



NHTSA

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Traffic Safety During the COVID-19 Public Health Emergency: Third Quarter Data

*Essie Wagner, Director
Office of Behavioral Safety Research*

Purpose of the Special Reports

To Gather early data from sources inside and outside of NHTSA and DOT

Synthesize these disparate data points

Analyze and document the findings

2020 Q3 Projections

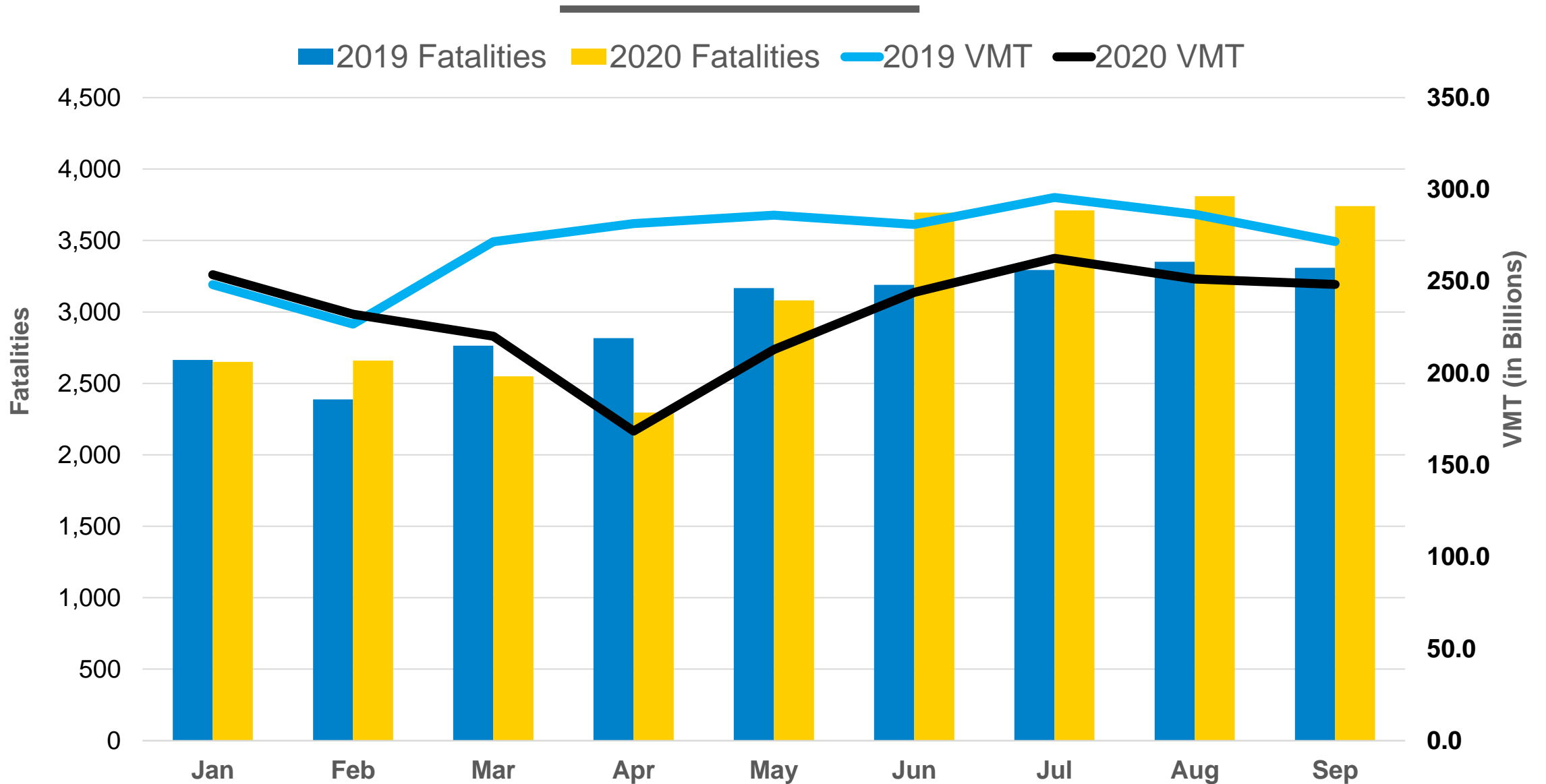
- **Fatalities:** January through September 2020 using established NHTSA methodology
- **Vehicle Miles Traveled (VMT):** FHWA Traffic Volume Trends (TVT) January - September

2020 Q3 Projections

Fatalities and Fatality Rate by Quarter, First 9 Months, and the Percentage Change From the Corresponding Quarter or First 9 Months in the Previous Year

Quarter	1st Quarter (Jan-Mar)	2nd Quarter (Apr-Jun)	3rd Quarter (Jul-Sep)	4th Quarter (Oct-Dec)	Total (Full Year)	1st Nine Months (Jan-Sep)
Fatalities and Percentage Change in Fatalities for the Corresponding Quarter From the Previous Year						
2018	8,203 [-1.2%]	9,323 [-1.4%]	9,934 [-1.5%]	9,375 [-2.7%]	36,835 [-1.7%]	27,460 [-1.4%]
2019	7,816 [-4.7%]	9,172 [-1.6%]	9,953 [+0.2%]	9,155 [-2.3%]	36,096 [-2.0%]	26,941 [-1.9%]
2020 ^a	7,860 [+0.6%]	9,070 [-1.1%]	11,260 [+13.1%]	-	-	28,190 [+4.6%]
Fatality Rate per 100 Million Vehicle Miles Traveled						
2018	1.10	1.11	1.18	1.15	1.14	1.13
2019	1.05	1.08	1.17	1.12	1.10	1.10
2020 [†]	1.11	1.45	1.48	-	-	1.35

Fatalities and VMT by Month, 2019 and 2020



Source: NHTSA Fatality Projections and FHWA Traffic Volume Trends

The Observed Environment in Q2 and Q3.....

Unemployment was up, then recovering

Household incomes were down

VMT was down, then recovering

- Passenger VMT down year-over-year; Truck VMT up year-over-year

Gasoline sales were down













Transit use was down

Changed travel behavior

Changed enforcement

Changed travel speeds, seat belt use, and alcohol and drug use

Context

	VMT	Unemployment	Alcohol/Other Risks	Fatalities
"Normal" Recession				
Q2 (April-June) 2020				
Q3 (July-September) 2020				

Enforcement Changed

More than 550 first responders have died from COVID-19 through March 2021

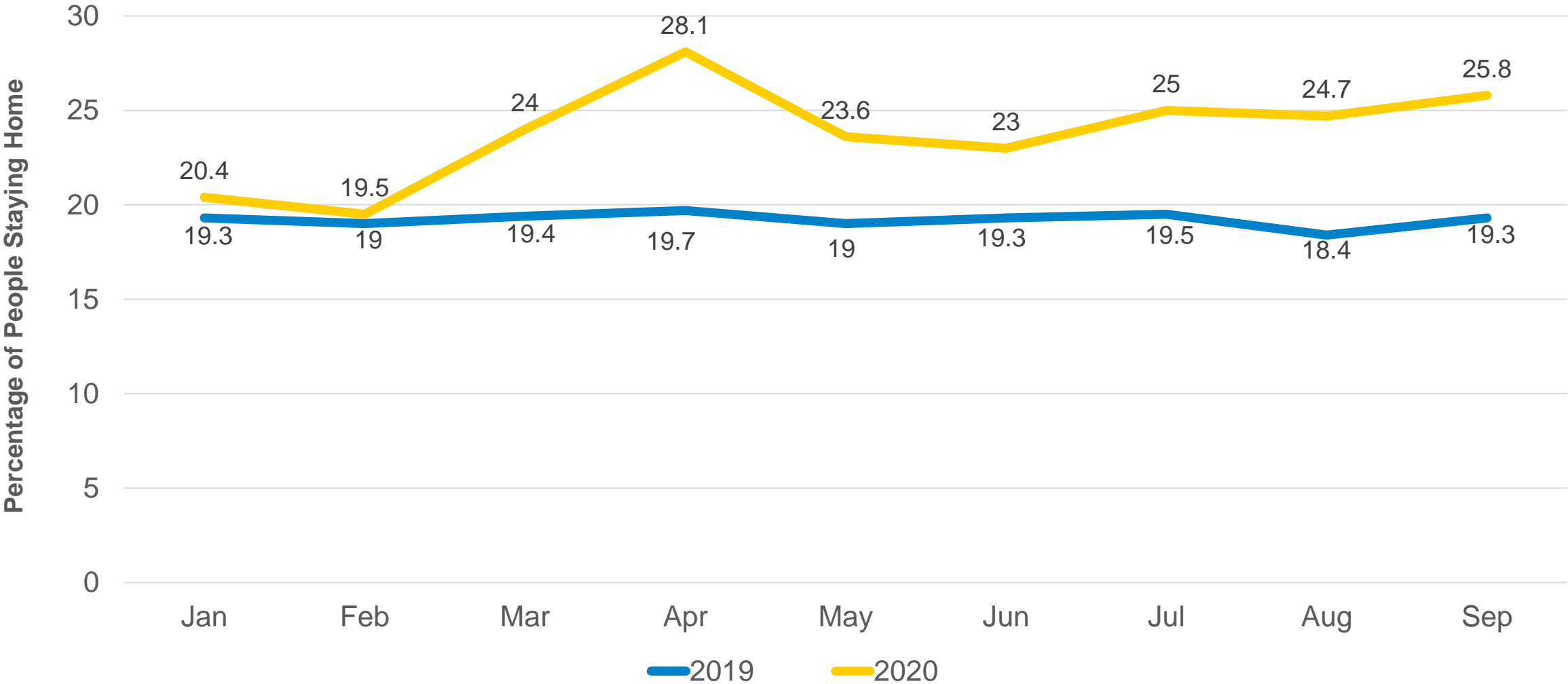
- **Law Enforcement comprise two-thirds of first responder fatalities**

Through at least May, many law enforcement agencies had policies limiting interactions with the public and arrests

- Reductions in stops, DWI arrests, speeding citations, belt citations
- Deterrence through highly visible enforcement was not there

In conversations with our Regions, States described reductions in traffic safety enforcement activity

People Staying Home, by Month, 2019 and 2020



Source: Bureau of Transportation Statistics

Risky Behavior – Known and Seen

Belt Use

Context: known characteristics of part-time belt users include: young, male, impulsive, have unfavorable views of seat belt laws / enforcement, engage in risky driving (speeding, alcohol-impaired driving)

Observed: **increases in ejections** (number and rate) – most commonly seen in younger (18-34), male, in rural locations

Speeding

Context: regular speeders are younger, more likely have other risky behaviors

Observed: **increases in speeds** across most speed percentiles in 2020 Q2; more instances of extreme speeds reported across the country

Drugs and Alcohol

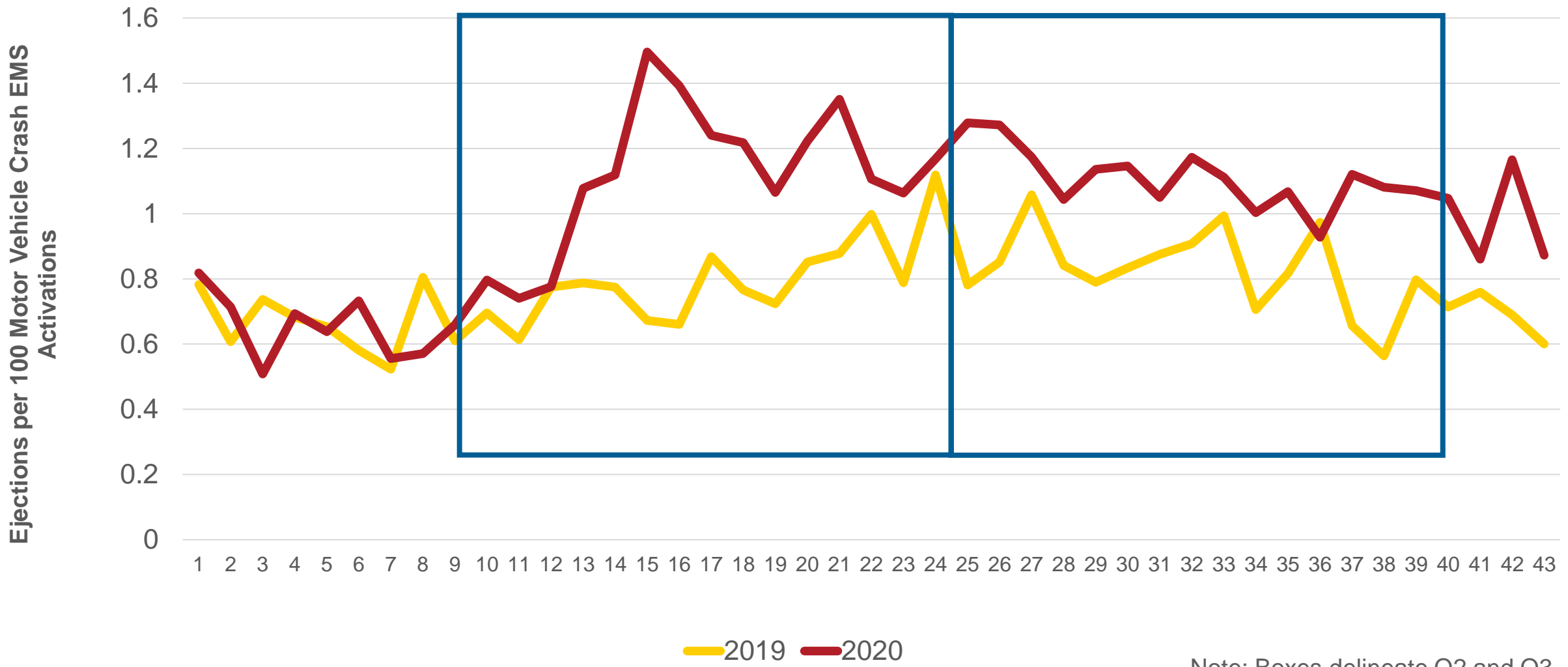
Increase in opioid-related EMS calls and Naloxone administration – more pronounced in urban areas

Increase in marijuana sales (taxes), alcohol sales, reported self-medication

Increase in prevalence of drugs and alcohol among critically injured road users at five trauma centers

Ejections per 100 MV Crash EMS Activations by Week

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Note: Boxes delineate Q2 and Q3.
Source: NEMSIS

Prevalence Study Background

- NHTSA conducted a study on the prevalence of drugs and alcohol among people who were killed or seriously injured in motor vehicle crashes.
- We collaborated with five trauma centers.
- Public health emergency: Study was also used to help NIH examine prevalence of COVID-19 among trauma patients.
- Research is continuing (now seven trauma centers).
- Periods of analysis
 - Before (September 10, 2019 – March 16, 2020)
 - During 1 (March 17 – July 18, 2020)
 - During 2 (July 19 – September 30, 2020)

Driver Seat Belt Use

	Before (N=809)			During 1 (N=388)			During 2 (N=356)	
Belt Use	n	%		n	%		n	%
Belted	632	78.1		278	71.6 ^A		266	74.7
Unbelted	177	21.9		110	28.4 ^A		90	25.3

^A Significantly different than Before period, *p* < .05.

Before = 09/10/19 – 03/16/20 During 1 = 03/17/20 – 07/18/20 During 2 = 07/19/20 – 09/30/20

Passenger Seat Belt Use

	Before (N=236)			During 1 (N=98)			During 2 (N=105)	
Belt Use	n	%		n	%		n	%
Belted	178	75.4		58	59.2 ^A		70	66.7
Unbelted	58	24.6		40	40.8 ^A		35	33.3

^A Significantly different than Before period, *p* < .05.

Before = 09/10/19 – 03/16/20 During 1 = 03/17/20 – 07/18/20 During 2 = 07/19/20 – 09/30/20

Driver Seat Belt Use by Drug-Positive Category

		Drug and Alcohol Negative	Alcohol	Cannabinoids	Stimulants	Sedatives	Opioids	Anti-depressants	Over-the-Counter	Other Drugs	At Least One Category	Multiple Categories
Belt Use		(N=680)	(N=370)	(N=375)	(N=155)	(N=131)	(N=181)	(N=27)	(N=31)	(N=21)	(N=873)	(N=335)
Belted	N	587	226	248	106	94	124	21	20	7	589	208
	%	86.3	61.1 ^A	66.1 ^A	68.4 ^A	71.8 ^A	68.5 ^A	77.8	64.5 ^A	33.3 ^A	67.5 ^A	62.3 ^A
Unbelted	N	93	144	127	49	37	57	6	11	14	284	126
	%	13.7	38.9 ^A	33.9 ^A	31.6 ^A	28.2 ^A	31.5 ^A	22.2	35.5 ^A	66.7 ^A	32.5 ^A	37.7 ^A

^A Significantly different ($p < .05$) seat belt use rate compared to drug- and alcohol-negative drivers.

Drivers and Pedestrians: Drug-Positive Categories

	Drivers							Pedestrians					
	Before (N=1,157)		During 1 (N=699)		During 2 (N=640)			Before (N=274)		During 1 (N=142)		During 2 (N=144)	
Drug Category	n	%	n	%	n	%		n	%	n	%	n	%
Alcohol	252	21.8	198	28.3 ^A	187	29.2 ^A		67	24.5	43	30.3	41	28.5
Cannabinoids	241	20.8	227	32.7 ^A	167	26.1 ^{A,B}		51	18.6	44	31.0 ^A	31	21.5
Stimulants	106	9.2	64	9.2	69	10.8		33	12.0	23	16.2	17	11.8
Sedatives	93	8.0	61	8.7	50	7.8		25	9.1	13	9.2	16	11.1
Opioids	87	7.5	97	13.9 ^A	86	13.4 ^A		22	8.0	17	12.0	22	15.3
Antidepressants	26	2.2	3	0.4 ^A	6	0.9		5	1.8	1	0.7	2	1.4
Over-the-Counter	25	2.2	10	1.4	8	1.3		8	2.9	6	4.2	3	2.1
Other Drugs	17	1.5	15	2.1	22	3.4 ^A		4	1.5	2	1.4	6	4.2
At Least 1 Category	588	50.8	452	64.7 ^A	394	61.6 ^A		139	50.7	94	66.2 ^A	88	61.1
Multiple Categories	204	17.6	177	25.3 ^A	158	24.7 ^A		54	19.7	40	28.2	37	25.7

^A Significantly different than “Before” period, $p < .05$. ^B Significantly different than “During 1” period, $p < .05$.
 Before = 09/10/19 – 03/16/20 During 1 = 03/17/20 – 07/18/20 During 2 = 07/19/20 – 09/30/20

All Road Users: Drug-Positive Categories by Sex

	Male							Female					
	Before (N=1,234)		During 1 (N=793)		During 2 (N=676)			Before (N=636)		During 1 (N=294)		During 2 (N=308)	
Drug Category	n	%	n	%	n	%		n	%	n	%	n	%
Alcohol	305	24.7	231	29.1	220	32.5 ^A		91	14.3	60	20.4	55	17.9
Cannabinoids	285	23.1	262	33.0 ^A	196	29.0 ^A		113	17.8	74	25.2 ^A	64	20.8
Stimulants	141	11.4	80	10.1	68	10.1		48	7.5	34	11.6	36	11.7
Sedatives	104	8.4	57	7.2	46	6.8		52	8.2	33	11.2	32	10.4
Opioids	96	7.8	109	13.7 ^A	93	13.8 ^A		45	7.1	32	10.9	37	12.0 ^A
Antidepressants	17	1.4	3	0.4	4	0.6		20	3.1	2	0.7	3	1.0
Over-the-Counter	22	1.8	9	1.1	6	0.9		21	3.3	9	3.1	8	2.6
Other Drugs	17	1.4	16	2.0	24	3.6 ^A		10	1.6	4	1.4	7	2.3
At Least 1 Category	675	54.7	519	65.4 ^A	436	64.5 ^A		277	43.6	169	57.5 ^A	159	51.6
Multiple Categories	241	19.5	197	24.8 ^A	177	26.2 ^A		96	15.1	62	21.1	62	20.1

A Significantly different than Before period, p < .05.

Before = 09/10/19 – 03/16/20

During 1 = 03/17/20 – 07/18/20

During 2 = 07/19/20 – 09/30/20

Drivers' BAC Ranges

	Before (N= 1,157)			During 1 (N=699)			During 2 (N= 640)		
BAC Range (in g/dL)	n	%	95% CI	n	%	95% CI	n	%	95% CI
.00 (No Alcohol)	905	78.2	[75.8, 80.5]	501	71.7 ^A	[68.2, 74.9]	453	70.8 ^A	[67.2, 74.2]
.02 - .049	9	0.8	[0.4, 1.4]	14	2.0	[1.2, 3.2]	16	2.5 ^A	[1.5, 3.9]
.05 - .079	22	1.9	[1.2, 2.8]	13	1.8	[1.0, 3.1]	7	1.1	[0.5, 2.1]
.08 - .149	64	5.5	[4.3, 7.0]	44	6.3	[4.7, 8.3]	45	7.0	[5.2, 9.2]
.15 +	157	13.6	[11.7, 15.6]	127	18.2 ^A	[15.4, 21.2]	119	18.6 ^A	[15.7, 21.7]

^A Significantly different from "Before" period, $p < .05$.

Before = 09/10/19 – 03/16/20

During 1 = 03/17/20 – 07/18/20

During 2 = 07/19/20 – 09/30/20

Summary of Findings

- Risky driving behaviors seen in Q2 continued in Q3.
- People took fewer trips / more people stayed home compared to 2019.
- 3 consistent concerns:
 - Seat belt use
 - Impaired driving and increase in drug prevalence
 - Speeding
- Overlap between “traditional” risk-taking groups and those who were more likely to take trips
- Deterrence requires enforcement + social norming

Convening Partners

- *Leverage and adapt proven initiatives to address prevalent risky behaviors*

Engaging NHTSA Regional Partnerships

- *Cross-regional virtual events*
- *NHTSA-facilitated forums*
- *Outreach to new partners*





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Essie Wagner
Director, Office of Behavioral Safety Research

esther.wagner@dot.gov