

The purpose of the semi-annual EpiCenter Violence Surveillance Report is to summarize violence-related visits to Emergency Room (ER) and Urgent Care (UC) facilities in Cuyahoga County and the City of Cleveland from July through December 2018. **Please note that reported semi-annual data may be preliminary and may change due to delayed submissions.**

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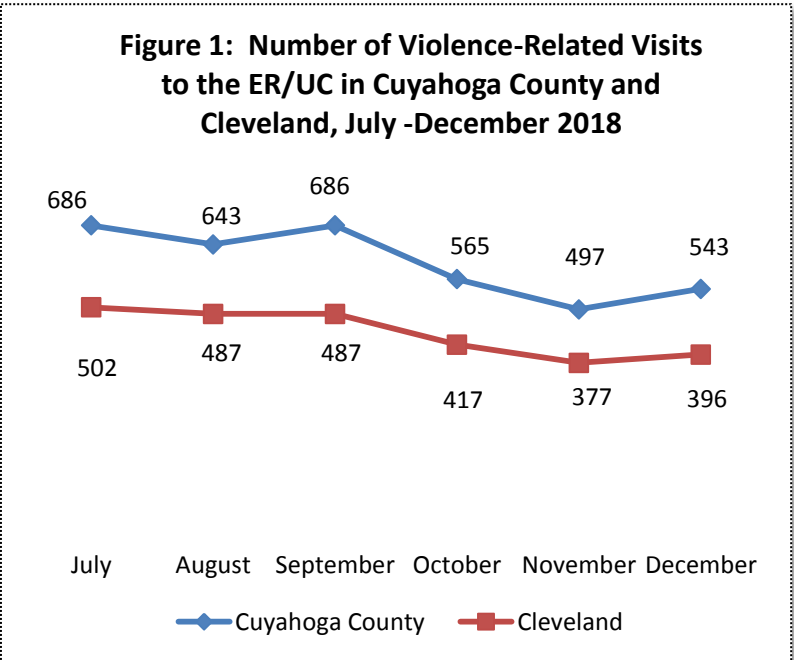
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Violence/Gun-Related Violence Visits to Emergency Room and Urgent Care Facilities among Cleveland and Cuyahoga County Residents

Highlights

3,620 violence-related visits (a 5.5% increase from first 6 months)

There was a 16.7% decrease in gun violence related visits from first 6 months



Previous Timeframe

Previous Timeframe:

- **July-December 2017:** 3,732 total visits to the Emergency Room/Urgent Care in Cuyahoga County for care related to violence perpetuated injuries and 462 gun violence-related injuries

EpiCenter Traumatic Injury Classifier “Violence” Summary

- For the months of July – December 2018, there were a total of **3,620** visits to 57 Northeast Ohio emergency rooms and urgent care facilities by **3,439** Cuyahoga County residents (which includes **2666** visits from **2522** Cleveland residents) with a chief complaint of violence.
- Demographic characteristics within Cleveland and Cuyahoga County were similar. (Table 1). Approximately 54.5% and 45.5% of Cuyahoga County patients were female and male, respectively. Residents between the ages of 27 and 44 were the largest age group receiving violence-related treatment. Over 60% of residents in the ER/UC were Black/African American.
- In Cuyahoga County, the highest number of violence-related visits occurred in July and September with 686 reported visits each. In Cleveland, the August and September months recorded the highest number of violence related visits with 487 visits each. (Figure 1).
- Reasons for visits captured in the traumatic injury classifier “violence” include, but not limited to: physical assault, sexual assault, altercations and fighting, domestic partner violence, victims of crime, and unspecified injury (Figure 2). Eighty-two percent (82%) of violence-related visits were due to physical assault.
- Of the 3,620 violence-related visits, 3,439 visits were one-time unique visits by residents. Table 2 displays the breakdown of recurrent visits. At least 4% (n=156) of residents who were treated for a previous violence related injury were seen in the ER/UC a second time for a second violence-related complaint (Table 2).
- During July-December 2018, residents in zip code 44115 visited the ER/UC for violence-related care at a rate between 1046.8-1594.0 visits per 100,000 residents (Figure 3).

Figure 2: Epi-Center Violence Visit Distribution in ER/UC Facilities from July-December 2018 (n=3620) Cuyahoga County

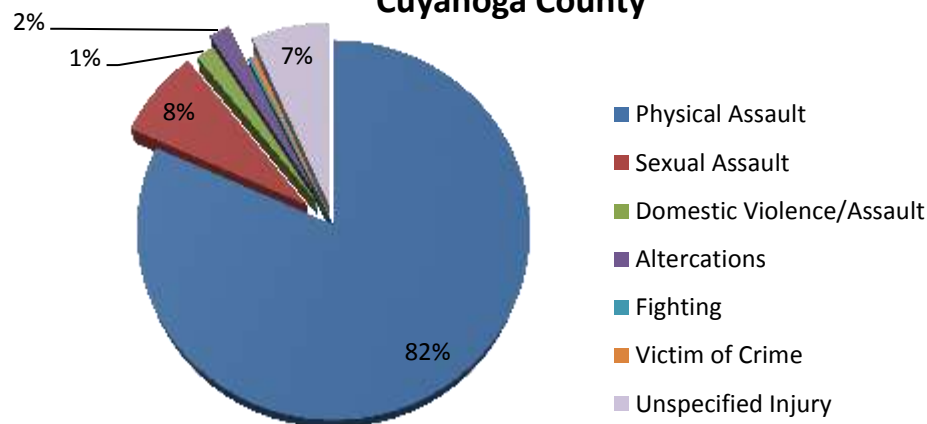
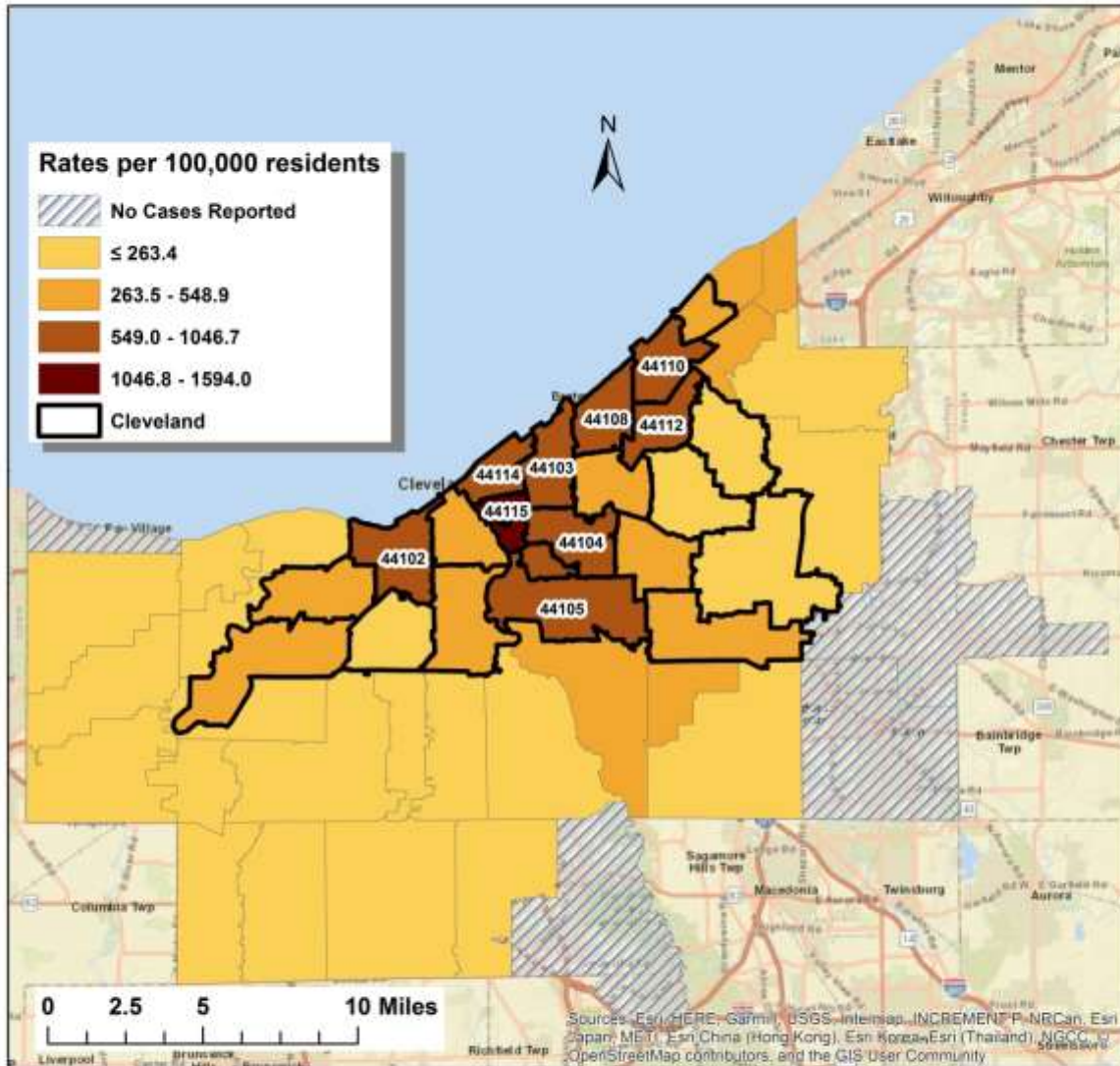


Table 1: Demographics of ER/UC patients with Violence Chief Complaints		
Variables	Cleveland n= 2522(%)	Cuyahoga County n= 3439 (%)
Gender		
Male	1168 (46.3)	1563 (45.4)
Female	1354 (53.7)	1876(54.6)
Age		
<18	300 (12.0)	438 (12.7)
18-26	662 (26.2)	904 (26.3)
27-44	962 (38.1)	1302 (37.8)
45-64	527 (21.0)	693 (20.1)
≥ 65	71 (2.8)	102(3.0)
Race		
Black/African American	1682 (66.7)	2095 (60.9)
White	634(25.1)	1071(31.1)
Other Race	183 (7.2)	235 (6.8)
Unknown	23 (1.0)	38(1.1)
Ethnicity		
Hispanic/Latinx	169 (6.7)	191 (5.5)
Not Hispanic/Latinx	2058 (82.0)	2886 (84.0)
Unknown	295 (11.7)	362(10.5)

Table 2: First and Re-occurring visits in Cuyahoga County			
	Female	Male	Total
1st Visit	1876	1563	3439
2nd Visit	100	56	156
3 or more visits	11	14	25
Grand Total	1987	1633	3620

Figure 3: Rates of Violence-Related Visits to the ER/UC by Resident Zip Codes Cuyahoga County and City of Cleveland, July-December 2018



Map created by the Office of Communicable Disease Surveillance & Epidemiology, Cleveland Department of Public Health S. Fryerson, May 2019. Data Source: Health Monitoring System (HMS) EpiCenter <https://www.hmsinc.com/service/epicenter.html>
Rates calculated using 2013-2017 American Community Survey 5-Year Estimates https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table



EpiCenter Traumatic Injury Classifier “Gunshot” Summary

- For the months of July – December 2018, there were a total of 359 visits to 21 Northeast Ohio emergency room and urgent care facilities in Cuyahoga County by **333** Cuyahoga County residents (which included **276** visits by **260** from Cleveland residents) with a chief complaint relating to a gun violence event.
- Ninety percent (90%) of those seen in the ER/UC for gunshot or gun related care were males (n=302) and 9.3% were females (Table 3). In Cuyahoga County, residents between the ages of 18-26 were the largest group receiving gun violence related care (41.4%) followed by residents ages 27-44 (36.3%). Over 80% of residents in the ER/UC for gun violence related injuries were Black/African American.
- In Cuyahoga County and Cleveland, the highest number of gun violence-related visits occurred in September with 76 and 54 reported visits, respectively. (Figure 4).
- Reasons for visits captured in the traumatic injury classifier “gunshot” include, but not limited to: accidental discharge of firearm, felonious assault with a gun, and gunshot wounds from miscellaneous or unspecified sources (Figure 5). Sixty-three percent (63%) of gunshot related complaints were coded as an outcome of miscellaneous or unspecified gun violence. Thirty-six percent (36%) of complaints were contributed to an accidental discharge of a firearm. Of the 359 gun violence-related visits, 333 visits were one-time visits by Cuyahoga County residents. Table 4 displays the breakdown of recurring visits. At least 6% of residents (n=23) were seen in the ER/UC a second time for a second gun violence-related complaint (Table 4).
- During July-December 2018, residents in zip codes 44104 and 44105 reported to the ER/UC with a gunshot violence relevant chief complaint rate between 90.8-110.5 visits per 100,000 residents (Figure 6). Zip codes 44108, 44120, and 44137 reported a gunshot violence-relevant chief complaint rate between 68.9-90.7 visits per 100,000. And residents in 44103, 44109, and 44112 reported a rate between 48.7-68.8 visits per 100,000 (Figure 6).

Figure 4: Number of Gun Violence-Related Visits to the ER/UC in Cuyahoga County and Cleveland, July - December 2018

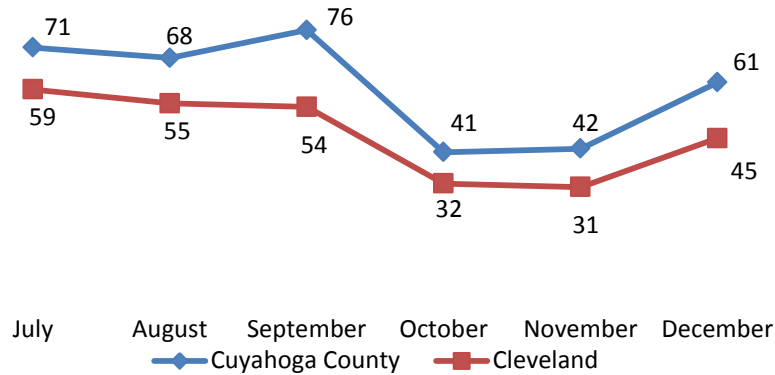


Table 3: Demographics of ER/UC patients with Gun-Involved Chief Complaint

Variables	Cleveland	Cuyahoga County
	n= 260(%)	n= 333(%)
Gender		
Male	236(90.8)	302 (90.7)
Female	24 (9.2)	31(9.3)
Age		
<18	16 (6.15)	24 (7.2)
18-26	100 (38.4)	138(41.4)
27-44	105 (40.4)	121 (36.4)
45-64	25 (9.6)	33 (10.0)
>/= 65	14 (5.4)	17(5.1)
Race		
Black/African American	213 (82.0)	271 (81.4)
White	29(11.2)	39(11.7)
Other Race	12 (4.6)	16 (4.8)
Unknown	<10*	<10*
Ethnicity		
Hispanic/Latinx	15 (5.8)	19(5.7)
Not Hispanic/Latinx	221(85.0)	287 (86.2)
Unknown	24 (9.2)	27(8.1)

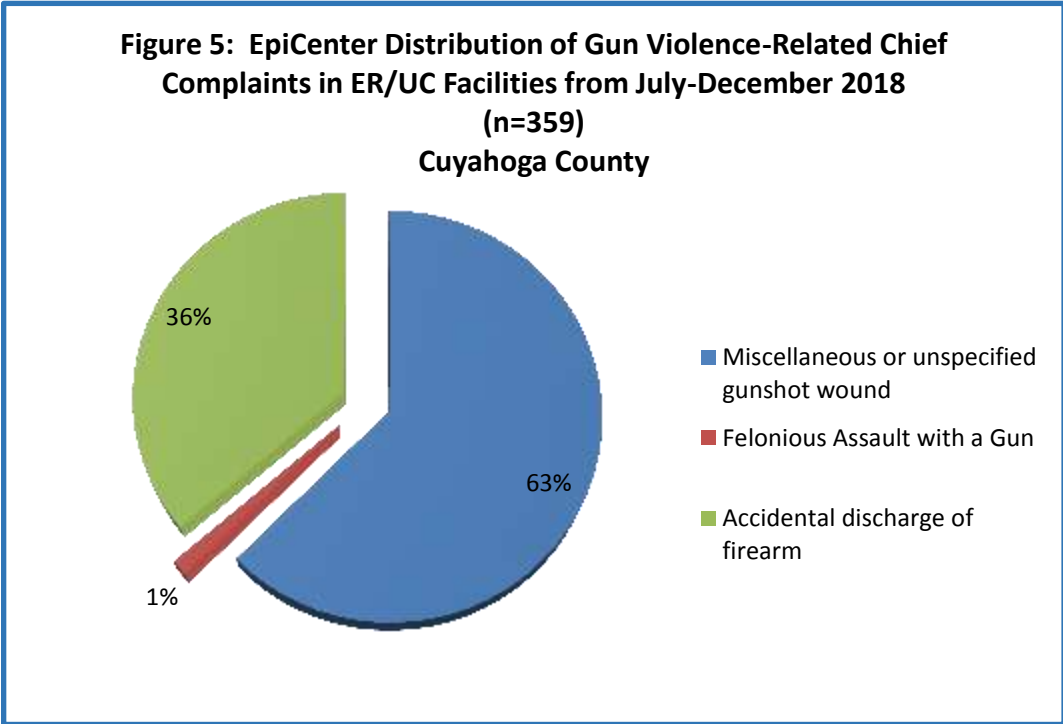
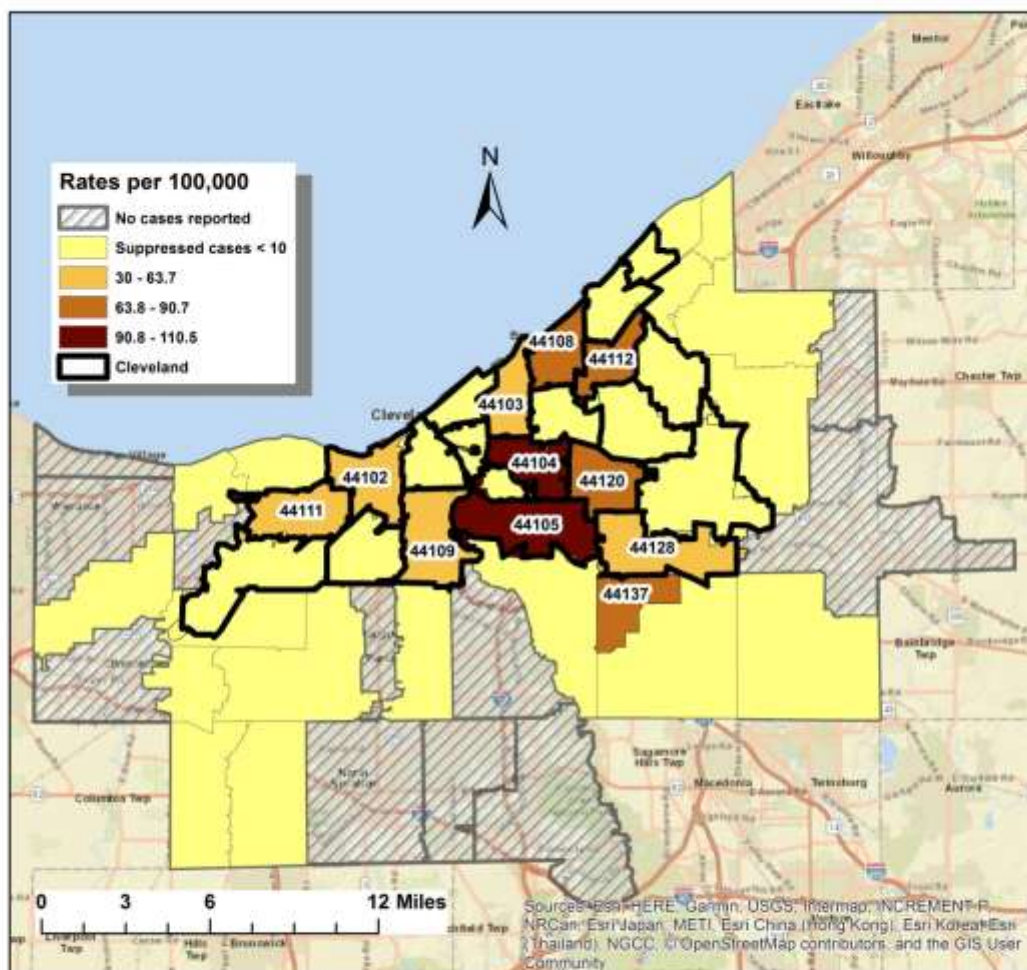


Table 4: First and Re-occurring Visits in Cuyahoga County

	Female	Male	Total
1st Visit	*	302	333
2 or more	*	25	26
Total	32	327	359

***Data are suppressed when fewer than 10 cases are observed**

**Figure 6: Rates of Gun Violence-Related Visits to the ER/UC
by Resident Zip Codes
Cuyahoga County and City of Cleveland July-December 2018**



Map created by the Office of Communicable Disease Surveillance & Epidemiology, Cleveland Department of Public Health
S. Fryerson May 2019. Data Source: Health Monitoring System (HMS) EpiCenter <https://www.hmsinc.com/service/epicenter.html>
Rates calculated using 2013-2017 American Community Survey 5-Year Estimates
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_af=table

**Table 5: Number of Violence and Gun related Visits to the ER/UC by Zip Code
(City of Cleveland Zip Codes are highlighted)**

Zip codes	Violence Related Visits	Gun-Related Visits
44017	12	*
44022	*	--
44070	27	*
44101	*	--
44102	307	22
44103	114	10
44104	215	22
44105	221	40
44106	94	*
44107	78	*
44108	149	20
44109	224	26
44110	128	*
44111	136	13
44112	149	15
44113	79	*
44114	55	*
44115	132	*
44116	12	*
44117	38	*
44118	61	*
44119	44	*
44120	168	29
44121	86	*
44122	34	*
44123	56	*

Zip Codes	Violence-Related Visits	Gun-Related Visits
44124	42	*
44125	84	*
44126	18	--
44127	45	*
44128	116	12
44129	41	--
44130	43	*
44131	32	--
44132	49	*
44133	14	--
44134	39	*
44135	115	*
44136	13	*
44137	76	20
44138	16	--
44139	*	*
44140	*	--
44141	*	
44142	37	*
44143	41	*d
44144	51	*
44145	15	--
44146	68	*
44147	14	--
44149	13	*
44181	*	--

*Data are suppressed when fewer than 10 cases are observed

(--)**No Cases Reported**

Methods, Contact Information and Sources

Methods

Data from Health Monitoring System (HMS) Epicenter was used to extract (extraction dates: July 2018 and May 2019) chief complaints of violence and gunshot information within the classifier “Traumatic Injury” from July to December 2018 for Cuyahoga County and The City of Cleveland. EpiCenter chief complaints are created from triage notes that are self-reported by patients when seen in the ER or urgent care. Types of violence/gun violence was measured qualitatively by filtering chief complaint triage notes by keywords such as: physical assault, sexual assault, altercations and fighting, domestic partner violence, victims of crime, unspecified injury, accidental discharge of firearm, felonious assault with a gun, and gunshot wounds from miscellaneous or unspecified sources. Zip Code information was used to aggregate Cuyahoga County and City of Cleveland cases. Unique patient identification numbers (assigned by the emergency room or urgent care) were used to quantify repeat visits. Race and ethnicity information was recoded from concept code values (assigned by EpiCenter) and further recoded in SAS® Enterprise Guide (version 5.1) to represent Black/ African American, White, Other Race, and Unknown and ethnicity as Hispanic/Latinx, Non-Hispanic/Latinx, or Unknown. SAS® Enterprise Guide statistical software (version 5.1) was used to conduct descriptive statistics of demographic variables and ArcMap (ArcGIS Desktop 10.6.1) was used to create thematic maps of visit rates for violence and gun violence at the county and city level. Rates were calculated using 2013-2017 American Community Survey 5-Year estimates at the zip code level.

Limitations

These numbers do not reflect all gunshot and violence data for Cuyahoga County. Please note that reported semiannual or quarterly data are preliminary and may change due to delayed submissions. Data suppression rules were deployed when fewer than 10 cases were observed. A patient’s first visit elicits a unique patient identifier that may continue to be connected to the patient’s visit history if they returned for care at the same facility. However, if the patient was seen at a different ER/UC facility, a new patient identifier was generated.

For questions regarding this EpiCenter Surveillance Report, please call Sheena Fryerson at 216-664-4257 or sfryerson@city.cleveland.oh.us

Sources:

1. 2013-2017 ACS 5-Year Estimates: Age and Sex(S0101). American FactFinder. United States Census Bureau. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table
2. Health Monitoring Systems (HMS) EpiCenter <https://www.hmsinc.com/service/epicenter.html>