

Early Implications of COVID-19 on Changes in Injury Patterns in Austin and Across Texas

Kevin Rix, MPH

Injury Prevention Coordinator

Dell Seton Medical Center at the University of Texas

Acknowledgements

- ▶ Thank you to Dr. Deanna Hoelscher and to the Michael and Susan Dell Center for Healthy Living for the invitation to speak today.

And especially this person



These
People



Disclosures

- ▶ Nothing to Disclose

Disclaimers

- ▶ I am currently unaware of the number of any specific confirmed or unconfirmed COVID-19 cases that have presented at the Dell Seton Medical Center at the University of Texas, or at any Ascension Texas or Austin area hospital. As an injury specialist, I am not privileged to this information, so I cannot and will not be able to answer any questions in regards to related infections or cases.
- ▶ 2020 data is still in the process of being synthesized. It's very fresh and very raw!
- ▶ I will be sharing some data today but due to some restrictions, I cannot share raw "N's" on any slides today. All data that can be and will be displayed in percentages to protect patient and hospital privacy.
 - ▶ (But I would love to work with some of you after this presentation where we can explore specific "N's" and more data together)

Before we get to COVID-19 and injury...



Why Injury matters during a pandemic...

10 Leading Causes of Death by Age Group, United States – 2018

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 4,473	Unintentional Injury 1,226	Unintentional Injury 734	Unintentional Injury 692	Unintentional Injury 12,044	Unintentional Injury 24,614	Unintentional Injury 22,667	Malignant Neoplasms 37,301	Malignant Neoplasms 113,947	Heart Disease 526,509	Heart Disease 655,381
2	Short Gestation 3,679	Congenital Anomalies 384	Malignant Neoplasms 393	Suicide 596	Suicide 6,211	Suicide 8,020	Malignant Neoplasms 10,640	Heart Disease 32,220	Heart Disease 81,042	Malignant Neoplasms 431,102	Malignant Neoplasms 599,274
3	Maternal Pregnancy Comp. 1,358	Homicide 353	Congenital Anomalies 201	Malignant Neoplasms 450	Homicide 4,607	Homicide 5,234	Heart Disease 10,532	Unintentional Injury 23,056	Unintentional Injury 23,693	Chronic Low. Respiratory Disease 135,560	Unintentional Injury 167,127
4	SIDS 1,334	Malignant Neoplasms 326	Homicide 121	Congenital Anomalies 172	Malignant Neoplasms 1,371	Malignant Neoplasms 3,684	Suicide 7,521	Suicide 8,345	Chronic Low. Respiratory Disease 18,804	Cerebro-vascular 127,244	Chronic Low. Respiratory Disease 159,486
5	Unintentional Injury 1,168	Influenza & Pneumonia 122	Influenza & Pneumonia 71	Homicide 168	Heart Disease 905	Heart Disease 3,561	Homicide 3,304	Liver Disease 8,157	Diabetes Mellitus 14,941	Alzheimer's Disease 120,658	Cerebro-vascular 147,810
6	Placenta Cord. Membranes 724	Heart Disease 115	Chronic Low. Respiratory Disease 68	Heart Disease 101	Congenital Anomalies 354	Liver Disease 1,008	Liver Disease 3,108	Diabetes Mellitus 6,414	Liver Disease 13,945	Diabetes Mellitus 60,182	Alzheimer's Disease 122,019
7	Bacterial Sepsis 579	Perinatal Period 62	Heart Disease 68	Chronic Low Respiratory Disease 64	Diabetes Mellitus 246	Diabetes Mellitus 837	Diabetes Mellitus 2,282	Cerebro-vascular 5,128	Cerebro-vascular 12,789	Unintentional Injury 57,213	Diabetes Mellitus 84,946
8	Circulatory System Disease 428	Septicemia 54	Cerebro-vascular 34	Cerebro-vascular 54	Influenza & Pneumonia 200	Cerebro-vascular 567	Cerebro-vascular 1,704	Chronic Low. Respiratory Disease 3,807	Suicide 8,540	Influenza & Pneumonia 48,888	Influenza & Pneumonia 59,120
9	Respiratory Distress 390	Chronic Low. Respiratory Disease 50	Septicemia 34	Influenza & Pneumonia 51	Chronic Low. Respiratory Disease 165	HIV 482	Influenza & Pneumonia 956	Septicemia 2,380	Septicemia 5,956	Nephritis 42,232	Nephritis 51,386
10	Neonatal Hemorrhage 375	Cerebro-vascular 43	Benign Neoplasms 19	Benign Neoplasms 30	Complicated Pregnancy 151	Influenza & Pneumonia 457	Septicemia 829	Influenza & Pneumonia 2,339	Influenza & Pneumonia 5,858	Parkinson's Disease 32,988	Suicide 48,344

Data Source: National Vital Statistics System, National Center for Health Statistics, CDC.
Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



And at all other times!!!

The United States Injury Burden

1. Centers for Disease Control and Prevention estimate total injury burden in latest report was \$671 billion dollars¹
 - 130 billion dollars-unintentional injuries fatalities
 - 50.8 billion dollars-suicide fatalities
 - 26.4 homicide fatalities
2. Approximately 27 million people visit an emergency for an injury department
3. FY2016 NIH awarded 50,137 grants, only 1,888 were related to traumatic injuries (3.7%)²

Selected COVID-19 Timeline

- ▶ December 31, 2019 - Chinese officials inform WHO of COVID -19 outbreak
- ▶ January 20, 2020 - First US case is reported (Washington)
- ▶ January 30 - WHO declares a global public health emergency
- ▶ January 31 - US travel ban from China
- ▶ March 6 - City of Austin declares local state of disaster; cancels SXSW
- ▶ March 11 - WHO declare the outbreak a pandemic; US bans all travel from 26 European countries
- ▶ **March 13** - **A United States national emergency is declared**
- ▶ March 13 - Austin Public Health announces first two presumptive cases of COVID-19
- ▶ March 15 - Austin issues orders re: mass and community gatherings
- ▶ March 16 - Federal government releases prevention guidelines for Americans to follow
- ▶ March 17 - Potential injury impact first raised during TXIPC conference call
- ▶ March 19 - A Texas Public Health Disaster is declared
- ▶ **March 24** - **Austin, Travis, and Williamson counties issue Stay at Home Order**
- ▶ March 27 - Austin Public Health announces first COVID-19 related death
- ▶ **April 2** - **TXIPC conference call held to discuss potential injury impacts on Texas communities**
- ▶ April 5 - United States of America issues Stay-at-Home Order
- ▶ April 12 - Texas extends Disaster Declaration
- ▶ April 13 - Travis County Stay Home-Work Safe Extended. Face Coverings Mandated

So how does COVID-19 impact the injury burden?



One way to do Prevention...

Across the United States Cities are experiencing fewer and fewer cars on the road, resulting in fewer total car crashes.



However, Fatality Rates may go up³

Minnesota: March 16th to April 7 reported 24 total crashes, but 28 deaths. Last year in same range 12 crashes 13 deaths

Massachusetts: Collisions are down 73 percent, compared to 2019. However crash deaths are only down 38%.

Austin: 450 reported crashes with 99 reported injuries in 2019. 381 crashes with 111 injuries.




Hitting close to home

- ▶ Published in the Houston Chronicle Last Evening.⁷
- ▶ Total Crashes by March in Harris County have fallen from 3,035 (2019) & 2,574 (2018) to 1,725 (2020).
- ▶ TXDOT reported 241 state fatalities, down from 305. (March 2020 vs. 2019) with 50% VMT
- ▶ Dallas (29) and Harris County (32) report similar to greater fatalities than 2018 or 2019.

One Positive, some behaviors may be changing, TXDOT reports a 45% drop in alcohol related fatalities.

With traffic so low, officials expected roadway deaths to follow suit. They did not.

 Dug Begley | April 13, 2020 | Updated: April 13, 2020 8:55 p.m.



So why increasing fatality/injury rates with fewer crashes...



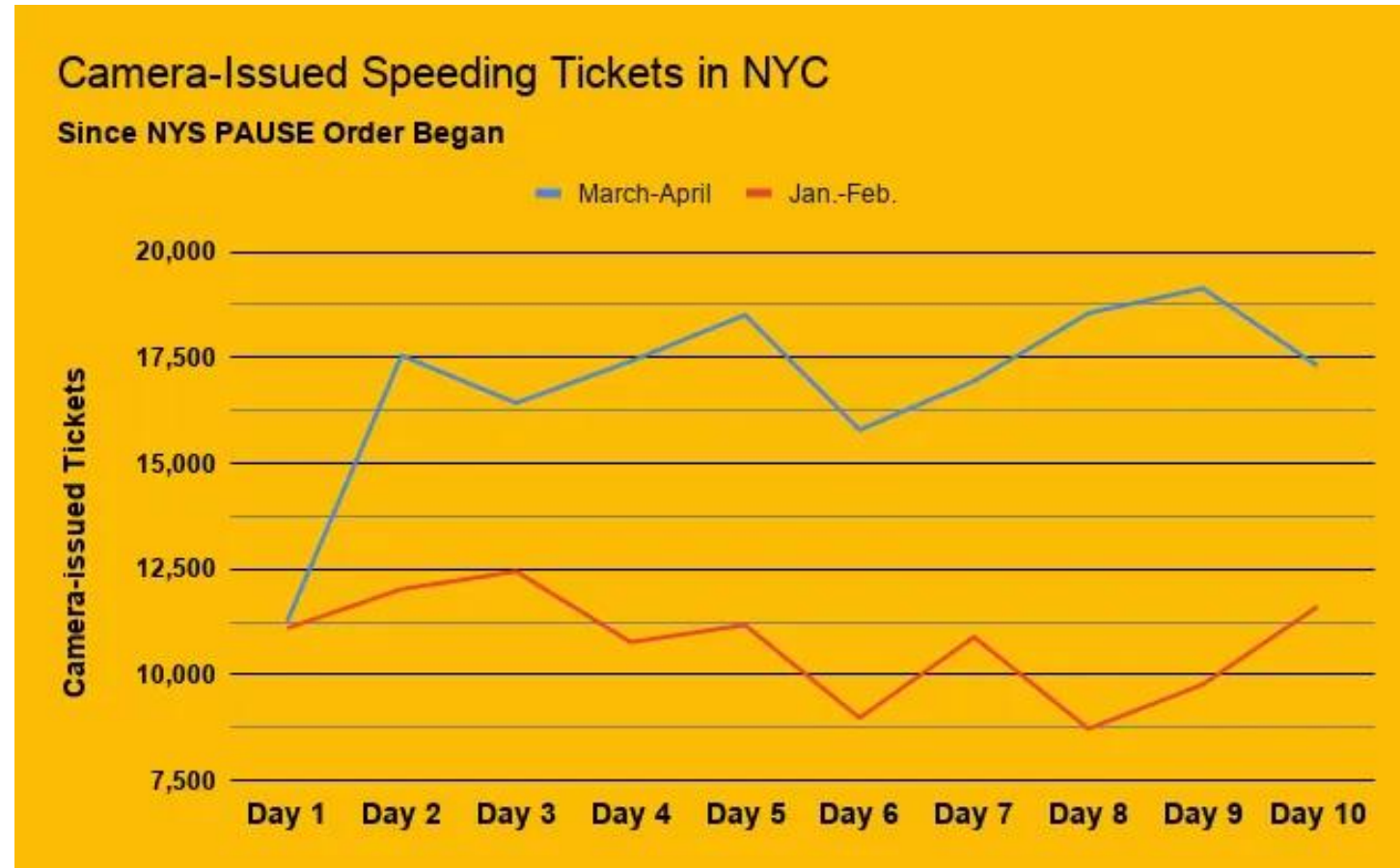
In-Car Safety Behaviors

Driving a little too fast...



Reports of less enforcement

How Fast People are Moving⁴



Getting too close to the public and other priorities.⁵

Traffic tickets down 92 percent as Florida cops focus on coronavirus

Directives vary among the largest police agencies in the Tampa Bay area. But police leaders say they want to keep the public and officers safe.



A Florida Highway Patrol officer is seen driving south along U.S. 19 Thursday, April 9, 2020 in Largo. As Floridians remain at home to slow the spread of the coronavirus, traffic citations across the state plummeted 92 percent in March 2020 compared to March 2019. [CHRIS URSO | Times]

Violence r

You Can Do [Contribute to Our Reporting](#)

Experts in domestic violence

EUROPE

Domestic violence rises in Turkey during COVID-19 pandemic

Countries that have introduced lockdown measures have seen a marked rise in domestic violence. Women's rights activists in Turkey say the government is not doing enough to protect victims.

the Coronavirus Outbreak

LIVE Latest Updates [Trackin...](#)

THE CORONAVIRUS CRISIS
COVID-19 Crisis

Global Lockdowns Resulting In 'Horrorifying Surge' In Domestic Violence, U.N. Warns

April 6, 2020 - 4:36 AM ET

SCOTT NEUMAN 

Surge In

stop the



as In San Antonio Order

San Antonio Records Domestic Violence Increase During Coronavirus Crisis

Posted By [Sanford Nowlin](#) on Tue, Apr 7, 2020 at 2:22 pm

1 day ago
with COVID-19

in
ing

Why could inter-personal violence be on the rise?

- ▶ Life Stressors:
 - ▶ Finances
 - ▶ Health
 - ▶ Safety
 - ▶ Feeling of lost Control
- ▶ Close Quarters: With more places requiring individuals to stay at home, children and partners living with abusive family members have no where to go.



Domestic Violence is greater right now than we even know...

Teachers

Police

Child and Daycare
Workers

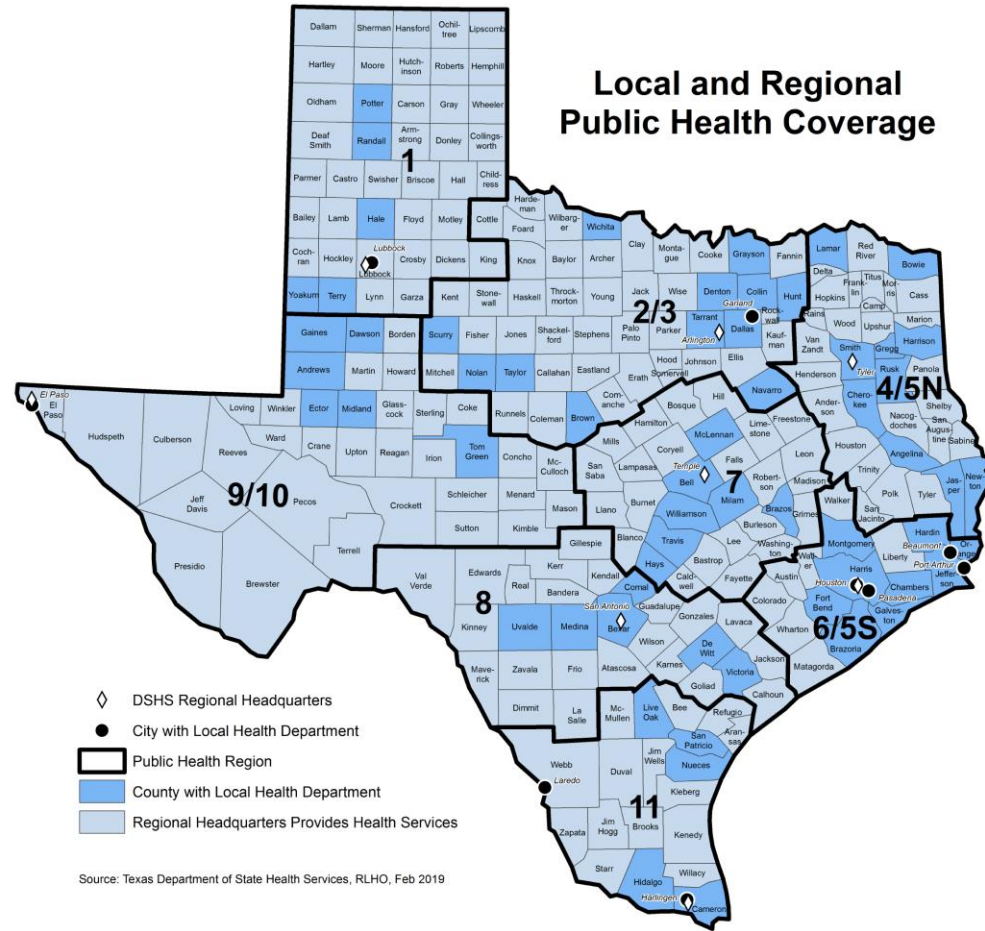
Healthcare Workers

Clergy

Social Workers

The lost access to the mandated reporter

What about Texas?



The Texas Injury Prevention Leadership Collaborative



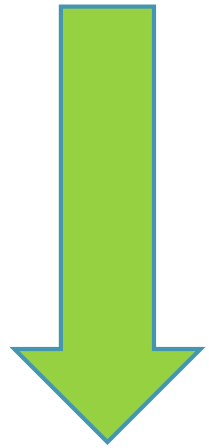
Photo Credit: The Texas Injury Prevention Leadership Collaborative Facebook Page

Current Reports in Texas from the Front Lines*

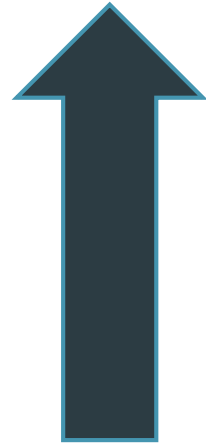
- ▶ Child and Elder Abuse
- ▶ Intimate Partner Violence
- ▶ Firearm and Stabbings
- ▶ Drownings
- ▶ Burns
- ▶ Motor Vehicle Crashes
- ▶ Pedestrian Injuries
- ▶ Recreational Injuries
- ▶ Falls
- ▶ Suicide



Child Abuse, Elder Abuse & Intimate Partner Violence



Decrease in
Minor Cases



Increase in
Severe Cases

- ▶ Some Hospitals report increases in older child fatalities (2-5 years old)
- ▶ 1 facility report 2 in one week children ages 4 to 5 which is not typical
- ▶ Historic reporting mechanisms and systems have been handicapped
- ▶ Healthcare Facilities are adding questions to uncover violence in using new strategies

Firearms and Knife Injuries

- ▶ Increased rates of unintentional and intentional firearm discharges reported in at least 4 facilities.
- ▶ Increased interpersonal violence in urban environments through firearm discharge.
- ▶ Decreased access to safe storage and safety equipment for firearms, and need for increased dissemination
- ▶ Hospitals report new partnerships including Pawn Shops and Firearm Retailers to increase safety



Drownings

- ▶ No current spikes and dramatic decreases in home drownings
- ▶ Warm Weather and More Children Being Home earlier may lead to increased drowning events.
- ▶ Texas historically has had issues tracking all drowning data, especially among children drowning events, there is an added call this year to identify drowning events, and improve data collection



Burns



- ▶ Burns and Scalds across Texas are notably skyrocketing for both children and adults.
- ▶ More people spending more time in kitchens and doing home projects.
- ▶ In the last week there have been multiple events reported in the news of increase home fires.

Motor Vehicle Crashes

- ▶ Statewide report of fewer hospital presentations
- ▶ Some facilities report increases in 18-wheeler crashes, with more needs placed on delivery drivers to get supplies around the state.
- ▶ ...scooters (no injuries in over a month)



Pedestrian and Bicycle Injuries

- ▶ Increased number of people cycling in the middle of the day as a means to get out and exercise.
- ▶ People have been noted to be using infrastructure in unintended ways with fewer cars on the road.
- ▶ Some hospitals report increases in injuries to homeless populations as those populations are increasing risk taking behaviors to acquire resources.

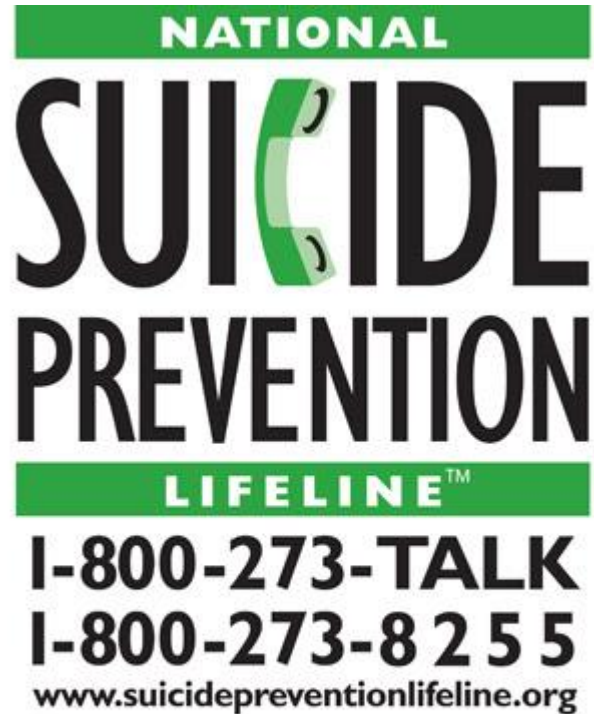


Falls

- ▶ Statistically Older Adults are most likely to fall in their homes.⁶
- ▶ Across Texas, even prior to COVID-19 Older Adult Falls are the #1 Mechanism of Injury Presenting to Hospitals, and numbers continue to rise.
- ▶ Hospitals report increased falls across all ages, not just older adults. Including Recreational falls with children on playgrounds and trampolines



Suicide



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
www.samhsa.gov

Printed 2005 • Reprinted 2009 • CMHS-SVP05-0125

- ▶ No major changes in reported increases or decreases in suicide
- ▶ However mechanisms appear to be changing, including increased in hangings and decreased number of jump attempts.

Additional Needs and Innovations in the Violence and Injury World

- ▶ Most Violence and Injury Prevention Programs Initiatives are Community Based, which have resulted in professionals looking for new innovations.
- ▶ Community Partner Organizations have temporarily closed, reducing number of possible injury interventions
- ▶ National Programs requiring groups and people together have ceased operations
- ▶ Increases in virtual trainings for car seats and innovative car seat distribution methods
- ▶ Phone Surveys being conducted for neighborhood violence and safety perceptions in some communities
- ▶ Need for innovation to disseminated education and stress reduction information to adults stuck at home with children.

So what's going on in Austin?



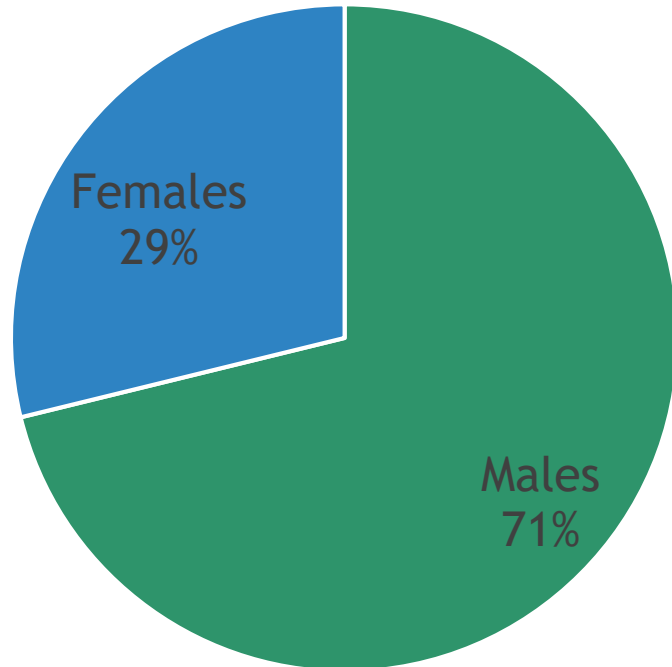
Dell Seton Medical Center 2019 vs. 2020



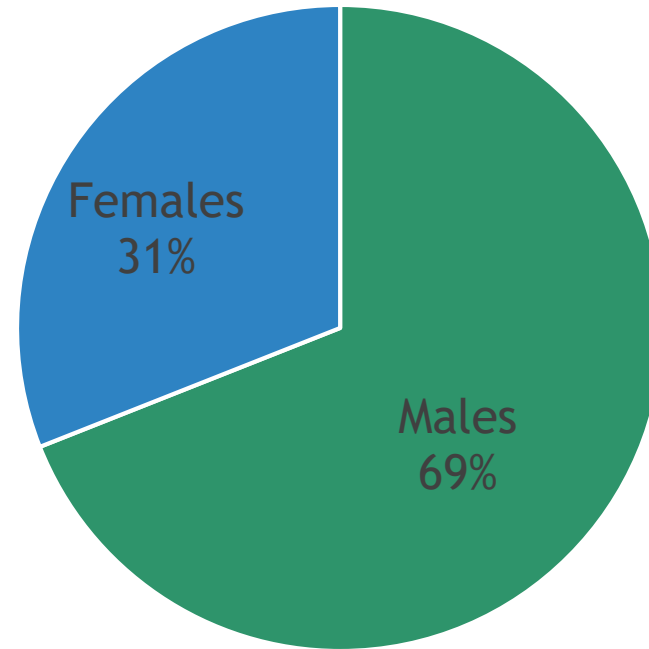
**As Expected
Injuries Requiring
Hospitalization are
Down.**

Patients by Gender (March 24-April 13)

2019

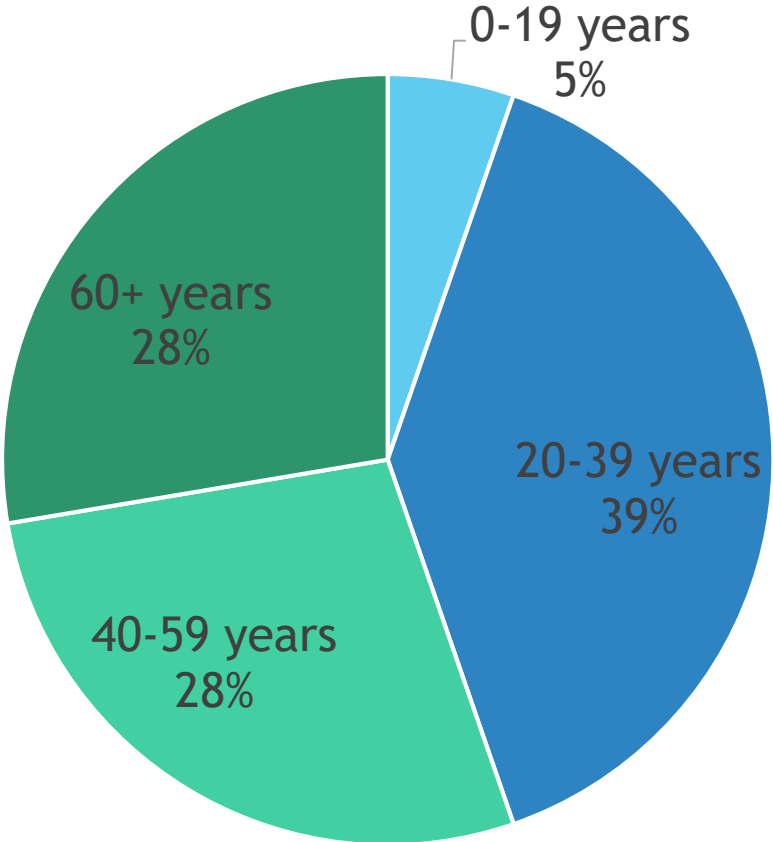


2020

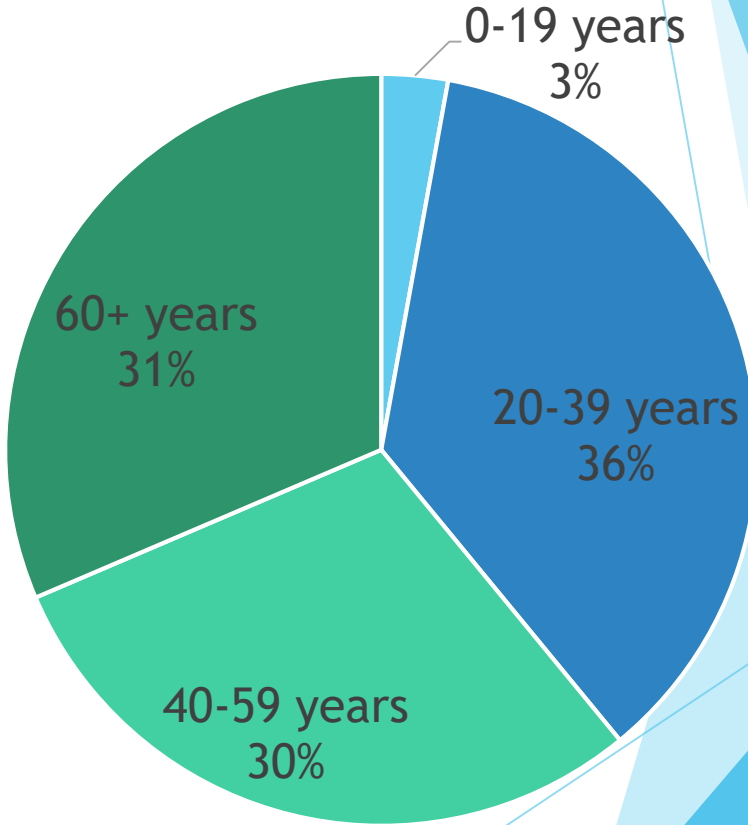


Patients by Age (March 24-April 13)

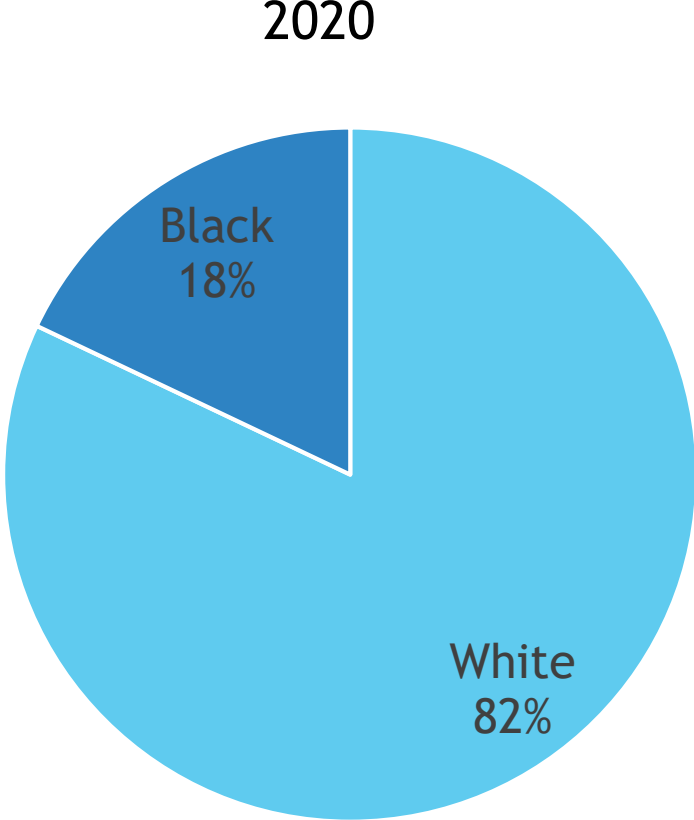
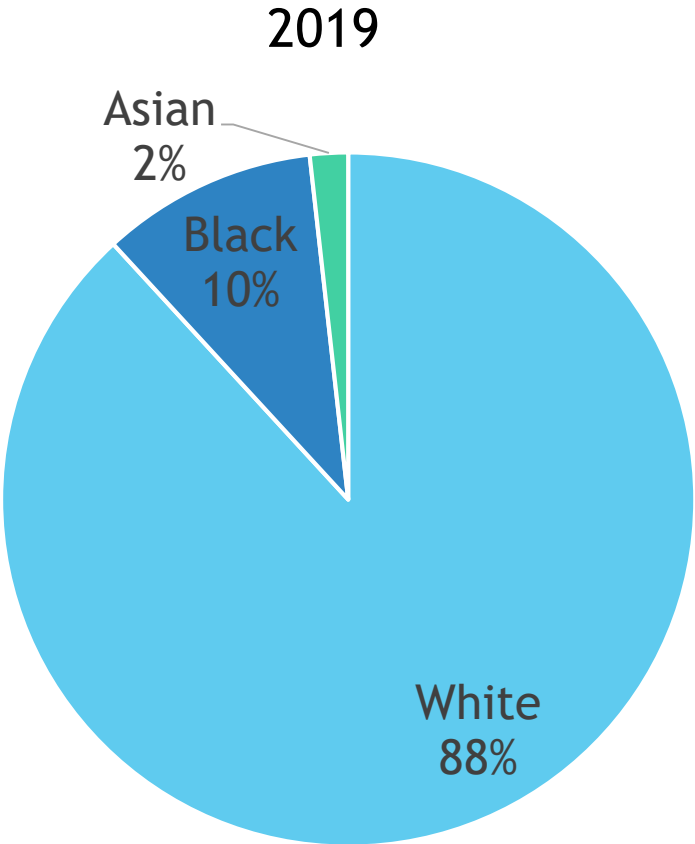
2019



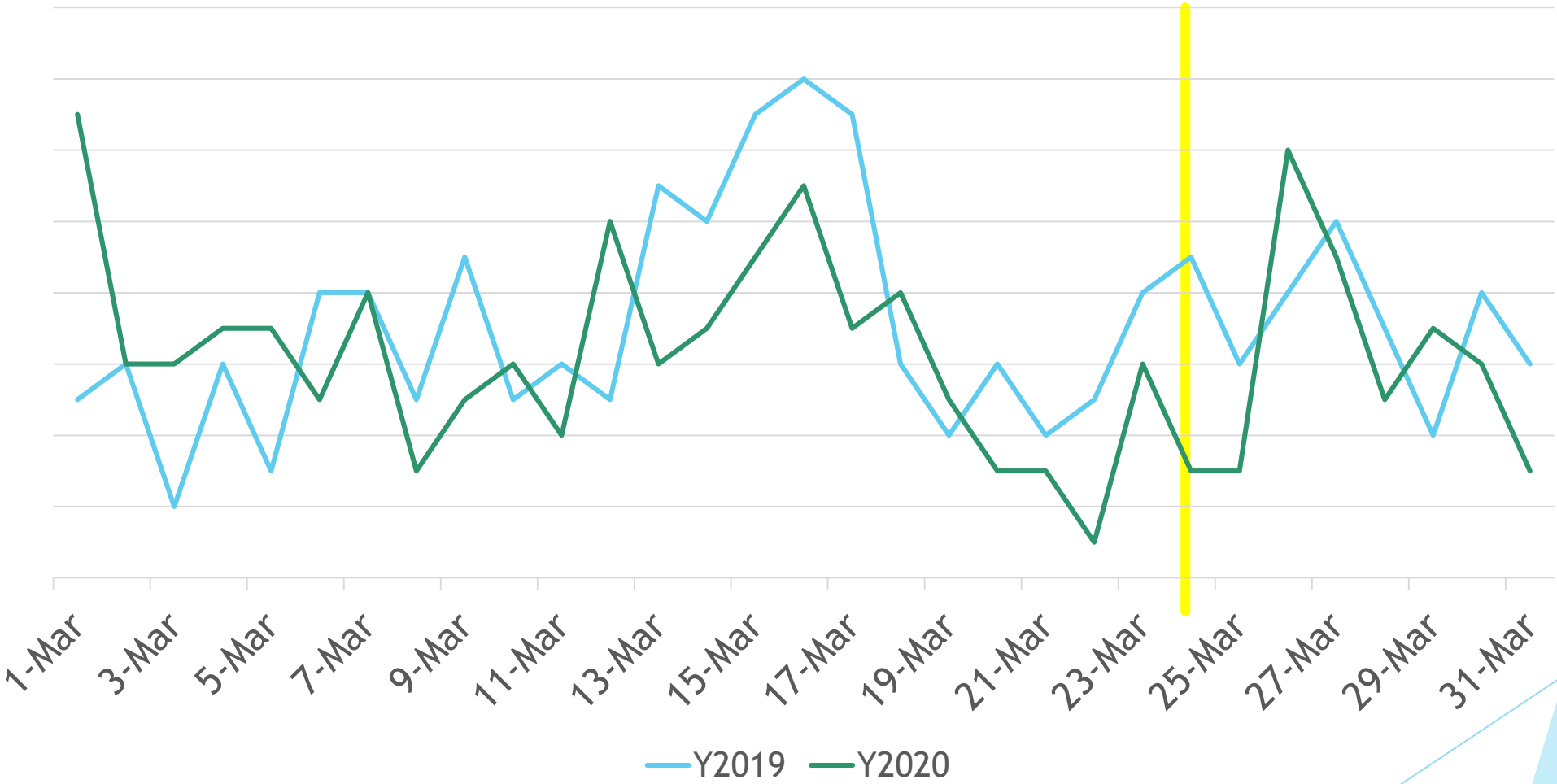
2020



Patients by Race (March 24-April 13)*

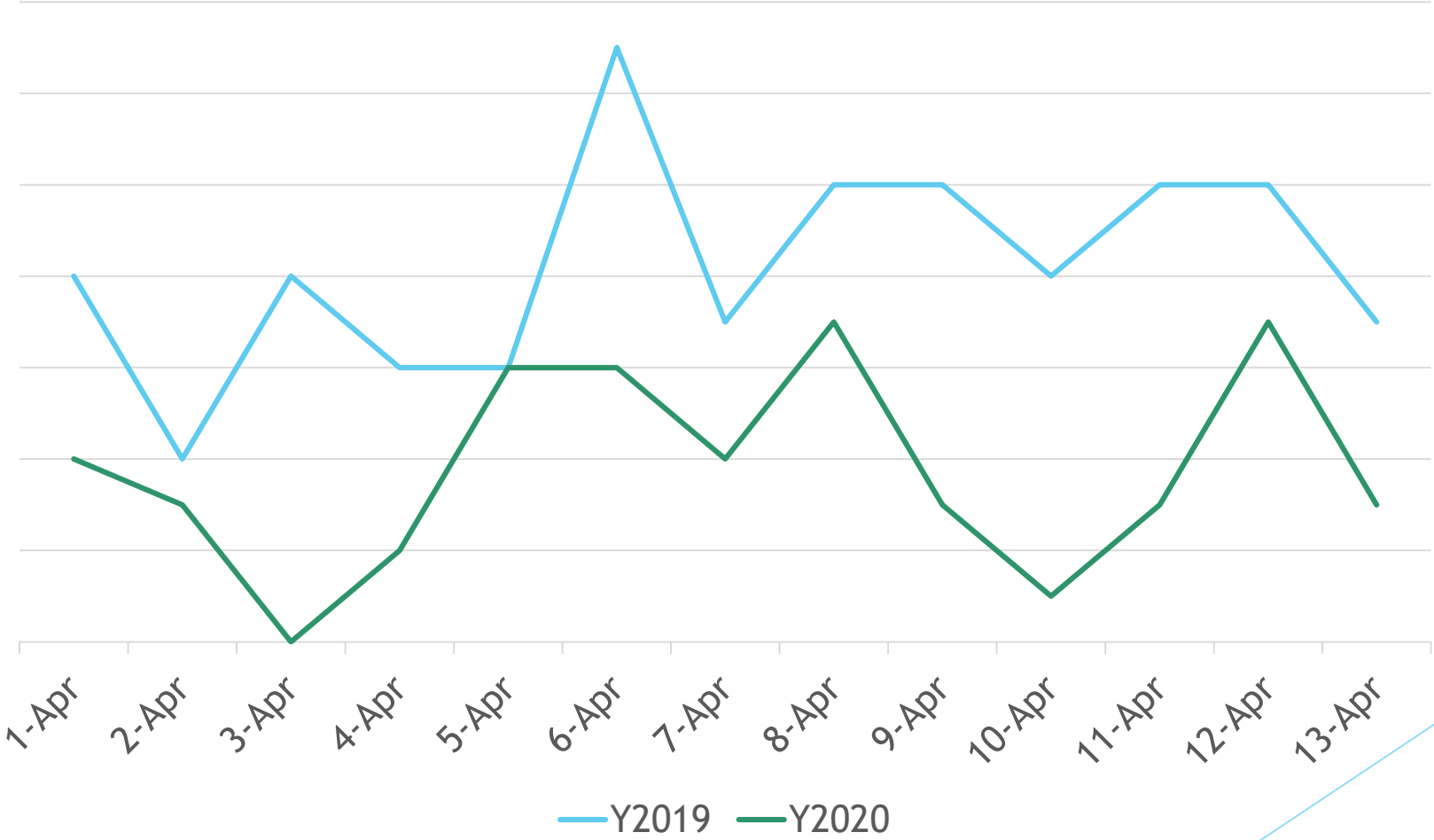


Injury Admissions March 2019 vs. March 2020



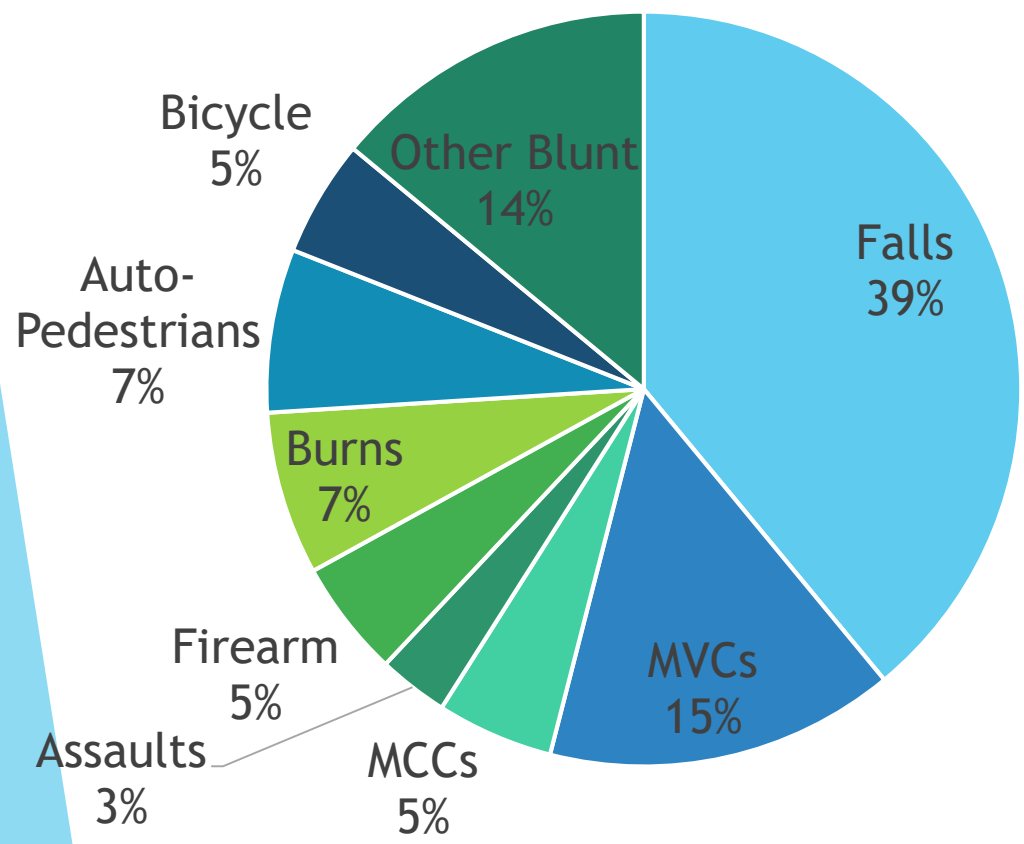
 =Austin Stay at Home Order

Injury Admissions April 2019 vs. April 2020 (First 2 Weeks)

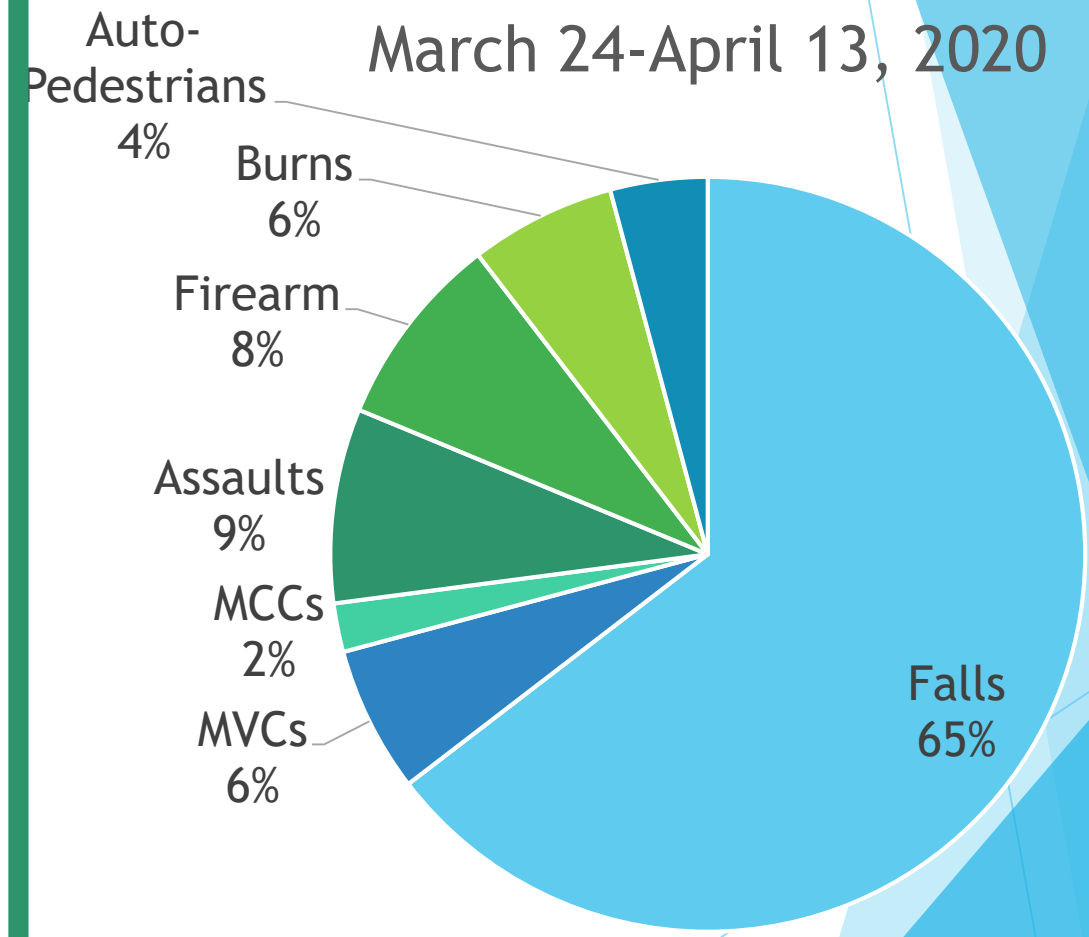


Shelter in Place Impacted Austin Adult Injury Patterns

March 24-April 13, 2019



March 24-April 13, 2020



Impacts of Social Distancing and Shelter in Place on Trauma Admissions

- ▶ With more people staying home, traumatic injuries overall have decreased
 - ▶ That's to be expected... And a good thing. Less people being hurt is typically what us prevention specialist types are going for in our day to day lives.
- ▶ Injury Patterns are changing. While there may be fewer injuries, those still needing care to come to hospital may be at risk for their injuries being more severe.
- ▶ Intentional Violence will continue to be underreported with fewer systems in place to catch less severe injuries.
- ▶ Innovation and much needed future research is required to develop new interventions that can be done remotely to reduce the injury burdens that we are still facing.

Next Steps

- ▶ Improved Tracking of COVID-19 timeframe related injuries
- ▶ Data Processing
- ▶ Improving partnerships with states with greater number of COVID-19 cases
- ▶ Develop Injury-Focused Research Activities related to COVID-19
- ▶ Texas Injury Prevention Leadership Collaborative is scheduling another phone/webinar for *May 2020*

Thank you!

My Contact Information:

Kevin Rix, MPH

Dell Seton Medical Center at the University of Texas

krix@ascension.org

512-324-7760

If you have interests in joining or working with the Texas Injury Prevention Leadership Collaborative visit their website at leadtxip.org or connect via Facebook at [@LeadTXIP](https://www.facebook.com/LeadTXIP)