

Dockless Electric Scooter-Related Injuries Study

City of Austin Public Safety Commission
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Methodology

- Time Period: September 5 through November 30, 2018
- Place: City of Austin
- Sources:
 - Austin-Travis County Emergency Medical Services
 - Hospital emergency department syndromic surveillance chief complaints

Methodology

- **Confirmed:** injury related to a *rentable dockless, electric scooter*
- **Probable:** injury related to an *electric scooter*
- **Suspect:** information not sufficient to determine if an injury was related to a *rental dockless electric scooter* or *electric scooter*
- **Not a case:** information sufficient to classify that an injury was **NOT** related to *rentable dockless electric scooter*

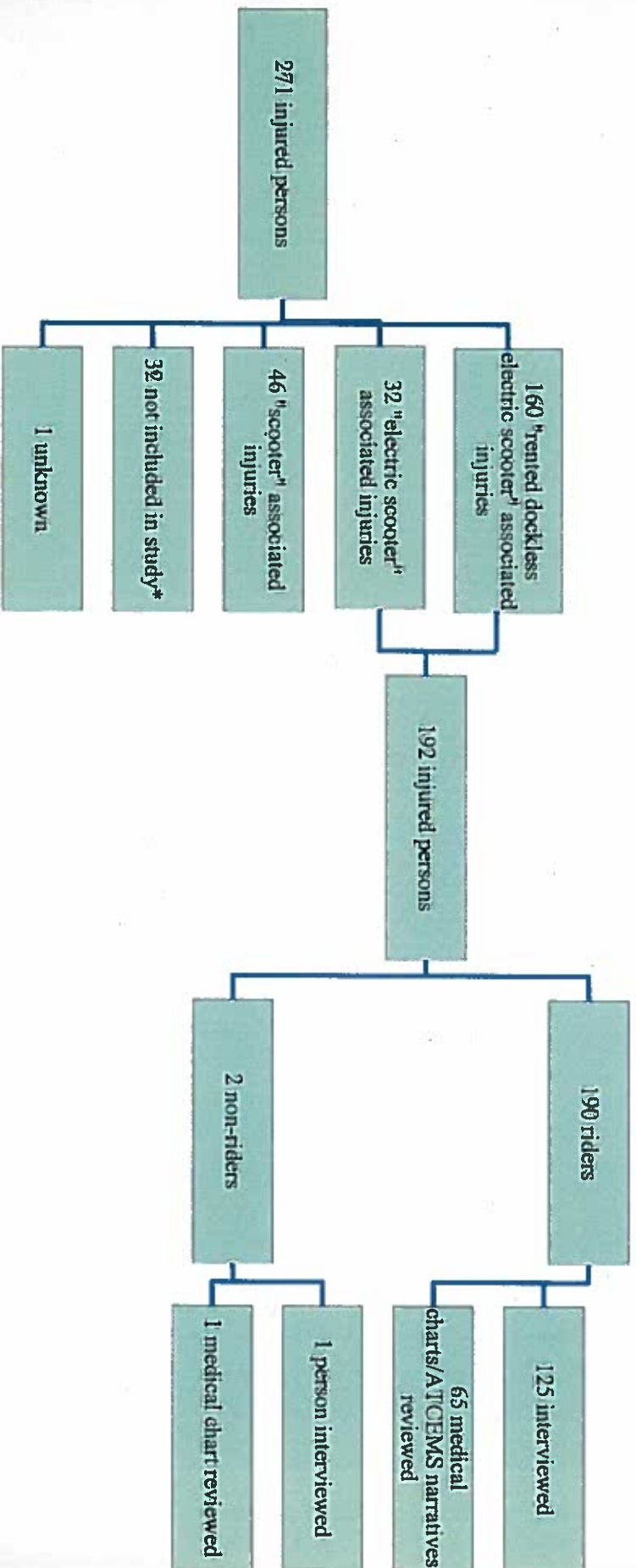
Results

- 271 injured persons
 - 160 rented dockless electric scooter
 - 32 electric scooter
 - 46 scooter
 - 33 not a scooter or unknown, incident occurred outside City of Austin, incident occurred outside study period

Results

- 192 injured persons (rented, dockless electric scooter or electric scooter)
 - 190 riders
 - 125 interviewed
 - 65 medical charts or ATCEMS reports reviewed
 - 2 non-riders (one pedestrian and one bicyclist
 - One interviewed
 - One medical chart reviewed

Results

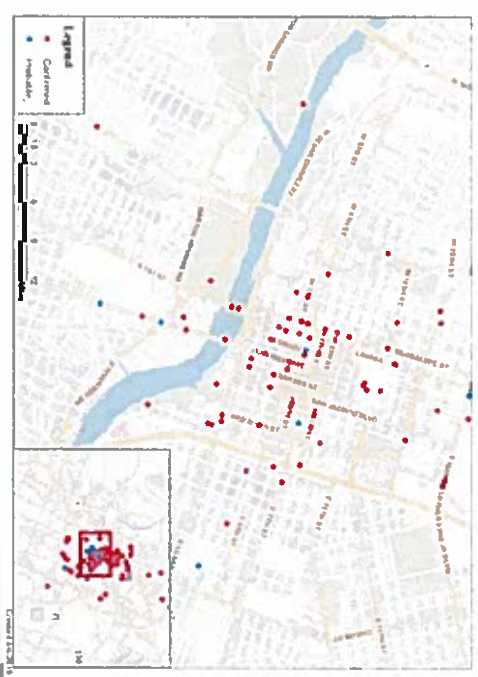


Demographic Characteristics

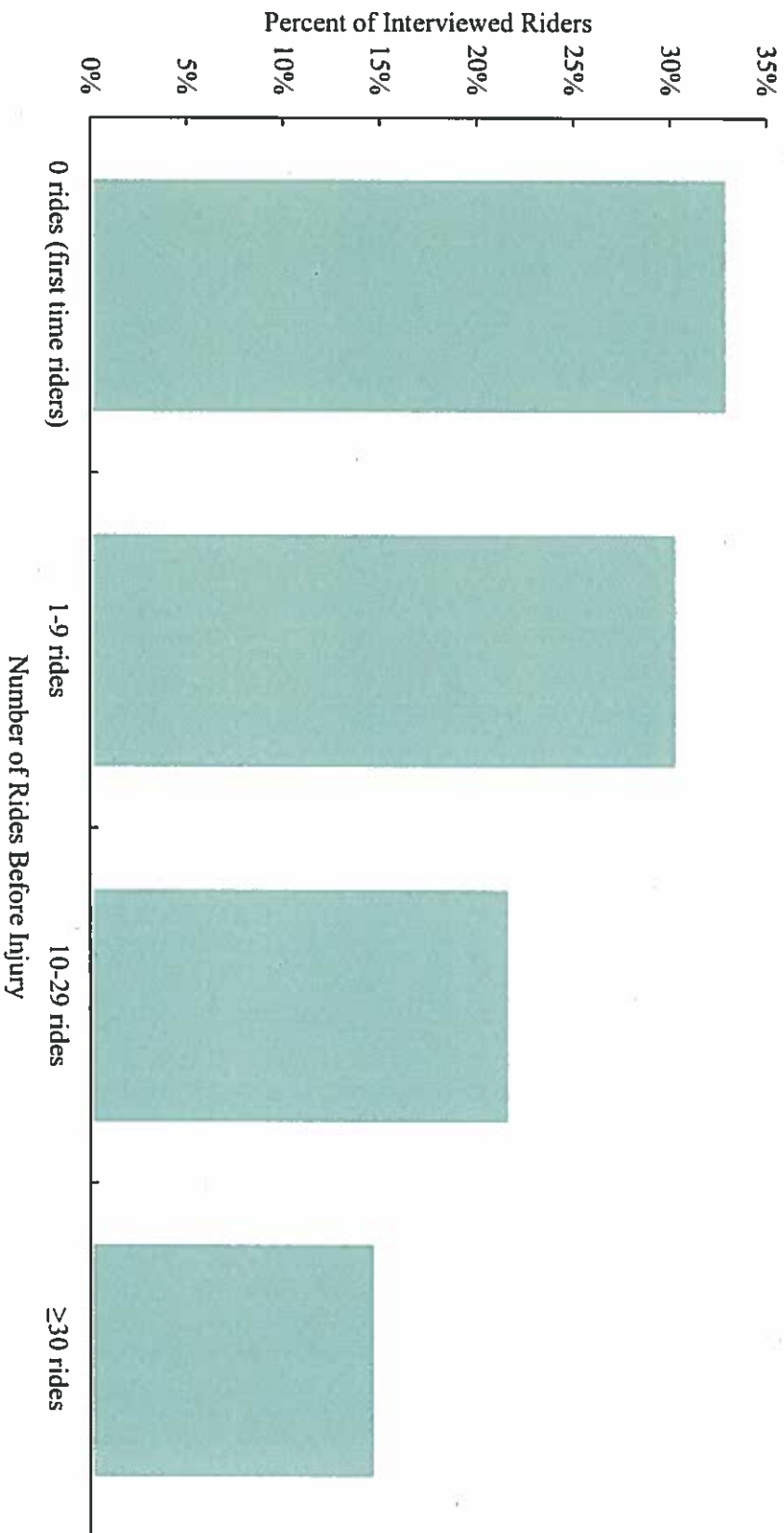
- Most (55%) were males
- Ranged in age from 9 to 79 years
 - Nearly half (48%) were 18 to 29 years of age
- Most (60%) resided in Austin

Geographic Characteristics

- Downtown Austin – 31%
- University of Texas at Austin campus – 16%
- Injured while riding scooter on street – 55%
- Injured while riding scooter on sidewalk – 33%



Scooter Rides Before Injury



Injury Characteristics

- Head – 48%
 - Face – 40%
- Upper limbs – 70%
- Chest/abdomen – 18%
- Lower limbs – 55%

Injury Characteristics

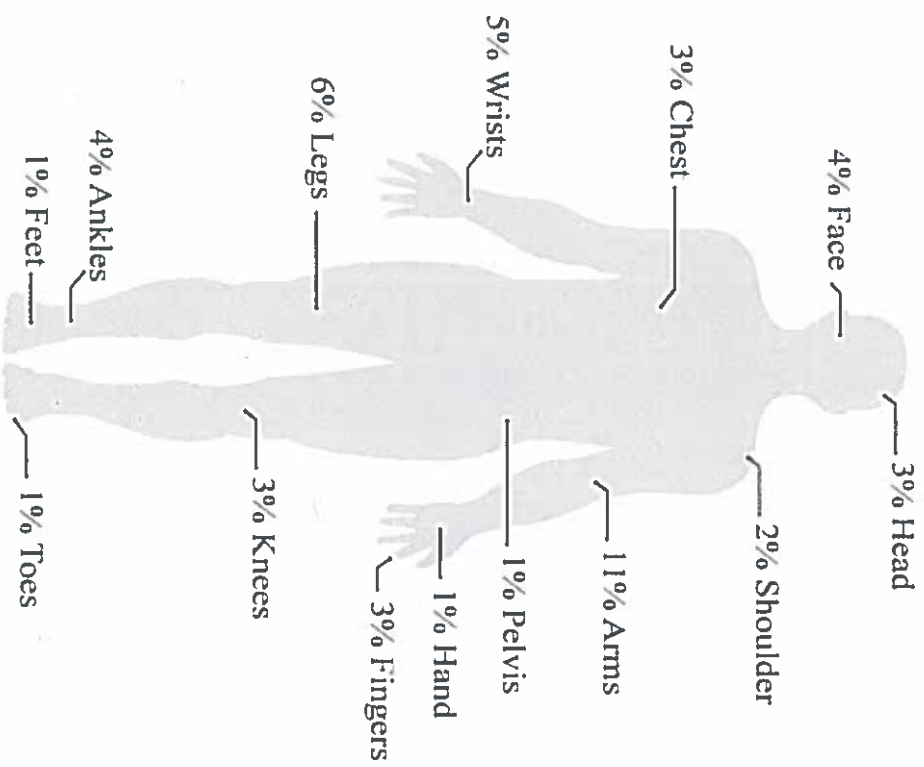
- Fractures – 35%
- Lacerations – 44%
- Abrasions – 70%
- Sprains/strains – 22%

Fractures*

- Injured riders with at least one bone fracture – 35%

** (excluding nose/fingers/toes)*

Bone Fracture* Locations



** (41% had any fractures)*

Injured Riders

- 14% were hospitalized
- Sustained a traumatic brain injury* – 15%
- No deaths
- Only one rider (<1%) was wearing a helmet

**Traumatic brain injuries include concussions and other forms of altered mental status or bleeding such as subarachnoid hemorrhage and subdural hematoma.*

When were riders injured?

- About two injuries per day
- Saturday or Sunday – 39%
- Between 6:00pm and 6:00am – 39%

When were riders injured?

During the work week

- Between 6:00am and 9:00am – 4%
- Between 4:00pm and 6:00pm – 16%

Additional Information

- Drinking alcohol beverages within 12 hours preceding injury – 29%
- Excessive speed – 37%
- Possible scooter malfunction – 19%

E-Scooters Information

- During the study period
 - 936,110 e-scooter trips
 - 891,121 miles ridden
 - 182, 333 hours of e-scooter use
- About 20 persons injured per 100,000 e-scooter trips

Next Steps

- Establish and strengthen injury surveillance related to emerging transportation vehicles
- Increase the frequency and methods of educational messages on safe e-scooter riding practices.

Acknowledgements

- Ascension Seton Family of Hospitals
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- Austin-Travis County Emergency Medical Services
- Austin Public Health
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