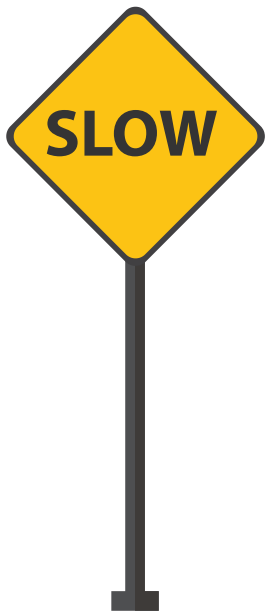




# Baltimore County

## Strategic Highway Safety Plan

Final Plan | 2024



### Submitted to:

Baltimore County Department of Public Works and Transportation  
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Towson, MD 21204

Baltimore County Project 2021-06 Task 006





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## I. INTRODUCTION

Strategic Highway Safety Plans (SHSP) have been an integral part of traffic safety planning since the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) transportation bill was authorized in 2005. Subsequent transportation bills have included SHSPs as data-driven coordinated plans, encompassing a region or state, to provide a comprehensive framework for reducing traffic related crashes, injuries, and fatalities. It is meant to incorporate other planning processes including the Highway Safety Improvement Program (HSIP), Triennial Highway Safety Plan (3HSP), and the Commercial Vehicle Safety Plan (CVSP) to provide a comprehensive approach to strategic planning.

Maryland has developed, implemented, and evaluated SHSPs since 2003, initially modeled after the American Association of State Highway and Transportation Officials (AASHTO) plan. Since then, each of the state's jurisdictions has been encouraged to develop local SHSPs as a considerable number of crashes statewide occur on locally maintained roads. Baltimore County completed and the County Executive signed their first SHSP in 2021. This document serves as an update for that document for Baltimore County.

Every person living and traveling through Baltimore County is important and no fatality is acceptable. The overall goal is to eliminate all traffic crash-related fatalities and serious injuries through a coordinated effort of state, county, and local stakeholders as well as the public. Economic costs associated with traffic crashes, injuries, and fatalities are estimated by national standards (Harmon T, Bahar G, Gross F. Crash Costs for Highway Safety Analysis. FHWA-SA-17-071, 2018). Those costs explore the effects of crashes beyond hospital charges and incorporate quality of life outcomes for those involved as well as their families or caregivers, the cost of all agencies involved in the emergency response to the crash, the environmental costs to repair any damages from the crash, and the burden on the healthcare and insurance industries that affect future costs. Using the Federal Highway Administration (FHWA) estimates of economic and quality-adjusted life years costs, Baltimore County traffic fatalities amounted to close to \$500 million and serious injuries close to \$217 million (data for 2019); those estimates are based on 2010 dollars and are considered an underestimation of current costs.

Improving the safety of Baltimore County's residents, visitors, and travelers on its roadways continues to be a priority in Baltimore County and across the state. With this plan update, Baltimore County will continue to follow the SHSP data-driven process initiated under the previous version and will review the following for the plan update to ensure these continue to be relevant and appropriate moving forward:

- Goals and targets
- Emphasis areas
- Proven strategies to meet goals





## II. BACKGROUND

As of 2024, Baltimore County has 843,420 people residing in the county, 431,564 licensed drivers, 8,157 million miles traveled, and 3,113 total road miles. Of those roadways, approximately 87% are owned by the county, 1% are toll facilities, and 12% are owned by the state. These figures place Baltimore County #3 among Maryland jurisdictions for population, #3 for licensed drivers, #2 for miles traveled, and #1 for road miles.

As previously explained in the introduction to the SHSP, every person living and traveling through Baltimore County is important and no fatality is acceptable. **The overall goal is to eliminate all traffic crash-related fatalities and serious injuries through a coordinated effort of state, county, and local stakeholders as well as the public.** Economic costs associated with traffic crashes, injuries, and fatalities have been estimated by national standards (Harmon T, et al., 2018). In 2019, these costs were in excess of \$717 million dollars within Baltimore County.

In a continuing effort of understanding the causes and eliminating traffic fatalities and serious injuries, Baltimore County reconvened the initial SHSP Steering Committee, included additional partners, and is completing an update to the SHSP. This multidisciplinary committee is led by the Baltimore County Department of Public Works and Transportation in conjunction with partners in the Police Department, Baltimore County Fire Department, Baltimore County Department of Health, Community Engagement, Communications, BCSTAT, Baltimore County Planning, the Diversity, Equity and Inclusion Division, Department of Housing and Community Development, the Disabilities Commission, and Baltimore County Public Schools. External agencies included the Maryland Department of Transportation (MDOT) State Highway Administration (SHA), MDOT Motor Vehicle Administration's Highway Safety Office (MHSO), and the Baltimore Metropolitan Council (BMC).

The vision and mission of the Baltimore County Strategic Highway Safety Plan (SHSP), remains the same and aligns with the state SHSP in an effort to reach zero traffic fatalities, and has been updated to incorporate the fifth 'E' of the 5 Es of traffic safety – equity to ensure USDOT and FHWA standards are upheld. The other "Es" include engineering, education, enforcement, and emergency medical services (EMS). The goals comply with the Toward Zero Deaths methodology to reduce fatalities and serious injuries by one-half by 2030. While goals and targets related to fatalities and serious injuries are identified within the SHSP, each part of this plan will focus on reducing the number of injuries. Subsequently, annual targets were identified, and an analytical problem identification process was completed.



# **STRATEGIC HIGHWAY SAFETY PLAN**

## **VISION**

**The vision is to prevent all traffic crash-related fatalities and serious injuries in Baltimore County and to reduce the incidence of traffic crashes.**

## **MISSION**

**The mission is to reduce the number of traffic-related crashes, injuries, and fatalities using a comprehensive yet strategic approach with the 5 Es of traffic safety—equity, engineering, education, enforcement, and emergency medical services (EMS).**





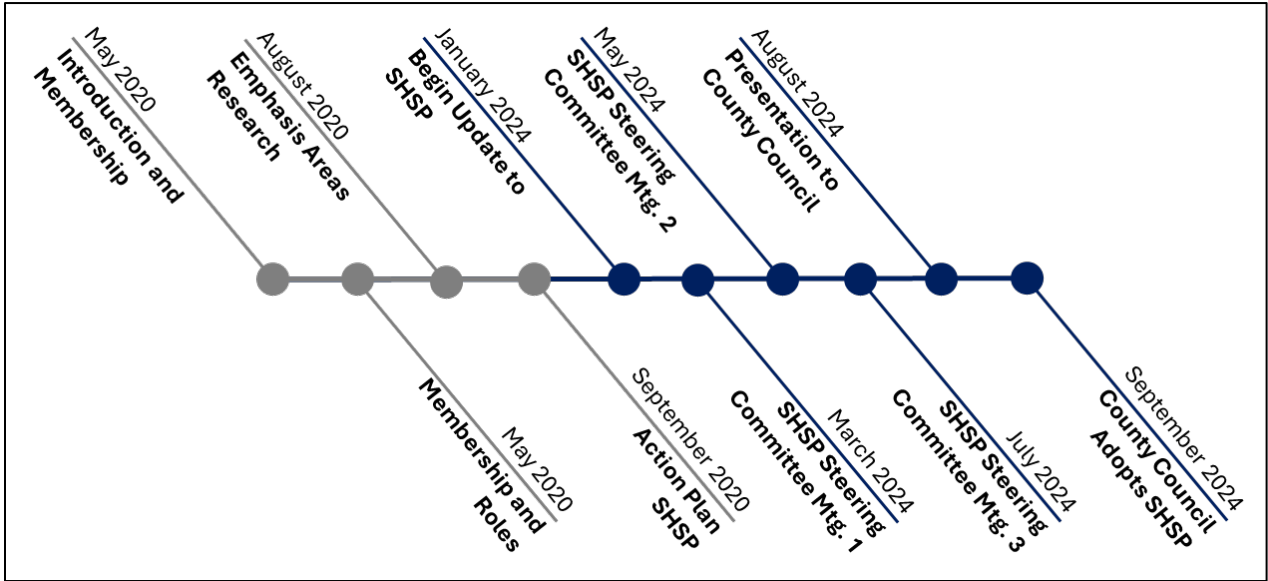
IV. PLANNING PROCESS AND METHODOLOGY

Planning Process

The initial development of the Baltimore County SHSP began in 2020 when the Maryland Secretary of Transportation encouraged local agencies involved in preventing traffic fatalities and serious injuries to work together and combine forces when the SHSP Steering Committee was initially formed. A series of SHSP Steering Committee Meetings occurred from May 2020 – September 2020 to develop the first Draft SHSP. Baltimore County’s first SHSP was completed, signed by the County Executive in 2021.

As part of the funds received through the USDOT’s Safe Streets and Roads For All (SS4A) grant program, Baltimore County initiated this SHSP update. The purpose of this update is to incorporate the latest FHWA guidance and Safe System Approach standards, as well as to evaluate the latest “post-COVID” data to identify changes in trends. The initial SHSP Steering Committee members, as well as additional members representing equity goals, reconvened in 2024. An overview of meetings and timeline is provided below:

Figure 1: SHSP Steering Committee Meeting Timeline



This process culminated in the selection of five Emphasis Areas specific to Baltimore County: speeding, distracted driving, impaired driving, pedestrians/bicyclists, and new for this update, equity. The Emphasis Areas address strategies with targeted demographics for programming, services, data analysis, and design such as younger/older drivers, occupant protection, and reviewing transportation disadvantaged indexes when making decisions. The implementation plan will identify each Action Step by the Emphasis Area and associated evaluation metrics that are most appropriate. This will allow for a variety of evaluation methods to be conducted.





Upon completion and approval of this plan update by the Baltimore County Council and County Executive, the SHSP Steering Committee will continue to meet for the purpose of developing a Vision Zero Action Plan (VZAP).

### Methodology

The Baltimore County Strategic Highway Safety Plan was developed using the Vision, Mission, Objectives, Strategies, and Action Plans strategic planning method. This method, commonly known as VMOSA provides a clear, defined step by step process to link the vision to discrete actions to achieve success.

The **Vision and Mission** (of the **VMOSA** process) remain the same from the initial SHSP and are noted earlier in this document.

**Objectives** (VMOSA) are defined as Emphasis Areas, which identify the most critical factors that impact traffic safety in Baltimore County. Through the data analysis as well as the incorporation of the Safe System approach, the Steering Committee acknowledged the prior Emphasis Areas continue to be relevant and included Equity as a new Emphasis Area for this update.



#### Speeding



#### Distracted Driving



#### Impaired Driving



#### Pedestrian and Bicyclists



#### Equity



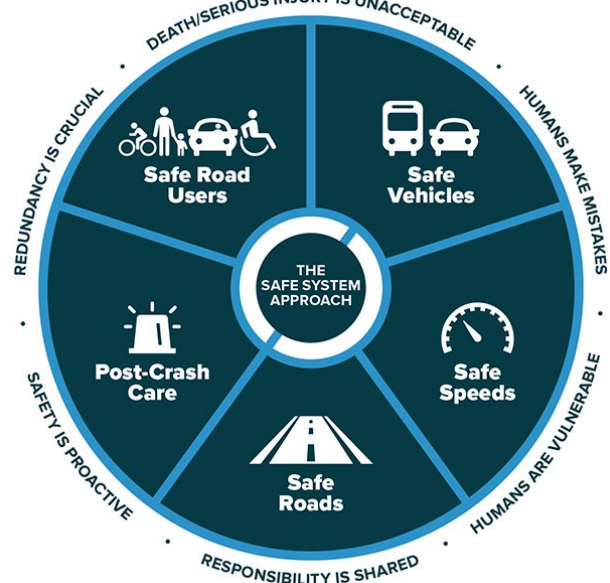
**Strategies** (VMOSA) are broad statements as to how the team will organize efforts to achieve the mission and vision. In this plan, the Strategies focus on the 5 Es of traffic safety (education, engineering, enforcement, emergency response and equity) and other significant areas identified by the SHSP Steering Committee.

The **Action Plan** (VMOSA) contains the specific projects within each strategy. Each project will have an assigned lead agency, partners, justification for its effectiveness, timeline, and evaluation metric. Establishing those items for each project before implementing the plan is critical to its success because it provides the framework over the life of the plan for any partner who may wish to participate.

The Project Team also incorporated the Safe System Approach into the planning process of this SHSP update. The zero deaths vision in the Safe System Approach acknowledges that even one death on our transportation system is unacceptable and focuses on safe mobility for all road users. Reaching zero deaths requires the implementation of a Safe System approach, which was founded on the principles that humans make mistakes and that human bodies have limited ability to tolerate crash impacts.

In a Safe System, those mistakes should never lead to death. Applying the Safe System Approach involves anticipating human mistakes by designing and managing road infrastructure to keep the risk of a mistake low; and when a mistake leads to a crash, the impact on the human body does not result in a fatality or serious injury. Road design and management should encourage safe speeds and manipulate appropriate crash angles to reduce injury severity.

Making a commitment to zero traffic deaths means addressing all aspects of safety through the following five Safe System elements that, together, create a comprehensive approach with layers of protection for road users: safe road users, safe vehicles, safe speeds, safe roads, and post-crash care:



*The Safe System Approach principles and elements.  
Source: FHWA*

- **Safer People:** Encouraging safe, responsible driving and behavior by people who use our roads and creation of conditions that prioritize their ability to reach their destination unharmed.
- **Safer Roads:** Encouraging safe, responsible driving and behavior by people who use our roads and creation of conditions that prioritize their ability to reach their destination unharmed.
- **Safer Vehicles:** Expand the availability of vehicle systems and features that help to prevent crashes and minimize the impact of crashes on both occupants and non-occupants.





- **Safer Speeds:** Promote safer speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate roadway design, appropriate speed-limit setting, targeted education, outreach campaigns, and enforcement.
- **Post Crash Care:** Enhance the survivability of crashes through expedient access to emergency medical care, while creating a safe working environment for vital first responders and preventing secondary crashes through robust traffic incident management practices.

There are six principles that form the basis of the Safe System Approach:

- Deaths and serious injuries are unacceptable
- Humans make mistakes
- Humans are vulnerable
- Responsibility is shared
- Safety is proactive
- Redundancy is crucial

The Safe System Approach requires supporting a safety culture that places safety first in road system investment decisions. To achieve a zero deaths vision, everyone must accept that fatalities and serious injuries are unacceptable and preventable.

For this plan update, crash data collected from the Maryland State Police database and the Maryland Department of Transportation MHSO was analyzed. A variety of analyses of crash data were conducted. A detailed explanation of crash data analysis and methodology is outlined in Section VII – Problem Identification.





## V. PROBLEM IDENTIFICATION

### Data Review

The Steering Committee began this process with an extensive review of traffic records data, primarily crash report data provided by Maryland Department of Transportation Motor Vehicle Administration's Highway Safety Office (MHSO) and the Maryland State Police Crash Database.

Crash data analysis reviewed Baltimore County crash reports from 2015-2019, 2020 to ensure work from home policies as a result of COVID did not affect crash trends, and post-COVID from 2021 – June 2023. Data related to crashes, injuries, and fatalities were analyzed by behavior type, infrastructure-related program areas, and state and locally maintained roadways.

*Average Baltimore County fatality and serious injury trends have remained unchanged from 2015 – 2023.*

**Table 1: Historical Baltimore County Crash Reports**

Baltimore County Crash Reports: 2015 - 2019						
	2015	2016	2017	2018	2019	5 Year Average (2015 – 2019)
Fatal Crashes	65	53	65	78	57	64
Injury Crashes	4,738	5,004	5,048	5,247	5,040	5,015
Property Crashes	14,034	15,518	15,711	17,298	16,596	15,831
Total Crashes	18,837	20,575	20,824	22,623	21,693	20,910
Total Number of Fatalities	68	53	73	85	60	68
Total Number of Injured	6,834	7,347	7,265	7,570	7,264	7,256

**Table 2: Updated Baltimore County Crash Reports**

Baltimore County Crash Reports 2020 – June 2023					
	2020	2021	2022	2023	3 Year Average (2021 – 2023)
Fatal Crashes	63	76	66	55	65
Injury Crashes	3,904	4,433	4,430	3,901	4,167
Property Crashes	13,846	15,913	16,123	14,359	15,060
Total Crashes	17,813	20,422	20,619	18,315	19,292





Average fatalities over the eight-year period have stayed stagnant in Baltimore County and total crashes remain unchanged.

**Table 3: Average Baltimore County Crashes**

Average Baltimore County Crashes			
	2015-2019 5-Year Average Crash Data	2020 Crash Data	2021- 2023 3 Year Average Crash Data
<b>Fatalities (persons)</b>	64	63	65
<b>Injuries (persons)</b>	5,015	3,904	4,167
<b>Property Damage Crashes</b>	15,831	13,846	15,060
<b>Total Crashes</b>	20,910	17,813	19,292





Roads within Baltimore County may be owned and maintained by the Baltimore County Department of Public Works and Transportation (DPWT) or MDOT SHA. Baltimore County owns and maintains 87% of roadways, of which the majority are neighborhood streets and local connections. Most fatalities and serious injuries, however, occur on Maryland state roads, which is outlined below. The Maryland Transportation Authority (MDTA) maintains 1% of roadways and MDOT SHA owns and maintains 12% of roadways, including major roads and interstates in the county. State roads typically have higher speeds, greater distances between intersections, and more lanes.

**Table 4: Baltimore County Crashes by Roadway and Behavior Types: 2015-2019\***

Baltimore County Crashes by Roadway and Behavior Types: 2015-2019						
Behavior Types	State Roads			Local Roads		
	Total Crashes	Injury Crashes	Fatal Crashes	Total Crashes	Injury Crashes	Fatal Crashes
Aggressive Driving	552	182	4	191	82	2
Motorcycle	95	71	6	84	62	3
Distracted Driving	4,439	1,516	13	3,244	986	4
Speeding	1,299	401	3	427	142	9
Impaired Driving	435	164	12	367	110	6
Young Driver	1,098	349	4	1,011	317	2
Older Driver	1,199	468	9	1,077	379	5
Pedestrian	136	112	15	221	193	4
Bicycle	25	21	0	60	48	1

\* = Categories outlined in this table are not mutually exclusive.





## VI. GOALS AND TARGETS

The SHSP's vision is to “prevent all traffic crash-related fatalities and serious injuries in Baltimore County and to reduce the incidence of traffic crashes.” To achieve this vision, the plan sets interim targets and a 2030 goal using the Toward Zero Deaths approach as outlined in the 2016 – 2020 State of Maryland SHSP. The target-setting approach uses an exponential trend line connecting historical data to the 2030 goal year.

The approach uses an exponential trend line connecting historical data to the 2030 goal year. Five-year Averages from the 2021 SHSP using 2015-2019 crash data were used to calculate projections. The targets for each individual year were taken from the midpoint of the five-year average (e.g., 2030 annual interim target = midpoint of the 2028-2032 average). To control variability in populations, driving habits, environmental conditions, and other factors that may affect how and how often people are on the roadways, target and goals calculations utilized rates for vehicles miles travelled (VMT). This method results in realistic, data-driven, and achievable goals and targets. Goals look towards 2030 and to reduce fatalities and serious injuries by one-half, and Interim Targets look to reduce fatalities and serious injuries by one-third.

- A 2030 goal to reduce the number of fatalities by at least 50% to 34.
  - A 2021-2025 interim target of 49.
- A 2030 goal to reduce the number of injuries by at least 50% to 3,628.
  - A 2021-2025 interim target of 5,281.
- A 2030 goal to reduce the number of serious injuries by at least 50% to 234.
  - A 2021-2025 interim target of 340.





## VII. EMPHASIS AREAS



### Speeding

The following goals and targets have been set related to speeding, following the same methodology previously explained.

**Table 5: Historical Speeding Crashes**

Speeding Crashes: 2015-2019								
	2015	2016	2017	2018	2019	2015-19 Average	2021-25 Target	2030 Goal
Fatal Crashes	9	12	13	15	13	12	9	6
Injury Crashes	546	617	563	647	458	566	412	283
Property Damage Crashes	1,154	1,275	1,301	1,337	1,132	1,240	*	*
Total Crashes	1,709	1,904	1,877	1,999	1,603	1,818	*	*
Total Number of Fatalities	9	12	15	17	14	13	9	7
Total Number of Injured	791	953	854	917	680	839	611	420

\* = Interim Goals and Targets were not set for Property Damage Crashes and Total Crashes for all Emphasis Areas

**Table 6: Updated Speeding Crashes**

Speeding Crashes: 2020 - 2023					
	2020	2021	2022	2023	2021-2023 3 Year Average
Fatal Crashes	16	22	21	25	22
Injury Crashes	590	604	536	514	551
Property Damage Crashes	1,264	1,287	1,274	1,206	1,255
Total Crashes	1,870	1,913	1,831	1,745	1,829
Total Number of Fatalities	16	24	23	32	26
Total Number of Injured	883	923	786	766	825





Listed below are Strategies and Action Steps to reduce speeding:

**Table 7: SHSP Strategies and Action Steps – Speeding**

Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 1: Continue/Increase enforcement of driving laws and expand use of automated enforcement</b>				
1.1 Continue participating in all statewide enforcement campaigns	BCoPD	MSP MDTAP	Ongoing	# of citations/warnings/stops
1.2 Consider speed cameras outside of school/work zones -legislation required	BCoPD		Not Started	# of meetings
1.3 Pursue expanded funding and enforcement of speeding and aggressive driving in response to COVID-19 pandemic trends	BCoPD MSP MDTAP	MHSO	Not Started	
<b>Strategy 2: Identify best practices for education and outreach to high-risk populations (e.g., young drivers)</b>				
2.1 Coordinate with local and state agencies to educate legislative and judicial branches to obtain an understanding of the importance of court process in changing safety culture	MHSO	BCoPD MSP	Not Started	
2.2 Collaborate with fire and EMS partners to evaluate data and conduct outreach	BCoFD	BCoPD DPWT BCDH BCPS	Not Started	
2.3 Develop a community risk/outreach program in the fire department to institutionalize safety programs	BCoFD		Not Started	
2.4 Explore the feasibility of a public-private partnership for a regional safety education training center	BCoFD BCoPD	BCDH BCPS MHSO	Not Started	
2.5 Continue educational programs conducted by the Department of Health related to after prom events	BCDH	BCPS	Ongoing	# of events
2.6 Continue to collaborate on older driver safety presentations (e.g., CarFit) at Senior Center, Senior/Older Driver Expo, etc.	BCDA	MHSO Senior Centers	Ongoing	# of events



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Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 3: Identify high-incident locations, segments, and intersections</b>				
3.1 Identify top locations for speeding crashes and appropriate engineering and enforcement countermeasures	DPWT BCoPD		Ongoing	# of locations
3.2 Collaborate with law enforcement to implement infrastructure improvements that allow for safe enforcement	DPWT	BCoPD MSP MDTAP Tri-Agency group	Not Started	
3.3 Collect and analyze data to identify communities experiencing disparities in roadway fatalities and serious injuries.	DPWT BCoPD	BCSTAT Division of DEI	Ongoing	
<b>Strategy 4: Utilize all media, including social media, and campaigns</b>				
4.1 Coordinate social media messaging across all partner agencies	BMC MHSO	BCoPD BCoFD DPWT BCDH BCPS		
<b>Strategy 5: Explore the feasibility of lowering speeds</b>				
5.1 Utilize portable speed sensors to encourage drivers to self-adjust speed	BCoPD	BCDH		
5.2 Utilize the Neighborhood Traffic Management Program	DPWT		Ongoing	# of requests # of projects





### Distracted Driving

The following goals and targets have been set related to distracted driving, following the same methodology previously explained.

**Table 8: Distracted Driving Crashes: 2015 -2019**

Distracted Driving Crashes: 2015 - 2019								
	2015	2016	2017	2018	2019	2015-19 Average	2021-25 Target	2030 Goal
Fatal Crashes	16	14	23	21	17	18	13	9
Injury Crashes	2,468	2,747	2,692	2,848	2,735	2,698	1,964	1,349
Property Damage Crashes	5,329	6,019	6,358	6,783	6,503	6,198	*	*
Total Crashes	7,813	8,780	9,073	9,652	9,255	8,915	*	*
Total Number of Fatalities	16	14	25	24	17	19	14	10
Total Number of Injured	3,570	4,099	3,923	4,192	4,042	3,965	2,886	1,983

\* = Interim Goals and Targets were not set for Property Damage Crashes and Total Crashes for all Emphasis Areas

**Table 9: Distracted Driving Crashes: 2020 - 2023**

Distracted Driving Crashes: 2020 - 2023					
	2020	2021	2022	2023	2021-2023 3 Year Average
Fatal Crashes	24	31	25	33	29
Injury Crashes	2,016	2,231	2,201	1,985	2,139
Property Damage Crashes	5,222	5,559	5,625	5,312	5,498
Total Crashes	7,262	7,821	7,851	7,330	7,667
Total Number of Fatalities	25	33	27	38	32
Total Number of Injured	2,878	3,284	3,212	2,846	3,114





Listed below are Strategies and Action Steps to reduce distracted driving:

**Table 10: SHSP Strategies and Action Steps – Distracted Driving**

Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 1: Continue/Increase enforcement of distracted driving laws</b>				
1.1 Continue participating in all statewide enforcement campaigns	BCoPD	MSP MDTAP	Ongoing	# of citations/warnings/stops
1.2 Identify top locations for distracted driving crashes and appropriate engineering and enforcement countermeasures	BCoPD DPWT		Not Started	# of meetings
<b>2. Identify best practices for educational programs related to reducing distracted driving</b>				
2.1 Coordinate with local and state agencies to educate legislative and judicial branches to obtain an understanding of the importance of court process in changing safety culture	MHSO	BCoPD MSP	Not Started	
2.2 Collaborate with fire and EMS partners to evaluate data and conduct outreach	BCoFD	BCoPD DPWT BCDH BCPS	Not Started	
2.3 Develop a community risk/outreach program in the fire department to institutionalize safety programs	BCoFD		Not Started	
2.4 Explore the feasibility of a public-private partnership for a regional safety education training center	BCoFD BCoPD	BCDH BCPS MHSO	Not Started	
2.5 Continue to collaborate on older driver safety presentations (e.g., CarFit) at Senior Center, Senior/Older Driver Expo, etc.	BCDA	MHSO Senior Centers	Ongoing	# of events
<b>Strategy 3. Utilize all media for campaigns (including social media)</b>				
3.1 Coordinate social media messaging across all partner agencies	BMC MSHO	BCoPD BCoFD DPWT BCDH BCPS		



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Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 4: Conduct outreach programs to high-risk populations (e.g., young drivers, school programs)</b>				
4.1 Continue educational programs conducted by the Department of Health related to after prom events	BCDH	BCPS	Ongoing	# of events





## Impaired Driving

The following goals and targets have been set related to impaired driving, following the same methodology previously explained.

**Table 11: Historical Impaired Driving Crashes**

Impaired Driving Crashes: 2015-2019								
	2015	2016	2017	2018	2019	2015-19 Average	2021-25 Target	2030 Goal
Fatal Crashes	17	16	21	25	12	18	13	9
Injury Crashes	281	275	286	320	283	289	210	145
Property Damage Crashes	598	534	523	624	642	584	*	*
Total Crashes	896	825	830	969	937	891	*	*
Total Number of Fatalities	18	16	25	28	13	20	15	10
Total Number of Injured	417	414	423	460	432	429	312	215

\* = Interim Goals and Targets were not set for Property Damage Crashes and Total Crashes for all Emphasis Areas

**Table 12: Updated Impaired Driving Crashes**

Impaired Driving Crashes: 2020 - 2023					
	2020	2021	2022	2023	2021-2023 3 Year Average
Fatal Crashes	12	26	22	22	23
Injury Crashes	283	297	255	253	265
Property Damage Crashes	548	642	527	557	575
Total Crashes	843	965	804	832	867
Total Number of Fatalities	12	29	24	28	27
Total Number of Injured	412	444	380	386	403





Listed below are Strategies and Action Steps to reduce impaired driving:

**Table 13: SHSP Strategies and Action Steps – Impaired Driving**

Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 1: Continue/Increase enforcement of impaired driving laws (alcohol and drug) and expand Drug Recognition Expert (DRE) and Advanced Roadside Impaired Driving Enforcement (ARIDE) training</b>				
1.1 Continue participating in all statewide enforcement campaigns	BCoPD	MSP MDTAP	Ongoing	# of citations/warnings/stops
<b>Strategy 2: Identify best practices for educational programs related to reducing impaired driving (young drivers, seniors, and fatigued drivers)</b>				
2.1 Coordinate with local and state agencies to educate legislative and judicial branches to obtain an understanding of the importance of court process in changing safety culture	MHSO	BCoPD MSP	Not Started	
2.2 Collaborate with fire and EMS partners to evaluate data and conduct outreach	BCoFD	BCoPD BCPS	Not Started	
2.3 Develop a community risk/outreach program in the fire department to institutionalize safety programs	BCoFD		Not Started	
2.4 Explore the feasibility of a public-private partnership for a regional safety education training center	BCoFD BCoPD	BCDH BCPS MHSO	Not Started	
2.5 Continue educational programs conducted by the Department of Health related to after prom events	BCDH	BCPS	Ongoing	# of events
2.6 Collaborate with Baltimore County Combating Underage Drinking (CUD) Coalition for outreach efforts	BCDH		Ongoing	
2.7 Continue to collaborate on older driver safety presentations (e.g., CarFit) at Senior Center, Senior/Older Driver Expo, etc.	BCDA	MHSO Senior Centers	Ongoing	# of events



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Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
2.8 Collaborate with Trucking, Ride Share, Food, Good and Service Delivery businesses to promote safe driver education with a special focus on alertness	Division of DEI BCDH	BCoFD BCoPD	Not Started	
<b>Strategy 3: Identify high-incident locations based on crash and arrest data</b>				
3.1 Identify top locations for impaired driving crashes and appropriate engineering and enforcement countermeasures	DPWT BCoPD		Ongoing	# of locations
3.2 Collaborate with law enforcement to implement infrastructure improvements that allow for safe enforcement	DPWT	BCoPD MSP MDTAP Tri-Agency Group	Not Started	
<b>Strategy 4: Utilize all media for campaigns (including social media)</b>				
4.1 Coordinate social media messaging across all partner agencies	BMC MSHO	BCoPD BCoFD DPWT BCDH BCPS		
<b>5. Engage and coordinate with liquor control partners</b>				





### Pedestrian and Bicyclists

The following goals and targets have been set related to pedestrian and bicycle safety, following the same methodology previously explained.

**Table 14: Historical Pedestrian/Bicycle Crashes**

Pedestrian/Bicycle Crashes: 2015-2019								
	2015	2016	2017	2018	2019	2015-19 Average	2021-25 Target	2030 Goal
Fatal Crashes	19	21	18	27	22	21	15	11
Injury Crashes	513	530	515	480	472	502	365	251
Property Damage Crashes	71	72	58	57	92	70	*	*
Total Crashes	603	623	591	564	586	593	*	*
Total Number of Fatalities	19	21	18	28	22	22	16	11
Total Number of Injured	554	592	562	524	533	553	402	277

\* = Interim Goals and Targets were not set for Property Damage Crashes and Total Crashes for all Emphasis Areas

**Table 15: Updated Pedestrian/Bicycle Crashes**

Pedestrian/Bicycle Crashes: 2020 - 2023					
	2020	2021	2022	2023	2021-2023 3 Year Average
Fatal Crashes	21	26	16	29	23
Injury Crashes	383	396	426	462	428
Property Damage Crashes	46	57	53	78	62
Total Crashes	480	479	495	569	514
Total Number of Fatalities	22	27	16	34	25
Total Number of Injured	414	437	466	501	468





Listed below are Strategies and Action Steps to improve bicycle and pedestrian safety:

**Table 16: SHSP Strategies and Action Steps – Pedestrian/Bicycle Crashes**

Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 1: Continue/Increase enforcement of driver and pedestrian laws</b>				
1.1 Continue participating in all statewide enforcement campaigns	BCoPD	MSP MDTAP	Ongoing	# of citations/warnings/stops
1.2 Conduct at least two pedestrian safety enforcement efforts using identified high-incident locations	BCoPD		Annually	# of citations/warnings/stops
1.3 Continue to participate in state-funded training for pedestrian safety enforcement	BCoPD		Not Started	# of meetings
1.4 Explore the feasibility of implementing automated enforcement using school bus cameras	BCPS BCoPD		Not Started	
<b>Strategy 2: Identify best practices for inter-agency partnerships to improve non-motorist safety</b>				
2.1 Collaborate with local and state agencies to expand aggressive temporary traffic safety engineering projects (e.g., signage)	DPWT SHA	BCoPD	Not Started	
2.2 Coordinate with local and state agencies to educate legislative and judicial branches to obtain an understanding of the importance of the court process in changing safety culture	MHSO	BCoPD MSP	Not Started	
2.3 Collaborate with fire and EMS partners to evaluate data and conduct outreach	BCoFD	BCoPD DPWT BCDH	Not Started	
2.4 Develop a community risk/outreach program in the fire department to institutionalize safety programs	BCoFD		Not Started	
2.5 Explore the feasibility of a public-private partnership for a regional safety education training center	BCoFD BCoPD	BCDH BCPS MHSO	Not Started	





Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
2.6 Continue the Pedestrian Bicycle Advisory Committee (Appendix B)	DPWT		Ongoing	
2.7 Evaluate the effectiveness and the inclusiveness of existing pedestrian crosswalk and bike path signage and notices	DPWT Division of DEI	BCoFD Planning Recreation and Parks	Not Started	
<b>Strategy 3: Identify high-incident locations and infrastructure-related countermeasures</b>				
3.1 Identify top locations for bicycle and pedestrian crashes and appropriate engineering and enforcement countermeasures	DPWT BCoPD		Ongoing	# of locations
3.2 Collaborate with law enforcement to implement infrastructure improvements that allow for safe enforcement	DPWT	BCoPD MSP MDTAP Tri-Agency Group	Not Started	
3.3 Implement programs to improve crossings at residential community gateways, sidewalks along highly traveled corridors	DPWT/SHA		Not Started	
3.4 Further implement Complete Streets Policy (Appendix B)	DPWT	MDOT SHA	Ongoing	
3.5 Incorporate bicycle lane/sharrows into new roadway design when appropriate	DPWT	MDOT SHA	Ongoing	
<b>Strategy 4: Utilize all media for campaigns (including social media) (e.g., Look Alive, Move Over Law)</b>				
4.1 Coordinate social media messaging across all partner agencies	BMC MSHO	BCoPD BCoFD DPWT BCDH BCPS		
4.2 Support implementation of the Look Alive Campaign	BMC MSHO	BCoPD BCoFD DPWT BCDH BCPS		
<b>Strategy 5: Conduct outreach programs to vulnerable populations (e.g., children, disadvantaged, or homeless)</b>				





Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
5.1 Continue the Pedestrian Safety Committee in BCPS	BCPS	BCDH BCoPD BCoFD DPW		
5.2 Continue educational programs conducted by the Department of Health related to after-prom events	BCDH	BCPS	Ongoing	# of events
5.3 Participate in “Bike to Work” Day/Week	BMC	DPW BCoFD BCoPD BCDH	Ongoing	# of participants
5.4 Continue to collaborate on older driver safety presentations (e.g., CarFit) at Senior Centers, Senior/Older Driver Expo etc.	BCDA	MHSO Senior Centers	Ongoing	# of events
<b>Strategy 6: Further implement Complete Streets and related programs</b>				
6.1 Utilize the Complete Streets Policy (Appendix B)	DPW	MDOT SHA	Ongoing	# of requests # of projects
6.2 Utilize the Neighborhood Traffic Management/Traffic Calming (Appendix B) Programs	DPW	MDOT SHA	Ongoing	# of requests # of projects





**Equity**

During the process of updating the SHSP in 2024, the Project Team worked to incorporate the Safe System Approach to the SHSP planning process. The Safe System Approach is a data-driven, holistic, and equitable method to roadway safety that fully integrates the needs of all users, anticipates the possibility of errors by drivers and other road users, and manages crash impact forces to levels tolerated by the human body.

The Safe System Approach includes five elements: safe road users, safe vehicles, safe speeds, safe roads, and post-crash care. The approach incorporates the 5 Es of traffic safety—equity, engineering, education, enforcement, and emergency medical services (EMS)—but goes beyond the traditional approach to enlist designers, operators, and users of the transportation system to prevent fatal crashes and reduce crash severity. While all emphasis areas should be inclusive and equitable, the Project Team recognized that equity needed to be a separate emphasis area to highlight its importance to FHWA and to call out the disproportionate number of crashes affecting marginalized communities. In future iterations of the Baltimore County SHSP, the Project Team is hopeful that it will be standard practice to include equity in all emphasis areas as a strategy, therefore removing its necessity to be a separate emphasis area.

The Project Team conducted a review of local, state, and federal SHSP documents, guidance, and plans that have incorporated equity into their SHSP planning processes. SHSP Steering Committee members ranked strategies and actions to be incorporated in the SHSP to ensure equity is at the forefront of transportation decision-making processes, as vulnerable and marginalized populations are more susceptible to traffic fatalities and serious injuries. Listed below are Strategies and Action Steps to incorporate equity into the transportation decision making process:

**Table 17: SHSP Strategies and Action Steps – Equity**

Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 1: Consider equity in analysis and the decision-making process for safety improvements</b>				
1.1 Leverage the BMC Vulnerable Population Index and create a map specific to Baltimore County. The most recent 5-year American Community Survey (ACS) data can be utilized to support in mapping efforts	DPWT	MHSO MDOT SHA BMC	Not Started	Annual reviews of data and updates to the SHSP





Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
1.2 Leverage pertinent provided demographic information (if applicable and/or collected) for serious injuries and fatalities in the decision-making process for safety improvements. Examples: Minority, Limited English Proficiency (LEP), Low Income, Disability, % with less than a high school, % under the age of 18, % under age 5, % over the age of 65, Zero vehicle household	DPWT	MHSO MDOT SHA BMC	Not Started	Annual reviews of data and updates to the SHSP
<b>Strategy 2: Incorporate equity in the decision-making process for safety education and/or enforcement efforts</b>				
2.1 Review and add public representatives to the SHSP Steering Committee to ensure it is representative of the community	DPWT	All SHSP Stakeholders	Not Started	Annual reviews and updates to the SHSP
2.2 Leverage the BMC Vulnerable Population Index and create a map specific to Baltimore County. The most recent 5-year ACS data can be utilized to support in mapping efforts	DPWT	MHSO MDOT SHA BMC	Not Started	Annual reviews of data and updates to the SHSP
2.3 Identify barriers in driver education for New Americans and Limited English-Speaking individuals in partnership with the American Association of State Highway and Transportation Officials (AASHTO)	MHSO	DPWT AASHTO	Not Started	Focus Groups Sessions/ Meeting with AASHTO
<b>Strategy 3: Use the United States Environmental Protection Agency (EPA) Environmental Justice (EJ) Screen to analyze SHSP programs and projects by demographic</b>				
3.1 Leverage pertinent provided demographic information provided on EJ Screen and cross analyze (if applicable and/or collected) for serious injuries and fatalities in the decision-making process for program and design improvements. Examples: Minority, Limited English Proficiency (LEP), Low Income, Disability, % with less than a high school, % under the age of 18, % under age 5, % over the age of 65, Zero vehicle household	DPWT	MHSO MDOT SHA BMC	Not Started	Annual reviews of data and updates to the SHSP





Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<b>Strategy 4: Analyze for Equity as it relates to Land Use</b>				
4.1 Review crash data interacting with features including, but not limited to speed limits, bicycle and pedestrian amenities, vehicle volumes, number of lanes, environmental features, and its proximity to certain land uses	DPWT Baltimore County Planning	MHSO SHA BMC BCoPD MSP	Not Started	
4.2 Evaluate crashes as it relates to geographical location, urban/rural, inside/outside the Urban Rural Demarcation Line (URDL) by creating maps on an annual basis that overlay crash reports with demographic information (if applicable and/or collected) with different layers to identify patterns. Examples: Minority, Limited English Proficiency (LEP), Low Income, Disability, % with less than a high school, % under the age of 18, % under age 5, % over the age of 65, Zero vehicle household	DPWT Baltimore County Planning	SHA BMC BCoPD MSP	Not Started	
<b>Strategy 5: Develop Equity Emphasis Areas (EEAs)</b>				
5.1 Analysis of plans, programs, and actions with EEAs centers equity in the planning and design process for all projects in the SHSP and VZAP	DPWT	MHSO MDOT SHA BMC	Not Started	Annual reviews of data and updates to the SHSP
<b>Strategy 6: Use data analysis and guiding questions during SHSP and VZAP planning processes</b>				
6.1 Use data to inform decision making that shows vulnerable and traditionally underserved in the transportation decision making process	DPWT	MHSO MDOT SHA BMC	Not Started	Annual reviews of data and updates to the SHSP





Action Item	Lead Agency	Partners	Timeline	Evaluation Metric
<p>6.2 Use guiding questions to inform planning processes such as:</p> <ol style="list-style-type: none"> <li>1. Which groups will benefit from each implementation project or action step?</li> <li>2. Who will be negatively impacted by implementation of this action step?</li> <li>3. What demographic and socioeconomic data is considered in the development of this actions step?</li> <li>4. Who participated in developing this action step?</li> </ol>	DPWT	MHSO MDOT SHA BMC	Not Started	Answer guiding questions for each transportation infrastructure project over \$250,000
<b>Strategy 7: Develop a SHSP and VZAP Equity Task Force</b>				
7.1 Convene a stakeholder subcommittee that reviews the 6 Es of Traffic Safety and Engineering for Equity components for the County's VZAP planning process	DPWT	MHSO MDOT SHA BMC	Not Started	# of meetings # of project reviews





### **VIII. IMPLEMENTATION PLAN**

The Action Plan is outlined in Section VII. Emphasis Areas and supports each of the Strategies in each of the Emphasis Areas. That plan is a ‘living document’ in that it is adaptable to change based on evaluation findings as programs are implemented. Unless significant changes occur, the Goals, Targets, Emphasis Areas, and Strategies will not change before the completion of the plan. However, the Action Plan relies heavily on resource availability and prioritization.

Components of the Implementation Plan include Action Steps for each Strategy as well as lead agency, timeline, and evaluation metrics for each Action Step. The Steering Committee will continue to meet quarterly to discuss concerns and progress; at those meetings, a descriptive evaluation of each Action Step will be presented for the team to consider. Those ongoing evaluation reports will culminate in a comprehensive, formal evaluation of the plan every year. That evaluation report will be made available to the Baltimore County Executive, County Council, Agency Administrators, and other Local Executives. At the end of the five-year cycle of this plan, a full evaluation of the strategic planning, implementation, and evaluation processes will be compiled. During that time, plans for the next SHSP will be forming.





## **Appendix A – Acronyms**





### ACRONYMS

AASHTO – American Association of State Highway and Transportation Officials

BCoFD – Baltimore County Fire Department

BCoPD – Baltimore County Police Department

BCDA – Baltimore County Department of Aging

BCDH – Baltimore County Department of Health

BCPS – Baltimore County Public Schools

BMC – Baltimore Metropolitan Council

BRTB – Baltimore Regional Transportation Board

CVSP – Commercial Vehicle Safety Plan

DPWT – Baltimore County Department of Public Works and Transportation

EMS – Emergency Medical Services

HSIP – Highway Safety Improvement Program

3HSP – Triennial Highway Safety Plan

MDTA – Maryland Transportation Authority

MDTAP – Maryland Transportation Authority Police

MHSO – Maryland Department of Transportation Motor Vehicle Administration's Highway Safety Office

MPO – Metropolitan Planning Organization

MSP – Maryland State Police

MVMT – Million Vehicle Miles Travelled

SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

MDOT SHA – Maryland Department of Transportation State Highway Administration

SHSP – Strategic Highway Safety Plan

SSA - Safe System Approach

VMOSA – Vision, Mission, Objectives, Strategies, and Action Plans





## **Appendix B – Incorporated Planning Documents**





## **INCORPORATED PLANNING DOCUMENTS**

[Baltimore County Department of Public Works and Transportation Traffic Calming Policy \(2016\)](#)

[Baltimore County Code of Ordinances – Baltimore County Pedestrian and Bicycle Advisory Committee](#)

[Baltimore County Police Department 2021 -2025 Strategic Plan \(2021\)](#)

[Baltimore County Comprehensive Complete Street Policy \(2013\)](#)

[Baltimore Metropolitan Council \(BMC\) Safe System Approach Project \(December 2022\)](#)

[FHWA Strategic Highway Safety Plan Guidance \(April 2013\)](#)

[2021 -2025 Maryland Strategic Highway Safety Plan \(December 2020\)](#)