



TEXAS
Health and Human
Services

**Texas Department of State
Health Services**

Leading Causes of Injuries 2018-2020 and Double Transfers 2019-2020

Prepared by the Office of Injury Prevention

May 24, 2022

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Methodology



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Emergency Medical Services/Trauma Registries - notes

- The data used were traumatic injuries reported by hospitals. (Specified in Texas Administrative Code, Title 25, Chapter 103)
- The data used were reported to the Emergency Medical Services and Trauma Registries (EMSTR) through a passive surveillance system. Non-fatal and fatal data was based on the trauma dataset, not hospitalization or death files.
- Transfers between hospitals resulted in more than one record as each hospital must independently report to EMSTR.
- Non-missing cells with nonzero values less than 5 were suppressed and noted by an asterisk.



Variables Identified 2018-2020

Intent

- Unintentional
- Assault
- Self-harm
- Undetermined
- Legal/War

Mechanism

- Fall
- Motor Vehicle – Occupant
- Firearm
- Struck by/Against
- Cut/Pierce
- Hot Object/Substance
- Motor Vehicle – Motorcyclist
- Motor Vehicle – Pedestrian

Demographics



Texas Population 2018-2020

Pediatric Population Estimates (Ages 0-17)

- 2018 – 7,370,193 (Census)
- 2019 – 7,437,514 (Census)
- 2020 – 7,515,129 (Census)



NON-FATAL TRAUMA HOSPITALIZATIONS



Non-Fatal Hospitalizations 2018-2020

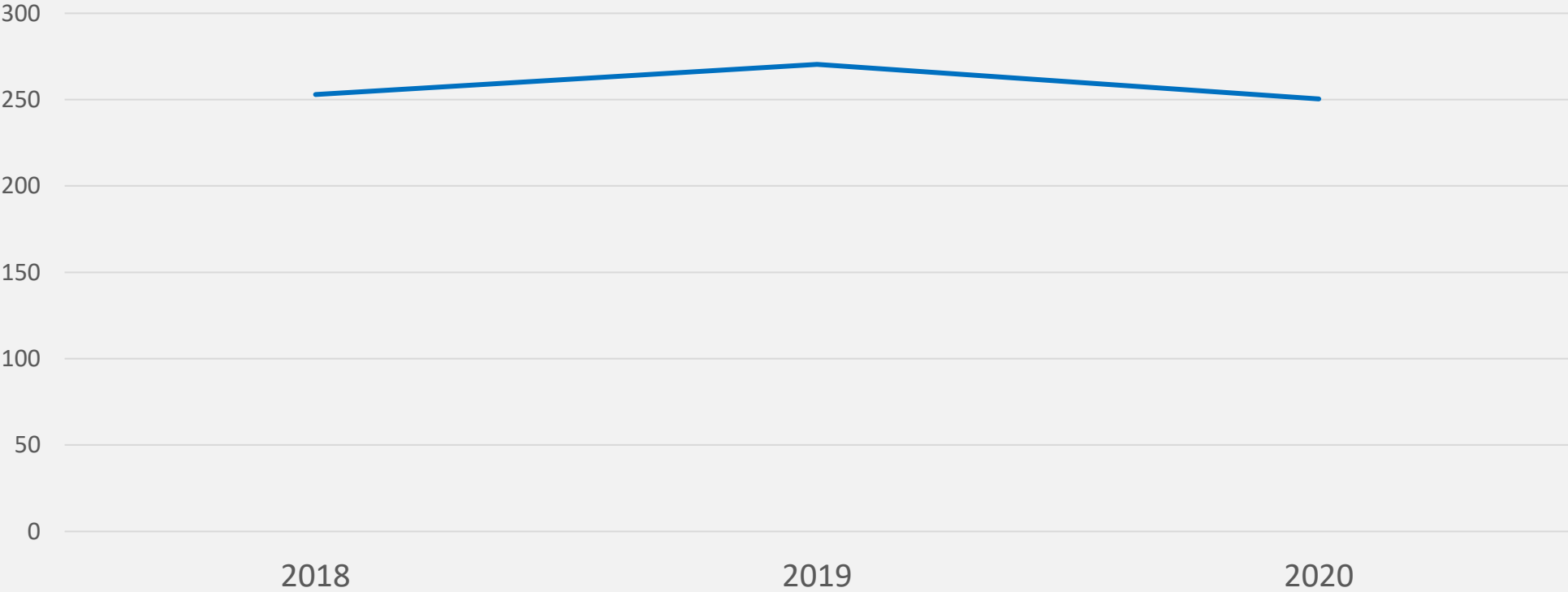
Pediatric

Year	Counts	Rates
2018	18,640	252.91
2019	20,105	270.32
2020	18,817	250.39



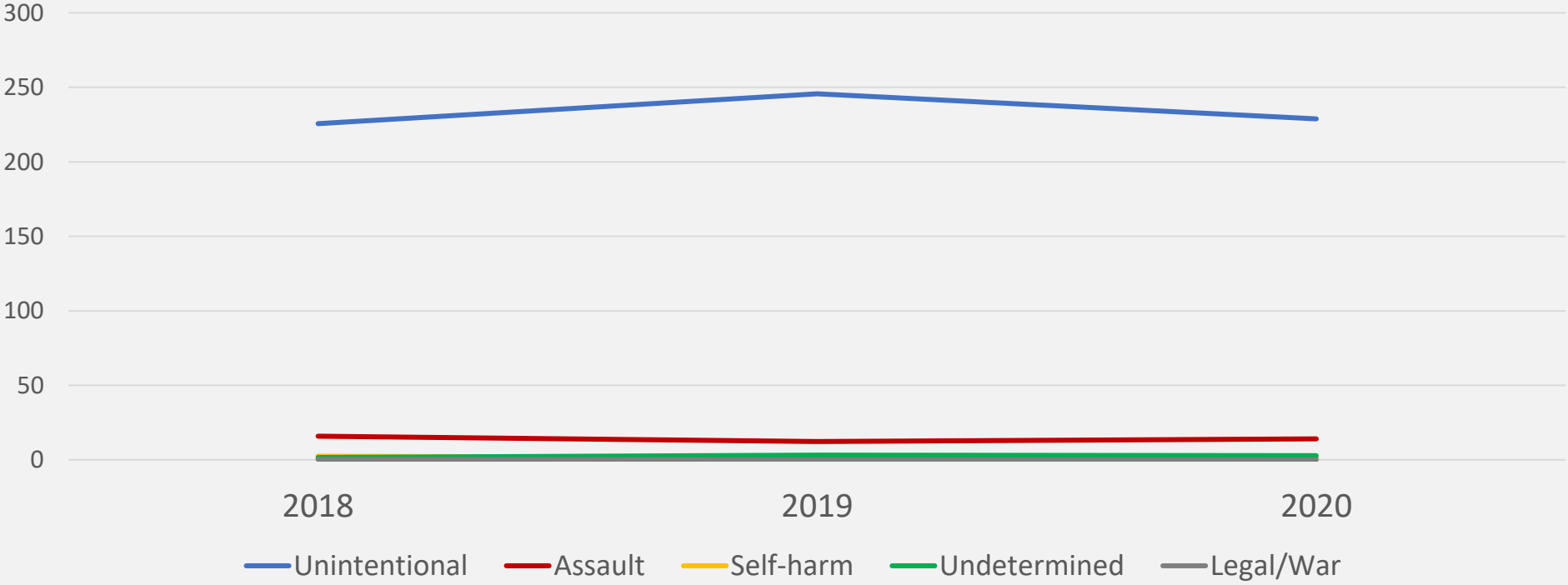
Pediatric Non-Fatal Rate per Year 2018-2020

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population,
2018-2020



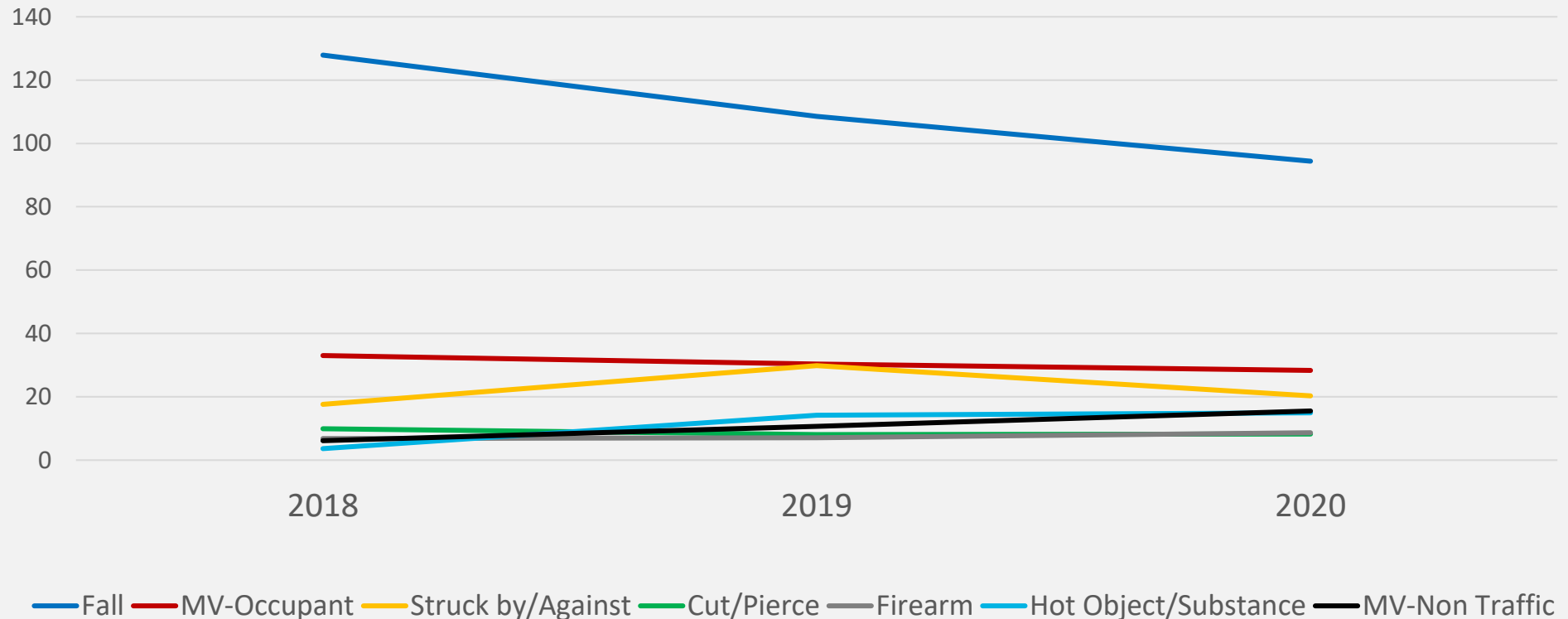
Pediatric Non-Fatal by Intent 2018-2020

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by Intent, 2018-2020



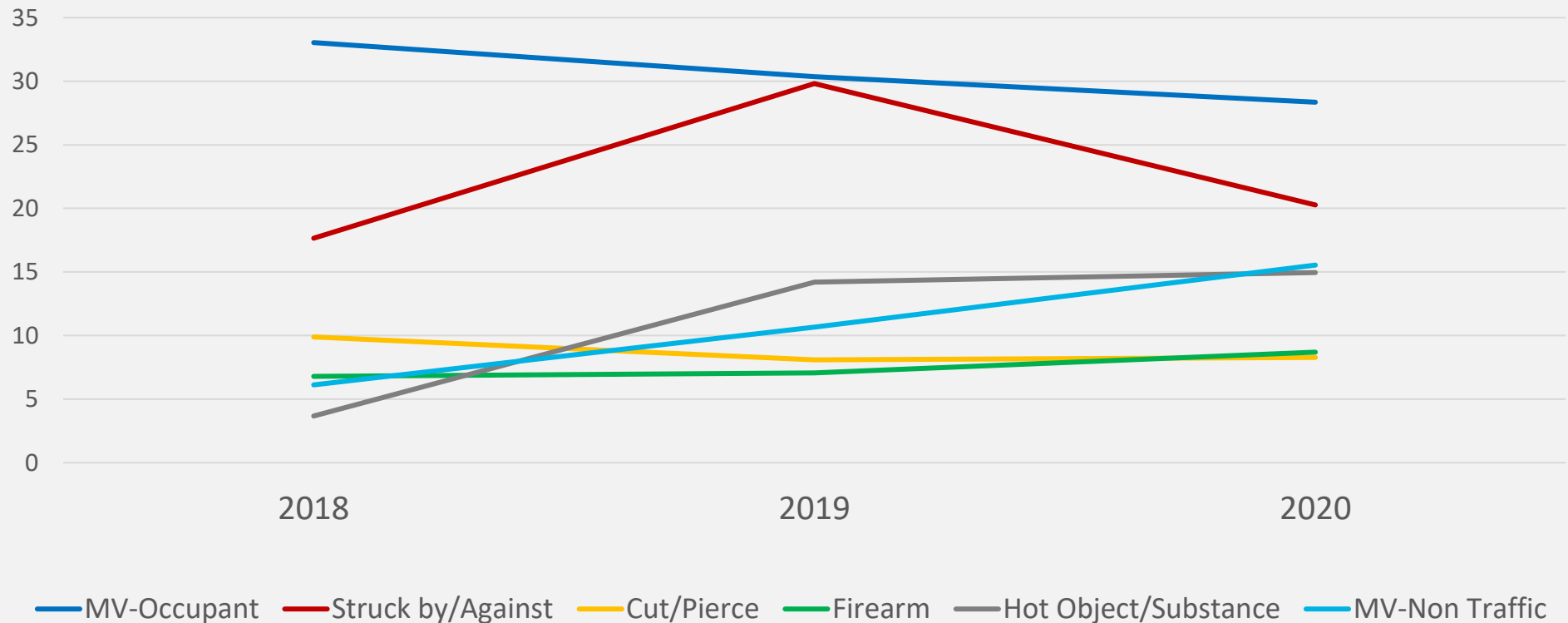
Pediatric Non-Fatal by Mechanism 2018-2020

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by Mechanism, 2018-2020



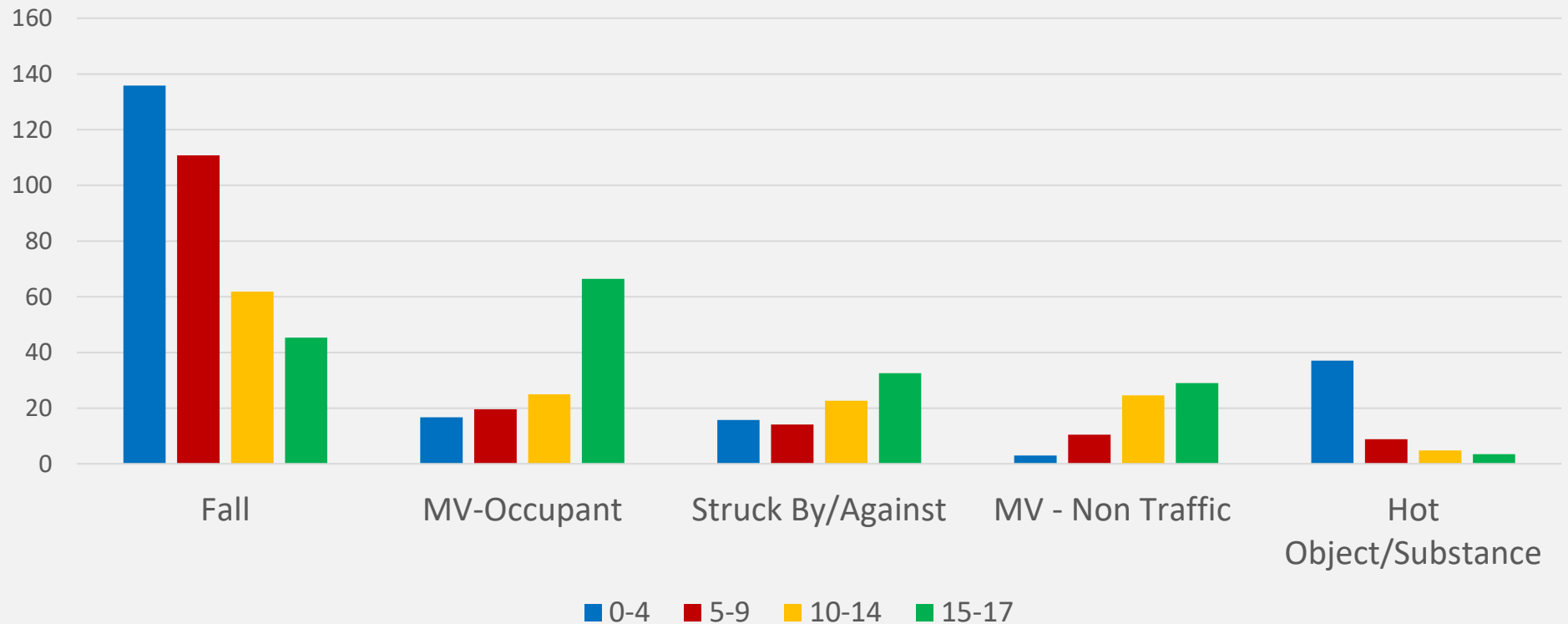
Pediatric Non-Fatal by Mechanism 2018-2020 Removing Falls

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by Mechanism, 2018-2020



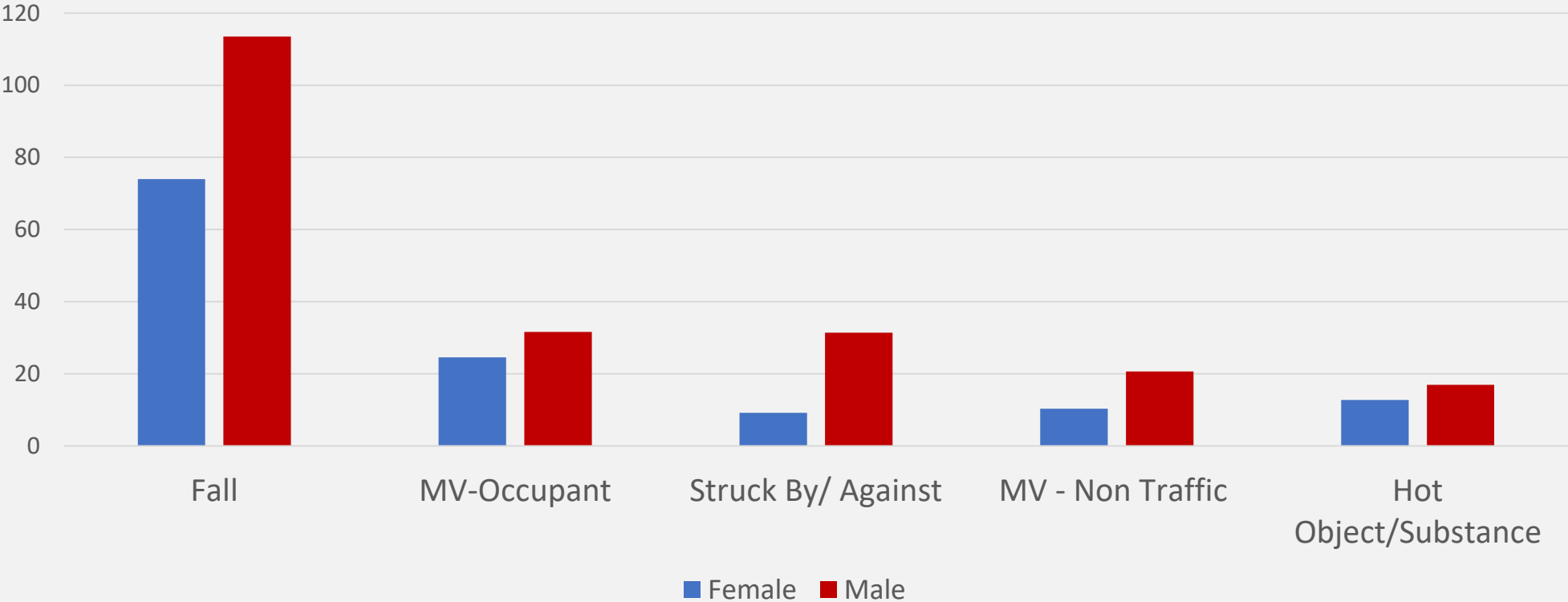
Pediatric Non-Fatal Mechanism by Age Group 2020

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by Mechanism and Age, 2020



Pediatric Non-Fatal by Mechanism and Sex 2020

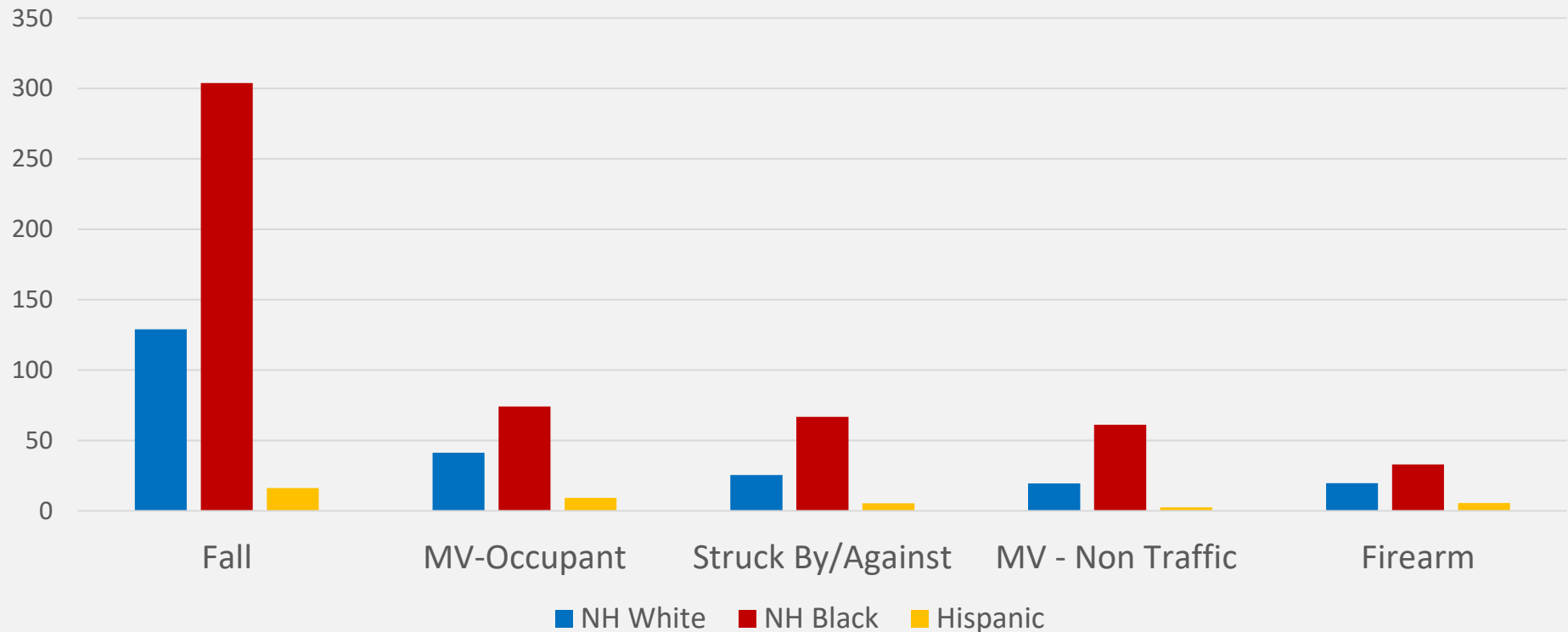
Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by Mechanism and Sex, 2020



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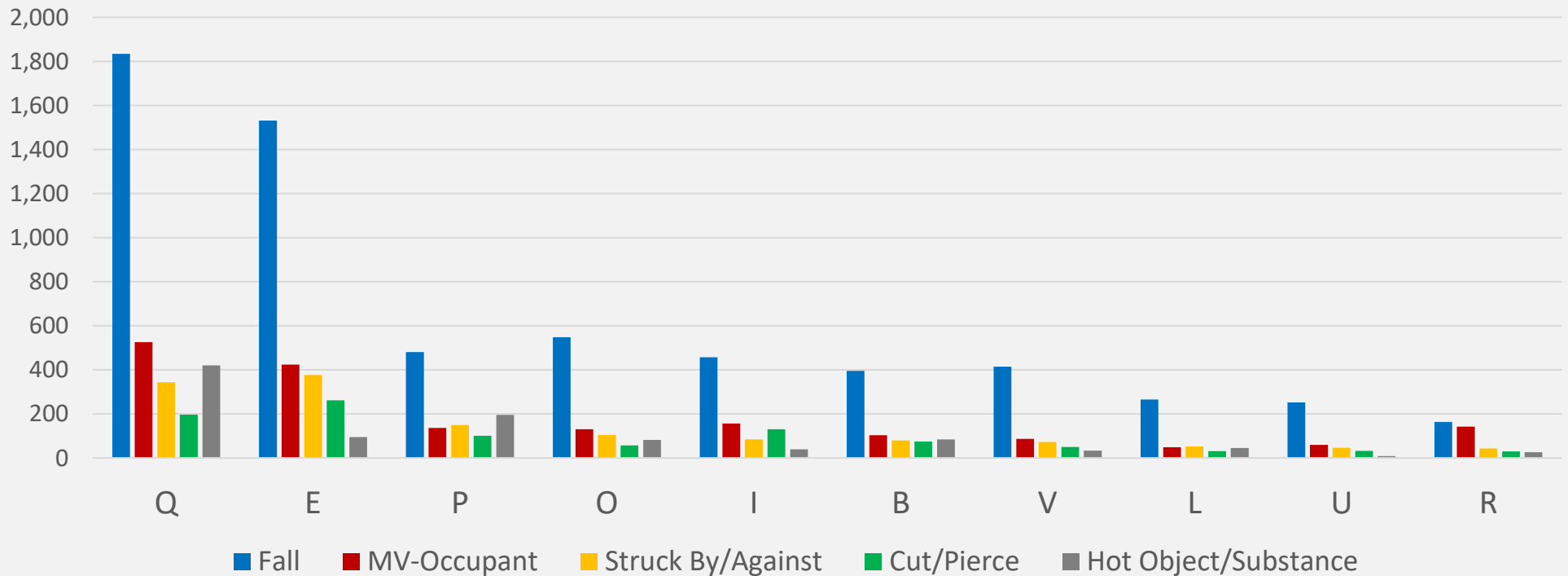
Pediatric Non-Fatal by Race and Ethnicity 2020

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by Race and Ethnicity, 2020



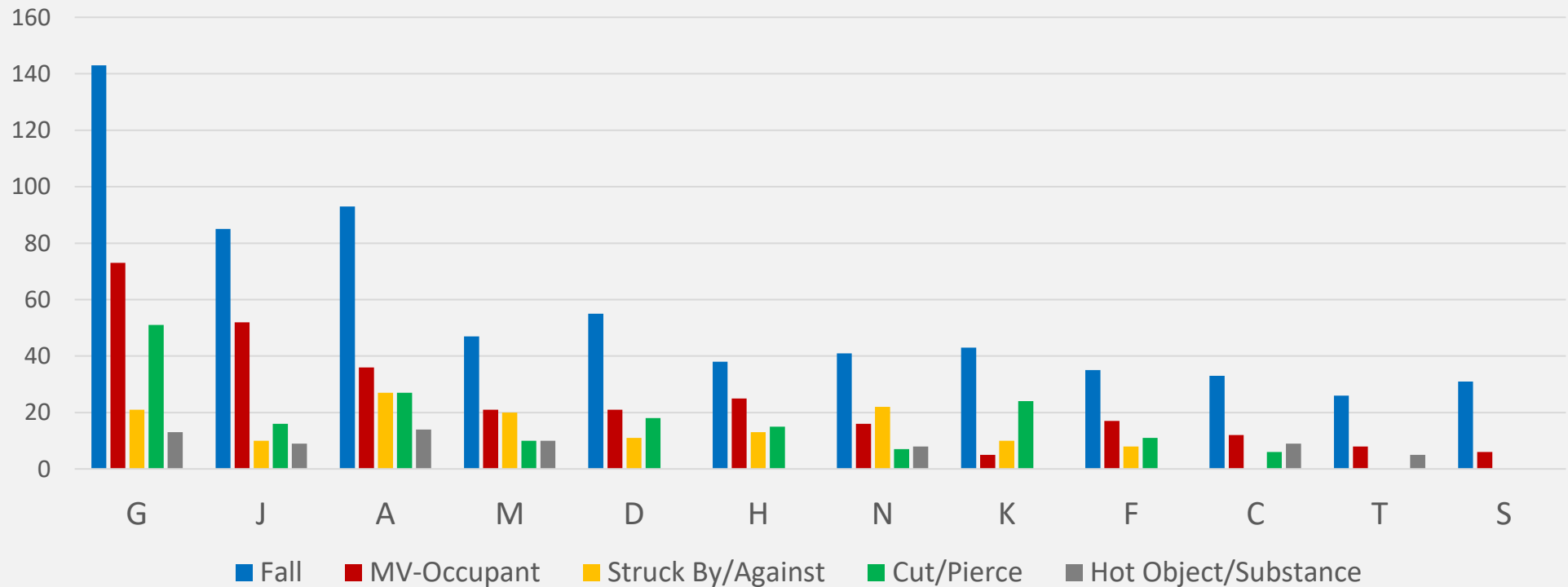
Pediatric Non-Fatal by Trauma Service Area (TSA) and Mechanism 2020 – Top 10

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by TSA and Mechanisms of Injury, 2020



Pediatric Non-Fatal by TSA and Mechanism 2020 – lower 12

Pediatric Non-Fatal Trauma Hospitalization Rate per 100,000 Population by TSA and Mechanisms of Injury, 2020



Summary of Non-Fatal Data Pediatric

- Non-fatal rates remained relatively constant for 2018-2020.
- Unintentional injury was the leading intent.
- Falls were the leading mechanism of injury. Rate of falls decreased significantly between 2018 and 2020.
- Ages 0-4 had the highest rate of non-fatal falls and hot object / substance; Ages 15-17 had the highest rate of non-fatal MV-occupant, struck by / against, and MV-non-traffic.
- Males had higher rates for all mechanisms of non-fatal injuries.
- Non-Hispanic Black children had higher rates of non-fatal injuries across all mechanisms.

FATAL TRAUMA HOSPITALIZATIONS



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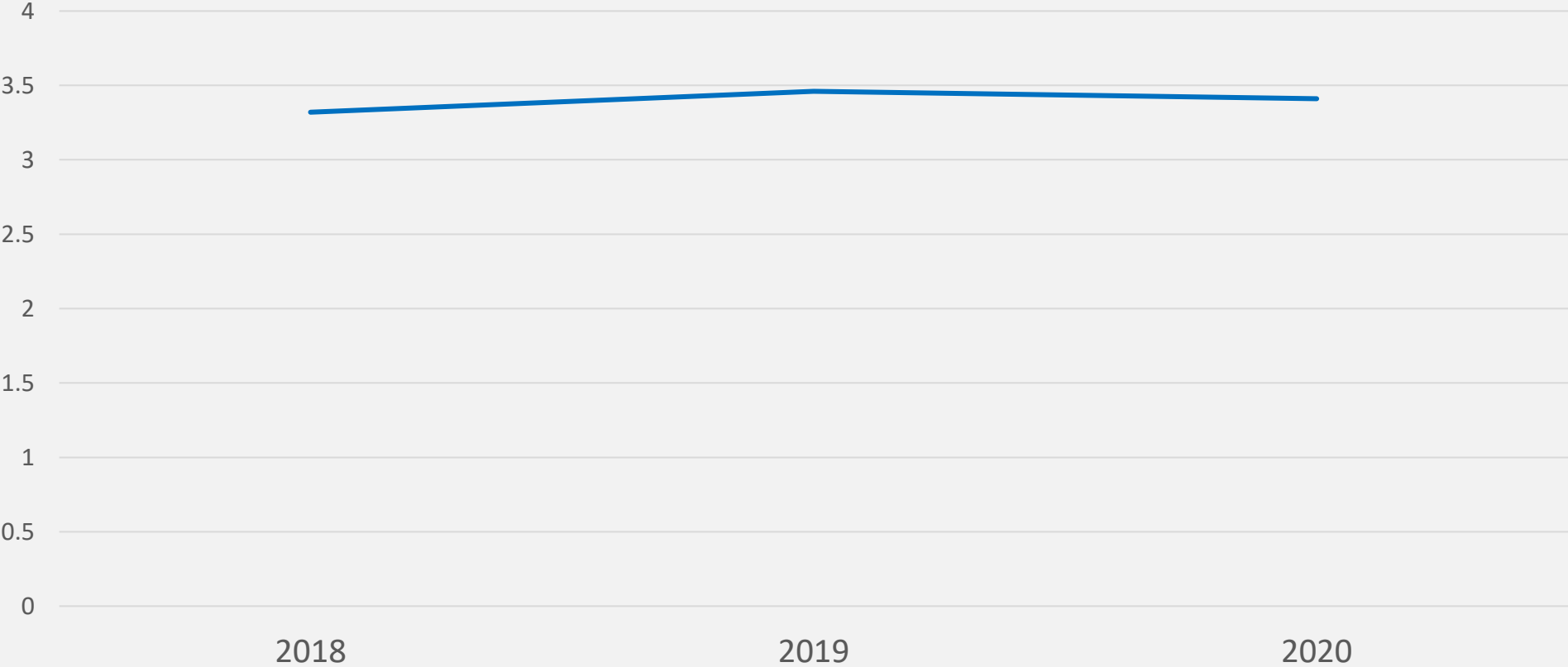
Fatal Hospitalizations 2018-2020

Pediatrics

Year	Counts	Rates
2018	245	3.32
2019	257	3.46
2020	256	3.41

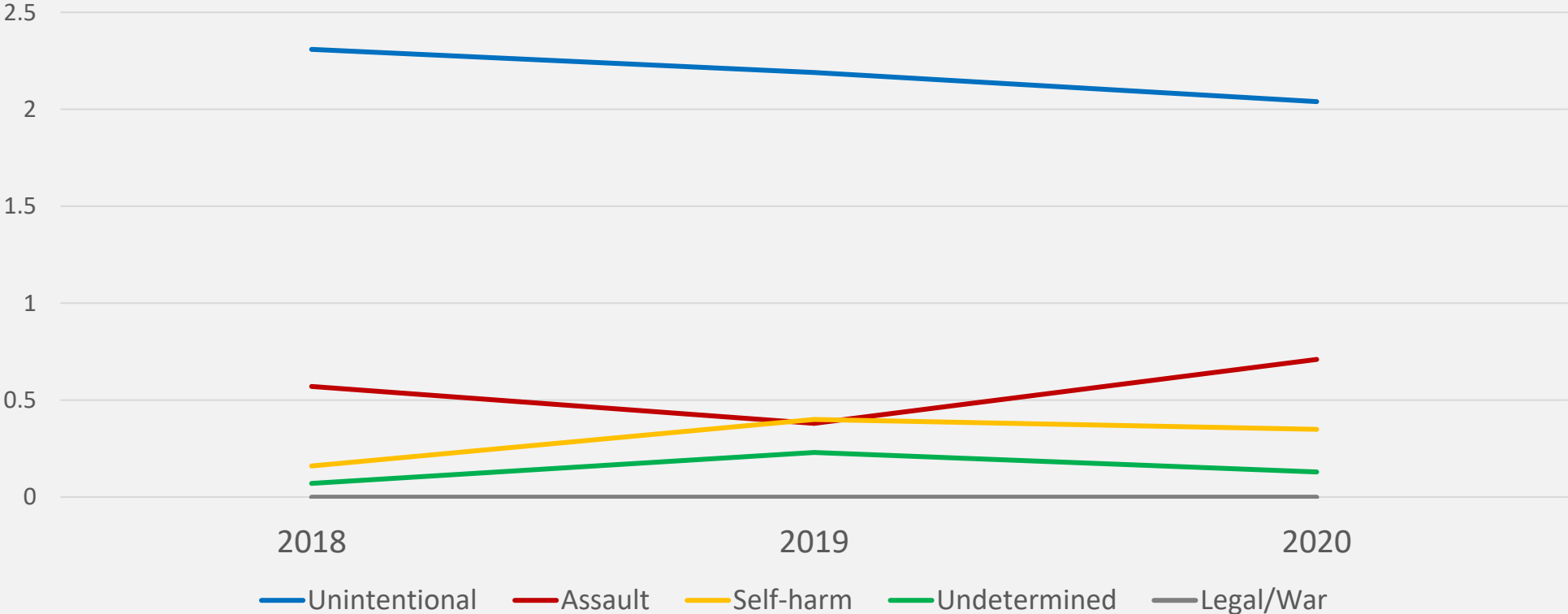
Pediatric Fatal Rate per Year 2018-2020

Pediatric Fatal Trauma Hospitalization Rate per 100,000 Population



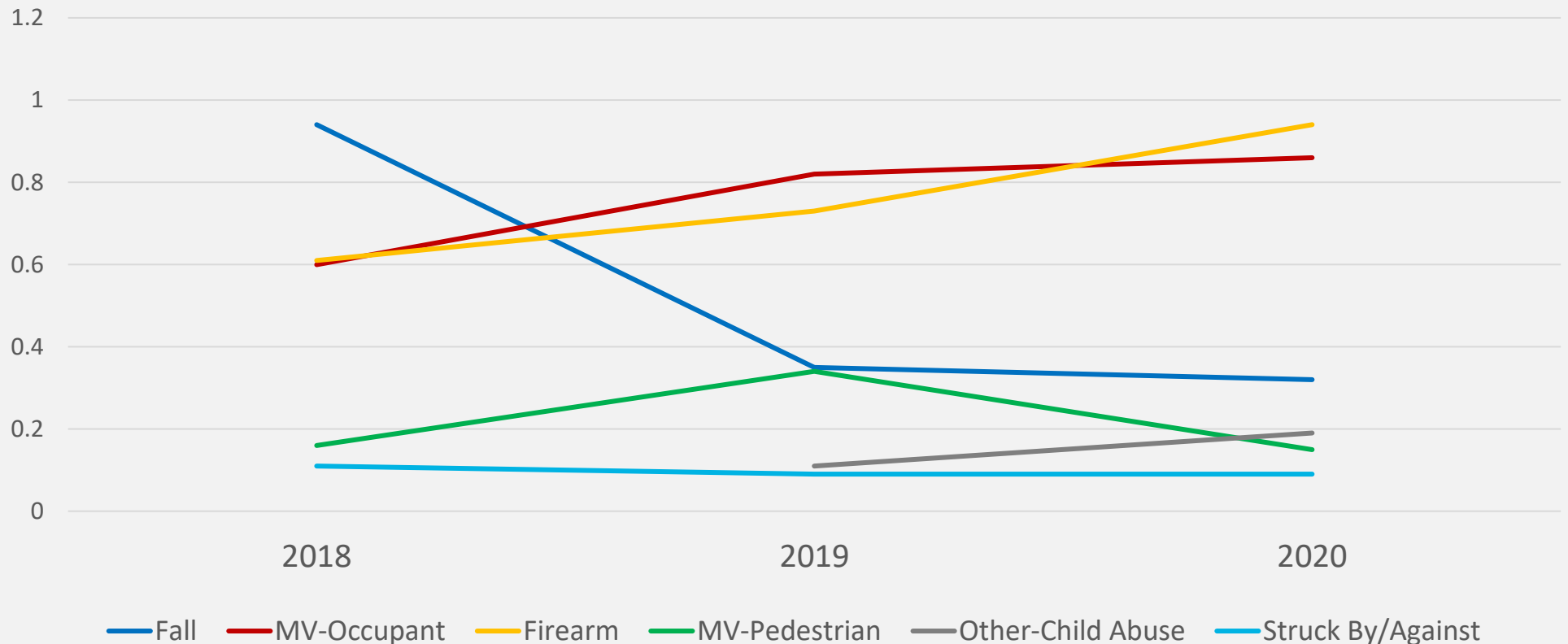
Pediatric Fatal by Intent 2018-2020

Pediatric Fatal Trauma Hospitalization Rate per 100,000 Population by Intent



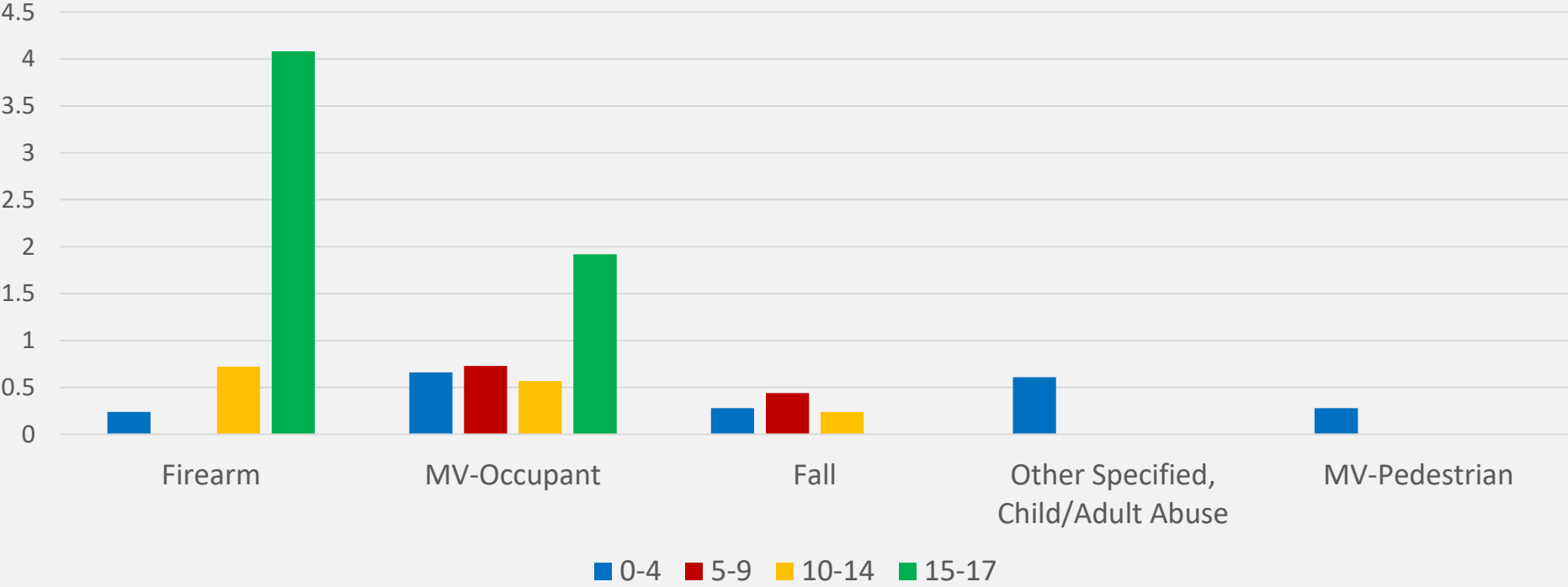
Pediatric Fatal by Mechanism 2018-2020

Pediatric Fatal Trauma Hospitalization Rate per 100,000 Population by Mechanism

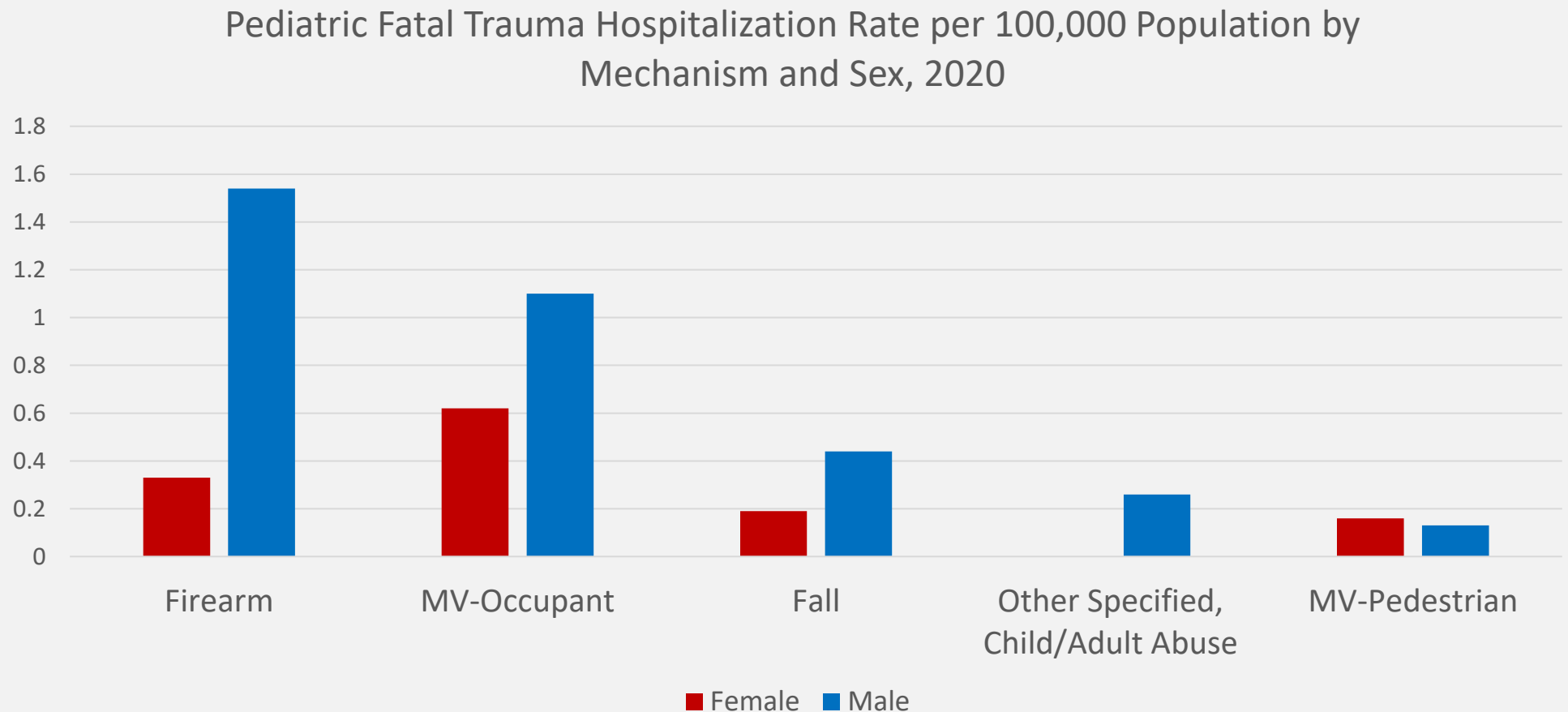


Pediatric Fatal Mechanism by Age Group 2020

Pediatric Fatal Trauma Hospitalization Rate per 100,000 Population by Mechanism and Age, 2020



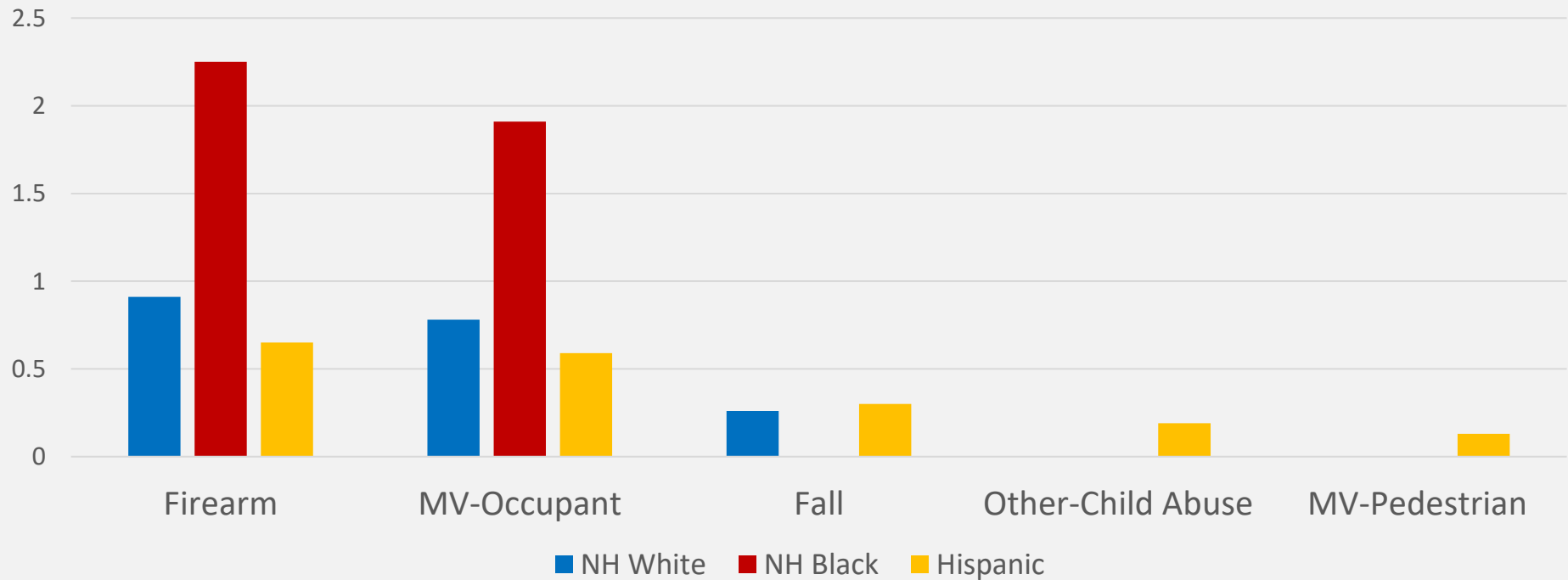
Pediatric Fatal by Mechanism and Sex 2020



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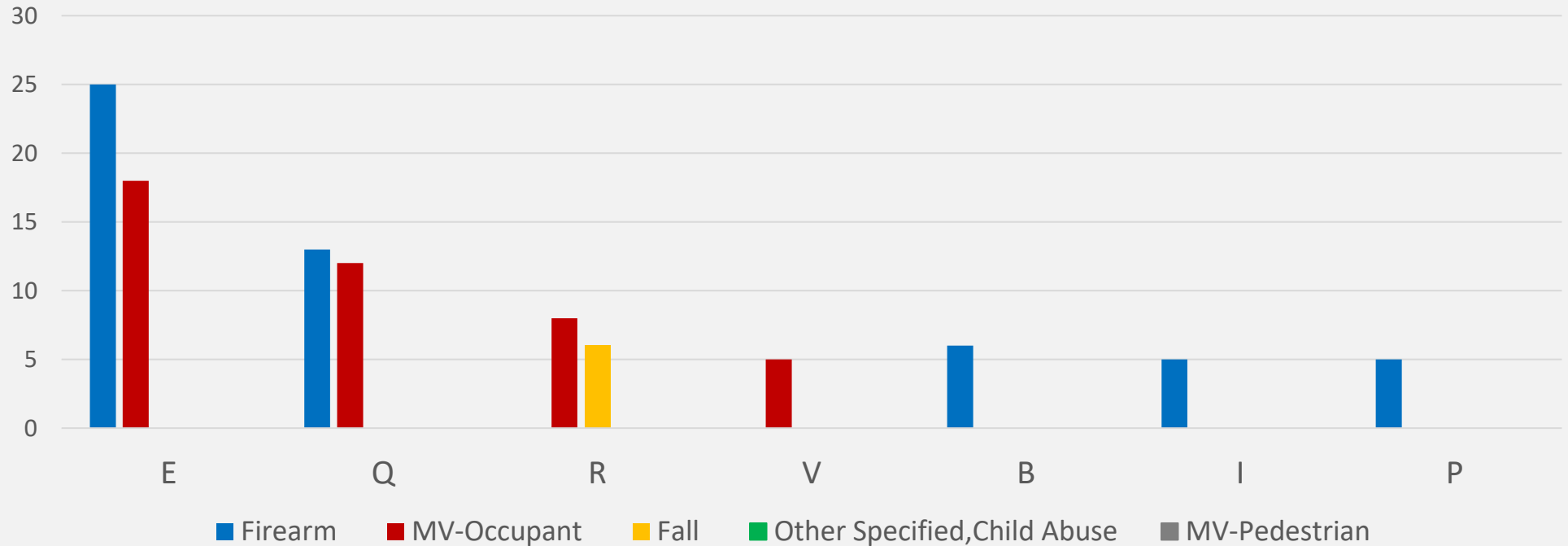
Pediatric Fatal by Race and Ethnicity 2020

Pediatric Fatal Trauma Hospitalization Rate per 100,000 Population by
Race and Ethnicity, 2020



Pediatric Fatal Hospitalizations by TSA and Mechanism 2020

Pediatric Fatal Trauma Hospitalization Rate per 100,000 Population by TSA and Mechanisms of Injury, 2020



Note: the remaining TSAs are not displayed as the corresponding records are all under 5 and were suppressed.



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Summary of Fatal Data Pediatric

- Fatal rates remained constant from 2018-2020.
- Unintentional injury remained the primary intent and decreased steadily over the three-year period.
- In 2018, falls were the primary mechanism for all ages, but the rate decreased between 2018 and 2019/2020. For 2019 and 2020, MV-occupant and firearms were the leading mechanism for fatal pediatric hospitalizations.
- Ages 15-17 had the highest rates of fatal firearms and MTV-occupants.
- Males had higher rates of firearm, MV-occupant, fall, and child abuse.
- Non-Hispanic Blacks had higher rates of fatal firearm and MV-occupants.



Resources

- National Trauma Data Bank (NTDB) data dictionary: [facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds](https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds)
- Injury Indicators Case Definitions: Thomas KE, Johnson RL. State injury indicators report: Instructions for preparing 2019 data. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2021.

NOTE: Coding is based on the ICD10CM (International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM))



Double Transfers 2019 and 2020 Data



Double Transfers Methodology

Double Transfers – When patients are transferred from one facility to another facility.

Key variables – Hospitals receiving transferred patients and their emergency department discharge disposition.



Double Transfers by Age, 2020

N=19,092

Transferred to Another Facility

Age	Count	Percentage
0-4	99	37.64%
5-9	52	19.77%
10-14	70	26.62%
15-17	42	15.97%
Total	263	100%



Double Transfers by Hospital Designation, 2020

Transferred to Another Facility

Hospital Designation	Count	Percentage
Level 1	218	82.89%
Level 2	*	*
Level 3	9	03.42%
Level 4	11	04.18%
Hospital	9	03.42%
Missing	13	04.94%
Total	263	100%



Double Transfers by Age, 2019

N=20,374

Transferred to Another Facility

Age	Count	Percentage
0-4	78	34.21%
5-9	52	22.81%
10-14	58	25.44%
15-17	40	17.54%
Total	228	100%



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Double Transfers by Hospital Designation, 2019

Transferred to Another Facility

Hospital Designation	Count	Percentage
Level 1	192	84.21%
Level 2	6	2.63%
Level 3	6	2.63%
Level 4	12	5.26%
Hospital	*	*
Missing	9	3.95%
Total	228	100%



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Prepared by the Office of Injury Prevention, April 2022

QUESTIONS?



Thank you!

Leading Causes of Injuries 2018-2020
Doubles Transfers 2019-2020

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