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Opioid Deaths and the Availability of Rehab Beds In Facilities Serving Persons with Addictions: Cleveland, 2016 and First Quarter 2017

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Opioid Deaths and the Availability of Rehab Beds
In Facilities Serving Persons with Addictions
Cleveland, 2016 and First Quarter 2017

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Deaths from opioids, specifically heroin and fentanyl, have been increasing at alarming rates nationally, in Ohio, and in Cuyahoga County. Cleveland.com reports that the Cuyahoga County Medical Examiner asserts that “Cuyahoga County is still on pace to far exceed last year's (2016) record number of heroin and fentanyl overdose deaths after seeing an increase in April (2017)”. The Medical Examiner’s Office also reports that there is an increasing number of African American fatalities due to fentanyl. In 2016, 72 of the 544 deaths (13.2%) from heroin and fentanyl were African Americans; in the first quarter of 2017, 31 of 146 such deaths (21.2%) were Black.

Map 1 shows the geographic distribution of deaths from heroin and fentanyl in the county for 2016 and the first quarter of 2017. Deaths are largely concentrated on the west and southwest sides of the City of Cleveland, with other concentrations observed in Lakewood, particularly its eastern neighborhoods, northern parts of the City of Euclid, and the northeastern neighborhoods of the City of Parma. On the east side of Cleveland, the neighborhoods of Broadway-Slavic Village, Mount Pleasant, and Buckeye-Shaker Square also have relatively high concentrations of opioid deaths. It also shows the distribution of heroin and fentanyl fatalities by race. West side deaths are largely White persons, while east side deaths are more mixed in race, mostly depending on the racial composition of neighborhoods. (Broadway-Slavic Village and North Shore Collinwood are largely White while other parts of the eastern side of the City are largely African American.)

A number of residential and related facilities are available in the county to serve persons recovering from addiction issues in the City of Cleveland and in a few inner-ring suburbs. These facilities provide beds for either women or men or both. The Alcohol, Drug Addiction and Mental Health Services (ADAMHS) Board of Cuyahoga County raised the question of whether there are sufficient numbers of beds in these facilities to serve the growing number of African Americans afflicted with these addictions.

Two categories of facilities are reported on here – sober living homes and treatment facilities. Sober living homes, sometimes referred to as half way houses, are residences that provide a drug and alcohol-free environment for newly sober people. Most are privately owned while some may be owned by charity organizations. Treatment centers usually provide a more intensive recovery experience.

Map 2 shows the geographic distribution of opioid deaths and the number of sober house and residential and detox beds. The distribution of deaths is shown as both dots and as a generalized density of deaths. The number of beds in both sober homes and in treatment facilities are indicated by the size of circle, with brown circles indicating those that are in sober living homes and yellow circles indicating those in treatment facilities.
Map 2 indicates that the ADAMHS Board’s hypothesis that the east side of Cleveland (based on the Cuyahoga River) may indeed be less well served by these facilities is apparently true for sober houses, but is less apparent for the treatment facility bed distribution. Though there are clearly fewer beds available on the east side of the city, the number of deaths is also relatively smaller than on the west side of the city.

To further test the hypothesis, the number of deaths and sober house and treatment facility beds on the east and west sides of Cleveland, as delineated by the Cuyahoga River, were summed and reported here. Table 1 reports those data and Table 2 shows the ratio of deaths per bed in these facilities. Figure 1 shows the ratios for both types of facility on the east and west sides of the city. The data confirm that sober house beds are slightly disproportionately located on the west side of the city (65.7%) when compared to the proportion of opioid deaths (61.7 percent). However, the distribution of treatment facility beds cancels that maldistribution since a there are a significant number of those beds are on the east side. As a result, overall, the percent of beds exactly matches the number of deaths on the two parts of the city – 61.7 percent of all beds are on the west side, matching the percentage of deaths.

However, the Map 2 also shows that there are some neighborhoods on the east side with relatively few beds compared to deaths. Specifically the Buckeye-Shaker, Buckeye-Woodland, and Kinsman neighborhoods, though showing only a scattering of deaths, are seeing increases in opioid deaths in recent months among African Americans.

### Table 1: Sober House and Treatment Facility Beds and Opioid-Related Deaths in 2016 and First Quarter of 2017

<table>
<thead>
<tr>
<th>Beds</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>West Side</td>
<td>East Side</td>
</tr>
<tr>
<td>Sober House</td>
<td>450</td>
<td>235</td>
</tr>
<tr>
<td>Treatment Facility</td>
<td>612</td>
<td>425</td>
</tr>
<tr>
<td>Total Beds</td>
<td>1,062</td>
<td>660</td>
</tr>
<tr>
<td>Deaths</td>
<td>200</td>
<td>124</td>
</tr>
</tbody>
</table>

### Table 2: Opioid-Related Deaths in 2016 and First Quarter of 2017 Deaths per Sober House and Treatment Facility Beds

<table>
<thead>
<tr>
<th>Opioid Deaths per Bed</th>
<th>West Side</th>
<th>East Side</th>
<th>Cleveland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sober House</td>
<td>0.44</td>
<td>0.53</td>
<td>0.47</td>
</tr>
<tr>
<td>Treatment Facility</td>
<td>0.33</td>
<td>0.29</td>
<td>0.31</td>
</tr>
<tr>
<td>Total</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
</tr>
</tbody>
</table>

**Figure 1: Opioid-Related Deaths in 2016 and First Quarter of 2017 Deaths per Sober House and Treatment Facility Beds**
Map 1: Deaths by Race, 2016 and First Quarter of 2017

Probable Heroin and Fentanyl Deaths in 2016 and Q1 of 2017

Race
- White (655)
- Black (103)
- Asian Indian (1)
- unspecified (1)

By place of residence

* 690 total deaths in Cuyahoga County
* 674 geocoded addresses of deceased (64 outside Cuyahoga)
* 686 residences geocoded in Cuyahoga

Data for 2017 deaths are preliminary.

Source: Cuyahoga County Medical Examiner's Office

Prepared by
The Northern Ohio Data & Information Service
Cleveland State
University
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College of Urban Affairs

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Map 3: Deaths and Sober House and Treatment Facility Beds

1 This report is provided at the request of the Alcohol, Drug Addiction and Mental Health Services (ADAMHS) Board of Cuyahoga County.
2 MacDonald, Evan, “Cuyahoga County heroin, fentanyl overdose deaths on pace to far exceed last year’s total”, Cleveland.com, May 19, 2017 [http://www.cleveland.com/metro/index.ssf/2017/05/cuyahoga_county_heroin_fentany_1.html]
3 Data provided by the Cuyahoga County Medical Examiner’s Office.
5 http://www.rehabs.com/about/sober-living/ and http://www.recovery.org/topics/recovery-homes/