



# Harford County Strategic Highway Safety Plan 2021-2025

Prepared by the Harford County Traffic Safety Advisory Board



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## Introduction

In 2013, the Harford County Council passed Bill 13-33 to establish the Traffic Safety Advisory Board (TSAB) and task that entity with developing and implementing a local Strategic Highway Safety Plan (SHSP). Under that direction, a plan was created similar to the State SHSP to cover the 2016-2020; as that plan was drawing to a close, the TSAB began working to develop an update to that SHSP (this document). This is a five-year plan covering 2021-2025, again similar to the timeframe of the State SHSP.

Led by the Harford County Sheriff's Office, the TSAB includes representatives from: Aberdeen Police Department, Bel Air Police Department, Harford County Council, Harford County Department of Emergency Services, Harford County Health Department, Harford County Office of Drug Control Policy, Harford County Public Schools Administration, Harford County Department of Public Works, Harford County State Delegation, Harford County Youth Commission, Havre de Grace Police Department, Maryland Department of Transportation (MDOT) Motor Vehicle Administration's Highway Safety Office (MHSO), MDOT State Highway Administration District 4, Maryland State Police – Bel Air and JFK Barracks, Mothers Against Drunk Drivers (MADD), Motor Vehicle Insurance Industry, and citizen representatives.

Through the Sheriff's Office, the most recently available crash and citation information, as well as observed seat belt use, from MHSO and its analytical partners was obtained and analysed. Using that information, Emphasis Areas were chosen to focus effort strategically in areas where the most positive effect could be made in the County. As the State Secretary of Transportation in 2017, Pete K. Rahn, encouraged all local jurisdictions to develop SHSPs, Harford County stood out as one of the few (if not the first) to already have one in place. The County continues to be a leader and the SHSP is a recognized best practice example for other jurisdictions in Maryland.

This plan will follow standard strategic planning constructs and include Mission, Vision, Goals, Targets, Emphasis Areas, Strategies, Action Steps, and Evaluation Metrics. The TSAB meets regularly, typically monthly with the exception of some restrictions due to the 2020 COVID-19 pandemic. At those meetings all traffic safety stakeholders in the County, including state partners, convene and discuss current trends in crash and citation data as well as planned programs for outreach to the public and infrastructure improvements. Those meetings serve as a means for tracking the SHSP and information gathered therein can then be compiled into brief annual evaluations of the plan and a comprehensive evaluation at the end of the life of the plan.

## Vision and Mission

**Vision** – To prevent all traffic-related fatalities and serious injuries in Harford County and reduce the incidence of crashes.

**Mission** – To reduce the number of traffic-related crashes, injuries, and fatalities using a comprehensive yet strategic approach with the 4 Es of traffic safety (Engineering, Enforcement, Education, EMS).

## Goals & Targets

To align with Maryland SHSP 2021-2025, targets are set by using five-year averages from 2005-2009 to 2015-2019 then fitting an exponential trend line. Overall targets are:

Reduce fatalities from a five-year average of 19 in 2015-2019 to 18 or fewer in 2021-2025.

Reduce injuries from a five-year average of 1,429 in 2015-2019 to 1,087 or fewer in 2021-2025.

Reduce serious injuries from a five-year average of 107 in 2015-2019 to 51 or fewer in 2021-2025.

## Problem Identification

To begin the planning process, the Harford County SHSP Team Lead reviewed recent trends in traffic crash data for the whole County. Information was provided by the MHSO and the table below includes overall crash figures. In the last five years of available data (2015-2019), fatalities have declined while injuries have remained steady and crashes have increased.

	2015	2016	2017	2018	2019	5 YR AVG.
Fatal Crashes	22	23	21	12	15	19
Injury Crashes	920	1,050	1,026	1,018	973	997
Property Damage Crashes	2,063	2,267	2,298	2,481	2,333	2,288
Total Crashes	3,005	3,340	3,345	3,511	3,321	3,304
Total of All Fatalities	22	25	21	12	17	19
Total Number Injured	1,387	1,515	1,473	1,425	1,343	1,429

In 2019, the County's population was 255,441 (4.2% of Maryland), the number of licensed drivers living in the County was 201,166 (4.5% of Maryland), and 4.3% of the state's vehicle miles traveled occurred in the County (2,614 million). In that year, Harford County accounted for 2.9% of the state's traffic crashes, 2.8% of the injuries, and 3.2% of the fatalities. These figures illustrate how safe travelers are in Harford County, but there is always room for improvement because no fatality is acceptable. Below is a table of crash fatalities and injuries in different behavioral areas.

	2015	2016	2017	2018	2019	5 YR AVG.
Distracted Driving						
Fatalities	7	11	11	5	11	9
Injuries	880	967	942	832	765	877
Impaired Driving						
Fatalities	3	5	4	3	8	5
Injuries	100	119	116	113	136	117
Aggressive Driving						
Fatalities	1	1	4	1	1	2
Injuries	123	150	130	99	71	115
Speeding						
Fatalities	1	5	3	1	5	3
Injuries	208	225	206	167	118	185
Pedestrian/Bicycle						
Fatalities	5	5	4	3	2	4
Injuries	75	64	86	73	95	78

In Harford County: distracted driving accounted for 64.7% of the fatalities in 2019 and 46.4% from 2015-2019, impaired driving accounted for 47.1% of fatalities in 2019 and 23.7% from 2015-2019, aggressive driving accounted for 5.9% of fatalities in 2019 and 8.2% from 2015-2019, speeding accounted for 29.4% of fatalities in 2019 and 15.5% from 2015-2019, and pedestrians and bicycles accounted for 11.8% of fatalities in 2019 and 19.6% from 2015-2019. During the annual observational seat belt survey

conducted in Harford County, the 2019 usage rate among front seat occupants of passenger vehicles was found to be 87.9% which was lower than the state rate of 90.4%.

From that information, the following Emphasis Areas were identified: speeding, impaired driving, distracted driving, infrastructure-related, and occupant protection.

## Emphasis Areas

### Speeding

The following table includes countywide crash information related to speeding drivers.

	2015	2016	2017	2018	2019	5 YR AVG.
Fatal Crashes	1	5	3	1	5	3
Injury Crashes	131	170	142	123	85	130
Property Damage Crashes	279	321	303	302	225	286
Total Crashes	411	496	448	426	315	419
Total of All Fatalities	1	5	3	1	5	3
Total Number Injured	208	225	206	167	118	185

Overall, an average of 12.7% of crashes and 15.5% of fatalities involved a speeding driver from 2015-2019. In 2019, 9.5% of crashes, but 29.4% of fatalities involved a speeding driver which indicates that speeding is a problem in Harford County.

### Strategies

1. Increase enforcement of speeding through all means.
2. Identify best practices for infrastructure design related to reducing travel speeds.
3. Identify high-incident locations, segments, and intersections.
4. Utilize all media, including social media, campaigns.
5. Conduct outreach programs to vulnerable populations.
6. Explore the feasibility and process for reducing speed limits on high-risk roadways.
7. Support education/outreach related to advanced driver-assistance technology (ADAS).



## Impaired (alcohol and/or drugs)

The following table includes countywide crash information related to impaired drivers.

	2015	2016	2017	2018	2019	5 YR AVG.
Fatal Crashes	3	4	4	3	7	4
Injury Crashes	68	90	83	81	98	84
Property Damage Crashes	165	183	176	196	200	184
Total Crashes	236	277	263	280	305	272
Total of All Fatalities	3	5	4	3	8	5
Total Number Injured	100	119	116	113	136	117

Overall, an average of 8.2% of crashes and 23.7% of fatalities involved an impaired driver from 2015-2019. In 2019, 9.2% of crashes, but 47.1% of fatalities involved an impaired driver which indicates that driving while under the influence of alcohol and/or drugs is a problem in Harford County.

### Strategies

1. Increase enforcement of impaired driving laws (alcohol and drug).
2. Identify high-incident locations based on crash and arrest data.
3. Utilize all media, including social media, campaigns.
4. Identify best practices for educational programs related to reducing impaired driving.
5. Conduct outreach programs to vulnerable populations.
6. Support legislation/regulation related to impaired driving vehicle technology (e.g. Driver Alcohol Detection System for Safety (DADSS)).

## Distracted

The following table includes countywide crash information related to distracted drivers.

	2015	2016	2017	2018	2019	5 YR AVG.
Fatal Crashes	7	11	11	5	9	9
Injury Crashes	572	652	621	586	544	595
Property Damage Crashes	1,172	1,319	1,260	1,390	1,260	1,280
Total Crashes	1,751	1,982	1,892	1,981	1,813	1,884
Total of All Fatalities	7	11	11	5	11	9
Total Number Injured	880	967	942	832	765	877

Overall, an average of 57.0% of crashes and 46.4% of fatalities involved a distracted driver from 2015-2019. In 2019, 54.6% of crashes, but 64.7% of fatalities involved a distracted driver which indicates that driving while distracted by a handheld phone, electronic device, or other occurrence is a problem in Harford County.

## Strategies

1. Increase enforcement of distracted driving laws (Move Over).
2. Identify high-incident locations based on crash and arrest data.
3. Identify best practices for educational programs related to reducing distracted driving.
4. Utilize all media, including social media, campaigns.
5. Conduct outreach programs to high-risk populations.
6. Support education/outreach related to advanced driver-assistance technology (ADAS).

## Infrastructure

The following table includes countywide crash information related to infrastructure-related crashes (those occurring in intersections, run-off-road, and work zones).

	2015	2016	2017	2018	2019	5 YR AVG.
<b>Intersections</b>						
Fatal Crashes	3	5	5	6	6	5
Injury Crashes	366	406	454	437	452	423
Property Damage Crashes	581	715	745	770	778	718
Total Crashes	950	1,126	1,204	1,213	1,236	1,146
Total of All Fatalities	3	5	5	6	7	5
Total Number Injured	571	633	672	647	654	635
<b>Run-off-road</b>						
Fatal Crashes	5	7	5	5	5	5
Injury Crashes	189	186	196	188	182	188
Property Damage Crashes	599	575	590	686	611	612
Total Crashes	793	768	791	879	798	806
Total of All Fatalities	5	8	5	5	6	6
Total Number Injured	228	219	225	217	229	224
<b>Work Zones</b>						
Fatal Crashes	1	0	2	0	1	1
Injury Crashes	20	20	22	17	13	18
Property Damage Crashes	49	43	37	23	25	35
Total Crashes	70	63	61	40	39	55
Total of All Fatalities	1	0	2	0	1	1
Total Number Injured	30	24	36	29	15	27

Overall, an average of 60.7% of crashes and 60.8% of fatalities were infrastructure-related from 2015-2019. In 2019, 62.4% of crashes, but 82.4% of fatalities were infrastructure-related which indicates that crashes in intersections, work zones, and run-off road are a problem in Harford County.

## Strategies

1. Identify best practices for angle/turning crash prevention, road departure, and work zone designs.
2. Identify high-incident locations, segments, and intersections.
3. Utilize all media, including social media, campaigns.
4. Conduct outreach programs to vulnerable populations.

5. Coordinate with law enforcement and engineering partners to increase safety in construction areas.
6. Support education/outreach related to advanced driver-assistance technology (ADAS).

## Occupant Protection

The following table includes countywide occupant safety information related to restraint use among occupants of passenger vehicles (excluding motorcycles, mopeds, and all-terrain vehicles). This information is restricted to occupants with reported restraint use and unknown values were excluded.

	2015	2016	2017	2018	2019	5 YR AVG.
<b>Occupant Fatalities</b>						
<b>Restraint in Use</b>	8	6	7	4	6	8
<b>Restraint Not in Use</b>	3	5	8	3	3	5
<b>% Unrestrained</b>	27.3%	45.4%	53.3%	42.8%	33.3%	36.5%
<b>Injured Occupants</b>						
<b>Restraint in Use</b>	1,132	1,276	1,165	1,187	1,061	1,262
<b>Restraint Not in Use</b>	58	45	56	61	79	68
<b>% Unrestrained</b>	4.9%	3.4%	4.6%	4.9%	6.9%	5.1%

From 2015-2019, among cases with reported restraint use, approximately one-third of occupant fatalities were unrestrained whereas 5% of injured occupants were unrestrained (an average of close to 70 occupants). This information, along with the observed seat belt rate use rate of 87.9%, shows that efforts to promote seat belt use should be a priority in the County.

## Strategies

1. Increase enforcement of restraint use for all ages.
2. Utilize all media, including social media, campaigns.
3. Conduct outreach programs to vulnerable populations.
4. Support legislation/regulation related to occupant protection.

## Target Groups

In addition to Emphasis Areas, this plan will further aim to increase safety among target groups that may not be involved in large numbers of crashes but are vulnerable to injury or death. Those groups include pedestrians, heavy trucks, motorcycles, and roadside responders.

### Pedestrians (including Roadside Responders)

The following table includes countywide crash information related to pedestrians.

	2015	2016	2017	2018	2019	5 YR AVG.
Fatal Crashes	5	4	4	3	2	4
Injury Crashes	47	44	60	56	73	56
Property Damage Crashes	5	3	3	1	5	3
Total Crashes	57	51	67	60	80	63
Total of All Fatalities	5	4	4	3	2	4
Total Number Injured	55	51	69	63	79	63

Overall, an average of 1.9% of crashes and 18.6% of fatalities involved pedestrians from 2015-2019. In 2019, 2.4% of crashes, but 11.8% of fatalities involved a pedestrian which indicates that pedestrians are a vulnerable population to address in this plan in each Emphasis Area.

### Strategies

1. Increase enforcement of driver and pedestrian laws (Move Over).
2. Identify high-incident locations for roadside crashes and fatalities.
3. Utilize all media, including social media, campaigns.
4. Conduct outreach programs to vulnerable populations.

### Heavy Trucks

The following table includes countywide crash information related to incidents involving heavy trucks and/or buses.

	2015	2016	2017	2018	2019	5 YR AVG.
Fatal Crashes	7	1	4	2	2	3
Injury Crashes	38	45	32	42	55	42
Property Damage Crashes	110	132	124	149	150	133
Total Crashes	155	178	160	193	207	179
Total of All Fatalities	7	1	4	2	3	3
Total Number Injured	72	57	56	70	82	67



Overall, an average of 5.4% of crashes and 17.5% of fatalities involved a heavy truck or bus from 2015-2019. In 2019, 6.2% of crashes, but 17.6% of fatalities involved a heavy truck or bus which indicates that those drivers and vehicles should be considered in this plan in each Emphasis Area.

### Strategies

1. Increase enforcement of commercial vehicle driving laws.
2. Identify best practices for educational and outreach to employers and drivers.
3. Identify high-incident locations, segments, and intersections.
4. Utilize all media, including social media, campaigns.
5. Conduct outreach programs to vulnerable populations.

### Motorcycles

The following table includes countywide crash information related to incidents involving motorcycles.

	2015	2016	2017	2018	2019	5 YR AVG.
<b>Fatal Crashes</b>	3	3	2	1	5	3
<b>Injury Crashes</b>	43	54	68	36	36	47
<b>Property Damage Crashes</b>	8	9	9	9	11	9
<b>Total Crashes</b>	54	66	79	46	52	59
<b>Total of All Fatalities</b>	3	3	2	1	5	3
<b>Total Number Injured</b>	51	57	74	40	41	53

Overall, an average of 1.8% of crashes and 14.4% of fatalities involved a motorcycle from 2015-2019. In 2019, 1.6% of crashes, but 29.4% of fatalities involved a motorcycle; the number of fatalities increased from one in 2018 to five in 2019 which indicates that motorcyclists should be considered in this plan in each Emphasis Area.

### Strategies

1. Increase enforcement of driving laws related to motorcycle riders.
2. Identify best practices for infrastructure design.
3. Identify high-incident locations for motorcycle crashes.
4. Utilize all media, including social media, campaigns.
5. Conduct outreach programs to vulnerable populations.

## Implementation Plan

An Implementation, or Action Plan, has also been developed to support 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 throughout its lifespan. Unless significant changes occur, the Goals, Targets, Emphasis Areas, and Strategies will not change before the completion of the plan. However, the Implementation Plan relies heavily on resource availability and prioritization.

The TSAB meets every other month, with some exceptions during the Safer At Home orders during the COVID-19 pandemic. As this plan is implemented beginning in January 2021, the TSAB will have a standing agenda item to provide any Action Step updates, discuss new trends in traffic safety, and review the plan. From those meetings, annual evaluations will be compiled for ongoing tracking of the SHSP and a comprehensive evaluation will be conducted at the end of the lifecycle of the plan (after 2025). The final evaluation will examine the strategic planning, implementation, and evaluation processes and the TSAB will also work to update the plan for the next five-year cycle.

## Acronyms

ADAS	Advanced Driver Assistance Systems/Technology
DADSS	Driver Alcohol Detection System for Safety
EMS	Emergency Medical Services
MADD	Mothers Against Drunk Drivers
MDOT	Maryland Department of Transportation
MHSO	MDOT Motor Vehicle Administration's Highway Safety Office
SHSP	Strategic Highway Safety Plan
TSAB	Traffic Safety Advisory Board
VMT	Vehicle Miles Traveled