

# Wake County EMS System Peer Review System Performance Report

February 2020



@wakegov    

wakegov.com

# Operations Update



Prompt  
Compassionate  
Clinically Excellent Care

WAKE COUNTY

# Incident Highlights

- **Trench Collapse**
  - Unique Geographical Area
  - Multiple patients
  - Large multi-agency response



# Special Event and Mass Gathering horizon scan

# Dreamville Festival



- Dix Park
- April 4, 2020
- 1200-2300
- Attendance 50,000
  - plus 1000+ staff
- Week long build in and then breakdown
- Improved plan includes 66 EMS personnel onsite, including expanded physician staffed medical tents, carts, venue teams, command staff, and mutual aid (hospital ERTs, 5 surrounding counties).



# Additional events

- **Walnut Creek, Red Hat, and Koko Booth Amphitheaters**
  - Kicks off 4/18/2020 with Jimmy Buffett
- **Entering the season of street festivals and road races**
  - March has Umstead Trail Race, Tobacco Rd. Marathon
  - St. Patrick's Day Parade and festivities (celebrated 3/14)

# Stadium Series NHL Game

February 20, 2021

- “We’re going to do everything we can to make as many seats available as possible, because we know how high demand it will be for this game, and the epic tailgate that will accompany it”
  - Tom Dundon, Hurricanes CEO and owner.



# Flu Season

- **How is everyone surviving?**
  - We know you all have had record breaking numbers this year.
  - We hope you are staying healthy!
  - On going discussions with partners on weekly flu call.
- **We also experienced our busiest day in history with 388 calls in 24 hours on January 14<sup>th</sup> 2020.**
  - Averaged 316 calls/day in January 2020.



# EMS Operations Data

# EMS Response Data

2019 Annual Data

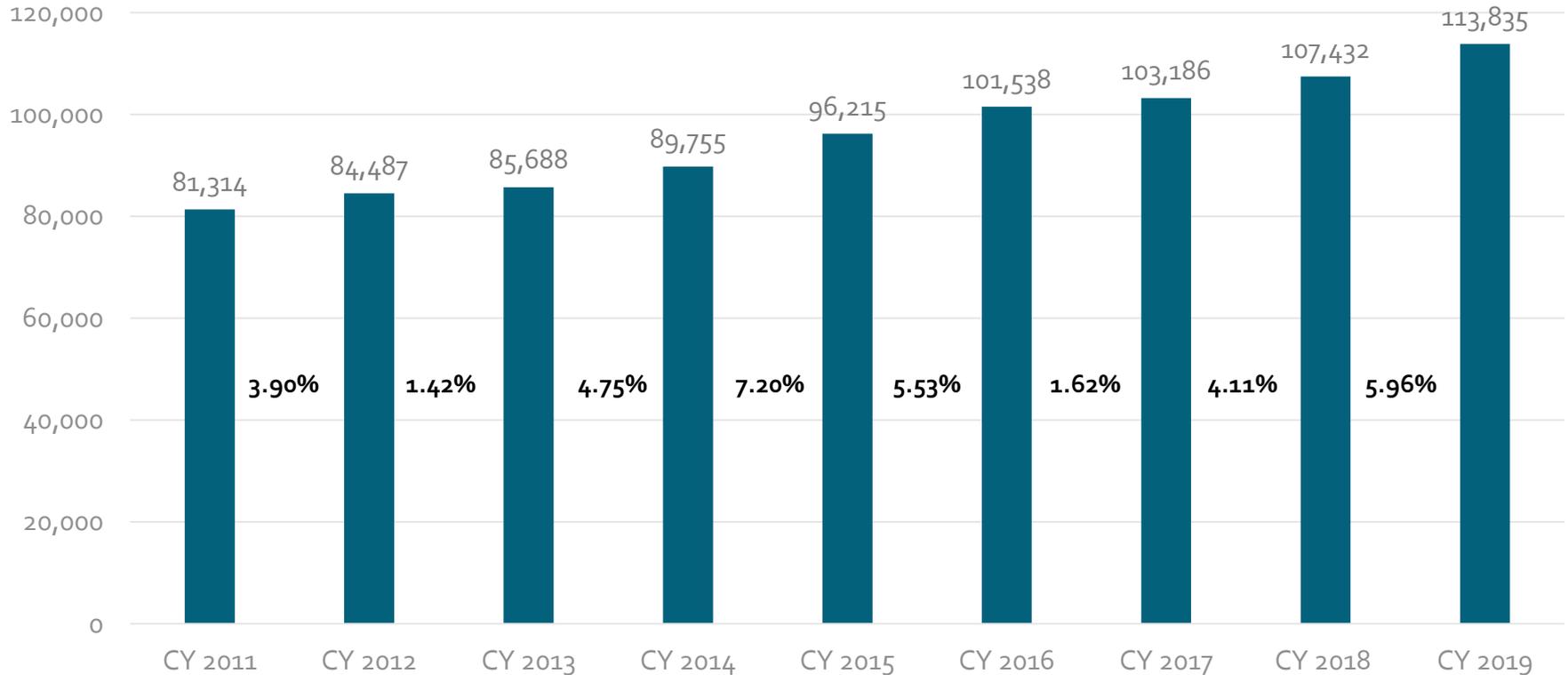
- **113,835 incidents**
- **Increase of 5.96% over 2018**
- **Average of 311 incidents per day.**



Prompt  
Compassionate  
Clinically Excellent Care

WAKE COUNTY

# Growth – Call Volume Data



# EMS Response Data

October through December 2019

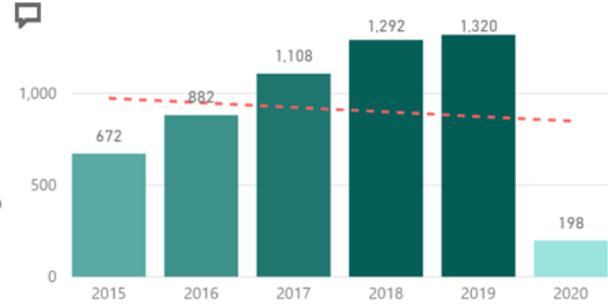
- 28,732 incidents
- Average of 312 incidents per day
  - January 2020 had average of 316 calls/day
- Highest call volume day in history on 1/14/20 with 388 calls in 24 hours.
  - Previous record 365 in 24 hours in 11/2018. We come close to this several times a month.

# Low System Resources (ESTAT) Update

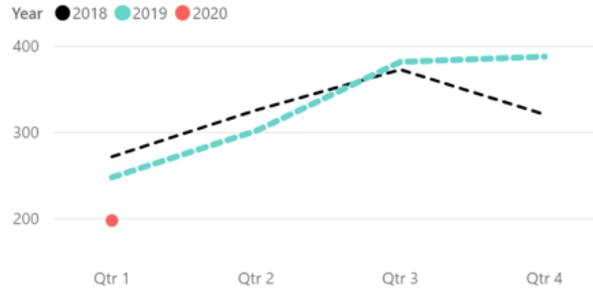
# EMS Operations ESTAT Summary <sup>i</sup>

2019 ended the year with overall more estat events than in prior 2018; while estat was lower in Q1&Q2, in Q3&Q4 2019 estat outpaced 2018. Duration of estat (length of time) outpaced 2018 across the entire year with the exception of February. The number of estat and the duration of estat continues to climb, along with overall demand for ems (calls for ems 911).

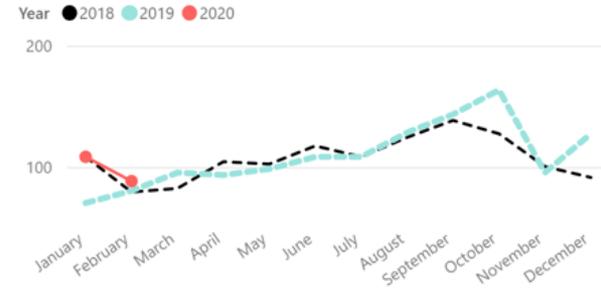
### ESTAT Events by Year



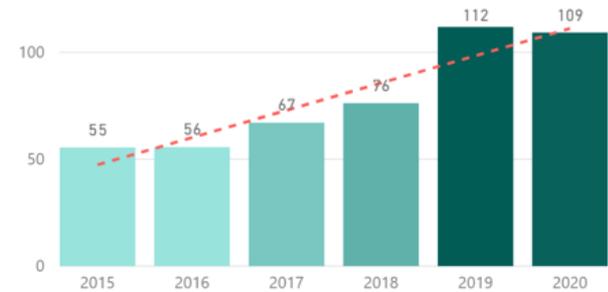
### ESTAT Events by Quarter and Year



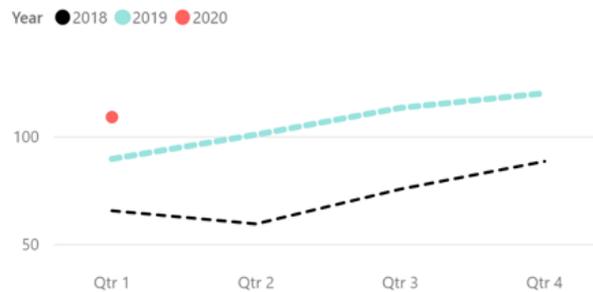
### ESTAT Events by Month and Year



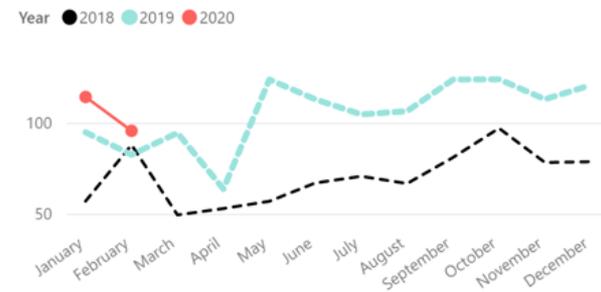
### ESTAT 90th Percentile Duration by Year



### ESTAT 90th Percentile Duration by Quarter and Year



### ESTAT 90th Percentile Duration by Month and Year



## Year Over Year Change in ESTAT

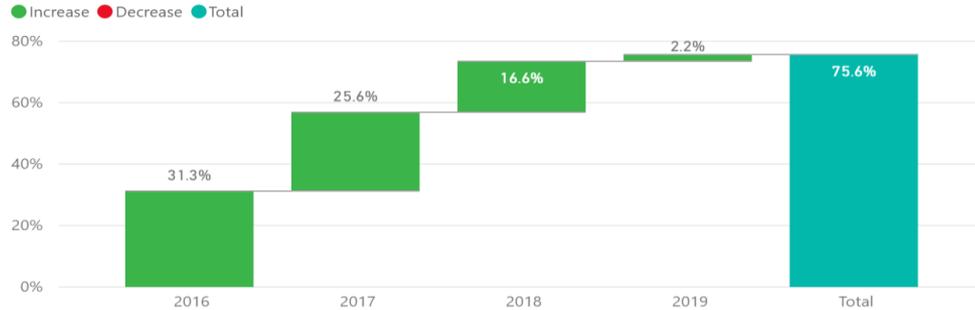
Overall, estat events are up 75% since 2015; though, the rate of growth has slowed every year since 2015 (2015-2016 31%, 2018-2019 1.9%). The duration of estat has been more variable; overall up 68% since 2015; with the highest year over year change in 2019 (2018-2019 46% increase). The number of estat events are growing, but growing more slowly; while the duration of estat (how long an estat lasts) is seeing more significant growth

### Year ESTAT Events

2019	1,320
2018	1,292
2017	1,108
2016	882
2015	672
2020	198

**Total 5,472**

### ESTAT Variance Year Over Year Change

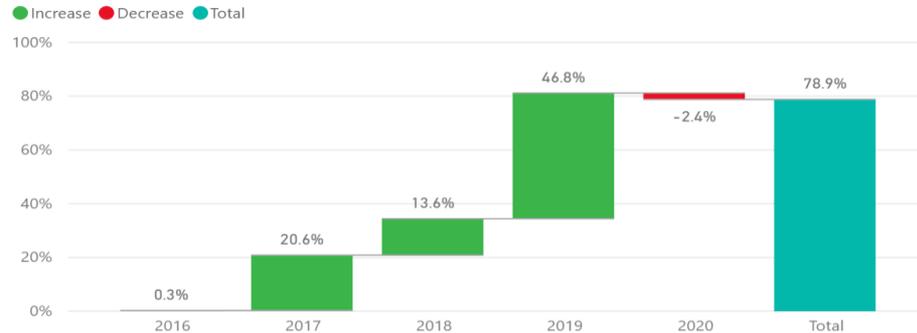


### Year ESTAT 90th Duration

2015	55
2016	56
2017	67
2018	76
2019	112
2020	109

**Total 80**

### ESTAT 90th Duration Variance Year Over Year Change



# Hospital Diversion Total for 2019

# EMS Hospital Diversion Trend <sup>i</sup>

## Analytics Insight: Diversion Correlates with Overall Demand

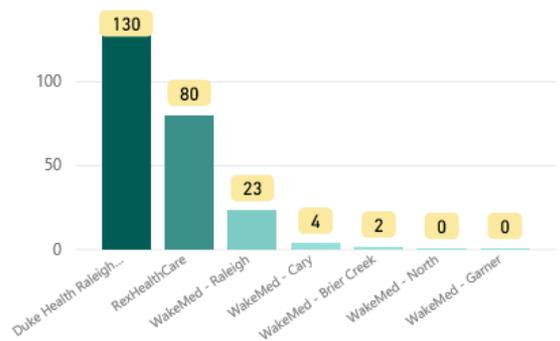
Time of day may have influence on driving diversion and duration based on increasing demand over time  
Overall diversion hours duration is trending down over the years (as of to date)

Year				
2016	2017	2018	2019	2020

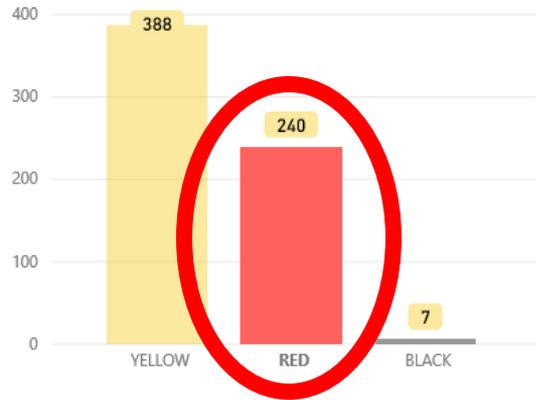
  

Quarter (Q1-Q4)			
1	2	3	4

### Total Diversion Hours Hospital



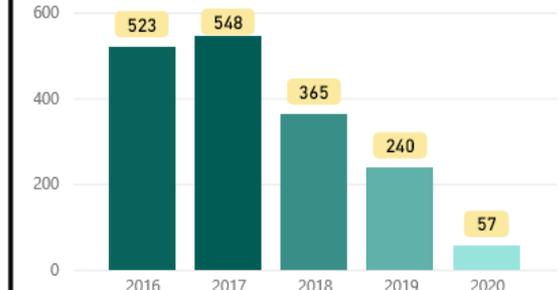
### Total Diversion Hours Status



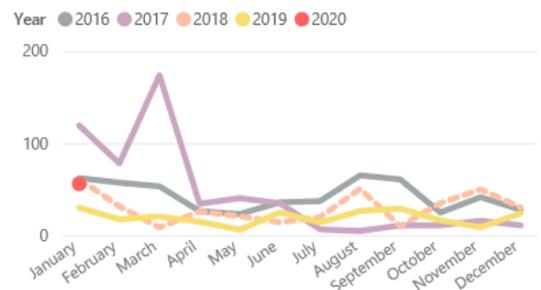
### Total Diversion Hours Hospital

Hospital	RED	Total
Duke Health Raleigh Hospital	130	130
RexHealthCare	80	80
WakeMed - Raleigh	23	23
WakeMed - Cary	4	4
WakeMed - Brier Creek	2	2
WakeMed - North	0	0
WakeMed - Garner	0	0
<b>Total</b>	<b>240</b>	<b>240</b>

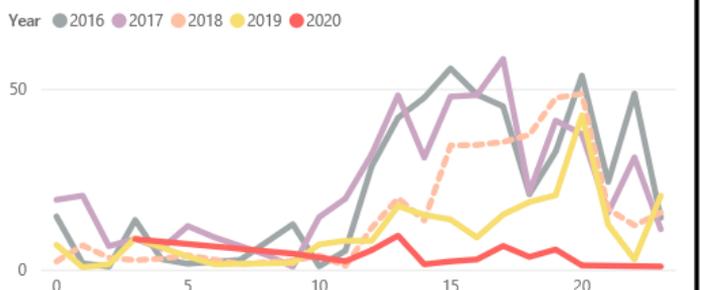
### Total Diversion Hours Year



### Total Diversion Hours Month



### Total Diversion Hours (Hour of Day)



# EMS Hospital Diversion Trend <sup>i</sup>

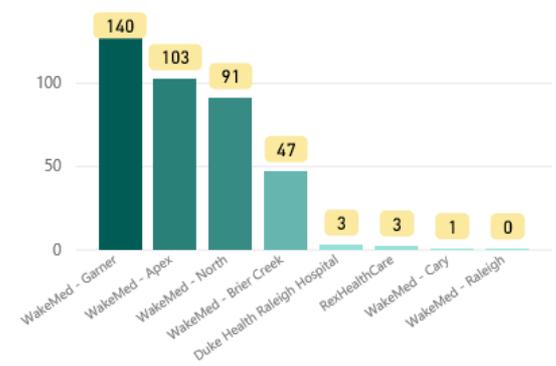
## Analytics Insight: Diversion Correlates with Overall Demand

Time of day may have influence on driving diversion and duration based on increasing demand over time  
Overall diversion hours duration is trending down over the years (as of to date)

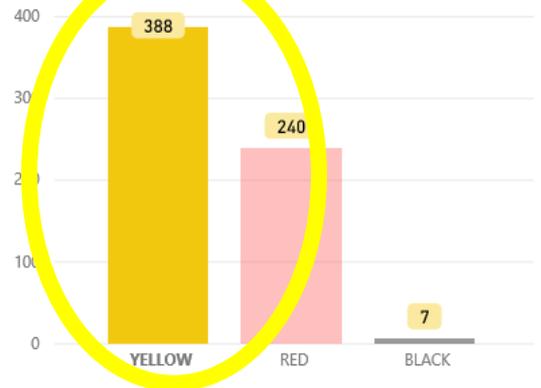
Year				
2016	2017	2018	2019	2020

Quarter (Q1-Q4)			
1	2	3	4

Total Diversion Hours Hospital



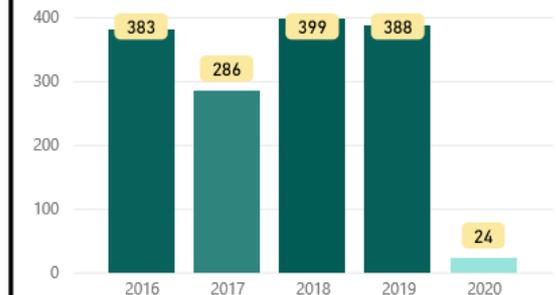
Total Diversion Hours Status



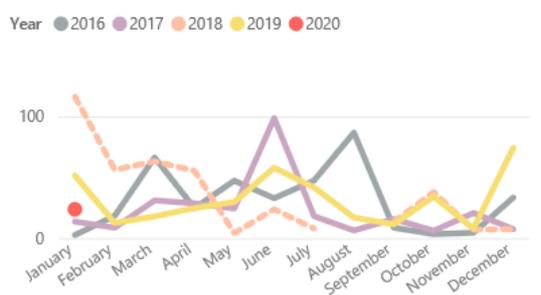
Total Diversion Hours Hospital

Hospital	YELLOW	Total
WakeMed - Garner	140	140
WakeMed - Apex	103	103
WakeMed - North	91	91
WakeMed - Brier Creek	47	47
Duke Health Raleigh Hospital	3	3
RexHealthCare	3	3
WakeMed - Cary	1	1
WakeMed - Raleigh	0	0
<b>Total</b>	<b>388</b>	<b>388</b>

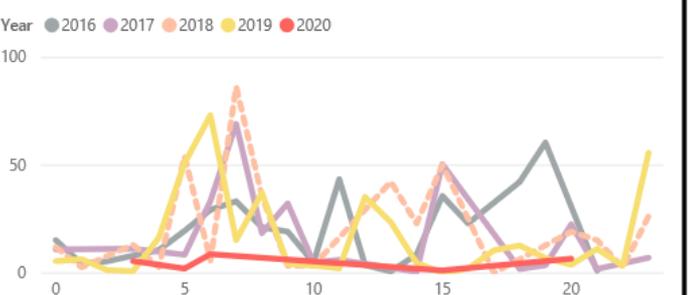
Total Diversion Hours Year



Total Diversion Hours Month



Total Diversion Hours (Hour of Day)



# EMS Hospital Diversion Trend <sup>i</sup>

## Analytics Insight: Diversion Correlates with Overall Demand

Time of day may have influence on driving diversion and duration based on increasing demand over time  
 Overall diversion hours duration is trending down over the years (as of to date)

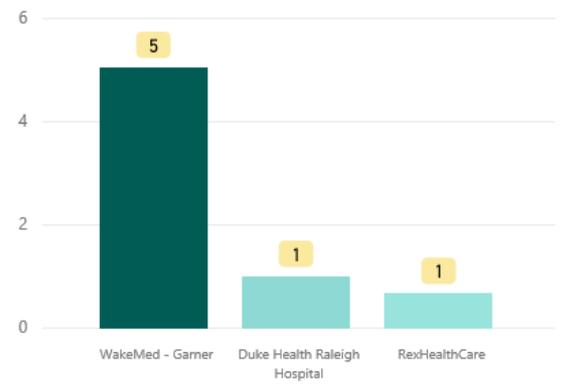
Year

2016 2017 2018 2019 2020

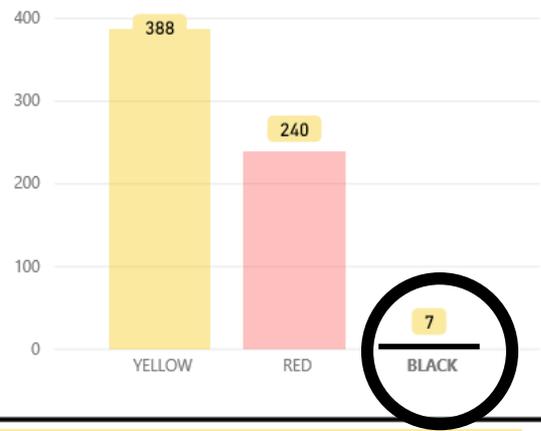
Quarter (Q1-Q4)

1 2 3 4

Total Diversion Hours Hospital



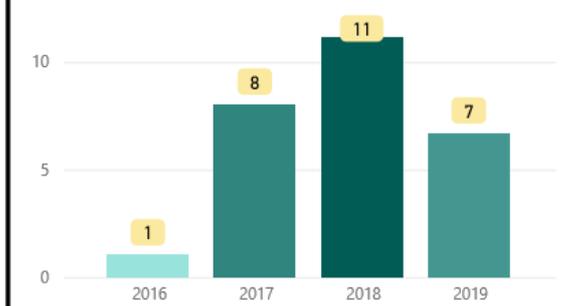
Total Diversion Hours Status



Total Diversion Hours Hospital

Hospital	BLACK	Total
WakeMed - Garner	5	5
Duke Health Raleigh Hospital	1	1
RexHealthCare	1	1
<b>Total</b>	<b>7</b>	<b>7</b>

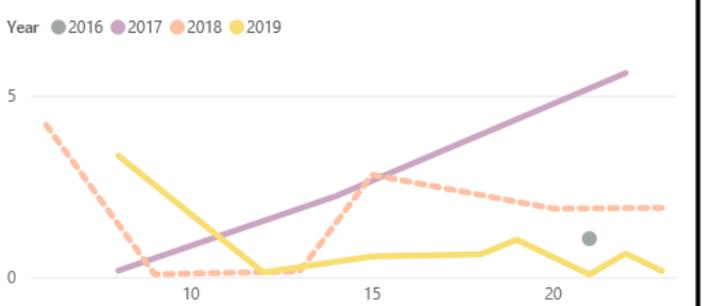
Total Diversion Hours Year



Total Diversion Hours Month



Total Diversion Hours (Hour of Day)



# Wake County EMS System Peer Review System Performance

## Questions?



@wakegov    

wakegov.com