight roadways, roundabouts can reduce operating speeds, and proven safety benefits compared to standard intersections.
- Traffic Calming
 - Horizontal and vertical design elements intended to slow the movement of cars through a corridor.

Portland's early analysis of how speed relates to severe injury/fatal crashes was important as PBOT prioritized actions to reduce speeds, including elevating the following three strategies in its Vision Zero Action Plan:

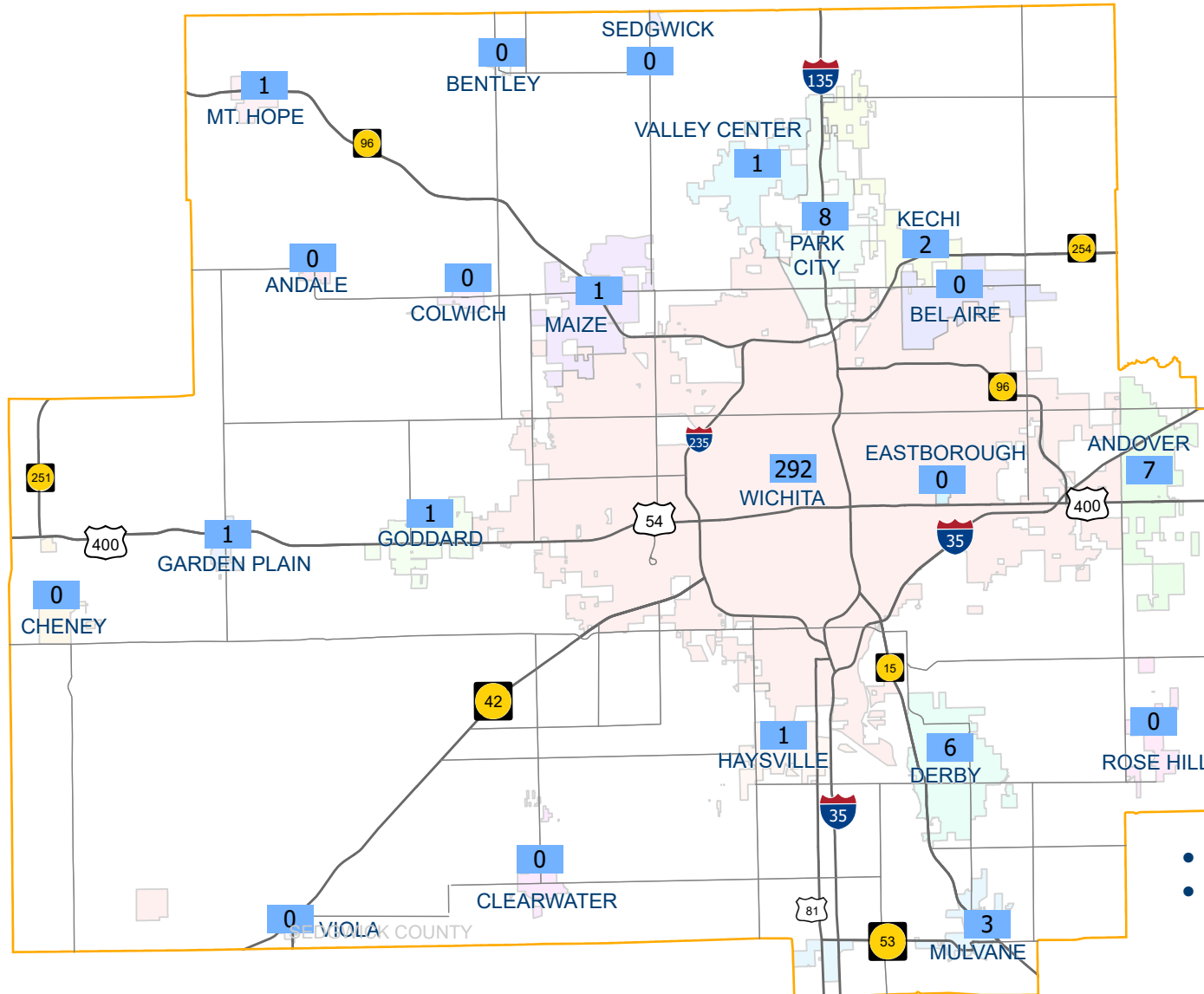
- Lower posted speeds. Gain local authority for speed reduction on City of Portland streets
- Improve Street design to support safe speeds
- Install safety cameras on high injury streets

References

Denver Regional Council of Governments. (2020, June 16). Taking Action on Regional Vision Zero. https://drcog.org/sites/default/files/Taking_Action_on_Regional_Vision_Zero_ADOPTED_061620.pdf.



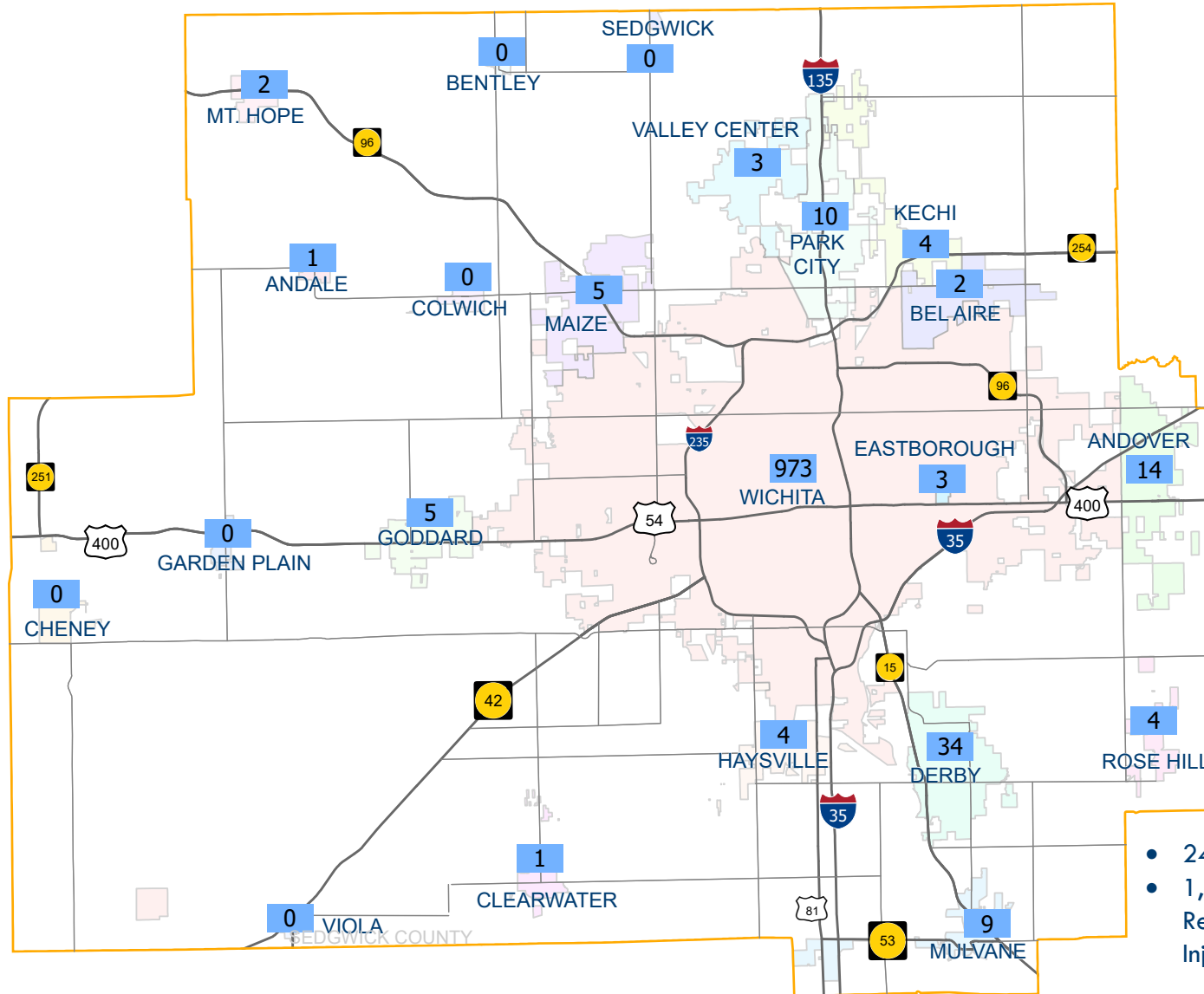
Fatal Crashes in the WAMPO Region, 2008-2018



- 147 Not in a City
- 471 Total Fatal Crashes



Injury Crashes Resulting in Suspected Serious Injuries in the WAMPO Region, 2008-2018



- 246 Not in a City
- 1,320 Total Injury Crashes Resulting in Suspected Serious Injuries



2021 Annual Bicycle & Pedestrian Count Event

VOLUNTEERS NEEDED

September 23 & 25, 2021

Help us gather data to show how valuable our regional bicycle and pedestrian resources are!

2021 Volunteer Opportunities:
Thursday, September 23rd from 5:00 to 7:00 p.m.
Saturday, September 25th from Noon to 2:00 p.m

CYCLISTS

PEDESTRIANS

For more information
Kathryn.Chambers@wampo.org
or call 316-779-1321



Bike/Ped Volunteer Networking Event



We appreciate your interest in our 2021 bicycle/pedestrian count. As part of the efforts to bring our communities together, WAMPO will be hosting a networking event where you will have the opportunity to meet other volunteers and also learn more about why, where, and how the data collected is used to benefit our communities.

JOIN US TO LEARN:

- How the data collected during the bicycle pedestrian count is used to benefit our communities.
- More about the locations where this data is collected.
- What impact past data collection has brought to our communities.
- How to use the ActiveCT app.

*Refreshments will be served!



 **WHEN**
Friday, August 20th, 2021 | 3:00 PM

 **WHERE**
271 W. 3rd St Suite 203, Wichita, KS 67202



FOR MORE INFORMATION:
Email: kathryn.chambers@wampo.org
or call (316)779-1321