

# Cleveland EMS 2023 Response Statistics



Report produced by Timothy Sommerfelt for CARE 1975

All statistics derived from public records obtained by CARE 1975

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**Service Overview:**

Cleveland EMS (CEMS) is the primary provider of 911 medical treatment and transport for the City of Cleveland, Ohio. During 2023, the target staffing for Cleveland EMS was 23 Advanced Life Support (ALS) ambulances during daytime hours and 19 at night. When staffing allowed, more ambulances were operated.

CEMS was assisted by the Cleveland Fire Department (CFD), which staffed 31 Basic Life Support (BLS) units and 5 ALS non-transport units. CFD units provided patient care prior to the arrival of CEMS and accompanied CEMS to the hospital if the patient was in critical condition. CEMS was also assisted by the Cleveland Clinic Foundation (CCF) Mobile Stroke Unit, which is a private ambulance designed to provide specialized treatment to stroke patients.

|                          |                    |
|--------------------------|--------------------|
| CEMS ALS Ambulances 2023 | 23 day / 19 night* |
|                          |                    |
| CFD ALS Engine           | 5                  |
| CFD BLS Engine           | 18                 |
| CFD BLS Ladder           | 11                 |
| CFD BLS Rescue           | 2                  |
| <b>Total CFD</b>         | <b>36</b>          |
|                          |                    |
| CCF Mobile Stroke        | 1                  |

**General Statistics:**

|                                     |         |
|-------------------------------------|---------|
| Total Emergency calls for 2023      | 105,486 |
| No onscene time                     | 5,988   |
| Calls with a recorded on-scene time | 99,498  |

**Goals:** Historically, Cleveland EMS attempts to meet the National Fire Protection Association (NFPA) standard 1710, which calls for a BLS resource to arrive within 6 minutes from receipt of call and an ALS resource to arrive within 10 minutes from receipt of call.

**Call Prioritization:** Cleveland EMS utilizes a priority dispatch system. Dispatchers assign each call a letter prefix from Alpha-Echo to grade the severity of each call.

|         |                                 |
|---------|---------------------------------|
| Alpha   | BLS minor injury/illness        |
| Bravo   | BLS patient cannot walk         |
| Charlie | ALS resources needed            |
| Delta   | ALS life-threatening emergency  |
| Echo    | ALS Inadequate breathing        |
| Other   | Non-common dispatch designation |

**In-service Disposition:** Upon completion of the call, CEMS medics assign an in-service disposition to each call. This uses the same grading scale rating calls from Alpha-Echo, but also incorporates when a patient refuses to go to the hospital and situations where the unit cannot locate a patient.

|          |   |
|----------|---|
| TRA      | Transported Alpha- BLS minor injury/illness             |
| TRB      | Transported Bravo- BLS patient cannot walk              |
| TRC      | Transported Charlie- ALS resources needed               |
| TRDM     | Transported Delta Medical- ALS life-threatening medical |
| NOTS1    | Transported Critical adult trauma                       |
| NOTS2    | Transported Serious adult trauma                        |
| NOTS3    | Transported Minor adult trauma                          |
| TRDT     | Transported Pediatric trauma                            |
| TRET     | Transported Traumatic Cardiac Arrest                    |
| TEM/TALS | Transported Echo Medical- Medical Cardiac Arrest        |
| DOA/TREA | Dead On Arrival   |
| REFUSAL  | Patient refused transport                               |
| CCFMS    | Patient transported by CCF mobile stroke unit           |
| GOA/UTL  | Patient is Gone on Arrival or Unable to be Located.     |
| Other    | CFD, CPD, or another agency handled.                    |

### Response Times and In-service Disposition by Dispatch Priority

|   |               |     |  |                         |               |            |
|---|---------------|-----|--|-------------------------|---------------|------------|
| <b>Overall 2023 statistics</b>          |               |     |  | TRA                     | 16,048        | 16%        |
| <b>Calls with recorded onscene time</b> | <b>99,499</b> |     |  | TRB                     | 18,450        | 19%        |
| <b>Average Start-to-Dispatch</b>        | <b>4:23</b>   |     |  | TRC                     | 24,760        | 25%        |
| <b>Median Start-to-Dispatch</b>         | <b>2:25</b>   |     |  | TRDM                    | 3,569         | 4%         |
| under 4 min                             | 80,838        | 81% |  | NOTS1                   | 632           | 0.6%       |
| under 3 min                             | 67,076        | 67% |  | NOTS2                   | 3,561         | 4%         |
| under 2 min                             | 32,214        | 32% |  | NOTS3                   | 4,912         | 5%         |
| under 1 min                             | 2,138         | 2%  |  | TRDT/PNOTS              | 763           | 0.8%       |
|   |               |     |  | TRET                    | 73            | 0.1%       |
| <b>Average Dispatch-to-Onscene</b>      | <b>7:40</b>   |     |  | TEM/TALS                | 497           | 0.5%       |
| <b>Median Dispatch-to-Onscene</b>       | <b>7:02</b>   |     |  | <b>Total Transports</b> | <b>73,205</b> | <b>74%</b> |
| under 20 minutes                        | 98,774        | 99% |  | DOA/TREA                | 1,090         | 1%         |
| under 15 minutes                        | 95,093        | 96% |  | REFUSAL                 | 11,006        | 11%        |
| under 10 minutes                        | 77,088        | 77% |  | CCFMS                   | 175           | 0.2%       |
| under 8 minutes                         | 60,376        | 61% |  | GOA/UTL                 | 3,461         | 3%         |
| under 6 minutes                         | 36,741        | 37% |  | Other                   | 10,501        | 11%        |

|                                 |              |     |
|---------------------------------|--------------|-----|
| <b>2023 overall</b>             |              |     |
| <b>Average Start-to-Onscene</b> | <b>12:04</b> |     |
| <b>Median Start-to-Onscene</b>  | <b>9:53</b>  |     |
| Under 20 minutes                | 91,455       | 92% |
| under 15 minutes                | 81,385       | 82% |
| under 10 minutes                | 50,692       | 51% |
| under 8 minutes                 | 29,986       | 30% |
| under 6 minutes                 | 10,811       | 11% |

|   |              |     |  |                         |              |            |
|---|--------------|-----|--|-------------------------|--------------|------------|
| <b>Echo 2023 statistics</b>             |              |     |  | TRA                     | 249          | 5%         |
| <b>Calls with recorded onscene time</b> | <b>4,753</b> |     |  | TRB                     | 469          | 10%        |
| <b>Average Start-to-Dispatch</b>        | <b>2:02</b>  |     |  | TRC                     | 1,763        | 37%        |
| <b>Median Start-to-Dispatch</b>         | <b>1:41</b>  |     |  | TRDM                    | 514          | 11%        |
| under 4 min                             | 4,535        | 95% |  | NOTS1                   | 6            | 0.7%       |
| under 3 min                             | 4,301        | 90% |  | NOTS2                   | 18           | 0.4%       |
| under 2 min                             | 3,198        | 67% |  | NOTS3                   | 11           | 0.2%       |
| under 1 min                             | 233          | 5%  |  | TRDT/PNOTS              | 1            | 0.2%       |
|   |              |     |  | TRET                    | 5            | 0.7%       |
| <b>Average Dispatch-to-Onscene</b>      | <b>7:08</b>  |     |  | TEM/TALS                | 284          | 6%         |
| <b>Median Dispatch-to-Onscene</b>       | <b>6:33</b>  |     |  | <b>Total Transports</b> | <b>3,320</b> | <b>70%</b> |
| Under 20 minutes                        | 4,731        | 99% |  | DOA/TREA                | 838          | 18%        |
| under 15 minutes                        | 4,621        | 97% |  | REFUSAL                 | 307          | 6%         |
| under 10 minutes                        | 3,932        | 83% |  | CCFMS                   | 0            | 0%         |
| under 8 minutes                         | 3,194        | 67% |  | GOA/UTL                 | 41           | 0.9%       |
| under 6 minutes                         | 2,033        | 43% |  | Other                   | 248          | 5%         |

|   |               |     |  |                         |               |            |
|---|---------------|-----|--|-------------------------|---------------|------------|
| <b>Delta 2023 statistics</b>            |               |     |  | TRA                     | 3,238         | 11%        |
| <b>Calls with recorded onscene time</b> | <b>30,615</b> |     |  | TRB                     | 4,291         | 14%        |
| <b>Average Start-to-Dispatch</b>        | <b>2:53</b>   |     |  | TRC                     | 9,899         | 32%        |
| <b>Median Start-to-Dispatch</b>         | <b>2:12</b>   |     |  | TRDM                    | 1,767         | 6%         |
| under 4 min                             | 27,154        | 89% |  | NOTS1                   | 500           | 2%         |
| under 3 min                             | 23,459        | 77% |  | NOTS2                   | 1,569         | 5%         |
| under 2 min                             | 12,271        | 40% |  | NOTS3                   | 1,406         | 5%         |
| under 1 min                             | 636           | 2%  |  | TRDT/PNOTS              | 284           | 1%         |
|   |               |     |  | TRET                    | 64            | 0.2%       |
| <b>Average Dispatch-to-Onscene</b>      | <b>7:28</b>   |     |  | TEM/TALS                | 181           | 0.6%       |
| <b>Median Dispatch-to-Onscene</b>       | <b>6:47</b>   |     |  | <b>Total Transports</b> | <b>23,199</b> | <b>76%</b> |
| Under 20 minutes                        | 30,408        | 99% |  | DOA/TREA                | 192           | 0.6%       |
| under 15 minutes                        | 29,377        | 96% |  | REFUSAL                 | 3,190         | 10%        |
| under 10 minutes                        | 24,321        | 79% |  | CCFMS                   | 4             | 0%         |
| under 8 minutes                         | 19,457        | 64% |  | GOA/UTL                 | 1,238         | 4%         |
| under 6 minutes                         | 12,105        | 40% |  | Other                   | 2,793         | 9%         |

|   |               |     |  |                         |               |            |
|---|---------------|-----|--|-------------------------|---------------|------------|
| <b>Charlie 2023 statistics</b>          |               |     |  | TRA                     | 4,903         | 20%        |
| <b>Calls with recorded onscene time</b> | <b>24,329</b> |     |  | TRB                     | 5,466         | 22%        |
| <b>Average Start-to-Dispatch</b>        | <b>3:36</b>   |     |  | TRC                     | 8,715         | 36%        |
| <b>Median Start-to-Dispatch</b>         | <b>2:29</b>   |     |  | TRDM                    | 893           | 4%         |
| under 4 min                             | 20,195        | 83% |  | NOTS1                   | 12            | 0.1%       |
| under 3 min                             | 16,468        | 68% |  | NOTS2                   | 141           | 0.6%       |
| under 2 min                             | 6,853         | 28% |  | NOTS3                   | 135           | 0.6%       |
| under 1 min                             | 173           | 1%  |  | TRDT/PNOTS              | 21            | 0.1%       |
|   |               |     |  | TRET                    | 0             | 0%         |
| Average Dispatch-to-Onscene             | 7:57          |     |  | TEM/TALS                | 17            | 0.1%       |
| Median Dispatch-to-Onscene              | 7:19          |     |  | <b>Total Transports</b> | <b>20,303</b> | <b>83%</b> |
| Under 20 minutes                        | 24,119        | 99% |  | DOA/TREA                | 0             | 0%         |
| under 15 minutes                        | 23,134        | 95% |  | REFUSAL                 | 1,900         | 8%         |
| under 10 minutes                        | 18,258        | 75% |  | CCFMS                   | 167           | 0.7%       |
| under 8 minutes                         | 13,996        | 58% |  | GOA/UTL                 | 497           | 2%         |
| under 6 minutes                         | 8,197         | 34% |  | Other                   | 1,462         | 6%         |

|   |               |     |  |                         |               |            |
|---|---------------|-----|--|-------------------------|---------------|------------|
| <b>Bravo 2023 statistics</b>            |               |     |  | TRA                     | 2,340         | 12%        |
| <b>Calls with recorded onscene time</b> | <b>18,992</b> |     |  | TRB                     | 2,796         | 15%        |
| <b>Average Start-to-Dispatch</b>        | <b>4:32</b>   |     |  | TRC                     | 1,282         | 7%         |
| <b>Median Start-to-Dispatch</b>         | <b>2:38</b>   |     |  | TRDM                    | 168           | 0.8%       |
| under 4 min                             | 14,370        | 76% |  | NOTS1                   | 75            | 0.4%       |
| under 3 min                             | 11,381        | 60% |  | NOTS2                   | 1,284         | 7%         |
| under 2 min                             | 5,040         | 27% |  | NOTS3                   | 2,350         | 12%        |
| under 1 min                             | 311           | 2%  |  | TRDT/PNOTS              | 310           | 2%         |
|   |               |     |  | TRET                    | 1             | 0%         |
| <b>Average Dispatch-to-Onscene</b>      | <b>7:42</b>   |     |  | TEM/TALS                | 10            | 0.1%       |
| <b>Median Dispatch-to-Onscene</b>       | <b>7:06</b>   |     |  | <b>Total Transports</b> | <b>10,616</b> | <b>56%</b> |
| Under 20 minutes                        | 18,866        | 99% |  | DOA/TREA                | 51            | 0.3%       |
| under 15 minutes                        | 18,133        | 95% |  | REFUSAL                 | 3,386         | 18%        |
| under 10 minutes                        | 14,641        | 77% |  | CCFMS                   | 1             | 0%         |
| under 8 minutes                         | 11,387        | 60% |  | GOA/UTL                 | 1,270         | 7%         |
| under 6 minutes                         | 6,980         | 37% |  | Other                   | 3,604         | 19%        |



|   |               |      |  |                         |               |            |
|---|---------------|------|--|-------------------------|---------------|------------|
| <b>Alpha 2023 statistics</b>            |               |      |  | TRA                     | 5,218         | 28%        |
| <b>Calls with recorded onscene time</b> | <b>18,866</b> |      |  | TRB                     | 5,370         | 28%        |
| <b>Average Start-to-Dispatch</b>        | <b>8:35</b>   |      |  | TRC                     | 2,964         | 16%        |
| <b>Median Start-to-Dispatch</b>         | <b>2:55</b>   |      |  | TRDM                    | 210           | 1%         |
| under 4 min                             | 12,772        | 68%  |  | NOTS1                   | 26            | 0.1%       |
| under 3 min                             | 9,787         | 52%  |  | NOTS2                   | 492           | 3%         |
| under 2 min                             | 3,494         | 19%  |  | NOTS3                   | 935           | 5%         |
| under 1 min                             | 151           | 0.8% |  | TRDT/PNOTS              | 139           | 0.7%       |
|   |               |      |  | TRET                    | 1             | 0%         |
| <b>Average Dispatch-to-Onscene</b>      | <b>7:57</b>   |      |  | TEM/TALS                | 4             | 0%         |
| <b>Median Dispatch-to-Onscene</b>       | <b>7:19</b>   |      |  | <b>Total Transports</b> | <b>15,359</b> | <b>81%</b> |
| Under 20 minutes                        | 18,717        | 99%  |  | DOA/TREA                | 3             | 0%         |
| under 15 minutes                        | 17,923        | 95%  |  | REFUSAL                 | 2,071         | 11%        |
| under 10 minutes                        | 14,233        | 75%  |  | CCFMS                   | 3             | 0%         |
| under 8 minutes                         | 10,922        | 58%  |  | GOA/UTL                 | 395           | 2%         |
| under 6 minutes                         | 6,376         | 34%  |  | Other                   | 1,035         | 5%         |

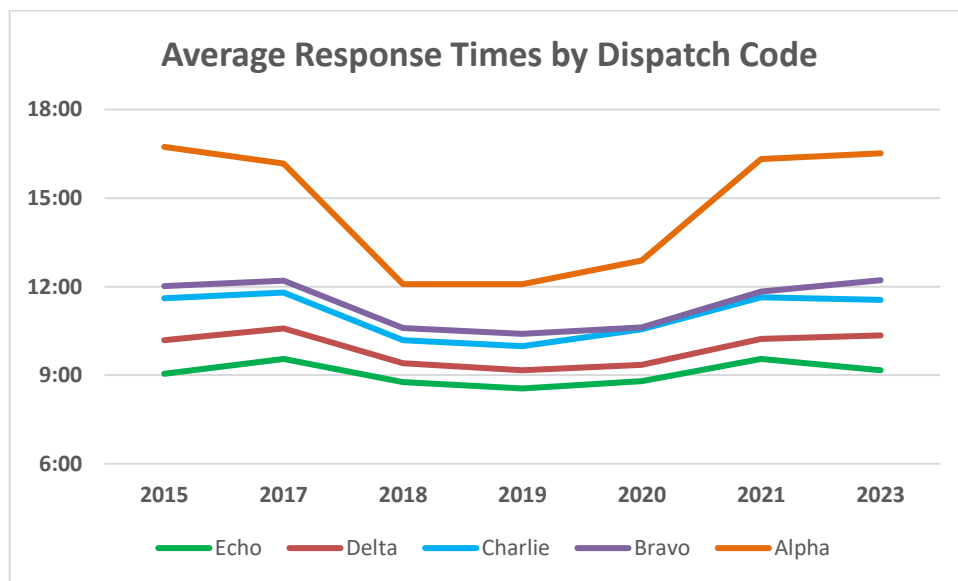
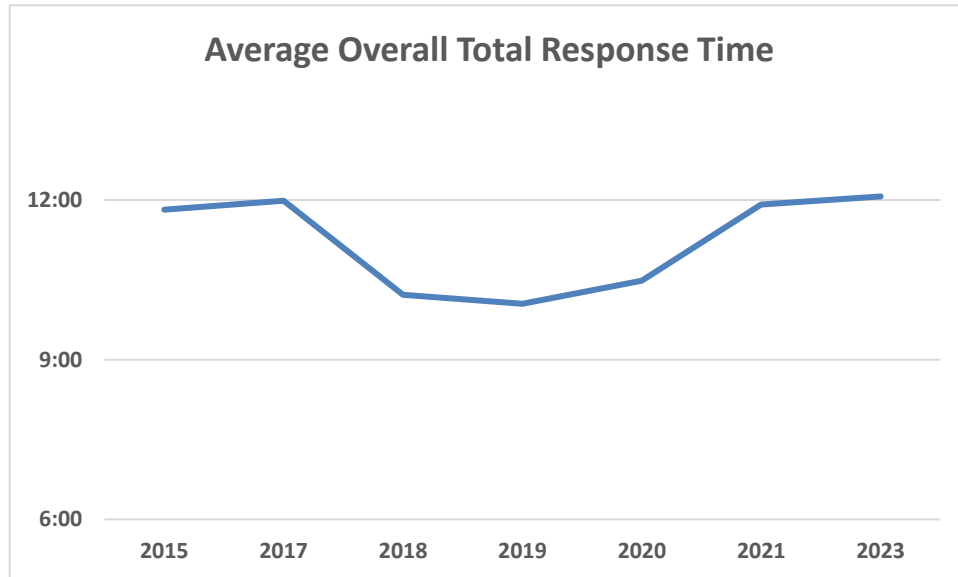
|   |              |     |  |                         |            |            |
|---|--------------|-----|--|-------------------------|------------|------------|
| <b>Other 2023 statistics</b>            |              |     |  | TRA                     | 100        | 5%         |
| <b>Calls with recorded onscene time</b> | <b>1,945</b> |     |  | TRB                     | 58         | 3%         |
| <b>Average Start-to-Dispatch</b>        | <b>1:49</b>  |     |  | TRC                     | 73         | 4%         |
| <b>Median Start-to-Dispatch</b>         | <b>1:27</b>  |     |  | TRDM                    | 17         | 0.9%       |
| under 4 min                             | 1,817        | 93% |  | NOTS1                   | 13         | 0.7%       |
| under 3 min                             | 1,685        | 87% |  | NOTS2                   | 57         | 3%         |
| under 2 min                             | 1,362        | 70% |  | NOTS3                   | 75         | 4%         |
| under 1 min                             | 639          | 33% |  | TRDT/PNOTS              | 8          | 0.4%       |
|   |              |     |  | TRET                    | 2          | 0.1%       |
| <b>Average Dispatch-to-Onscene</b>      | <b>5:48</b>  |     |  | TEM/TALS                | 1          | 0.1%       |
| <b>Median Dispatch-to-Onscene</b>       | <b>5:34</b>  |     |  | <b>Total Transports</b> | <b>404</b> | <b>21%</b> |
| Under 20 minutes                        | 1,938        | 99% |  | DOA/TREA                | 2          | 0.1%       |
| under 15 minutes                        | 1,910        | 98% |  | REFUSAL                 | 152        | 8%         |
| under 10 minutes                        | 1,708        | 88% |  | CCFMS                   | 0          | 0%         |
| under 8 minutes                         | 1,425        | 73% |  | GOA/UTL                 | 29         | 1%         |
| under 6 minutes                         | 1,055        | 54% |  | Other                   | 1,368      | 70%        |

**Day Shift (23 ambulances) vs Night Shift (19 ambulances)**

|                                   |        |     |                                   |        |     |
|-----------------------------------|--------|-----|-----------------------------------|--------|-----|
| <b>Calls received 07:00-18:59</b> | 57,412 | 58% | <b>Calls received 19:00-06:59</b> | 42,086 | 42% |
| Average response time             | 11:00  |     |                                   | 10:30  |     |

## Year-to-Year Comparison

Note that 2016 is not listed. In 2016 Cleveland hosted the Republican National Convention, the CAVS championship parade and the World Series. These events necessitated several weeks of atypical EMS responses that made for unreliable statistics. We were also unable to obtain accurate data for 2022.



Average Response Times

|             | Overall | Echo | Delta | Charlie | Bravo | Alpha |
|-------------|---------|------|-------|---------|-------|-------|
| <b>2015</b> | 11:49   | 9:03 | 10:11 | 11:36   | 12:01 | 16:44 |
| <b>2017</b> | 11:59   | 9:33 | 10:35 | 11:48   | 12:12 | 16:10 |
| <b>2018</b> | 10:13   | 8:46 | 9:24  | 10:11   | 10:36 | 12:05 |
| <b>2019</b> | 10:03   | 8:33 | 9:10  | 9:59    | 10:24 | 12:05 |
| <b>2020</b> | 10:29   | 8:48 | 9:21  | 10:33   | 10:37 | 12:53 |
| <b>2021</b> | 11:55   | 9:33 | 10:14 | 11:38   | 11:50 | 16:19 |
| <b>2023</b> | 12:04   | 9:10 | 10:21 | 11:33   | 12:13 | 16:31 |

## Unit by Unit Comparison

| Unit                  | 2023 calls | Average response time |
|-----------------------|------------|-----------------------|
| Medic 1               | 4,969      | 10:54                 |
| Medic 4               | 5,705      | 11:43                 |
| Medic 6               | 3,415      | 12:51                 |
| Medic 7               | 5,159      | 11:14                 |
| Medic 10              | 4,766      | 12:26                 |
| Medic 11              | 4,495      | 12:59                 |
| Medic 13*             | 1,638      | 14:08                 |
| Medic 17              | 3,582      | 11:39                 |
| Medic 20              | 4,525      | 12:32                 |
| Medic 21*             | 2,227      | 13:07                 |
| Medic 22              | 4,390      | 11:47                 |
| Medic 23              | 4,918      | 11:39                 |
| Medic 24              | 3,661      | 12:11                 |
| Medic 26              | 4,618      | 11:52                 |
| Medic 28*             | 2,145      | 14:06                 |
| Medic 30              | 4,636      | 11:57                 |
| Medic 31              | 4,478      | 12:28                 |
| Medic 33              | 4,050      | 11:21                 |
| Medic 36              | 4,564      | 11:51                 |
| Medic 38*             | 2,015      | 12:35                 |
| Medic 39              | 3,661      | 11:29                 |
| Medic 40              | 4,224      | 12:28                 |
| Medic 41              | 4,272      | 12:10                 |
| Medic 42              | 4,087      | 12:19                 |
| Medic 43              | 3,221      | 12:11                 |
| M2 and M3 MOB units** | 77         | 7:49                  |

\*Daytime only Unit \*\*Units were not staffed for the entire year.

### Methods and Limitations:

These statistics were compiled from a public records request filed by CARE 1975 for the actual call times for every single EMS run for the calendar year 2023. A Microsoft Excel spreadsheet was created, and the data was reviewed to remove events without a documented onscene time and calls that duplicated the same information. This is probably the reason that the run totals in this paper are different than those released in the City of Cleveland budget books. Lastly, it appears that through a computer glitch when multiple ambulances respond to the same scene, as in the case of a traffic accident with multiple patients, only the response time of the first-arriving ambulance is recorded. As multi-unit calls represent a small amount of CEMS responses, however, this is unlikely to alter trends.