

EMS Micromobility Stats

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Background

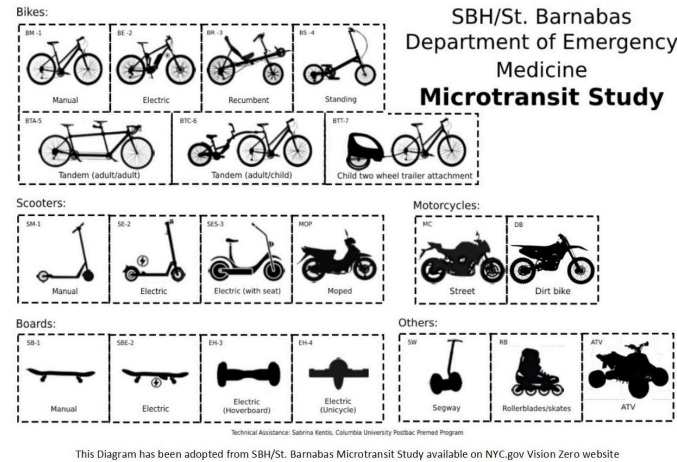
- The Mount Sinai Health System
 - Five 911 receiving hospitals serving Manhattan, Queens, and Brooklyn
 - Mount Sinai Morningside is a Level II adult trauma center located in Morningside Heights
 - Primarily receives 911 trauma patients from Central Park, Riverside Park, The Upper West Side, Morningside Heights, Hamilton Heights, Harlem, and the Henry Hudson Parkway.
 - Receives ~500 trauma patients a year via transfer from non-trauma center hospitals
- EMS overall system:
 - Over 70 agencies actively registered with NYC Regional EMS Council (NYCREMSCO, n.d.)
 - ~450 ambulances in service at peak (Evarts, 2021)
 - Mount Sinai EMS
 - Operate 19 ambulances in Manhattan, Brooklyn, and Queens



Project Background

Mount Sinai Morningside adopted the Saint Barnabas/SBH Emergency Medicine Microtransit Pictogram

- This was done as part of a data collection effort being made to standardize capture of Non-Auto vehicle types involved in accidents



Marketan, E., *n.d.*

Some of the challenges in collecting the data are

- Inconsistent language on ePCRs and pre-hospital documentation platforms
- Missing data because ePCRs do not always capture what hospitals need (NEMESIS vs Custom elements). Data buried in form and/or not required
- Varied definitions of vehicle types
- Incomplete information regarding patient location in vehicle, helmet use etc



Steps Taken by Trauma Service and EMS to Enhance Data Collection

The MSHS EMS QA/QI Team approached the Mount Sinai Trauma Services and asked how this micromobility data was gathered. The Trauma team described the difficulties in gathering the required information leading to a collaborative effort in finding a solution.

Custom data collection elements and fields were created

- Data collection is triggered by Mechanism of Injury
- Fields are mandatory, native fields that were "buried" on the ePCR were brought into the forefront
- Uses defined lists for uniformity
- Custom fields can be tied back to native (existing national element) fields ie NEMSIS Fields

A brief email was sent to EMS Crews explaining the new fields and EMS Documenter expectations along with the Micromobility Graph. This was deemed sufficient education by our EMS Training Team



Micromobility Data Collection Triggers

Home Setup eRecord Reports Maps Finance Xchange Contact Mgmt Training

| | | | | | | | | |
|---------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------|----|----|----|------------|--|--|
| Online Physician | Medical Control, NICU/PICU | Control Name and Title | No | No | No | 9/14/2023 | | |
| Patient in Custody | Yes | Patient in Custody | No | No | No | 3/1/2023 | | |
| Primary Cause | MVA To Fixed Object, MVA To MV, MVA Non-Traffic, MVA To Pedestrian, Bicycle Accident, MVA To Bicycle | | | | | 11/11/2024 | | |
| Pulse Measurement | ElectronicMonitorOt... Doppler | Heart Rate Method | | | | 7/8/2024 | | |
| Run Disposition | Refused All (10-93) | RMA-Refused All | | | | 4/14/2020 | | |
| Transport Disposition | Patient Refused Transport [93] | RMA - Destination Choice | | | | 3/19/2025 | | |
| Transport Disposition | Patient Refused Transport [93] | RMA - Preferred Destination | | | | 3/30/2025 | | |
| Transport Position | Car Seat | Pediatric Transport Device Used | | | | 8/21/2024 | | |
| Treat in Place Offer and Result | Treat in Place Offered, Accepted by Patient | | | | | 8/21/2024 | | |
| Treat in Place Offer and Result | Treat in Place Not Offered | Treat in Place Criteria Met - TIP Not Offered | | | | 8/21/2024 | | |
| Treatment | CPR | | | | | 8/22/2022 | | |
| Treatment | Restrain Patient - Physical | XD Cuffs Used | | | | 5/15/2024 | | |
| Treatment | ECG-4 Transmission | | | | | 8/21/2024 | | |

Edit PowerField Association

PowerFields PowerField Groups

Microtransit Accident Details

Effective Date: 11/11/2024

Valid Until Date (Optional):

Configurations

- Apply to All
- Required
- Billing-Related
- State/Other Export-Related
- Include on Prehospital Care Report Summary
- Include on Billing Review

ePCR Field/Section

Search

- CC / PI / MOI
 - Mechanism of Injury
 - Primary Cause

ePCR Field Values

- MVA To Fixed Object
- MVA To MV
- MVA Non-Traffic
- MVA To Pedestrian
- Bicycle Accident
- MVA To Bicycle

Close Save

1 2 20 items per page

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Micromobility Data Collection Supplemental Fields

HealthEMS Manager 5.63

Home Setup eRecord Reports Maps Finance Xchange Contact Mgmt Training

Setup - Application Settings - MobileTouch PowerField Groups

+ Create New Download Excel Instructional Video

Show: Active

| Name | Actions |
|-------------------------------|-----------------|
| Critical Care Transport Times | [Edit] [Delete] |
| Mechanical CPR Device | [Edit] [Delete] |
| Microtransit Accident Details | [Edit] [Delete] |
| NICU/PICU Physician Name | [Edit] [Delete] |
| NICU/PICU Staff on Transport | [Edit] [Delete] |
| OLMC STEMI | [Edit] [Delete] |
| Patient in Custody | [Edit] [Delete] |
| TIP Offer Accepted | [Edit] [Delete] |

1 20 items per page

1 - 8 of 8 items

Edit PowerField Group

Name
Microtransit Accident Details

MobileTouch Display
Microtransit Accident Details

PowerFields
+ Add PowerField

| | | |
|---------------------------------------------------|----------------------------------------------|-----------------|
| Microtransit Accident Details - Helmet Use | Required <input checked="" type="checkbox"/> | [Edit] [Delete] |
| Microtransit Accident Details - Microtransit Mode | Required <input checked="" type="checkbox"/> | [Edit] [Delete] |

Close Save



Micromobility Data Collection – EMS Provider View

CAD 111143755

Last Known Well MM/DD/YYYY

Provider Impression

| | |
|----------------------|--------------------|
| Primary Impression | Other Impression 1 |
| Anatomic Location | Other Impression 2 |
| Organ System | Other Impression 3 |
| Secondary Impression | Intubation History |

Was this event weather related?

Mechanism of Injury

Patient Injured

⚡ Primary Cause

Secondary Cause

Other Cause 1

Other Cause 2

Other Cause 3

Injury Intent

Work Related

Work Related

Personal Protective Equipment Used

| | |
|-------------------------|------------------------|
| Eye and Face Protection | Respiratory Protection |
|-------------------------|------------------------|

Primary Cause

Primary Cause MVA To Bicycle

⚡ PowerFields

Was the Patient wearing a helmet?

| | |
|---------|-----------------------|
| No | <input type="radio"/> |
| Unknown | <input type="radio"/> |
| Yes | <input type="radio"/> |

Please Select Vehicle Type



Hospital View of ePCR

Moderate Risk for Serious Injury:
Motorcycle Crash > 20 MPH; Pedestrian/bicycle rider thrown, run over, or with significant impact
Protocol 1: **ALS Standard Approach to Patient Protocol 2:

FlowChart:

| Time | Employee | Summary |
|----------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:40:53 | Sierra 6120, Maximo | Injury - Leg - Whole Left Leg Location Modifier: Injury: Deformity Injury Modifier: |
| 13:40:53 | Sierra 6120, Maximo | ABC Airway: General: Patent: Yes Breathing: Rate: Normal: Yes Quality: Unlabored: Yes Lung Sounds: Left: Clear: Yes Lung Sounds: Right: Clear: Yes Circulation: General: Normal: Yes Skin Capillary Refill: Normal Skin Color: Normal: Yes Skin Temperature: Normal: Yes Skin Condition: Normal: Yes |
| 13:40:53 | Sierra 6120, Maximo | Neurological AVPU: Verbal Mental Status: Normal: No, Combative: Yes, Combative - Normal for Patient: No, Confused: Yes, Confused - Normal for Patient: No Neurological: All Neuro: Abnormal, Speech: Inappropriate, Speech Inappropriate - Normal for Patient: No |
| 13:40:53 | Sierra 6120, Maximo | Treatment: **ALS Assessment Success: Yes Response: Unchanged Complication: None Authorization Type: Protocol Level: ALS1 |

Supply

Qty Supply

PowerFields:

| PowerField | Value |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Scene - - Does this patient meet Treat in Place or Alternate Destination criteria? - | Other - please document in Narrative |
| Please document why Treat in Place criteria is not met | |
| Scene - Run Disposition - Transport Disposition - Did the Patient RMA/refuse transport due to inability to be transported to preferred destination? | No |

Andrew Posner © 2025 Sansio Mount Sinai EMS BK: 111143755 Call #0124 Pg 2 of 3 PCR 1 of 1

CC / PI / MOI - Mechanism of Injury - Primary Cause - Microtransit Accident Details - No
Was the Patient wearing a helmet?
CC / PI / MOI - Mechanism of Injury - Primary Cause - Microtransit Accident Details - Motorcycle - Street
Please Select Vehicle Type

Narrative History Text:

Patient is 46 year old thrown from motorcycle at speed of 40 MPH. No LOC. + Obvious left femur deformity

Auth Signature: No Privacy Sig: No Unable to Sign: No Refused to Sign: No

Recommended Service Level: / Dispatch Service Level: N/A

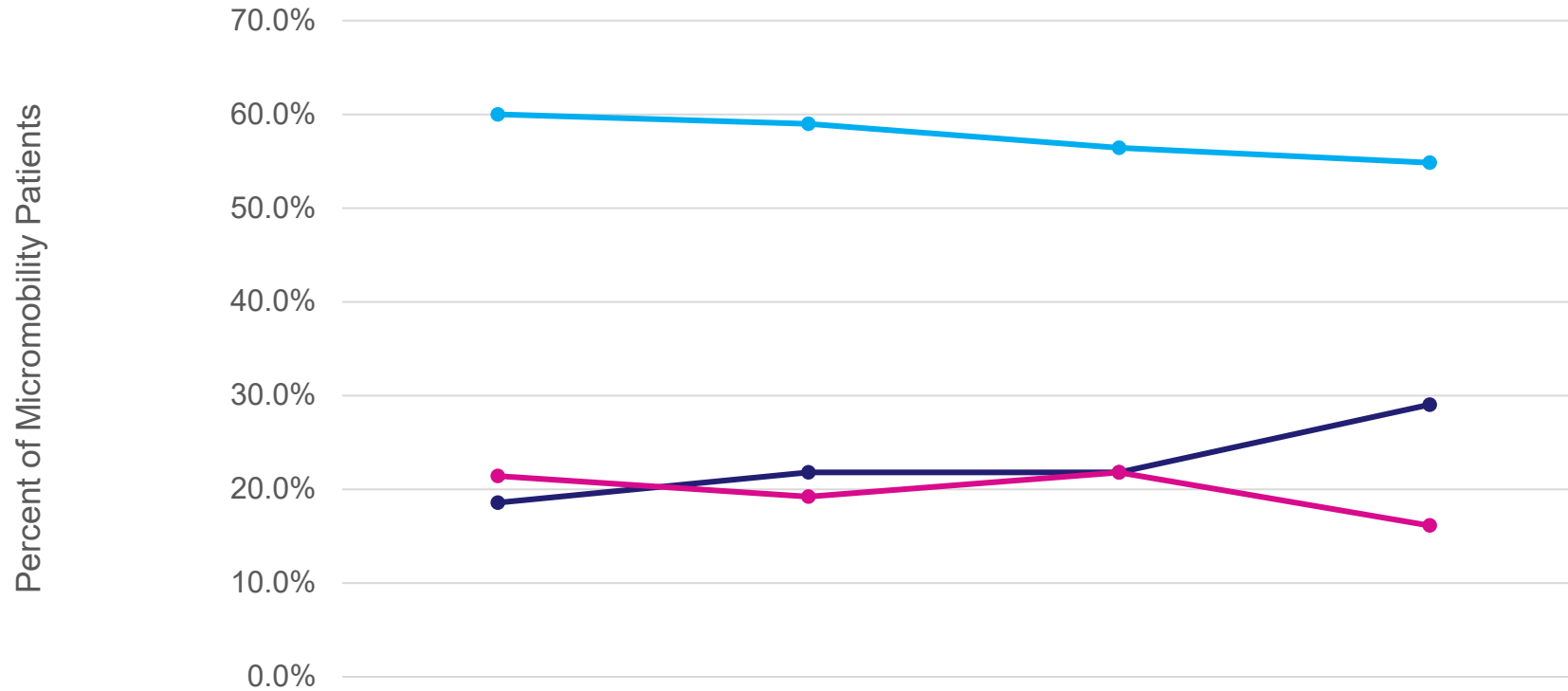
Agency Definable Field 1: Agency Definable Field 2:

General Comments: N/A



Transport Destination

Destination Type

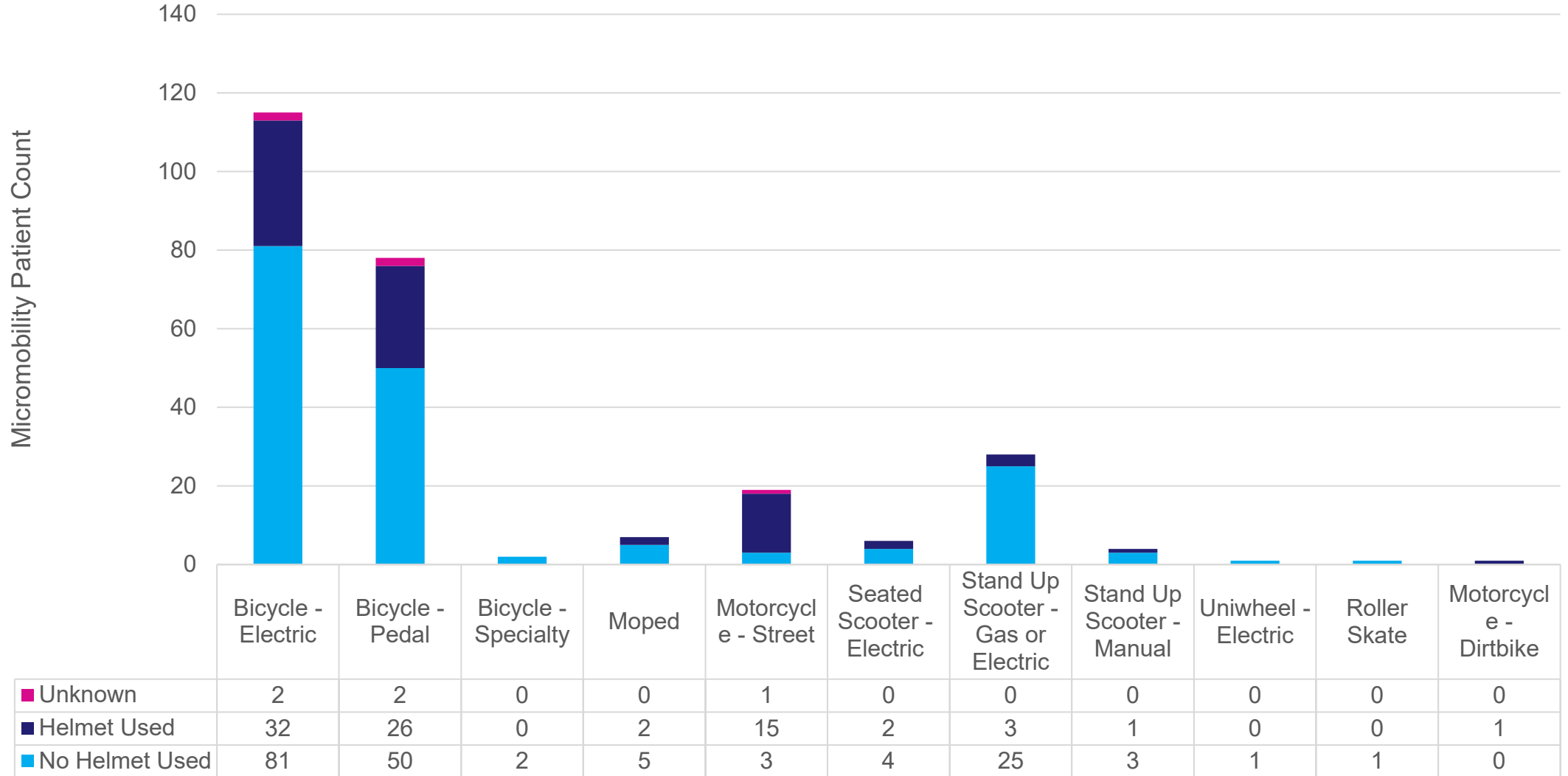


| | June-25 | July-25 | August-25 | September-25 |
|-----------------------|---------|---------|-----------|--------------|
| —●— Trauma Center | 60.0% | 59.0% | 56.4% | 54.8% |
| —●— Non-Trauma Center | 18.6% | 21.8% | 21.8% | 29.0% |
| —●— No Transport | 21.4% | 19.2% | 21.8% | 16.1% |



Vehicle Type and Helmet Use 6/1/25-9/30/25

Helmet Use by Vehicle type





What's Next?

- Refine ePCR fields
 - Define if patient was pedestrian or vehicle user
 - Review micromobility means of transportation for updates
- Data collection and export improvement
 - Currently can only be exported by ePCR system administrator
 - Still partially manual
 - End users completely manual
 - Stakeholder involvement
 - Add fields across multiple ePCR platforms
 - Lobby regional, state, and federal agencies to add fields to databases of collected information
 - Share data for community outreach and policy development



Sources

- Evarts, H. (2021, November 22). *Optimizing FDNY Ambulance response* | *columbia engineering*. Columbia Engineering. <https://www.engineering.columbia.edu/about/news/optimizing-fdny-ambulance-response>
- Marketan, E. (n.d). SBH/St. Barnabas Department of Emergency Medicine Microtransit Study. *SBH Health System/St. Barnabas Hospital*.
- NYCREMSCO (n.d.). *EMS Agency Listing*. The Regional Emergency Medical Services Council of New York City, Inc. https://nycremsco.org/content/uploads/2017/11/EMS_Agency_Listing.pdf

Thank You

