



Fatal Drug Overdoses in the Kentucky Military and Veteran Population, 2010-2015

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Report summary

1. There were a total of 452 fatal drug overdoses in Kentucky's military and veteran population during the years 2010-2015.
2. The age-adjusted fatal drug overdose rate in Kentucky's military and veteran population in 2015 was 46.5/100,000 veterans, which was an 89.8% increase from 2010, when the age-adjusted fatal drug overdose rate was 24.5/100,000 veterans.
3. In the same period, the age-adjusted fatal drug overdose rate in the non-veteran population, aged 18 and older, increased 17.7%, from 32.3/100,000 non-veterans to 38.1/100,000 non-veterans. While fatal overdoses in both populations have increased, the veteran rate has increased more substantially.
4. Across the state of Kentucky, the pattern of military and veteran fatal overdose is similar to that of non-veteran fatal overdose, with highest rates in the Appalachia region and northern Kentucky. The western part of the state has lower rates in both populations.
5. In the military and veteran population, the rate of fatal drug overdose decreases as age increases, with the highest age-specific rate belonging to the 18-34 age group (49.1/100,000 veterans).
6. The drug class most frequently involved in military and veteran fatal drug overdoses was prescription opioids, which were involved in nearly half (46.5%) of all military and veteran fatal overdoses. Of the drug classes investigated, cocaine (6.2%) was the drug observed least frequently in military and veteran fatal overdoses.



Data summary by year, 2010-2015

Table 1: Military/veteran fatal overdoses by year in Kentucky, 2010-2015

Year	Overdoses	Crude overdose rate ¹	Age-adjusted overdose rate ¹
2010	46	13.9	24.5
2011	76	23.5	34.8
2012	82	25.7	40.2
2013	86	27.5	39.2
2014	67	22.1	33.8
2015	95	32.0	46.5

1: Rates are per 100,000 veterans.

Table 2: Non-veteran (18+) fatal overdoses by year in Kentucky, 2010-2015

Year	Overdoses	Crude overdose rate ²	Age-adjusted overdose rate ²
2010	943	32.3	32.3
2011	937	31.7	32.0
2012	946	31.7	31.9
2013	916	30.4	30.7
2014	998	32.8	33.0
2015	1136	37.0	38.1

2: Rates are per 100,000 non-veterans.

Produced by the Kentucky Injury Prevention and Research Center, a bona fide agent for the Kentucky Department for Public Health. February 2017. Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services. Data are provisional and subject to change.



Fatal overdose rates by year

Figure 1: KY Crude overdose rate in the military/veteran and non-veteran population, 2010–2015

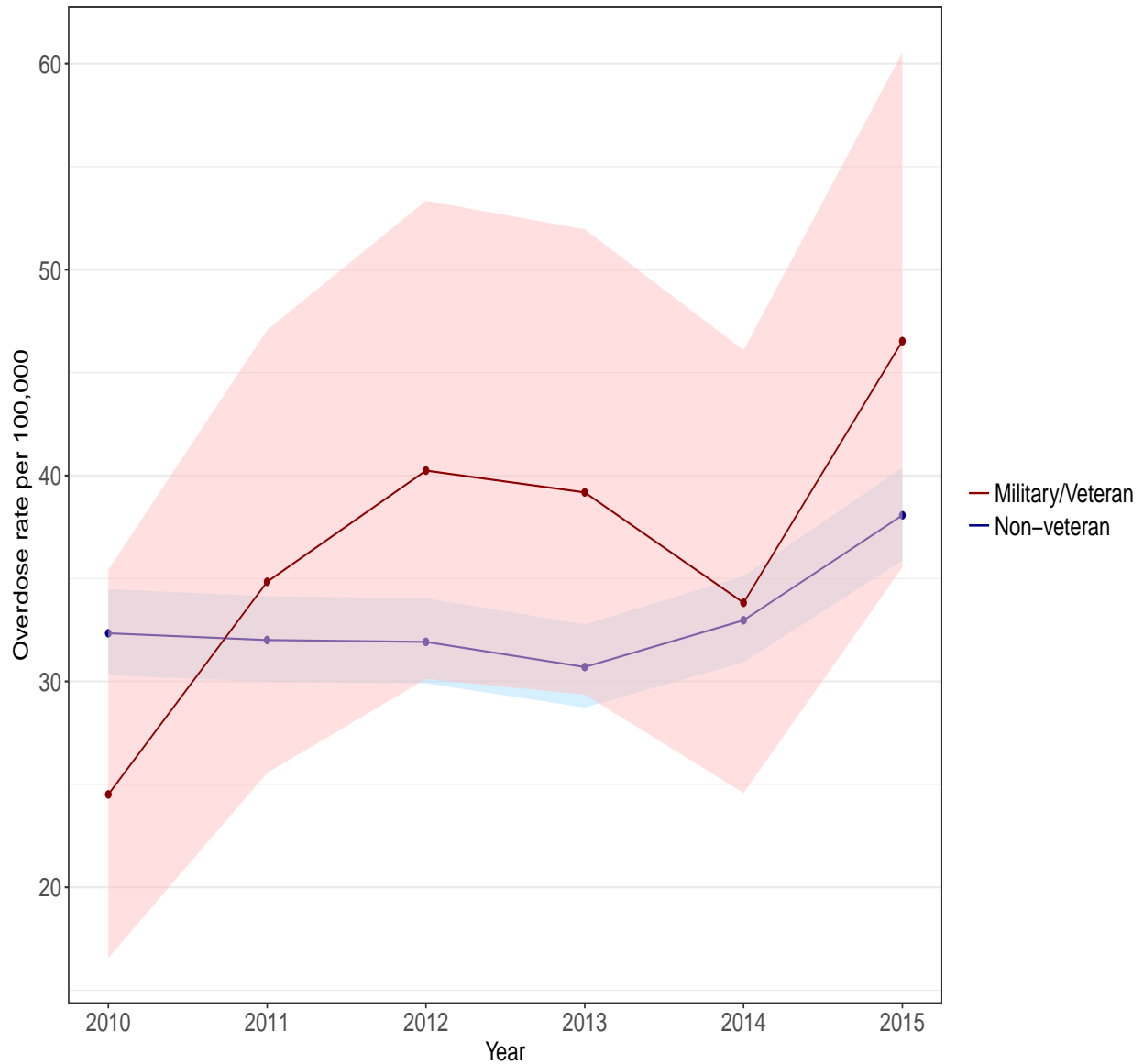


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Age-adjusted fatal overdose rates by year

Figure 2: KY Age-adjusted overdose rate and 95% CIs in the military/veteran and non-veteran population, 2010–2015



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KY fatal overdose rate in the military/veteran and non-veteran population (18+), by Area Development District, 2010-2015

Figure 3: Veteran fatal overdose rate per 100,000

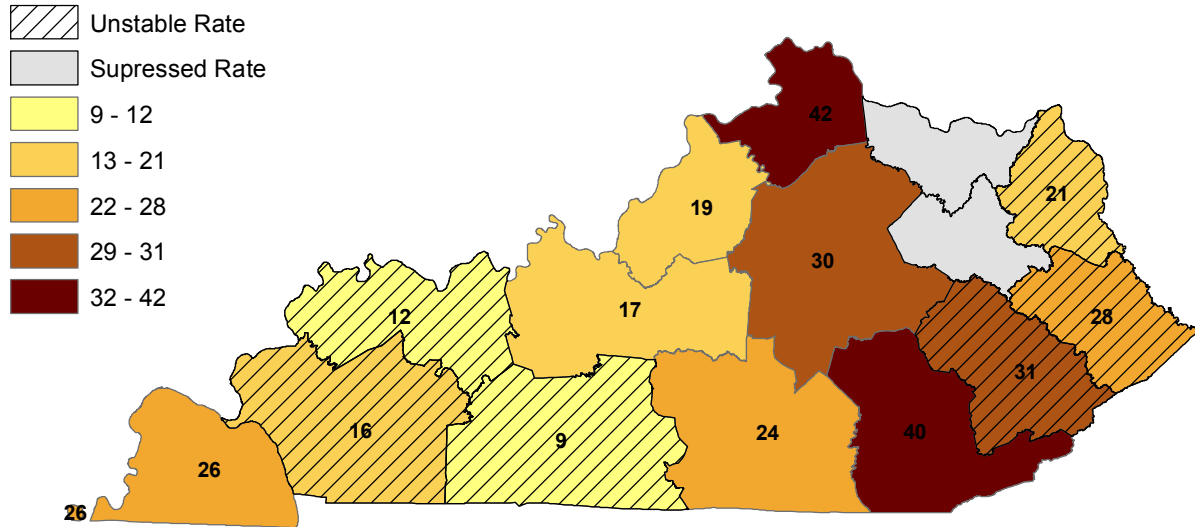
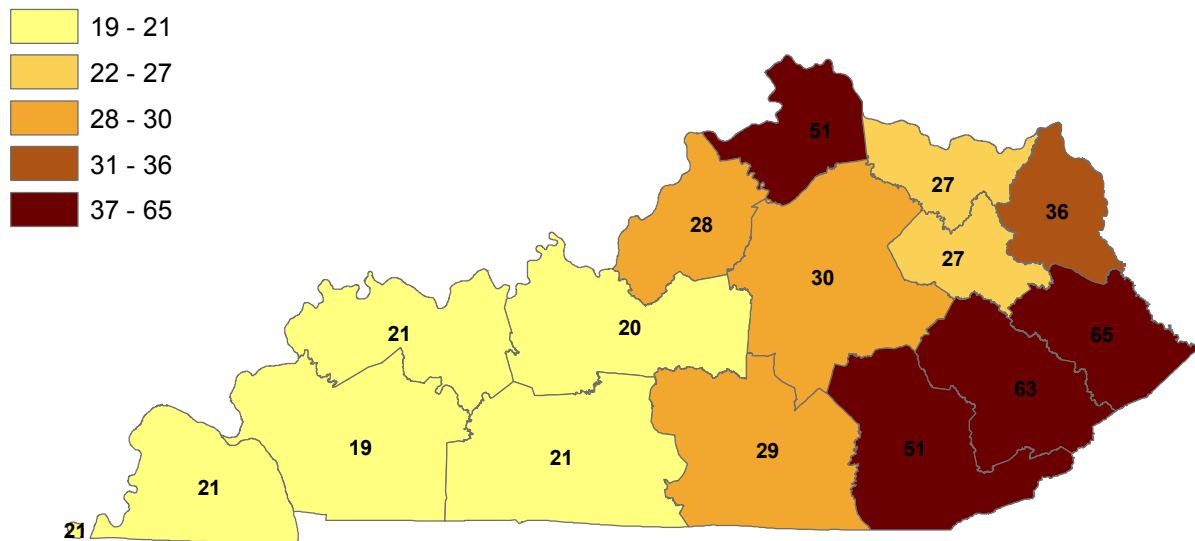


Figure 4: Non-veteran fatal overdose rate per 100,000

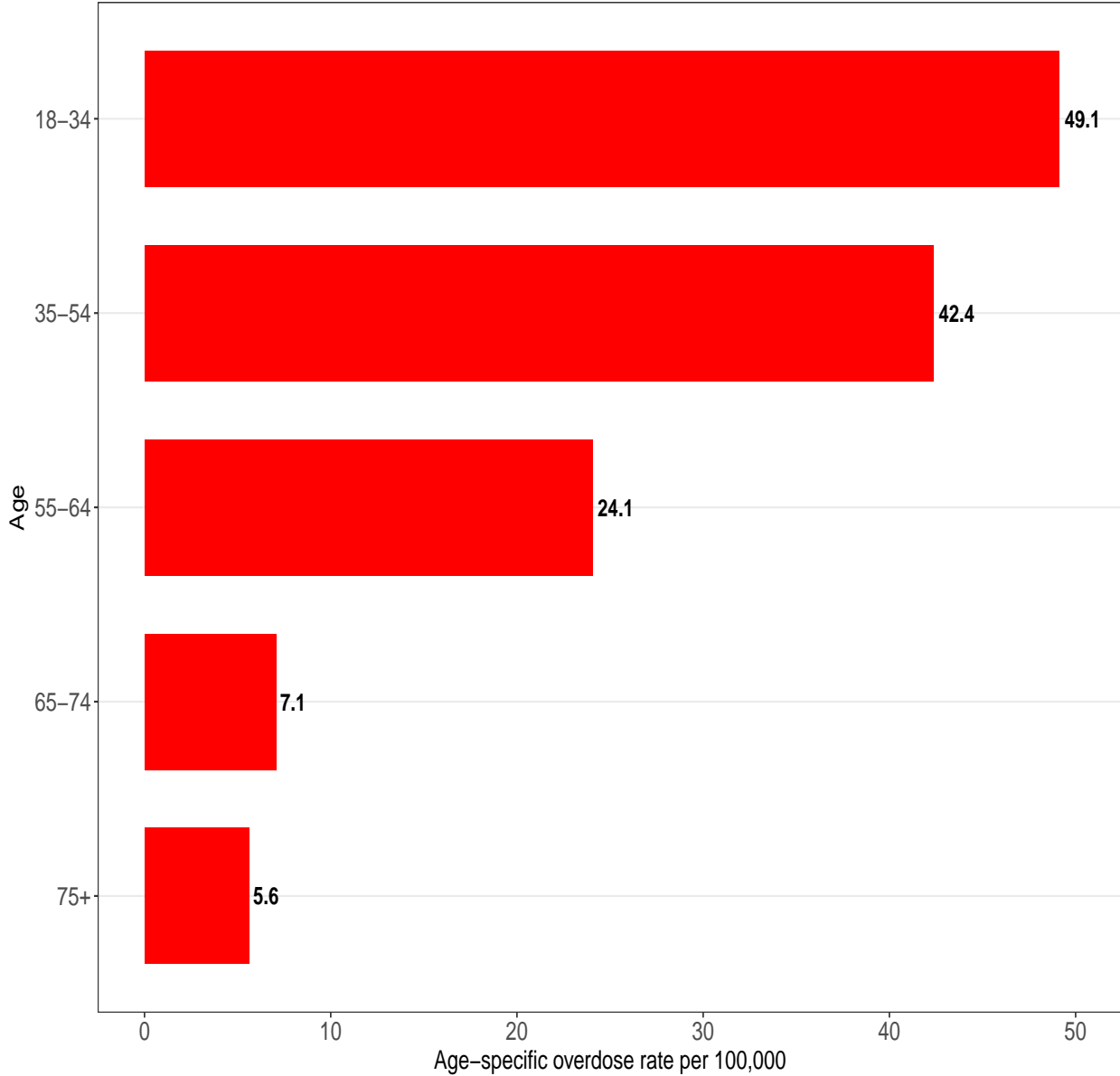


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Military and veteran age-specific fatal overdose rates, 2010-2015

Figure 5: KY Age-specific overdose rates in the military and veteran population, 2010-2015

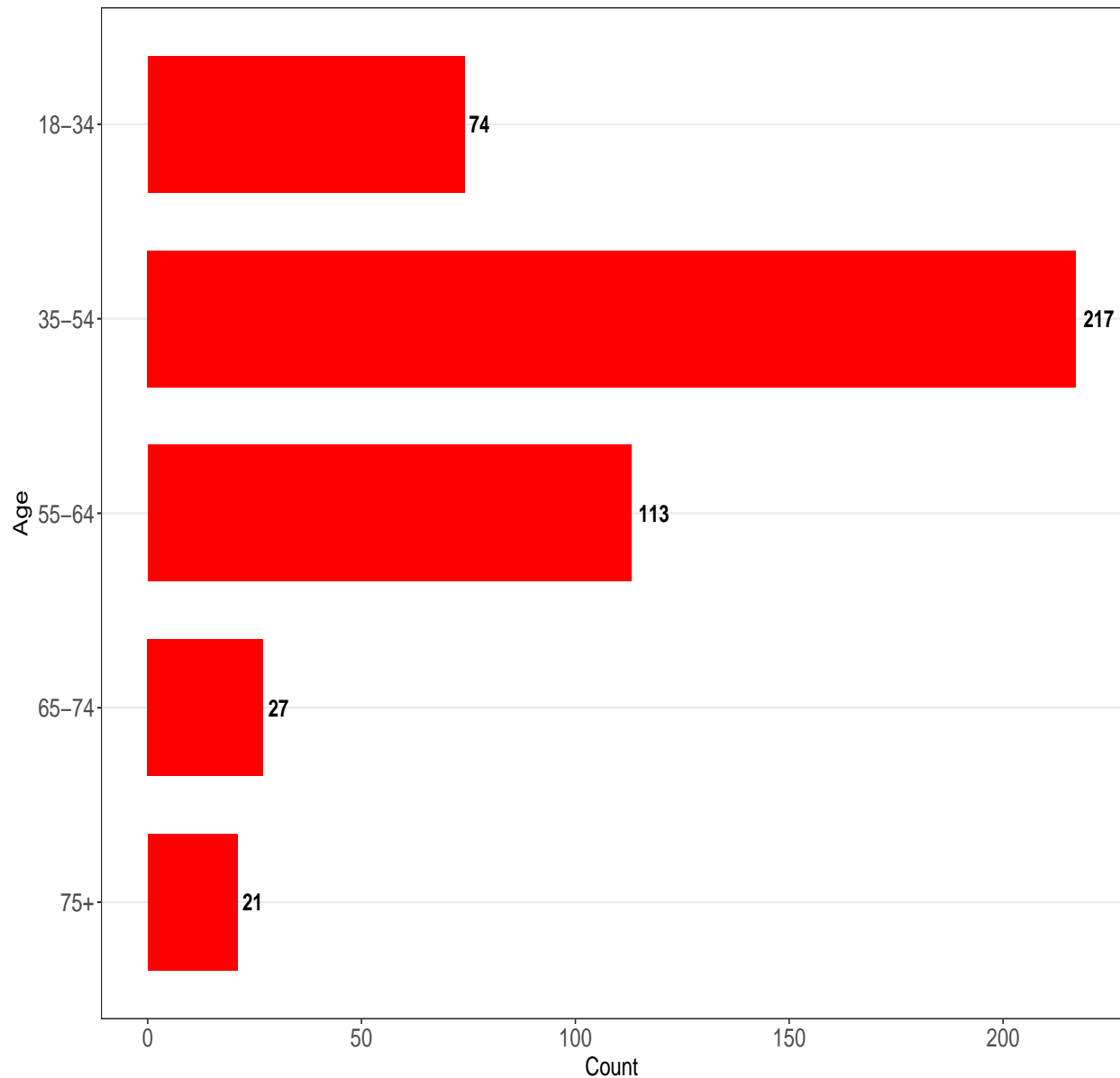


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Military and veteran age-specific fatal overdoses, 2010-2015

Figure 6: KY Age-specific overdoses in the military and veteran population, 2010-2015

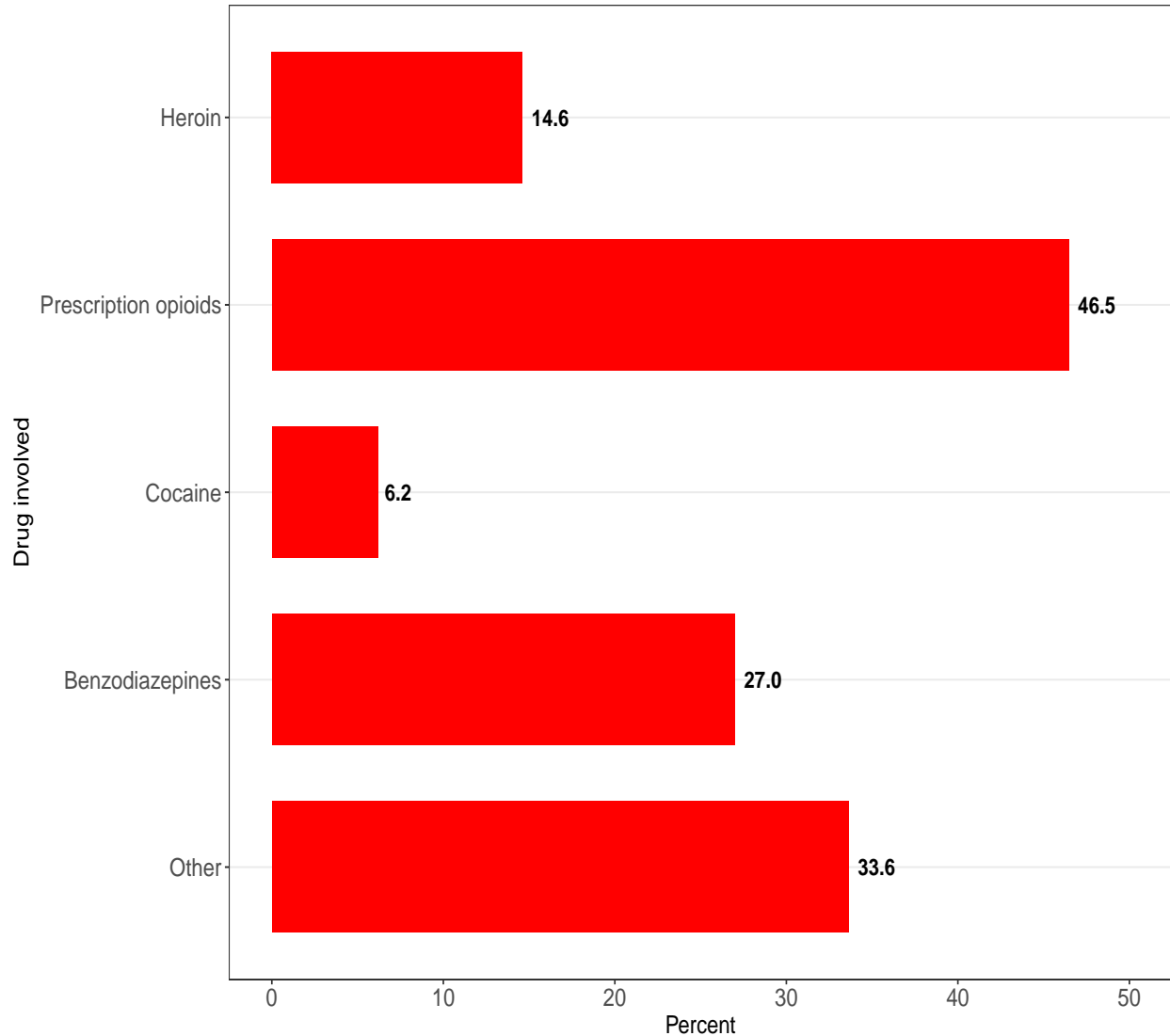


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Drugs involved in military and veteran overdose deaths, 2010-2015

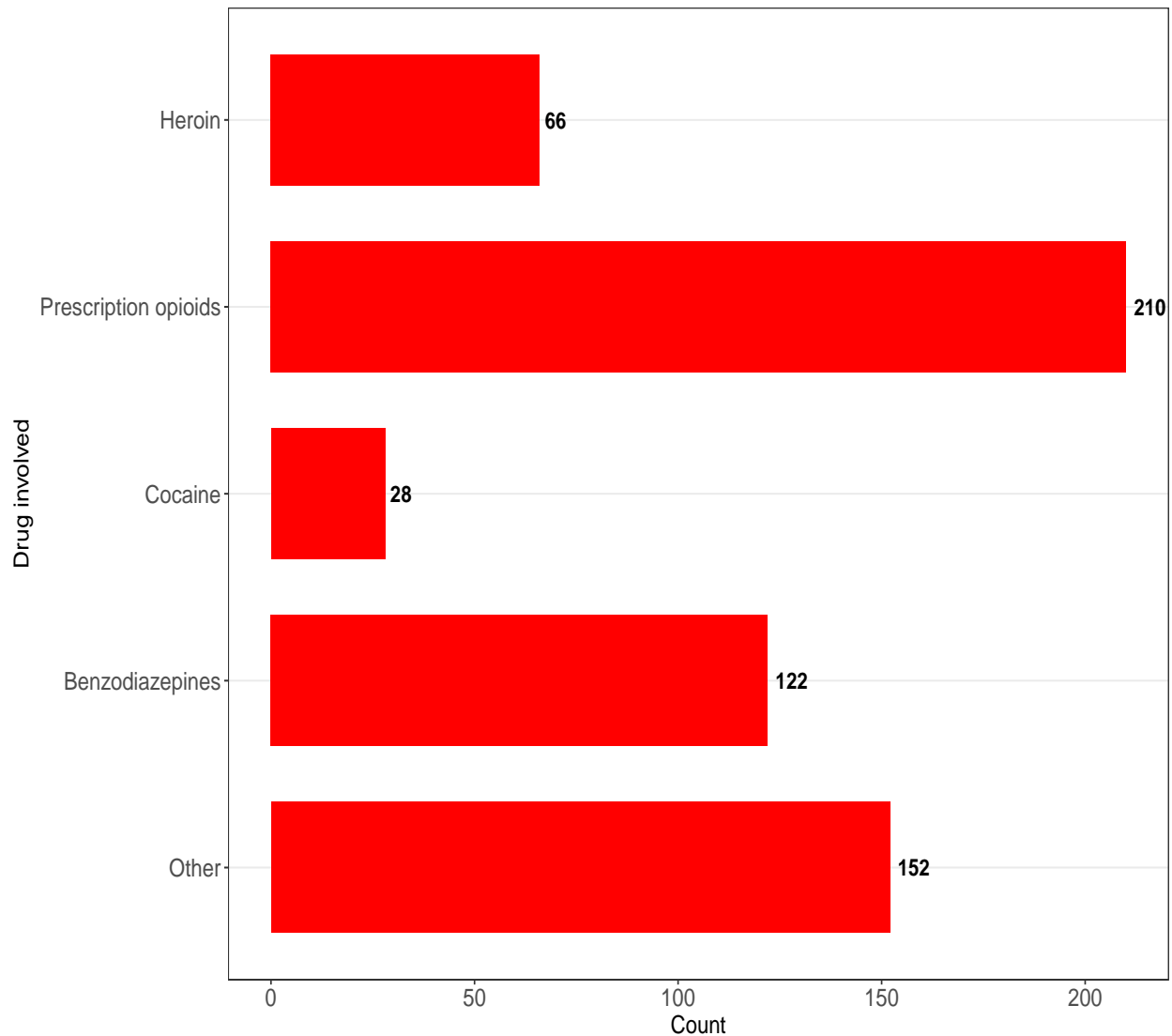
Figure 7: Drugs involved in overdose deaths, military and veteran population, 2010–2015



Produced by the Kentucky Injury Prevention and Research Center, a bona fide agent for the Kentucky Department for Public Health. February 2017. Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services. Data are provisional and subject to change. Deaths were listed under all relevant drug categories. For example, a death involving heroin and prescription opioids will be counted in both categories.

Drugs involved in military and veteran overdose deaths, 2010-2015

Figure 8: Drugs involved in overdose deaths, military and veteran population, 2010–2015



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Notes

- In this report, “military and veteran” status was determined via the “armed forces” indicator on death certificates. This field indicates if the individual was ever in the U.S. armed forces, which limits the ability to distinguish between individuals who are veterans and individuals who are on active military duty.
- The population denominators for the veteran and non-veteran population are from the American Community Survey 5-year estimates, years 2010-2015. These are available at <https://factfinder.census.gov/>. Detailed, county-level estimates of the active duty military population were not readily available for this report. Since the population denominators for the military and veteran population include only veterans but the drug overdose counts include individuals who were ever in the U.S. armed forces, the rates calculated for the military and veteran population may be slightly inflated.
- All rates calculated in this report are per 100,000.
- Age-adjusted rates were based on 2000 U.S. standard population data.
- Drug overdose deaths were identified from Kentucky death certificates as any deaths with the following underlying cause of death ICD-10 code: 1) X40-X44 (accidental/unintentional drug poisoning); 2) X60-X64 (suicide by drug poisoning); 3) X85 (homicide by drug poisoning); 4) Y10-Y14 (drug poisoning with undetermined intent).
- Statistics were calculated on the proportion of veteran drug overdose deaths involving heroin, pharmaceutical opioids, cocaine, benzodiazepines, and other. Deaths involving specific drugs were identified by ICD-10 codes listed in the multiple cause of death fields on the Kentucky death certificates:
 - Heroin: T40.1
 - Pharmaceutical opioids: T40.2-T40.4
 - Cocaine: T40.5
 - Benzodiazepines: T42.4
 - Other: Defined as any drug overdose death that did not involve any of the above drugs.
- Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services. Data are provisional and subject to change.